



**THE DATASHEET OF
D2E097-BE01-65**



Compact fans for *AC, DC and EC*

Product Catalog 2022-11

ebmpapst

engineering a better life



Trendsetter in fan technology



Uncompromising quality made by ebm-papst

Among the best.

Trendsetting with innovative technologies. Listening to customers' needs. Developing new ideas to meet requirements and realizing them with pioneering spirit. This philosophy has made ebm-papst the leading technology pioneer in the world of fans.

A brand in that decades of application expertise gained from large volume fan production and because we are in a position to produce highly efficient quality products. Our intelligent solutions for electronics cooling make sure that you are always one step ahead of the competition thanks to innovative, reliable, top-quality technology. Of course they are readily available at fair market prices.

And if required, tailor-made right down to the last detail. In other words, if you need fans that do not yet actually exist, contact us. **We at ebm-papst call that: *Engineering a better life.***

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engineering a better life

Compact fans for AC, DC and EC

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What *Engineering a better life* means to us.

Who we are.

With over 20,000 different products, ebm-papst offers the right solution for just about any challenge. As the logical next stage in the development of our highly-efficient GreenTech EC technology, we believe that industrial digitization offers the greatest future prospects for our customers. With GreenIntelligence, we already represent intelligently interconnected complete solutions that are unrivaled worldwide.

Because we are always committed to making each of our innovative hardware and software solutions more powerful, compact, efficient and sustainable than its predecessor, we have evolved over the years into the global technology leader for ventilation and drive technology.

What drives us.

But our consistent pursuit of efficiency and progress has even deeper roots. After all, there is something that excites us even more than our market position. It is the deep awareness that, with our solutions, we are making the lives of many people around the globe more pleasant, safer and thus better. Therefore, the central driving force in all our thoughts and actions is Engineering a better life. It is the reason why it is worthwhile for us to get up every day and do our best. More about this under [ebmpapst.com/betterlife](https://www.ebmpapst.com/betterlife)

What you get out of it.

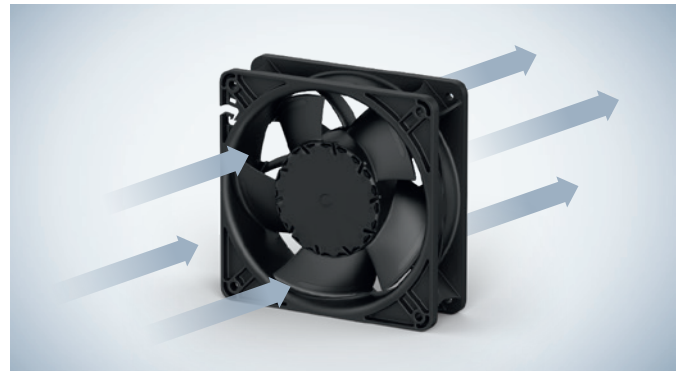
Collaborating with us brings you tangible benefits, such as a clear competitive edge in IoT and digital networking, sustainable product solutions that allow you to fulfil the latest environmental guidelines, and perfect system solutions from one source, shaped by uncompromising quality management in every step of the process. At ebm-papst, over 800 engineers and technicians develop the solution that perfectly fits your requirements. Tell us what we can do for you! One of our numerous sales sites around the world is sure to be near to you.



Types of fans and their function

Axial fans: High air flow with medium to relatively high pressure increase

The air flow in axial fans with an impeller that is similar to a propeller is conducted largely parallel to the axis of rotation, in other words in the axial direction. Axial fans with free air delivery at zero static pressure have the lowest power input that rises with increasing back pressure. Axial fans for cooling of electronic equipment are mostly equipped with external housing. The electric motor is integrated in the fan hub. This compact design allows space-saving accommodation of all devices. The flange is equipped with mounting holes.



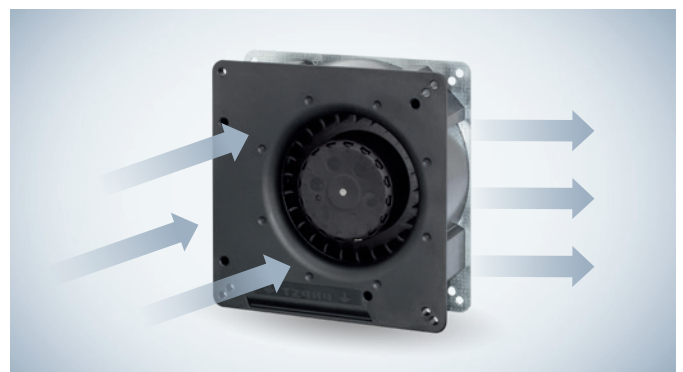
Diagonal fans: High air flow at relatively high pressure increase

At first glance diagonal fans only differ slightly from axial fans. Intake is axial, whereas exhaust is diagonal. Due to the conical shape of the wheel and housing, the air is pressurized more in the diagonal fan. In direct comparison with axial fans of the same size and comparable performance, these fans are distinguished by the lower operating noise at high pressures.



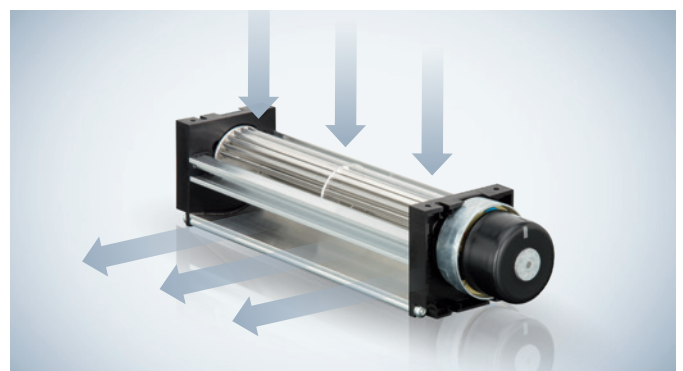
Centrifugal fans: High pressure increase at limited flow rate

Generally, many cooling tasks can be performed excellently by axial and/or diagonal fans. But if the cooling airflow has to be deflected at an angle of 90°, for example, or if even greater pressure increase is necessary, centrifugal fans are more effective. For your application, ebm-papst offers not only complete centrifugal fans, but also motor/impeller combinations without external housing.



Tangential fans: High air flow with low pressure increase

Tangential fans are used especially to produce a wide airflow distribution through devices. The air flows through the roller-shaped impellers twice in the centrifugal direction: in the intake area from the outside to the inside and in the outflow area from the inside to the outside. Whirls form in the roller due to the vanes, which guarantee a steady flow of air through the impeller.



Expertise and technology

Drive know-how

For the past 80 years, all conceivable types and applications of drive engineering have played an essential role at ebm-papst. A commitment that is the foundation for the development of optimum drive solutions regardless of the type of fan and its use. In DC fans, ebm-papst set standards 50 years ago with the introduction of DC fans with electronically commutated external rotor motors. In the changeover from AC fans to EC motors, ebm-papst is again doing pioneering work. EC motors for AC connection are highly efficient and impress with their long service life, higher air flow and significant pressure increase.

Smooth operation

Our aerodynamically optimized design and high mechanical precision produces outstanding noise properties in series production. The "soft" commutation electronics of DC and EC fans produce a very smooth operation. By avoiding steep switching edges when the individual coils are switched, this reduces the structure-borne noise from the motor. Computer-aided measurements and series of analyses performed in a state-of-the-art sound measuring chamber are conducted on each fan model from the very beginning.

Long service life

The bearing system plays a vital role both in the long service life and the smooth operation of device fans. The Sintec compact bearing provides most of the device fans with a proven bearing system. Constant low noise during the entire operating time and considerably lower shock sensitivity are the outstanding features of this bearing technology. In addition, with regard to temperature endurance, Sintec compact bearings can be used without problems in most applications.

Despite the slightly greater noise and shock sensitivity of ball bearings, this bearing technology should be given preference for fans exposed to extreme thermal and adverse application conditions (e.g. extreme environmental conditions, critical installation position, etc.). The service life data provided in this catalog is based on extensive service life tests and mathematically / scientifically proven service life calculations. Our product descriptions are updated continuously with all relevant data obtained from long-term tests.





Aerodynamics

With the aid of state-of-the-art computer programs, we are able to optimize the fan impellers and the inner shape of the housing. Air output and available motor performance are matched exactly to the size of fan. This guarantees the low noise that is typical for ebm-papst, even at high back pressure.

Sturdy construction – in metal or plastic

Fans of all-metal construction: sturdy and resistant. The housing is made of an aluminum alloy. The metal surfaces that are subject to corrosion are permanently protected by an impact- and abrasion-resistant electrophoretic baked enamel. This particular version is very recyclable. Fans with fiberglass-reinforced plastic housing and impeller: Excellent stability and low weight distinguish this highly efficient fan design. Combinations of metal housing and plastic impeller combine the advantages of both types of design.

Product images

The dimensioned drawings and product photos that appear in the catalog are for orientation purposes and may differ in some details from the actual product design.

Product liability

Motors and fans from ebm-papst are components intended for proper installation. The customer bears responsibility for the overall end product.

Brand name PAPST

The PAPST mark is a registered trademark for ebm-papst products and is a synonym for compact fans of the highest quality, functionality and reliability for decades.

Safety is included

It goes without saying that all ebm-papst fans conform to the approval requirements of the VDE (Association of German Electrical Engineers) and the standards and regulations of UL and CSA. All fans conform to the European Standard EN 60335 or EN 60950 plus those of the UL (Underwriters Laboratories) and CSA (Canadian Standards Association). Our DC fans are mostly designed for protection class 3 / protective extra-low voltage. AC fans for protection class 1. ebm-papst fans meet the highest requirements of electrical safety. All design variants feature reverse polarity and locked-rotor protection. We also have a wide selection of suitable fans for industry-specific standards, such as those known from the railroad, refrigeration or housing sectors. You can find more information in our industry-specific catalogs at ebmpapst.com.

Quality in detail

It is the important details that reveal the meaning of the words "made by ebm-papst": Consistent adherence to development and design processes and a goal-oriented commitment to quality along the entire process chain are the foundation for the above-average service life of our fans. 100,000 hours and above are no longer an exception. The no-compromise ebm-papst quality assurance spans over all process levels – from the choice of materials and the use of carefully selected, certified suppliers, from the production of parts up to the final assembly. These details combine to result in reliable fan products with an above-average service life.

ErP Directive

All products with power consumption between 125 W and 500 kW are subject to the European "Energy-related Products Directive" (ErP) for improving energy efficiency, with the first stage applicable from 2013 and the second as of 2015. Thanks to ground-breaking GreenTech EC technology, all of our fans and motors in these performance classes already exceed the ErP Directive today.



Flexibility in every application

– *tailor-made for you*

Practical applications: fans that are customized and smart

ebm-papst has always developed customer-specific smart fans that meet the exact requirements of the application. In addition to the wide range of standard fan types, we offer specific fans in many sizes, performance classes and designs: with smart motor features, monitoring and control functions as well as special designs for use under extreme conditions. They are all based on the standard type fans that you will find in this catalog. Special fan types for your application can be produced in economical batch sizes. Our expert engineers will assist you in selecting the right configuration.

Innovation at its best:

Smart and customer-specific configurable solutions increase efficiency and cost-effectiveness. For example, temperature-dependent speed profiles are possible with a number of freely selectable interpolation points. External speed settings and a variety of combinable alarm and tachometer functions can also be programmed. The digital motor management achieves high control accuracy. Bus interfaces also offer a much greater possibility of control and monitoring for the digital future.

Higher degree of protection for every type of application

ebm-papst provides, on request, many fan series in versions that meet to the requirements of degree of protection IP 54 and IP 68: Their stator and all electrical components are fully encapsulated. Stainless steel ball bearings can be used for operation in particularly aggressive media and use under extreme environmental conditions, thus providing additional reliability.

Almost anything is possible

Regardless of your cooling and ventilation tasks, we will develop the right solution. And the most economical one. Based on the fans listed in this catalog, more than 4000 different versions are available.

Temperature-controlled fans

Fans with temperature-controlled speed have particularly quiet and efficient cooling characteristics. Thanks to integrated intelligence, they adapt their speed to the current cooling requirements.

Speed setting via interfaces

With a wide range of DC fans with separate control input, ebm-papst provides an alternative to the NTC-controlled types of fans. They are especially suitable for systems and units that already have standard interfaces for varying speed via internal switching and control circuits. The main applications are units that require load-dependent, individual speed profiles or systems with minimum standby cooling requirements and varied speed increase at varying power peaks.

Electronic tachometer

Do you want to be informed about the current fan speed at all times? ebm-papst has fans with an integrated "electronic tachometer". It registers the actual value of the fan speed. Via an integrated sensor, the fan generates speed-dependent signals that can be used directly. Depending on the number of poles of the motor, 2, 3, or 6 pulses per revolution are generated.

Alarm signal for greater safety

If your application requires monitored fan operation, in addition to speed monitoring, ebm-papst also provides a multitude of varying alarm signals. Depending on the type of fan in question, the signal will either be static, already evaluated, or interface-compatible. The alarm signal output provides reliable long-term monitoring and a status signal if critical operating conditions arise.

Product names

| | |
|------------------|--|
| AxiACi | AC fan. Energy-saving compact fans with wide voltage range and volume-oriented characteristic curve in various sizes. Can be used universally as a retrofit for existing AC solutions or in new projects with AC power supply. With extensive approval (e.g. DIN EN 60335-2-89) and a broad temperature range. |
| AxiEco | DC fan. Compact and powerful. Innovative fan impeller design with rotating fan housing maximizes efficiency and reduces noise. |
| AxiForce | DC fan. Axial compact fan optimized for noise and efficiency with pressure-oriented characteristic curve in different standard sizes. |
| AxiRev | DC fan. Axial compact fans designed for maximum noise reduction with a volume-oriented characteristic curve and round housing. Reversibility and symmetrical fan impellers enable identical air performance values in both directions of rotation. Designed for decentralized residential ventilation. |
| AxiTwin | DC fan. Counter-rotating fan with two counter-rotating fan impellers and innovative aluminum flange with integrated guide blades. Exceptionally pressure-oriented. Redundancy is offered by the two fans that rotate independently of one another. |
| DiaForce | DC fan. New single-stage principle with highly innovative aerodynamic design. Exceptionally pressure-oriented with outstanding noise values. |
| S-Force | DC fan. Powerful generation of fans in various sizes. Clear focus on pressure-resistant characteristic curve. |
| S-Panther | DC fan. Powerful generation of fans in various sizes. A significant focus on noise and air flow. |

The product names mentioned are registered trademarks of ebm-papst St. Georgen GmbH & Co. KG

Optional special versions

(see chapter DC fans - specials from p. 252)

In the catalog, a text box in the upper right corner provides information on the special designs that are technically possible in the fan series.

Please note that these special versions are not possible for all voltages and speeds, and not in all combinations. The special versions are designed for specific customers and projects and are usually not available off the shelf.



Possible special designs are depicted on the catalog page.

Speed signal /2, /12

The fan uses a separate wire to output information about its speed, and thus about the speed of the rotor. For technical details, please refer to page 256 and the following.

Go / NoGo alarm /37, /39

The fan uses a separate wire to output a static signal when it is stationary, thus providing information about whether or not the rotor is turning. For technical details, please refer to page 260 and the following.

Alarm with speed limit /17, /19

When one of the speeds defined in the fan electronics is undershot, the fan outputs a static signal providing information that the set speed limit was undershot. For technical details, please refer to page 258 and the following.

External temperature sensor

An NTC resistor (negative temperature coefficient) is attached to the fan via a separate wire and the fan changes its speed depending on the temperature on the NTC. For technical details, please refer to page 262.

Internal temperature sensor

In this case, the NTC is integrated into the fan and the fan changes its speed depending on the temperature at the NTC. For technical details, please refer to page 262.

PWM control input

The speed of the fan can be changed via a pulse-width-modulated signal. This signal is applied to a specially provided wire. For technical details, please refer to page 263.

Analog control input

The speed of the fan can be changed via a control voltage. This control voltage is applied to a specially provided wire. For technical details, please refer to page 263.

Multi-option control input

The fan has a control input that the user can trigger either using a PWM signal, an analog signal, or a variable resistor. For technical details, please refer to page 264.

Bus input

Bus interfaces provide a wide range of monitoring and control of your application. Fans from ebm-papst with bus interface can be easily and conveniently integrated into your system.

Moisture protection

Protection for the fan electronics against moisture and condensation. For technical details, please refer to page 266.

Degree of protection IP54* / IP68*

Protection of motor and circuit board against splashed water and moisture. For technical details, please refer to page 266.

Salt spray protection

ATEX according to DIN EN 60079-7. Protection of fan against the damaging effects of salt spray. For technical details, please refer to page 266.

Direction of rotation

On many variants, the direction of rotation can be changed via a control input.

* IP= International degree of protection marking; For AC fans max. IP 65 available.

Service life

Service life data from ebm-papst St. Georgen

Our fans catalog gives two different values for the service life of each product:
The first column usually states the service life L_{10} at 40 °C. Exceptions are marked in the column headings.

The second column states the life expectancy L_{10IPC} (40 °C).

| Type | Quantity | Part number | Material | Weight | Volume | Power | Speed | Current | Efficiency | Sound power level | Sound pressure level | Notes |
|-------------|----------|-------------|----------|--------|--------|--------|-------|---------|------------|-------------------|----------------------|--------|
| VWCB050F... | 100 | 4518.131.2 | Al | 18.8 | 51.2 | 1.5000 | 0.8 | 0.7 | 39 | 20.175 | 10.000 | 10.000 |
| VWCB050F... | 24 | 21.4.28.4 | Al | 18.8 | 51.2 | 1.5000 | 0.8 | 0.7 | 39 | 20.175 | 10.000 | 10.000 |
| VWCB050F... | 100 | 101.1.119 | Al | 18.8 | 51.2 | 1.5000 | 0.8 | 0.7 | 39 | 20.175 | 10.000 | 10.000 |
| VWCB050F... | 100 | 101.8.112 | Al | 18.8 | 51.2 | 1.5000 | 0.8 | 0.7 | 39 | 20.175 | 10.000 | 10.000 |

Service life L_{10} (40 °C)

All values in the first column are based on in-house service life endurance tests in which our products are operated in several operating positions at 40 °C as well as 70 °C until they fail. A fan is deemed to have failed when it deviates from its defined air flow and speed values, or when the operating noise becomes noticeable. Such tests can take several years before a representative number of failures has been registered. There are still some fans in the process of endurance testing today that came into testing in the early 1980s. These fans are proof of the legendary "made by ebm-papst" reliability.

Test results are presented in a diagram and the service life of the product L_{10} at the temperature tested is determined based on the Weibull distribution. These tests have given us years of experience in the way various design parameters and temperatures can affect the service life of a product. Data for service life at various temperatures for new products can be stated with a very high degree of precision based on tests, product specifications, and commonalities in the design of the product.

Life expectancy L_{10IPC} (40 °C)

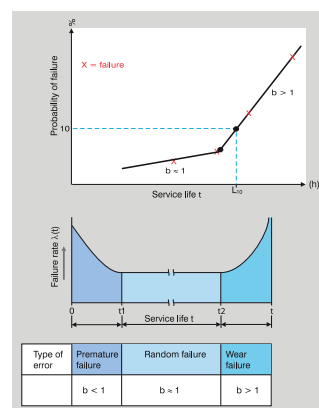
The second service life column states the life expectancy L_{10IPC} . This information is based on the international standard IPC 9591. Again here, the foundations for the service life values are our service life endurance tests at high ambient temperatures. The service life at temperatures below the test temperatures is calculated using fixed factors. This method produces much higher service life values, especially at room temperature (see diagram on right).

Summary:

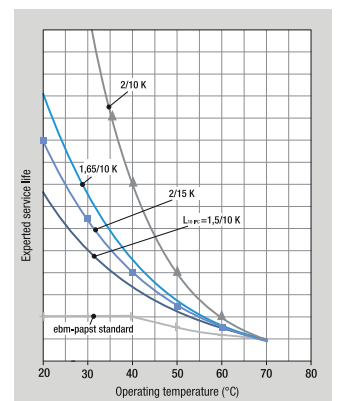
The life span calculations have been carried out to the best of our knowledge and are based on experience gained by ebm-papst. The specified L_{10} (40 °C) and L_{10IPC} (40 °C) values all allow statements to be made about the theoretical calculated service life under certain assumptions. The values determined here are extrapolations from our own service life tests and from statistical variables. In the respective customer applications, there may be different influencing factors that cannot be included in the calculations due to their complexity. The service life information is explicitly not a guarantee of service life, but strictly a theoretical quality figure.



Fans in an endurance test cabinet at ebm-papst St. Georgen. 1500 fans are operated in temperature cabinets until they fail.



Bathtub curve and Weibull distribution.



Example of the influence of factors from various manufacturers on the life expectancy.

Selecting the correct fan

1. Dissipated energy

A large amount of the energy consumed by electrical and electronic devices is converted to heat. So when selecting the correct fan, it is important to determine the dissipated energy that must be removed. The electrical power consumption of the unit to be cooled often represents a suitable value for this purpose.

2. Admissible temperature increase

The air flow that the selected fan is required to generate, is determined by the dissipated energy and the admissible heating (ΔT) of the cooling airflow (from entry to exit of the device to be cooled). The maximum admissible ΔT depends greatly on the temperature sensitivity of the individual parts of the device. For example, $\Delta T = 5K$ means that the average cooling airflow leaving the device to be cooled may be only $5^{\circ}C$ warmer than the ambient temperature. This requires a lot of air. A lower air flow rate is sufficient if a higher temperature difference (e.g. $\Delta T = 20K$), can be tolerated.

3. Required cooling airflow

- In the diagram below, a horizontal line is drawn from the dissipated energy to intersect with the selected ΔT line.
- Read down from this point to obtain the required value for the cooling airflow. The diagram is based on the following formula:

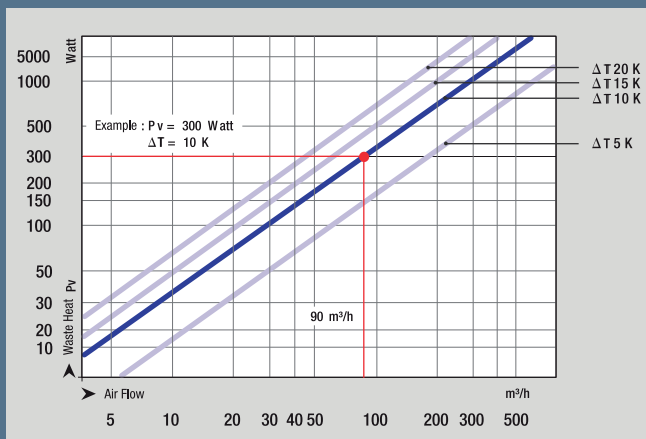
$$q_V = \frac{P_V}{C_{PL} \cdot \rho_L \cdot \Delta T}$$

4. Fan selection

But the fan you are looking for must also be able to deliver a suitable static pressure increase Δp_f , in order to force the cooling air through the device. So a fan must be selected that provides the required air flow performance within its operating range (see also the air performance curves under technical data).

5. Fan selection with multiple alternatives

If more than one fan meets your requirements, the sound level, power consumption, space requirements, economy, and ambient conditions will assist in making the final choice.



Definitions

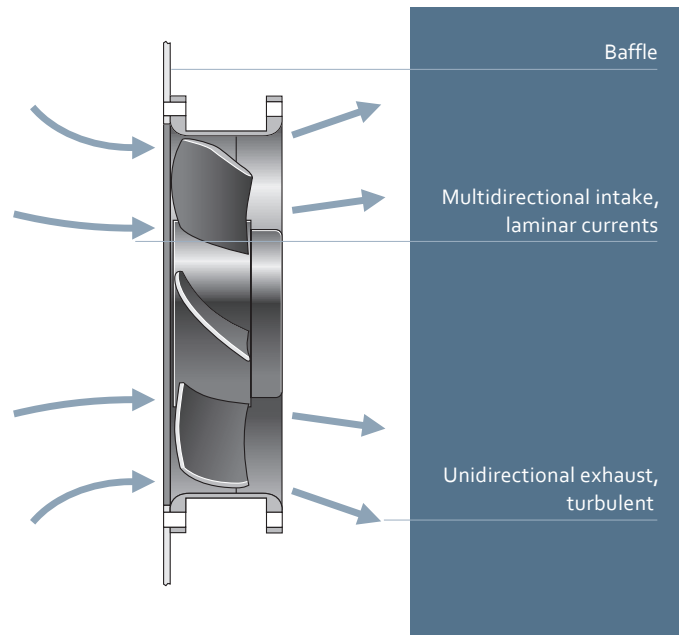
P_V = amount of heat to be dissipated in [W]
 C_{PL} = specific heat capacity of air in [J/kg/K]
 $C_{PL} = 1010 [J/kg/K] = 0.28 [Wh/kg/K]$

ρ_L = air density in [kg/m³]
 $\rho_L = 1.2 \text{ kg/m}^3$
 $\Delta T = T_1 - T_2$ temperature difference in [K] between inlet and outlet

Fan installation

Intake or exhaust side installation

Under ideal conditions, the operating point is represented as the intersection between the fan and loss curves, regardless of whether the fan is positioned at the air intake or exhaust side of the device. In addition to ensuring the required flow rate, several other aspects must be considered for determining an appropriate fan concept. The intake air currents of a fan are mainly laminar, comprising nearly the entire suction area. By contrast, the exhaust air of a fan is generally turbulent and flows in a preferred direction, such as axial for an axial fan. The turbulence of the exhaust intensifies the heat transfer from components within the air currents, so that installing the fan on the air intake side of the device is recommended for cooling and heating. Installing the fan at the device intake is also advantageous because the fan will not be subjected to the dissipated heat of the device. Therefore, it operates at low ambient temperatures and has a greater life expectancy.



Information

Information on installation

When a fan is operated for the first time in an application, the user may have noticed that the air flow in the device was lower than expected. What is the reason for this?

- The values stated in this catalog were determined under optimum, constant, and comparable measurement conditions.
- Due to manufacturing tolerances, both the speed of the drive motor and the geometric shape of the fan impeller are usually not exactly the nominal values but within defined tolerance ranges.
- Ideal installation conditions under which free air intake and exhaust are present are seldom feasible in practice. Quite frequently, the fans have to be installed in close proximity to other components or cabinet panels. As a consequence, the intake and exhaust currents may be restricted, causing the air flow to diminish and the sound level to increase. Fans are particularly sensitive to obstructions that are positioned directly in front of the output cross section, and they often cause an increase in tonal noise.

Our advice: The distance between the fan and adjacent components should be at least equal to the installation depth of the fan.



Accident prevention

The turning rotor and the high speeds that are sometimes involved mean that our fan products carry an inherent risk of injury. They may only be operated after correct installation and with suitable protective equipment (e.g. with a finger guard). More information can be found in the Internet at: www.ebmpapst.com/safety

Definitions

Nominal voltage [volts]

The voltage at which the nominal values (the table values listed in this catalog) were determined. The fan operation for DC fans is not limited to the nominal voltage. Fan speed and fan performance can vary according to the admissible voltage range that is specified on the nameplate of each fan. Please note that this is not a pulsed or modulated DC voltage.

Frequency [Hz]

ebm-papst AC fans are made for operating frequencies of 50 Hz or 60 Hz. Their technical data changes accordingly.

Air flow [m³/h, cfm]

The air performance of the fan in free air operation, i.e. the fan blows into the free space without static pressure increase.

Fan curves

The fan curves are determined in accordance with DIN ISO 5801 specifications on a dualchamber test stand with intake side measurement. This measurement technique closely approximates the operating conditions experienced in typical applications for fans and yields realistic performance curves. The curves apply to an air density of $\rho = 1.2 \text{ kg/m}^3$ corresponding to an air pressure of 1013 mbar at 20 °C.

Variations in air density affect pressure generation, but not the flow rate. The pressure generated at other air densities can be estimated with the formula $\Delta p_2 = \Delta p_1 (\rho_2 / \rho_1)$. The nominal speed values, air flow and power consumption listed in the table were measured in free air operation with horizontal shaft at an ambient temperature of 20 °C - 25 °C, air density $\rho = 1.2 \text{ kg/m}^3$ after a warmup period of 5 min.

Noise [dB(A), Bel(A)]

1. Sound pressure level – dB(A)

Noise ratings of the fan in free air operation, i.e. at maximum flow rate.

2. Sound power level 1 Bel(A) = 10 dB(A)

Extent of the overall sound radiation of the fan. The sound power level is determined in the optimum operating point, that means, where the fan operates optimally in terms of efficiency and noise.

Power consumption [watts]

Input performance of the fan motor when operating free blowing at nominal voltage. Depending on the operating condition in the application, the power consumption may be significantly higher.

Temperature range [°C]

The admissible ambient temperature range within which the fan can be expected to run continuously.

Service life [h]

Lebensdauer L₁₀ bei 40 °C

Standard figures for service life at ebm-papst. These two temperatures are based on intensive, in-house endurance tests and on experience from more than 80 years developing fans.

Life expectancy L_{10IPC} (40 °C)

Information calculated in line with the standard IPC 9591. Data based on the internal life expectancy at 70 °C, more optimistically extrapolated to 40 °C.

We expressly state that none of the information or data in this catalog is to be construed as a guarantee or warranty of properties.

Unit conversion:

Air flow

1 cfm = 1.7 m³/h

1 l/s = 3.6 m³/h

1 l/min = 0.06 m³/h

Pressure

1 Pa = 1x10⁻⁵ bar

1 inch H₂O = 249 Pa

1 mm H₂O = 9.81 Pa

Subject to technical changes.

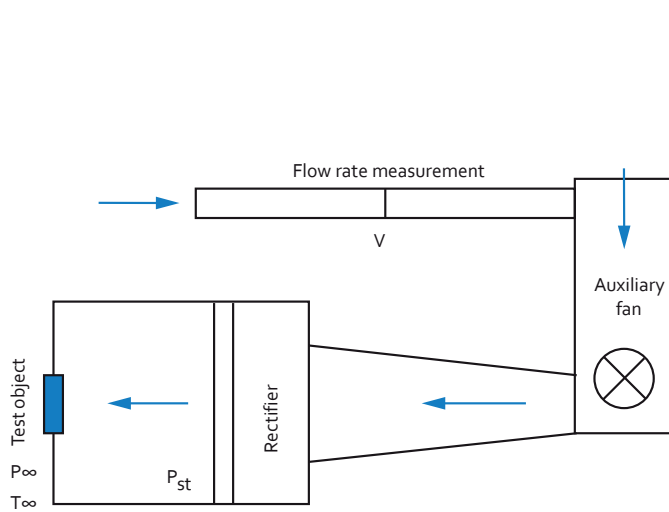
We do not support aerospace applications with our products. German and international patents (registered designs and utility models).

ebm-papst is a registered trademark of ebm-papst Mulfingen GmbH & Co. KG.

Standard test equipment to determine the fan characteristics

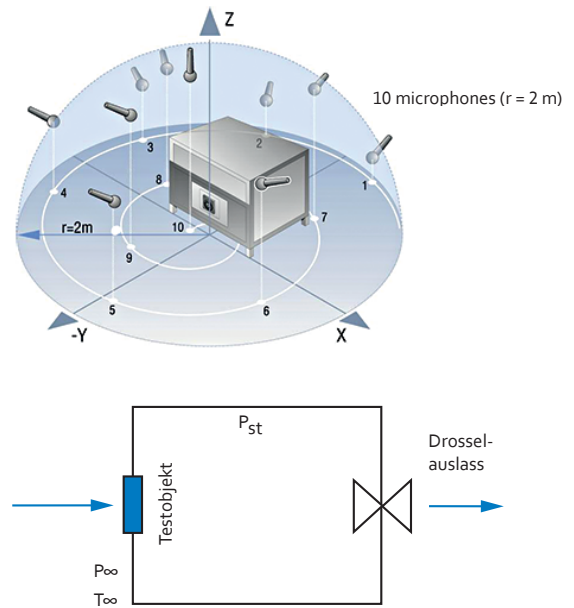
Pressure/air flow

Blow-down test facility acc. to ISO 5801



Sound power level pressure/air flow:

Outlet side regulated test rig in semi-anechoic chamber according to ISO 10302



Sound pressure and sound power level

All acoustic values are determined in accordance with ISO 13347, DIN 45635 and ISO 3744/3745 as per accuracy class 2 and given in A-rated form.

For measurement of the sound pressure level L_p the microphone is located on the intake side of the fan being tested, generally at a distance of 1 m on the fan axis.

For measurement of the sound power level L_w 10 microphones are distributed over an enveloping surface on the intake side of the fan being tested (see graphic). The measured sound power level can be roughly calculated from the sound pressure level by adding 7 dB.

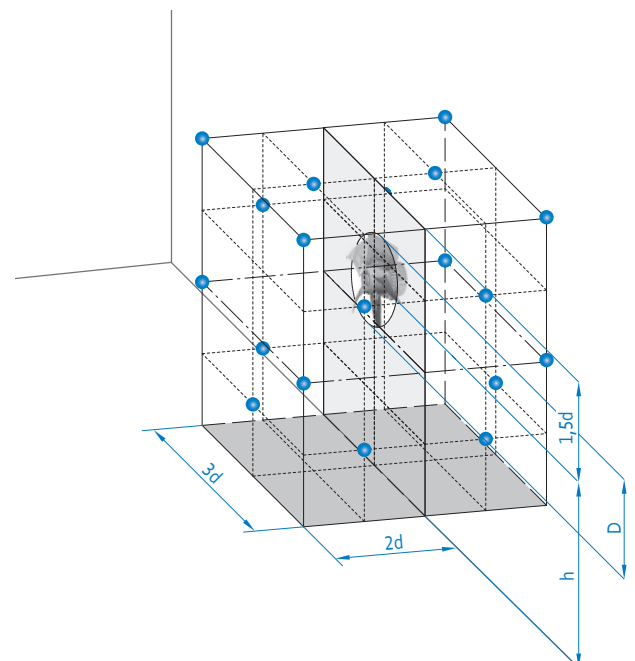
Measurement set-up according to ISO 13347-3 and DIN 45635-38:

● measuring points

$d \geq D$

$h = 1.25m$

Measurement area $S = 6d^2 + 7d(h + 1,5d)$



Product overview

DC axial fans



Our DC product portfolio offers a wide range of different sizes and performance classes suitable for the requirements of your individual application.



All fan types are equipped with efficient, brushless motor technology, electronically commutated drive and electronic reverse polarity protection. They impress with a long service life and outstanding efficiency.



This reduces the thermal load, thus ensuring maximum efficiency and a long service life.



All fan types are designed in IP20 as standard. IP54/IP68 solutions and special protection types are available on request.



GreenIntelligence enables the fan speed to be intelligently controlled and noise-optimized, efficient and tailored use to be monitored.

ebmpapst

engineering a better life

Type code example: VWCL119PJGJZ

| V | W | C | L | 119 | P | J | G | J | Z | |
|------------------|-----------------------------------|-----------------|----------------|-----------|------------|-------|------------|---|----------------|----------|
| Product category | Product type Airflow direction | Product version | Overall length | Size [mm] | Brand name | Motor | Motor size | | Air flow level | Standard |
| | | | | | | | Diameter | | | |

| Dimensions in mm | Type | Type (old) | Page |
|------------------|---------------------------------------|--------------|------|
| □ 25 x 8 | VWCA025A... | 250 | 18 |
| □ 40 x 10 | VWCA040F... | 400 F | 20 |
| □ 40 x 20 | VWCC040Y... | 400 | 22 |
| □ 40 x 28 | VWCE040J... | 420 J | 24 |
| □ 50 x 15 | VWCB050F... | 500 F | 26 |
| □ 60 x 15 | VWCB060F... | 600 F | 28 |
| □ 60 x 25 | VWCD060A... | 620 | 30 |
| □ 60 x 25 | VWCD060X... | 630 | 32 |
| □ 60 x 25 | VWCD060Y... | 600 N | 34 |
| □ 60 x 32 | VWCE060J... | 600 J | 38 |
| □ 70 x 15 | VWCB070F... | 700 F | 40 |
| □ 80 x 25 | VWCD080A... | 8450 | 42 |
| □ 80 x 25 | VWCD080Y... | 8400 N | 44 |
| □ 80 x 32 | VWCE080P... | 8300 N | 48 |
| □ 80 x 38 | VWCF080J... | 8200 J | 52 |
| □ 80 x 38 | VWCF080K... | AxiForce 80 | 54 |
| □ 92 x 25 | VWCD092Y... | 3400 N | 56 |
| □ 92 x 32 | VWCE092P... | 3300 N | 60 |
| □ 92 x 38 | VWCF092J... | 3200 J | 64 |
| □ 92 x 38 | VWCF092P... | 3250 J | 66 |
| □ 100x90 | VWJK100TKGRS | AxiTwin 100 | 68 |
| □ 119 x 25 | VWCD119F... | 4400 F | 70 |
| ∅ 127 | VWS0113F... | 4400 F | 72 |
| ∅ 126 | VWS0112EUGAS | AxiRev 126 | 74 |
| □ 119 x 25 | VWCD119F... | 4400 FN | 76 |
| □ 119 x 32 | VWCE119P... | 4300 N | 78 |
| □ 119 x 38 | VWCF119A... | 4400 | 82 |
| □ 120 x 38 | VWC0120KUJBS | AxiForce 120 | 86 |
| □ 119 x 38 | VUCF119Y... | 4100 N | 88 |
| □ 119 x 38 | VKCF119A... | DV 4100 | 94 |
| □ 119 x 86 | VKCK119DKLSS | DiaForce 120 | 96 |
| □ 127 x 38 | VWCF127Y... | 5200 N | 98 |
| □ 127 x 38 | VKCF127A... | DV 5200 | 100 |
| □ 135 x 38 | VWCF135Y... | 5100 N | 102 |
| □ 140 x 51 | VUCG140A... | 5300 | 104 |
| □ 140 x 51 | VUCG140A... | 5300 TD | 106 |
| ∅ 150 x 38 | VWEF150X... | 7100 N | 108 |
| ∅ 150 x 55 | VWEH150X... | 7200 N | 110 |
| 172 x 150 x 51 | VWLG150X... | 6400 | 112 |
| 172 x 150 x 51 | VWLG150X... | 6400 TD | 114 |
| 172 x 160 x 51 | VKLG160X... | DV 6400 | 116 |
| 172 x 160 x 51 | VWEG172PKLUS | 6300 NTD | 118 |
| 172 x 160 x 51 | VWEG172X... | 6300 TD | 120 |
| ∅ 172 x 51 | VWEG172P... | 6300 N | 122 |
| ∅ 172 x 51 | VWEG172P... | 6300 NTD | 124 |
| ∅ 172 x 51 | VWEG172X... | 6300 | 126 |
| ∅ 172 x 51 | VWEG172X... | 6300 TD | 128 |
| ∅ 172 x 51 | VKEG178X... | DV 6300 TD | 130 |
| 172 x 150 x 51 | VWLG150K... | AxiForce 172 | 132 |
| 220 x 200 x 51 | VWLG200F... | 2200 FTD | 134 |
| ∅ 200 x 70 | VKLG200CKLXS | AxiEco 200 | 136 |
| 225 x 225 x 80 | VWLJ200XJLVZ | 2200 TD | 138 |
| □ 225 x 80 | VJH0200XUNCS | K1G 200 | 140 |
| □ 225 x 89 | VJH0200XUNES | K3G 200 | 142 |
| ∅ 250 | VWLK280X..., VWLK280H... | W1G 250 | 144 |
| ∅ 300 | VVY0300H..., VWR0300X..., VMA0300X... | *1G 300 | 146 |

VWCA025A...

DC axial fan · max. 4.7 m³/h · □ 25 × 8 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 5 or 12VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 28
- Electrical protection class: III
- Weight: 5 g

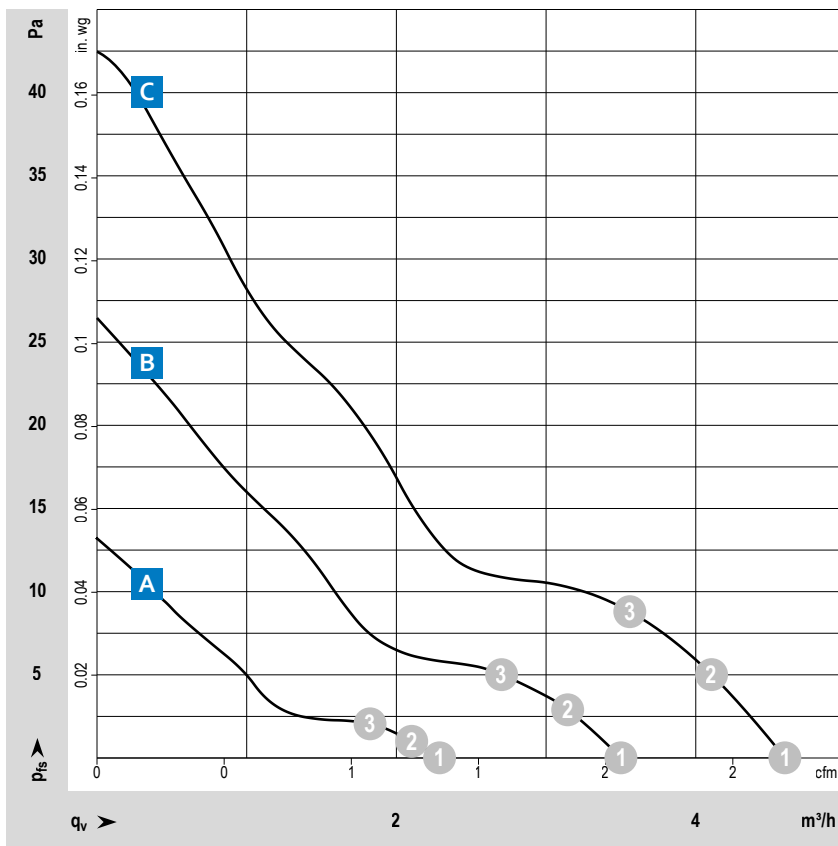
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

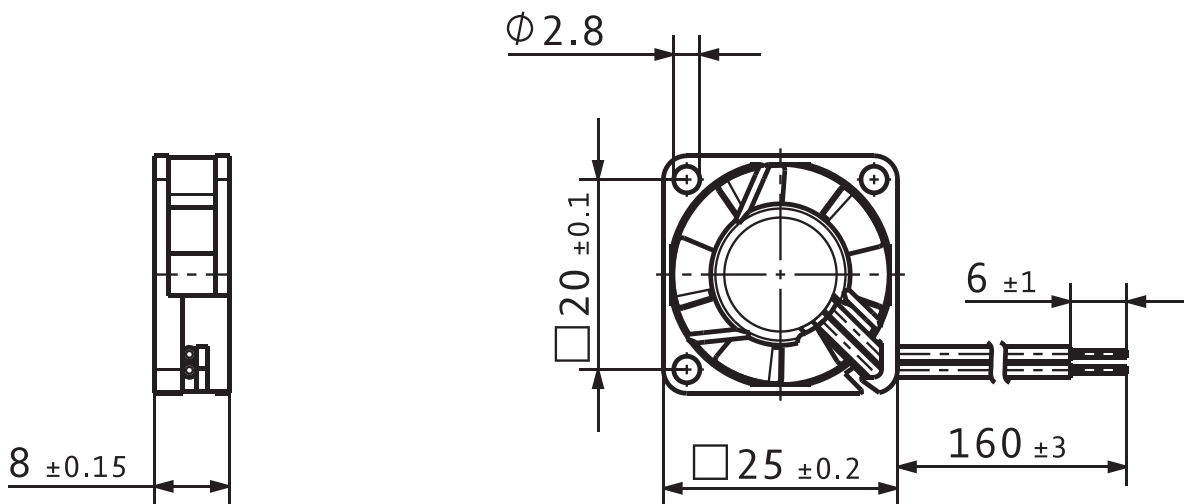
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level L_wA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level L_pA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (20 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|-----------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCA025AGBAS 255 M | 9290904202 | 5 | 4.5...5.5 | A | ① | 2.3 | 1.4 | 6 500 | 0.2 | <3 | 5 | -10...+70 | 45 000 | 47 500 |
| | | | | | ② | 2.1 | 1.2 | 6 500 | 0.2 | <3 | | | | |
| | | | | | ③ | 1.8 | 1.1 | 6 690 | 0.2 | <3 | | | | |
| VWCA025AGBAS 255 N | 9290904200 | 5 | 4.5...5.5 | B | ① | 3.5 | 2.0 | 9 600 | 0.4 | <3 | 16 | -10...+70 | 40 000 | 42 500 |
| | | | | | ② | 3.2 | 1.9 | 9 610 | 0.4 | <3 | | | | |
| | | | | | ③ | 2.7 | 1.6 | 9 880 | 0.4 | <3 | | | | |
| VWCA025AGBBS 255 H | 9290904201 | 5 | 4.5...5.5 | C | ① | 4.6 | 2.7 | 12 000 | 0.6 | 4.4 | 23 | -10...+55 | 35 000 | 37 500 |
| | | | | | ② | 4.1 | 2.4 | 11 910 | 0.6 | 4.4 | | | | |
| | | | | | ③ | 3.6 | 2.1 | 12 160 | 0.6 | 4.4 | | | | |
| VWCA025AHBAS 252 N | 9290904203 | 12 | 10...14 | B | ① | 3.4 | 2.0 | 9 000 | 0.5 | <3 | 15 | -10...+70 | 40 000 | 42 500 |
| | | | | | ② | 3.0 | 1.8 | 9 000 | 0.5 | <3 | | | | |
| | | | | | ③ | 2.7 | 1.6 | 9 270 | 0.5 | <3 | | | | |
| VWCA025AHBBS 252 H | 9290904220 | 12 | 10...14 | C | ① | 4.7 | 2.8 | 12 000 | 0.6 | 4.4 | 23 | -10...+55 | 35 000 | 37 500 |
| | | | | | ② | 4.2 | 2.5 | 11 950 | 0.6 | 4.4 | | | | |
| | | | | | ③ | 3.6 | 2.1 | 12 230 | 0.6 | 4.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCA040F...

DC axial fan · max. 9.9 m³/h · □ 40 x 10 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 5, 12 or 24VDC; compact, small and lightweight; low-profile, noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 28
- Electrical protection class: III
- Weight: 17 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

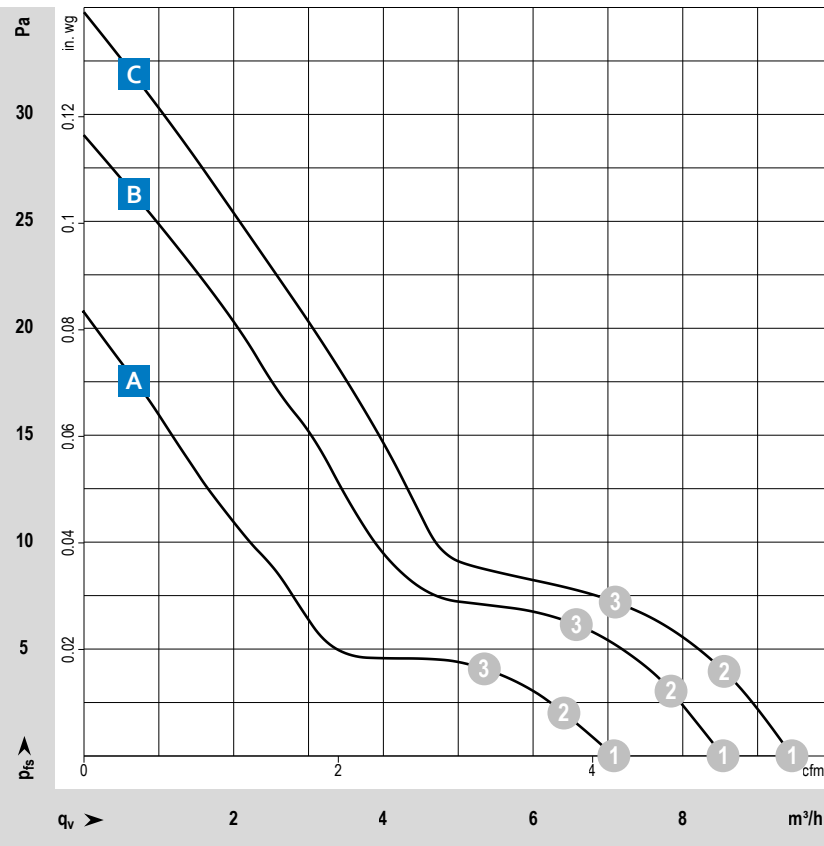
Options

- Speed signal
- Go / NoGo alarm
- Moisture protection

Special features

- Additional fan types with extended temperature range up to +85 °C

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

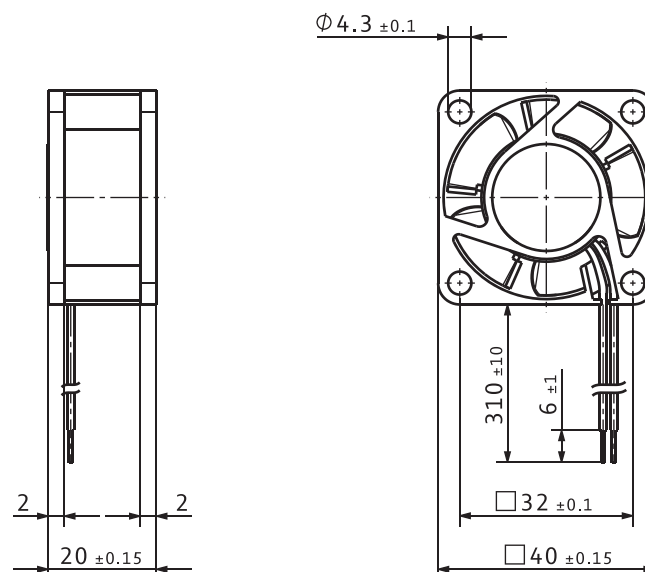
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (20 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|--|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCA040FGDBS 405 F | 9291705010 | 5 | 4.5...5.5 | B | ① | 8.7 | 5.1 | 5 400 | 0.6 | 3.7 | 22.1 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 7.8 | 4.6 | 5 380 | 0.6 | 3.7 | | | | |
| | | | | | ③ | 6.4 | 3.8 | 5 470 | 0.6 | 4.2 | | | | |
| VWCA040FGDCS 405 FH | 9291705032 | 5 | 4.5...5.5 | C | ① | 9.9 | 5.8 | 6 000 | 0.7 | 4.4 | 26.0 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 8.9 | 5.2 | 5 970 | 0.7 | 4.4 | | | | |
| | | | | | ③ | 7.3 | 4.3 | 6 050 | 0.7 | 4.8 | | | | |
| VWCA040FHDBS 412 FM | 9291705011 | 12 | 10...14 | A | ① | 7.1 | 4.2 | 4 300 | 0.5 | 3.7 | 17.0 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 6.4 | 3.8 | 4 270 | 0.5 | 3.7 | | | | |
| | | | | | ③ | 5.3 | 3.1 | 4 290 | 0.5 | 4.2 | | | | |
| VWCA040FHDBS 412 F | 9291705002 | 12 | 10...14 | B | ① | 9.1 | 5.4 | 5 400 | 0.6 | 4.0 | 22.1 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 8.1 | 4.8 | 5 350 | 0.6 | 4.2 | | | | |
| | | | | | ③ | 6.6 | 3.9 | 5 400 | 0.6 | 4.7 | | | | |
| VWCA040FHDCS 412 FH | 9291705004 | 12 | 10...14 | C | ① | 9.5 | 5.6 | 6 000 | 0.7 | 4.4 | 26.0 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 8.6 | 5.1 | 5 990 | 0.7 | 4.4 | | | | |
| | | | | | ③ | 7.0 | 4.1 | 6 080 | 0.7 | 4.8 | | | | |
| VWCA040FJDBS 414 F | 9291705005 | 24 | 20...28 | B | ① | 8.5 | 5.0 | 5 400 | 0.7 | 4.0 | 22.1 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 7.8 | 4.6 | 5 390 | 0.7 | 4.2 | | | | |
| | | | | | ③ | 6.5 | 3.8 | 5 440 | 0.7 | 4.7 | | | | |
| VWCA040FJDCS 414 FH | 9291705037 | 24 | 21.6...26.4 | C | ① | 9.8 | 5.8 | 6 000 | 0.7 | 4.4 | 26.0 | -20...+70 | 45 000 | 47 500 |
| | | | | | ② | 8.9 | 5.2 | 5 970 | 0.7 | 4.4 | | | | |
| | | | | | ③ | 7.3 | 4.3 | 6 020 | 0.7 | 4.8 | | | | |
| Fan types with extended temperature range up to +85 °C | | | | | | | | | | | | | | |
| VWCA040FJDCS 412 FM-074 | 9291705074 | 12 | 10...14 | A | ① | 6.6 | 3.9 | 4 300 | 0.3 | 3.7 | 17.0 | -20...+85 | 45 000 | 47 500 |
| | | | | | ② | 6.0 | 3.5 | 4 310 | 0.3 | 3.7 | | | | |
| | | | | | ③ | 5.0 | 2.9 | 4 320 | 0.3 | 4.2 | | | | |
| VWCA040FHDBS 412 F-130 | 9291705130 | 12 | 10...14 | B | ① | 8.4 | 4.9 | 5 400 | 0.5 | 4.0 | 22.1 | -20...+85 | 45 000 | 47 500 |
| | | | | | ② | 7.7 | 4.5 | 5 370 | 0.5 | 4.2 | | | | |
| | | | | | ③ | 6.5 | 3.8 | 5 390 | 0.5 | 4.7 | | | | |
| VWCA040FHDBS 412 FH-132 | 9291705132 | 12 | 10...14 | C | ① | 9.3 | 5.5 | 6 000 | 0.6 | 4.4 | 26.0 | -20...+85 | 45 000 | 47 500 |
| | | | | | ② | 8.5 | 5.0 | 5 960 | 0.6 | 4.4 | | | | |
| | | | | | ③ | 7.2 | 4.2 | 5 980 | 0.6 | 4.8 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCC040Y...

DC axial fan · max. 14.5 m³/h · □ 40 x 20 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 5, 12 or 24VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 28
- Electrical protection class: III
- Weight: 27 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

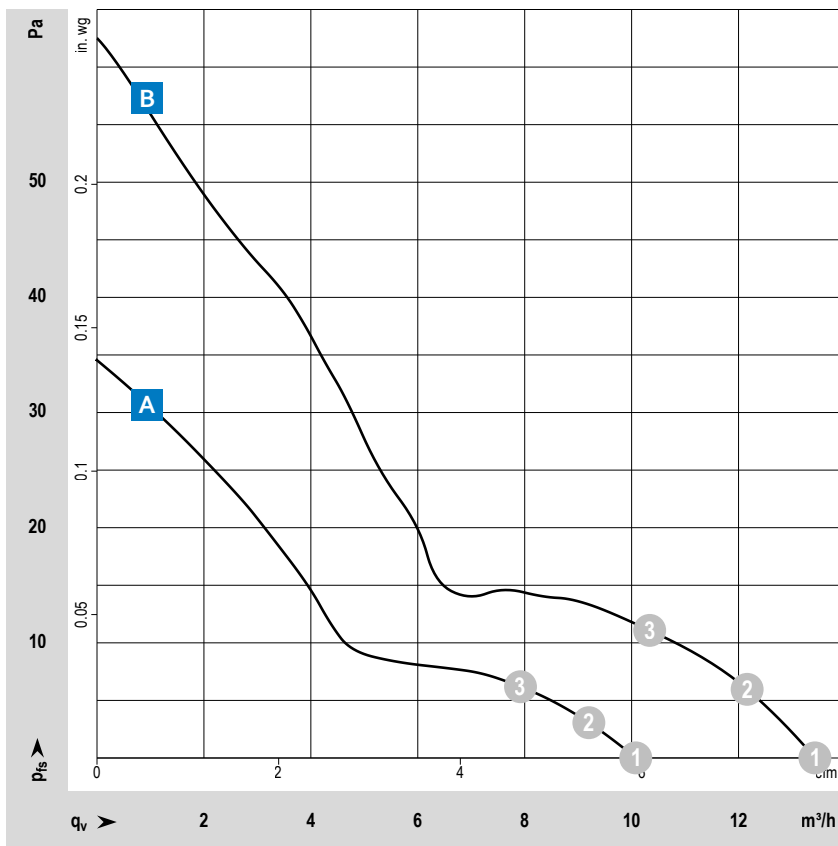
Options

- Speed signal
- Go / NoGo alarm
- PWM control input
- Moisture protection

Special features

- Additional fan types with extended temperature range up to +85 °C

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

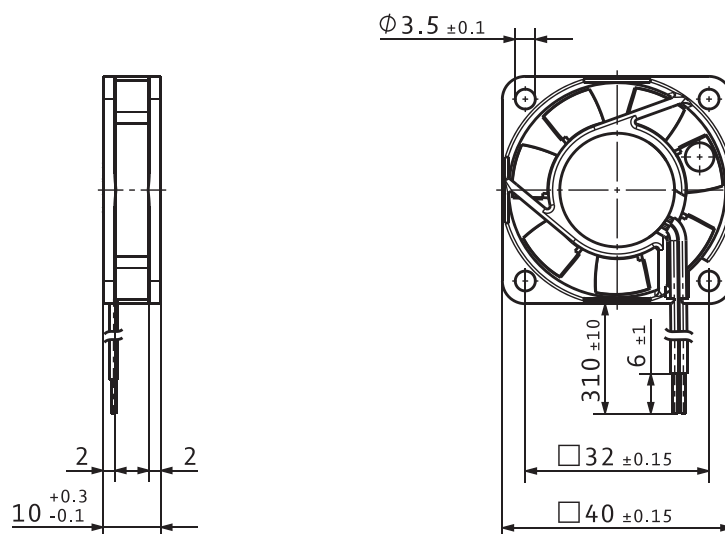
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (20 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|--|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCC040YGDSC 405 | 9291708013 | 5 | 4.5...5.5 | A | ① | 10.6 | 6.2 | 6 000 | 0.7 | 4.1 | 18 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 9.7 | 5.7 | 5 980 | 0.7 | 4.1 | | | | |
| | | | | | ③ | 8.5 | 5.0 | 6 020 | 0.7 | 4.2 | | | | |
| VWCC040YHDSC 412 | 9291708001 | 12 | 10...14 | A | ① | 10.1 | 5.9 | 6 000 | 0.6 | 4.1 | 18 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 9.1 | 5.4 | 6 030 | 0.6 | 4.1 | | | | |
| | | | | | ③ | 7.8 | 4.6 | 6 120 | 0.6 | 4.2 | | | | |
| VWCC040YHDSC 412 H | 9291708012 | 12 | 10...14 | B | ① | 13.4 | 7.9 | 8 100 | 1.3 | 4.7 | 29 | -20...+60 | 45 000 | 47 500 |
| | | | | | ② | 12.2 | 7.2 | 8 120 | 1.3 | 4.7 | | | | |
| | | | | | ③ | 10.3 | 6.1 | 8 330 | 1.3 | 4.8 | | | | |
| VWCC040YJDSC 414 | 9291708002 | 24 | 20...28 | A | ① | 10.3 | 6.1 | 6 000 | 0.7 | 4.1 | 18 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 9.3 | 5.5 | 6 000 | 0.7 | 4.1 | | | | |
| | | | | | ③ | 8.1 | 4.8 | 6 100 | 0.7 | 4.2 | | | | |
| VWCC040YJDSC 414 H | 9291708007 | 24 | 20...26.5 | B | ① | 14.5 | 8.5 | 8 100 | 1.3 | 4.7 | 29 | -20...+60 | 45 000 | 47 500 |
| | | | | | ② | 13.3 | 7.8 | 8 060 | 1.4 | 4.7 | | | | |
| | | | | | ③ | 11.6 | 6.8 | 8 110 | 1.3 | 4.8 | | | | |
| Fan types with extended temperature range up to +85 °C | | | | | | | | | | | | | | |
| VWCC040YHDSC 412-099 | 9291708099 | 12 | 10...14 | A | ① | 10.1 | 5.9 | 6 000 | 0.6 | 4.1 | 18 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 9.1 | 5.4 | 6 030 | 0.6 | 4.1 | | | | |
| | | | | | ③ | 7.8 | 4.6 | 6 120 | 0.6 | 4.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCE040J...

DC axial fan · max. 38.9 m³/h · □ 40 x 28 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact, small and lightweight; noise and efficiency optimized axial fan with rather rigid characteristic curve
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 28
- Electrical protection class: III
- Weight: 45 g

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

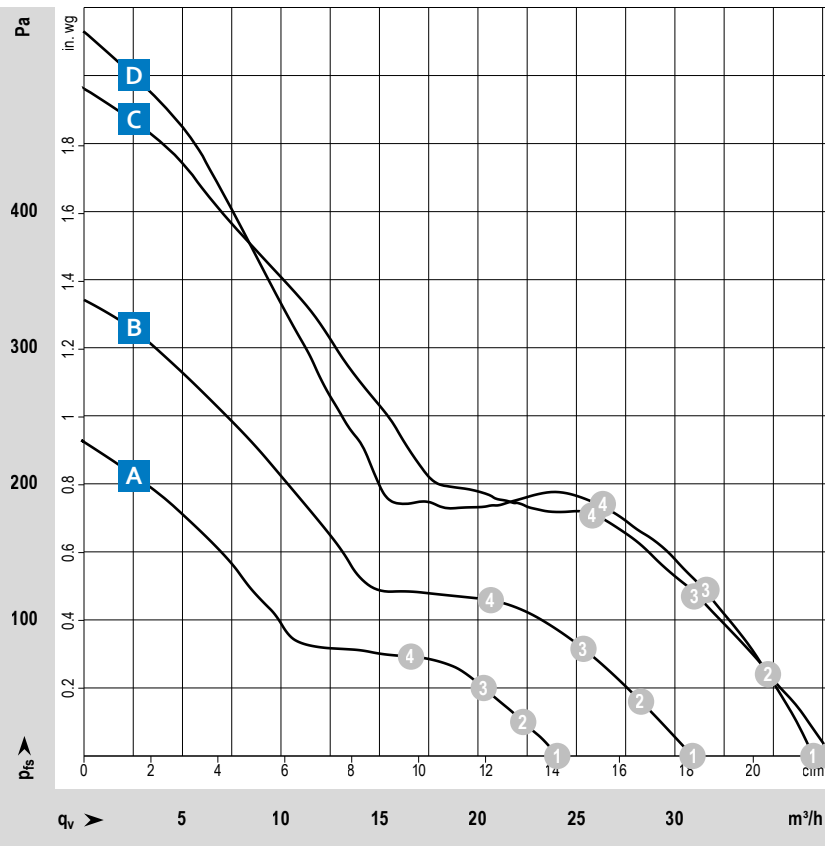
- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm - alarm with speed limit
- External temperature sensor
- PWM control input - analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Additional fan types with protection class IP68, -40 °C, Speed signal, PWM control input and EMC limit values, class B



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

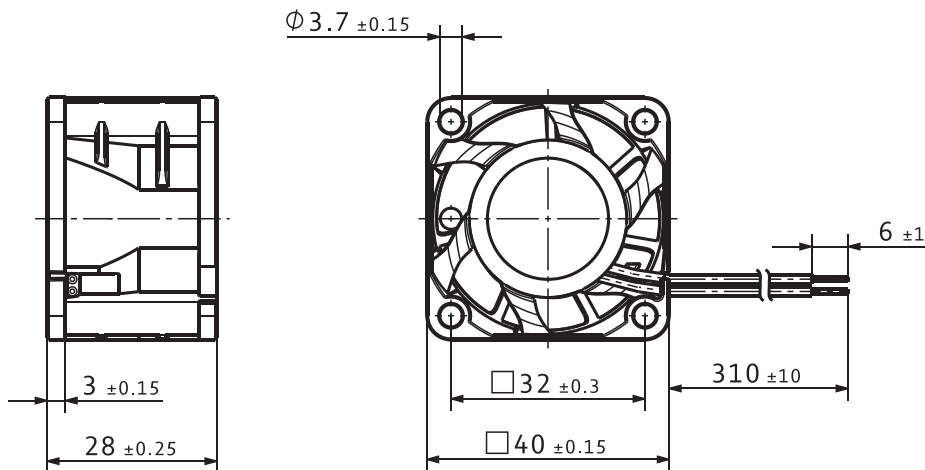
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. 11 |
|---|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|--------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCE040JHDDS 422 JM | 9291908014 | 12 | 8...13.8 | A | ① | 24.0 | 14.1 | 11 400 | 2.8 | 6.1 | 42 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 22.3 | 13.1 | 11 350 | 2.8 | 6.0 | | | | |
| | | | | | ③ | 20.3 | 11.9 | 11 440 | 2.8 | 5.9 | | | | |
| | | | | | ④ | 16.6 | 9.8 | 11 750 | 2.6 | 5.8 | | | | |
| VWCE040JHDES 422 JN | 9291908012 | 12 | 8...13.8 | B | ① | 30.9 | 18.2 | 14 250 | 3.6 | 6.4 | 48 | -20...+70 | 67 500 | 115 000 |
| | | | | | ② | 28.3 | 16.7 | 14 160 | 3.6 | 6.4 | | | | |
| | | | | | ③ | 25.4 | 14.9 | 14 200 | 3.6 | 6.4 | | | | |
| | | | | | ④ | 20.7 | 12.2 | 14 600 | 3.5 | 6.5 | | | | |
| VWCE040JHDES 422 JH | 9291908009 | 12 | 8...13.8 | C | ① | 38.0 | 22.4 | 17 250 | 7.0 | 7.0 | 54 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 34.8 | 20.5 | 17 040 | 7.0 | 6.9 | | | | |
| | | | | | ③ | 31.1 | 18.3 | 17 100 | 7.0 | 6.8 | | | | |
| | | | | | ④ | 25.9 | 15.2 | 17 570 | 6.7 | 6.9 | | | | |
| VWCE040JJDDS 424 JM | 9291908011 | 24 | 16...28 | A | ① | 23.6 | 13.9 | 11 400 | 2.7 | 6.1 | 42 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 22.1 | 13.0 | 11 400 | 2.7 | 6.0 | | | | |
| | | | | | ③ | 20.2 | 11.9 | 11 480 | 2.7 | 5.9 | | | | |
| | | | | | ④ | 16.6 | 9.8 | 11 780 | 2.6 | 5.8 | | | | |
| VWCE040JJDES 424 JN | 9291908015 | 24 | 16...28 | B | ① | 31.8 | 18.7 | 14 250 | 4.0 | 6.4 | 48 | -20...+70 | 67 500 | 115 000 |
| | | | | | ② | 29.1 | 17.1 | 14 200 | 4.0 | 6.4 | | | | |
| | | | | | ③ | 25.9 | 15.2 | 14 200 | 4.0 | 6.4 | | | | |
| | | | | | ④ | 21.2 | 12.5 | 14 700 | 3.8 | 6.5 | | | | |
| VWCE040JJDES 424 JH | 9291908013 | 24 | 16...26.4 | C | ① | 37.8 | 22.2 | 17 250 | 6.3 | 7.0 | 54 | -20...+65 | 60 000 | 102 500 |
| | | | | | ② | 35.0 | 20.6 | 17 200 | 6.4 | 6.9 | | | | |
| | | | | | ③ | 31.3 | 18.4 | 17 200 | 6.4 | 6.8 | | | | |
| | | | | | ④ | 26.0 | 15.3 | 17 600 | 6.1 | 6.9 | | | | |
| Fan types with protection class IP68, -40 °C, Speed signal, PWM control input and EMC limit values, class B | | | | | | | | | | | | | | |
| VWCE040JUDBS 422 J/2 HPU | 9691900181 | 12 | 8...13.8 | D | ① | 37.0 | 21.8 | 17 250 | 7.4 | 6.9 | 56 | -40...+70 | 60 000 | 102 500 |
| | | | | | ② | 34.7 | 20.4 | 17 250 | 7.6 | 6.8 | | | | |
| | | | | | ③ | 31.5 | 18.5 | 17 270 | 7.6 | 6.8 | | | | |
| | | | | | ④ | 26.3 | 15.5 | 17 250 | 7.0 | 6.6 | | | | |
| VWCE040JJDEZ 424 J/2 HPU | 9691900185 | 24 | 18...28 | D | ① | 38.9 | 22.9 | 17 250 | 7.7 | 6.9 | 56 | -40...+70 | 60 000 | 102 500 |
| | | | | | ② | 36.0 | 21.2 | 17 260 | 7.7 | 6.8 | | | | |
| | | | | | ③ | 32.4 | 19.1 | 17 260 | 7.7 | 6.8 | | | | |
| | | | | | ④ | 26.5 | 15.6 | 17 250 | 7.0 | 6.6 | | | | |
| VWCE040JKDES 428 J/2 HPU | 9691900183 | 48 | 36...60 | D | ① | 37.1 | 21.8 | 17 250 | 7.5 | 6.9 | 56 | -40...+70 | 60 000 | 102 500 |
| | | | | | ② | 34.5 | 20.3 | 17 240 | 7.6 | 6.8 | | | | |
| | | | | | ③ | 31.3 | 18.4 | 17 270 | 7.5 | 6.8 | | | | |
| | | | | | ④ | 25.9 | 15.2 | 17 250 | 7.0 | 6.6 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VWCB050F...

DC axial fan · max. 18.8 m³/h · □ 50 x 15 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fans available in 12 or 24VDC; compact, small and lightweight; low-profile, noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 28
- Electrical protection class: III
- Weight: 25 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

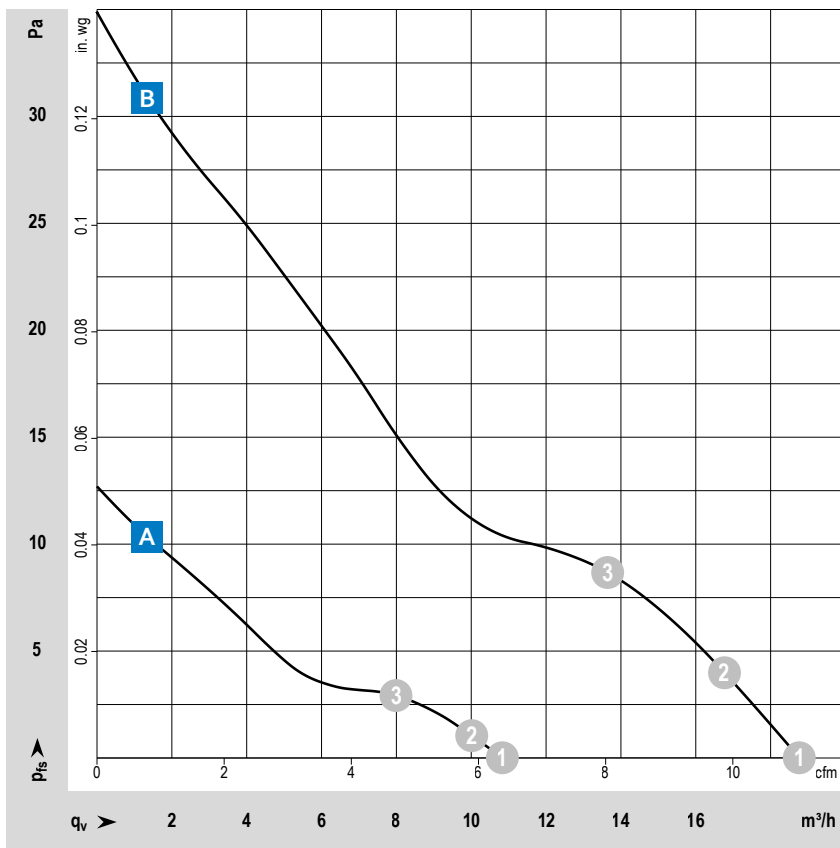
Options

- Speed signal
- Go / NoGo alarm
- PWM control input
- Moisture protection

Special features

- Additional fan types with extended temperature range up to +85 °C

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

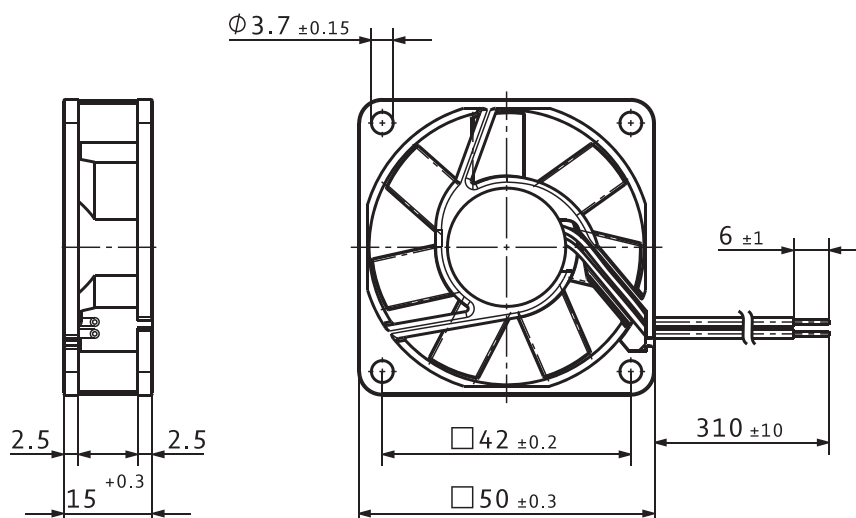
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|--|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | | °C | Hours |
| VWCB050FHDCS 512 F | 9291706501 | 12 | 10.8...13.2 | B | ① | 18.8 | 11.1 | 5 000 | 0.8 | 4.7 | 30 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 16.8 | 9.9 | 4 970 | 0.8 | 4.6 | | | | |
| | | | | | ③ | 13.5 | 7.9 | 5 030 | 0.8 | 4.6 | | | | |
| VWCB050FJDCS 514 F | 9291706507 | 24 | 21.6...26.4 | B | ① | 18.8 | 11.1 | 5 000 | 0.8 | 4.7 | 30 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 16.8 | 9.9 | 4 930 | 0.8 | 4.6 | | | | |
| | | | | | ③ | 13.9 | 8.2 | 4 960 | 0.8 | 4.6 | | | | |
| Fan types with extended temperature range up to +85 °C | | | | | | | | | | | | | | |
| VWCB050FHDCS 512 FL-547 | 9291706547 | 12 | 10.2...13.8 | A | ① | 10.8 | 6.4 | 3 000 | 0.3 | 3.8 | 18 | -20...+85 | 50 000 | 52 500 |
| | | | | | ② | 9.8 | 5.8 | 2 980 | 0.3 | 3.9 | | | | |
| | | | | | ③ | 8.1 | 4.8 | 3 000 | 0.3 | 3.8 | | | | |
| VWCB050FHDCS 512 F-532 | 9291706532 | 12 | 10.8...13.2 | B | ① | 17.8 | 10.5 | 5 000 | 0.8 | 4.7 | 30 | -20...+85 | 50 000 | 52 500 |
| | | | | | ② | 15.4 | 9.1 | 5 000 | 0.8 | 4.6 | | | | |
| | | | | | ③ | 12.1 | 7.1 | 5 140 | 0.7 | 4.6 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCB060F...

DC axial fan · max. 31.3 m³/h · □ 60 x 15 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fans available in 5, 12 or 24VDC; compact, small and lightweight; low-profile, noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 28
- Electrical protection class: III
- Weight: 30 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

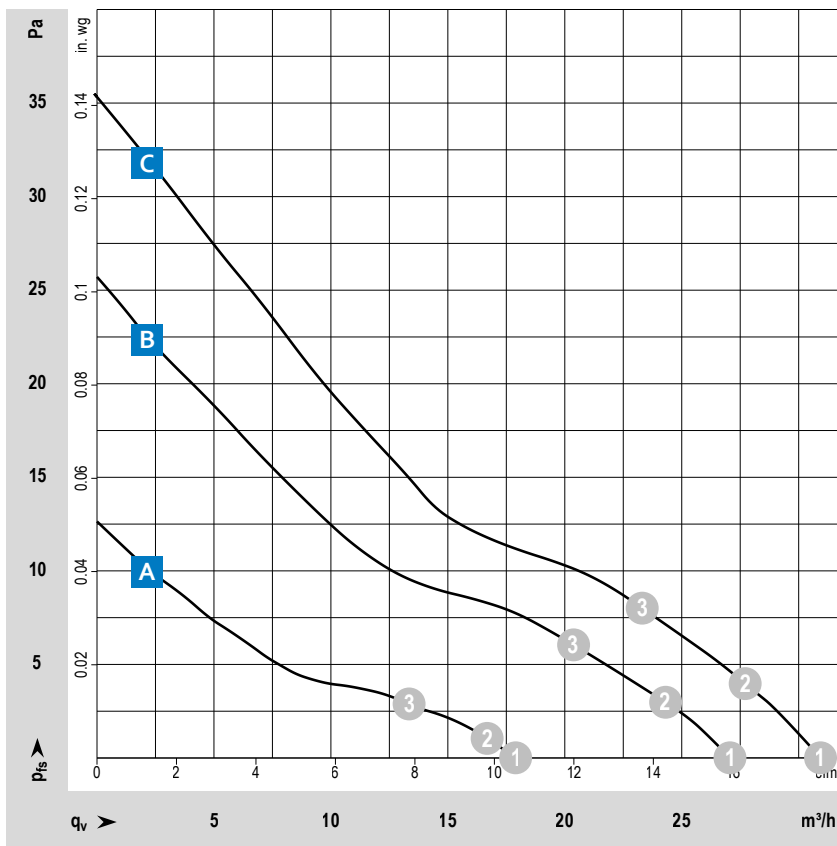
Options

- Speed signal
- Go / NoGo alarm
- PWM control input
- Moisture protection

Special features

- Additional fan types with extended temperature range up to +85 °C

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

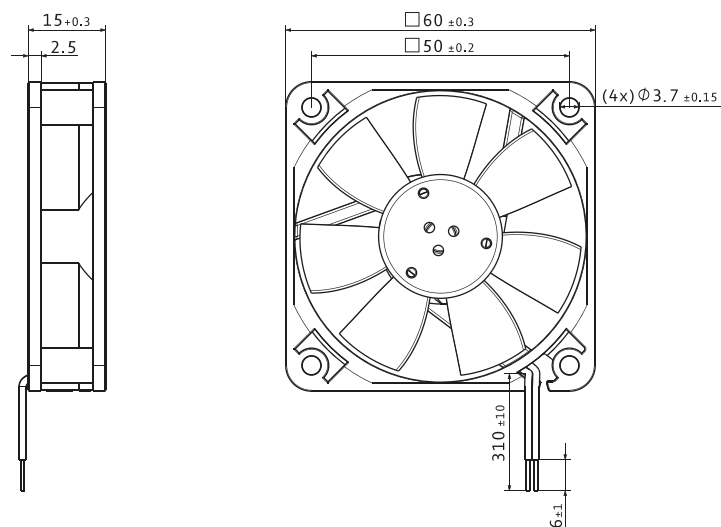
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (20 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|---|-------------|-----------------|---------------|----------------------|-----------------|----------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | | | | | | |
| VWCB060FGDDS 605 F | 9291708611 | 5 | 4.5...5.2 | B | ① | 26.8 | 15.8 | 3 900 | 1.0 | 4.5 | 27 | -20...+50 | 50 000 | 52 500 |
| | | | | | ② | 24.4 | 14.4 | 3 820 | 1.0 | 4.4 | | | | |
| | | | | | ③ | 20.4 | 12.0 | 3 760 | 1.0 | 4.6 | | | | |
| VWCB060FHDCS 612 FL | 9291708607 | 12 | 11.5...13.2 | A | ① | 17.9 | 10.5 | 2 650 | 0.4 | 3.5 | 16 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 16.3 | 9.6 | 2 600 | 0.4 | 3.5 | | | | |
| | | | | | ③ | 13.6 | 8.0 | 2 580 | 0.4 | 3.7 | | | | |
| VWCB060FHDDS 612 F | 9291708601 | 12 | 10.8...13.2 | B | ① | 27.0 | 15.9 | 3 900 | 0.9 | 4.5 | 27 | -20...+70 | 50 000 | 52 500 |
| | | | | | ② | 24.4 | 14.4 | 3 830 | 0.9 | 4.4 | | | | |
| | | | | | ③ | 20.3 | 11.9 | 3 780 | 0.9 | 4.6 | | | | |
| VWCB060FHDES 612 FH | 9291708615 | 12 | 10.0...13.2 | C | ① | 31.3 | 18.4 | 4 500 | 1.3 | 4.7 | 31 | -20...+60 | 45 000 | 47 500 |
| | | | | | ② | 28.3 | 16.7 | 4 400 | 1.3 | 4.6 | | | | |
| | | | | | ③ | 23.4 | 13.8 | 4 310 | 1.3 | 4.9 | | | | |
| VWCB060FJDDS 614 F | 9291708612 | 24 | 21.6...26.4 | B | ① | 27.1 | 16.0 | 3 900 | 0.9 | 4.5 | 27 | -20...+70 | 50 000 | 20 000 |
| | | | | | ② | 24.4 | 14.4 | 3 800 | 0.9 | 4.4 | | | | |
| | | | | | ③ | 20.3 | 11.9 | 3 750 | 0.9 | 4.6 | | | | |
| VWCB060FJDEZ 614 F/39 H-691 | 9291706691 | 24 | 16...28 | C | ① | 30.9 | 18.2 | 4 500 | 1.2 | 4.7 | 31 | -20...+60 | 45 000 | 47 500 |
| | | | | | ② | 27.8 | 16.4 | 4 410 | 1.3 | 4.6 | | | | |
| | | | | | ③ | 23.3 | 13.7 | 4 370 | 1.3 | 4.9 | | | | |
| Fan types with extended temperature range up to +80 / 85 °C | | | | | | | | | | | | | | |
| VWCB060FHDCS 612 FL-680 | 9291706680 | 12 | 11.5...14 | A | ① | 18.0 | 10.6 | 2 650 | 0.4 | 3.5 | 16 | -20...+85 | 50 000 | 52 500 |
| | | | | | ② | 15.9 | 9.4 | 2 600 | 0.4 | 3.5 | | | | |
| | | | | | ③ | 13.3 | 7.8 | 2 590 | 0.4 | 3.7 | | | | |
| VWCB060FHDDS 612 F-637 | 9291708637 | 12 | 10.8...12.6 | B | ① | 27.0 | 15.9 | 3 900 | 0.8 | 4.5 | 27 | -20...+80 | 50 000 | 52 500 |
| | | | | | ② | 24.1 | 14.2 | 3 810 | 0.8 | 4.4 | | | | |
| | | | | | ③ | 20.0 | 11.8 | 3 790 | 0.8 | 4.6 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCD060A...

DC axial fan · max. 66 m³/h · □ 60 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12 or 24 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 70 g

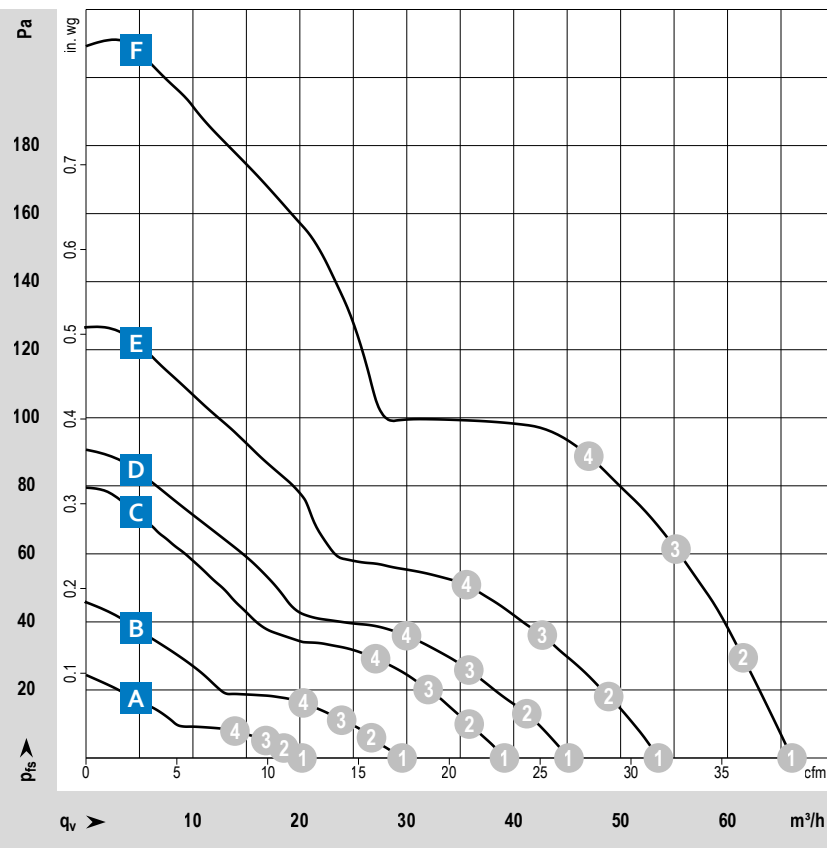
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Nominal voltage 48 VDC

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

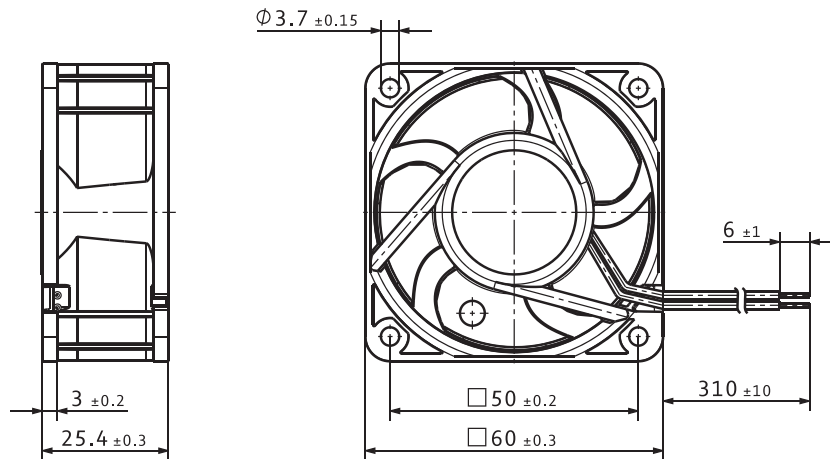
Noise: Total sound p_w level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCD060AHEFS 622 N | 9292207003 | 12 | 8...15 | C | ① | 39.1 | 23.0 | 6100 | 1.9 | 5.3 | 35 | -20...+70 | 72 500 | 122 500 |
| | | | | | ② | 36.2 | 21.3 | 6030 | 1.9 | 5.3 | | | | |
| | | | | | ③ | 32.0 | 18.8 | 5980 | 1.9 | 5.1 | | | | |
| | | | | | ④ | 27.1 | 16.0 | 6000 | 1.9 | 5.1 | | | | |
| VWCD060AHEFS 622 H | 9292207004 | 12 | 8...15 | D | ① | 45.2 | 26.6 | 6850 | 2.2 | 5.5 | 39 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 41.2 | 24.2 | 6750 | 2.3 | 5.5 | | | | |
| | | | | | ③ | 35.9 | 21.1 | 6700 | 2.3 | 5.4 | | | | |
| | | | | | ④ | 30.0 | 17.7 | 6700 | 2.3 | 5.3 | | | | |
| VWCD060AHEGS 622 HH | 9292207006 | 12 | 8...15 | E | ① | 54.0 | 31.8 | 8200 | 3.4 | 6.0 | 43 | -20...+70 | 65 000 | 110 000 |
| | | | | | ② | 48.8 | 28.7 | 8080 | 3.5 | 5.9 | | | | |
| | | | | | ③ | 42.6 | 25.1 | 8000 | 3.6 | 5.8 | | | | |
| | | | | | ④ | 35.6 | 21.0 | 8020 | 3.6 | 5.6 | | | | |
| VWCD060AHEGS 622/2 H3P | 9692200205 | 12 | 8...15 | F | ① | 66.0 | 38.8 | 9700 | 8.1 | 6.6 | 48 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 61.0 | 35.9 | 9700 | 8.5 | 6.5 | | | | |
| | | | | | ③ | 55.0 | 32.4 | 9690 | 8.9 | 6.3 | | | | |
| | | | | | ④ | 47.1 | 27.7 | 9680 | 9.1 | 6.2 | | | | |
| VWCD060AJEDS 624 L | 9292207005 | 24 | 18...28 | A | ① | 20.2 | 11.9 | 3200 | 1.0 | 3.7 | 20 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 18.7 | 11.0 | 3180 | 1.0 | 3.7 | | | | |
| | | | | | ③ | 16.6 | 9.8 | 3180 | 1.0 | 3.6 | | | | |
| | | | | | ④ | 14.0 | 8.2 | 3180 | 1.0 | 3.7 | | | | |
| VWCD060AJEES 624 M | 9292207007 | 24 | 18...28 | B | ① | 29.6 | 17.4 | 4550 | 1.3 | 4.6 | 29 | -20...+70 | 77 500 | 130 000 |
| | | | | | ② | 26.8 | 15.8 | 4480 | 1.4 | 4.5 | | | | |
| | | | | | ③ | 23.8 | 14.0 | 4500 | 1.4 | 4.5 | | | | |
| | | | | | ④ | 20.2 | 11.9 | 4520 | 1.3 | 4.5 | | | | |
| VWCD060AJEFS 624 N | 9292207008 | 24 | 18...28 | C | ① | 39.1 | 23.0 | 6100 | 2.1 | 5.3 | 35 | -20...+70 | 72 500 | 122 500 |
| | | | | | ② | 35.9 | 21.1 | 6050 | 2.1 | 5.3 | | | | |
| | | | | | ③ | 31.9 | 18.8 | 6000 | 2.1 | 5.1 | | | | |
| | | | | | ④ | 27.0 | 15.9 | 6000 | 2.1 | 5.1 | | | | |
| VWCD060AJEFS 624 H | 9292207009 | 24 | 18...28 | D | ① | 44.1 | 26.0 | 6850 | 2.4 | 5.5 | 39 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 40.7 | 24.0 | 6750 | 2.5 | 5.5 | | | | |
| | | | | | ③ | 35.9 | 21.1 | 6690 | 2.5 | 5.4 | | | | |
| | | | | | ④ | 30.3 | 17.8 | 6680 | 2.5 | 5.3 | | | | |
| VWCD060AJEGS 624 HH | 9292207010 | 24 | 18...28 | E | ① | 55.0 | 32.4 | 8200 | 3.2 | 6.0 | 43 | -20...+70 | 65 000 | 110 000 |
| | | | | | ② | 49.6 | 29.2 | 8050 | 3.3 | 5.9 | | | | |
| | | | | | ③ | 43.4 | 25.5 | 7920 | 3.4 | 5.8 | | | | |
| | | | | | ④ | 36.5 | 21.5 | 7890 | 3.4 | 5.6 | | | | |
| VWCD060AJEGS 624/2 H3P | 9692200204 | 24 | 18...28 | F | ① | 66.0 | 38.8 | 9700 | 7.0 | 6.6 | 48 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 61.0 | 35.9 | 9700 | 7.4 | 6.5 | | | | |
| | | | | | ③ | 55.0 | 32.4 | 9710 | 7.7 | 6.3 | | | | |
| | | | | | ④ | 46.6 | 27.4 | 9700 | 7.9 | 6.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCD060X...

DC axial fan · max. 59 m³/h · □ 60 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 70 g

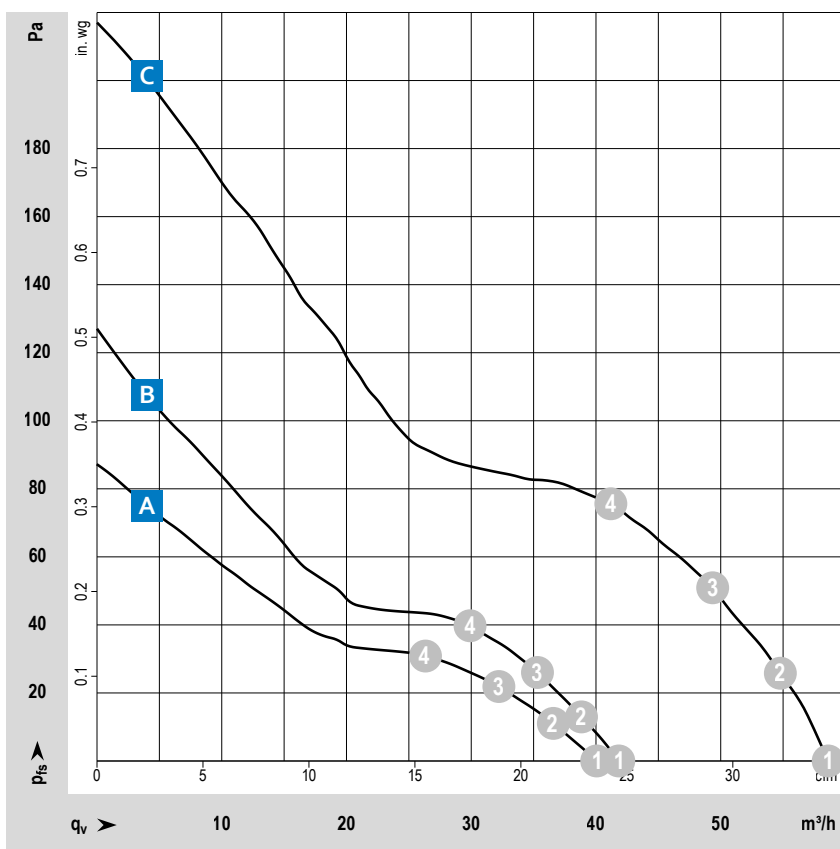
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68
- Salt spray protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

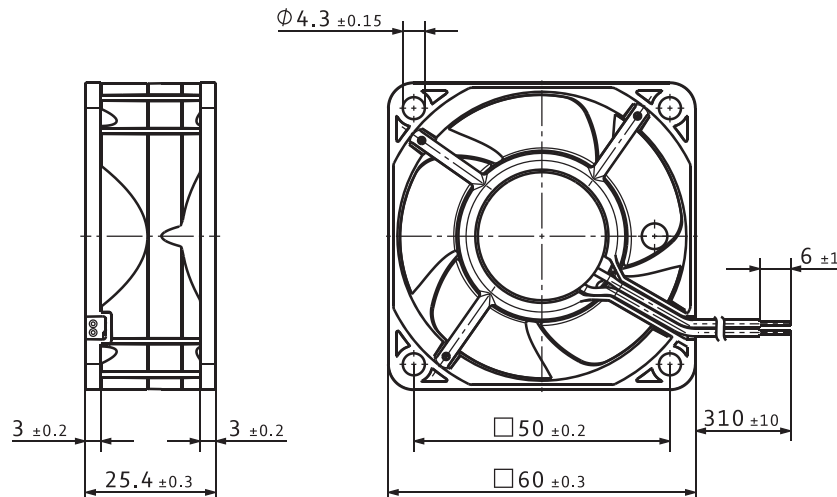
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | | °C | Hours |
| VWCD060XHEFS 632 NU | 9292308002 | 12 | 6...15 | A | ① | 40.1 | 23.6 | 5900 | 1.6 | 5.2 | 33 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 36.5 | 21.5 | 5820 | 1.7 | 5.2 | | | | |
| | | | | | ③ | 32.3 | 19.0 | 5780 | 1.7 | 5.2 | | | | |
| | | | | | ④ | 26.4 | 15.5 | 5770 | 1.7 | 5.3 | | | | |
| VWCD060XHEFS 632/2 HPU | 9692300186 | 12 | 10.8...13.2 | B | ① | 41.8 | 24.6 | 6300 | 1.6 | 5.5 | 35 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 38.9 | 22.9 | 6240 | 1.7 | 5.5 | | | | |
| | | | | | ③ | 35.3 | 20.8 | 6250 | 1.8 | 5.4 | | | | |
| | | | | | ④ | 30.0 | 17.7 | 6250 | 1.9 | 5.4 | | | | |
| VWCD060XJEFZ 634 NU | 9292308004 | 24 | 12...30 | A | ① | 38.9 | 22.9 | 5900 | 1.6 | 5.2 | 34 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 35.7 | 21.0 | 5840 | 1.7 | 5.2 | | | | |
| | | | | | ③ | 31.8 | 18.7 | 5790 | 1.8 | 5.2 | | | | |
| | | | | | ④ | 26.3 | 15.5 | 5780 | 1.8 | 5.3 | | | | |
| VWCD060XJEGS 634 HHU | 9692300188 | 24 | 18...28 | C | ① | 58.0 | 34.1 | 8500 | 3.1 | 6.5 | 44 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 54.0 | 31.8 | 8500 | 3.4 | 6.4 | | | | |
| | | | | | ③ | 48.8 | 28.7 | 8480 | 3.7 | 6.2 | | | | |
| | | | | | ④ | 40.9 | 24.1 | 8460 | 3.8 | 6.2 | | | | |
| VWCD060XJEGS 634/2 HPU | 9692300189 | 24 | 18...28 | C | ① | 58.0 | 34.1 | 8500 | 3.1 | 6.5 | 44 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 54.0 | 31.8 | 8500 | 3.4 | 6.4 | | | | |
| | | | | | ③ | 48.8 | 28.7 | 8480 | 3.7 | 6.2 | | | | |
| | | | | | ④ | 40.9 | 24.1 | 8460 | 3.8 | 6.2 | | | | |
| VWCD060XKEFS 638/2 HPU | 9692300193 | 48 | 40...60 | B | ① | 41.5 | 24.4 | 6300 | 1.9 | 5.5 | 35 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 38.8 | 22.8 | 6280 | 2.0 | 5.5 | | | | |
| | | | | | ③ | 35.2 | 20.7 | 6270 | 2.1 | 5.4 | | | | |
| | | | | | ④ | 29.7 | 17.5 | 6250 | 2.1 | 5.4 | | | | |
| VWCD060XKEGS 638/2 HPU | 9692300192 | 48 | 40...60 | C | ① | 59.0 | 34.7 | 8500 | 3.3 | 6.5 | 44 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 55.0 | 32.4 | 8500 | 3.6 | 6.4 | | | | |
| | | | | | ③ | 49.4 | 29.1 | 8500 | 3.9 | 6.2 | | | | |
| | | | | | ④ | 41.3 | 24.3 | 8460 | 4.0 | 6.2 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VWCD060Y...

DC axial fan · max. 53 m³/h · □ 60 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 66 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

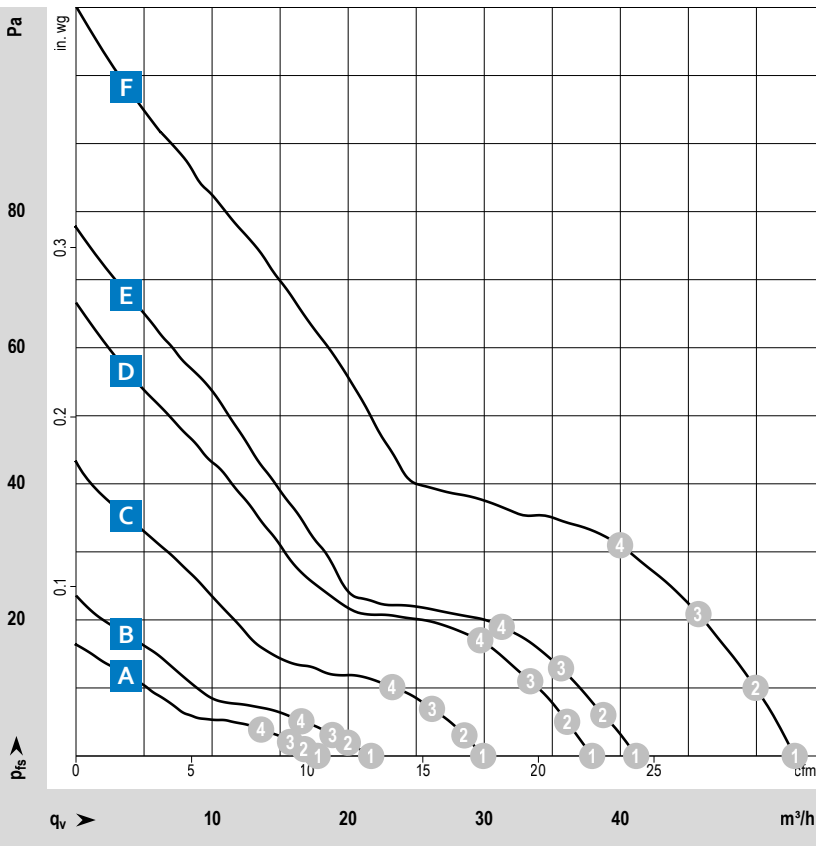
Options

- Speed signal
- Go / NoGo alarm
- Moisture protection
- Degree of protection: up to IP68

Special features

- Some fan types suitable for use at high ambient temperatures up to 85 °C.

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

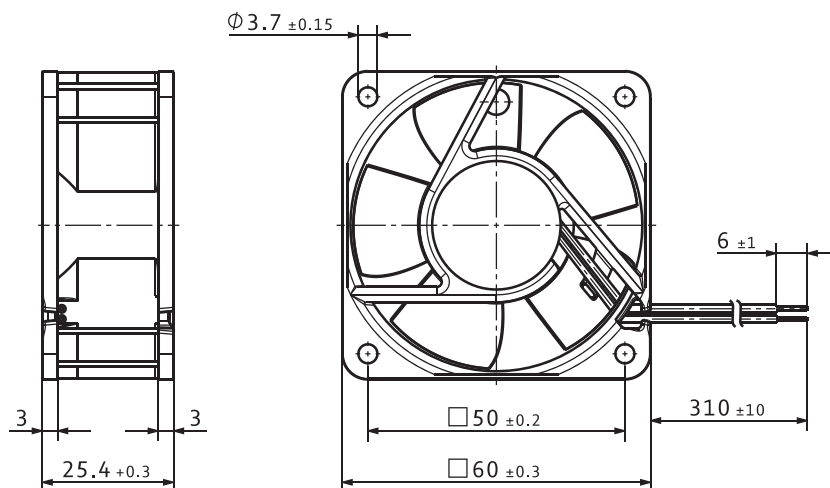
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|-----------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCD060YHECS 612 NGLE | 9292206177 | 12 | 8...15 | A | ① | 17.1 | 10.1 | 2 500 | 0.6 | 3.6 | 16 | -20...+85 | 80 000 | 135 000 |
| | | | | | ② | 16.3 | 9.6 | 2 490 | 0.6 | 3.6 | | | | |
| | | | | | ③ | 15.4 | 9.1 | 2 470 | 0.6 | 3.5 | | | | |
| | | | | | ④ | 13.8 | 8.1 | 2 470 | 0.6 | 3.5 | | | | |
| VWCD060YHECS 612 NLE | 9272206171 | 12 | 8...15 | A | ① | 17.7 | 10.4 | 2 500 | 0.3 | 3.6 | 16 | -20...+85 | 80 000 | 135 000 |
| | | | | | ② | 16.7 | 9.8 | 2 480 | 0.3 | 3.6 | | | | |
| | | | | | ③ | 15.5 | 9.1 | 2 480 | 0.3 | 3.5 | | | | |
| | | | | | ④ | 13.8 | 8.1 | 2 470 | 0.3 | 3.5 | | | | |
| VWCD060YHEDS 612 NGMLE | 9292206172 | 12 | 8...15 | B | ① | 23.0 | 13.5 | 3 000 | 0.7 | 4.0 | 19 | -20...+80 | 80 000 | 135 000 |
| | | | | | ② | 21.7 | 12.8 | 2 990 | 0.7 | 3.9 | | | | |
| | | | | | ③ | 20.2 | 11.9 | 2 970 | 0.7 | 3.8 | | | | |
| | | | | | ④ | 17.6 | 10.4 | 2 960 | 0.7 | 3.9 | | | | |
| VWCD060YHECS 612 NMLE | 9292206174 | 12 | 8...15 | B | ① | 21.7 | 12.8 | 3 000 | 0.5 | 4.0 | 19 | -20...+85 | 80 000 | 135 000 |
| | | | | | ② | 20.2 | 11.9 | 2 990 | 0.5 | 3.9 | | | | |
| | | | | | ③ | 18.6 | 10.9 | 3 000 | 0.5 | 3.8 | | | | |
| | | | | | ④ | 16.4 | 9.7 | 2 990 | 0.5 | 3.9 | | | | |
| VWCD060YHEES 612 NGME | 9272206175 | 12 | 8...15 | C | ① | 31.0 | 18.2 | 4 100 | 1.2 | 4.7 | 28 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 29.2 | 17.2 | 4 060 | 1.2 | 4.7 | | | | |
| | | | | | ③ | 26.9 | 15.8 | 4 030 | 1.2 | 4.7 | | | | |
| | | | | | ④ | 23.3 | 13.7 | 4 000 | 1.2 | 4.6 | | | | |
| VWCD060YHEES 612 NME | 9292206173 | 12 | 8...15 | C | ① | 29.9 | 17.6 | 4 100 | 0.9 | 4.7 | 28 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 28.4 | 16.7 | 4 080 | 0.9 | 4.7 | | | | |
| | | | | | ③ | 26.3 | 15.5 | 4 040 | 1.0 | 4.7 | | | | |
| | | | | | ④ | 23.2 | 13.7 | 4 030 | 1.0 | 4.6 | | | | |
| VWCD060YHEFS 612 NN | 9272206018 | 12 | 8...15 | D | ① | 37.9 | 22.3 | 5 100 | 1.4 | 5.2 | 35 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 36.0 | 21.2 | 5 070 | 1.5 | 5.2 | | | | |
| | | | | | ③ | 33.4 | 19.7 | 5 030 | 1.5 | 5.1 | | | | |
| | | | | | ④ | 29.7 | 17.5 | 5 000 | 1.5 | 5.1 | | | | |
| VWCD060YHEFS 612 NH | 9272206026 | 12 | 8...15 | E | ① | 41.2 | 24.2 | 5 600 | 1.7 | 5.5 | 37 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 38.7 | 22.8 | 5 540 | 1.8 | 5.4 | | | | |
| | | | | | ③ | 35.8 | 21.1 | 5 510 | 1.8 | 5.4 | | | | |
| | | | | | ④ | 31.3 | 18.4 | 5 500 | 1.8 | 5.3 | | | | |
| VWCD060YHEGS 612 NHH-118 | 9272206118 | 12 | 8...15 | F | ① | 53.0 | 31.2 | 6 800 | 2.6 | 5.9 | 41 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 49.9 | 29.4 | 6 730 | 2.7 | 5.8 | | | | |
| | | | | | ③ | 45.9 | 27.0 | 6 630 | 2.8 | 5.7 | | | | |
| | | | | | ④ | 40.0 | 24.0 | 6 570 | 2.8 | 5.6 | | | | |

Subject to changes. More types in 24 or 48 VDC on the next page.

Technical drawing

Dimensions in mm



VWCD060Y...

DC axial fan · max. 52 m³/h · □ 60 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 66 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

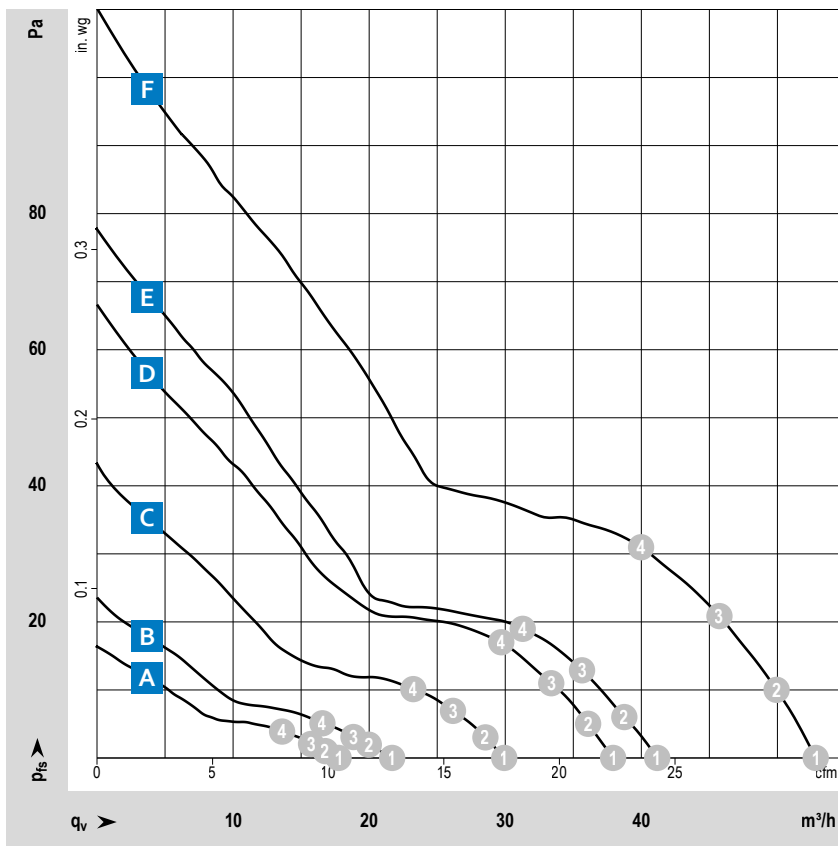
Options

- Speed signal
- Go / NoGo alarm
- Moisture protection
- Degree of protection: up to IP68

Special features

- Some fan types suitable for use at high ambient temperatures up to 85 °C.

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

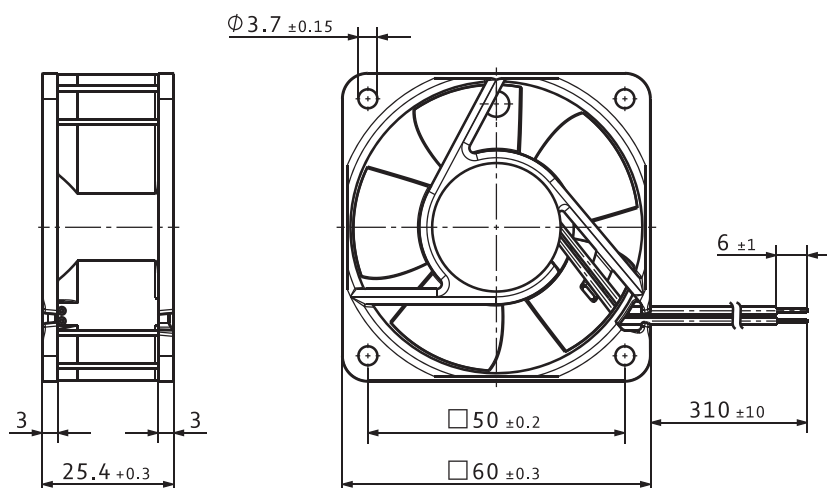
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCD060YJECS 614 NGL | 9272206012 | 24 | 18...28 | A | ① | 17.1 | 10.1 | 2 500 | 1.0 | 3.6 | 16 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 16.6 | 9.8 | 2 500 | 1.0 | 3.6 | | | | |
| | | | | | ③ | 15.8 | 9.3 | 2 500 | 1.0 | 3.5 | | | | |
| | | | | | ④ | 13.8 | 8.1 | 2 490 | 1.0 | 3.5 | | | | |
| VWCD060YJECS 614 NL | 9292206097 | 24 | 18...28 | A | ① | 17.4 | 10.2 | 2 500 | 0.9 | 3.6 | 16 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 16.9 | 9.9 | 2 490 | 0.9 | 3.6 | | | | |
| | | | | | ③ | 15.7 | 9.2 | 2 490 | 0.9 | 3.5 | | | | |
| | | | | | ④ | 14.1 | 8.3 | 2 480 | 0.9 | 3.5 | | | | |
| VWCD060YJEDS 614 NGML | 9292206010 | 24 | 18...28 | B | ① | 20.6 | 12.1 | 3 000 | 1.2 | 4.0 | 19 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 19.8 | 11.7 | 3 000 | 1.2 | 3.9 | | | | |
| | | | | | ③ | 18.7 | 11.0 | 2 990 | 1.2 | 3.8 | | | | |
| | | | | | ④ | 16.8 | 9.9 | 2 990 | 1.2 | 3.9 | | | | |
| VWCD060YJEDS 614 NML | 9292206140 | 24 | 18...28 | B | ① | 20.5 | 12.1 | 3 000 | 0.9 | 4.0 | 19 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 19.9 | 11.7 | 3 000 | 0.9 | 3.9 | | | | |
| | | | | | ③ | 18.8 | 11.1 | 2 990 | 0.9 | 3.8 | | | | |
| | | | | | ④ | 16.6 | 9.8 | 2 980 | 0.9 | 3.9 | | | | |
| VWCD060YJEES 614 NGM | 9272206011 | 24 | 18...28 | C | ① | 29.9 | 17.6 | 4 100 | 1.6 | 4.7 | 28 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 28.4 | 16.7 | 4 090 | 1.6 | 4.7 | | | | |
| | | | | | ③ | 26.3 | 15.5 | 4 070 | 1.6 | 4.7 | | | | |
| | | | | | ④ | 23.1 | 13.6 | 4 070 | 1.6 | 4.6 | | | | |
| VWCD060YJEES 614 NM | 9272206032 | 24 | 18...28 | C | ① | 30.0 | 17.7 | 4 100 | 1.3 | 4.7 | 28 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 28.3 | 16.7 | 4 080 | 1.3 | 4.7 | | | | |
| | | | | | ③ | 26.4 | 15.5 | 4 060 | 1.3 | 4.7 | | | | |
| | | | | | ④ | 23.1 | 13.6 | 4 050 | 1.3 | 4.6 | | | | |
| VWCD060YJEFS 614 NN | 9272206076 | 24 | 18...28 | D | ① | 37.6 | 22.1 | 5 100 | 1.9 | 5.2 | 35 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 35.7 | 21.0 | 5 080 | 2.0 | 5.2 | | | | |
| | | | | | ③ | 33.1 | 19.5 | 5 050 | 2.0 | 5.1 | | | | |
| | | | | | ④ | 28.7 | 16.9 | 5 050 | 2.0 | 5.1 | | | | |
| VWCD060YJEFS 614 NH | 9272206072 | 24 | 18...26 | E | ① | 41.4 | 24.4 | 5 600 | 1.9 | 5.5 | 37 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 39.4 | 23.2 | 5 560 | 1.9 | 5.4 | | | | |
| | | | | | ③ | 36.5 | 21.5 | 5 520 | 2.0 | 5.4 | | | | |
| | | | | | ④ | 31.8 | 18.7 | 5 510 | 2.0 | 5.3 | | | | |
| VWCD060YJEGS 614 NHH | 9272206033 | 24 | 18...26 | F | ① | 52.0 | 30.6 | 6 850 | 2.8 | 5.9 | 41 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 49.7 | 29.3 | 6 790 | 2.8 | 5.8 | | | | |
| | | | | | ③ | 45.7 | 26.9 | 6 730 | 2.9 | 5.7 | | | | |
| | | | | | ④ | 39.5 | 23.0 | 6 710 | 2.9 | 5.6 | | | | |
| VWCD060YKEFS 618 NN | 9292206152 | 48 | 36...56 | D | ① | 38.0 | 22.4 | 5 100 | 2.1 | 5.2 | 35 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 36.1 | 21.2 | 5 060 | 2.1 | 5.2 | | | | |
| | | | | | ③ | 33.4 | 19.7 | 5 020 | 2.1 | 5.1 | | | | |
| | | | | | ④ | 29.4 | 17.3 | 5 000 | 2.1 | 5.1 | | | | |

Subject to changes. More types in 12VDC on the previous page.

Technical drawing

Dimensions in mm



VWCE060J...

DC axial fan · max. 70 m³/h · □ 60 x 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan with rigid characteristic curve
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 100 g

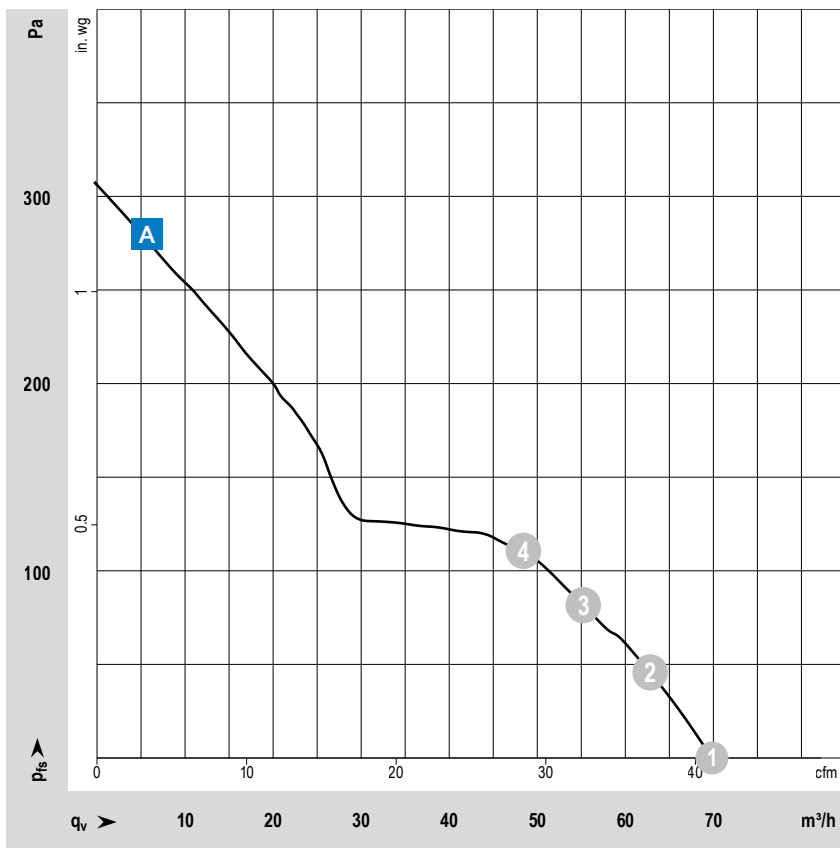
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- PWM control input
- Analog control input
- Moisture protection



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

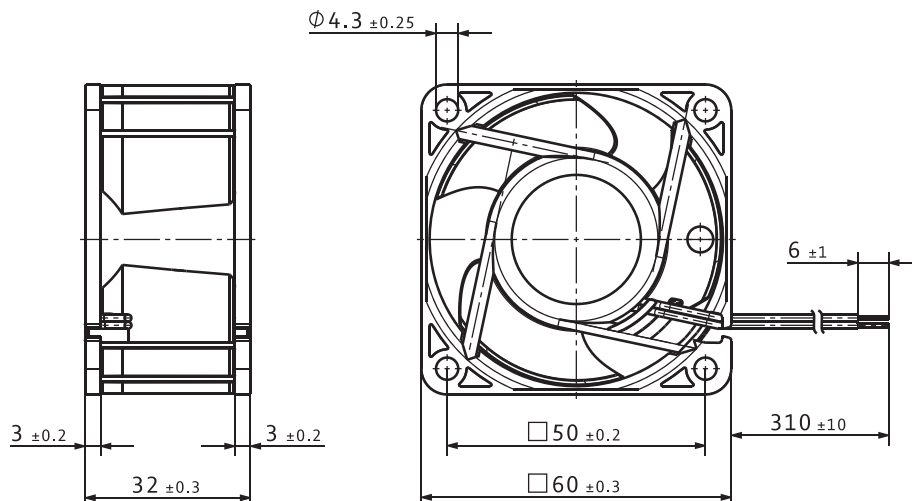
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCE060JHEHS 612 JH | 9292512003 | 12 | 7...13.6 | A | ① | 70 | 41 | 11 700 | 6.6 | 6.8 | 53 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 63 | 37 | 11 510 | 6.9 | 6.6 | | | | |
| | | | | | ③ | 55 | 32 | 11 390 | 7.2 | 6.4 | | | | |
| | | | | | ④ | 48 | 28 | 11 330 | 7.3 | 6.4 | | | | |
| VWCE060JJEHS 614 JH | 9292512004 | 24 | 14...26.4 | A | ① | 69 | 41 | 11 700 | 6.8 | 6.8 | 53 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 62 | 36 | 11 510 | 7.1 | 6.6 | | | | |
| | | | | | ③ | 55 | 32 | 11 420 | 7.4 | 6.4 | | | | |
| | | | | | ④ | 48 | 28 | 11 350 | 7.5 | 6.4 | | | | |
| VWCE060JKEHS 618 JH | 9692510166 | 48 | 36...56 | A | ① | 70 | 41 | 11 700 | 6.8 | 6.8 | 53 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 63 | 37 | 11 530 | 7.2 | 6.6 | | | | |
| | | | | | ③ | 55 | 32 | 11 440 | 7.5 | 6.4 | | | | |
| | | | | | ④ | 49 | 29 | 11 380 | 7.6 | 6.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCB070F...

DC axial fan · max. 43.9 m³/h · □ 70 x 15 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12 or 24 VDC; compact, small and lightweight; low-profile, noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24 up to AWG 28
- Electrical protection class: III
- Weight: 53 g

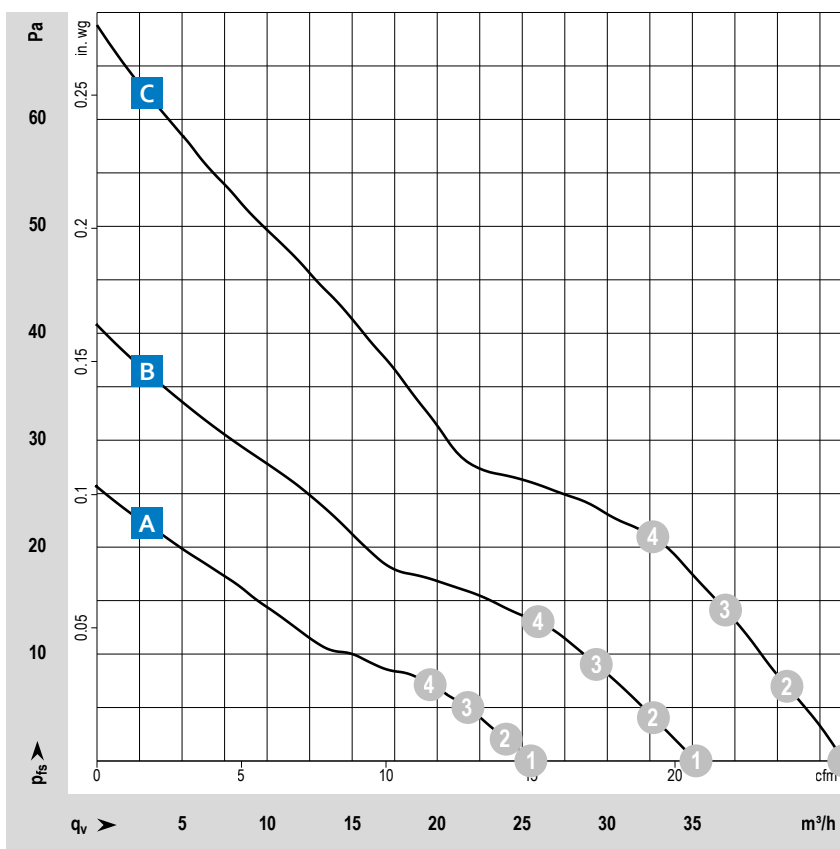
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

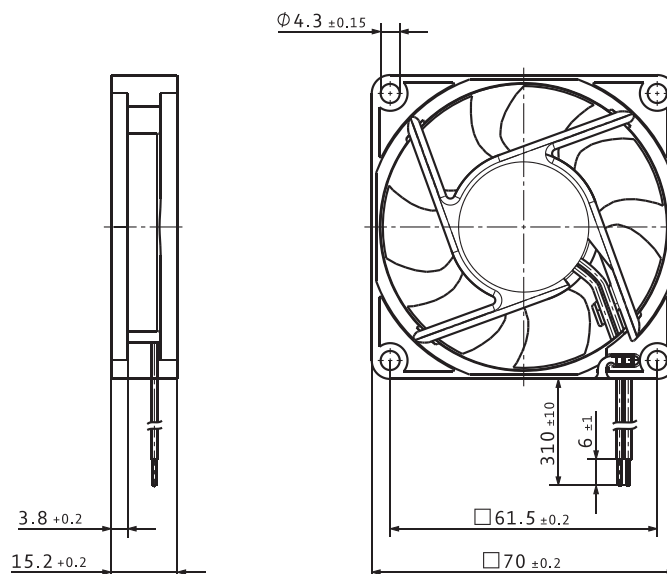
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ IFC (40 °C) s.p. II |
|-------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCB070FHEDS 712 F/2L-005* | 9292504005 | 12 | 8...13.8 | A | ① | 25.5 | 15.0 | 3 300 | 0.7 | 4.5 | 25 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 23.8 | 14.0 | 3 260 | 0.7 | 4.4 | | | | |
| | | | | | ③ | 21.8 | 12.8 | 3 210 | 0.7 | 4.4 | | | | |
| | | | | | ④ | 19.4 | 11.0 | 3 200 | 0.7 | 4.4 | | | | |
| VWCB070FHEES 712 F/2M-006* | 9292504006 | 12 | 8...13.8 | B | ① | 35.2 | 20.7 | 4 300 | 0.9 | 5.0 | 32 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 32.5 | 19.1 | 4 230 | 1.0 | 4.9 | | | | |
| | | | | | ③ | 29.3 | 17.2 | 4 150 | 1.0 | 4.9 | | | | |
| | | | | | ④ | 25.9 | 15.0 | 4 090 | 1.0 | 4.8 | | | | |
| VWCB070FHEFS 712 F | 9292504001 | 12 | 8...13.8 | C | ① | 43.9 | 25.8 | 5 300 | 1.5 | 5.5 | 38 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 40.6 | 23.9 | 5 230 | 1.6 | 5.4 | | | | |
| | | | | | ③ | 36.8 | 21.7 | 5 160 | 1.6 | 5.3 | | | | |
| | | | | | ④ | 32.7 | 19.0 | 5 100 | 1.6 | 5.3 | | | | |
| VWCB070FJEFS 714 F | 9292504007 | 24 | 18...28 | C | ① | 43.5 | 25.6 | 5 300 | 1.4 | 5.5 | 38 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 40.2 | 23.7 | 5 230 | 1.4 | 5.4 | | | | |
| | | | | | ③ | 36.6 | 21.5 | 5 150 | 1.5 | 5.3 | | | | |
| | | | | | ④ | 32.7 | 19.0 | 5 080 | 1.5 | 5.3 | | | | |

Subject to changes.

*Version with 3-pin Molex plug housing 22-01-2035
Molex Contacts 08-50-0113

Technical drawing

Dimensions in mm



VWCD080A...

DC axial fan · max. 113 m³/h · □ 80 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12 or 24 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 105 g

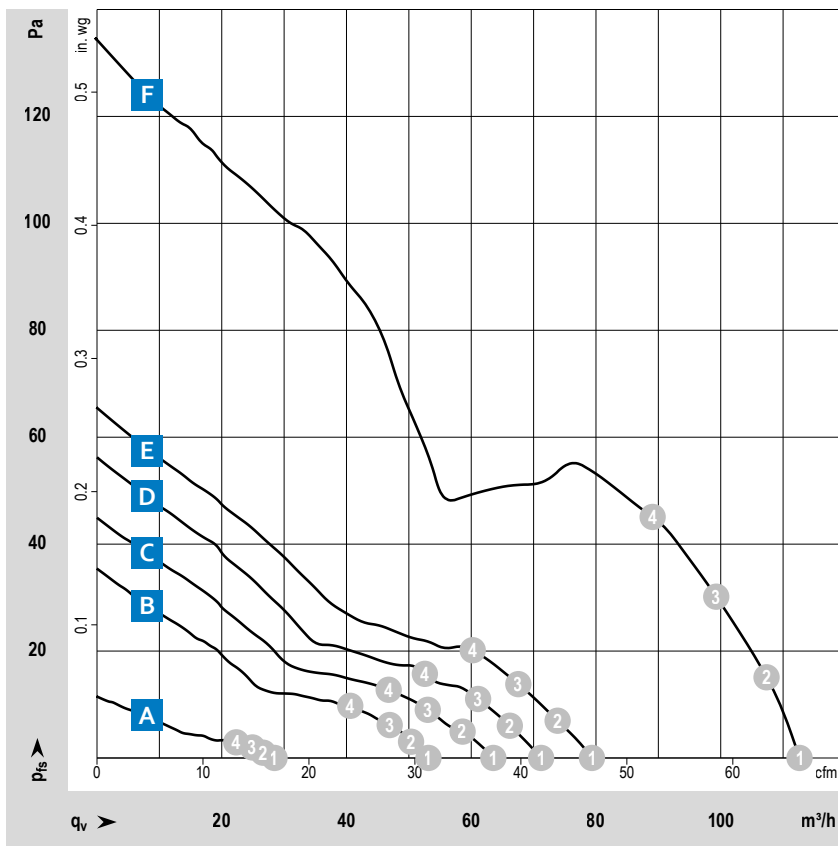
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

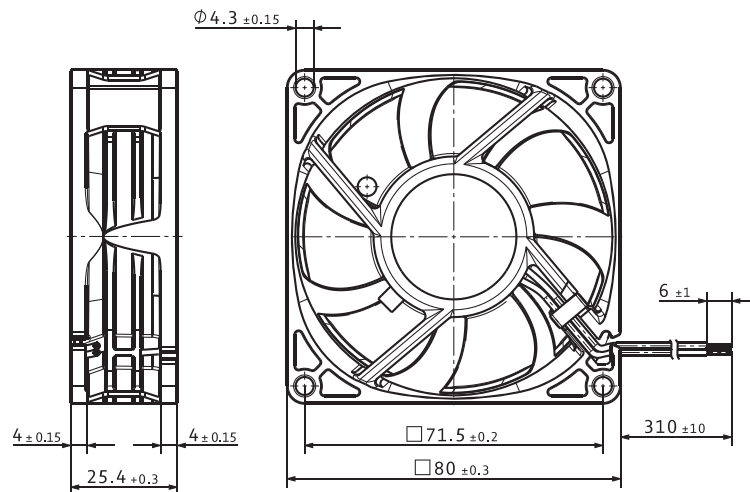
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|--|-------------|-----------------|---------------|----------------------|-----------------|----------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | | Hours | Hours |
| VWCD080AHEES 8452/2 L | 9292507011 | 12 | 8...15 | A | ① | 28.5 | 16.8 | 1700 | 0.3 | 3.3 | 14 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 26.8 | 15.8 | 1690 | 0.3 | 3.3 | | | | |
| | | | | | ③ | 25.1 | 14.8 | 1680 | 0.3 | 3.3 | | | | |
| | | | | | ④ | 22.6 | 13.3 | 1680 | 0.3 | 3.2 | | | | |
| VWCD080AHEGS 8452 M | 9292507006 | 12 | 8...15 | B | ① | 53.0 | 31.2 | 3100 | 1.0 | 4.9 | 32 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 50.0 | 29.4 | 3080 | 1.0 | 4.8 | | | | |
| | | | | | ③ | 46.3 | 27.3 | 3060 | 1.0 | 4.8 | | | | |
| | | | | | ④ | 41.1 | 24.2 | 3060 | 1.0 | 4.8 | | | | |
| VWCD080AHEGS 8452/2 N | 9292507013 | 12 | 8...15 | C | ① | 64.0 | 37.7 | 3600 | 1.6 | 5.3 | 36 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 59.0 | 34.7 | 3560 | 1.6 | 5.3 | | | | |
| | | | | | ③ | 53.0 | 31.2 | 3560 | 1.6 | 5.2 | | | | |
| | | | | | ④ | 47.2 | 27.8 | 3560 | 1.6 | 5.1 | | | | |
| Fan types with 25 kHz PWM control and speed signal to 4-wire specification | | | | | | | | | | | | | | |
| VWCD080AHEHS 8452/2 HP | 9292507010 | 12 | 10.8...13.2 | D | ① | 71.0 | 41.8 | 4000 | 2.3 | 5.6 | 38 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 66.0 | 38.8 | 3950 | 2.3 | 5.5 | | | | |
| | | | | | ③ | 61.0 | 35.9 | 3930 | 2.4 | 5.5 | | | | |
| | | | | | ④ | 53.0 | 31.2 | 3960 | 2.3 | 5.4 | | | | |
| VWCD080AHEHS 8452/2 HHP | 9292507012 | 12 | 10.8...13.2 | E | ① | 79.0 | 46.5 | 4400 | 3.3 | 5.9 | 42 | -20...+60 | 65 000 | 110 000 |
| | | | | | ② | 74.0 | 43.6 | 4360 | 3.3 | 5.8 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 4320 | 3.4 | 5.7 | | | | |
| | | | | | ④ | 60.0 | 35.3 | 4300 | 3.4 | 5.6 | | | | |
| Fan types with 1-30 kHz PWM control and speed signal | | | | | | | | | | | | | | |
| VWCD080AHEJS 8452/2 H4P | 9692530182 | 12 | 8...15 | F | ① | 113.0 | 66.5 | 6200 | 7.1 | 6.8 | 50 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 107.0 | 63.0 | 6200 | 7.5 | 6.7 | | | | |
| | | | | | ③ | 99.0 | 58.3 | 6130 | 7.5 | 6.7 | | | | |
| | | | | | ④ | 89.0 | 52.4 | 6100 | 7.5 | 6.6 | | | | |
| VWCD080AJEJS 8454/2 H4P | 9692530181 | 24 | 20.0...26.4 | F | ① | 113.0 | 66.5 | 6200 | 7.0 | 6.8 | 50 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 108.0 | 63.6 | 6200 | 7.3 | 6.7 | | | | |
| | | | | | ③ | 100.0 | 58.9 | 6200 | 7.5 | 6.7 | | | | |
| | | | | | ④ | 90.0 | 53.0 | 6160 | 7.5 | 6.6 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VWCD080Y...

DC axial fan · max. 75 m³/h · □ 80 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 95 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

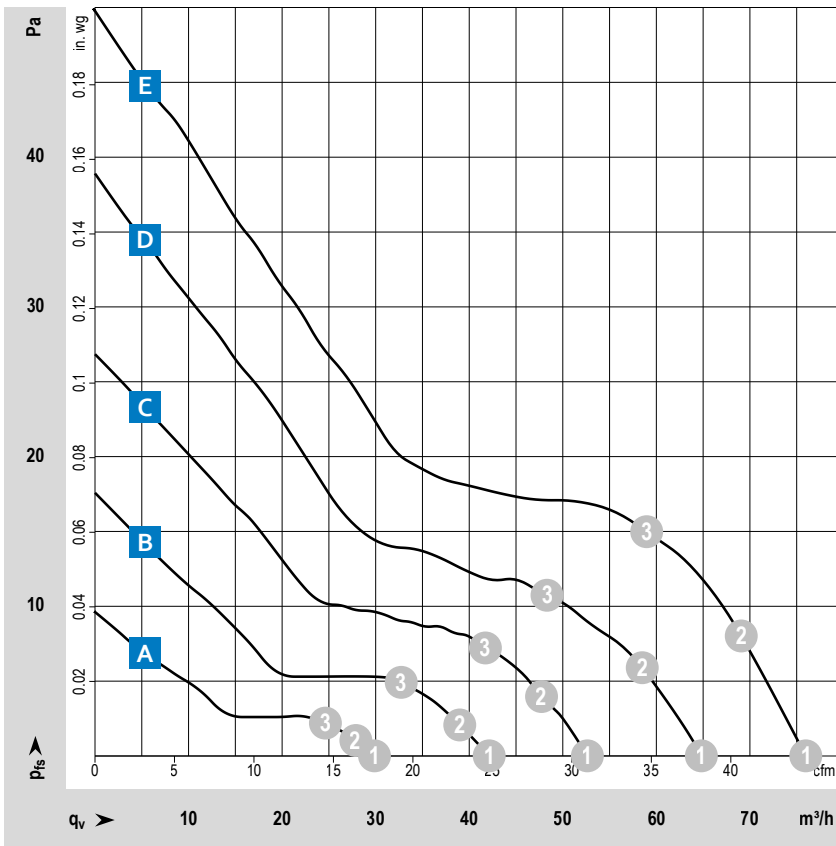
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

Special features

- Some fan types suitable for use at high ambient temperatures up to 85 °C.

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

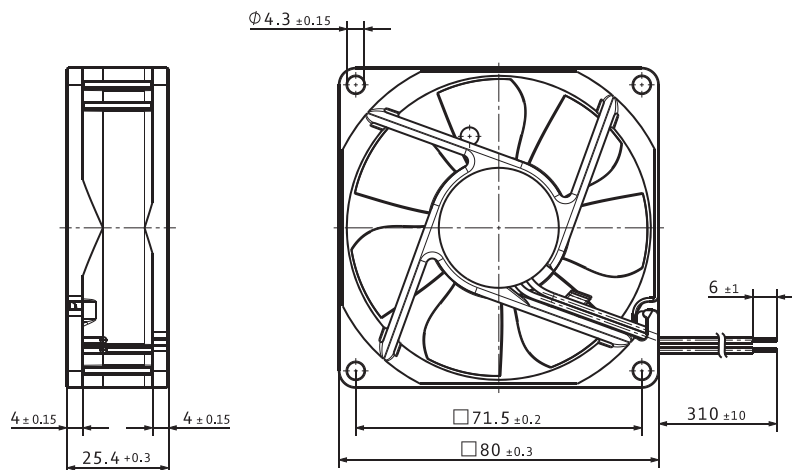
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|-----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | | °C | Hours |
| VWCD080YHEES 8412 NGLÉ | 9292506262 | 12 | 8...15 | A | ① ② ③ | 30.1 | 17.7 | 1 500 | 0.4 | 3.2 | 12 | -20...+85 | 80 000 | 135 000 |
| | | | | | | 27.6 | 16.2 | 1 490 | 0.4 | 3.2 | | | | |
| | | | | | | 23.7 | 13.9 | 1 480 | 0.4 | 3.2 | | | | |
| VWCD080YHEES 8412 NLE | 9292506263 | 12 | 8...15 | A | ① ② ③ | 30.0 | 17.7 | 1 500 | 0.3 | 3.2 | 17 | -20...+85 | 80 000 | 135 000 |
| | | | | | | 27.4 | 16.1 | 1 490 | 0.3 | 3.2 | | | | |
| | | | | | | 23.6 | 13.9 | 1 480 | 0.3 | 3.2 | | | | |
| VWCD080YHEFS 8412 NGMLE | 9292506264 | 12 | 8...15 | B | ① ② ③ | 39.5 | 23.2 | 2 050 | 0.8 | 3.6 | 19 | -20...+80 | 80 000 | 135 000 |
| | | | | | | 36.6 | 21.5 | 2 030 | 0.8 | 3.7 | | | | |
| | | | | | | 31.7 | 18.7 | 2 020 | 0.8 | 3.7 | | | | |
| VWCD080YHEFS 8412 NMLE | 9292506265 | 12 | 8...15 | B | ① ② ③ | 42.0 | 24.7 | 2 050 | 0.6 | 3.6 | 21 | -20...+85 | 80 000 | 135 000 |
| | | | | | | 38.2 | 22.5 | 2 040 | 0.6 | 3.7 | | | | |
| | | | | | | 32.6 | 19.2 | 2 030 | 0.6 | 3.7 | | | | |
| VWCD080YHEGS 8412 NGME | 9292506266 | 12 | 8...15 | C | ① ② ③ | 53.0 | 31.2 | 2 600 | 1.3 | 4.2 | 26 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 47.9 | 28.2 | 2 590 | 1.3 | 4.2 | | | | |
| | | | | | | 41.1 | 24.2 | 2 560 | 1.3 | 4.2 | | | | |
| VWCD080YHEGS 8412 NME | 9292506267 | 12 | 8...15 | C | ① ② ③ | 51.0 | 30.0 | 2 600 | 0.9 | 4.2 | 27 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 46.9 | 27.6 | 2 580 | 0.9 | 4.2 | | | | |
| | | | | | | 39.9 | 23.5 | 2 570 | 0.9 | 4.2 | | | | |
| VWCD080YHEGS 8412 NG | 9292506104 | 12 | 8...15 | D | ① ② ③ | 65.0 | 38.3 | 3 100 | 1.7 | 4.7 | 32 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 59.0 | 34.7 | 3 080 | 1.8 | 4.7 | | | | |
| | | | | | | 48.5 | 28.5 | 3 090 | 1.8 | 4.7 | | | | |
| VWCD080YHEGS 8412 N | 9292506125 | 12 | 8...15 | D | ① ② ③ | 64.0 | 37.7 | 3 100 | 1.6 | 4.7 | 32 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 58.0 | 34.1 | 3 060 | 1.6 | 4.7 | | | | |
| | | | | | | 50.0 | 29.4 | 3 050 | 1.6 | 4.7 | | | | |
| VWCD080YHEHS 8412 NH | 9292506115 | 12 | 8...13.2 | E | ① ② ③ | 74.0 | 43.6 | 3 600 | 2.0 | 5.1 | 37 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 68.0 | 40.0 | 3 560 | 2.0 | 5.0 | | | | |
| | | | | | | 58.0 | 34.1 | 3 550 | 2.1 | 5.0 | | | | |
| VWCD080YHEHS 8412 NH-217 | 9292506217 | 12 | 8...15 | E | ① ② ③ | 75.0 | 44.1 | 3 600 | 2.3 | 5.1 | 37 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 68.0 | 40.0 | 3 540 | 2.3 | 5.0 | | | | |
| | | | | | | 55.0 | 32.4 | 3 550 | 2.3 | 5.0 | | | | |

Subject to changes. More types in 24 or 48 VDC on the next page.

Technical drawing

Dimensions in mm



VWCD080Y...

DC axial fan · max. 75 m³/h · □ 80 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 95 g

Approvals

- 12 and 24 VDC: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- 48 VDC: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

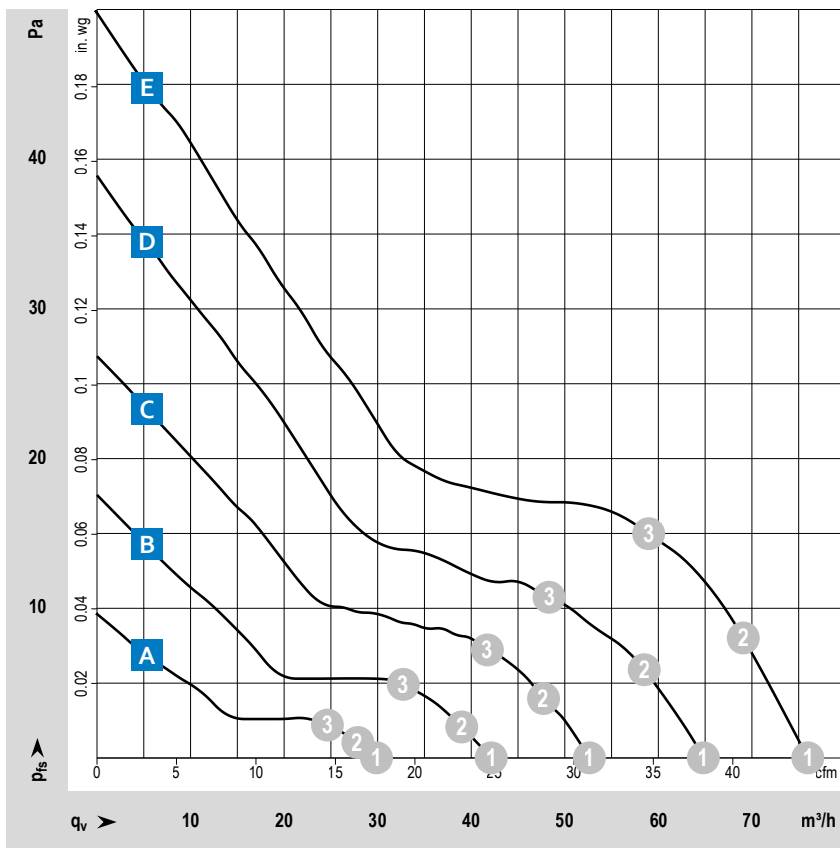
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

Special features

- Some fan types suitable for use at high ambient temperatures up to 85 °C.

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

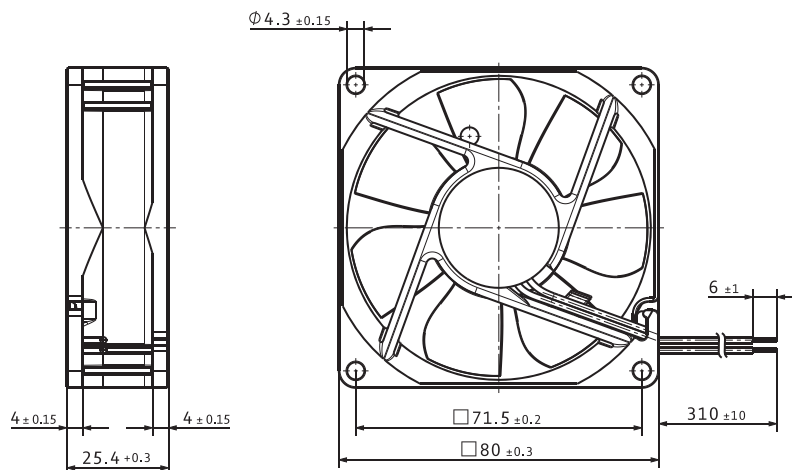
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m³/h | cfm | | | | | | | |
| VWCD080YJEES 8414 NGL | 9292506106 | 24 | 18...28 | A | ① ② ③ | 29.9 | 17.6 | 1 500 | 0.9 | 3.2 | 12 | -20...+70 | 80 000 | 135 000 |
| | | | | | | 27.4 | 16.1 | 1 490 | 0.9 | 3.2 | | | | |
| | | | | | | 23.5 | 13.8 | 1 490 | 0.9 | 3.2 | | | | |
| VWCD080YJEGS 8414 NL | 9292506142 | 24 | 18...28 | A | ① ② ③ | 29.0 | 17.1 | 1 500 | 0.8 | 3.2 | 17 | -20...+70 | 80 000 | 135 000 |
| | | | | | | 27.1 | 16.0 | 1 500 | 0.8 | 3.2 | | | | |
| | | | | | | 23.9 | 14.1 | 1 490 | 0.9 | 3.2 | | | | |
| VWCD080YJEFS 8414 NGML | 9292506108 | 24 | 18...28 | B | ① ② ③ | 41.5 | 24.4 | 2 050 | 1.3 | 3.6 | 19 | -20...+70 | 80 000 | 135 000 |
| | | | | | | 38.1 | 22.4 | 2 050 | 1.3 | 3.7 | | | | |
| | | | | | | 32.9 | 19.4 | 2 040 | 1.3 | 3.7 | | | | |
| VWCD080YJEFS 8414 NML | 9292506144 | 24 | 18...28 | B | ① ② ③ | 42.1 | 24.8 | 2 050 | 1.0 | 3.6 | 21 | -20...+70 | 80 000 | 135 000 |
| | | | | | | 38.3 | 22.5 | 2 040 | 1.0 | 3.7 | | | | |
| | | | | | | 33.0 | 19.4 | 2 020 | 1.0 | 3.7 | | | | |
| VWCD080YJEGS 8414 NGM | 9292506107 | 24 | 18...28 | C | ① ② ③ | 51.0 | 30.0 | 2 600 | 1.4 | 4.2 | 26 | -20...+70 | 80 000 | 135 000 |
| | | | | | | 46.8 | 27.5 | 2 590 | 1.4 | 4.2 | | | | |
| | | | | | | 39.3 | 23.1 | 2 580 | 1.4 | 4.2 | | | | |
| VWCD080YJEGS 8414 NM | 9292506143 | 24 | 18...28 | C | ① ② ③ | 51.0 | 30.0 | 2 600 | 1.3 | 4.2 | 27 | -20...+70 | 80 000 | 135 000 |
| | | | | | | 46.4 | 27.3 | 2 580 | 1.3 | 4.2 | | | | |
| | | | | | | 39.0 | 23.0 | 2 570 | 1.3 | 4.2 | | | | |
| VWCD080YJEGS 8414 NG | 9292506109 | 24 | 18...28 | D | ① ② ③ | 64.0 | 37.7 | 3 100 | 1.9 | 4.7 | 32 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 57.0 | 33.5 | 3 080 | 1.9 | 4.7 | | | | |
| | | | | | | 47.0 | 27.7 | 3 090 | 1.9 | 4.7 | | | | |
| VWCD080YJEGS 8414 N | 9292506126 | 24 | 18...28 | D | ① ② ③ | 65.0 | 38.3 | 3 100 | 1.9 | 4.7 | 32 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 59.0 | 34.7 | 3 070 | 1.9 | 4.7 | | | | |
| | | | | | | 49.0 | 28.8 | 3 080 | 1.9 | 4.7 | | | | |
| VWCD080YJEHS 8414 NH | 9292506124 | 24 | 18...26 | E | ① ② ③ | 75.0 | 44.1 | 3 600 | 2.2 | 5.1 | 37 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 69.0 | 40.6 | 3 550 | 2.2 | 5.0 | | | | |
| | | | | | | 59.0 | 34.7 | 3 540 | 2.3 | 5.0 | | | | |
| VWCD080YKEGS 8418 N | 9292506289 | 48 | 36...56 | D | ① ② ③ | 65.0 | 38.3 | 3 100 | 2.1 | 4.7 | 32 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 59.0 | 34.7 | 3 070 | 2.1 | 4.7 | | | | |
| | | | | | | 49.0 | 28.8 | 3 080 | 2.1 | 4.7 | | | | |

Subject to changes. More types in 12 VDC on the previous page

Technical drawing

Dimensions in mm



VWCE080P...

DC axial fan · max. 130 m³/h · □ 80 × 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact, small and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 26
- Electrical protection class: III
- Weight: 160 g

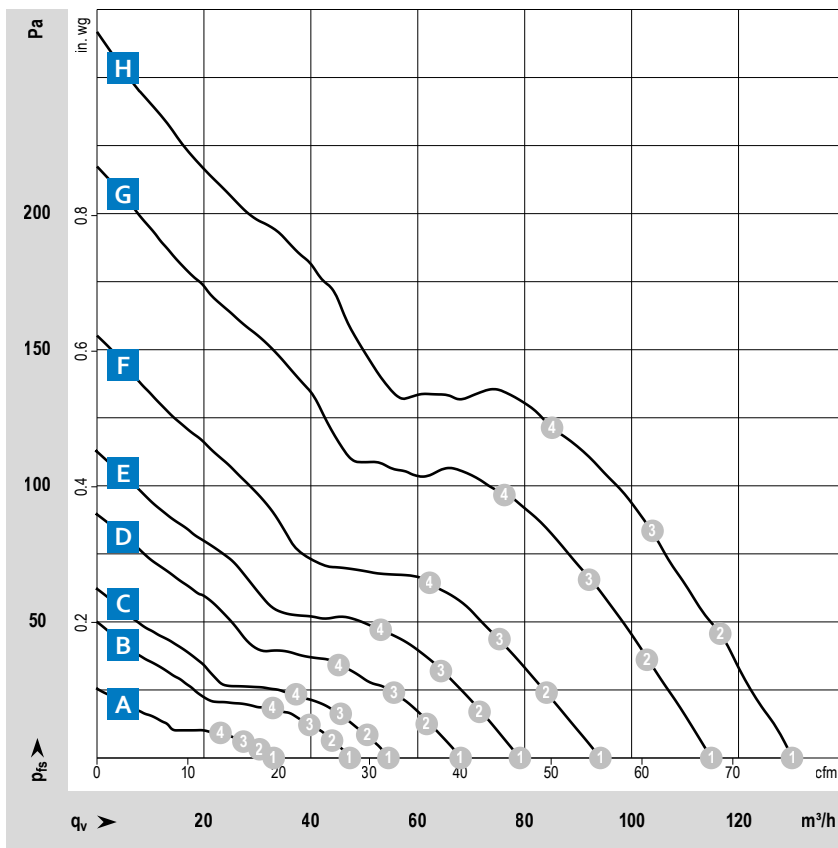
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68



Measuring conditions

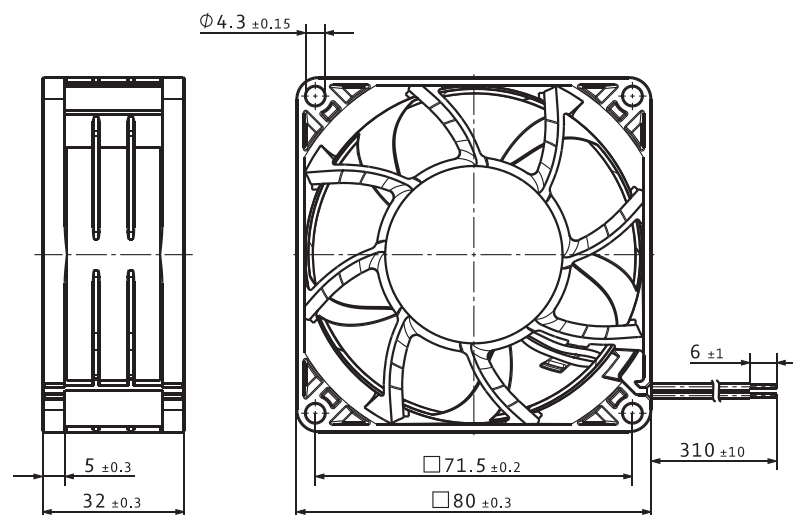
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_w level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCE080PHFES 8312 NL | 9292910109 | 12 | 6...15 | A | ① | 32.9 | 19.4 | 2 300 | 0.9 | 3.7 | 24 | -20...+75 | 105 000 | 180 000 |
| | | | | | ② | 30.4 | 17.9 | 2 290 | 0.9 | 3.6 | | | | |
| | | | | | ③ | 27.8 | 16.4 | 2 280 | 0.9 | 3.6 | | | | |
| | | | | | ④ | 23.2 | 14.0 | 2 270 | 0.9 | 3.6 | | | | |
| VWCE080PHFFS 8312 NM | 9292910108 | 12 | 6...15 | B | ① | 47.7 | 28.1 | 3 300 | 1.5 | 4.2 | 32 | -20...+75 | 102 500 | 170 000 |
| | | | | | ② | 44.1 | 26.0 | 3 280 | 1.5 | 4.2 | | | | |
| | | | | | ③ | 39.9 | 23.5 | 3 260 | 1.5 | 4.2 | | | | |
| | | | | | ④ | 33.0 | 19.0 | 3 280 | 1.5 | 4.2 | | | | |
| VWCE080PHFGS 8312 NN | 9292910111 | 12 | 6...15 | C | ① | 55.0 | 32.4 | 3 800 | 1.8 | 4.8 | 33 | -20...+75 | 97 500 | 162 500 |
| | | | | | ② | 50.0 | 29.4 | 3 750 | 1.8 | 4.7 | | | | |
| | | | | | ③ | 45.8 | 27.0 | 3 730 | 1.8 | 4.6 | | | | |
| | | | | | ④ | 38.0 | 22.0 | 3 720 | 1.9 | 4.6 | | | | |
| VWCE080PHFGS 8312 NHL | 9292910113 | 12 | 6...15 | D | ① | 68.0 | 40.0 | 4 600 | 2.8 | 5.0 | 39 | -20...+75 | 92 500 | 155 000 |
| | | | | | ② | 62.0 | 36.5 | 4 550 | 2.9 | 5.0 | | | | |
| | | | | | ③ | 56.0 | 33.0 | 4 550 | 2.9 | 4.9 | | | | |
| | | | | | ④ | 45.4 | 27.0 | 4 530 | 2.9 | 4.9 | | | | |
| VWCE080PHFHS 8312 NH | 9292910115 | 12 | 6...15 | E | ① | 79.0 | 46.5 | 5 300 | 3.3 | 5.5 | 42 | -20...+75 | 82 500 | 140 000 |
| | | | | | ② | 72.0 | 42.4 | 5 210 | 3.4 | 5.4 | | | | |
| | | | | | ③ | 65.0 | 38.3 | 5 150 | 3.5 | 5.4 | | | | |
| | | | | | ④ | 53.0 | 31.2 | 5 090 | 3.6 | 5.4 | | | | |
| VWCE080PHFJS 8312 NHH | 9292910116 | 12 | 6...15 | F | ① | 95.0 | 55.9 | 6 300 | 5.2 | 5.9 | 48 | -20...+75 | 72 500 | 120 000 |
| | | | | | ② | 85.0 | 50.0 | 6 150 | 5.4 | 5.9 | | | | |
| | | | | | ③ | 77.0 | 45.3 | 6 080 | 5.7 | 5.8 | | | | |
| | | | | | ④ | 63.0 | 37.1 | 6 000 | 5.8 | 5.8 | | | | |
| VWCE080PHFJS 8312 NH3 | 9292910117 | 12 | 6...13.2 | G | ① | 114.0 | 67.1 | 7 600 | 7.7 | 6.5 | 53 | -20...+75 | 57 500 | 100 000 |
| | | | | | ② | 102.0 | 60.0 | 7 400 | 8.3 | 6.4 | | | | |
| | | | | | ③ | 91.0 | 53.6 | 7 270 | 8.6 | 6.3 | | | | |
| | | | | | ④ | 75.0 | 44.1 | 7 160 | 8.9 | 6.2 | | | | |
| VWCE080PHFKS 8312 NH4 | 9292910118 | 12 | 6...12.8 | H | ① | 130.0 | 76.5 | 8 500 | 10.8 | 6.9 | 56 | -20...+60 | 52 500 | 87 500 |
| | | | | | ② | 117.0 | 68.9 | 8 330 | 11.5 | 6.7 | | | | |
| | | | | | ③ | 104.0 | 61.2 | 8 150 | 11.9 | 6.6 | | | | |
| | | | | | ④ | 85.0 | 50.0 | 8 040 | 12.4 | 6.6 | | | | |

Subject to changes. More types in 24 or 48 VDC on the next page.

Technical drawing

Dimensions in mm



VWCE080P...

DC axial fan · max. 116 m³/h · □ 80 × 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact, small and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 26
- Electrical protection class: III
- Weight: 160 g

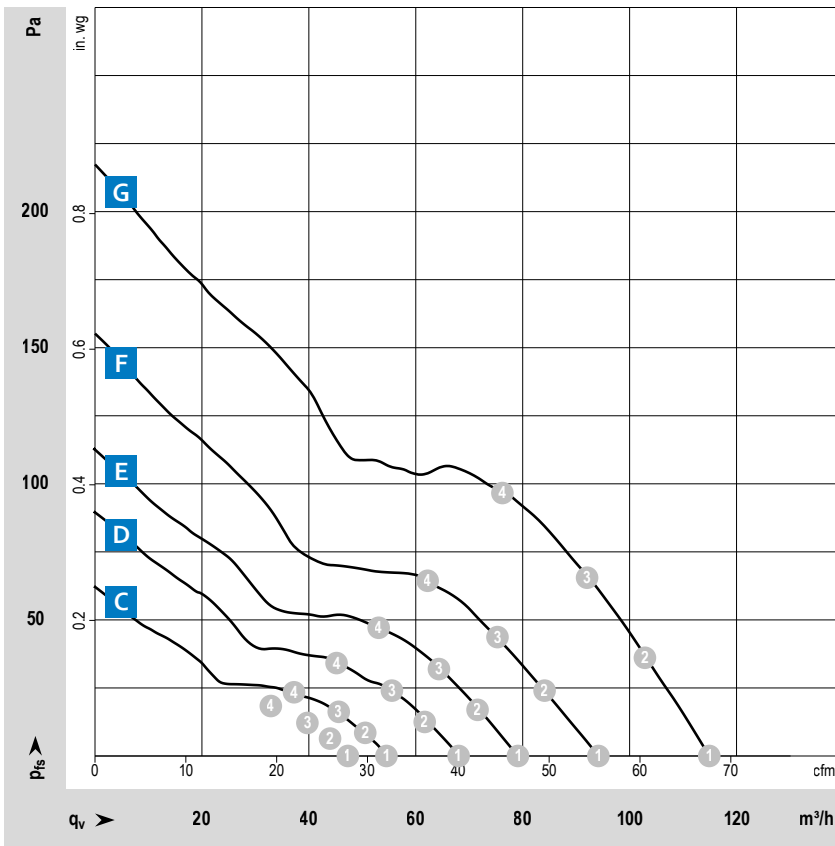
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

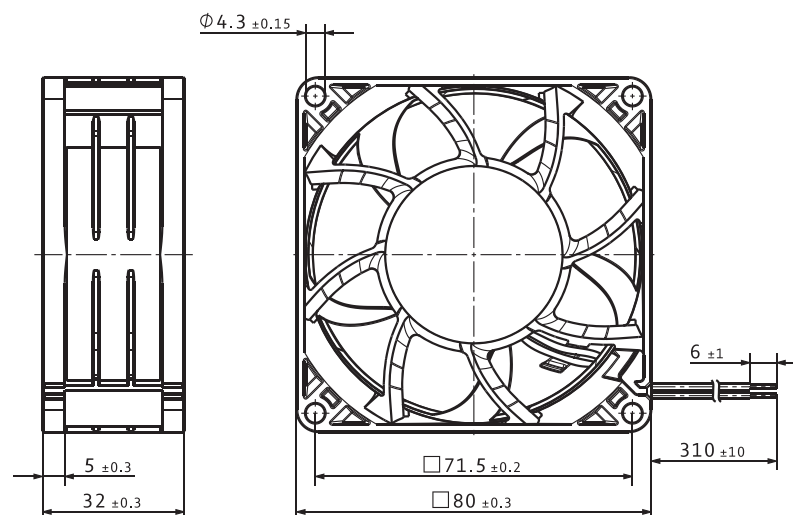
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|-----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCE080PJFGS 8314 NN | 9292910123 | 24 | 12...28 | C | ① | 54.0 | 31.8 | 3 800 | 1.6 | 4.8 | 33 | -20...+75 | 97 500 | 162 500 |
| | | | | | ② | 51.0 | 30.0 | 3 750 | 1.7 | 4.7 | | | | |
| | | | | | ③ | 45.7 | 26.9 | 3 730 | 1.7 | 4.6 | | | | |
| | | | | | ④ | 37.3 | 22.0 | 3 700 | 1.7 | 4.6 | | | | |
| VWCE080PJFGS 8314 NHL | 9292910106 | 24 | 12...28 | D | ① | 68.0 | 40.0 | 4 600 | 2.3 | 5.0 | 39 | -20...+75 | 92 500 | 155 000 |
| | | | | | ② | 62.0 | 36.5 | 4 550 | 2.4 | 5.0 | | | | |
| | | | | | ③ | 56.0 | 33.0 | 4 520 | 2.5 | 4.9 | | | | |
| | | | | | ④ | 45.4 | 26.7 | 4 490 | 2.6 | 4.9 | | | | |
| VWCE080PJFHS 8314 NH | 9292910127 | 24 | 12...28 | E | ① | 78.0 | 45.9 | 5 300 | 3.2 | 5.5 | 42 | -20...+75 | 82 500 | 140 000 |
| | | | | | ② | 71.0 | 41.8 | 5 220 | 3.3 | 5.4 | | | | |
| | | | | | ③ | 64.0 | 37.7 | 5 160 | 3.4 | 5.4 | | | | |
| | | | | | ④ | 53.0 | 31.2 | 5 130 | 3.5 | 5.4 | | | | |
| VWCE080PUFBS 8314 NHH | 9292910104 | 24 | 12...28 | F | ① | 94.0 | 55.3 | 6 300 | 4.8 | 5.9 | 48 | -20...+75 | 72 500 | 120 000 |
| | | | | | ② | 84.0 | 49.4 | 6 170 | 5.1 | 5.9 | | | | |
| | | | | | ③ | 75.0 | 44.1 | 6 080 | 5.2 | 5.8 | | | | |
| | | | | | ④ | 62.0 | 36.5 | 6 020 | 5.4 | 5.8 | | | | |
| VWCE080PJFJS 8314 NH3 | 9292910131 | 24 | 12...28 | G | ① | 116.0 | 68.3 | 7 600 | 7.4 | 6.6 | 53 | -20...+75 | 57 500 | 100 000 |
| | | | | | ② | 103.0 | 60.6 | 7 400 | 7.9 | 6.4 | | | | |
| | | | | | ③ | 92.0 | 54.1 | 7 280 | 8.2 | 6.3 | | | | |
| | | | | | ④ | 76.0 | 44.7 | 7 190 | 8.4 | 6.2 | | | | |
| VWCE080PJFJS 8314 N/2H3P | 9292910145 | 24 | 18...28 | G | ① | 115.0 | 67.7 | 7 600 | 7.6 | 6.5 | 53 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 103.0 | 60.6 | 7 410 | 8.1 | 6.4 | | | | |
| | | | | | ③ | 93.0 | 54.7 | 7 320 | 8.3 | 6.3 | | | | |
| | | | | | ④ | 77.0 | 45.3 | 7 230 | 8.6 | 6.2 | | | | |
| VWCE080PKFGS 8318 NN | 9292910134 | 48 | 36...60 | C | ① | 53.0 | 31.2 | 3 700 | 1.5 | 4.6 | 33 | -20...+75 | 97 500 | 162 500 |
| | | | | | ② | 49.5 | 29.1 | 3 670 | 1.6 | 4.5 | | | | |
| | | | | | ③ | 44.9 | 26.4 | 3 660 | 1.6 | 4.4 | | | | |
| | | | | | ④ | 36.6 | 21.5 | 3 630 | 1.7 | 4.4 | | | | |
| VWCE080PKFGS 8318 NHL | 9292910143 | 48 | 36...60 | D | ① | 68.0 | 40.0 | 4 600 | 2.5 | 5.0 | 39 | -20...+75 | 92 500 | 155 000 |
| | | | | | ② | 62.0 | 36.5 | 4 550 | 2.6 | 5.0 | | | | |
| | | | | | ③ | 56.0 | 33.0 | 4 510 | 2.7 | 4.9 | | | | |
| | | | | | ④ | 45.5 | 26.8 | 4 510 | 2.7 | 4.9 | | | | |
| VWCE080PKFHS 8318 NH | 9292910137 | 48 | 36...60 | E | ① | 79.0 | 46.5 | 5 300 | 3.2 | 5.5 | 42 | -20...+75 | 82 500 | 140 000 |
| | | | | | ② | 72.0 | 42.4 | 5 230 | 3.3 | 5.4 | | | | |
| | | | | | ③ | 64.0 | 37.7 | 5 160 | 3.4 | 5.4 | | | | |
| | | | | | ④ | 52.0 | 30.6 | 5 120 | 3.5 | 5.4 | | | | |
| VWCE080PKFJS 8318 NHH | 9292910144 | 48 | 36...60 | F | ① | 94.0 | 55.3 | 6 300 | 4.6 | 5.9 | 48 | -20...+75 | 72 500 | 120 000 |
| | | | | | ② | 85.0 | 50.0 | 6 170 | 4.9 | 5.9 | | | | |
| | | | | | ③ | 77.0 | 45.3 | 6 080 | 5.1 | 5.8 | | | | |
| | | | | | ④ | 63.0 | 37.1 | 6 020 | 5.2 | 5.8 | | | | |

Subject to changes. More types in 12VDC on the previous page.

Technical drawing

Dimensions in mm



VWCF080J...

DC axial fan · max. 220 m³/h · □ 80 × 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan with rigid characteristic curve
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24 (H3 and H4: AWG 22)
- Electrical protection class: III
- Weight: 160 g (H3 and H4: 200 g)

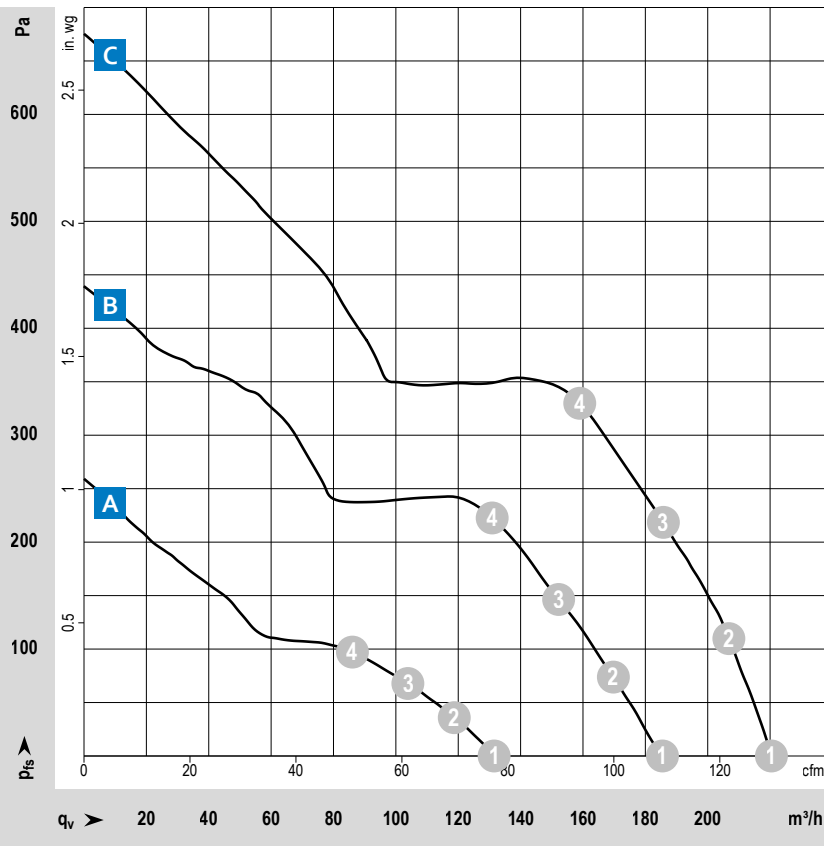
Approvals

- 12 and 24 VDC: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- 48 VDC: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

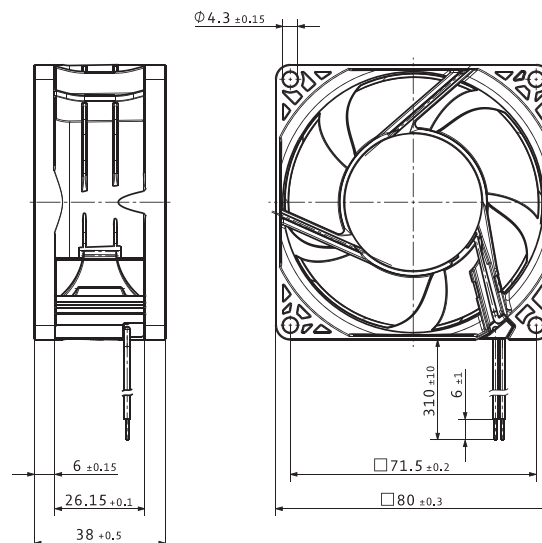
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ IFC (40 °C) s.p. II |
|----------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|---|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | | | | | | |
| VWCF080JHFKS 8212 JN | 9292910002 | 12 | 7...13.8 | A | ① | 132 | 78 | 8 400 | 9.3 | 6.9 | 55 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 119 | 70 | 8 220 | 9.9 | 6.8 | | | | |
| | | | | | ③ | 104 | 61 | 8 080 | 10.5 | 6.6 | | | | |
| | | | | | ④ | 86 | 51 | 8 000 | 10.8 | 6.5 | | | | |
| VWCF080JHFLS 8212 JH3 S-Force | 9692910193 | 12 | 6...13.8 | B | ① | 186 | 109 | 12 000 | 23.8 | 8.0 | 66 | -20...+70 | 55 000 | 92 500 |
| | | | | | ② | 169 | 99 | 11 700 | 25.1 | 7.8 | | | | |
| | | | | | ③ | 151 | 89 | 11 480 | 26.4 | 7.6 | | | | |
| | | | | | ④ | 129 | 76 | 11 280 | 27.2 | 7.5 | | | | |
| VWCF080JHFMS 8212 JH4 S-Force | 9692910196 | 12 | 6...13.8 | C | ① | 218 | 128 | 14 000 | 36.5 | 8.4 | 71 | -20...+70 | 50 000 | 85 000 |
| | | | | | ② | 201 | 118 | 13 860 | 39.9 | 8.4 | | | | |
| | | | | | ③ | 179 | 105 | 13 570 | 41.3 | 8.2 | | | | |
| | | | | | ④ | 154 | 91 | 13 350 | 42.7 | 8.0 | | | | |
| VWCF080JJKFS 8214 JN | 9292910003 | 24 | 18...26.4 | A | ① | 132 | 78 | 8 400 | 10.0 | 6.9 | 55 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 118 | 69 | 8 200 | 10.4 | 6.8 | | | | |
| | | | | | ③ | 102 | 60 | 8 060 | 10.9 | 6.6 | | | | |
| | | | | | ④ | 86 | 51 | 7 960 | 11.2 | 6.5 | | | | |
| VWCF080JJFLS 8214 JH3 S-Force | 9692910194 | 24 | 12...27.6 | B | ① | 185 | 109 | 12 000 | 23.1 | 8.0 | 66 | -20...+70 | 55 000 | 92 500 |
| | | | | | ② | 170 | 100 | 11 740 | 24.6 | 7.8 | | | | |
| | | | | | ③ | 152 | 89 | 11 550 | 25.8 | 7.6 | | | | |
| | | | | | ④ | 131 | 77 | 11 400 | 26.6 | 7.5 | | | | |
| VWCF080JJFMS 8214 JH4 S-Force | 9692910197 | 24 | 12...27.6 | C | ① | 220 | 129 | 14 000 | 34.8 | 8.4 | 71 | -20...+70 | 50 000 | 85 000 |
| | | | | | ② | 207 | 122 | 14 000 | 39.3 | 8.4 | | | | |
| | | | | | ③ | 186 | 109 | 13 830 | 41.4 | 8.2 | | | | |
| | | | | | ④ | 159 | 94 | 13 580 | 42.5 | 8.0 | | | | |
| VWCF080JKFKS 8218 JN | 9292910006 | 48 | 36...53 | A | ① | 130 | 77 | 8 400 | 10.1 | 6.9 | 55 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 118 | 69 | 8 200 | 10.6 | 6.8 | | | | |
| | | | | | ③ | 103 | 61 | 8 040 | 10.9 | 6.6 | | | | |
| | | | | | ④ | 85 | 50 | 7 930 | 11.2 | 6.5 | | | | |
| VWCF080JKFLS 8218 JH3 S-Force | 9692910232 | 48 | 36...53 | B | ① | 187 | 110 | 12 000 | 23.3 | 8.0 | 66 | -20...+70 | 55 000 | 92 500 |
| | | | | | ② | 171 | 101 | 11 820 | 24.7 | 7.8 | | | | |
| | | | | | ③ | 154 | 91 | 11 610 | 26.0 | 7.6 | | | | |
| | | | | | ④ | 132 | 78 | 11 460 | 27.0 | 7.5 | | | | |
| VWCF080JKFMS 8218 JH4 S-Force | 9692910198 | 48 | 20...58 | C | ① | 219 | 129 | 14 000 | 33.5 | 8.4 | 71 | -20...+70 | 55 000 | 85 000 |
| | | | | | ② | 204 | 120 | 14 000 | 38.1 | 8.4 | | | | |
| | | | | | ③ | 186 | 109 | 14 000 | 41.8 | 8.2 | | | | |
| | | | | | ④ | 161 | 95 | 13 880 | 43.4 | 8.0 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VWCF080K...

DC axial fan · max. 217 m³/h · □ 80x38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan of the AxiForce series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Exposed wires 310mm
- Electrical protection class: III
- Weight: 200 g

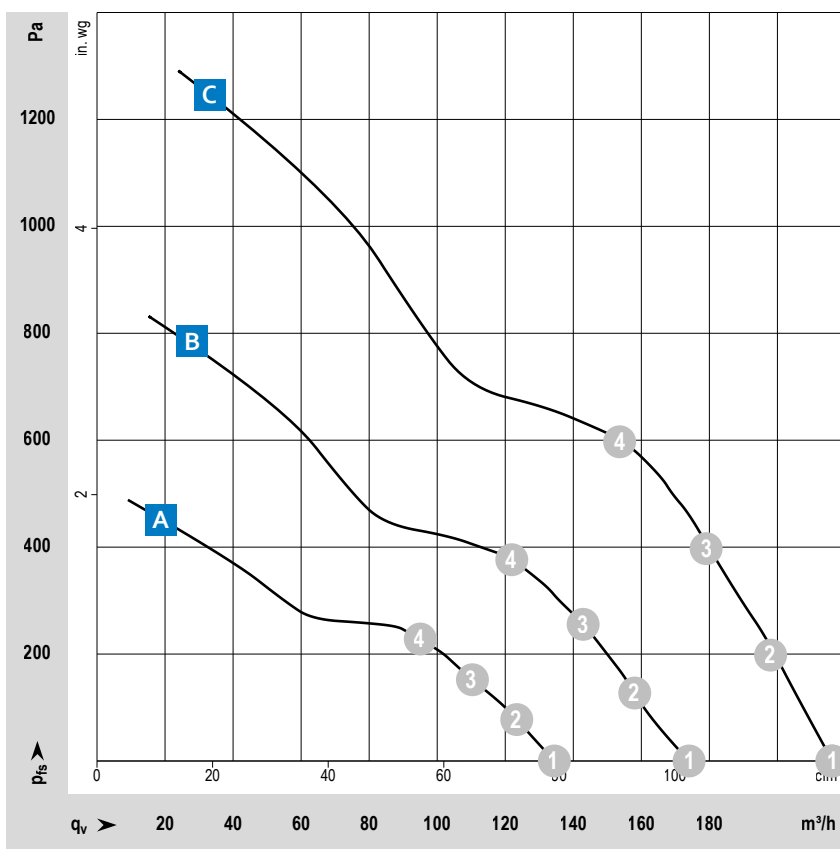
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T3

Options

- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54 / IP 68
- EMV class B

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

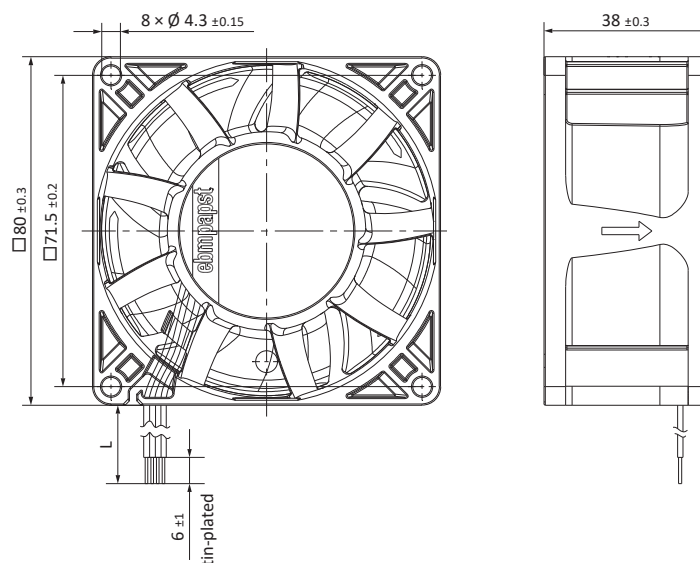
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|-----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCF080KHFKS AxiForce 80 | 8315100320 | 12 | 8...16 | A | ① | 135 | 79 | 10 000 | 11.6 | 7.4 | 62 | -20...+75 | tbd | tbd |
| | | | | | ② | 124 | 73 | 10 000 | 13.3 | 7.3 | | | | |
| | | | | | ③ | 112 | 66 | 10 000 | 15.0 | 7.1 | | | | |
| | | | | | ④ | 96 | 57 | 10 000 | 16.4 | 7.1 | | | | |
| VWCF080KHFLS AxiForce 80 | 8315100136 | 12 | 8...16 | B | ① | 173 | 102 | 13 200 | 26.0 | 8.1 | 71 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 159 | 94 | 13 200 | 27.8 | 7.9 | | | | |
| | | | | | ③ | 143 | 84 | 13 200 | 31.3 | 7.9 | | | | |
| | | | | | ④ | 122 | 72 | 13 200 | 33.3 | 7.9 | | | | |
| VWCF080KHFMS AxiForce 80 | 8315100130 | 12 | 8...16 | C | ① | 217 | 128 | 16 500 | 48.0 | 8.5 | 76 | -20...+75 | 50 000 | 85 000 |
| | | | | | ② | 198 | 117 | 16 500 | 55.0 | 8.5 | | | | |
| | | | | | ③ | 180 | 106 | 16 500 | 62.0 | 8.6 | | | | |
| | | | | | ④ | 154 | 91 | 16 500 | 66.6 | 8.7 | | | | |
| VWCF080KJFKS AxiForce 80 | 8315100321 | 24 | 16...32 | A | ① | 134 | 79 | 10 000 | 11.5 | 7.4 | 62 | -20...+75 | tbd | tbd |
| | | | | | ② | 123 | 72 | 10 000 | 13.0 | 7.3 | | | | |
| | | | | | ③ | 111 | 65 | 10 000 | 14.6 | 7.1 | | | | |
| | | | | | ④ | 95 | 56 | 10 000 | 15.6 | 7.1 | | | | |
| VWCF080KJFLS AxiForce 80 | 8315100137 | 24 | 16...32 | B | ① | 173 | 102 | 13 200 | 25.3 | 8.1 | 71 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 159 | 94 | 13 200 | 27.4 | 7.9 | | | | |
| | | | | | ③ | 143 | 84 | 13 200 | 30.7 | 7.9 | | | | |
| | | | | | ④ | 122 | 72 | 13 200 | 33.3 | 7.9 | | | | |
| VWCF080KJFMS AxiForce 80 | 8315100134 | 24 | 16...32 | C | ① | 216 | 127 | 16 500 | 46.5 | 8.7 | 76 | -20...+75 | 50 000 | 85 000 |
| | | | | | ② | 199 | 117 | 16 500 | 53.0 | 8.6 | | | | |
| | | | | | ③ | 180 | 106 | 16 500 | 59.3 | 8.5 | | | | |
| | | | | | ④ | 154 | 91 | 16 500 | 63.9 | 8.5 | | | | |
| VWCF080KKFKS AxiForce 80 | 8315100322 | 48 | 36...60 | A | ① | 134 | 79 | 10 000 | 12.1 | 7.4 | 62 | -20...+75 | tbd | tbd |
| | | | | | ② | 123 | 72 | 10 000 | 13.5 | 7.3 | | | | |
| | | | | | ③ | 110 | 65 | 10 000 | 14.9 | 7.1 | | | | |
| | | | | | ④ | 95 | 56 | 10 000 | 16.0 | 7.1 | | | | |
| VWCF080KKFLS AxiForce 80 | 8315100138 | 48 | 36...60 | B | ① | 174 | 102 | 13 200 | 25.2 | 8.1 | 71 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 158 | 93 | 13 200 | 28.7 | 7.9 | | | | |
| | | | | | ③ | 143 | 84 | 13 200 | 32.0 | 7.9 | | | | |
| | | | | | ④ | 122 | 72 | 13 200 | 33.6 | 7.9 | | | | |
| VWCF080KKFMS AxiForce 80 | 8315100135 | 48 | 36...60 | C | ① | 216 | 127 | 16 500 | 46.6 | 8.7 | 76 | -20...+75 | 50 000 | 85 000 |
| | | | | | ② | 198 | 117 | 16 500 | 53.4 | 8.6 | | | | |
| | | | | | ③ | 179 | 105 | 16 500 | 60.1 | 8.5 | | | | |
| | | | | | ④ | 154 | 91 | 16 500 | 64.5 | 8.5 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCD092Y...

DC axial fan · max. 99 m³/h · □ 92 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 100 g

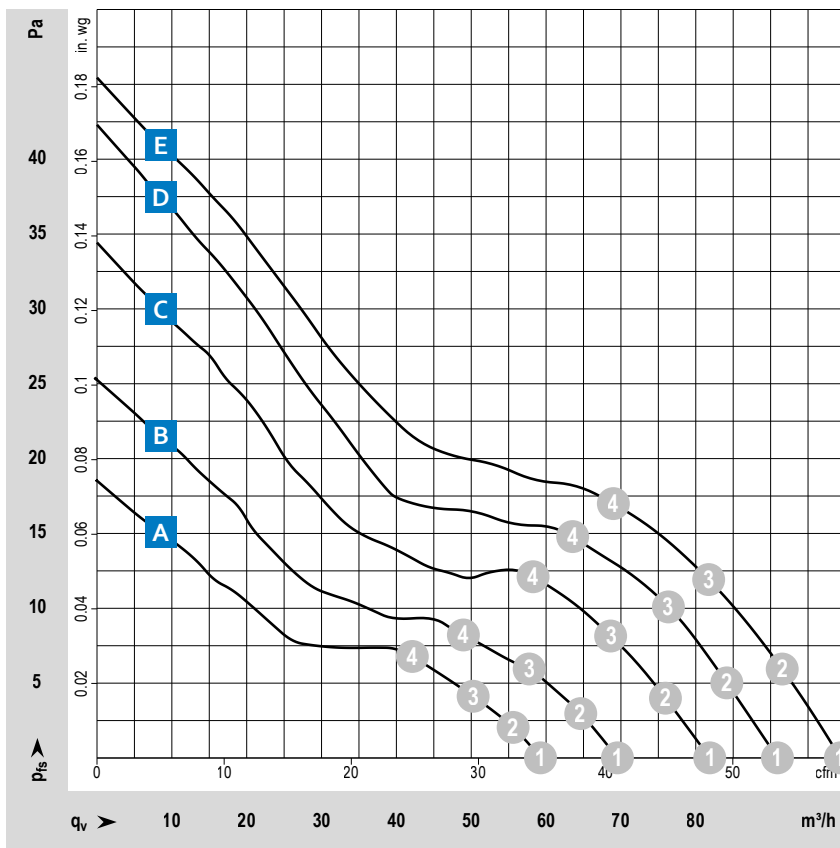
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

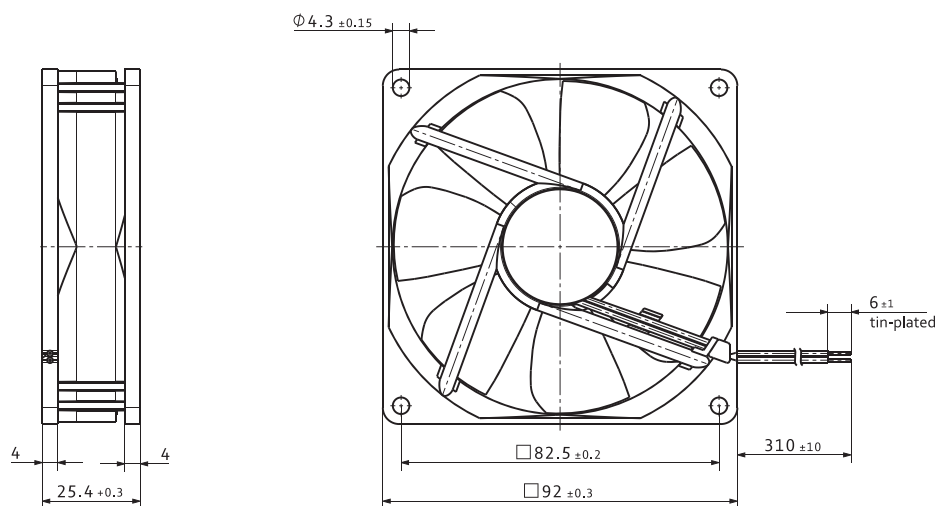
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCD092YHEGS 3412 NGLE | 9292506407 | 12 | 8...15 | A | ① | 58.0 | 34.1 | 1950 | 0.9 | 4.1 | 23 | -20...+80 | 80 000 | 135 000 |
| | | | | | ② | 54.0 | 31.8 | 1920 | 0.9 | 4.0 | | | | |
| | | | | | ③ | 48.4 | 28.5 | 1890 | 1.0 | 3.9 | | | | |
| | | | | | ④ | 41.3 | 24.3 | 1860 | 1.0 | 3.8 | | | | |
| VWCD092YHEGS 3412 NLE | 9292506409 | 12 | 8...15 | A | ① | 59.0 | 34.7 | 1950 | 0.7 | 4.1 | 23 | -20...+85 | 80 000 | 135 000 |
| | | | | | ② | 55.0 | 32.4 | 1920 | 0.7 | 4.0 | | | | |
| | | | | | ③ | 49.5 | 29.1 | 1890 | 0.7 | 3.9 | | | | |
| | | | | | ④ | 42.8 | 25.2 | 1870 | 0.7 | 3.8 | | | | |
| VWCD092YHEHS 3412 NGME | 9292506406 | 12 | 8...15 | B | ① | 68.0 | 40.0 | 2300 | 1.4 | 4.5 | 28 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 64.0 | 37.7 | 2260 | 1.5 | 4.4 | | | | |
| | | | | | ③ | 57.0 | 33.5 | 2220 | 1.5 | 4.3 | | | | |
| | | | | | ④ | 48.2 | 28.4 | 2180 | 1.5 | 4.2 | | | | |
| VWCD092YHEHS 3412 NME | 9292506410 | 12 | 8...15 | B | ① | 68.0 | 40.0 | 2300 | 1.0 | 4.5 | 28 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 63.0 | 37.1 | 2270 | 1.0 | 4.4 | | | | |
| | | | | | ③ | 57.0 | 33.5 | 2240 | 1.1 | 4.3 | | | | |
| | | | | | ④ | 47.7 | 28.1 | 2220 | 1.1 | 4.2 | | | | |
| VWCD092YHEHS 3412 NG | 9292506302 | 12 | 8...15 | C | ① | 81.0 | 47.7 | 2700 | 1.7 | 4.9 | 33 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 75.0 | 44.1 | 2670 | 1.8 | 4.7 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2640 | 1.8 | 4.7 | | | | |
| | | | | | ④ | 57.0 | 33.5 | 2650 | 1.8 | 4.6 | | | | |
| VWCD092YHEHS 3412 N | 9292506324 | 12 | 8...15 | C | ① | 81.0 | 47.7 | 2700 | 1.5 | 4.9 | 33 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 75.0 | 44.1 | 2660 | 1.5 | 4.7 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2630 | 1.6 | 4.7 | | | | |
| | | | | | ④ | 57.0 | 33.5 | 2620 | 1.6 | 4.6 | | | | |
| VWCD092YHEJS 3412 NGH | 9292506303 | 12 | 8...15 | D | ① | 91.0 | 53.6 | 3000 | 2.3 | 5.1 | 36 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 84.0 | 49.4 | 2940 | 2.3 | 5.0 | | | | |
| | | | | | ③ | 76.0 | 44.7 | 2910 | 2.4 | 4.8 | | | | |
| | | | | | ④ | 64.0 | 37.7 | 2880 | 2.4 | 4.8 | | | | |
| VWCD092YHEJS 3412 NH | 9292506323 | 12 | 8...15 | D | ① | 91.0 | 53.6 | 3000 | 2.0 | 5.1 | 36 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 84.0 | 49.4 | 2940 | 2.1 | 5.0 | | | | |
| | | | | | ③ | 76.0 | 44.7 | 2900 | 2.1 | 4.8 | | | | |
| | | | | | ④ | 64.0 | 37.7 | 2880 | 2.1 | 4.8 | | | | |
| VWCD092YHEJS 3412 NGH H | 9292506304 | 12 | 8...13.2 | E | ① | 98.0 | 57.7 | 3250 | 2.9 | 5.3 | 39 | -20...+60 | 70 000 | 117 500 |
| | | | | | ② | 91.0 | 53.6 | 3190 | 3.0 | 5.2 | | | | |
| | | | | | ③ | 81.0 | 47.7 | 3140 | 3.1 | 5.1 | | | | |
| | | | | | ④ | 69.0 | 40.6 | 3110 | 3.1 | 5.0 | | | | |
| VWCD092YHEJS 3412 NHH | 9292506316 | 12 | 8...13.2 | E | ① | 99.0 | 58.3 | 3250 | 2.4 | 5.3 | 39 | -20...+60 | 70 000 | 117 500 |
| | | | | | ② | 91.0 | 53.6 | 3210 | 2.5 | 5.2 | | | | |
| | | | | | ③ | 82.0 | 48.3 | 3160 | 2.5 | 5.1 | | | | |
| | | | | | ④ | 69.0 | 40.6 | 3110 | 2.6 | 5.0 | | | | |

Subject to changes. More types in 24 or 48VDC on the next page.

Technical drawing

Dimensions in mm



VWCD092Y...

DC axial fan · max. 100 m³/h · □ 92 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 100 g

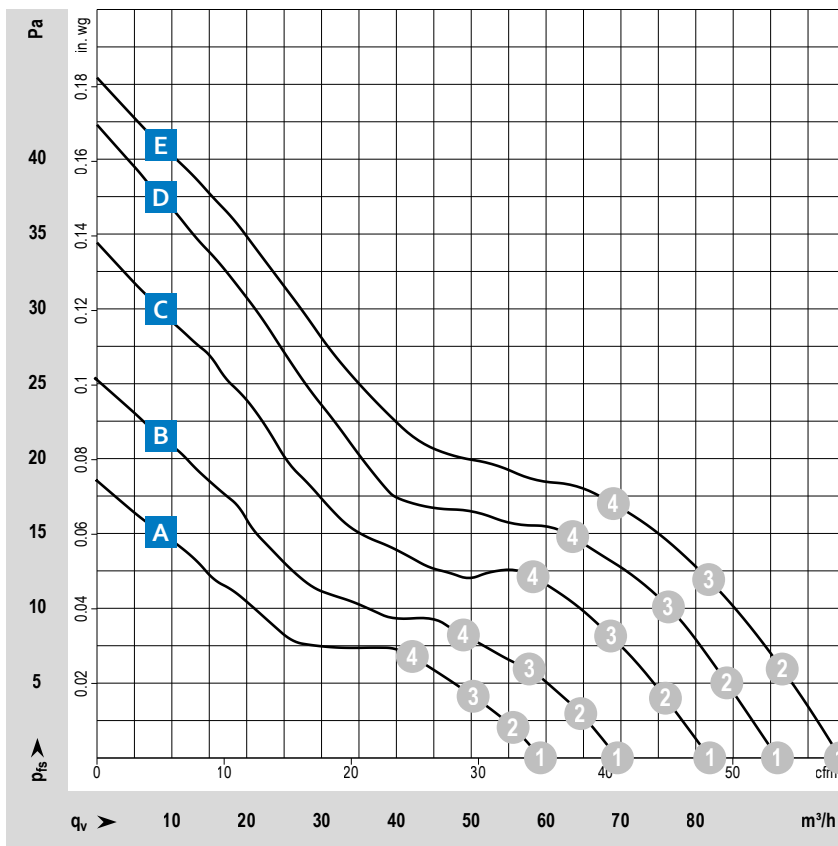
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

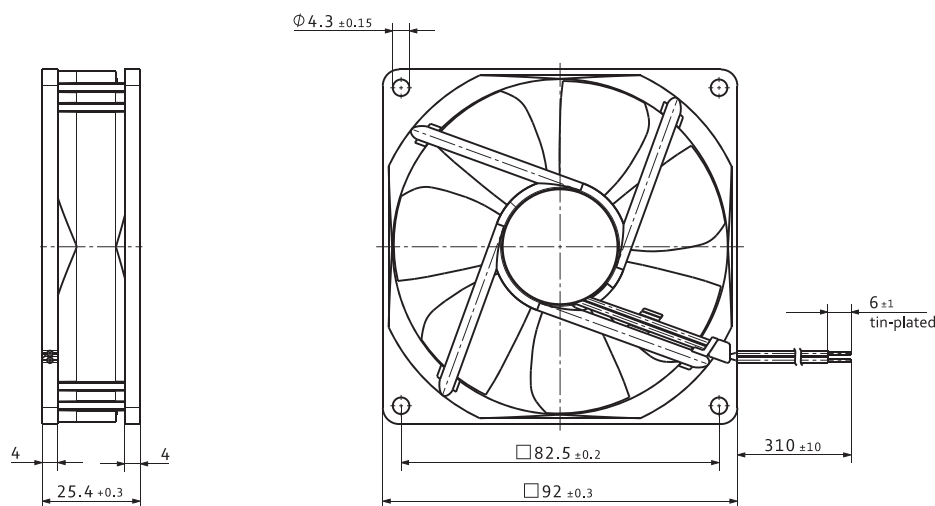
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCD092YHEGS 3414 NGL | 9292506305 | 24 | 18...28 | A | ① | 55.0 | 32.4 | 1950 | 1.2 | 4.1 | 23 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 52.0 | 30.6 | 1920 | 1.2 | 4.0 | | | | |
| | | | | | ③ | 47.3 | 27.8 | 1900 | 1.2 | 3.9 | | | | |
| | | | | | ④ | 40.2 | 23.7 | 1890 | 1.2 | 3.8 | | | | |
| VWCD092YHEGS 3414 NL | 9292506322 | 24 | 18...28 | A | ① | 56.0 | 33.0 | 1950 | 1.1 | 4.1 | 23 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 52.0 | 30.6 | 1930 | 1.1 | 4.0 | | | | |
| | | | | | ③ | 47.4 | 27.9 | 1910 | 1.1 | 3.9 | | | | |
| | | | | | ④ | 41.1 | 24.2 | 1890 | 1.1 | 3.8 | | | | |
| VWCD092YHEHS 3414 NGM | 9292506306 | 24 | 18...28 | B | ① | 69.0 | 40.6 | 2300 | 1.6 | 4.5 | 28 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 65.0 | 38.3 | 2280 | 1.6 | 4.4 | | | | |
| | | | | | ③ | 58.0 | 34.1 | 2250 | 1.6 | 4.3 | | | | |
| | | | | | ④ | 48.7 | 28.7 | 2260 | 1.6 | 4.2 | | | | |
| VWCD092YHEHS 3414 NM | 9292506327 | 24 | 18...28 | B | ① | 70.0 | 41.2 | 2300 | 1.4 | 4.5 | 28 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 65.0 | 38.3 | 2280 | 1.4 | 4.4 | | | | |
| | | | | | ③ | 58.0 | 34.1 | 2250 | 1.4 | 4.3 | | | | |
| | | | | | ④ | 48.3 | 28.4 | 2240 | 1.4 | 4.2 | | | | |
| VWCD092YHEHS 3414 NG | 9292506307 | 24 | 18...28 | C | ① | 82.0 | 48.3 | 2700 | 2.0 | 4.9 | 33 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 76.0 | 44.7 | 2660 | 2.0 | 4.7 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2620 | 2.0 | 4.7 | | | | |
| | | | | | ④ | 58.0 | 34.1 | 2600 | 2.1 | 4.6 | | | | |
| VWCD092YHEHS 3414 N | 9292506321 | 24 | 18...28 | C | ① | 82.0 | 48.3 | 2700 | 1.8 | 4.9 | 33 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 76.0 | 44.7 | 2650 | 1.8 | 4.7 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2620 | 1.9 | 4.7 | | | | |
| | | | | | ④ | 57.0 | 33.5 | 2600 | 1.9 | 4.6 | | | | |
| VWCD092YHEJS 3414 NGH | 9292506308 | 24 | 18...26 | D | ① | 92.0 | 54.1 | 3000 | 2.6 | 5.1 | 36 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 85.0 | 50.0 | 2960 | 2.6 | 5.0 | | | | |
| | | | | | ③ | 76.0 | 44.7 | 2900 | 2.7 | 4.8 | | | | |
| | | | | | ④ | 65.0 | 38.3 | 2880 | 2.7 | 4.8 | | | | |
| VWCD092YHEJS 3414 NH | 9292506319 | 24 | 18...26 | D | ① | 92.0 | 54.1 | 3000 | 2.2 | 5.1 | 36 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 85.0 | 50.0 | 2950 | 2.3 | 5.0 | | | | |
| | | | | | ③ | 76.0 | 44.7 | 2900 | 2.3 | 4.8 | | | | |
| | | | | | ④ | 64.0 | 37.7 | 2870 | 2.3 | 4.8 | | | | |
| VWCD092YJEJS 3414 NHH | 9292506320 | 24 | 18...26 | E | ① | 100.0 | 58.9 | 3250 | 2.5 | 5.3 | 39 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 92.0 | 54.1 | 3200 | 2.5 | 5.2 | | | | |
| | | | | | ③ | 82.0 | 48.3 | 3140 | 2.6 | 5.1 | | | | |
| | | | | | ④ | 70.0 | 41.2 | 3110 | 2.6 | 5.0 | | | | |
| VWCD092YKEHS 3418 N | 9292506422 | 48 | 36...56 | C | ① | 82.0 | 48.3 | 2700 | 2.3 | 4.8 | 33 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 76.0 | 44.7 | 2660 | 2.3 | 4.7 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2620 | 2.3 | 4.7 | | | | |
| | | | | | ④ | 57.0 | 33.5 | 2620 | 2.3 | 4.6 | | | | |

Subject to changes. More types in 12VDC on the previous page. More 48VDC versions on request.

Technical drawing

Dimensions in mm



VWCE092P...

DC axial fan · max. 132 m³/h · □ 92 x 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 190 g

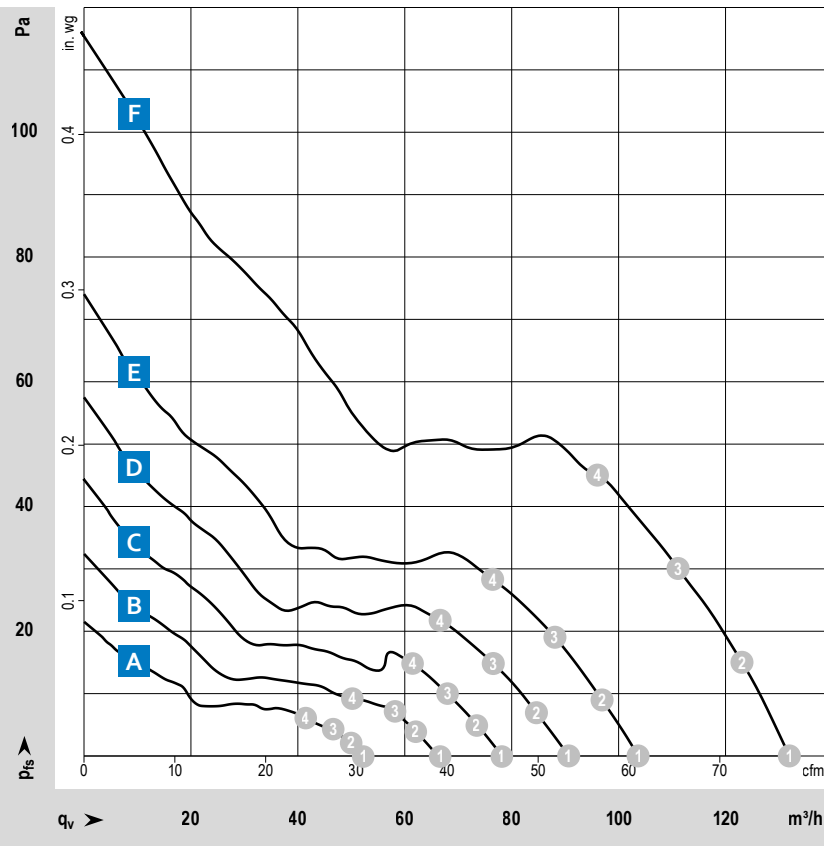
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

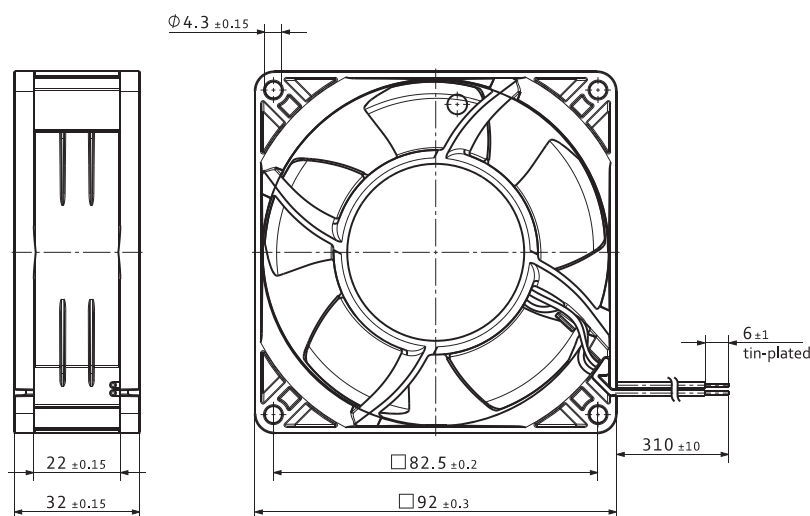
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|------|------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCE092PHGGS 3312 NL | 9293510119 | 12 | 6...15 | A | ① | 52.0 | 30.6 | 1850 | 0.7 | 4.0 | 24 | -20...+75 | 95 000 | 160 000 |
| | | | | | ② | 49.5 | 29.1 | 1840 | 0.8 | 4.0 | | | | |
| | | | | | ③ | 45.7 | 26.9 | 1840 | 0.8 | 4.0 | | | | |
| | | | | | ④ | 41.0 | 24.1 | 1840 | 0.8 | 4.0 | | | | |
| VWCE092PHGGS 3312 NM | 9293510118 | 12 | 6...15 | B | ① | 66.0 | 38.8 | 2250 | 1.2 | 4.5 | 29 | -20...+75 | 85 000 | 142 500 |
| | | | | | ② | 62.0 | 36.5 | 2240 | 1.3 | 4.4 | | | | |
| | | | | | ③ | 58.0 | 34.1 | 2230 | 1.3 | 4.4 | | | | |
| | | | | | ④ | 49.8 | 29.3 | 2250 | 1.3 | 4.3 | | | | |
| VWCE092PHGHS 3312 NN | 9293510100 | 12 | 6...15 | C | ① | 78.0 | 45.9 | 2650 | 1.7 | 4.8 | 35 | -20...+75 | 77 500 | 130 000 |
| | | | | | ② | 74.0 | 43.6 | 2640 | 1.7 | 4.6 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2630 | 1.7 | 4.6 | | | | |
| | | | | | ④ | 62.0 | 36.5 | 2630 | 1.8 | 4.5 | | | | |
| VWCE092PHGJS 3312 NH | 9293510114 | 12 | 6...15 | D | ① | 91.0 | 53.6 | 3050 | 2.3 | 5.3 | 38 | -20...+75 | 72 500 | 122 500 |
| | | | | | ② | 85.0 | 50.0 | 3030 | 2.4 | 5.2 | | | | |
| | | | | | ③ | 77.0 | 45.3 | 3000 | 2.4 | 5.2 | | | | |
| | | | | | ④ | 67.0 | 39.4 | 3000 | 2.4 | 5.1 | | | | |
| VWCE092PHGJS 3312 NHH | 9293510104 | 12 | 6...15 | E | ① | 104.0 | 61.2 | 3450 | 3.1 | 5.7 | 42 | -20...+75 | 67 500 | 115 000 |
| | | | | | ② | 97.0 | 57.1 | 3420 | 3.2 | 5.6 | | | | |
| | | | | | ③ | 88.0 | 51.8 | 3400 | 3.3 | 5.5 | | | | |
| | | | | | ④ | 76.0 | 44.7 | 3400 | 3.3 | 5.4 | | | | |
| VWCE092PHGKS 3312 NH3 | 9293510101 | 12 | 6...14 | F | ① | 131.0 | 77.1 | 4350 | 5.9 | 6.3 | 50 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 122.0 | 71.8 | 4330 | 6.0 | 6.3 | | | | |
| | | | | | ③ | 110.0 | 64.7 | 4290 | 6.1 | 6.2 | | | | |
| | | | | | ④ | 96.0 | 56.5 | 4290 | 6.2 | 6.1 | | | | |
| VWCE092PHGKS 3312 N/2 H3P | 9293510141 | 12 | 7...13.2 | F | ① | 132.0 | 77.7 | 4350 | 5.4 | 6.4 | 50 | -20...+75 | 67 500 | 115 000 |
| | | | | | ② | 122.0 | 71.8 | 4310 | 5.5 | 6.3 | | | | |
| | | | | | ③ | 110.0 | 64.7 | 4290 | 5.6 | 6.2 | | | | |
| | | | | | ④ | 96.0 | 56.5 | 4290 | 5.6 | 6.1 | | | | |
| VWCE092PJGGS 3314 NL | 9293510121 | 24 | 12...28 | A | ① | 53.0 | 31.2 | 1850 | 0.7 | 4.0 | 24 | -20...+75 | 95 000 | 160 000 |
| | | | | | ② | 49.1 | 28.9 | 1850 | 0.7 | 4.0 | | | | |
| | | | | | ③ | 46.3 | 27.3 | 1840 | 0.7 | 4.0 | | | | |
| | | | | | ④ | 41.9 | 24.7 | 1840 | 0.7 | 4.0 | | | | |
| VWCE092PJGGS 3314 NM | 9293510122 | 24 | 12...28 | B | ① | 66.0 | 38.8 | 2250 | 1.1 | 4.4 | 29 | -20...+75 | 85 000 | 142 500 |
| | | | | | ② | 62.0 | 36.5 | 2240 | 1.1 | 4.3 | | | | |
| | | | | | ③ | 56.0 | 33.0 | 2250 | 1.1 | 4.3 | | | | |
| | | | | | ④ | 49.3 | 29.0 | 2240 | 1.1 | 4.2 | | | | |
| VWCE092PJGHS 3314 NN | 9293510105 | 24 | 12...28 | C | ① | 78.0 | 45.9 | 2650 | 1.7 | 4.8 | 35 | -20...+75 | 77 500 | 130 000 |
| | | | | | ② | 73.0 | 43.0 | 2640 | 1.7 | 4.6 | | | | |
| | | | | | ③ | 68.0 | 40.0 | 2620 | 1.7 | 4.6 | | | | |
| | | | | | ④ | 62.0 | 36.5 | 2620 | 1.7 | 4.5 | | | | |

Subject to changes. More types in 24 or 48VDC on the next page.

Technical drawing

Dimensions in mm



VWCE092P...

DC axial fan · max. 137 m³/h · □ 92 x 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 190 g

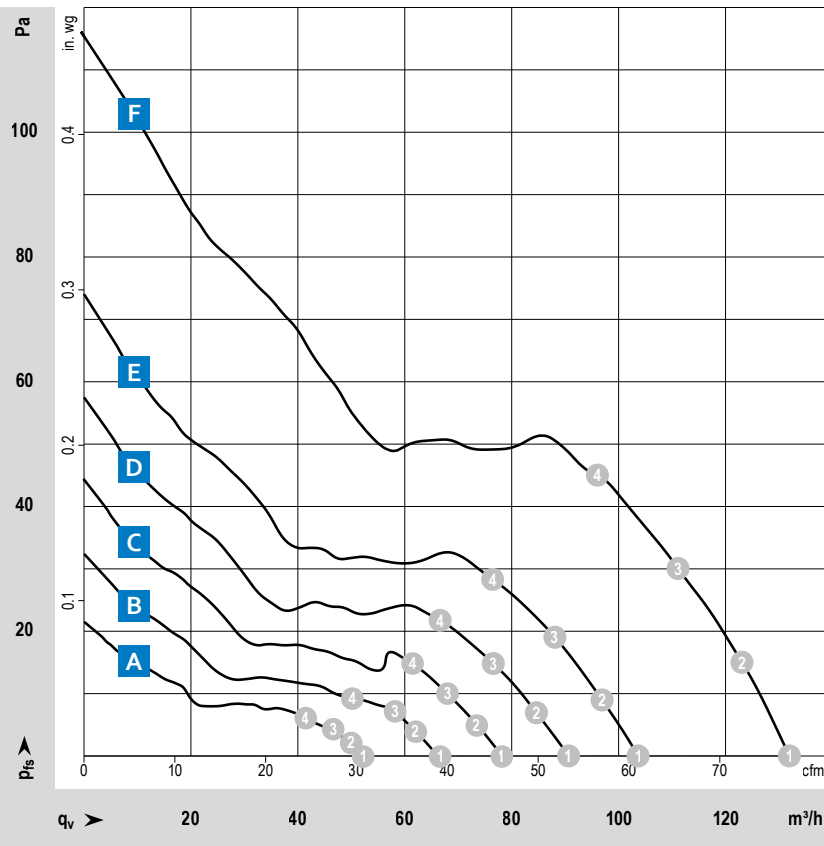
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

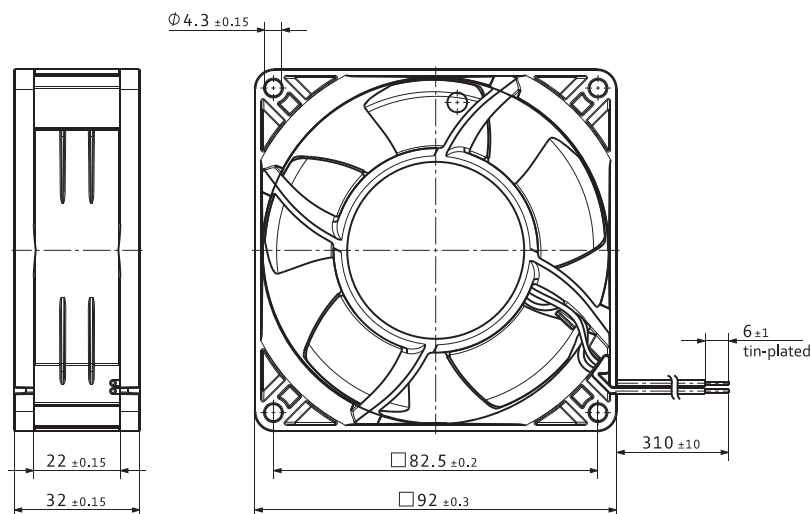
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCE092PJGJS 3314 NH | 9293510110 | 24 | 12...28 | D | ① | 91 | 54 | 3 050 | 2.4 | 5.3 | 38 | -20...+75 | 72 500 | 122 500 |
| | | | | | ② | 85 | 50 | 3 030 | 2.5 | 5.2 | | | | |
| | | | | | ③ | 77 | 45 | 3 010 | 2.5 | 5.2 | | | | |
| | | | | | ④ | 67 | 39 | 3 020 | 2.5 | 5.1 | | | | |
| VWCE092PJGJS 3314 NHH | 9293510111 | 24 | 12...28 | E | ① | 103 | 61 | 3 450 | 2.9 | 5.7 | 42 | -20...+75 | 67 500 | 115 000 |
| | | | | | ② | 96 | 57 | 3 430 | 3.0 | 5.6 | | | | |
| | | | | | ③ | 86 | 51 | 3 400 | 3.1 | 5.5 | | | | |
| | | | | | ④ | 75 | 44 | 3 400 | 3.1 | 5.4 | | | | |
| VWCE092PJGKS 3314 NH3 | 9293510102 | 24 | 12...28 | F | ① | 132 | 78 | 4 350 | 5.5 | 6.4 | 50 | -20...+75 | 60 000 | 102 500 |
| | | | | | ② | 123 | 72 | 4 310 | 5.6 | 6.3 | | | | |
| | | | | | ③ | 111 | 65 | 4 270 | 5.7 | 6.2 | | | | |
| | | | | | ④ | 97 | 57 | 4 270 | 5.8 | 6.1 | | | | |
| VWCE092PJGKS 3314 N/2 H3P | 9293510135 | 24 | 14...26.4 | F | ① | 137 | 81 | 4 350 | 5.6 | 6.4 | 50 | -20...+80 | 67 500 | 115 000 |
| | | | | | ② | 126 | 74 | 4 330 | 5.7 | 6.3 | | | | |
| | | | | | ③ | 113 | 67 | 4 300 | 5.8 | 6.2 | | | | |
| | | | | | ④ | 99 | 58 | 4 300 | 5.8 | 6.1 | | | | |
| VWCE092PKGHS 3318 NN | 9293510115 | 48 | 36...60 | C | ① | 78 | 46 | 2 650 | 1.6 | 4.8 | 35 | -20...+75 | 77 500 | 130 000 |
| | | | | | ② | 73 | 43 | 2 630 | 1.7 | 4.6 | | | | |
| | | | | | ③ | 68 | 40 | 2 620 | 1.7 | 4.6 | | | | |
| | | | | | ④ | 61 | 36 | 2 620 | 1.7 | 4.5 | | | | |
| VWCE092PKGJS 3318 NH | 9293510117 | 48 | 36...60 | D | ① | 91 | 54 | 3 050 | 2.3 | 5.3 | 38 | -20...+75 | 72 500 | 122 500 |
| | | | | | ② | 85 | 50 | 3 040 | 2.4 | 5.2 | | | | |
| | | | | | ③ | 77 | 45 | 3 020 | 2.4 | 5.2 | | | | |
| | | | | | ④ | 67 | 39 | 3 010 | 2.4 | 5.1 | | | | |
| VWCE092PKGJS 3318 NHH | 9293510123 | 48 | 36...60 | E | ① | 103 | 61 | 3 450 | 3.0 | 5.7 | 42 | -20...+75 | 67 500 | 115 000 |
| | | | | | ② | 96 | 57 | 3 410 | 3.0 | 5.6 | | | | |
| | | | | | ③ | 87 | 51 | 3 400 | 3.1 | 5.5 | | | | |
| | | | | | ④ | 76 | 45 | 3 390 | 3.1 | 5.4 | | | | |
| VWCE092PKGKS 3318 NH3 | 9293510103 | 48 | 36...58 | F | ① | 132 | 78 | 4 350 | 5.6 | 6.4 | 50 | -20...+75 | 60 000 | 102 500 |
| | | | | | ② | 123 | 72 | 4 310 | 5.7 | 6.3 | | | | |
| | | | | | ③ | 111 | 65 | 4 270 | 5.9 | 6.2 | | | | |
| | | | | | ④ | 96 | 57 | 4 270 | 5.9 | 6.1 | | | | |
| VWCE092PKGKS 3318 N/2 H3P | 9293510142 | 48 | 36...56 | F | ① | 135 | 79 | 4 350 | 6.4 | 6.4 | 50 | -20...+70 | 67 500 | 115 000 |
| | | | | | ② | 126 | 74 | 4 350 | 6.5 | 6.3 | | | | |
| | | | | | ③ | 113 | 67 | 4 320 | 6.6 | 6.2 | | | | |
| | | | | | ④ | 99 | 58 | 4 310 | 6.6 | 6.1 | | | | |

Subject to changes. More types in 12 or 24 VDC on the previous page.

Technical drawing

Dimensions in mm



VWCF092J...

DC axial fan · max. 285 m³/h · □ 92 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan with rigid characteristic curve
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24 (H3 and H4: AWG 22)
- Electrical protection class: III
- Weight: 240 g (H3 and H4: 280 g)

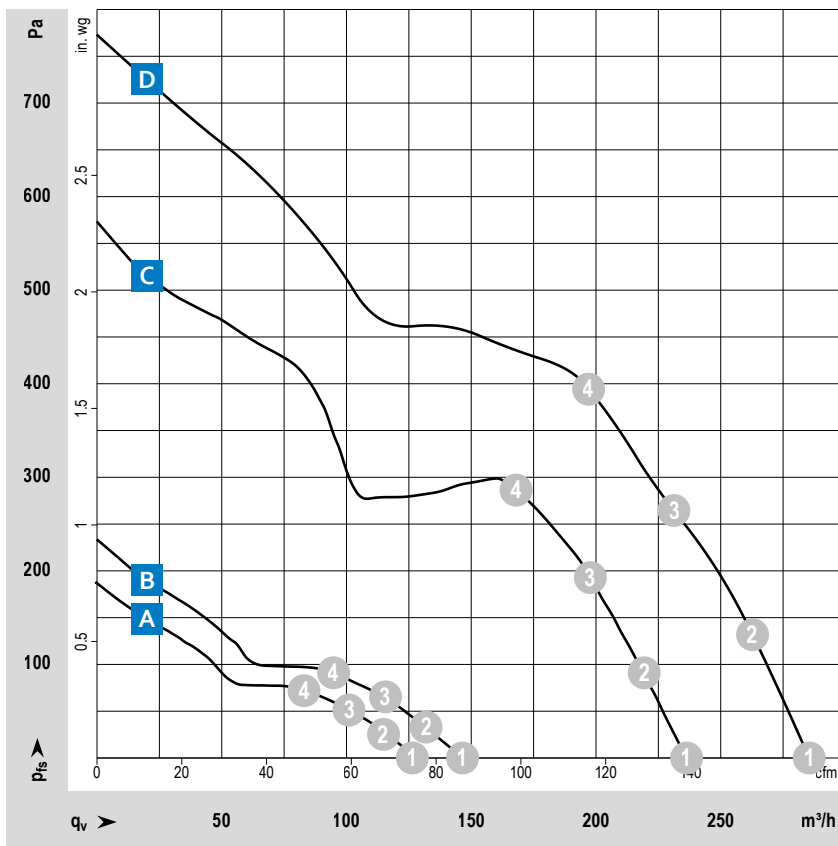
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

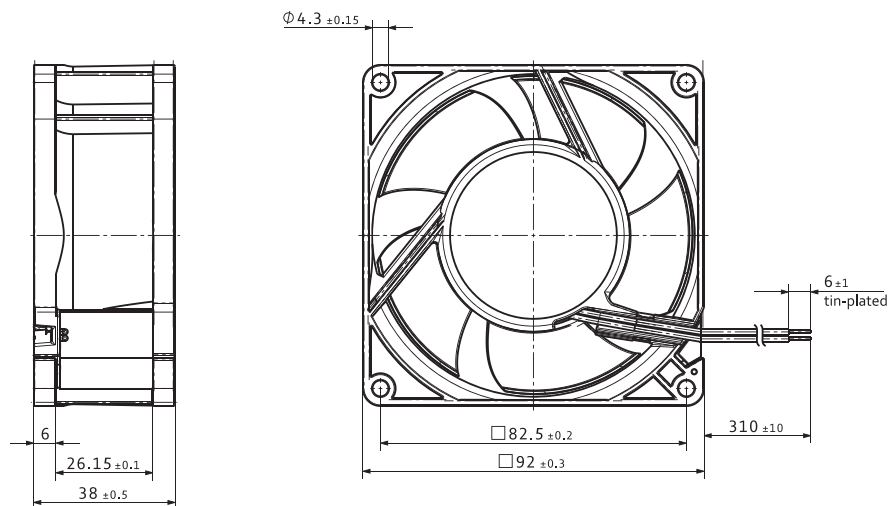
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|----------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCF092JHGKS 3212 JN | 9293510302 | 12 | 7...13.8 | A | ① | 127 | 75 | 6 000 | 6.5 | 6.5 | 51 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 114 | 67 | 5 860 | 6.9 | 6.4 | | | | |
| | | | | | ③ | 99 | 58 | 5 730 | 7.2 | 6.2 | | | | |
| | | | | | ④ | 82 | 48 | 5 650 | 7.5 | 6.0 | | | | |
| VWCF092JHGKS 3212 JH | 9293510304 | 12 | 7...15 | B | ① | 144 | 85 | 6 800 | 8.0 | 6.7 | 55 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 131 | 77 | 6 650 | 8.5 | 6.6 | | | | |
| | | | | | ③ | 114 | 67 | 6 530 | 9.0 | 6.5 | | | | |
| | | | | | ④ | 94 | 55 | 6 450 | 9.3 | 6.4 | | | | |
| VWCF092JHGNS 3212 J/2H4P | 9693520184 | 12 | 6...13.8 | D | ① | 280 | 165 | 13 000 | 49.1 | 8.8 | 73 | -20...+70 | 60 000 | 110 000 |
| | | | | | ② | 251 | 148 | 12 600 | 52.2 | 8.5 | | | | |
| | | | | | ③ | 221 | 130 | 12 300 | 54.8 | 8.3 | | | | |
| | | | | | ④ | 187 | 110 | 12 100 | 57.0 | 8.1 | | | | |
| VWCF092JJGKS 3214 JN | 9293510303 | 24 | 11...28 | A | ① | 127 | 75 | 6 000 | 6.6 | 6.5 | 51 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 116 | 68 | 5 860 | 7.1 | 6.4 | | | | |
| | | | | | ③ | 101 | 59 | 5 740 | 7.4 | 6.2 | | | | |
| | | | | | ④ | 84 | 49 | 5 660 | 7.7 | 6.0 | | | | |
| VWCF092JJGKS 3214 JH | 9293510306 | 24 | 12...30 | B | ① | 144 | 85 | 6 800 | 8.0 | 6.7 | 55 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 131 | 77 | 6 650 | 8.5 | 6.6 | | | | |
| | | | | | ③ | 113 | 67 | 6 530 | 9.0 | 6.5 | | | | |
| | | | | | ④ | 94 | 55 | 6 450 | 9.3 | 6.4 | | | | |
| VWCF092JJGMS 3214 JH3 S-Force | 9693520192 | 24 | 12...27.6 | C | ① | 238 | 140 | 11 000 | 28.4 | 8.1 | 69 | -20...+70 | 65 000 | 110 000 |
| | | | | | ② | 221 | 130 | 11 000 | 32.5 | 8.0 | | | | |
| | | | | | ③ | 199 | 117 | 11 000 | 36.1 | 7.9 | | | | |
| | | | | | ④ | 170 | 100 | 10 980 | 38.1 | 7.8 | | | | |
| VWCF092JJGNS 3214 J/2H4P | 9693520185 | 24 | 12...27.6 | D | ① | 285 | 168 | 13 000 | 52.5 | 8.8 | 73 | -20...+70 | 60 000 | 110 000 |
| | | | | | ② | 258 | 152 | 12 650 | 55.0 | 8.5 | | | | |
| | | | | | ③ | 226 | 133 | 12 200 | 55.0 | 8.3 | | | | |
| | | | | | ④ | 191 | 112 | 11 800 | 55.0 | 8.1 | | | | |
| VWCF092JJKGKS 3218 JN | 9293510305 | 48 | 36...56 | A | ① | 128 | 75 | 6 050 | 6.5 | 6.5 | 51 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 116 | 68 | 5 900 | 6.9 | 6.4 | | | | |
| | | | | | ③ | 101 | 59 | 5 800 | 7.2 | 6.2 | | | | |
| | | | | | ④ | 84 | 49 | 5 730 | 7.4 | 6.0 | | | | |
| VWCF092JJKGNS 3218 J/2H4P | 9693520186 | 48 | 20...58 | D | ① | 285 | 168 | 13 000 | 50.6 | 8.8 | 73 | -20...+70 | 60 000 | 110 000 |
| | | | | | ② | 263 | 155 | 12 970 | 57.4 | 8.5 | | | | |
| | | | | | ③ | 231 | 136 | 12 650 | 60.0 | 8.3 | | | | |
| | | | | | ④ | 197 | 116 | 12 380 | 60.0 | 8.1 | | | | |

Subject to changes. 3200 JH3 and JH4 also available as standard with PWM control input and speed signal.
Speed control range from 2000 rpm up to maximum nominal speed. Standstill at 0% PWM, maximum speed if control cable is interrupted.

Technical drawing

Dimensions in mm



VWCF092P...

DC axial fan · max. 276 m³/h · □ 92 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48 VDC; compact, small and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 250 g

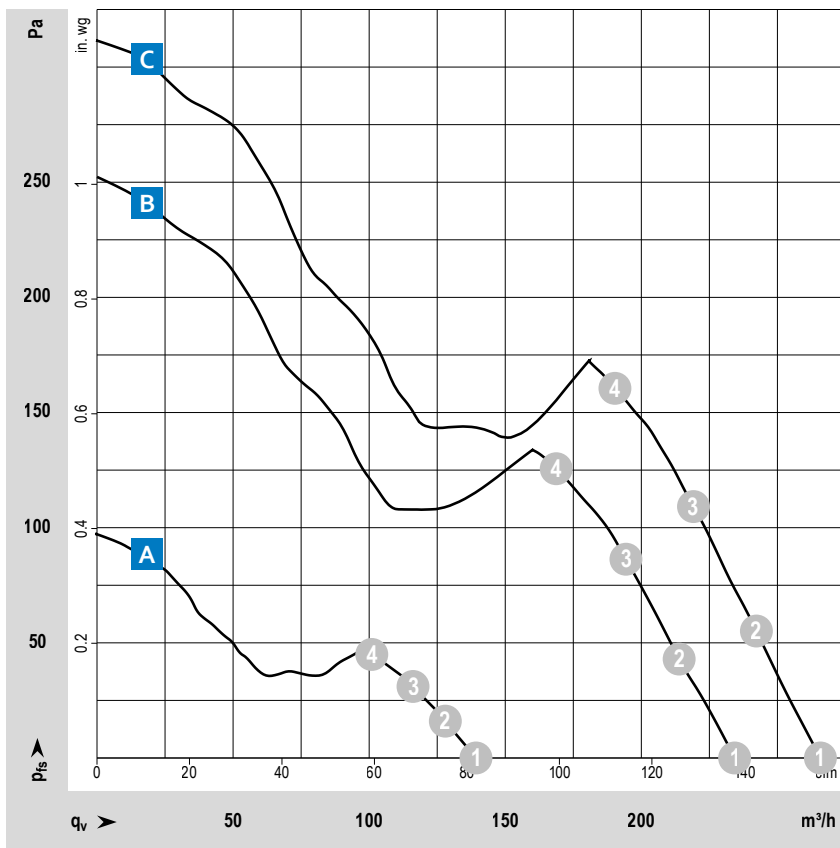
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

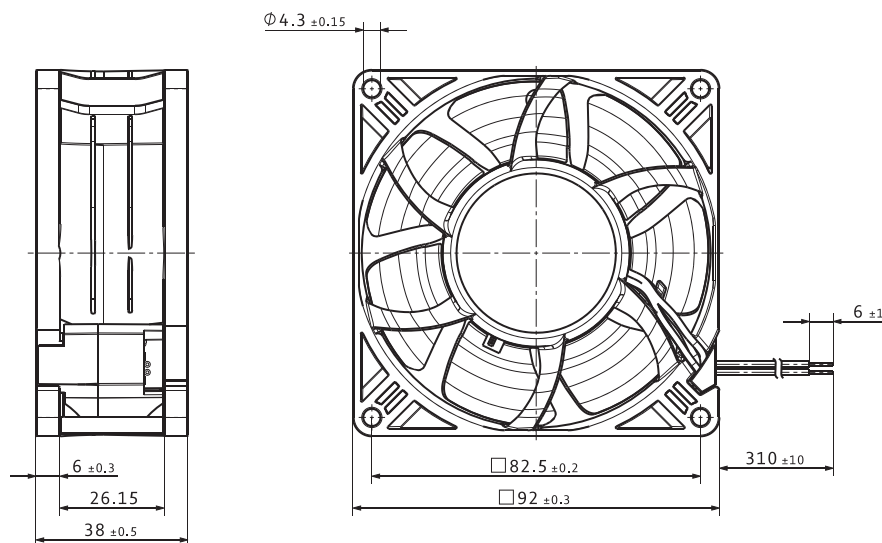
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCF092PHGKS 3252 JH | 9293512008 | 12 | 7...13.2 | A | ① | 148 | 87 | 4 100 | 6.1 | 6.1 | 46 | -20...+70 | 100 000 | 170 000 |
| | | | | | ② | 136 | 80 | 4 120 | 6.1 | 6.0 | | | | |
| | | | | | ③ | 122 | 72 | 4 120 | 6.1 | 5.8 | | | | |
| | | | | | ④ | 106 | 62 | 4 140 | 6.0 | 5.7 | | | | |
| VWCF092PHGNS 3252 JH3 | 9293512024 | 12 | 7...13.2 | C | ① | 266 | 157 | 7 450 | 32.6 | 7.8 | 64 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 242 | 142 | 7 420 | 32.9 | 7.7 | | | | |
| | | | | | ③ | 219 | 129 | 7 430 | 32.9 | 7.5 | | | | |
| | | | | | ④ | 190 | 112 | 7 500 | 32.2 | 7.4 | | | | |
| VWCF092PJGKS 3254 JH | 9293512015 | 24 | 14...26.4 | A | ① | 139 | 82 | 4 100 | 5.9 | 6.1 | 46 | -20...+70 | 100 000 | 170 000 |
| | | | | | ② | 128 | 75 | 4 090 | 5.9 | 6.0 | | | | |
| | | | | | ③ | 116 | 68 | 4 090 | 5.9 | 5.8 | | | | |
| | | | | | ④ | 101 | 59 | 4 100 | 5.8 | 5.7 | | | | |
| VWCF092PJGNS 3254 J/2 H3P | 9293512002 | 24 | 14...26.4 | C | ① | 276 | 162 | 7 450 | 32.2 | 7.8 | 64 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 247 | 145 | 7 420 | 32.4 | 7.7 | | | | |
| | | | | | ③ | 223 | 131 | 7 410 | 32.4 | 7.5 | | | | |
| | | | | | ④ | 196 | 115 | 7 470 | 32.1 | 7.4 | | | | |
| VWCF092PKGKS 3258 JH | 9293512009 | 48 | 36...56 | A | ① | 141 | 83 | 4 100 | 6.7 | 6.1 | 46 | -20...+70 | 100 000 | 170 000 |
| | | | | | ② | 130 | 77 | 4 090 | 6.8 | 6.0 | | | | |
| | | | | | ③ | 117 | 69 | 4 090 | 6.7 | 5.8 | | | | |
| | | | | | ④ | 101 | 59 | 4 100 | 6.6 | 5.7 | | | | |
| VWCF092PKGMS 3258 J/2 HHP | 9293512004 | 48 | 36...56 | B | ① | 234 | 138 | 6 650 | 22.2 | 7.5 | 64 | -20...+70 | 90 000 | 152 500 |
| | | | | | ② | 214 | 126 | 6 600 | 22.3 | 7.4 | | | | |
| | | | | | ③ | 194 | 114 | 6 600 | 22.4 | 7.2 | | | | |
| | | | | | ④ | 169 | 99 | 6 670 | 22.0 | 7.1 | | | | |
| VWCF092PKGNS 3258 J/2 H3P | 9293512001 | 48 | 36...56 | C | ① | 264 | 155 | 7 450 | 31.7 | 7.8 | 64 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 241 | 142 | 7 430 | 31.9 | 7.7 | | | | |
| | | | | | ③ | 218 | 128 | 7 440 | 31.8 | 7.5 | | | | |
| | | | | | ④ | 189 | 111 | 7 520 | 31.1 | 7.4 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VWJK100TKGRS

DC axial fan · max. 542 m³/h · □ 100x90 mm



Material/Surface

- Housing: Plastic + Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 48 VDC; counter-rotating fan with two counter-rotating fan wheels and aluminum flange with integrated guide blades; extraordinarily pressure-oriented
- Direction of air flow: exhaust over struts
- Direction of rotation: counter-rotating
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Molex plug 43025-0800
Molex contacts 43030-0003
- Electrical protection class: II
- Weight: 600 g

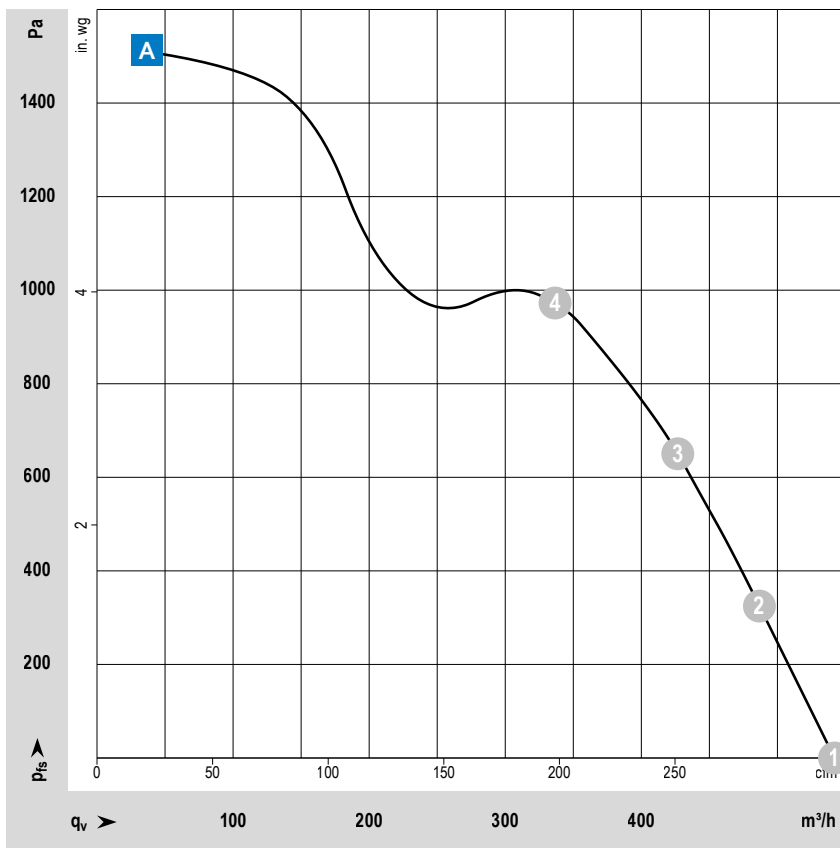
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

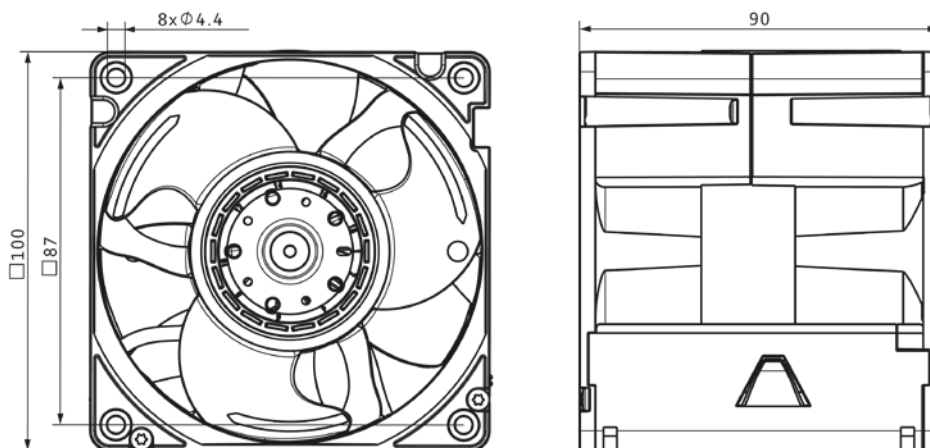
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{100FC} (40 °C) s.p. II |
|-----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWJK100TKGRS AxiTwin 100 | 8315100209 | 48 | 36...60 | A | ① | 542 | 319 | 11 000 | 135.0 | 9.3 | 84 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 487 | 287 | 11 000 | 158.4 | 9.2 | | | | |
| | | | | | ③ | 427 | 251 | 11 000 | 177.6 | 9.0 | | | | |
| | | | | | ④ | 337 | 198 | 11 000 | 184.7 | 9.1 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCD119F...

DC axial fan · max. 159 m³/h · □ 119 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact, small and lightweight; low-profile, noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 175 g

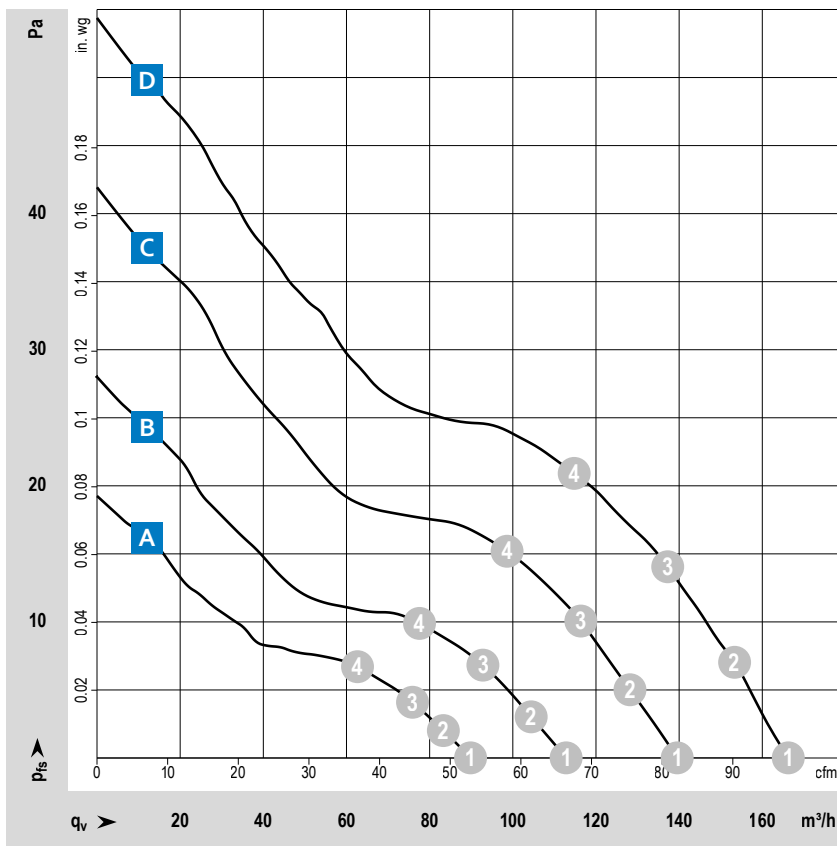
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

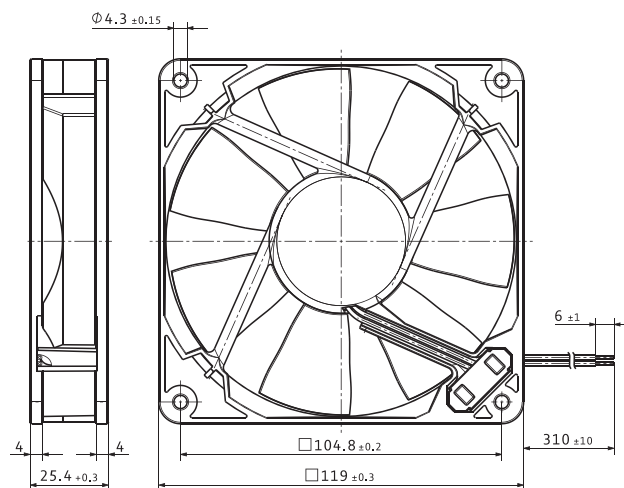
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_{r,wer} level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. 11 |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCD119FHGJS 4412 FGL | 9293505438 | 12 | 7...14 | A | ① | 90 | 53 | 1 600 | 0.9 | 4.1 | 26 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 83 | 49 | 1 570 | 1.0 | 4.0 | | | | |
| | | | | | ③ | 75 | 44 | 1 540 | 1.0 | 4.0 | | | | |
| | | | | | ④ | 64 | 38 | 1 500 | 1.0 | 3.9 | | | | |
| VWCD119FHGJS 4412 FGML | 9293505434 | 12 | 7...12.6 | B | ① | 113 | 67 | 1 950 | 1.7 | 4.6 | 32 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 104 | 61 | 1 920 | 1.8 | 4.6 | | | | |
| | | | | | ③ | 94 | 55 | 1 880 | 1.8 | 4.5 | | | | |
| | | | | | ④ | 78 | 46 | 1 840 | 1.9 | 4.4 | | | | |
| VWCD119FHGJS 4412 FML | 9293505464 | 12 | 7...12.6 | B | ① | 105 | 62 | 1 950 | 1.7 | 4.6 | 32 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 97 | 57 | 1 910 | 1.7 | 4.6 | | | | |
| | | | | | ③ | 88 | 52 | 1 880 | 1.7 | 4.5 | | | | |
| | | | | | ④ | 75 | 44 | 1 840 | 1.8 | 4.4 | | | | |
| VWCD119FHGKS 4412 FGM | 9293505435 | 12 | 7...12.6 | C | ① | 139 | 82 | 2 400 | 2.6 | 5.3 | 38 | -20...+75 | 70 000 | 117 500 |
| | | | | | ② | 127 | 75 | 2 350 | 2.7 | 5.2 | | | | |
| | | | | | ③ | 114 | 67 | 2 280 | 2.7 | 5.1 | | | | |
| | | | | | ④ | 96 | 57 | 2 210 | 2.8 | 5.1 | | | | |
| VWCD119FHGKS 4412 FM | 9293505409 | 12 | 7...12.6 | C | ① | 140 | 82 | 2 400 | 3.2 | 5.3 | 38 | -20...+75 | 70 000 | 117 500 |
| | | | | | ② | 128 | 75 | 2 340 | 3.3 | 5.2 | | | | |
| | | | | | ③ | 116 | 68 | 2 290 | 3.4 | 5.1 | | | | |
| | | | | | ④ | 98 | 58 | 2 220 | 3.5 | 5.1 | | | | |
| VWCD119FHGLS 4412 F | 9293505444 | 12 | 8...12.6 | D | ① | 159 | 94 | 2 900 | 4.9 | 5.6 | 43 | -20...+60 | 60 000 | 102 500 |
| | | | | | ② | 147 | 87 | 2 830 | 5.0 | 5.5 | | | | |
| | | | | | ③ | 132 | 78 | 2 760 | 5.1 | 5.5 | | | | |
| | | | | | ④ | 111 | 65 | 2 690 | 5.2 | 5.5 | | | | |
| VWCD119FJGJS 4414 FL | 9293505528 | 24 | 18...28 | A | ① | 90 | 53 | 1 600 | 1.1 | 4.1 | 26 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 83 | 49 | 1 570 | 1.1 | 4.0 | | | | |
| | | | | | ③ | 76 | 45 | 1 540 | 1.1 | 4.0 | | | | |
| | | | | | ④ | 64 | 38 | 1 500 | 1.2 | 3.9 | | | | |
| VWCD119FJGKS 4414 FM | 9293505407 | 24 | 12...28 | C | ① | 131 | 77 | 2 400 | 2.5 | 5.3 | 38 | -20...+75 | 70 000 | 117 500 |
| | | | | | ② | 122 | 72 | 2 340 | 2.6 | 5.2 | | | | |
| | | | | | ③ | 110 | 65 | 2 290 | 2.7 | 5.1 | | | | |
| | | | | | ④ | 93 | 55 | 2 250 | 2.7 | 5.1 | | | | |
| VWCD119FJGLS 4414 F | 9293505405 | 24 | 12...28 | D | ① | 159 | 94 | 2 900 | 4.3 | 5.6 | 43 | -20...+60 | 60 000 | 102 500 |
| | | | | | ② | 147 | 87 | 2 830 | 4.4 | 5.5 | | | | |
| | | | | | ③ | 131 | 77 | 2 750 | 4.5 | 5.5 | | | | |
| | | | | | ④ | 111 | 65 | 2 700 | 4.6 | 5.5 | | | | |
| VWCD119FKGLS 4418 F | 9293505449 | 48 | 28...53 | D | ① | 159 | 94 | 2 900 | 4.6 | 5.6 | 43 | -20...+60 | 60 000 | 102 500 |
| | | | | | ② | 147 | 87 | 2 840 | 4.7 | 5.5 | | | | |
| | | | | | ③ | 132 | 78 | 2 760 | 4.9 | 5.5 | | | | |
| | | | | | ④ | 111 | 65 | 2 700 | 5.0 | 5.5 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWS0113F...

DC axial fan · max. 149 m³/h · Ø 127 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12 VDC; compact, small and lightweight; low-profile, noise and efficiency optimized axial fan in round version
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 170 g

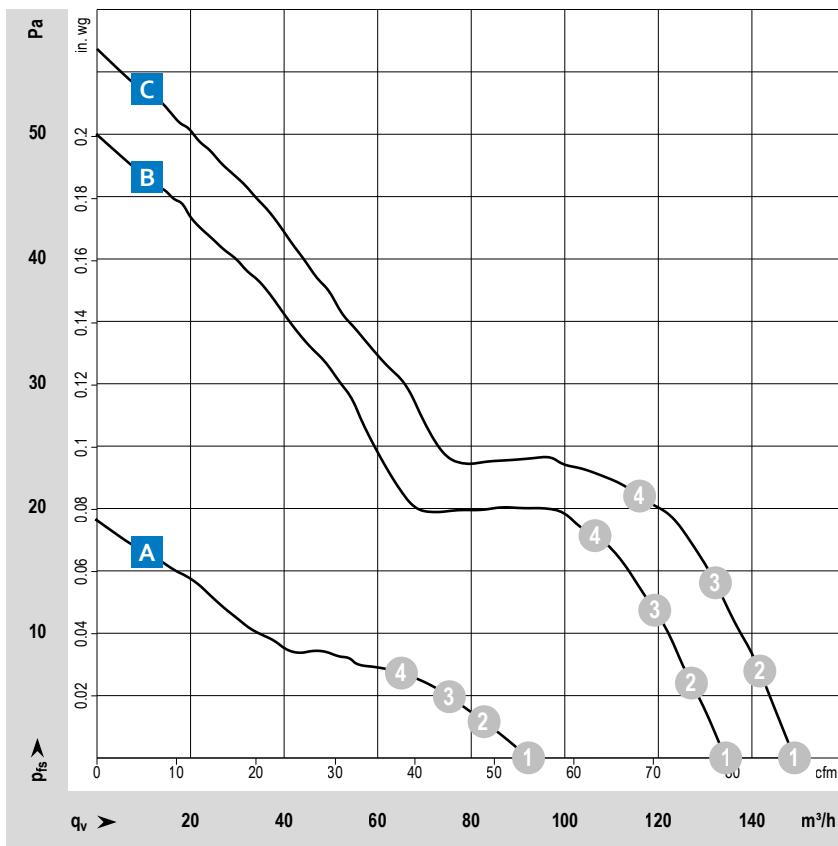
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Direction of rotation reversible
- Symmetrical impeller

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| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

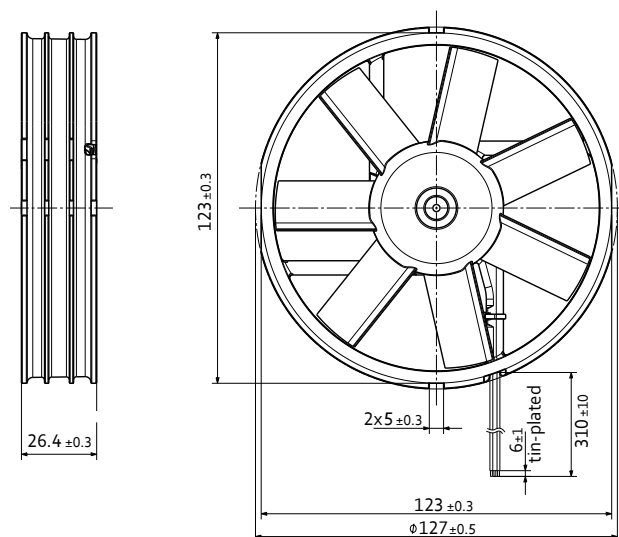
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10}^{IPC} (40 °C) s.p. II |
|--------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWS0113FUGAS 4412 FGL-573 | 9293505573 | 12 | 7...15 | A | ① | 92 | 54 | 1 600 | 1.0 | 3.9 | 26 | -20...+75 | 80 000 | 135 000 |
| | | | | | ② | 84 | 49 | 1 580 | 1.0 | 3.9 | | | | |
| | | | | | ③ | 76 | 45 | 1 540 | 1.1 | 3.8 | | | | |
| | | | | | ④ | 66 | 39 | 1 510 | 1.1 | 3.8 | | | | |
| VWS0113FUGAZ 4412 FGMPR-197 | 9693500197 | 12 | 7...12.6 | B | ① | 134 | 79 | 2 400 | 2.7 | 4.9 | 38 | -20...+65 | 75 000 | 117 500 |
| | | | | | ② | 127 | 75 | 2 400 | 3.0 | 4.9 | | | | |
| | | | | | ③ | 120 | 71 | 2 400 | 3.4 | 4.8 | | | | |
| | | | | | ④ | 107 | 63 | 2 400 | 3.7 | 4.8 | | | | |
| VWS0113FUGAZ 4412 FGPR-194 | 9693500194 | 12 | 8...12.6 | C | ① | 149 | 88 | 2 650 | 3.4 | 5.1 | 43 | -20...+50 | 60 000 | 102 500 |
| | | | | | ② | 142 | 84 | 2 640 | 3.8 | 5.1 | | | | |
| | | | | | ③ | 132 | 78 | 2 640 | 4.2 | 5.0 | | | | |
| | | | | | ④ | 116 | 68 | 2 610 | 4.5 | 5.0 | | | | |

Subject to changes.
Further voltage variants (24 VDC, 48 VDC) and speed variants as well as ball bearings versions are possible as additional fan types.

Technical drawing

Dimensions in mm



VWS0112EUGAS

DC axial fan · max. 135 m³/h · Ø 126 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12 VDC; axial fan designed for maximum noise reduction with volume-oriented characteristic curve and round housing; reversibility and symmetrical fan impeller enable identical air performance values in both directions of rotation
- Direction of air flow: exhaust over struts / intake over struts
- Direction of rotation: reversible
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 26
- Electrical protection class: III
- Weight: 170 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

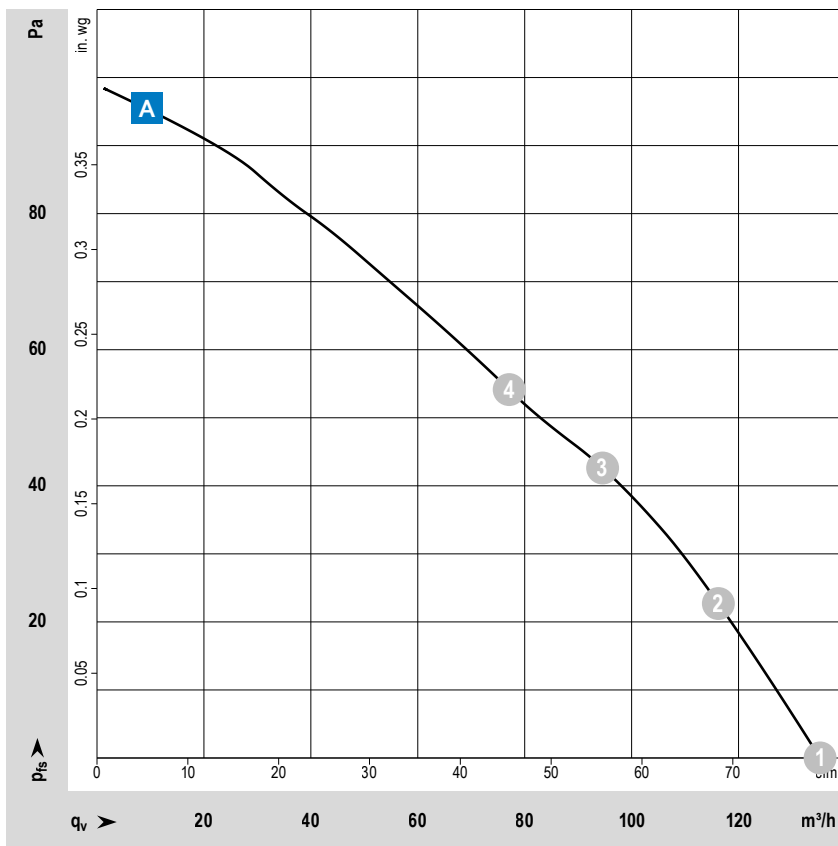
Options

- Speed signal
- PWM control input
- Analog control input
- Moisture protection

Special features

- Direction of rotation reversible
- Symmetrical impeller

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| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

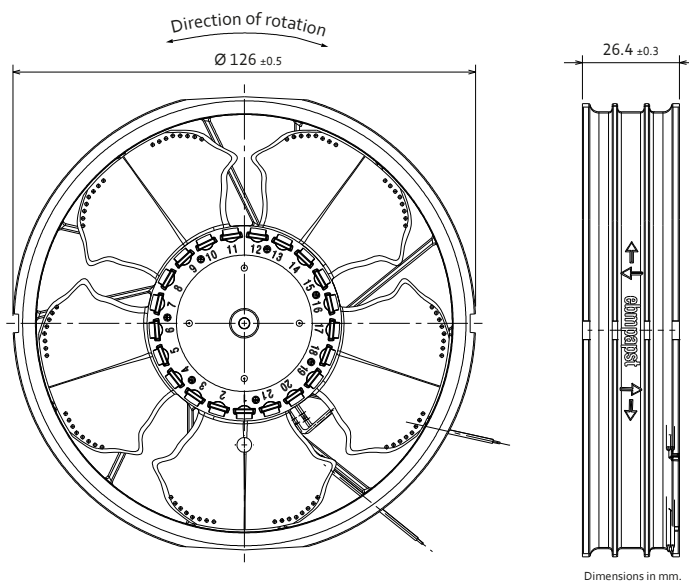
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|----------------------------|-------------|-----------------|---------------|----------------------|------------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWS0112EUGAS AxiRev 126 | 8315100253 | 12 | 10.8...13.2 | A | ① ② ③ ④ | 135 | 79 | 4 200 | 2.5 | 6.4 | 52 | -20...+60 | on request | on request |
| | | | | | | 117 | 69 | 4 200 | 3.3 | 6.5 | | | | |
| | | | | | | 95 | 56 | 4 200 | 4.1 | 6.7 | | | | |
| | | | | | | 77 | 45 | 4 200 | 4.7 | 6.9 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCD119F...

DC axial fan · max. 225 m³/h · □ 119 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact, small and light; low-profile, noise and efficiency optimized axial fan nevertheless with rigid characteristic curve
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 245 g

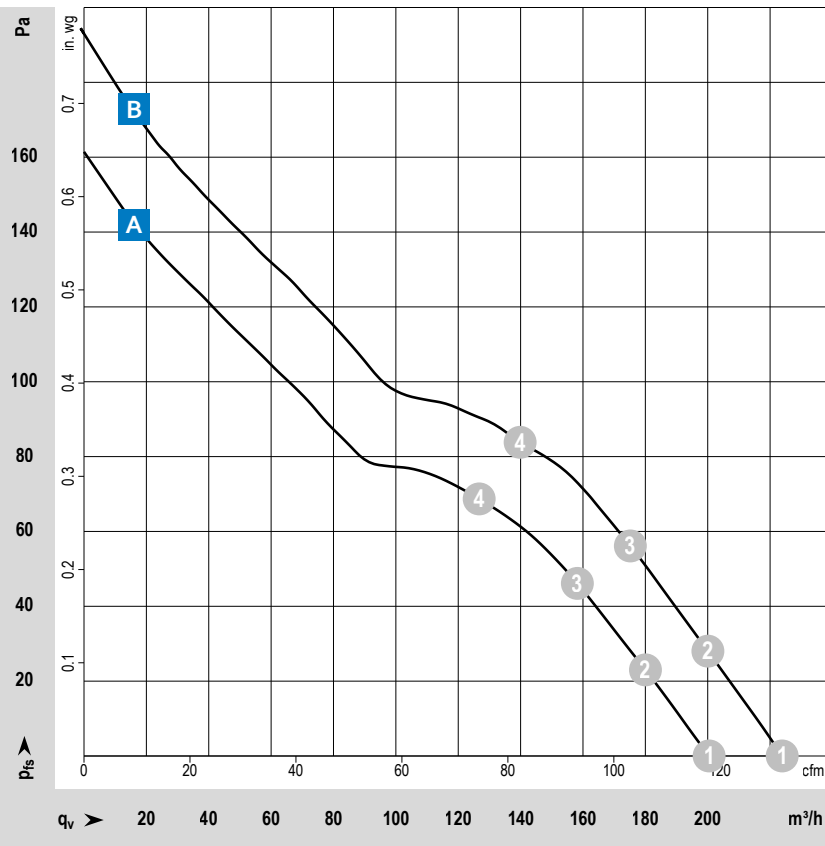
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
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| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

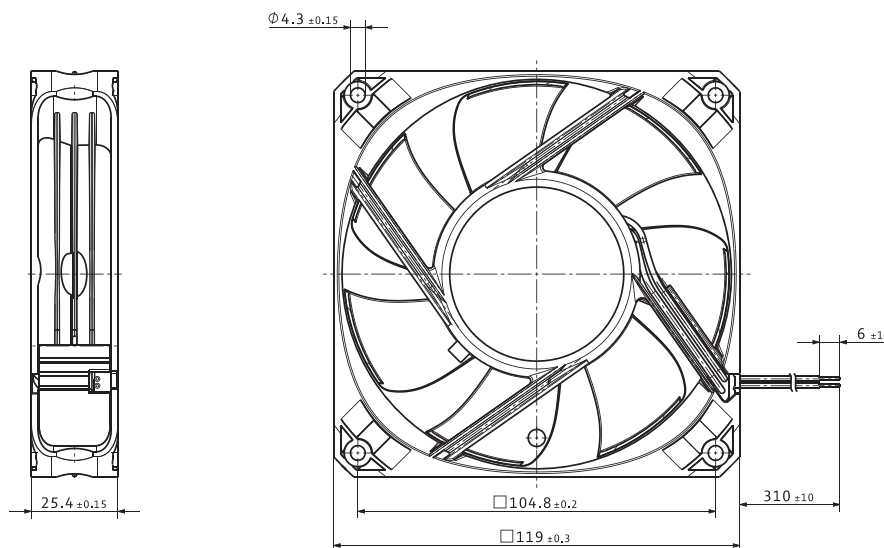
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCD119FHJMS 4412 FNH | 9694390181 | 12 | 9...13.2 | B | ① | 224 | 132 | 5 400 | 12.8 | 6.8 | 55 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 200 | 118 | 5 210 | 13.7 | 6.6 | | | | |
| | | | | | ③ | 175 | 103 | 5 070 | 14.6 | 6.4 | | | | |
| | | | | | ④ | 140 | 82 | 4 960 | 15.2 | 6.4 | | | | |
| VWCD119FJJMS 4414 FNN | 9294307002 | 24 | 14...28 | A | ① | 200 | 118 | 4 850 | 8.5 | 6.5 | 52 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 180 | 106 | 4 720 | 9.1 | 6.3 | | | | |
| | | | | | ③ | 158 | 93 | 4 600 | 9.8 | 6.1 | | | | |
| | | | | | ④ | 127 | 75 | 4 510 | 10.3 | 6.3 | | | | |
| VWCD119FJJMS 4414 FNH | 9694390184 | 24 | 18...26.4 | B | ① | 225 | 132 | 5 400 | 11.7 | 6.8 | 55 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 201 | 118 | 5 230 | 12.6 | 6.6 | | | | |
| | | | | | ③ | 175 | 103 | 5 080 | 13.4 | 6.4 | | | | |
| | | | | | ④ | 139 | 82 | 4 970 | 13.9 | 6.4 | | | | |
| VWCD119FKJMS 4418 FNH | 9694390182 | 48 | 36...53 | B | ① | 222 | 131 | 5 400 | 11.7 | 6.8 | 55 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 199 | 117 | 5 230 | 12.5 | 6.6 | | | | |
| | | | | | ③ | 174 | 102 | 5 080 | 13.2 | 6.4 | | | | |
| | | | | | ④ | 139 | 82 | 4 980 | 13.7 | 6.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCE119P...

DC axial fan · max. 187 m³/h · □ 119 x 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 250 g

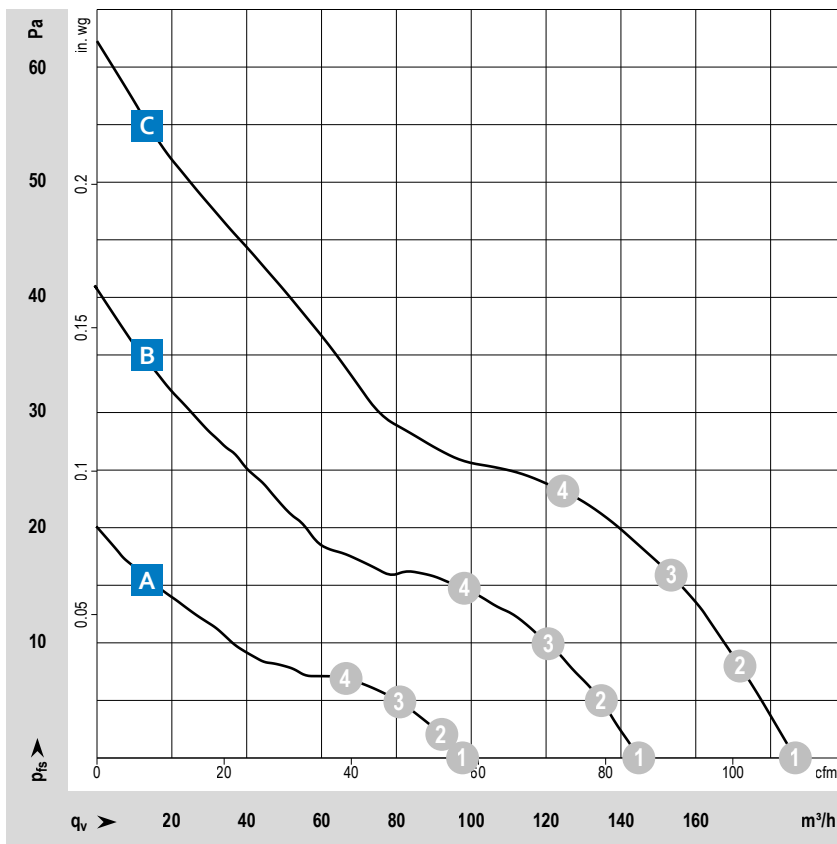
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

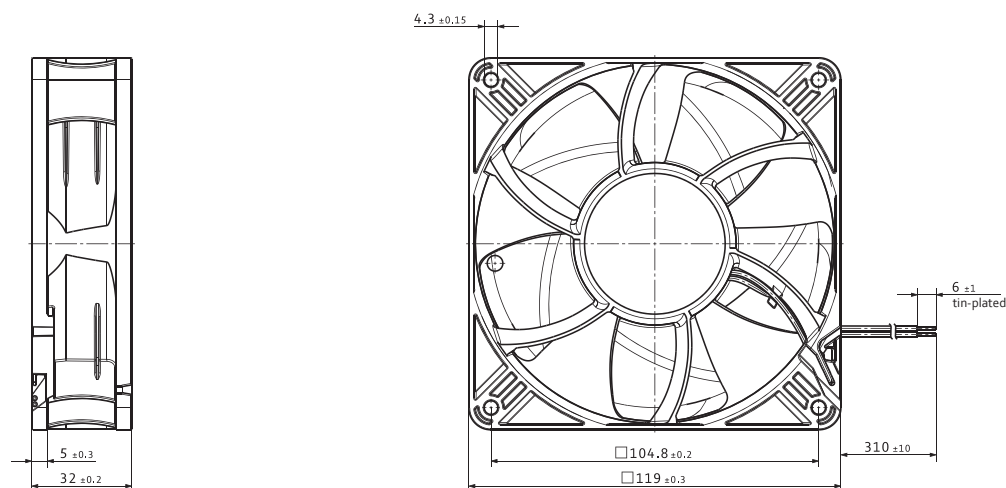
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|-------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCE119PHGJS 4312 NL | 9293510707 | 12 | 6...15 | A | ① | 99 | 58 | 1 450 | 0.8 | 4.2 | 25 | -20...+75 | 95 000 | 160 000 |
| | | | | | ② | 92 | 54 | 1 440 | 0.8 | 4.2 | | | | |
| | | | | | ③ | 83 | 49 | 1 430 | 0.8 | 4.2 | | | | |
| | | | | | ④ | 68 | 40 | 1 420 | 0.8 | 4.1 | | | | |
| VWCE119PHGKS 4312 NM | 9293510708 | 12 | 6...15 | B | ① | 145 | 85 | 2 100 | 1.9 | 5.0 | 36 | -20...+75 | 85 000 | 142 500 |
| | | | | | ② | 135 | 79 | 2 080 | 1.9 | 4.9 | | | | |
| | | | | | ③ | 121 | 71 | 2 050 | 2.0 | 4.8 | | | | |
| | | | | | ④ | 99 | 58 | 2 040 | 2.0 | 4.7 | | | | |
| VWCE119PHGLS 4312 NN | 9293510709 | 12 | 6...15 | C | ① | 187 | 110 | 2 700 | 4.0 | 5.5 | 43 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 172 | 101 | 2 660 | 4.1 | 5.5 | | | | |
| | | | | | ③ | 154 | 91 | 2 640 | 4.2 | 5.4 | | | | |
| | | | | | ④ | 124 | 73 | 2 610 | 4.3 | 5.4 | | | | |
| VWCE119PJGJS 4314 NL | 9293510710 | 24 | 12...28 | A | ① | 98 | 58 | 1 450 | 0.9 | 4.2 | 25 | -20...+75 | 95 000 | 160 000 |
| | | | | | ② | 91 | 54 | 1 440 | 0.9 | 4.2 | | | | |
| | | | | | ③ | 82 | 48 | 1 430 | 0.9 | 4.2 | | | | |
| | | | | | ④ | 67 | 39 | 1 430 | 0.9 | 4.1 | | | | |
| VWCE119PJGKS 4314 NM | 9293510713 | 24 | 12...28 | B | ① | 144 | 85 | 2 100 | 2.0 | 5.0 | 36 | -20...+75 | 85 000 | 142 000 |
| | | | | | ② | 133 | 78 | 2 080 | 2.0 | 4.9 | | | | |
| | | | | | ③ | 119 | 70 | 2 060 | 2.1 | 4.8 | | | | |
| | | | | | ④ | 97 | 57 | 2 050 | 2.1 | 4.7 | | | | |
| VWCE119PJGLS 4314 NN | 9293510701 | 24 | 12...28 | C | ① | 187 | 110 | 2 700 | 3.9 | 5.5 | 43 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 172 | 101 | 2 650 | 4.0 | 5.5 | | | | |
| | | | | | ③ | 154 | 91 | 2 610 | 4.1 | 5.4 | | | | |
| | | | | | ④ | 125 | 74 | 2 600 | 4.2 | 5.4 | | | | |
| VWCE119PKGLS 4318 NN | 9293510723 | 48 | 36...60 | C | ① | 187 | 110 | 2 700 | 4.2 | 5.5 | 43 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 172 | 101 | 2 670 | 4.3 | 5.5 | | | | |
| | | | | | ③ | 155 | 91 | 2 640 | 4.4 | 5.4 | | | | |
| | | | | | ④ | 126 | 74 | 2 620 | 4.4 | 5.4 | | | | |

Subject to changes. More fan types can be found on the next page.

Technical drawing

Dimensions in mm



VWCE119P...

DC axial fan · max. 284 m³/h · □ 119 x 32 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and lightweight; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 250 g

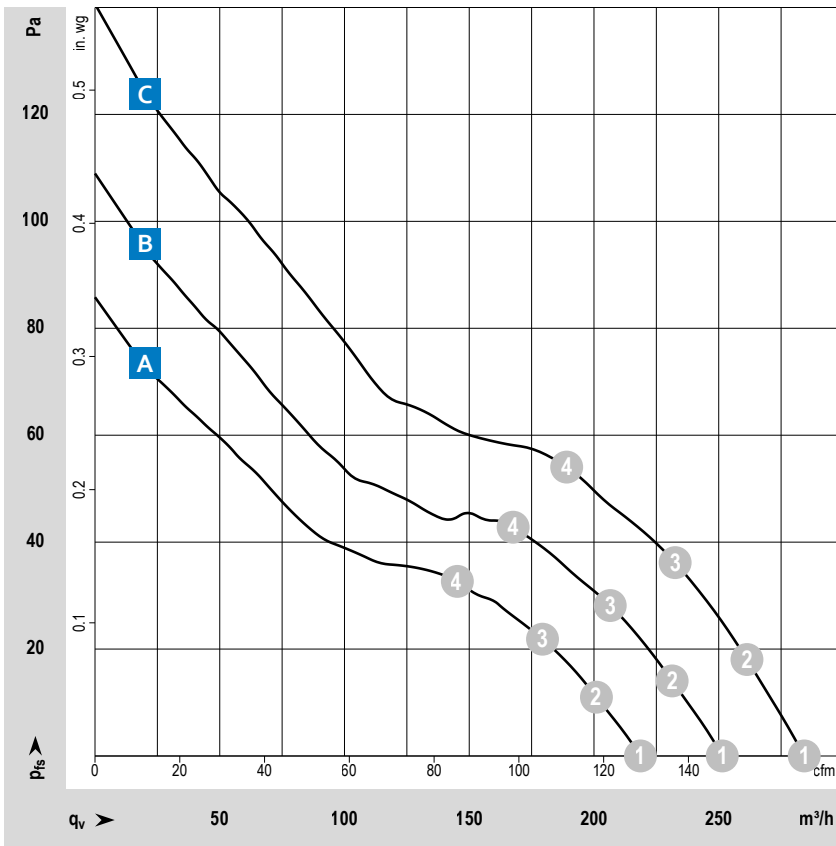
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

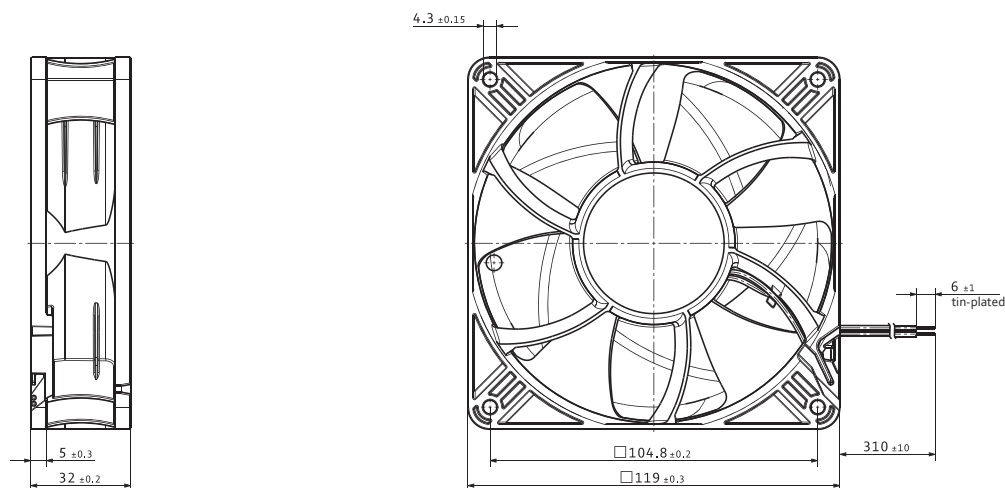
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. 11 |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCE119PHGMS 4312 NH | 9293510703 | 12 | 6...15 | A | ① | 219 | 129 | 3 150 | 7.0 | 6.0 | 47 | -20...+75 | 70 000 | 117 500 |
| | | | | | ② | 201 | 118 | 3 090 | 7.2 | 5.9 | | | | |
| | | | | | ③ | 179 | 105 | 3 030 | 7.3 | 5.8 | | | | |
| | | | | | ④ | 145 | 85 | 3 000 | 7.3 | 5.8 | | | | |
| VWCE119PHGMS 4312 NHH | 9293510745 | 12 | 6...14.4 | B | ① | 251 | 148 | 3 600 | 9.7 | 6.5 | 51 | -20...+65 | 65 000 | 110 000 |
| | | | | | ② | 231 | 136 | 3 530 | 10.0 | 6.4 | | | | |
| | | | | | ③ | 206 | 121 | 3 470 | 10.2 | 6.3 | | | | |
| | | | | | ④ | 168 | 99 | 3 440 | 10.3 | 6.2 | | | | |
| VWCE119PHGNS 4312 NH3 | 9293510742 | 12 | 7...13.2 | C | ① | 284 | 167 | 4 050 | 11.0 | 6.7 | 55 | -20...+75 | 60 000 | 102 500 |
| | | | | | ② | 261 | 154 | 3 970 | 11.3 | 6.7 | | | | |
| | | | | | ③ | 232 | 137 | 3 900 | 11.6 | 6.6 | | | | |
| | | | | | ④ | 189 | 111 | 3 880 | 11.7 | 6.5 | | | | |
| VWCE119PJGMS 4314 NH | 9293510714 | 24 | 12...28 | A | ① | 219 | 129 | 3 150 | 5.8 | 6.0 | 47 | -20...+75 | 70 000 | 117 500 |
| | | | | | ② | 202 | 119 | 3 100 | 6.0 | 5.9 | | | | |
| | | | | | ③ | 180 | 106 | 3 060 | 6.1 | 5.8 | | | | |
| | | | | | ④ | 147 | 87 | 3 050 | 6.1 | 5.8 | | | | |
| VWCE119PJGMS 4314 NHH | 9293510732 | 24 | 12...27 | B | ① | 250 | 147 | 3 600 | 9.3 | 6.5 | 51 | -20...+70 | 65 000 | 110 000 |
| | | | | | ② | 231 | 136 | 3 540 | 9.5 | 6.4 | | | | |
| | | | | | ③ | 204 | 120 | 3 480 | 9.8 | 6.3 | | | | |
| | | | | | ④ | 166 | 98 | 3 450 | 9.9 | 6.2 | | | | |
| VWCE119PJGNS 4314 NH3 | 9293510712 | 24 | 14...26.4 | C | ① | 283 | 167 | 4 050 | 10.0 | 6.7 | 55 | -20...+75 | 60 000 | 102 500 |
| | | | | | ② | 260 | 153 | 3 990 | 10.3 | 6.7 | | | | |
| | | | | | ③ | 232 | 137 | 3 920 | 10.6 | 6.6 | | | | |
| | | | | | ④ | 189 | 111 | 3 880 | 10.8 | 6.5 | | | | |
| VWCE119PKGMS 4318 NH | 9293510704 | 48 | 36...60 | A | ① | 219 | 129 | 3 150 | 6.1 | 6.0 | 47 | -20...+75 | 70 000 | 117 500 |
| | | | | | ② | 201 | 118 | 3 100 | 6.3 | 5.9 | | | | |
| | | | | | ③ | 180 | 106 | 3 050 | 6.4 | 5.8 | | | | |
| | | | | | ④ | 146 | 86 | 3 030 | 6.5 | 5.8 | | | | |
| VWCE119PKGNS 4318 NH3 | 9293510739 | 48 | 36...52.8 | C | ① | 279 | 164 | 4 050 | 10.5 | 6.7 | 55 | -20...+75 | 60 000 | 102 500 |
| | | | | | ② | 257 | 151 | 3 990 | 10.8 | 6.7 | | | | |
| | | | | | ③ | 231 | 136 | 3 930 | 11.1 | 6.6 | | | | |
| | | | | | ④ | 188 | 111 | 3 900 | 11.3 | 6.5 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VWCF119A...

DC axial fan · max. 205 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and lightweight; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 270 g

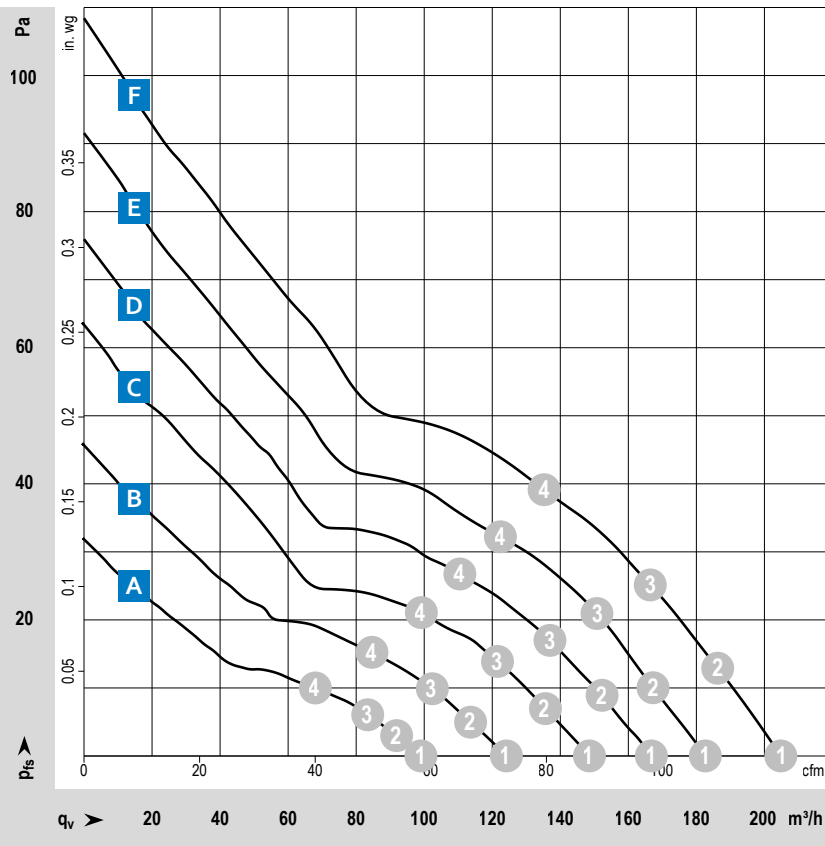
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

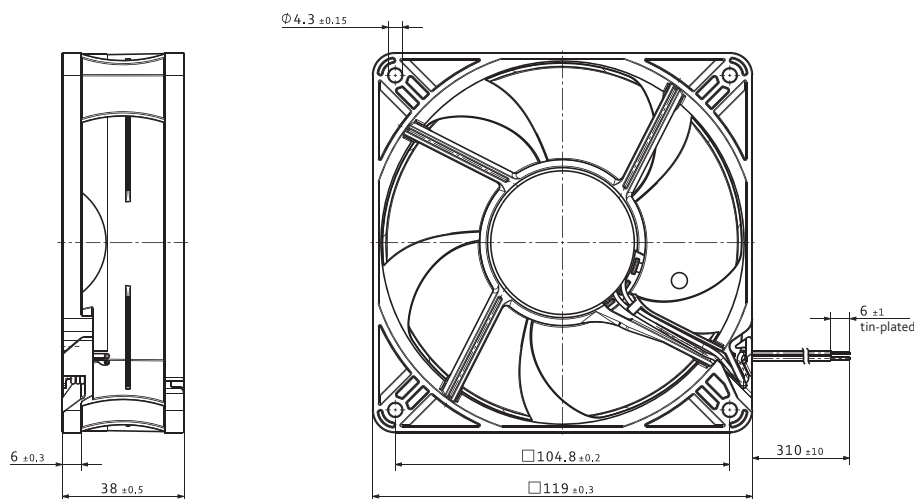
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. 11 |
|-------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | | | | | | | |
| VWCF119AHGLS 4412 ML | 9293510561 | 12 | 7...15 | D | ① | 167 | 98 | 3 000 | 2.9 | 5.5 | 40 | -20...+80 | 67 500 | 115 000 |
| | | | | | ② | 153 | 90 | 2 940 | 3.1 | 5.4 | | | | |
| | | | | | ③ | 137 | 81 | 2 880 | 3.3 | 5.3 | | | | |
| | | | | | ④ | 111 | 65 | 2 820 | 3.6 | 5.1 | | | | |
| VWCF119AHGLS 4412 M | 9293510508 | 12 | 7...14 | E | ① | 183 | 108 | 3 300 | 3.5 | 5.7 | 42 | -20...+75 | 65 000 | 110 000 |
| | | | | | ② | 168 | 99 | 3 230 | 3.8 | 5.6 | | | | |
| | | | | | ③ | 151 | 89 | 3 170 | 4.0 | 5.5 | | | | |
| | | | | | ④ | 122 | 72 | 3 100 | 4.4 | 5.5 | | | | |
| VWCF119AHGMS 4412 N | 9293510501 | 12 | 7...14 | F | ① | 205 | 121 | 3 650 | 4.8 | 6.1 | 46 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 187 | 110 | 3 580 | 5.2 | 6.0 | | | | |
| | | | | | ③ | 166 | 98 | 3 500 | 5.6 | 5.8 | | | | |
| | | | | | ④ | 135 | 79 | 3 410 | 6.1 | 5.6 | | | | |
| VWCF119AJGJS 4414 L3 | 9293510558 | 24 | 12...28 | A | ① | 99 | 58 | 1 800 | 1.0 | 4.2 | 26 | -20...+80 | 75 500 | 127 500 |
| | | | | | ② | 92 | 54 | 1 790 | 1.0 | 4.2 | | | | |
| | | | | | ③ | 83 | 49 | 1 770 | 1.1 | 4.1 | | | | |
| | | | | | ④ | 68 | 40 | 1 740 | 1.1 | 4.0 | | | | |
| VWCF119AJGKS 4414 L | 9293510518 | 24 | 18...28 | C | ① | 149 | 88 | 2 700 | 2.4 | 5.2 | 37 | -20...+80 | 67 500 | 115 000 |
| | | | | | ② | 136 | 80 | 2 660 | 2.5 | 5.1 | | | | |
| | | | | | ③ | 122 | 72 | 2 610 | 2.7 | 5.0 | | | | |
| | | | | | ④ | 99 | 58 | 2 560 | 2.8 | 5.0 | | | | |
| VWCF119AJGLS 4414 ML | 9293510560 | 24 | 12...28 | D | ① | 166 | 98 | 3 000 | 3.1 | 5.5 | 40 | -20...+80 | 67 500 | 115 000 |
| | | | | | ② | 153 | 90 | 2 950 | 3.3 | 5.4 | | | | |
| | | | | | ③ | 137 | 81 | 2 900 | 3.5 | 5.3 | | | | |
| | | | | | ④ | 112 | 66 | 2 830 | 3.8 | 5.1 | | | | |
| VWCF119AJGLS 4414 M | 9293510509 | 24 | 18...28 | E | ① | 180 | 106 | 3 300 | 3.7 | 5.7 | 42 | -20...+75 | 65 000 | 110 000 |
| | | | | | ② | 165 | 97 | 3 240 | 3.9 | 5.6 | | | | |
| | | | | | ③ | 148 | 87 | 3 190 | 4.2 | 5.5 | | | | |
| | | | | | ④ | 120 | 71 | 3 120 | 4.6 | 5.5 | | | | |
| VWCF119AJGMS 4414 N | 9293510503 | 24 | 18...28 | F | ① | 204 | 120 | 3 650 | 4.8 | 6.1 | 46 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 187 | 110 | 3 560 | 5.2 | 6.0 | | | | |
| | | | | | ③ | 167 | 98 | 3 480 | 5.6 | 5.8 | | | | |
| | | | | | ④ | 135 | 79 | 3 390 | 6.0 | 5.6 | | | | |
| VWCF119AKGLS 4418 M | 9293510519 | 48 | 36...60 | E | ① | 183 | 108 | 3 300 | 3.8 | 5.7 | 42 | -20...+70 | 65 000 | 110 000 |
| | | | | | ② | 167 | 98 | 3 210 | 4.1 | 5.6 | | | | |
| | | | | | ③ | 151 | 89 | 3 150 | 4.3 | 5.5 | | | | |
| | | | | | ④ | 122 | 72 | 3 080 | 4.6 | 5.5 | | | | |
| VWCF119AKGMS 4418 N | 9293510505 | 48 | 36...60 | F | ① | 203 | 119 | 3 650 | 4.8 | 6.1 | 46 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 185 | 109 | 3 580 | 5.2 | 6.0 | | | | |
| | | | | | ③ | 165 | 97 | 3 500 | 5.5 | 5.8 | | | | |
| | | | | | ④ | 132 | 78 | 3 420 | 5.9 | 5.6 | | | | |

Subject to changes. More fan types can be found on the next page.

Technical drawing

Dimensions in mm



VWCF119A...

DC axial fan · max. 286 m³/h · □ 119 × 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 24
- Electrical protection class: III
- Weight: 270 g

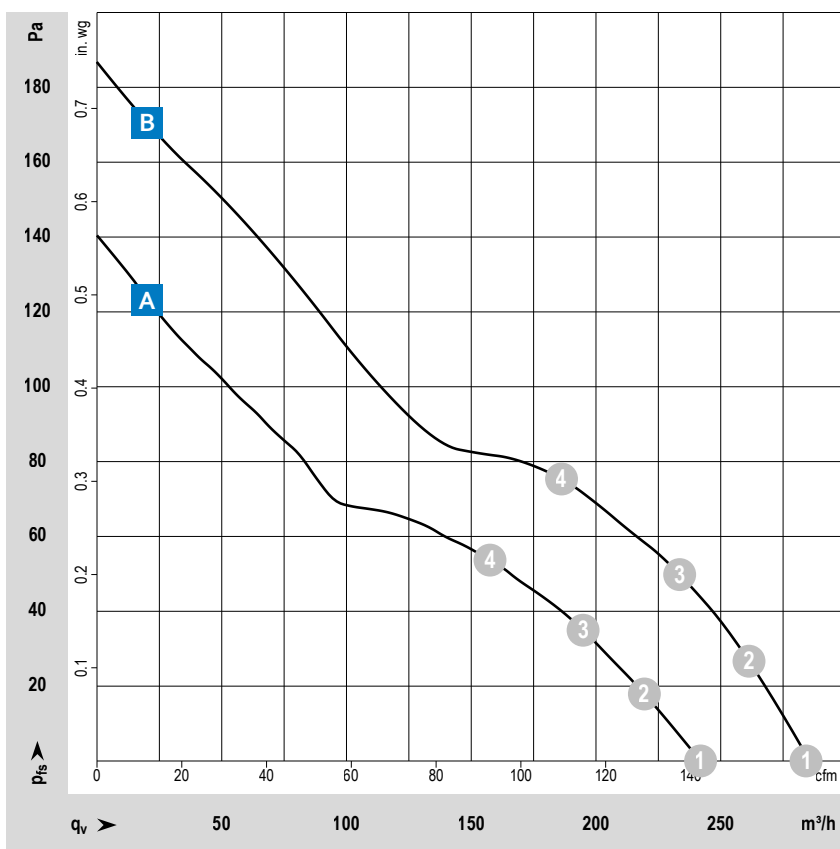
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP54

| | |
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| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

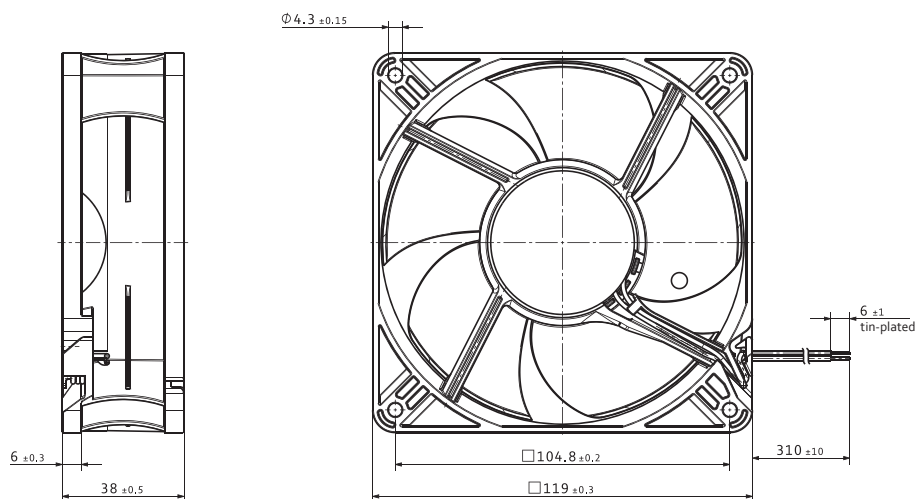
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ FC (40 °C) s.p. II |
|----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCF119AHGMS 4412 H | 9293510500 | 12 | 7...14 | A | ① | 242 | 142 | 4 300 | 7.5 | 6.7 | 50 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 220 | 129 | 4 180 | 8.1 | 6.5 | | | | |
| | | | | | ③ | 195 | 115 | 4 070 | 8.7 | 6.4 | | | | |
| | | | | | ④ | 158 | 93 | 3 950 | 9.4 | 6.1 | | | | |
| VWCF119AHGNS 4412/2 HHP | 9693530182 | 12 | 7...14.5 | B | ① | 272 | 160 | 5 000 | 10.8 | 6.8 | 55 | -20...+70 | 50 000 | 85 000 |
| | | | | | ② | 254 | 149 | 5 000 | 12.7 | 6.7 | | | | |
| | | | | | ③ | 233 | 137 | 5 000 | 14.5 | 6.6 | | | | |
| | | | | | ④ | 189 | 111 | 4 890 | 15.8 | 6.6 | | | | |
| VWCF119AJGMS 4414 H | 9293510502 | 24 | 18...28 | A | ① | 243 | 143 | 4 300 | 7.1 | 6.7 | 50 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 220 | 129 | 4 190 | 7.6 | 6.5 | | | | |
| | | | | | ③ | 196 | 115 | 4 080 | 8.2 | 6.4 | | | | |
| | | | | | ④ | 158 | 93 | 3 970 | 8.9 | 6.1 | | | | |
| VWCF119AJGNS 4414 HH | 9293510524 | 24 | 16...28 | B | ① | 281 | 165 | 5 000 | 12.8 | 6.8 | 55 | -20...+70 | 50 000 | 85 000 |
| | | | | | ② | 254 | 149 | 4 870 | 13.8 | 6.7 | | | | |
| | | | | | ③ | 226 | 133 | 4 740 | 14.7 | 6.6 | | | | |
| | | | | | ④ | 179 | 105 | 4 590 | 15.8 | 6.5 | | | | |
| VWCF119AJGNS 4414/2 HHP | 9693530183 | 24 | 18...28 | B | ① | 286 | 168 | 5 000 | 11.3 | 6.8 | 55 | -20...+70 | 50 000 | 85 000 |
| | | | | | ② | 263 | 155 | 4 950 | 12.7 | 6.7 | | | | |
| | | | | | ③ | 234 | 138 | 4 840 | 13.7 | 6.6 | | | | |
| | | | | | ④ | 187 | 110 | 4 690 | 14.5 | 6.6 | | | | |
| VWCF119AKGMS 4418 H | 9293510504 | 48 | 36...60 | A | ① | 242 | 142 | 4 300 | 7.1 | 6.7 | 50 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 220 | 129 | 4 180 | 7.7 | 6.5 | | | | |
| | | | | | ③ | 195 | 115 | 4 070 | 8.3 | 6.4 | | | | |
| | | | | | ④ | 157 | 92 | 3 960 | 9.0 | 6.1 | | | | |
| VWCF119AKGNS 4418/2 HHP | 9693530180 | 48 | 36...60 | B | ① | 279 | 164 | 5 000 | 10.9 | 6.8 | 55 | -20...+70 | 50 000 | 85 000 |
| | | | | | ② | 259 | 152 | 4 990 | 12.4 | 6.7 | | | | |
| | | | | | ③ | 232 | 137 | 4 880 | 13.2 | 6.6 | | | | |
| | | | | | ④ | 189 | 111 | 4 740 | 14.3 | 6.6 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWC0120KUJBS

DC axial fan · max. 342 m³/h · □ 120 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan of the AxiForce series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: exposed wire
12V: 2xAWG22 (power supply) and 2x AWG24 (Signal wires);
24V/48V: 4x AWG24
- Electrical protection class: III
- Weight: 300 g

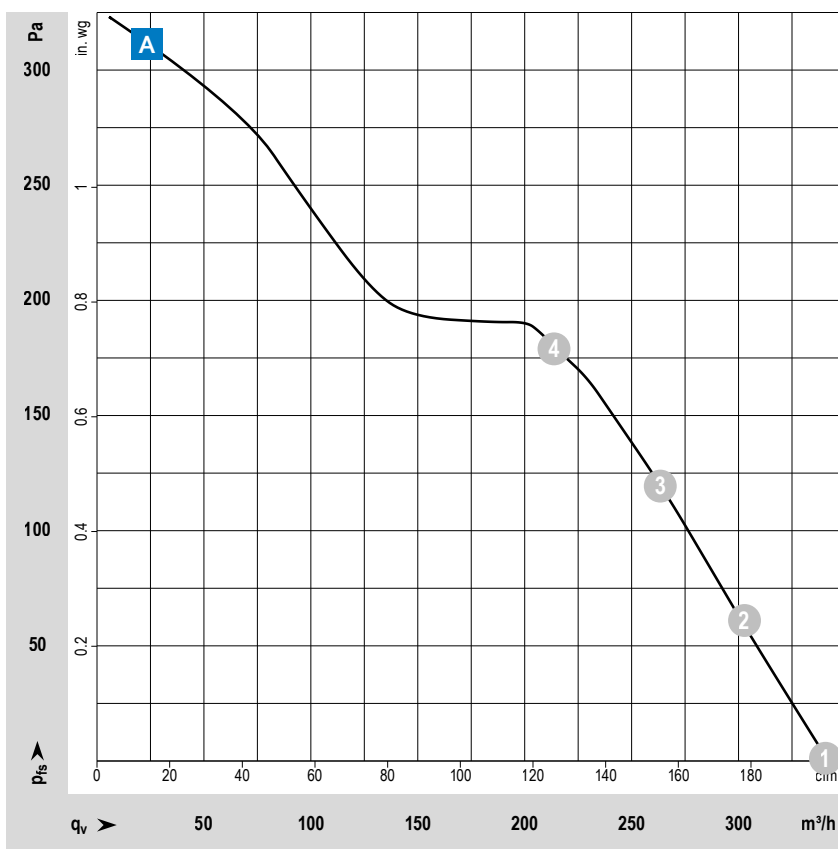
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T3

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
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| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

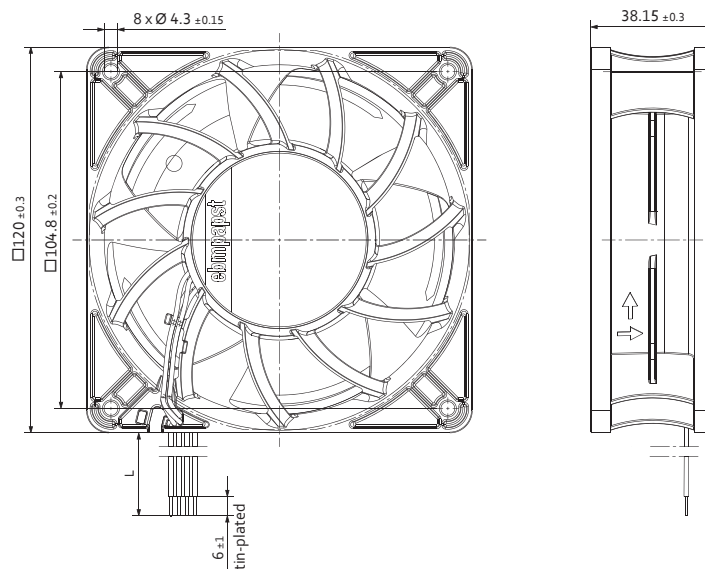
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|------------------------------|-------------|-----------------|---------------|----------------------|------------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWC0120KUJBS AxiForce 120 | 8315100143 | 12 | 10.8...13.2 | A | ① ② ③ ④ | 341 | 201 | 6 500 | 29.9 | 7.2 | 59 | -20...+70 | 45 000 | 75 000 |
| | | | | | | 305 | 180 | 6 280 | 31.0 | 7.0 | | | | |
| | | | | | | 262 | 154 | 6 070 | 31.5 | 7.1 | | | | |
| | | | | | | 212 | 125 | 5 930 | 31.5 | 7.1 | | | | |
| VWC0120KUJBS AxiForce 120 | 8315100142 | 24 | 16...30 | A | ① ② ③ ④ | 337 | 198 | 6 500 | 28.3 | 7.2 | 59 | -20...+70 | 45 000 | 75 000 |
| | | | | | | 303 | 178 | 6 280 | 29.1 | 7.0 | | | | |
| | | | | | | 263 | 155 | 6 100 | 29.9 | 7.1 | | | | |
| | | | | | | 212 | 125 | 6 000 | 30.4 | 7.1 | | | | |
| VWC0120KUJBS AxiForce 120 | 8315100144 | 48 | 36...60 | A | ① ② ③ ④ | 342 | 201 | 6 500 | 28.6 | 7.2 | 59 | -20...+70 | 45 000 | 75 000 |
| | | | | | | 302 | 178 | 6 280 | 29.5 | 7.0 | | | | |
| | | | | | | 263 | 155 | 6 100 | 30.2 | 7.1 | | | | |
| | | | | | | 213 | 125 | 6 000 | 30.9 | 7.1 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VUCF119Y...

DC axial fan · max. 237 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: intake over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings and sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: On flat connectors, 2,8 x 0,5 mm also available with wires as an option
- Electrical protection class: III
- Weight: 390 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

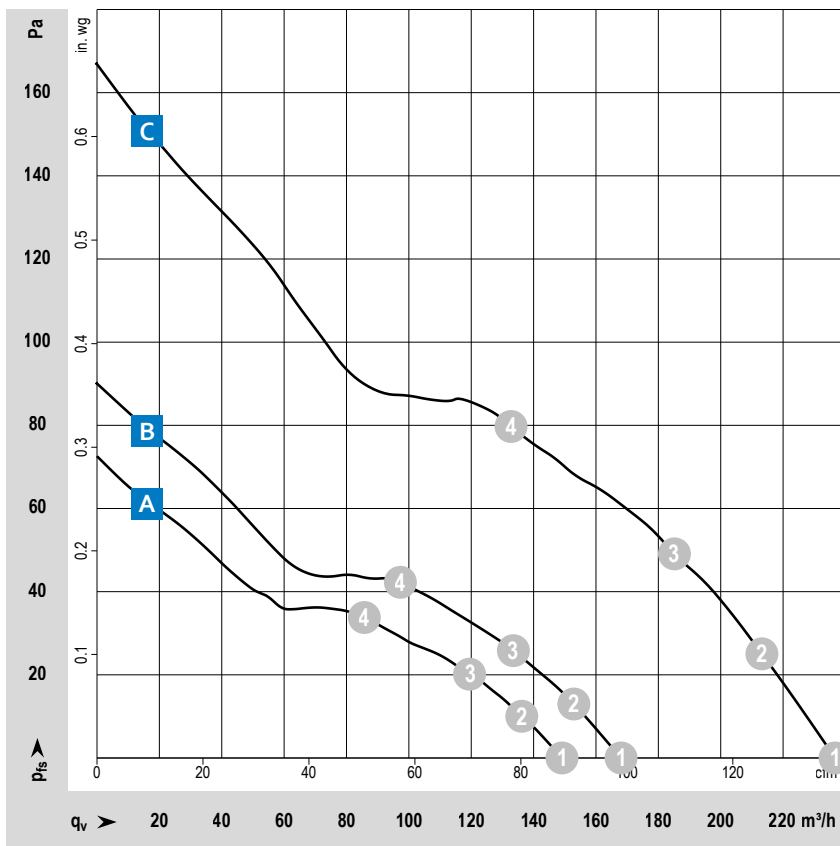
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

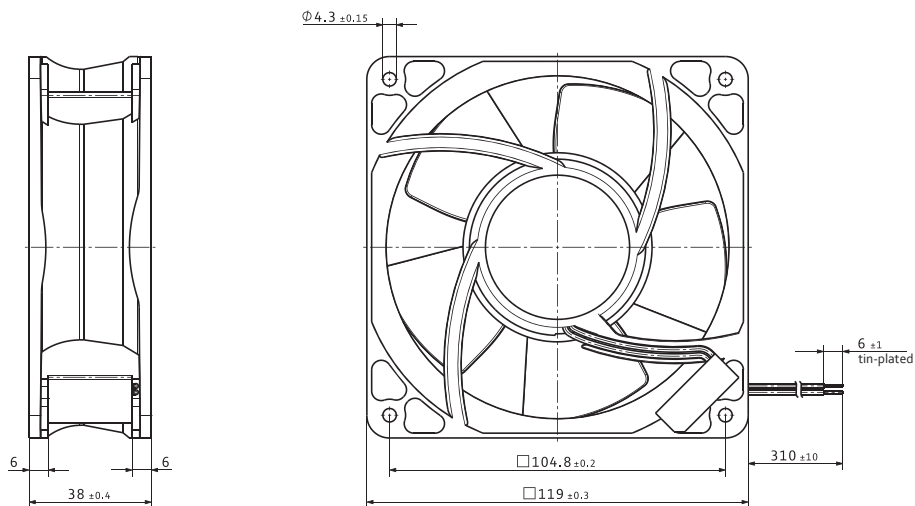
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10}^{IPC} (40 °C) s.p. II |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VUCF119YHJKS 4182 NGX | 9294310105 | 12 | 6...15 | A | ① | 149 | 88 | 2 800 | 3.4 | 5.6 | 44 | -20...+75 | 85 000 | 142 500 |
| | | | | | ② | 135 | 79 | 2 740 | 3.6 | 5.5 | | | | |
| | | | | | ③ | 116 | 68 | 2 680 | 3.7 | 5.4 | | | | |
| | | | | | ④ | 84 | 49 | 2 600 | 3.9 | 5.3 | | | | |
| VUCF119YHJLS 4182 NX | 9294310107 | 12 | 6...15 | B | ① | 168 | 99 | 3 200 | 4.9 | 6.0 | 49 | -30...+75 | 85 000 | 142 500 |
| | | | | | ② | 153 | 90 | 3 170 | 5.1 | 5.9 | | | | |
| | | | | | ③ | 134 | 79 | 3 100 | 5.3 | 5.7 | | | | |
| | | | | | ④ | 97 | 57 | 3 030 | 5.6 | 5.6 | | | | |
| VUCF119YHJMS 4182 NXH | 9294310188 | 12 | 7...14 | C | ① | 237 | 139 | 4 400 | 9.9 | 6.8 | 57 | -30...+55 | 70 000 | 117 500 |
| | | | | | ② | 213 | 125 | 4 290 | 10.4 | 6.7 | | | | |
| | | | | | ③ | 185 | 109 | 4 190 | 11.0 | 6.5 | | | | |
| | | | | | ④ | 133 | 78 | 4 070 | 11.7 | 6.4 | | | | |
| VUCF119YJKS 4184 NGX | 9294310104 | 24 | 12...31.5 | A | ① | 149 | 88 | 2 800 | 3.1 | 5.6 | 44 | -20...+75 | 85 000 | 142 500 |
| | | | | | ② | 136 | 80 | 2 760 | 3.2 | 5.5 | | | | |
| | | | | | ③ | 119 | 70 | 2 700 | 3.4 | 5.4 | | | | |
| | | | | | ④ | 86 | 51 | 2 640 | 3.6 | 5.3 | | | | |
| VUCF119YJKS 4184 NXM | 9294310248 | 24 | 12...31.5 | A | ① | 149 | 88 | 2 800 | 3.1 | 5.6 | 44 | -30...+75 | 85 000 | 142 500 |
| | | | | | ② | 136 | 80 | 2 760 | 3.3 | 5.5 | | | | |
| | | | | | ③ | 119 | 70 | 2 720 | 3.5 | 5.4 | | | | |
| | | | | | ④ | 86 | 51 | 2 660 | 3.7 | 5.3 | | | | |
| VUCF119YJLS 4184 NX | 9294310103 | 24 | 12...31.5 | B | ① | 169 | 99 | 3 200 | 4.4 | 6.0 | 49 | -30...+70 | 85 000 | 142 500 |
| | | | | | ② | 153 | 90 | 3 120 | 4.6 | 5.9 | | | | |
| | | | | | ③ | 133 | 78 | 3 050 | 4.9 | 5.7 | | | | |
| | | | | | ④ | 96 | 57 | 2 970 | 5.1 | 5.6 | | | | |
| VUCF119YJMS 4184 NXH | 9294310138 | 24 | 12...28 | C | ① | 226 | 133 | 4 400 | 9.6 | 6.8 | 57 | -30...+70 | 70 000 | 117 500 |
| | | | | | ② | 205 | 121 | 4 280 | 10.2 | 6.7 | | | | |
| | | | | | ③ | 179 | 105 | 4 160 | 10.9 | 6.5 | | | | |
| | | | | | ④ | 131 | 77 | 4 000 | 11.8 | 6.4 | | | | |
| VUCF119YKJKS 4188 NGX | 9294310178 | 48 | 36...60 | A | ① | 148 | 87 | 2 800 | 3.0 | 5.6 | 44 | -20...+75 | 85 000 | 142 500 |
| | | | | | ② | 135 | 79 | 2 750 | 3.2 | 5.5 | | | | |
| | | | | | ③ | 118 | 69 | 2 690 | 3.4 | 5.4 | | | | |
| | | | | | ④ | 85 | 50 | 2 630 | 3.6 | 5.3 | | | | |
| VUCF119YKJKS 4188 NXM | 9294310106 | 48 | 36...60 | A | ① | 147 | 87 | 2 800 | 3.5 | 5.6 | 44 | -30...+75 | 85 000 | 142 500 |
| | | | | | ② | 134 | 79 | 2 750 | 3.6 | 5.5 | | | | |
| | | | | | ③ | 118 | 69 | 2 700 | 3.8 | 5.4 | | | | |
| | | | | | ④ | 86 | 51 | 2 640 | 4.1 | 5.3 | | | | |

Subject to changes. More fan types can be found on the next page.

Technical drawing

Dimensions in mm



VUCF119Y...

DC axial fan · max. 439 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: intake over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 390 g

Approvals

- Approvals: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

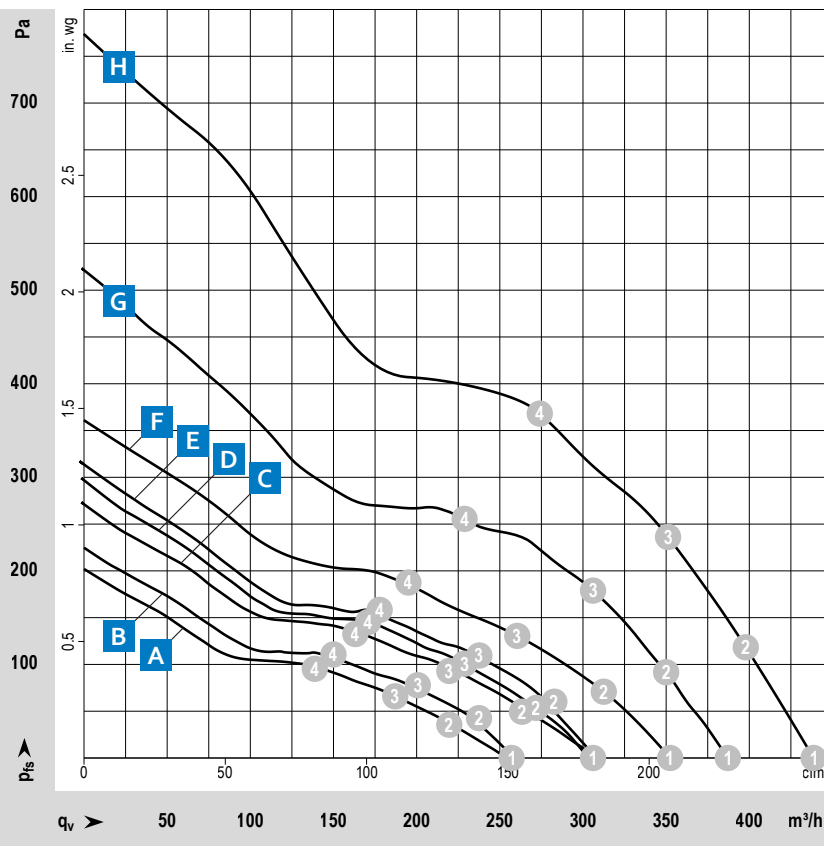
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

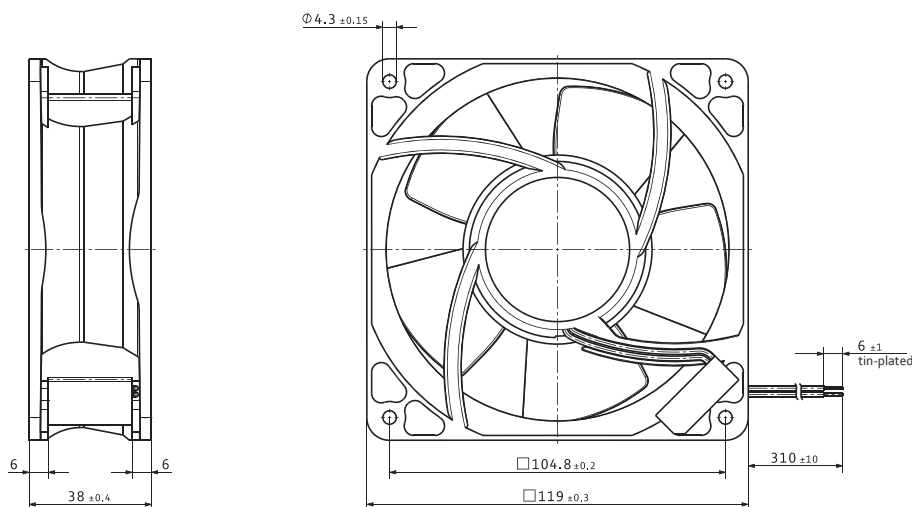
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|---------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VUCF119YHJNS 4112 NHH | 9694300225 | 12 | 9...15 | B | ① | 259 | 152 | 5 000 | 11.7 | 7.1 | 60 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 233 | 137 | 5 000 | 13.6 | 7.2 | | | | |
| | | | | | ③ | 200 | 118 | 4 930 | 14.9 | 6.9 | | | | |
| | | | | | ④ | 150 | 88 | 4 780 | 15.2 | 6.7 | | | | |
| VUCF119YHJNS 4112 NH3 | 9694300233 | 12 | 9...15 | E | ① | 308 | 181 | 6 000 | 18.9 | 7.5 | 65 | -20...+65 | 65 000 | 110 000 |
| | | | | | ② | 279 | 164 | 6 000 | 22.6 | 7.4 | | | | |
| | | | | | ③ | 238 | 140 | 5 840 | 24.6 | 7.2 | | | | |
| | | | | | ④ | 177 | 104 | 5 650 | 25.1 | 7.2 | | | | |
| VUCF119YHJPS 4112 NH4 | 9694300260 | v | 9...14 | F | ① | 352 | 207 | 6 800 | 29.6 | 7.9 | 67 | -20...+65 | 62 500 | 105 000 |
| | | | | | ② | 313 | 184 | 6 680 | 33.7 | 7.8 | | | | |
| | | | | | ③ | 261 | 154 | 6 400 | 34.0 | 7.5 | | | | |
| | | | | | ④ | 195 | 115 | 6 160 | 34.2 | 7.3 | | | | |
| VUCF119YHJNS 4114 NHH | 9694300224 | 24 | 12...30 | B | ① | 259 | 152 | 5 000 | 11.4 | 7.1 | 60 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 235 | 138 | 5 000 | 13.6 | 7.0 | | | | |
| | | | | | ③ | 199 | 117 | 4 860 | 14.3 | 6.9 | | | | |
| | | | | | ④ | 149 | 88 | 4 700 | 14.6 | 6.7 | | | | |
| VUCF119YJNS 4114 NH3 | 9694300234 | 24 | 16...30 | D | ① | 303 | 178 | 6 000 | 18.7 | 7.5 | 65 | -20...+65 | 65 000 | 110 000 |
| | | | | | ② | 272 | 160 | 5 930 | 20.8 | 7.4 | | | | |
| | | | | | ③ | 229 | 135 | 5 700 | 21.1 | 7.2 | | | | |
| | | | | | ④ | 172 | 101 | 5 530 | 21.4 | 7.2 | | | | |
| VUCF119YJPS 4114 NH4 | 9694300257 | 24 | 16...30 | F | ① | 348 | 205 | 6 800 | 31.3 | 7.9 | 67 | -20...+65 | 62 500 | 105 000 |
| | | | | | ② | 309 | 182 | 6 760 | 37.2 | 7.8 | | | | |
| | | | | | ③ | 260 | 153 | 6 460 | 38.5 | 7.5 | | | | |
| | | | | | ④ | 195 | 115 | 6 280 | 39.2 | 7.3 | | | | |
| VUCF119YJPS 4114 NH5 S-Force | 9694300262 | 24 | 16...30 | G | ① | 387 | 228 | 7 500 | 42.8 | 8.1 | 70 | -20...+65 | 62 500 | 105 000 |
| | | | | | ② | 351 | 207 | 7 490 | 48.1 | 8.1 | | | | |
| | | | | | ③ | 306 | 180 | 7 490 | 52.3 | 7.9 | | | | |
| | | | | | ④ | 229 | 135 | 7 280 | 50.5 | 7.8 | | | | |
| VUCF119YJQS 4114 NH6 S-Force | 9694300256 | 24 | 16...30 | H | ① | 439 | 258 | 8 400 | 69.9 | 8.6 | 73 | -20...+65 | 60 000 | 102 500 |
| | | | | | ② | 399 | 235 | 8 380 | 78.7 | 8.5 | | | | |
| | | | | | ③ | 351 | 207 | 8 380 | 88.0 | 8.3 | | | | |
| | | | | | ④ | 274 | 161 | 8 380 | 96.0 | 8.3 | | | | |
| VUCF119YKJNS 4118 NHH | 9694300226 | 48 | 36...60 | A | ① | 254 | 149 | 5 000 | 10.9 | 7.1 | 60 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 222 | 131 | 4 800 | 11.4 | 7.0 | | | | |
| | | | | | ③ | 187 | 110 | 4 630 | 11.6 | 6.8 | | | | |
| | | | | | ④ | 141 | 83 | 4 480 | 11.8 | 6.6 | | | | |
| VUCF119YKJNS 4118 NH3 | 9694300235 | 48 | 36...60 | C | ① | 309 | 182 | 6 000 | 19.1 | 7.5 | 65 | -20...+65 | 65 000 | 110 000 |
| | | | | | ② | 266 | 157 | 5 690 | 19.0 | 7.4 | | | | |
| | | | | | ③ | 222 | 131 | 5 440 | 19.0 | 7.1 | | | | |
| | | | | | ④ | 166 | 98 | 5 250 | 19.0 | 6.9 | | | | |

Subject to changes. More fan types can be found on the next page.

Technical drawing

Dimensions in mm



VUCF119Y...

DC axial fan · max. 530 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: intake over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 425 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

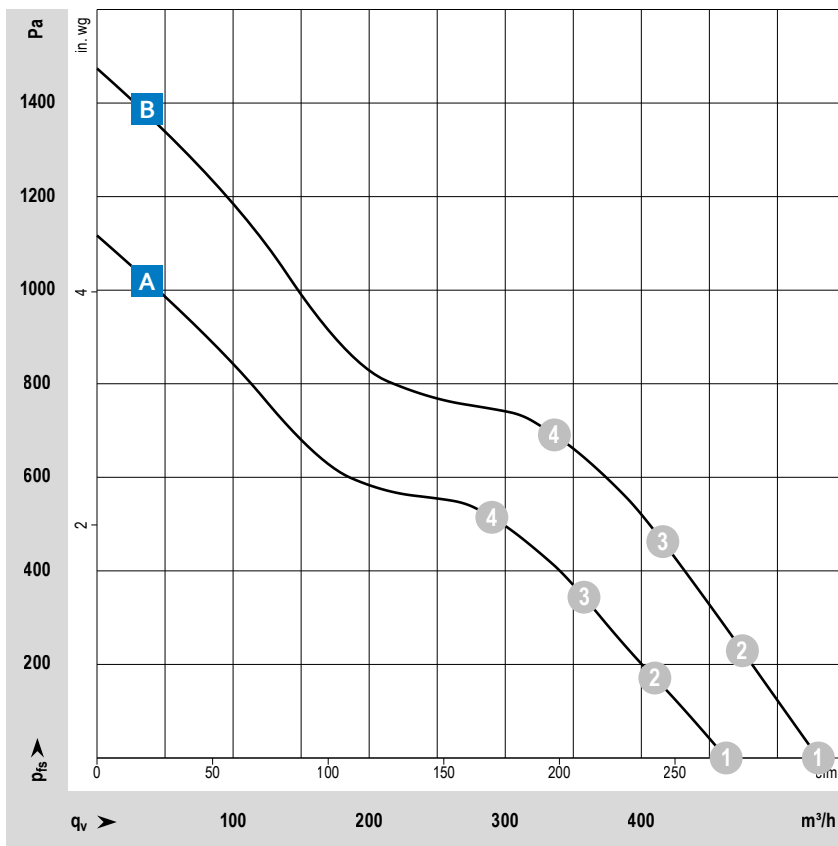
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Moisture protection

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

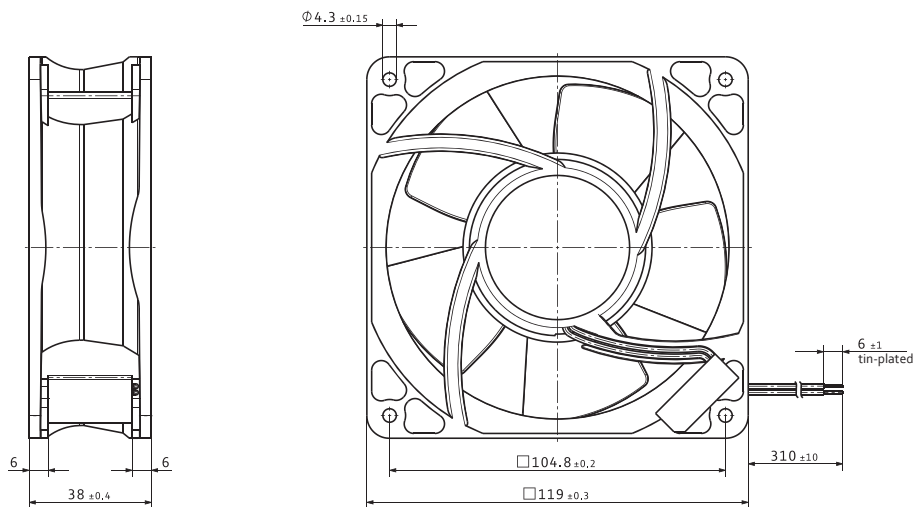
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | | °C | Hours |
| VUCF119YJJQS 4154 N/2 H7P | 9694314033 | 24 | 16...30 | A | ① | 460 | 271 | 9 500 | 79.0 | 9.0 | 74 | -20...+75 | 57 500 | 97 500 |
| | | | | | ② | 410 | 241 | 9 500 | 91.6 | 8.9 | | | | |
| | | | | | ③ | 359 | 211 | 9 490 | 109.2 | 8.9 | | | | |
| | | | | | ④ | 288 | 170 | 9 470 | 118.6 | 8.7 | | | | |
| VUCF119YJJRS 4154 N/2 H8P | 9694314031 | 24 | 16...30 | B | ① | 530 | 312 | 11 000 | 122.6 | 9.2 | 81 | -20...+75 | 55 000 | 92 500 |
| | | | | | ② | 474 | 279 | 11 040 | 145.1 | 9.2 | | | | |
| | | | | | ③ | 416 | 245 | 11 050 | 175.9 | 9.2 | | | | |
| | | | | | ④ | 336 | 198 | 11 050 | 194.3 | 9.0 | | | | |
| VUCF119YKJQZ 4158 N/2 H7P | 9694314034 | 48 | 36...60 | A | ① | 462 | 272 | 9 500 | 79.5 | 9.0 | 74 | -20...+75 | 57 500 | 97 500 |
| | | | | | ② | 410 | 241 | 9 500 | 92.4 | 8.9 | | | | |
| | | | | | ③ | 358 | 211 | 9 500 | 111.9 | 8.9 | | | | |
| | | | | | ④ | 290 | 171 | 9 500 | 122.1 | 8.7 | | | | |
| VUCF119YKJRS 4158 N/2 H8P | 9694314028 | 48 | 36...72 | B | ① | 529 | 311 | 11 000 | 123.1 | 9.2 | 80 | -20...+75 | 55 000 | 92 500 |
| | | | | | ② | 472 | 278 | 11 000 | 142.4 | 9.2 | | | | |
| | | | | | ③ | 410 | 241 | 10 900 | 164.5 | 9.2 | | | | |
| | | | | | ④ | 328 | 193 | 10 800 | 175.7 | 9.0 | | | | |

Subject to changes.

The specific service life is valid when an external capacitor is wired by the customer. See information on wiring in the corresponding product data sheet.

Technical drawing

Dimensions in mm



VKCF119A...

DC diagonal fan · max. 276 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Plastic; optional Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; diagonal design, compact and powerful; noise and efficiency optimized diagonal fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 375 g (with metal housing: 455 g)

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

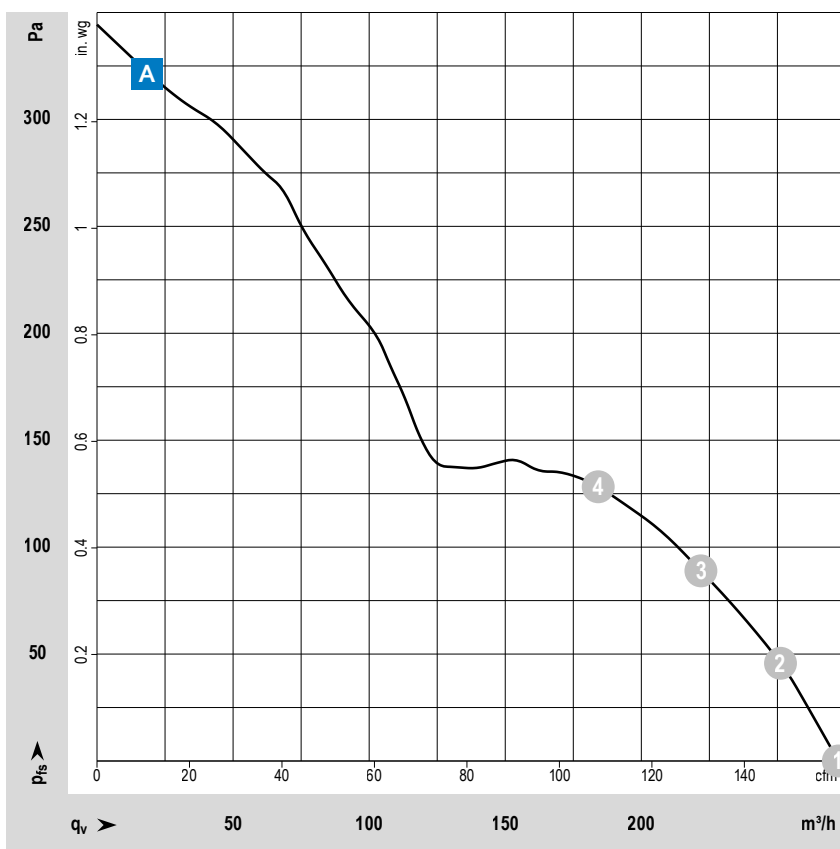
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

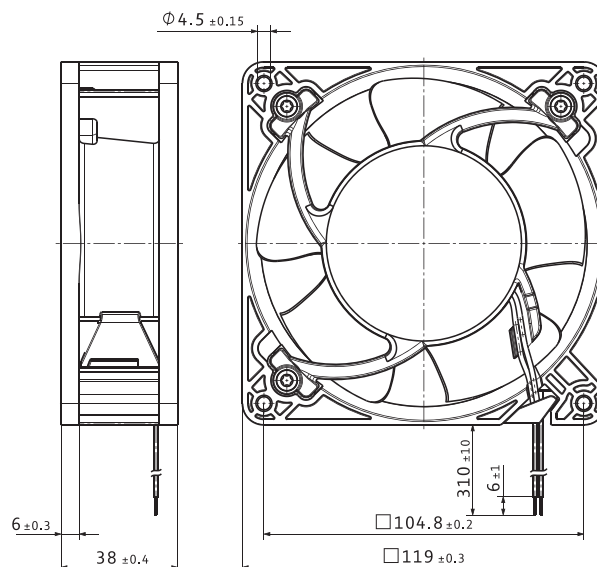
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | | °C | Hours |
| VKCF119AHJNS DV 4112 N | 9694330031 | 12 | 9...15 | A | ① | 273 | 161 | 6 000 | 20.8 | 7.4 | 61 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 251 | 148 | 6 020 | 23.2 | 7.3 | | | | |
| | | | | | ③ | 225 | 132 | 5 940 | 24.3 | 7.2 | | | | |
| | | | | | ④ | 189 | 111 | 5 870 | 24.5 | 7.1 | | | | |
| VKCF119AJJNS DV 4114 N | 9694330091 | 24 | 16...30 | A | ① | 272 | 160 | 6 000 | 19.6 | 7.4 | 61 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 252 | 148 | 6 010 | 21.5 | 7.3 | | | | |
| | | | | | ③ | 222 | 131 | 5 860 | 21.7 | 7.2 | | | | |
| | | | | | ④ | 184 | 108 | 5 800 | 21.8 | 7.1 | | | | |
| VKCF119AKJNS DV 4118 N | 9694330151 | 48 | 36...60 | A | ① | 276 | 162 | 6 000 | 20.1 | 7.4 | 61 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 247 | 145 | 5 870 | 20.4 | 7.4 | | | | |
| | | | | | ③ | 218 | 128 | 5 720 | 20.4 | 7.1 | | | | |
| | | | | | ④ | 182 | 107 | 5 630 | 20.5 | 7.0 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VKCK119DKLSS

DC axial fan · max. 680 m³/h · □ 119 × 86 mm



Material/Surface

- Housing: Combined (metal flange, plastic inlet nozzle)
- Impeller: Plastic

Characteristics

- Version: DC fan available in 48VDC; new single stage principle with highly innovative aerodynamic design; extraordinarily pressure-oriented with outstanding noise values
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: exposed wire
- Electrical protection class: III
- Weight: 980 g

Approvals

- Approvals: VDE (EN62368), UL, CSA, CCC, EAC, CE, UKCA
- EMV (Immunity to interference/ Interference emission): Interference emission acc. to EN55032
Immunity to interference acc. to EN61000-4

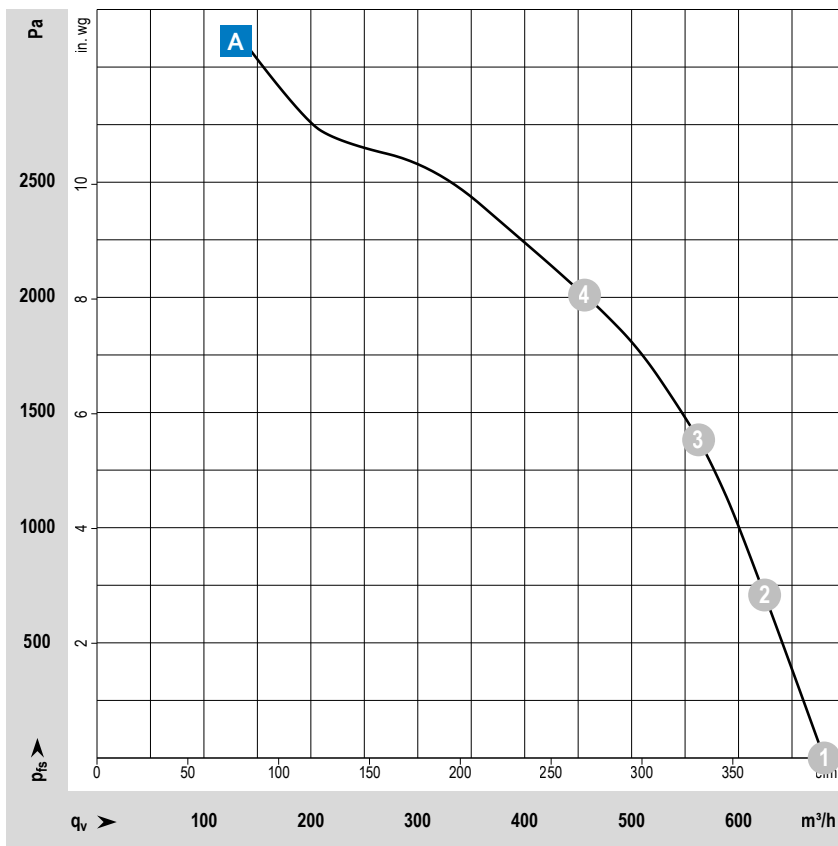
Options

- Output signals: Tacho /2; Alarme (Go/NoGo + Trip Speed)
- Input signals: Multi-options input; I + T
- Extended protection against environmental conditions: Parylene
- Predictive Maintenance (FanCheck)
- Housing with grounding lug for screw M4 x 8 (Torx)

Special features

- Ready for Restart (R4R) enables safe startup with external drive

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

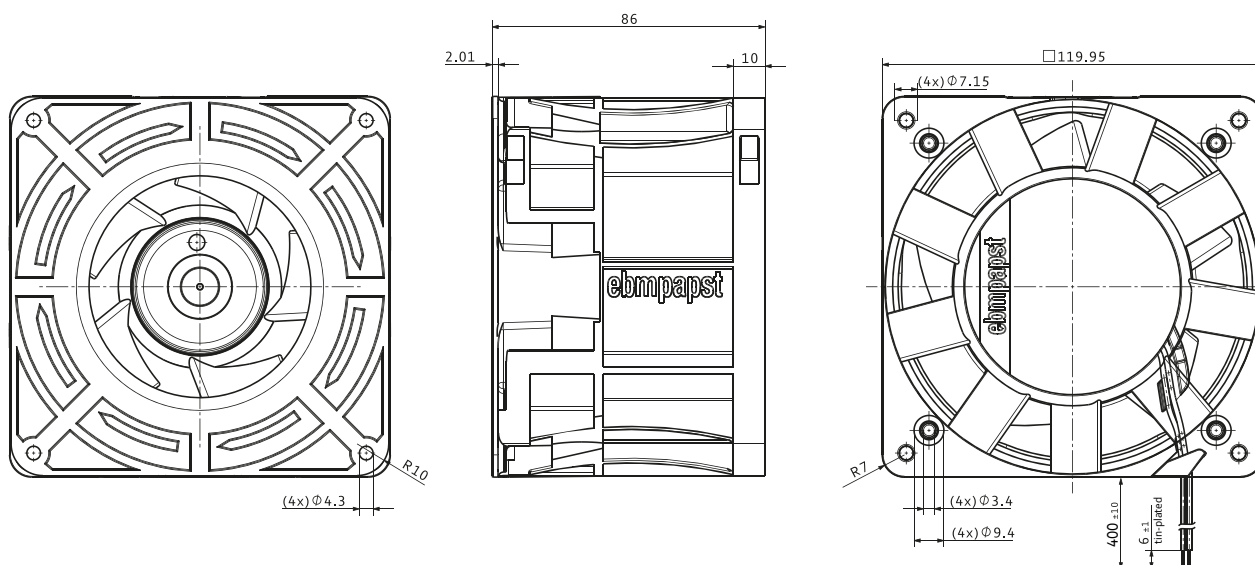
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Typ | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s. p. 11 |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|--------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VKCK119DKLSS DiaForce 120 | 8315100198 | 48 | 36...60 | A | ① | 680 | 400 | 17 250 | 407.3 | 9.8 | 83.5 | -25...+70 | 40 000 | 70 000 |
| | | | | | ② | 625 | 368 | 17 250 | 463.5 | 9.5 | | | | |
| | | | | | ③ | 563 | 331 | 17 150 | 500.0 | 9.2 | | | | |
| | | | | | ④ | 456 | 268 | 16 900 | 500.0 | 9.1 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCF127Y...

DC axial fan · max. 337 m³/h · □ 127 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 310 g

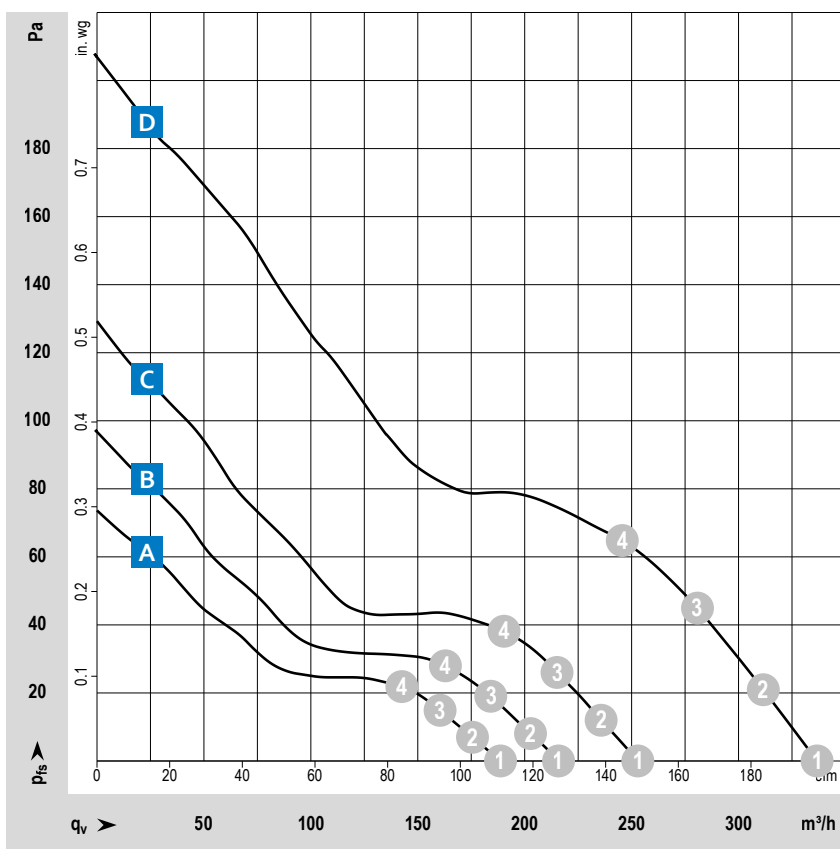
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

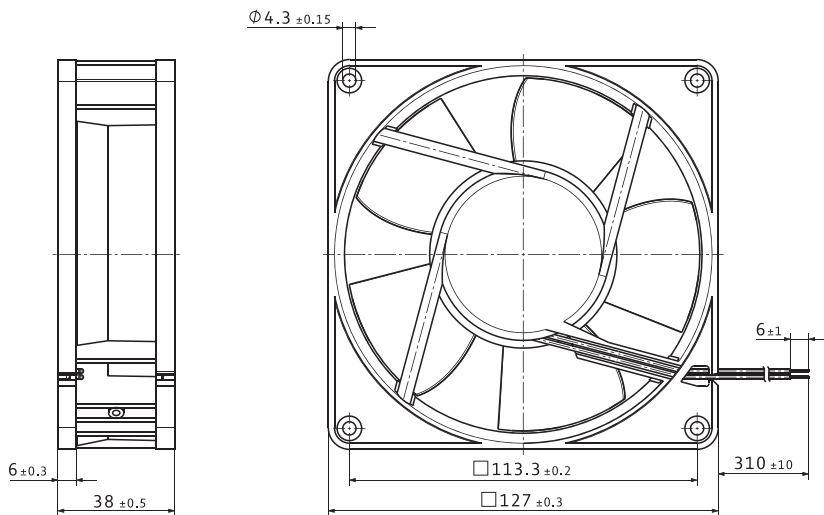
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|--------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWCF127YHJMS 5212 NN | 9294310601 | 12 | 7...14 | B | ① | 218 | 128 | 3 150 | 5.7 | 5.8 | 46 | -20...+70 | 57 500 | 97 500 |
| | | | | | ② | 205 | 121 | 3 110 | 5.9 | 5.7 | | | | |
| | | | | | ③ | 185 | 109 | 3 050 | 6.2 | 5.6 | | | | |
| | | | | | ④ | 165 | 97 | 3 000 | 6.3 | 5.6 | | | | |
| VWCF127YHJMS 5212 NH | 9294310607 | 12 | 7...14 | C | ① | 251 | 148 | 3 650 | 7.9 | 6.2 | 51 | -20...+70 | 45 000 | 75 000 |
| | | | | | ② | 235 | 138 | 3 590 | 8.2 | 6.1 | | | | |
| | | | | | ③ | 213 | 125 | 3 520 | 8.5 | 6.0 | | | | |
| | | | | | ④ | 189 | 111 | 3 460 | 8.8 | 6.0 | | | | |
| VWCF127YHJPS 5212 NHH | 9694320202 | 12 | 9...15 | D | ① | 336 | 198 | 4 900 | 18.1 | 6.8 | 58 | -20...+65 | 45 000 | 75 000 |
| | | | | | ② | 319 | 188 | 4 880 | 19.4 | 6.8 | | | | |
| | | | | | ③ | 290 | 171 | 4 800 | 20.4 | 6.7 | | | | |
| | | | | | ④ | 254 | 149 | 4 700 | 20.6 | 6.6 | | | | |
| VWCF127YJLS 5214 NM | 9294310605 | 24 | 12...28 | A | ① | 185 | 109 | 2 750 | 4.0 | 5.5 | 43 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 173 | 102 | 2 710 | 4.2 | 5.4 | | | | |
| | | | | | ③ | 158 | 93 | 2 670 | 4.3 | 5.3 | | | | |
| | | | | | ④ | 140 | 82 | 2 630 | 4.4 | 5.3 | | | | |
| VWCF127YJMS 5214 NN | 9294310602 | 24 | 12...28 | B | ① | 217 | 128 | 3 150 | 5.3 | 5.8 | 46 | -20...+75 | 57 500 | 97 500 |
| | | | | | ② | 203 | 119 | 3 100 | 5.5 | 5.7 | | | | |
| | | | | | ③ | 184 | 108 | 3 050 | 5.7 | 5.6 | | | | |
| | | | | | ④ | 163 | 96 | 3 000 | 5.9 | 5.6 | | | | |
| VWCF127YJMS 5214 NH | 9294310608 | 24 | 12...28 | C | ① | 253 | 149 | 3 650 | 8.0 | 6.2 | 51 | -20...+70 | 45 000 | 75 000 |
| | | | | | ② | 236 | 139 | 3 590 | 8.3 | 6.1 | | | | |
| | | | | | ③ | 215 | 127 | 3 520 | 8.6 | 6.0 | | | | |
| | | | | | ④ | 190 | 112 | 3 470 | 8.9 | 6.0 | | | | |
| VWCF127YJPS 5214 NHH | 9694320201 | 24 | 16...30 | D | ① | 337 | 198 | 4 900 | 17.4 | 6.8 | 58 | -20...+65 | 45 000 | 75 000 |
| | | | | | ② | 312 | 184 | 4 780 | 17.5 | 6.8 | | | | |
| | | | | | ③ | 281 | 165 | 4 650 | 17.6 | 6.7 | | | | |
| | | | | | ④ | 246 | 145 | 4 560 | 17.8 | 6.6 | | | | |
| VWCF127YKJLS 5218 NM | 9294310611 | 48 | 36...56 | A | ① | 189 | 111 | 2 750 | 4.2 | 5.5 | 43 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 176 | 104 | 2 710 | 4.3 | 5.4 | | | | |
| | | | | | ③ | 161 | 95 | 2 670 | 4.5 | 5.3 | | | | |
| | | | | | ④ | 143 | 84 | 2 620 | 4.6 | 5.3 | | | | |
| VWCF127YKJMS 5218 NH | 9294310609 | 48 | 36...56 | C | ① | 251 | 148 | 3 650 | 9.2 | 6.2 | 51 | -20...+55 | 45 000 | 75 000 |
| | | | | | ② | 236 | 139 | 3 600 | 9.8 | 6.1 | | | | |
| | | | | | ③ | 214 | 126 | 3 550 | 10.8 | 6.0 | | | | |
| | | | | | ④ | 189 | 111 | 3 490 | 11.5 | 6.0 | | | | |
| VWCF127YKJMS 5218 NHH | 9694320203 | 48 | 36...60 | D | ① | 335 | 197 | 4 900 | 17.1 | 6.8 | 58 | -20...+65 | 45 000 | 75 000 |
| | | | | | ② | 311 | 183 | 4 790 | 17.2 | 6.8 | | | | |
| | | | | | ③ | 279 | 164 | 4 660 | 17.3 | 6.7 | | | | |
| | | | | | ④ | 246 | 145 | 4 570 | 17.4 | 6.6 | | | | |

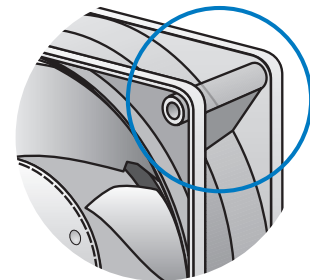
Subject to changes.

Technical drawing

Dimensions in mm



* NHH fan types: fan housing with molded-in spacers.



VKCF127A...

DC diagonal fan · max. 327 m³/h · □ 127 x 38 mm



Material/Surface

- Housing: Plastic; optional metal + metal flange
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; diagonal design; compact and powerful; noise and efficiency optimized diagonal fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 415 g (with metal housing: 490 g)

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

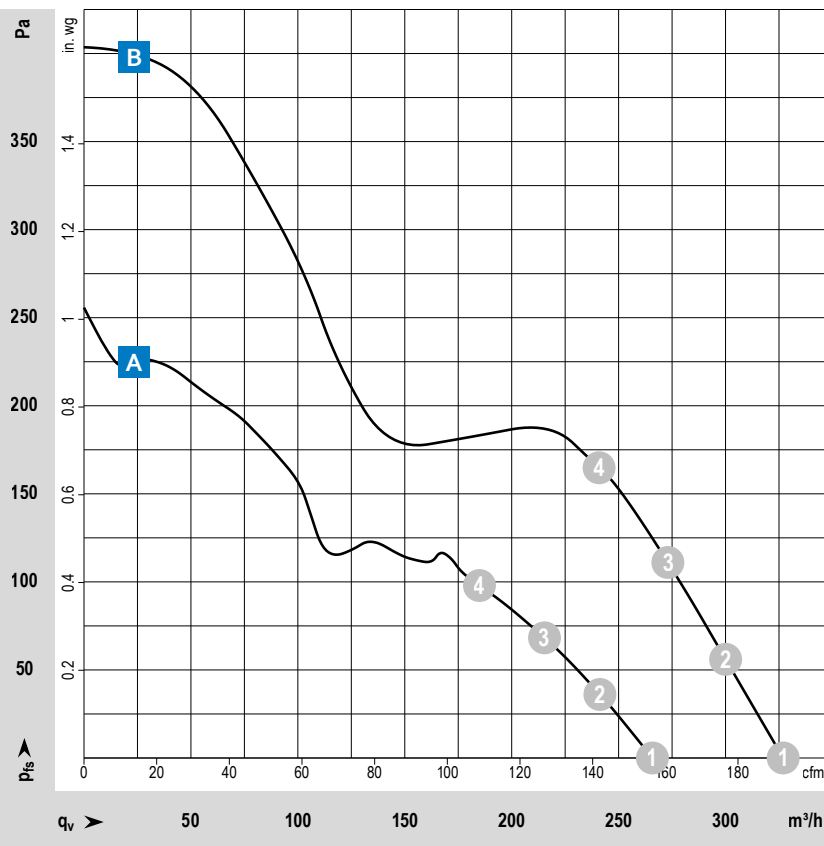
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

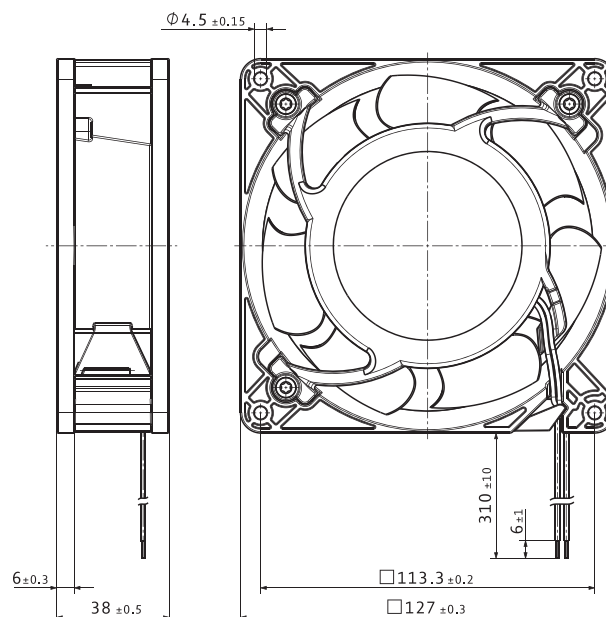
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|---|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VKCF127AHJNS DV 5212 N | 9694340031 | 12 | 9...15 | A | ① | 266 | 157 | 5 000 | 19.4 | 6.9 | 56 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 241 | 142 | 4 860 | 19.7 | 6.9 | | | | |
| | | | | | ③ | 215 | 127 | 4 740 | 19.9 | 6.8 | | | | |
| | | | | | ④ | 185 | 109 | 4 680 | 20.1 | 6.7 | | | | |
| VKCF127AJJNS DV 5214 N | 9694340091 | 24 | 16...30 | A | ① | 265 | 156 | 5 000 | 18.1 | 6.9 | 56 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 247 | 145 | 4 990 | 20.2 | 6.9 | | | | |
| | | | | | ③ | 219 | 129 | 4 890 | 20.4 | 6.8 | | | | |
| | | | | | ④ | 188 | 111 | 4 840 | 20.5 | 6.7 | | | | |
| VKCF127AKJNS DV 5218 N | 9694340151 | 48 | 36...60 | A | ① | 266 | 157 | 5 000 | 18.5 | 6.9 | 56 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 238 | 140 | 4 870 | 18.6 | 6.9 | | | | |
| | | | | | ③ | 213 | 125 | 4 770 | 18.7 | 6.8 | | | | |
| | | | | | ④ | 184 | 108 | 4 710 | 18.7 | 6.7 | | | | |
| Fan type with speed signal and PWM control input as standard. Other versions on request | | | | | | | | | | | | | | |
| VKCF127AJJNS DV 5214/2 HP | 9694340219 | 24 | 16...30 | B | ① | 327 | 192 | 6 000 | 34.2 | 7.4 | 62 | -20...+65 | 62 500 | 105 000 |
| | | | | | ② | 300 | 177 | 6 000 | 38.6 | 7.3 | | | | |
| | | | | | ③ | 273 | 161 | 6 000 | 43.1 | 7.3 | | | | |
| | | | | | ④ | 241 | 142 | 6 000 | 45.8 | 7.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCF135Y...

DC axial fan · max. 258 m³/h · □ 135 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 650 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

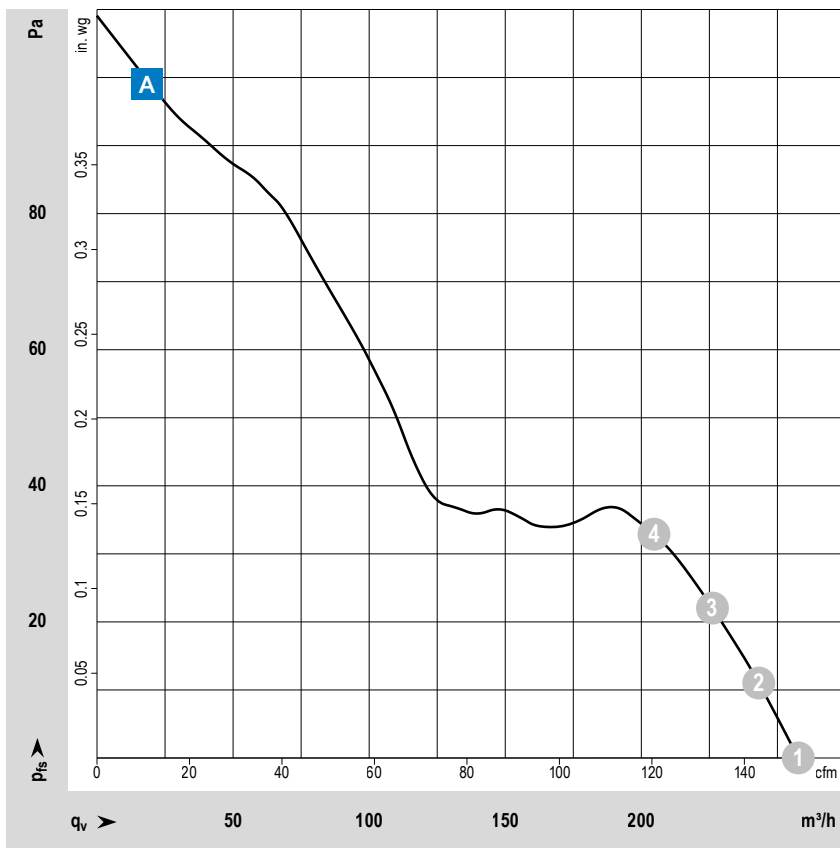
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)
- 48 V version incl. screws

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

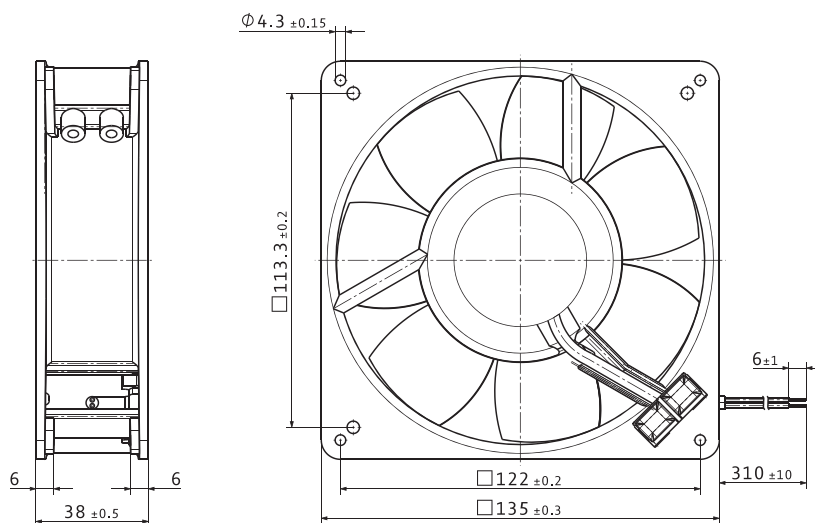
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCF135YHLNS 5112 N | 9295410020 | 12 | 6...15 | A | ① | 254 | 149 | 2900 | 9.1 | 6.2 | 48 | -25...+72 | 80 000 | 135 000 |
| | | | | | ② | 239 | 141 | 2870 | 9.4 | 6.1 | | | | |
| | | | | | ③ | 222 | 131 | 2850 | 9.6 | 6.1 | | | | |
| | | | | | ④ | 201 | 118 | 2840 | 9.7 | 6.1 | | | | |
| VWCF135YJLNS 5114 N | 9295410021 | 24 | 12...30 | A | ① | 255 | 150 | 2900 | 9.3 | 6.2 | 48 | -25...+75 | 80 000 | 135 000 |
| | | | | | ② | 241 | 142 | 2880 | 9.5 | 6.1 | | | | |
| | | | | | ③ | 224 | 132 | 2860 | 9.7 | 6.1 | | | | |
| | | | | | ④ | 203 | 119 | 2850 | 9.8 | 6.1 | | | | |
| VWCF135YKLNS 5118 N | 9295410061 | 48 | 24...60 | A | ① | 258 | 152 | 2900 | 9.4 | 6.2 | 48 | -25...+75 | 80 000 | 135 000 |
| | | | | | ② | 243 | 143 | 2880 | 9.6 | 6.1 | | | | |
| | | | | | ③ | 226 | 133 | 2870 | 9.8 | 6.1 | | | | |
| | | | | | ④ | 205 | 121 | 2860 | 10.0 | 6.1 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VUCG140A...

DC axial fan · max. 338 m³/h · □ 140 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: intake over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 900 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

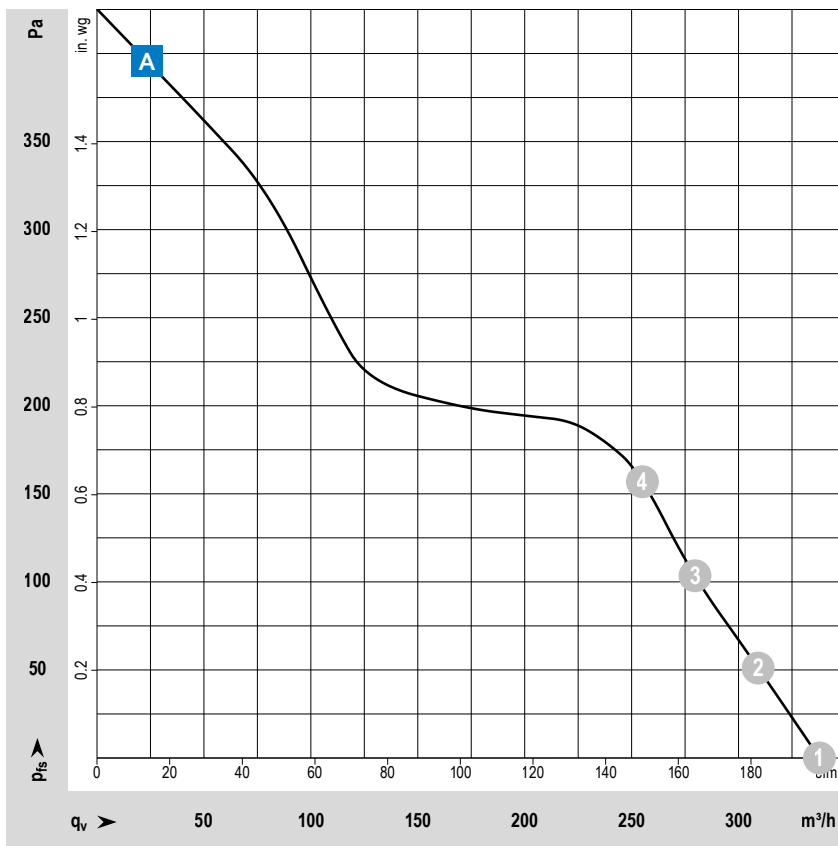
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

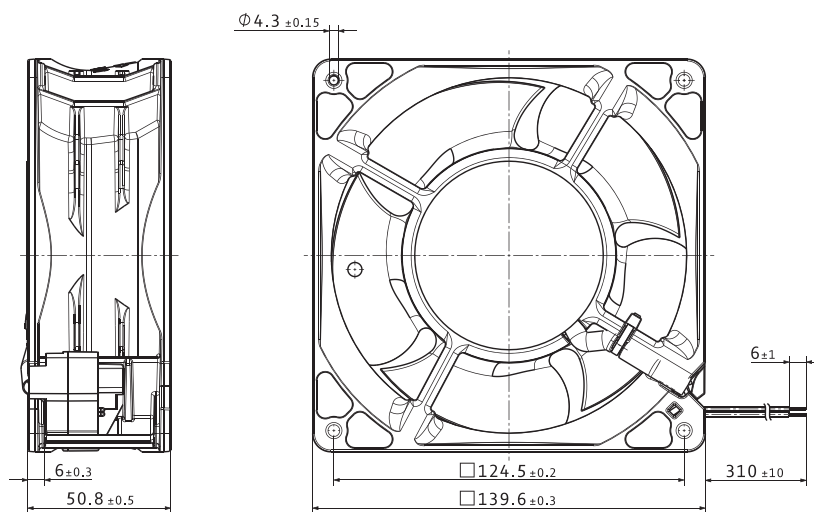
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy $L_{10/FC}$ (40 °C) s.p. II |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VUCG140AJLPS 5314/2 HP | 9695490181 | 24 | 16...28 | A | ① | 338 | 199 | 5 000 | 27.3 | 7.7 | 64 | -20...+65 | 77 500 | 130 000 |
| | | | | | ② | 309 | 182 | 5 000 | 30.7 | 7.7 | | | | |
| | | | | | ③ | 279 | 164 | 5 000 | 32.9 | 7.7 | | | | |
| | | | | | ④ | 256 | 151 | 5 000 | 34.8 | 7.6 | | | | |
| VUCG140AKLPS 5318/2 HP | 9695490182 | 48 | 36...72 | A | ① | 332 | 195 | 5 000 | 28.1 | 7.7 | 64 | -20...+65 | 77 500 | 130 000 |
| | | | | | ② | 308 | 181 | 5 000 | 31.7 | 7.7 | | | | |
| | | | | | ③ | 278 | 164 | 5 000 | 34.3 | 7.7 | | | | |
| | | | | | ④ | 256 | 151 | 5 000 | 36.1 | 7.6 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VUCG140A...

DC axial fan · max. 636 m³/h · □ 140 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: intake over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 20 and AWG 22
- Electrical protection class: III
- Weight: 900 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

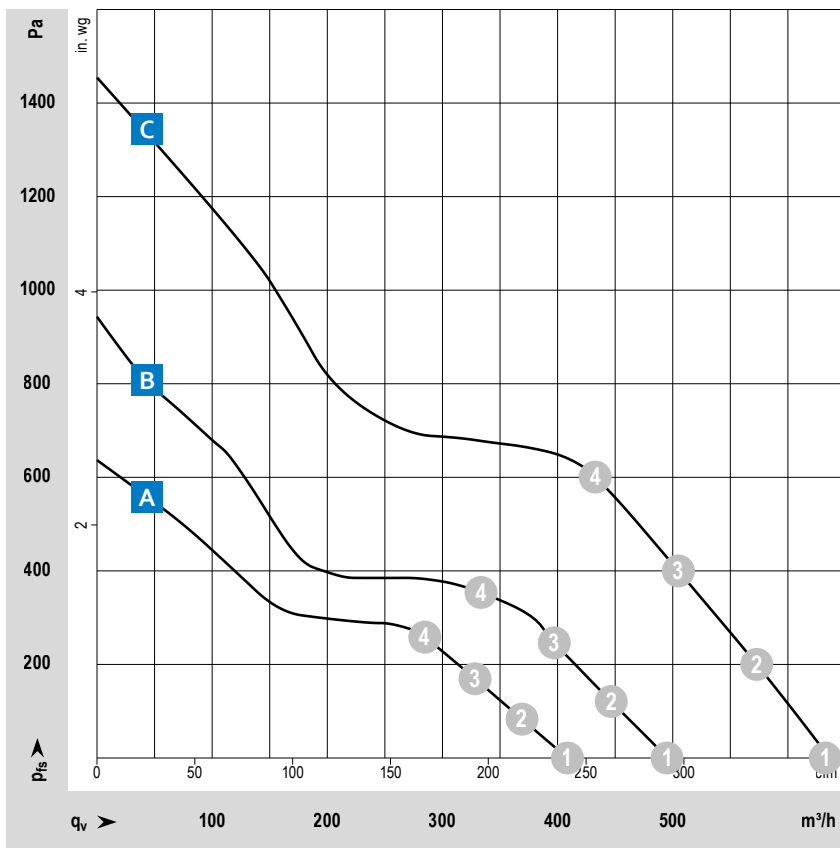
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

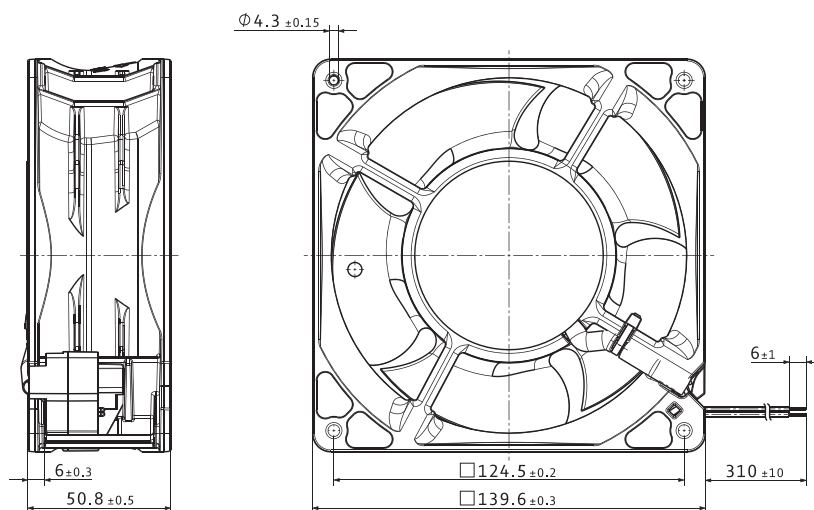
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ FC (40 °C) s.p. II |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VUCG140AHLOS 5312/2 TDHP | 9295420501 | 12 | 8...16 | A | ① | 406 | 239 | 6 000 | 44.7 | 8.4 | 70 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 367 | 216 | 6 000 | 51.7 | 8.3 | | | | |
| | | | | | ③ | 327 | 192 | 6 000 | 55.5 | 8.3 | | | | |
| | | | | | ④ | 285 | 168 | 6 000 | 59.9 | 8.1 | | | | |
| VUCG140AJLOS 5314/2 TDHP | 9295420502 | 24 | 16...36 | A | ① | 409 | 241 | 6 000 | 43.9 | 8.4 | 70 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 369 | 217 | 6 000 | 50.3 | 8.3 | | | | |
| | | | | | ③ | 328 | 193 | 6 000 | 54.0 | 8.3 | | | | |
| | | | | | ④ | 285 | 168 | 6 000 | 59.4 | 8.1 | | | | |
| VUCG140AJLOS 5314/2 TDHHP | 9295420504 | 24 | 16...36 | B | ① | 495 | 291 | 7 000 | 66.4 | 8.5 | 75 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 447 | 263 | 7 000 | 77.5 | 8.5 | | | | |
| | | | | | ③ | 397 | 234 | 7 000 | 86.3 | 8.5 | | | | |
| | | | | | ④ | 334 | 197 | 7 000 | 94.6 | 8.4 | | | | |
| VUCG140AKLOS 5318/2 TDHP | 9295420503 | 48 | 36...72 | A | ① | 407 | 240 | 6 000 | 43.5 | 8.4 | 70 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 370 | 218 | 6 000 | 50.0 | 8.3 | | | | |
| | | | | | ③ | 333 | 196 | 6 000 | 54.7 | 8.3 | | | | |
| | | | | | ④ | 287 | 169 | 5 980 | 58.9 | 8.1 | | | | |
| VUCG140AKLOS 5318/2 TDHHP | 9295420505 | 48 | 36...72 | B | ① | 477 | 281 | 7 000 | 65.5 | 8.5 | 75 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 437 | 257 | 7 000 | 76.8 | 8.5 | | | | |
| | | | | | ③ | 390 | 230 | 7 000 | 85.0 | 8.5 | | | | |
| | | | | | ④ | 337 | 198 | 7 000 | 92.4 | 8.4 | | | | |
| VUCG140AKLSS 5318/2 TDH4P | 9295420500 | 48 | 36...72 | C | ① | 636 | 374 | 9 200 | 158.8 | 9.4 | 79 | -20...+65 | 57 500 | 97 500 |
| | | | | | ② | 573 | 337 | 9 200 | 181.2 | 9.4 | | | | |
| | | | | | ③ | 505 | 297 | 9 200 | 199.0 | 9.4 | | | | |
| | | | | | ④ | 434 | 255 | 9 170 | 215.8 | 9.3 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEF150X...

DC axial fan · max. 357 m³/h · Ø 150 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 620 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

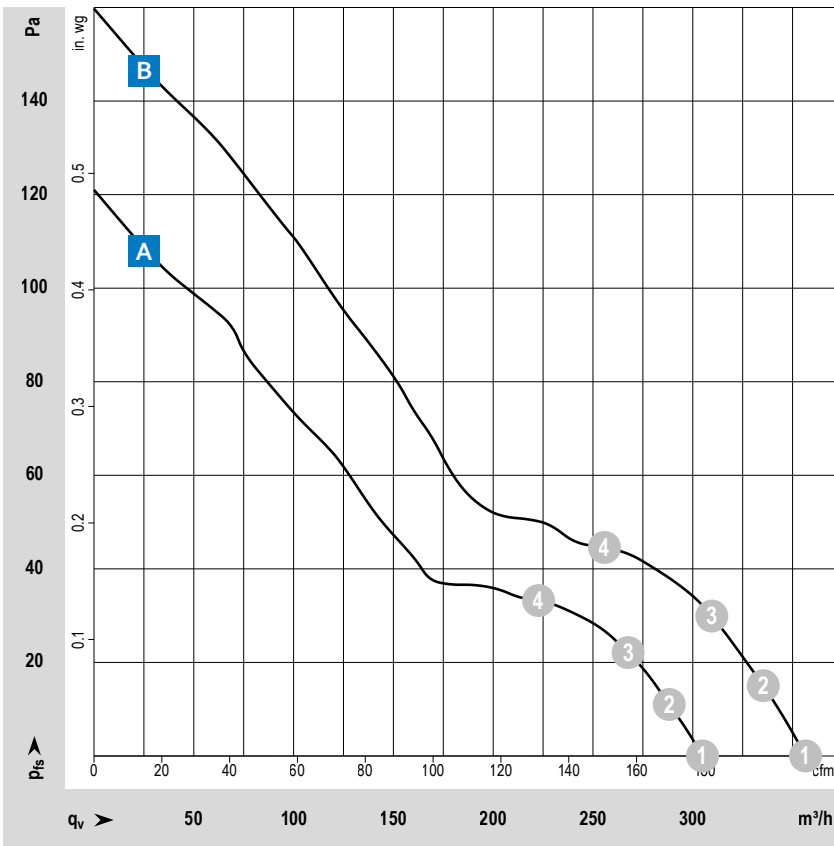
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

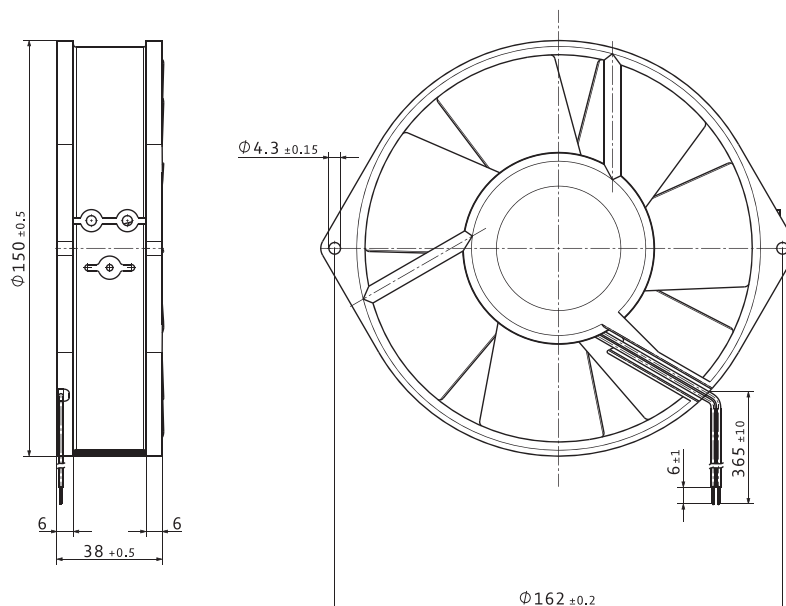
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ IFC (40 °C) s.p. II |
|-------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEF150XHLNS 7112 N | 9295410120 | 12 | 6...15 | A | ① | 305 | 180 | 2 850 | 10.6 | 6.4 | 53 | -25...+75 | 80 000 | 135 000 |
| | | | | | ② | 288 | 170 | 2 840 | 10.9 | 6.4 | | | | |
| | | | | | ③ | 267 | 157 | 2 800 | 11.1 | 6.3 | | | | |
| | | | | | ④ | 222 | 131 | 2 800 | 11.1 | 6.4 | | | | |
| VWEF150XJLNS 7114 N | 9295410121 | 24 | 12...30 | A | ① | 306 | 180 | 2 850 | 9.8 | 6.4 | 53 | -25...+75 | 80 000 | 135 000 |
| | | | | | ② | 290 | 171 | 2 830 | 10.1 | 6.4 | | | | |
| | | | | | ③ | 270 | 159 | 2 800 | 10.3 | 6.3 | | | | |
| | | | | | ④ | 223 | 131 | 2 800 | 10.3 | 6.4 | | | | |
| VWEF150XJLPS 7114 NH | 9295410133 | 24 | 12...26.5 | B | ① | 357 | 210 | 3 350 | 15.2 | 6.9 | 58 | -25...+75 | 75 000 | 127 500 |
| | | | | | ② | 335 | 197 | 3 310 | 15.5 | 6.8 | | | | |
| | | | | | ③ | 310 | 182 | 3 290 | 15.8 | 6.8 | | | | |
| | | | | | ④ | 257 | 151 | 3 290 | 15.7 | 6.9 | | | | |
| VWEF150XKLNS 7118 N | 9295410160 | 48 | 24...60 | A | ① | 298 | 175 | 2 850 | 9.9 | 6.4 | 53 | -25...+75 | 80 000 | 135 000 |
| | | | | | ② | 282 | 166 | 2 830 | 10.1 | 6.4 | | | | |
| | | | | | ③ | 263 | 155 | 2 800 | 10.3 | 6.3 | | | | |
| | | | | | ④ | 221 | 130 | 2 800 | 10.3 | 6.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEH150X...

DC axial fan · max. 349 m³/h · Ø 150 x 55 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 725 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

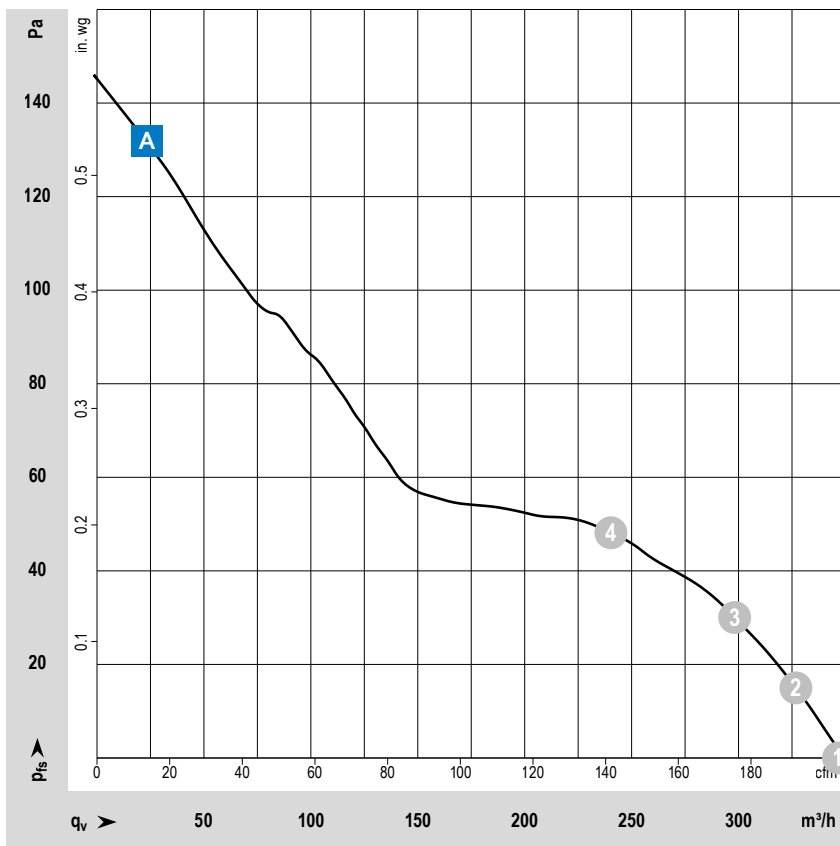
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

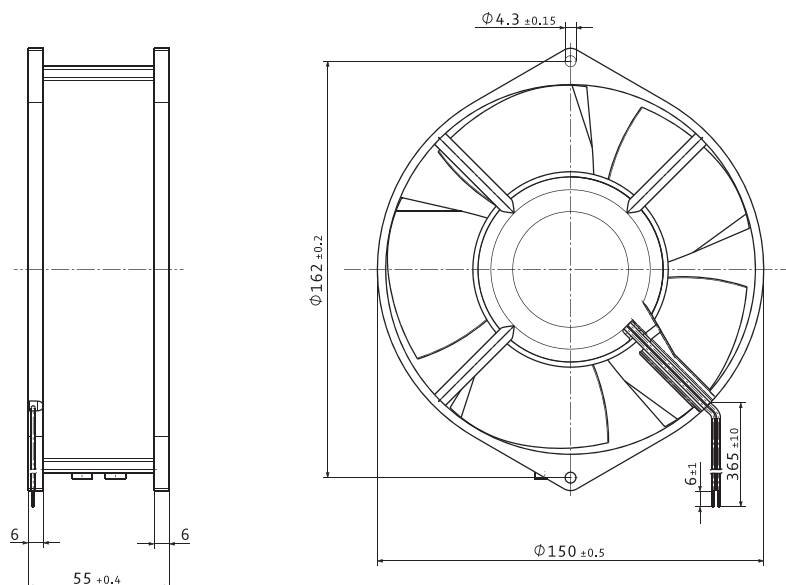
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEH150XHLPS 7212 N | 9295414400 | 12 | 6...15 | A | ① | 349 | 205 | 3050 | 11.9 | 6.5 | 53 | -25...+72 | 80 000 | 135 000 |
| | | | | | ② | 327 | 192 | 3000 | 12.5 | 6.4 | | | | |
| | | | | | ③ | 298 | 175 | 2950 | 13.1 | 6.4 | | | | |
| | | | | | ④ | 240 | 141 | 2900 | 13.6 | 6.3 | | | | |
| VWEH150XJLPS 7214 N | 9295414401 | 24 | 12...30 | A | ① | 347 | 204 | 3 050 | 10.6 | 6.5 | 53 | -25...+72 | 80 000 | 135 000 |
| | | | | | ② | 325 | 191 | 3 020 | 11.2 | 6.4 | | | | |
| | | | | | ③ | 297 | 175 | 2 970 | 11.7 | 6.4 | | | | |
| | | | | | ④ | 240 | 141 | 2 920 | 12.2 | 6.3 | | | | |
| VWEH150XKLPS 7218 N | 9295414402 | 48 | 24...60 | A | ① | 346 | 204 | 3 050 | 10.4 | 6.5 | 53 | -25...+72 | 80 000 | 135 000 |
| | | | | | ② | 324 | 191 | 3 000 | 10.9 | 6.4 | | | | |
| | | | | | ③ | 296 | 174 | 2 970 | 11.6 | 6.4 | | | | |
| | | | | | ④ | 241 | 142 | 2 930 | 12.1 | 6.3 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLG150X...

DC axial fan · max. 469 m³/h · 172 x 150 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 12, 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: On flat connectors 3 x 0,5 mm
- Electrical protection class: III
- Weight: 760 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

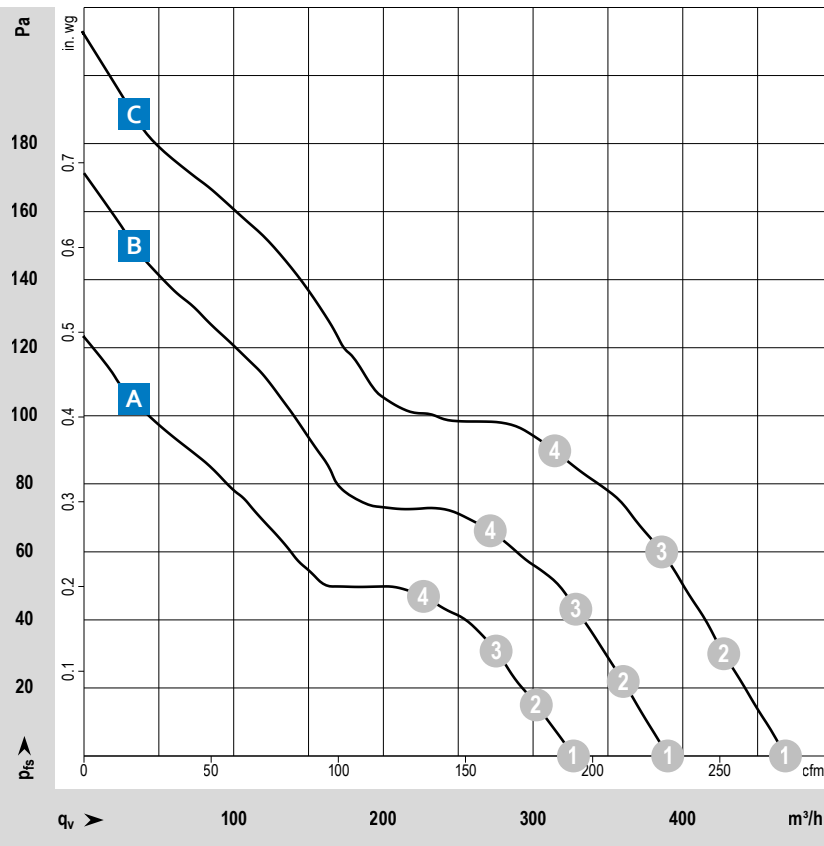
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54
- Version with wires

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

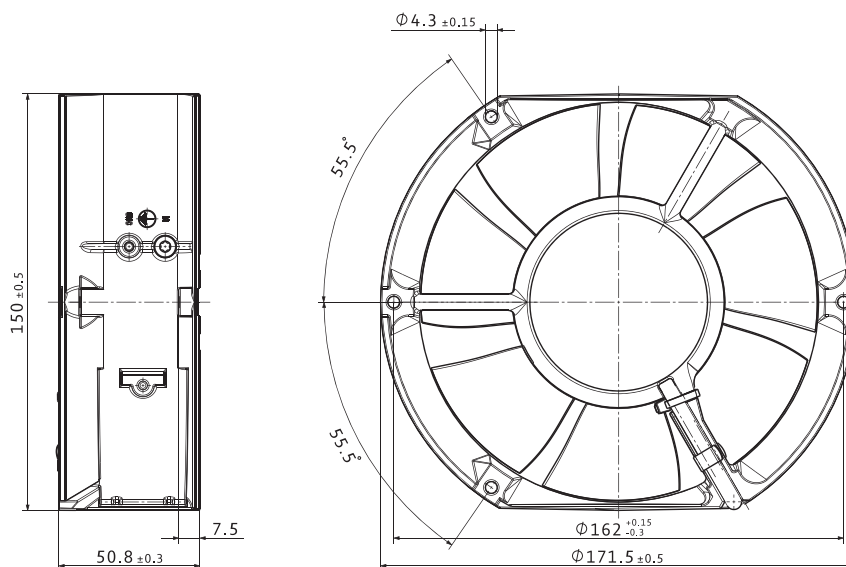
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWLG150XHLPS 6412 M | 9295414359 | 12 | 8...15 | A | ① | 327 | 192 | 2 850 | 10.4 | 6.4 | 52 | -20...+72 | 80 000 | 135 000 |
| | | | | | ② | 302 | 178 | 2 800 | 11.0 | 6.3 | | | | |
| | | | | | ③ | 276 | 162 | 2 780 | 11.6 | 6.2 | | | | |
| | | | | | ④ | 227 | 134 | 2 740 | 12.0 | 6.1 | | | | |
| VWLG150XJLPS 6424 M | 9295414304 | 24 | 12...32 | A | ① | 325 | 191 | 2 850 | 10.3 | 6.4 | 52 | -20...+72 | 80 000 | 135 000 |
| | | | | | ② | 303 | 178 | 2 810 | 10.8 | 6.3 | | | | |
| | | | | | ③ | 276 | 162 | 2 770 | 11.4 | 6.2 | | | | |
| | | | | | ④ | 228 | 134 | 2 750 | 11.8 | 6.1 | | | | |
| VWLG150XJLPS 6424 | 9295414301 | 24 | 12...28 | B | ① | 390 | 230 | 3 400 | 16.2 | 6.8 | 57 | -20...+72 | 75 000 | 127 500 |
| | | | | | ② | 361 | 212 | 3 330 | 17.0 | 6.7 | | | | |
| | | | | | ③ | 328 | 193 | 3 280 | 17.8 | 6.6 | | | | |
| | | | | | ④ | 271 | 160 | 3 230 | 18.5 | 6.5 | | | | |
| VWLG150XJLOS 6424 H | 9295414327 | 24 | 12...28 | C | ① | 464 | 273 | 4 000 | 22.8 | 7.3 | 63 | -20...+55 | 70 000 | 117 500 |
| | | | | | ② | 425 | 250 | 3 880 | 23.4 | 7.2 | | | | |
| | | | | | ③ | 383 | 225 | 3 770 | 23.9 | 7.0 | | | | |
| | | | | | ④ | 313 | 184 | 3 680 | 24.6 | 6.9 | | | | |
| VWLG150XKLPS 6448 | 9295414300 | 48 | 28...60 | B | ① | 389 | 229 | 3 400 | 14.1 | 6.8 | 57 | -20...+72 | 75 000 | 127 500 |
| | | | | | ② | 358 | 211 | 3 330 | 14.7 | 6.7 | | | | |
| | | | | | ③ | 324 | 191 | 3 260 | 15.0 | 6.6 | | | | |
| | | | | | ④ | 267 | 157 | 3 200 | 15.2 | 6.5 | | | | |
| VWLG150XKLOS 6448 H | 9295414379 | 48 | 28...60 | C | ① | 469 | 276 | 4 000 | 22.8 | 7.3 | 63 | -20...+55 | 70 000 | 117 500 |
| | | | | | ② | 427 | 251 | 3 900 | 23.6 | 7.2 | | | | |
| | | | | | ③ | 386 | 227 | 3 800 | 24.4 | 7.0 | | | | |
| | | | | | ④ | 315 | 185 | 3 730 | 25.2 | 6.9 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLG150X...

DC axial fan · max. 906 m³/h · 172 x 150 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 760 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

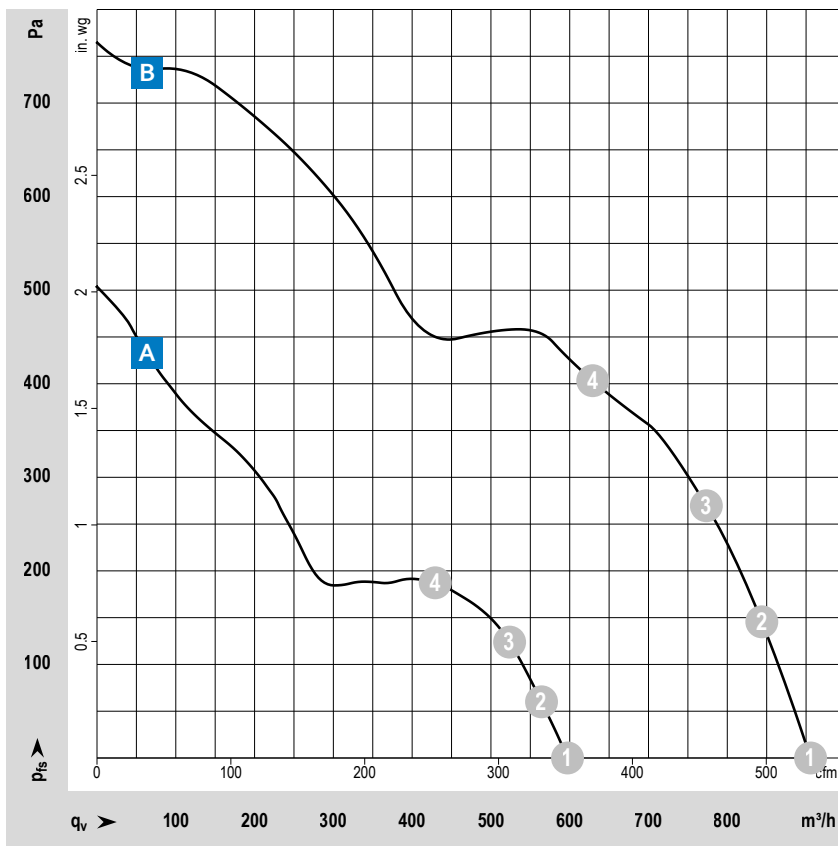
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (freibiasend) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|-------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWLG150XKLSZ 6448/2TDP-378 | 9295414378 | 48 | 36...72 | A | ① | 597 | 351 | 5100 | 50.4 | 8.0 | 65 | -20...+60 | 70 000 | 117 500 |
| | | | | | ② | 564 | 332 | 5100 | 57.5 | 7.9 | | | | |
| | | | | | ③ | 524 | 308 | 5100 | 64.7 | 7.9 | | | | |
| | | | | | ④ | 429 | 252 | 5100 | 69.1 | 7.8 | | | | |
| VWLG150XKLUS 6448/2DHHP | 9295414391 | 48 | 36...72 | B | ① | 906 | 533 | 7 500 | 160.1 | 9.2 | 80 | -20...+60 | 70 000 | 117 500 |
| | | | | | ② | 848 | 499 | 7 500 | 183.3 | 9.1 | | | | |
| | | | | | ③ | 774 | 456 | 7 380 | 195.0 | 8.8 | | | | |
| | | | | | ④ | 629 | 370 | 7 230 | 200.0 | 8.6 | | | | |

Subject to changes. * Variant with extended voltage range available on request.

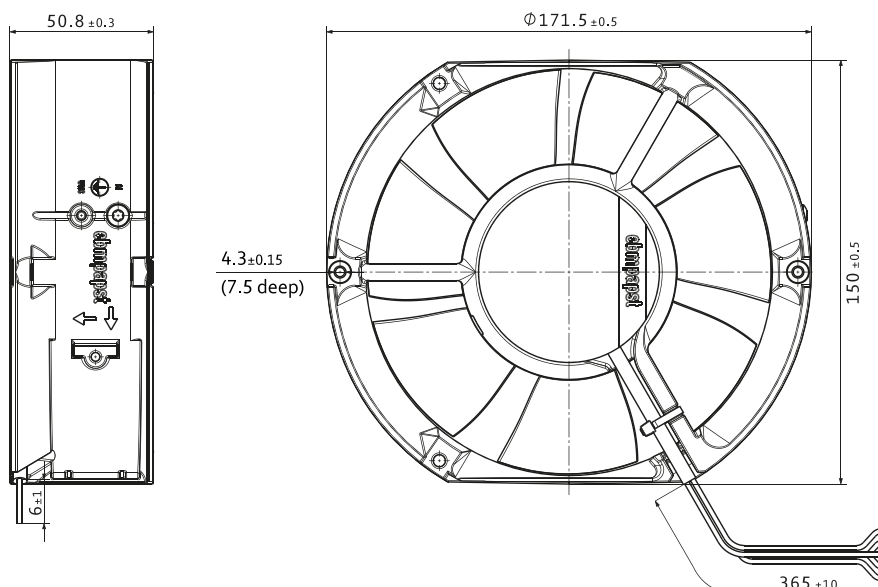
The fan types 6448 TD... and 6448 TDHH... are available in customer-specific, custom-developed variants only.

The figures indicated are technically feasible benchmark values. The fan types can be specially adapted to your application with signal outputs and control inputs.

For details of the technical possibilities, refer to the chapters on the sensor signal, alarm signal and control inputs beginning on page 178.

Technical drawing

Dimensions in mm



VKLG160X...

DC diagonal fan · max. 527 m³/h · 172 x 160 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; diagonal design; compact and powerful; noise and efficiency optimized diagonal fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 820 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

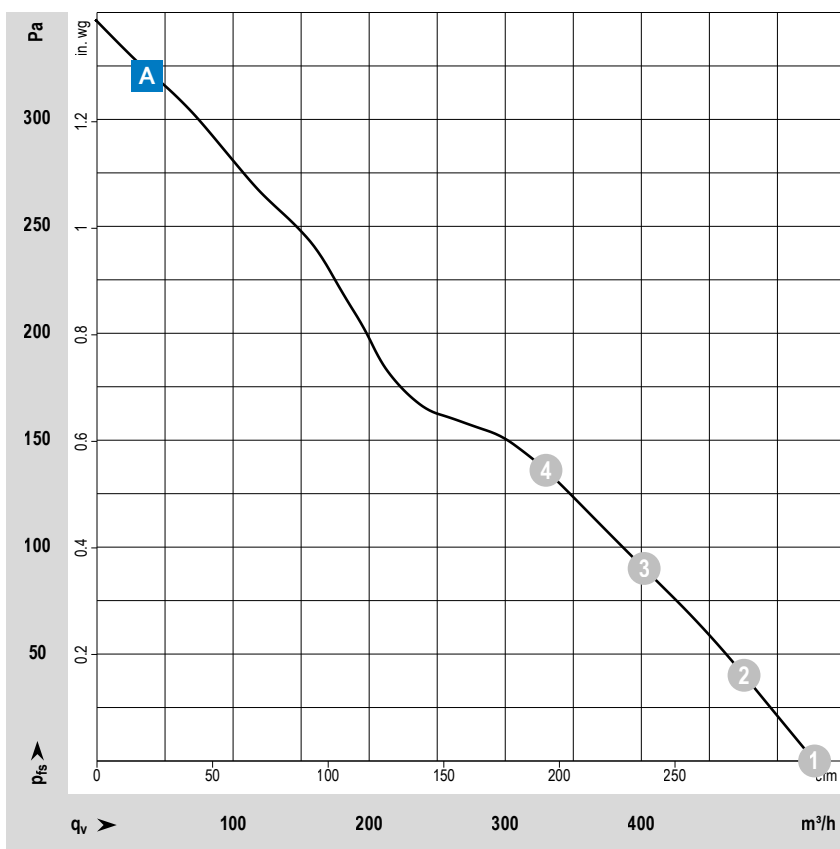
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

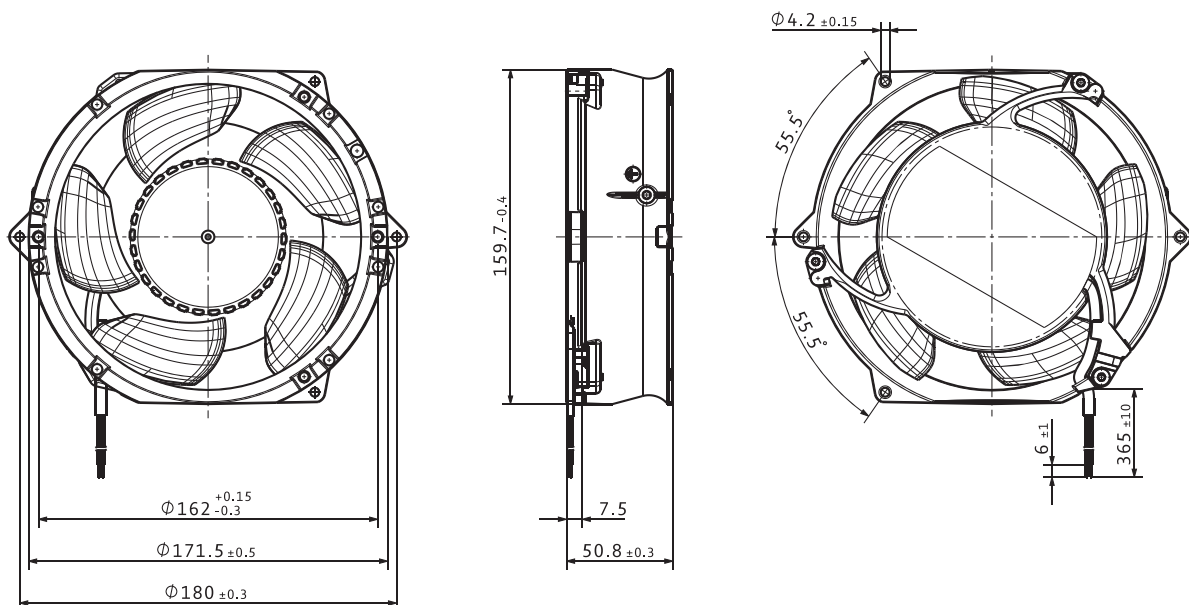
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|----------------------------|-------------|-----------------|---------------|----------------------|------------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VKLG160XJLRS DV 6424 | 9295414549 | 24 | 16...28 | A | ① ② ③ ④ | 516 | 304 | 4 300 | 38.6 | 7.5 | 65 | -20...+75 | 90 000 | 152 500 |
| | | | | | | 469 | 276 | 4 180 | 39.4 | 7.4 | | | | |
| | | | | | | 397 | 234 | 4 050 | 40.1 | 7.3 | | | | |
| | | | | | | 326 | 192 | 4 040 | 40.1 | 7.2 | | | | |
| VKLG160XKLRS DV 6448/12 | 9295414538 | 48 | 28...60 | A | ① ② ③ ④ | 527 | 310 | 4 300 | 38.9 | 7.5 | 65 | -20...+75 | 90 000 | 152 500 |
| | | | | | | 475 | 280 | 4 160 | 39.1 | 7.4 | | | | |
| | | | | | | 402 | 237 | 4 000 | 39.0 | 7.3 | | | | |
| | | | | | | 330 | 194 | 3 950 | 38.9 | 7.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172PKLUS

DC axial fan · max. 1 025 m³/h · 172 x 160 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 875 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

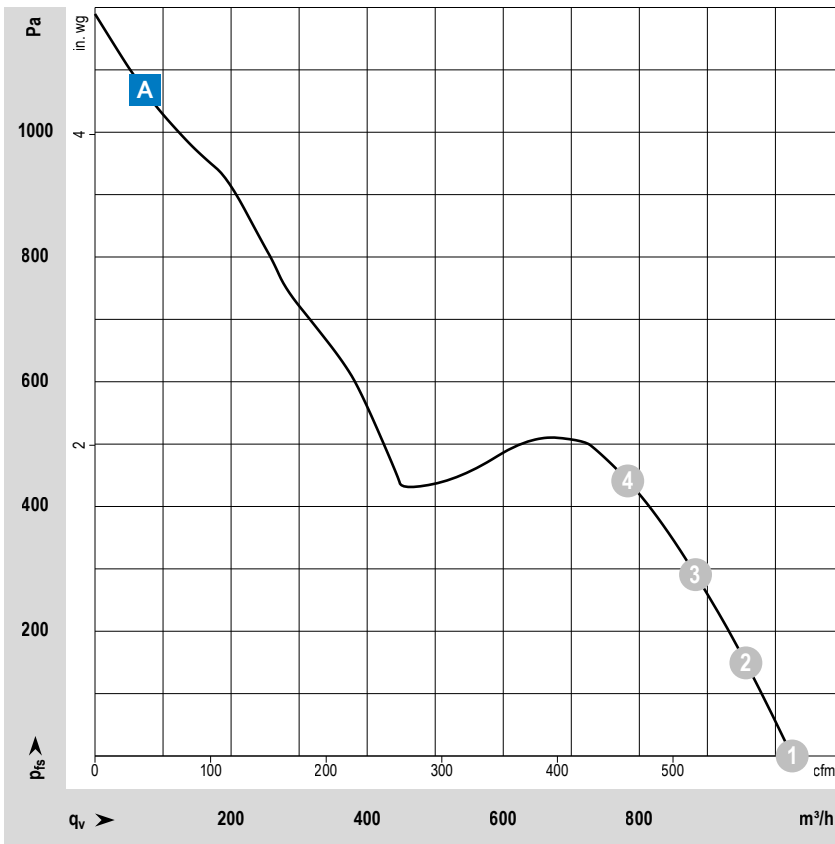
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

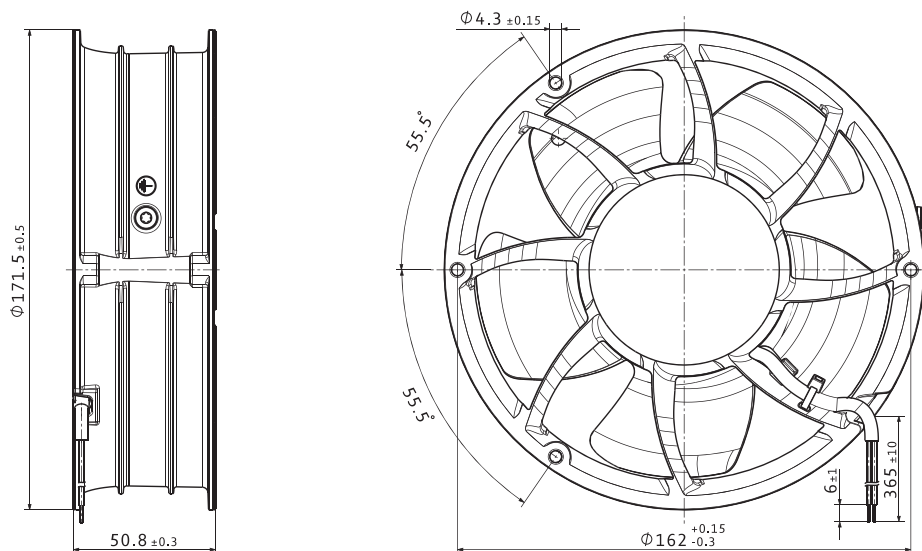
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|------------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEG172PKLUS 6318 N/2 TDH3P-303 | 9295420303 | 48 | 36...72 | A | ① | 1025 | 603 | 7 500 | 171.2 | 8.7 | 76 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 959 | 564 | 7 500 | 193.9 | 8.6 | | | | |
| | | | | | ③ | 883 | 520 | 7 500 | 214.2 | 8.6 | | | | |
| | | | | | ④ | 783 | 461 | 7 500 | 229.8 | 8.5 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172X...

DC axial fan · max. 926 m³/h · 172 x 160 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 18, Input and output signals AWG 22
- Electrical protection class: III
- Weight: 875 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

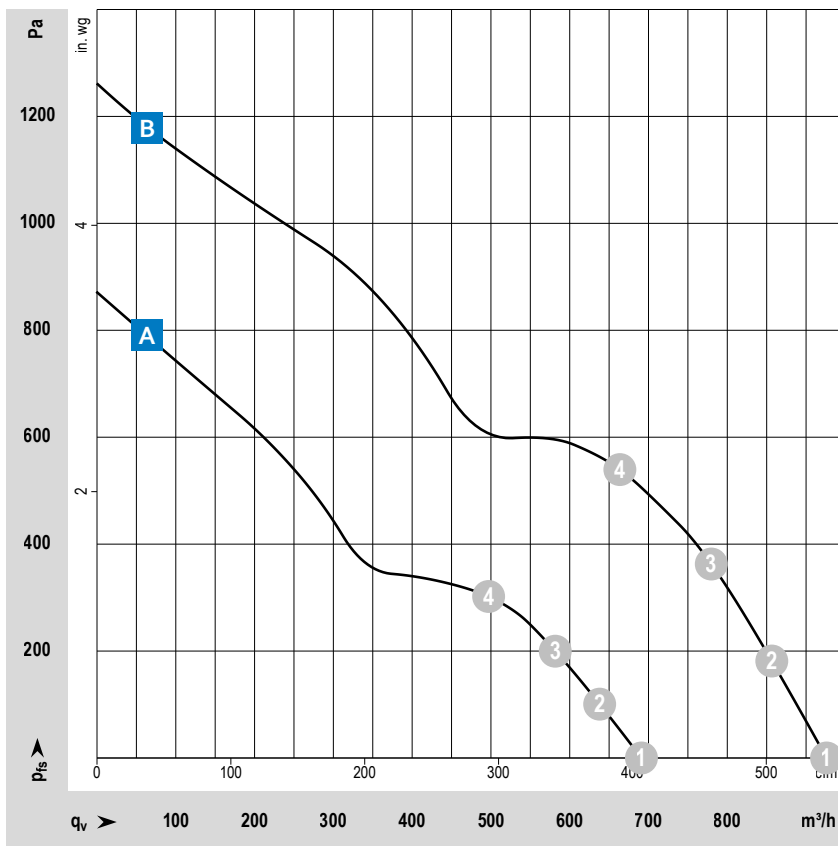
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

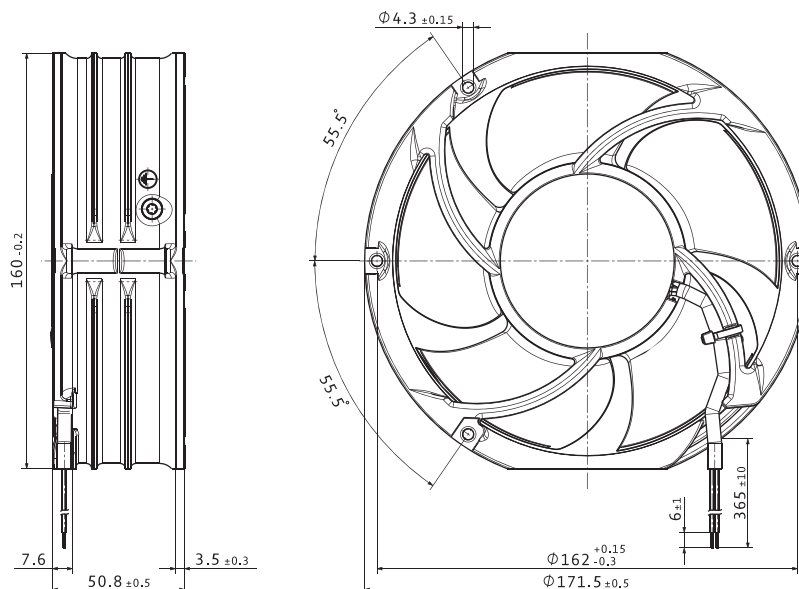
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_r level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|----------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEG172XLSS 6314/2 TDHHP-015 | 9295420015 | 24 | 16...36 | A | ① | 691 | 407 | 7 000 | 65.8 | 7.8 | 69 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 639 | 376 | 6 960 | 82.8 | 8.0 | | | | |
| | | | | | ③ | 582 | 343 | 6 960 | 98.1 | 8.1 | | | | |
| | | | | | ④ | 497 | 293 | 6 960 | 114.7 | 8.3 | | | | |
| VWEG172XKLUS 6318/2 TDH4P-007 | 9295420007 | 48 | 36...72 | B | ① | 926 | 545 | 9 200 | 147.0 | 8.8 | 75 | -20...+75 | 52 500 | 87 500 |
| | | | | | ② | 858 | 505 | 9 200 | 182.2 | 8.9 | | | | |
| | | | | | ③ | 781 | 460 | 9 200 | 217.7 | 9.0 | | | | |
| | | | | | ④ | 664 | 391 | 9 200 | 256.1 | 9.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172P...

DC axial fan · max. 676 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 22, Input and output signals AWG 24
- Electrical protection class: III
- Weight: 755 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

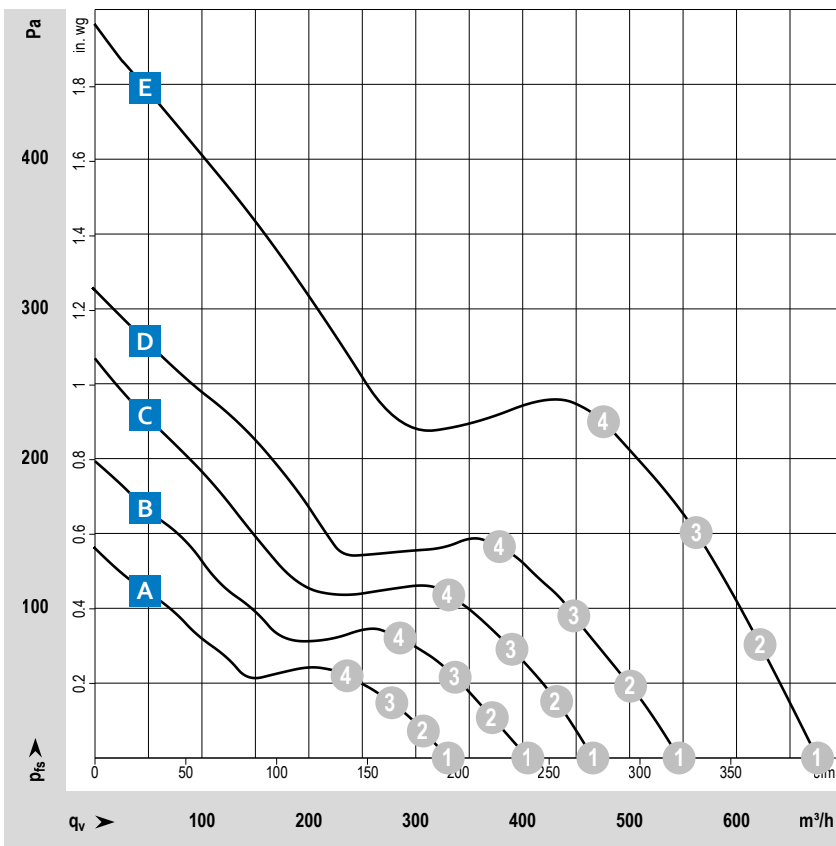
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

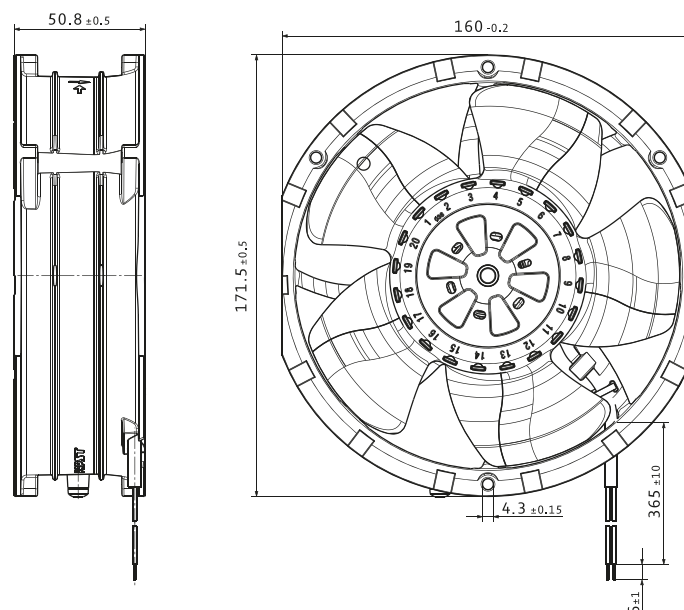
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | | | | | | |
| VWEG172PJLPZ 6314 NM | 9695480316 | 24 | 16...32 | B | ① | 330 | 194 | 2 500 | 10.1 | 5.9 | - | -20...+70 | 87 500 | 147 500 |
| | | | | | ② | 307 | 181 | 2 500 | 10.8 | 5.9 | | | | |
| | | | | | ③ | 278 | 164 | 2 500 | 11.7 | 5.8 | | | | |
| | | | | | ④ | 236 | 139 | 2 500 | 12.4 | 5.7 | | | | |
| VWEG172PJLQZ 6314 NN | 9695480317 | 24 | 16...32 | C | ① | 405 | 238 | 3 000 | 15.3 | 6.4 | - | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 372 | 219 | 3 000 | 16.8 | 6.4 | | | | |
| | | | | | ③ | 337 | 198 | 3 000 | 18.3 | 6.3 | | | | |
| | | | | | ④ | 285 | 168 | 3 000 | 19.5 | 6.2 | | | | |
| VWEG172PJLQZ 6314 NH | 9695480314 | 24 | 16...32 | D | ① | 466 | 274 | 3 500 | 22.3 | 6.7 | - | -20...+70 | 82 500 | 140 000 |
| | | | | | ② | 433 | 255 | 3 500 | 25.0 | 6.7 | | | | |
| | | | | | ③ | 391 | 230 | 3 500 | 27.5 | 6.6 | | | | |
| | | | | | ④ | 331 | 195 | 3 500 | 28.7 | 6.5 | | | | |
| VWEG172PJLRS 6314 N/2 HHP | 9695480300 | 24 | 16...32 | E | ① | 547 | 322 | 4 000 | 34.1 | 7.2 | - | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 501 | 295 | 4 000 | 38.6 | 7.1 | | | | |
| | | | | | ③ | 449 | 264 | 4 000 | 38.3 | 7.0 | | | | |
| | | | | | ④ | 373 | 220 | 3 950 | 41.9 | 7.0 | | | | |
| VWEG172PKLRS 6318 N/2 HHP | 9695480301 | 48 | 36...60 | E | ① | 546 | 321 | 4 000 | 31.2 | 7.1 | - | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 501 | 295 | 4 000 | 35.1 | 7.1 | | | | |
| | | | | | ③ | 448 | 264 | 4 000 | 38.9 | 7.0 | | | | |
| | | | | | ④ | 378 | 222 | 4 000 | 41.3 | 7.0 | | | | |
| VWEG172PKLSS 6318 N/2 H3P | 9695480304 | 48 | 36...60 | F | ① | 676 | 398 | 5 000 | 56.6 | 7.7 | - | -20...+70 | 77 500 | 130 000 |
| | | | | | ② | 623 | 367 | 5 000 | 64.5 | 7.6 | | | | |
| | | | | | ③ | 563 | 331 | 5 000 | 73.0 | 7.5 | | | | |
| | | | | | ④ | 476 | 280 | 5 000 | 78.2 | 7.5 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172P...

DC axial fan · max. 1 234 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor of the S-Panther series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 18, 20; Speed and alarm signal: AWG 22
- Electrical protection class: I or III (performance-related)
- Weight: 890 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

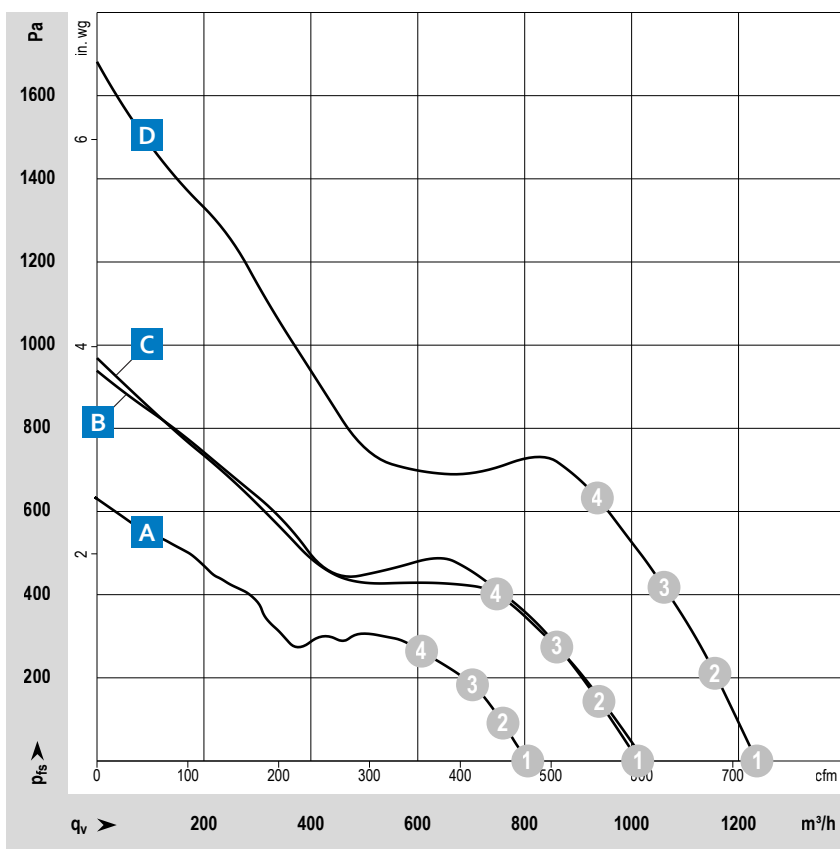
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

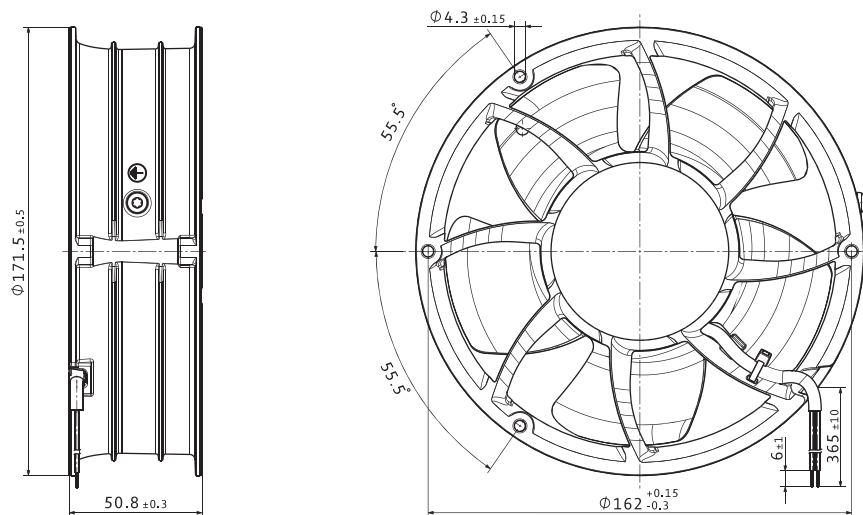
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s.p. II |
|--------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEG172PJLUS 6314 N/2 TDHHP | 9295420300 | 24 | 16...36 | B | ① | 1 013 | 596 | 7 200 | 154.0 | 8.6 | 75 | -20...+70 | 62 500 | 105 000 |
| | | | | | ② | 941 | 554 | 7 200 | 172.6 | 8.5 | | | | |
| | | | | | ③ | 862 | 507 | 7 180 | 190.6 | 8.4 | | | | |
| | | | | | ④ | 753 | 443 | 7 130 | 200.0 | 8.3 | | | | |
| VWEG172PKLTS 6318 N/2 TDHP | 9295416300 | 48 | 36...60 | A | ① | 806 | 474 | 6 000 | 91.5 | 8.1 | 71 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 759 | 447 | 6 000 | 101.9 | 8.0 | | | | |
| | | | | | ③ | 702 | 413 | 6 000 | 114.2 | 7.9 | | | | |
| | | | | | ④ | 607 | 357 | 5 850 | 115.0 | 7.9 | | | | |
| VWEG172PKLUS 6318 N/2 TDH3P | 9295420302 | 48 | 36...72 | C | ① | 1 025 | 603 | 7 500 | 150.3 | 8.7 | 76 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 946 | 557 | 7 450 | 168.4 | 8.6 | | | | |
| | | | | | ③ | 860 | 506 | 7 400 | 181.3 | 8.6 | | | | |
| | | | | | ④ | 748 | 440 | 7 360 | 189.5 | 8.5 | | | | |
| VWEG172PKLVS 6318 N/2 TDH4P | 9295420305 | 48 | 36...72 | D | ① | 1 234 | 726 | 9 000 | 286.0 | 9.3 | 80 | -20...+65 | 45 000 | 75 000 |
| | | | | | ② | 1 156 | 680 | 9 000 | 328.4 | 9.1 | | | | |
| | | | | | ③ | 1 061 | 624 | 9 000 | 364.6 | 9.0 | | | | |
| | | | | | ④ | 937 | 551 | 9 000 | 391.9 | 9.0 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172X...

DC axial fan · max. 535 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: I or III (performance-related)
- Weight: 825 g

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

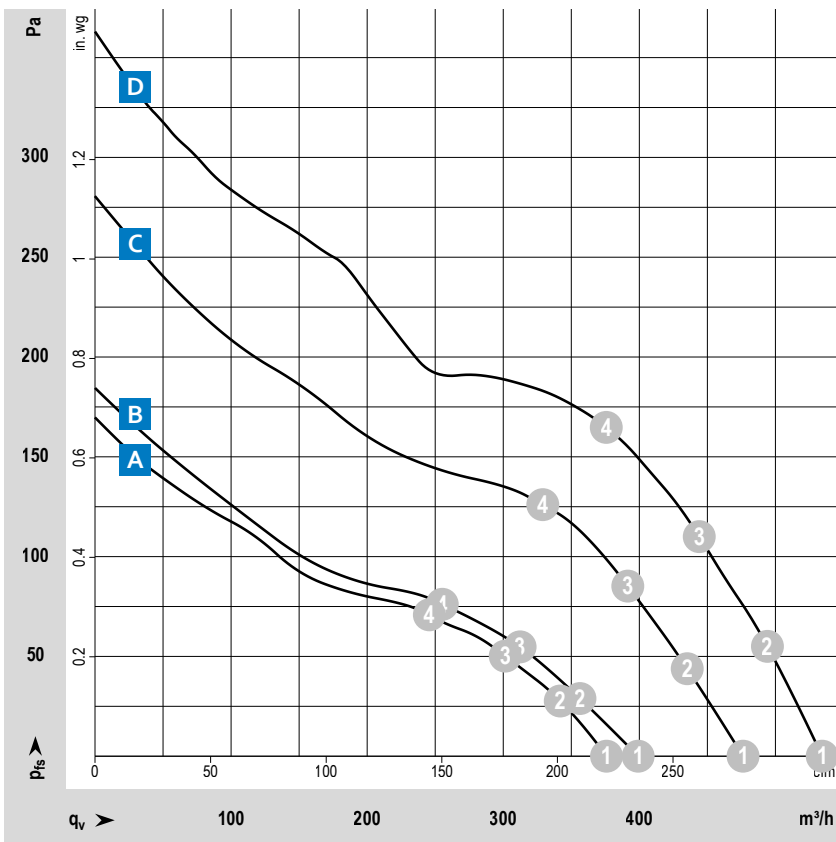
- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Housing with grounding lug for screw M4 x 8 (Torx)



Measuring conditions

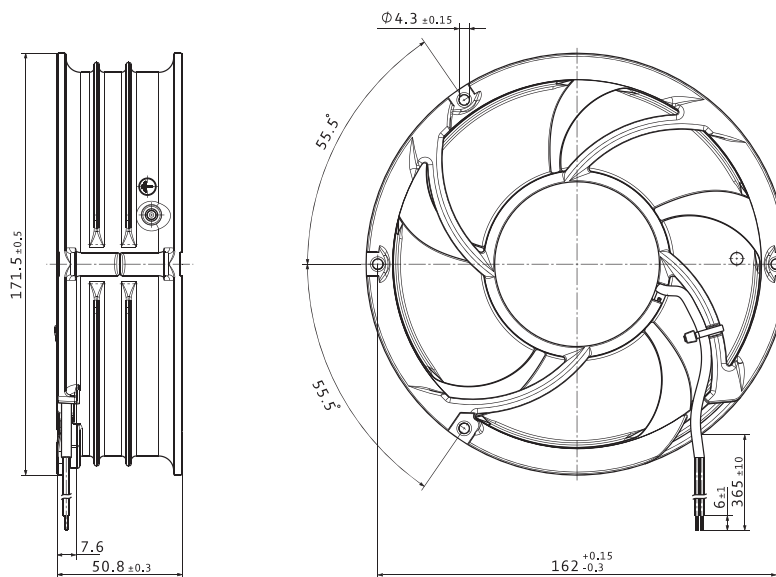
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|-------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEG172XHLPS 6312/2 MP-204 | 9695480204 | 12 | 8...16 | A | ① | 376 | 221 | 3 500 | 12.7 | 6.1 | 49 | -20...+65 | 82 500 | 140 000 |
| | | | | | ② | 344 | 202 | 3 500 | 15.0 | 6.0 | | | | |
| | | | | | ③ | 301 | 177 | 3 400 | 15.9 | 5.9 | | | | |
| | | | | | ④ | 246 | 145 | 3 300 | 17.5 | 6.0 | | | | |
| VWEG172XJLPS 6314/2 MP | 9695480211 | 24 | 16...30 | B | ① | 399 | 235 | 3 700 | 12.9 | 6.2 | 51 | -20...+75 | 82 500 | 140 000 |
| | | | | | ② | 357 | 210 | 3 600 | 14.2 | 6.0 | | | | |
| | | | | | ③ | 313 | 184 | 3 500 | 15.2 | 5.9 | | | | |
| | | | | | ④ | 255 | 150 | 3 400 | 16.0 | 6.0 | | | | |
| VWEG172XJLOS 6314/2 NP | 9695480210 | 24 | 16...30 | C | ① | 476 | 280 | 4 400 | 20.8 | 6.9 | 56 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 436 | 257 | 4 390 | 24.9 | 6.8 | | | | |
| | | | | | ③ | 391 | 230 | 4 390 | 28.6 | 6.6 | | | | |
| | | | | | ④ | 329 | 194 | 4 360 | 31.7 | 6.7 | | | | |
| VWEG172XJLRS 6314/2 HP | 9695480191 | 24 | 16...30 | D | ① | 535 | 315 | 5 000 | 28.0 | 7.1 | 58 | -20...+65 | 77 500 | 130 000 |
| | | | | | ② | 494 | 291 | 4 980 | 34.2 | 7.0 | | | | |
| | | | | | ③ | 443 | 261 | 4 980 | 40.0 | 6.9 | | | | |
| | | | | | ④ | 373 | 220 | 4 940 | 45.3 | 6.9 | | | | |
| VWEG172XKLRS 6318/2 HP | 9695480196 | 48 | 36...72 | D | ① | 534 | 314 | 5 000 | 28.2 | 7.1 | 58 | -20...+65 | 77 500 | 130 000 |
| | | | | | ② | 494 | 291 | 4 990 | 33.4 | 7.0 | | | | |
| | | | | | ③ | 444 | 261 | 4 980 | 39.6 | 6.9 | | | | |
| | | | | | ④ | 376 | 221 | 4 970 | 45.2 | 6.9 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172X...

DC axial fan · max. 940 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 18, Input and output signals AWG 22
- Electrical protection class: I or III (performance-related)
- Weight: 875 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

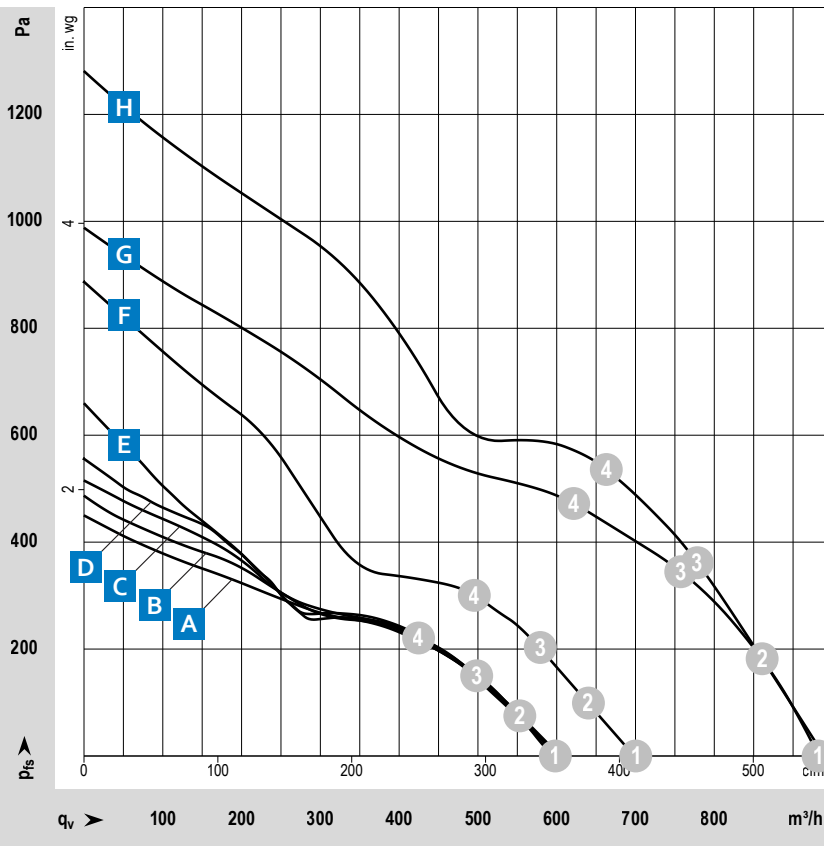
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

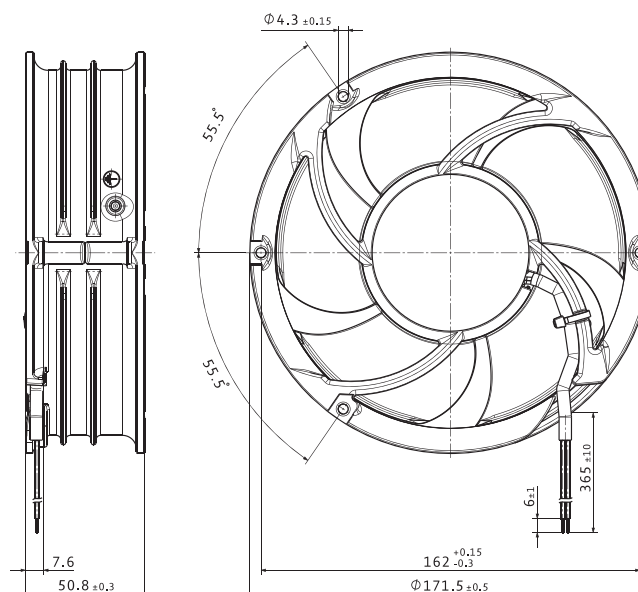
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|---------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWEG172XHLPS 6312/2 TDHP | 9295420022 | 12 | 8...16 | C | ① | 604 | 356 | 5 500 | 41.1 | 7.8 | 60 | -20...+70 | 75 000 | 127 500 |
| | | | | | ② | 554 | 326 | 5 472 | 49.8 | 7.7 | | | | |
| | | | | | ③ | 500 | 294 | 5 463 | 58.8 | 7.6 | | | | |
| | | | | | ④ | 423 | 249 | 5 461 | 68.4 | 7.7 | | | | |
| VWEG172XJLPS 6314/2 TDHP-298 | 9295414298 | 24 | 16...30 | B | ① | 603 | 355 | 5 500 | 43.0 | 7.8 | 60 | -20...+65 | 75 000 | 127 500 |
| | | | | | ② | 553 | 325 | 5 494 | 52.9 | 7.7 | | | | |
| | | | | | ③ | 501 | 295 | 5 501 | 62.9 | 7.6 | | | | |
| | | | | | ④ | 425 | 250 | 5 503 | 72.9 | 7.6 | | | | |
| VWEG172XJLOS 6314/2 TDHP | 9295420004 | 24 | 16...36 | D | ① | 599 | 353 | 5 500 | 39.3 | 7.5 | 60 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 552 | 325 | 5 501 | 48.3 | 7.4 | | | | |
| | | | | | ③ | 500 | 294 | 5 487 | 56.4 | 7.4 | | | | |
| | | | | | ④ | 428 | 252 | 5 495 | 65.5 | 7.3 | | | | |
| VWEG172XJLRS 6314/2 TDHHP | 9295420026 | 24 | 16...36 | F | ① | 699 | 411 | 7 000 | 66.9 | 8.1 | 69 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 640 | 377 | 6 985 | 81.0 | 8.2 | | | | |
| | | | | | ③ | 581 | 342 | 6 982 | 95.2 | 8.3 | | | | |
| | | | | | ④ | 497 | 293 | 6 991 | 110.5 | 8.4 | | | | |
| VWEG172XKLRS 6314/2 TDH4P | 9295420011 | 24 | 16...36 | G | ① | 932 | 549 | 9 221 | 152.0 | 8.8 | 75 | -20...+75 | 52 500 | 87 500 |
| | | | | | ② | 861 | 507 | 9 190 | 193.7 | 9.0 | | | | |
| | | | | | ③ | 760 | 447 | 9 036 | 215.0 | 9.0 | | | | |
| | | | | | ④ | 622 | 366 | 8 658 | 215.0 | 9.0 | | | | |
| VWEG172XJLPS 6318/2 TDHP-299 | 9295414299 | 48 | 36...60 | A | ① | 602 | 354 | 5 499 | 43.5 | 7.8 | 60 | -20...+65 | 75 000 | 127 500 |
| | | | | | ② | 550 | 324 | 5 487 | 53.3 | 7.7 | | | | |
| | | | | | ③ | 498 | 293 | 5 475 | 62.0 | 7.6 | | | | |
| | | | | | ④ | 422 | 248 | 5 465 | 73.0 | 7.6 | | | | |
| VWEG172XJLOS 6318/2 TDHP | 9295420005 | 48 | 36...72 | E | ① | 595 | 350 | 5 501 | 40.2 | 7.5 | 60 | -20...+75 | 75 000 | 127 500 |
| | | | | | ② | 551 | 324 | 5 506 | 47.8 | 7.4 | | | | |
| | | | | | ③ | 498 | 293 | 5 493 | 56.0 | 7.4 | | | | |
| | | | | | ④ | 425 | 250 | 5 495 | 64.8 | 7.3 | | | | |
| VWEG172XJLRS 6318/2 TDHHP | 9295420003 | 48 | 36...72 | F | ① | 691 | 407 | 7 000 | 68.5 | 8.0 | 69 | -20...+75 | 62 500 | 105 000 |
| | | | | | ② | 639 | 376 | 7 001 | 82.9 | 8.1 | | | | |
| | | | | | ③ | 582 | 343 | 7 000 | 96.8 | 8.2 | | | | |
| | | | | | ④ | 501 | 295 | 7 012 | 112.1 | 8.3 | | | | |
| VWEG172XKLRS 6318/2 TDH4P | 9295420021 | 48 | 36...72 | H | ① | 940 | 553 | 9 200 | 148.2 | 8.8 | 75 | -20...+75 | 52 500 | 87 500 |
| | | | | | ② | 861 | 507 | 9 150 | 181.2 | 8.9 | | | | |
| | | | | | ③ | 780 | 459 | 9 154 | 213.4 | 9.0 | | | | |
| | | | | | ④ | 663 | 390 | 9 158 | 249.0 | 9.2 | | | | |

Subject to changes.

DC axial fans

Technical drawing

Dimensions in mm



VKEG178X...

DC diagonal fan · max. 1 049 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; diagonal design; compact and powerful; noise and efficiency optimized diagonal fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 18, Input and output signals AWG 22
- Electrical protection class: I or III (performance-related)
- Weight: 960 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

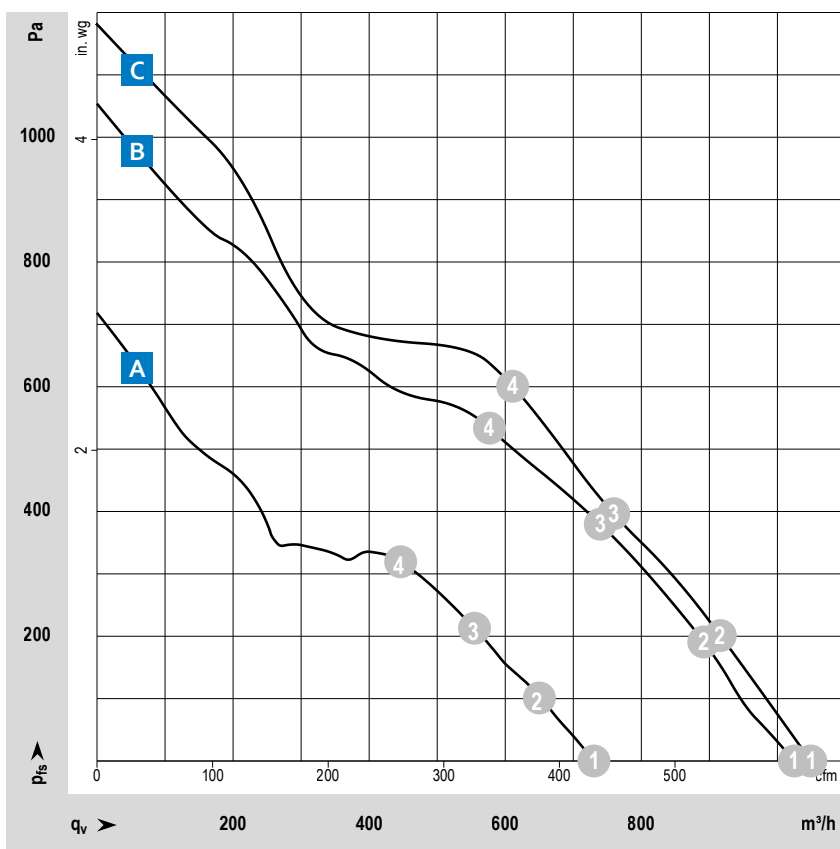
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input (Standard)
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

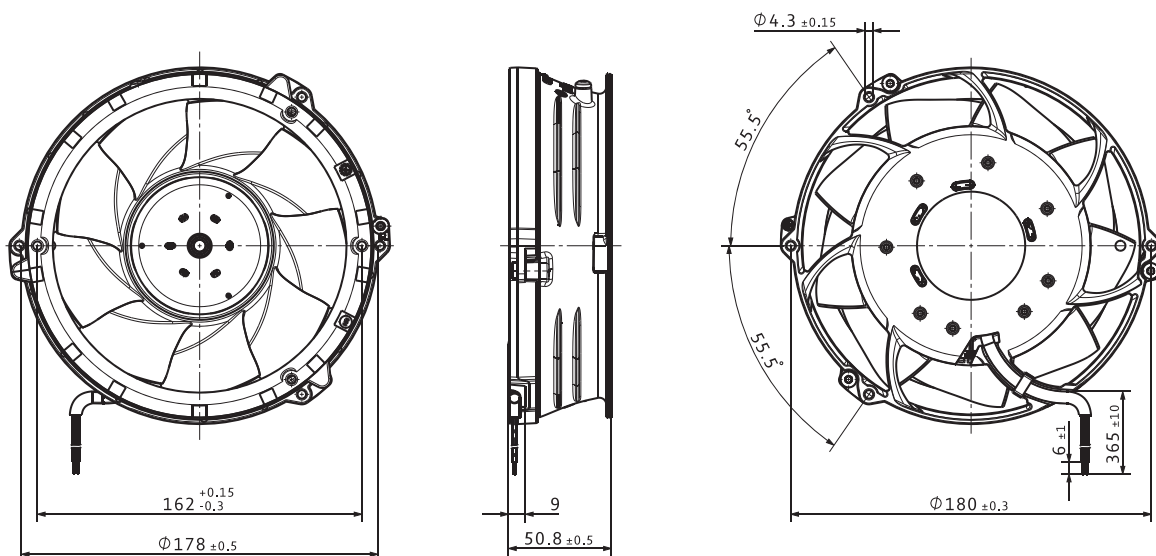
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|----------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VKEG178XJLTS DV 6314/2 TDHHP | 9295420103 | 24 | 16...36 | B | ① | 730 | 430 | 4 850 | 109.0 | 8.3 | 72 | -20...+60 | 75 000 | 127 500 |
| | | | | | ② | 650 | 383 | 4 770 | 114.3 | 8.1 | | | | |
| | | | | | ③ | 555 | 327 | 4 760 | 119.6 | 8.0 | | | | |
| | | | | | ④ | 446 | 263 | 4 800 | 118.0 | 8.0 | | | | |
| VKEG178XKLUS DV 6318/2 TDH4P | 9295416100 | 48 | 36...72 | C | ① | 1 025 | 603 | 6 500 | 253.4 | 9.2 | 77 | -20...+65 | 50 000 | 85 000 |
| | | | | | ② | 892 | 525 | 6 330 | 257.2 | 9.0 | | | | |
| | | | | | ③ | 740 | 436 | 6 280 | 265.1 | 8.9 | | | | |
| | | | | | ④ | 577 | 340 | 6 350 | 255.7 | 8.9 | | | | |
| VKEG178XKLVS DV 6318/2 TDH5P* | 9295420100 | 48 | 36...72 | D | ① | 1 049 | 617 | 6 800 | 293.7 | 9.3 | 79 | -20...+65 | 40 000 | 67 500 |
| | | | | | ② | 916 | 539 | 6 600 | 292.2 | 9.2 | | | | |
| | | | | | ③ | 758 | 446 | 6 560 | 291.2 | 9.1 | | | | |
| | | | | | ④ | 611 | 360 | 6 720 | 294.3 | 9.0 | | | | |

Subject to changes.

* Rotor protrusion a = 3mm

Technical drawing

Dimensions in mm



VWLG150K...

DC axial fan · max. 652 m³/h · 172 x 150 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan of the AxiForce series
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 22 (48VDC), AWG 20 (24VDC), Input and output signals AWG 22
- Electrical protection class: 48V: 1; 24V: 3
- Weight: 860 g

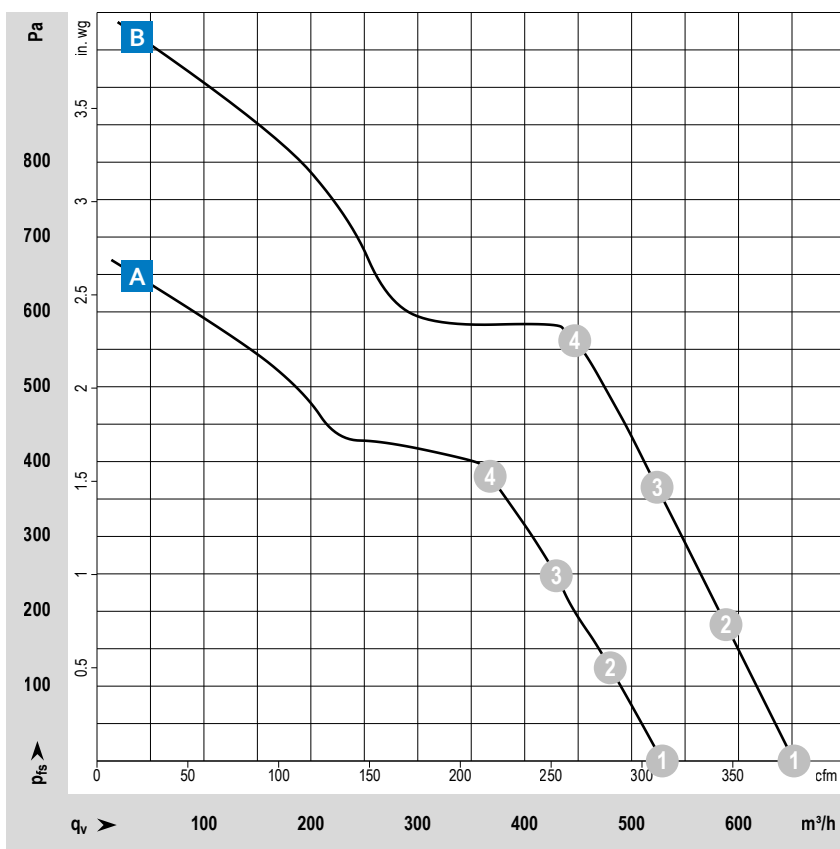
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)
- optional: DIN EN 60079-7, Group IIA, T3

Options

- Output signals: Speed signal, Alarm
- Input signals: PWM, Analog, O, Temperature sensor
- Extended protection against environmental conditions: up to IP68



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

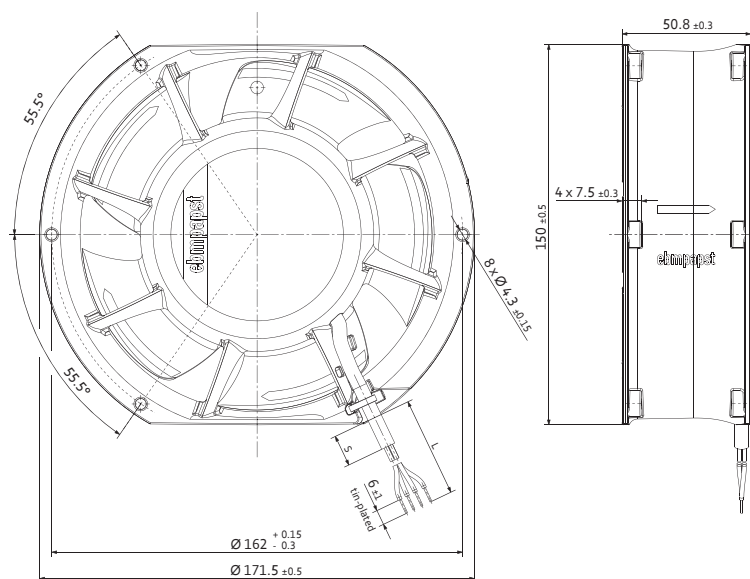
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|-----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWLG150JLRS AxiForce 172 | 8315100157 | 24 | 16...30 | A | ① | 529 | 311 | 6 800 | 57.5 | 8.1 | 71 | -20...+70 | 84 000 | 141 750 |
| | | | | | ② | 481 | 283 | 6 800 | 72.5 | 8.1 | | | | |
| | | | | | ③ | 430 | 253 | 6 800 | 85.2 | 7.8 | | | | |
| | | | | | ④ | 368 | 217 | 6 800 | 96.3 | 7.9 | | | | |
| VWLG150KLSS AxiForce 172 | 8315100059 | 48 | 36...72 | B | ① | 652 | 384 | 8 300 | 96.90 | 8.2 | 70 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 588 | 346 | 8 300 | 123.4 | 8.2 | | | | |
| | | | | | ③ | 524 | 308 | 8 300 | 146.3 | 8.1 | | | | |
| | | | | | ④ | 447 | 263 | 8 300 | 164.4 | 8.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLG200F...

DC axial fan · max. 1 220 m³/h · 220 x 200 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; low-profile, noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 1 kg

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

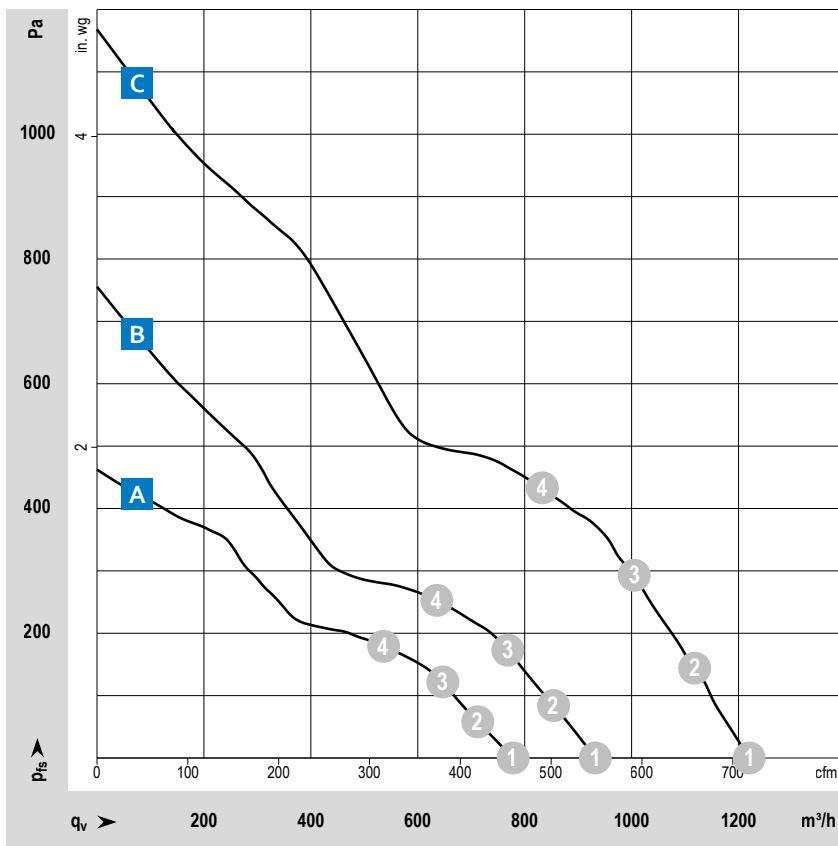
Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

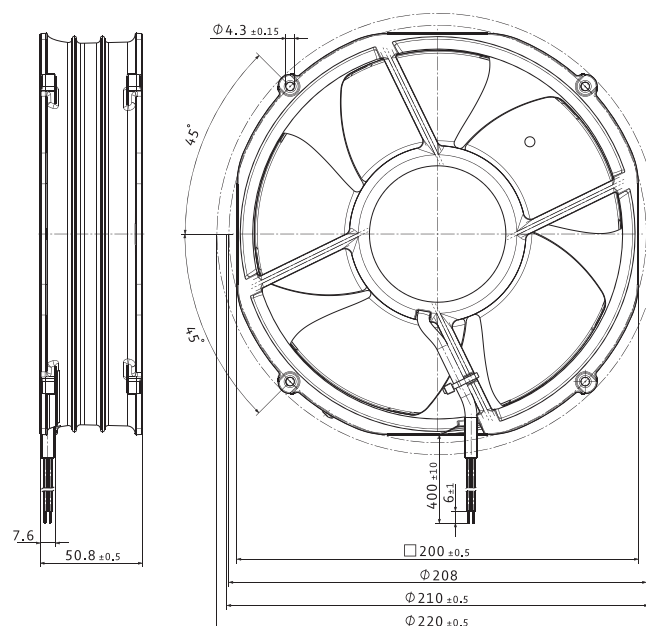
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|--------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWLG200FJLTS 2214 F/2 TDHO | 9295414750 | 24 | 16...30 | A | ① | 797 | 469 | 4 250 | 34.8 | 7.2 | 62 | -20...+75 | 90 000 | 152 500 |
| | | | | | ② | 727 | 428 | 4 250 | 48.4 | 7.2 | | | | |
| | | | | | ③ | 653 | 384 | 4 250 | 62.2 | 7.2 | | | | |
| | | | | | ④ | 540 | 318 | 4 240 | 75.1 | 7.5 | | | | |
| | | | | | ⑤ | | | | | | | | | |
| VWLG200FJLUS 2214 F/2 TDHHO | 9295420205 | 24 | 16...36 | B | ① | 936 | 551 | 5 000 | 47.8 | 7.5 | 66 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 861 | 507 | 5 020 | 68.9 | 7.6 | | | | |
| | | | | | ③ | 776 | 457 | 5 030 | 89.7 | 7.6 | | | | |
| | | | | | ④ | 642 | 378 | 5 010 | 109.6 | 8.1 | | | | |
| | | | | | ⑤ | | | | | | | | | |
| VWLG200FKLTS 2218 F/2 TDHO | 9295414752 | 48 | 36...57 | A | ① | 778 | 458 | 4 250 | 34.3 | 7.2 | 62 | -20...+75 | 90 000 | 152 500 |
| | | | | | ② | 712 | 419 | 4 230 | 46.2 | 7.2 | | | | |
| | | | | | ③ | 647 | 381 | 4 230 | 59.5 | 7.2 | | | | |
| | | | | | ④ | 536 | 315 | 4 220 | 72.5 | 7.5 | | | | |
| | | | | | ⑤ | | | | | | | | | |
| VWLG200FKLUS 2218 F/2 TDHHO | 9295420201 | 48 | 36...72 | B | ① | 932 | 549 | 5 000 | 47.3 | 7.5 | 66 | -20...+70 | 85 000 | 142 500 |
| | | | | | ② | 854 | 503 | 4 970 | 65.6 | 7.6 | | | | |
| | | | | | ③ | 769 | 453 | 4 980 | 86.1 | 7.6 | | | | |
| | | | | | ④ | 636 | 374 | 4 970 | 105.3 | 8.1 | | | | |
| | | | | | ⑤ | | | | | | | | | |
| VWLG200FKLVS 2218 F/2 TDH4P | 9295420200 | 48 | 36...72 | C | ① | 1 220 | 718 | 6 500 | 98.5 | 8.2 | 72 | -20...+65 | 70 000 | 117 500 |
| | | | | | ② | 1 118 | 658 | 6 490 | 140.2 | 8.4 | | | | |
| | | | | | ③ | 1 005 | 592 | 6 490 | 183.1 | 8.4 | | | | |
| | | | | | ④ | 833 | 490 | 6 480 | 229.2 | 8.6 | | | | |
| | | | | | ⑤ | | | | | | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLH200CKLXS

DC axial fan · max. 1 820 m³/h · Ø 200x70 mm



Material/Surface

- Housing: Combined (metal flange, plastic inlet nozzle)
- Impeller: Plastic

Characteristics

- Version: DC fan available in 48VDC; compact and powerful; innovative impeller design with rotating fan housing leads to maximization of efficiency and noise optimization
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation(S1)
- IP protection class: IP20, up to IP68 on request
- Electrical hookup: exposed wire
- Electrical protection class: III
- Weight: 1.5 kg

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

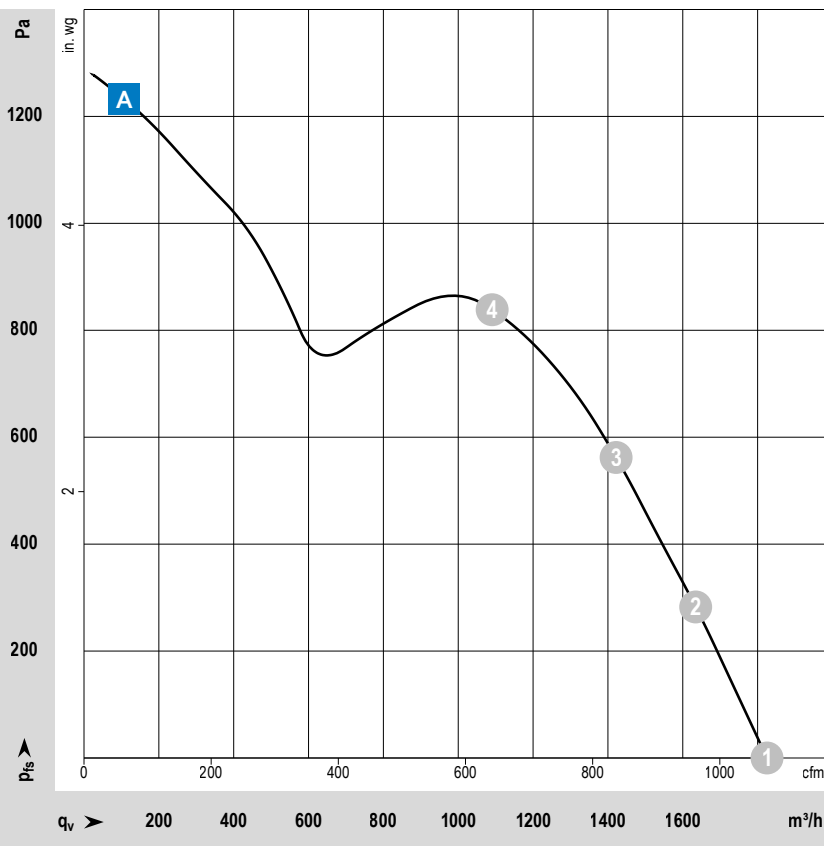
Options

- Output signals: speed /2; alarms (Go/NoGo + Trip speed)
- Input signals: Multi-options input; I + T
- Predictive Maintenance (FanCheck)

Special features

- Ready for Restart (R4R) enables safe startup with external drive
- with moisture protection (see page 266)
- with grounding screw M4x8 (Torx)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

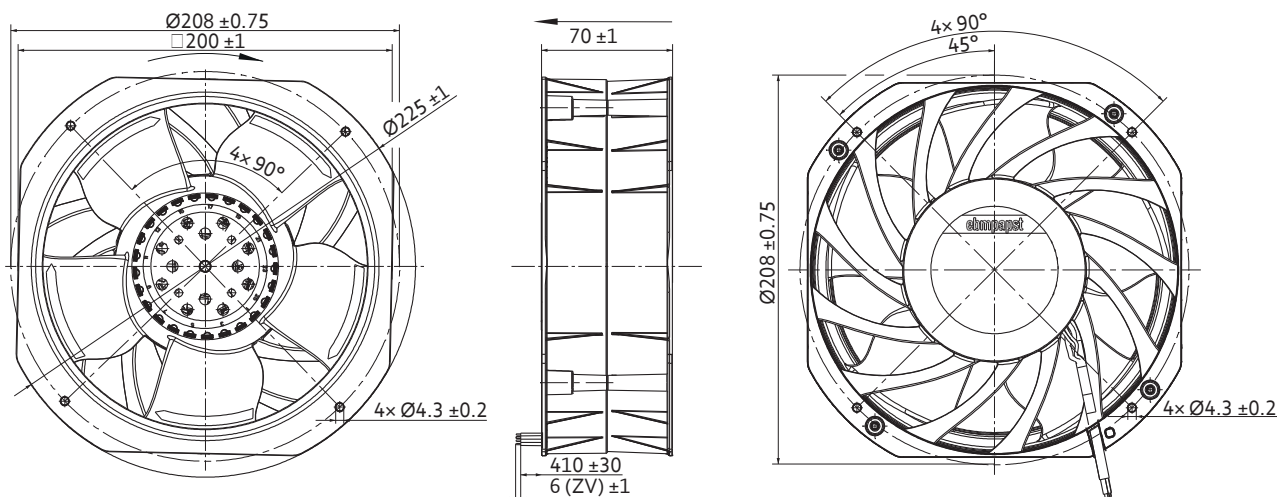
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10ipfc} (40 °C) s.p. II |
|----------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | | |
| VWLH200CKLXS AxiEco 200 | 8317081096 | 48 | 36...60 | A | ① | 1820 | 1071 | 7000 | 356.1 | 9.3 | 80.2 | -20...+60 | 90 000 | 152 500 |
| | | | | | ② | 1636 | 963 | 7000 | 407.5 | 9.1 | | | | |
| | | | | | ③ | 1423 | 838 | 7000 | 457.1 | 9.0 | | | | |
| | | | | | ④ | 1091 | 642 | 6970 | 499.3 | 9.0 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLJ200XJLVZ

DC axial fan · max. 1 162 m³/h · □ 225 x 80 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: DC fan available in 24 or 48VDC; compact and powerful; noise and efficiency optimized axial fan with 3-phase TurboDrive (TD) motor
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via terminal strip
- Electrical protection class: III
- Weight: 2.1 kg

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

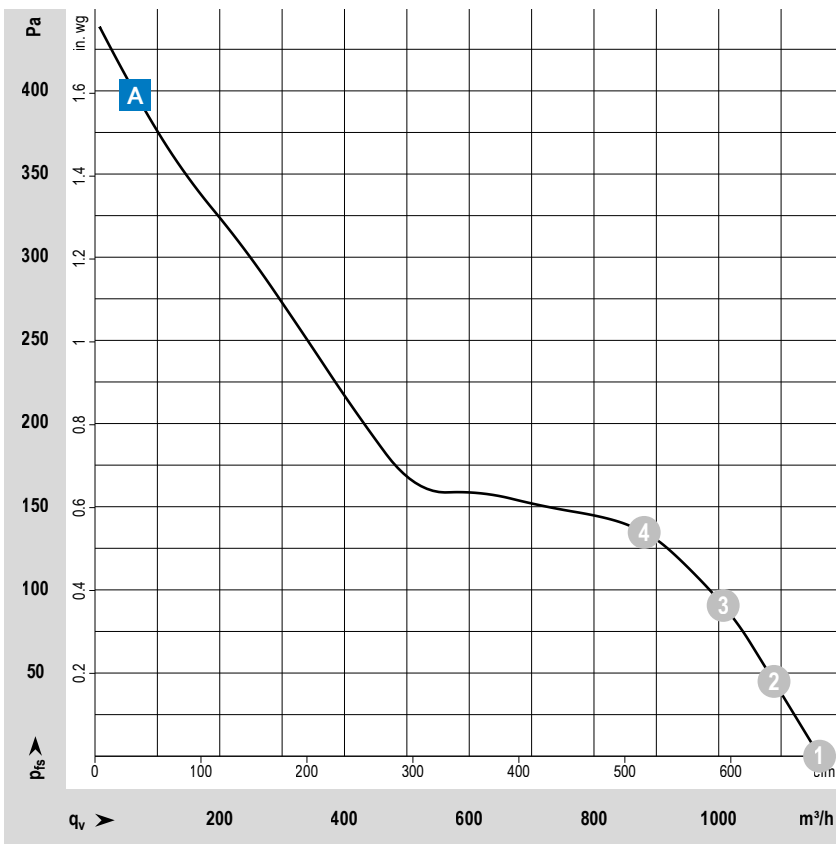
Options

- Speed signal
- Go / No Go Alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- IP protection class: up to IP54

Special features

- Highly efficient and smoothly operating 3-phase fan drive
- Electrical commutation completely integrated

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

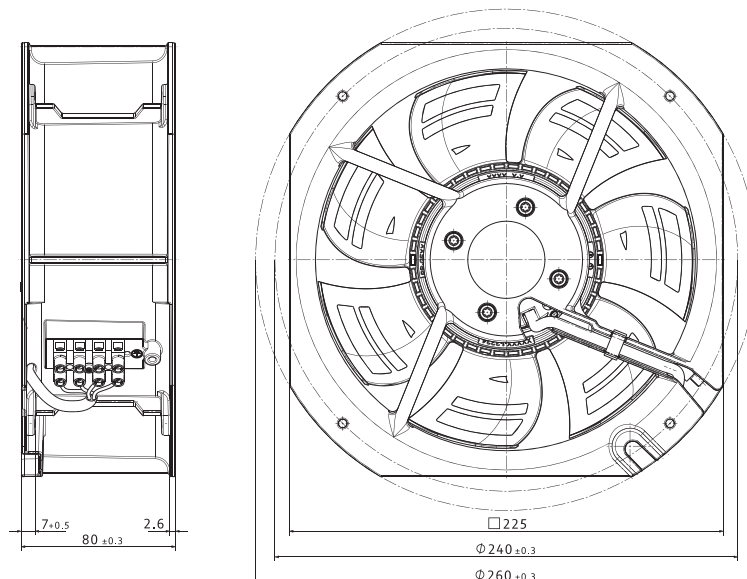
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s. p. II |
|---------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWLJ200XJLVZ 2214 TDHO | 8315100070 | 24 | 16...36 | A | ① | 1162 | 684 | 3 500 | 70.9 | 7.4 | 63 | -20...+65 | 80 000 | 135 000 |
| | | | | | ② | 1089 | 641 | 3 460 | 79.1 | 7.3 | | | | |
| | | | | | ③ | 1009 | 594 | 3 470 | 89.7 | 7.5 | | | | |
| | | | | | ④ | 882 | 519 | 3 460 | 99.9 | 7.6 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VJH0200XUNCS

DC diagonal module · max. 1 245 m³/h · □ 225 x 80 mm · Ø 200



Material/Surface

- Housing and support bracket: Plastic
- Impeller: Plastic

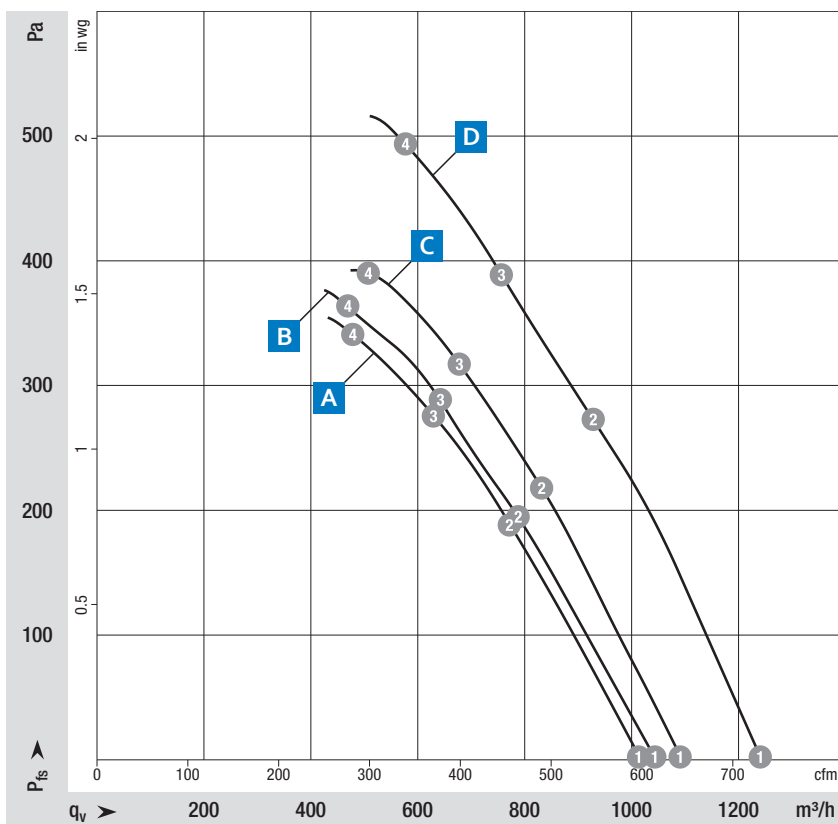
Characteristics

- Version: DC diagonal module, single inlet, with support bracket
- Direction of air flow: "V"
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class:
 - **A + C**: IP44, depending on installation and position
 - **B + D**: IP20, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.8 kg

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- UL 1004-1; CSA 22.2 Nr. 77; CCC on request (only applicable with >36V)
- **B + D**: EAC



Measuring conditions

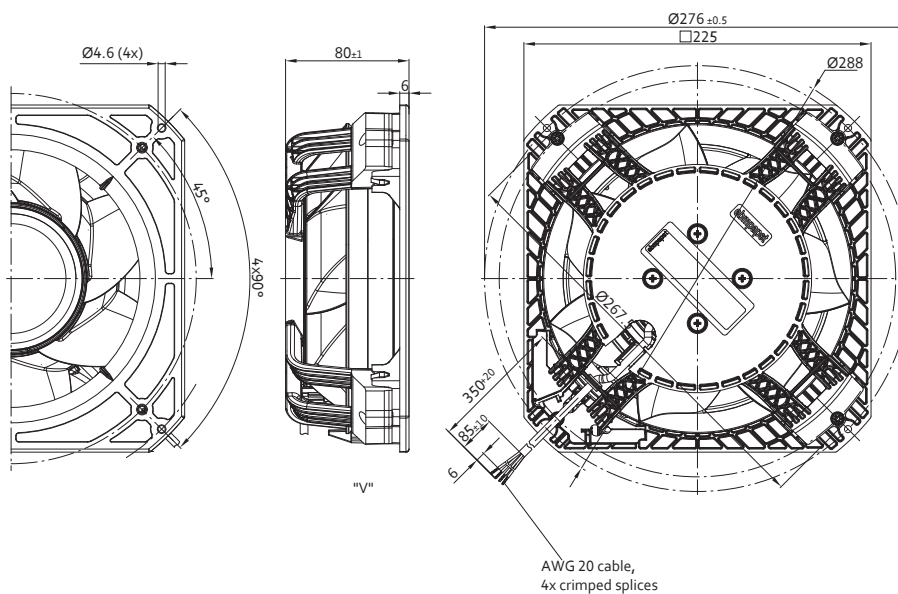
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current | Sound power level | Perm. ambient temperature |
|--------------|--------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|---------------|-------------------|---------------------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | A | Bel(A) | °C |
| VJH0200XUNCS | K1G200AD6504 | 24 | 16...28 | A | ① | 1 015 | 597 | 3 400 | 95 | 4.55 | 7.6 | -25...+60 |
| | | | | | ② | 785 | 462 | 3 410 | 116 | 5.29 | 7.4 | |
| | | | | | ③ | 640 | 377 | 3 405 | 120 | 5.41 | 7.4 | |
| | | | | | ④ | 490 | 288 | 3 410 | 116 | 5.28 | 7.6 | |
| VJH0200XUNCS | K1G200AD3102 | 24 | 16...28 | B | ① | 1040 | 612 | 3 500 | 110 | 5.16 | 7.7 | -25...+70 |
| | | | | | ② | 800 | 471 | 3 505 | 127 | 5.96 | 7.5 | |
| | | | | | ③ | 655 | 386 | 3 500 | 128 | 6.01 | 7.5 | |
| | | | | | ④ | 480 | 283 | 3 510 | 125 | 5.87 | 7.6 | |
| VJH0200XUNCS | K1G200AD4904 | 48 | 36...57 | C | ① | 1 090 | 640 | 3 650 | 120 | 3.56 | 7.8 | -25...+60 |
| | | | | | ② | 840 | 495 | 3 645 | 148 | 4.07 | 7.6 | |
| | | | | | ③ | 690 | 405 | 3 630 | 150 | 4.12 | 7.6 | |
| | | | | | ④ | 520 | 305 | 3 645 | 146 | 4.04 | 7.7 | |
| VJH0200XUNCS | K1G200AD3702 | 48 | 36...57 | D | ① | 1 245 | 730 | 4 140 | 183 | 5.96 | 8.1 | -25...+70 |
| | | | | | ② | 955 | 560 | 4 140 | 229 | 6.54 | 7.9 | |
| | | | | | ③ | 785 | 460 | 4 140 | 233 | 6.59 | 8.0 | |
| | | | | | ④ | 595 | 350 | 4 135 | 225 | 6.52 | 8.1 | |

Subject to changes.

Technical drawing

Dimensions in mm



VJH0200XUNES

DC diagonal module · max. 1 605 m³/h · □ 225 x 89 mm



Material/Surface

- Housing and support bracket: Plastic
- Impeller: Plastic

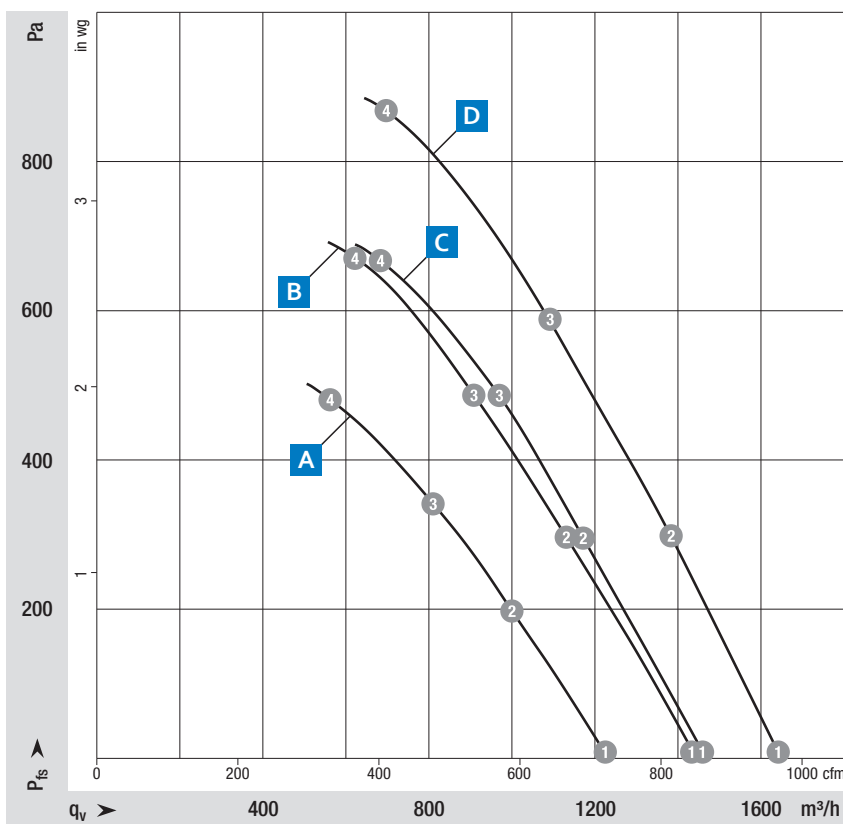
Characteristics

- Version: DC diagonal module, backward-curved, single inlet, with support bracket
- Direction of air flow: "V"
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class:
 - **A + C**: IP44, depending on installation and position
 - **B + D**: IP20, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.3 kg

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- EAC;
- CCC on request (only applicable with >36V)
- **C**: UKCA



Measuring conditions

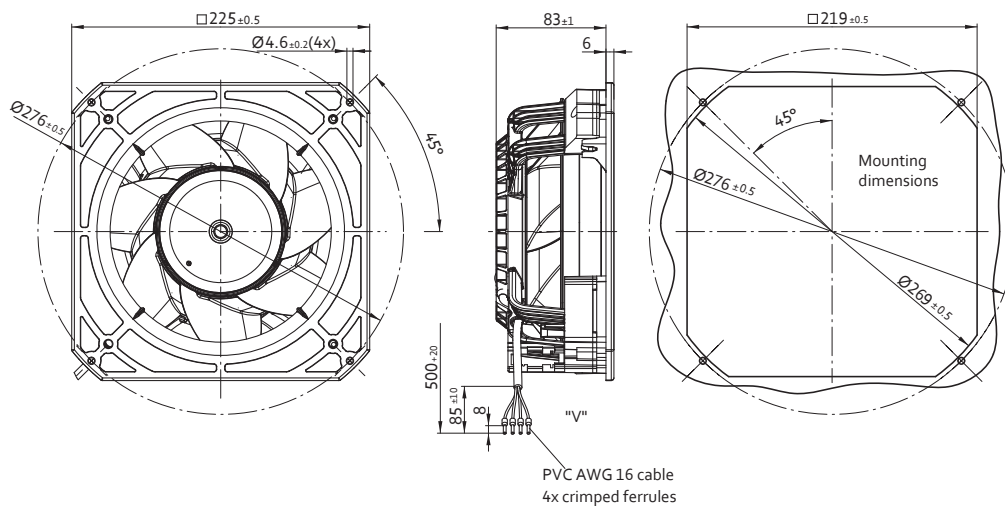
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current* | Sound power level | Perm. ambient temperature |
|--------------|--------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|----------------|-------------------|---------------------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | A | Bel(A) | °C |
| VJH0200XUNES | K3G200BD4604 | 24 | 16...28 | A | ① | 1 230 | 725 | 4 120 | 170 | 7.00 | 8.0 | -25...+60 |
| | | | | | ② | 1 005 | 590 | 4 025 | 180 | 7.52 | 7.7 | |
| | | | | | ③ | 820 | 485 | 4 005 | 187 | 7.80 | 7.6 | |
| | | | | | ④ | 575 | 335 | 4 045 | 187 | 7.78 | 7.8 | |
| VJH0200XUNES | K3G200BD4402 | 24 | 16...28 | B | ① | 1 445 | 850 | 4 830 | 275 | 11.50 | 8.4 | -25...+60 |
| | | | | | ② | 1 145 | 675 | 4 720 | 294 | 12.24 | 8.1 | |
| | | | | | ③ | 925 | 545 | 4 685 | 299 | 12.48 | 8.0 | |
| | | | | | ④ | 635 | 375 | 4 715 | 295 | 12.30 | 8.3 | |
| VJH0200XUNES | K3G200BD6404 | 48 | 36...57 | C | ① | 1 475 | 870 | 4 875 | 275 | 5.80 | 8.5 | -25...+60 |
| | | | | | ② | 1 165 | 685 | 4 745 | 299 | 6.30 | 8.2 | |
| | | | | | ③ | 930 | 545 | 4 715 | 306 | 6.40 | 8.2 | |
| | | | | | ④ | 690 | 405 | 4 740 | 303 | 6.30 | 8.4 | |
| VJH0200XUNES | K3G200BDA802 | 48 | 36...57 | D | ① | 1 605 | 945 | 5 350 | 380 | 8.00 | 8.6 | -25...+60 |
| | | | | | ② | 1 385 | 815 | 5 350 | 428 | 8.89 | 8.6 | |
| | | | | | ③ | 1 165 | 685 | 5 350 | 456 | 9.50 | 8.6 | |
| | | | | | ④ | 865 | 510 | 5 350 | 449 | 9.34 | 8.6 | |

Subject to changes. * Current measured at nominal voltage.

Technical drawing

Dimensions in mm



VWLK280X..., VWLK280H...

DC axial fans · max. 2 115 m³/h · Ø 250 mm



Material/Surface

- Fan housing: Metal
- Blades: Plastic
- Rotor: Thick-film passivated

Characteristics

- Version: DC axial fan HyBlade
- Direction of air flow: "V"
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP24 KM, Electronics IP6K9K (mating connector installed)*
- Electrical hookup: via terminal strip
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.35 kg

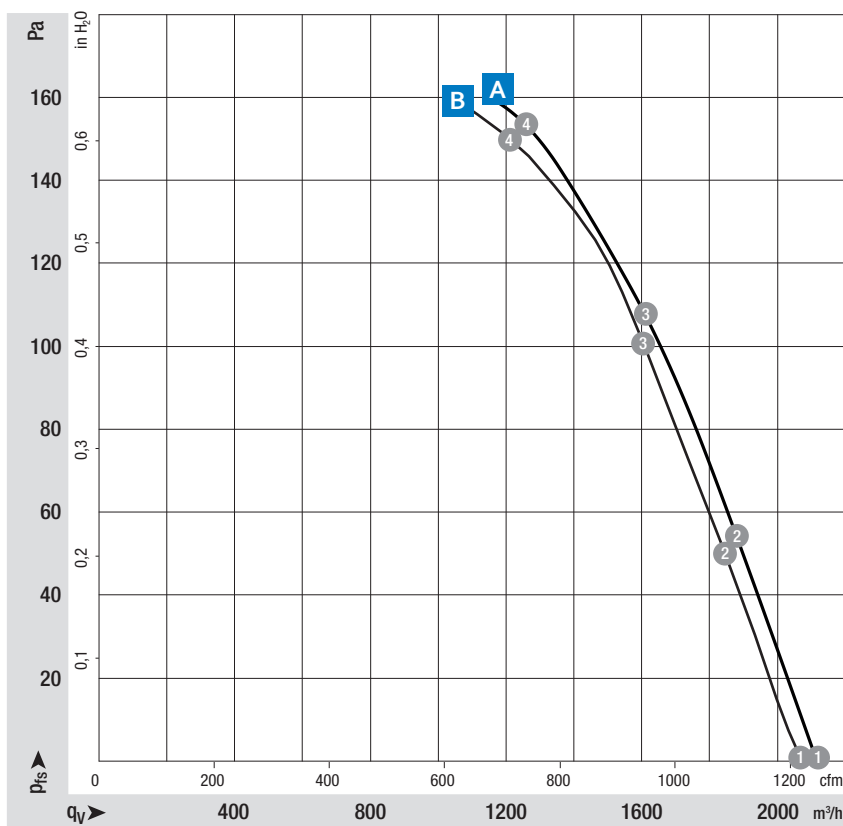
Approvals

- UL 507; CSA C22.2 Nr. 113; EAC; UKCA; CE; CCC on request (only applicable with >36V)

Note

- The IP protection is valid up to the motor connection side interface

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

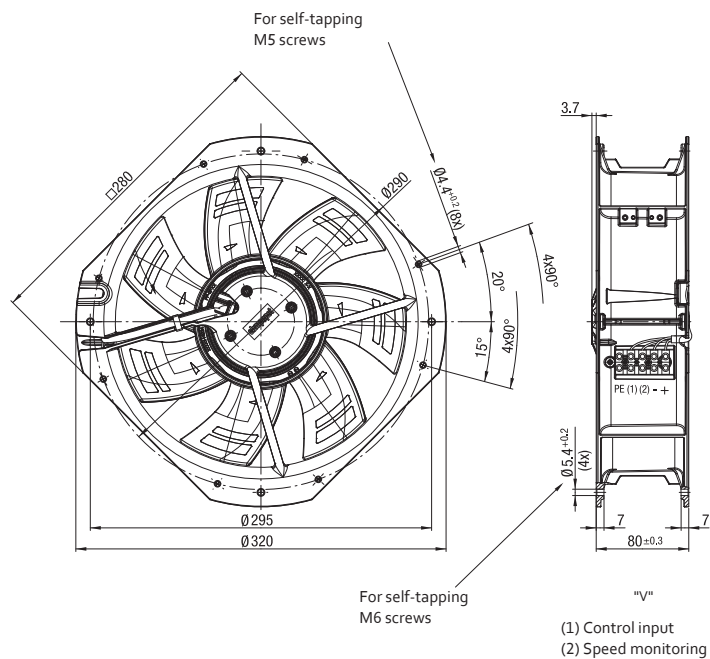
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current* | Sound power level | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|---------------|----------------------|------------------|----------|----------|-------|-------------------|----------------|-------------------|--------------------|---------------------------|
| | | VDC | VDC | | | m³/h | cfm | | | | | | |
| VWLK280XJNXS | W1G250HJ1402 | 24 | 16...28 | A | ① ② ③ ④ | 2 115 | 1 245 | 3 135 | 135 | 5.93 | - | 140 | -25...+60 |
| | | | | | | 1 880 | 1 105 | 2 975 | 139 | 6.21 | | | |
| | | | | | | 1 605 | 945 | 2 840 | 143 | 6.50 | | | |
| | | | | | | 1 255 | 740 | 2 760 | 148 | 6.77 | | | |
| VWLK280HKNXS | W1G250HJ2002 | 48 | 36...57 | B | ① ② ③ ④ | 1 995 | 1 175 | 3 000 | 121 | 2.50 | 7.3 | 140 | -25...+60 |
| | | | | | | 1 760 | 1 035 | 2 825 | 124 | 2.60 | 7.2 | | |
| | | | | | | 1 500 | 885 | 2 695 | 128 | 2.70 | 7.1 | | |
| | | | | | | 1 165 | 685 | 2 620 | 130 | 2.70 | 7.4 | | |

Subject to changes. * Current measured at nominal voltage.

Technical drawing

Dimensions in mm



VVY0300H..., VWR0300X..., VMA0300X...

DC axial fan · max. 2 565 m³/h · Ø 300 mm



Material/Surface

- Finger guard: Steel, coated in plastic
- Fan housing: Sheet steel, coated in plastic
- Blades: Plastic

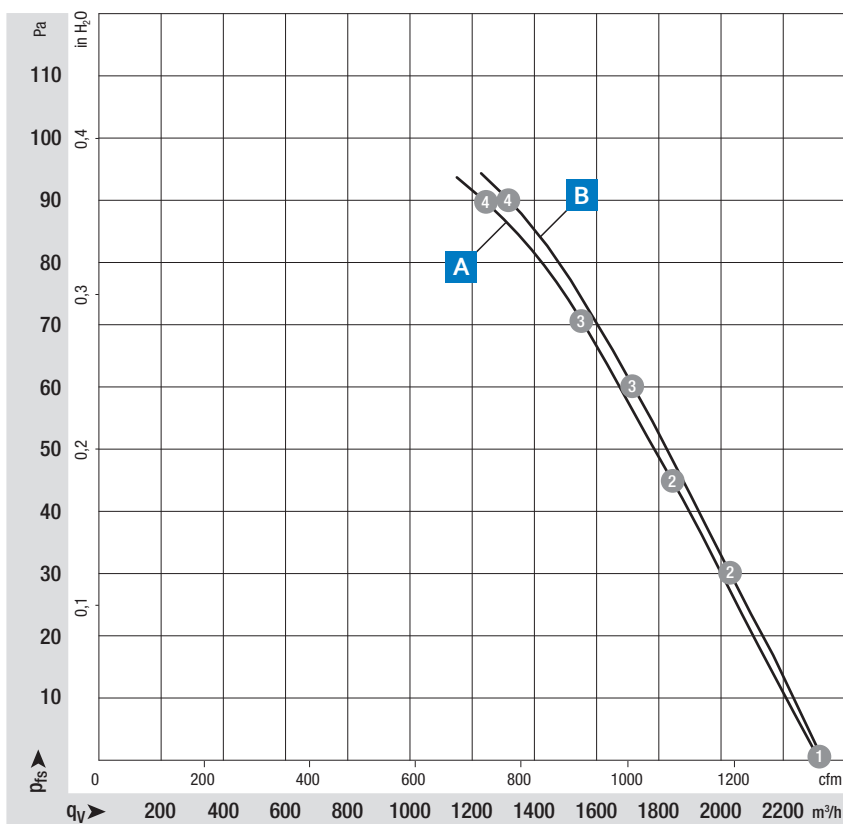
Characteristics

- Version: DC axial fan HyBlade in various versions, without attachments, with round full nozzle, with guard grill for short nozzle
- Direction of air flow: exhaust over flange
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP42
- Electrical hookup: cable AWG 20, 4
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.8-3.8kg (depending on version)

Approvals

- DIN EN 62368-1; CSA C22.2 Nr. 100; EAC; UL 1004-1; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

Product overview

DC centrifugal fans



Our DC centrifugal product range includes fans for every application. Where it's a free-running impeller or a complete, ready-to-install, compact housing with inlet nozzle.



all fan types with efficient, brushless motor technology, electronically commutated drive and electronic reverse polarity protection impress with their long life expectancy and outstanding efficiency.



This reduces the thermal load, thus ensuring maximum efficiency and a long service life.



Conforming to IP20 as standard, we also offer environmental protection solutions up to IP68 and IP6k9k to meet the highest requirements.



GreenIntelligence enables the fan speed to be intelligently controlled and noise-optimized, efficient and tailored use to be monitored.

ebmpapst

engineering a better life

Type code example: VBH0450PTTLZ

| V | B | H | 0450 | P | T | T | L | Z |
|------------------|-----------------------------------|-----------------|----------|------------|-------|------------|--------------|----------|
| Product category | Product type Airflow direction | Product version | Diameter | Brand name | Motor | Motor size | | Standard |
| | | | | | | Diameter | Stack length | |

| Dimensions in mm | Type | Type (old) | Page |
|---------------------|--------------|-------------|------|
| □ 51 x 15 | VHS0035XUDAS | RLF 35 | 150 |
| □ 65 x 66 | VCS0045X... | RVE 45 | 152 |
| □ 76 x 27 | VHS0048X... | RL 48 | 154 |
| 97 x 93,5 x 33 | VHS0065X... | RL 65 | 156 |
| □ 121 x 37 | VHS0090XUJBS | RL 90 N | 158 |
| □ 127 x 25 | VCS0100XUGBS | RLF 100 | 160 |
| □ 135 x 38 | VHS0090XUJBS | RG 90 N | 162 |
| □ 135 x 38 | VCS0125XUJBS | RG 125 N | 164 |
| □ 165 x 70 | VCS0133RUJCS | RG 133 TD | 166 |
| □ 180 x 40 | VCS0140XUJCS | RG 140 NTD | 168 |
| □ 220 x 56 | VCS0160XULCS | RG 160 N | 170 |
| □ 220 x 56 | VCS0160XULCS | RG 160 NTD | 172 |
| □ 226 x 85 | VCS0190RULDS | RG 190 TD | 174 |
| □ 270 x 99 | VCS0220RULDS | RG 220 TD | 176 |
| □ 270 x 119 | VCS0225RULDS | RG 225 TD | 178 |
| ∅ 85 x 68 | VFS0085XUJCS | RET 85 | 180 |
| ∅ 97 x 41 | VFS0097XUJCS | RET 97 TD | 182 |
| ∅ 104 x 25 | VBS0100XUGBS | REF 100 | 184 |
| ∅ 101 x 52 | VBS0101XUGDS | RER 101 N | 186 |
| ∅ 120 x 54 | VBS0120XUJCS | RER 120 TD | 188 |
| ∅ 138 x 35 | VBS0125XUJBS | RER 125 N | 190 |
| ∅ 133 x 91 | VBS0133X... | RER 133 TD | 192 |
| ∅ 140 x 36 | VBS0140XUJCS | RER 140 TD | 194 |
| ∅ 165 x 51 | VBS0160XULCS | RER 160 N | 196 |
| ∅ 165 x 51 | VBS0160XULCS | RER 160 NTD | 198 |
| ∅ 175 x 55 | VBS0175XULDS | REF 175 TD | 200 |
| ∅ 175 x 69 | VBS0175X... | RER 175 TD | 202 |
| ∅ 190 x 69 | VBS0190R... | RER 190 TD | 204 |
| ∅ 190 | VBS0190RUNCS | R1G 190 | 206 |
| ∅ 190 | VBS0190R... | R3G 190 | 208 |
| ∅ 220 | VBS0220RUNCS | R1G 220 | 210 |
| ∅ 220 | VBS0220RUNES | R3G 220 | 212 |
| ∅ 220 x 71 | VBS0220RULDS | RER 220 TD | 214 |
| ∅ 225 x 99 | VBS0225... | RER 225 TD | 216 |
| ∅ 225 | VBS0225RUNCS | R1G 225 | 218 |
| ∅ 225 | VBS0225RUNES | R3G 225 | 220 |
| ∅ 250 | VBS0250RUNES | R1G 250 | 222 |
| ∅ 250 | VBS0250RUNES | R3G 250 | 224 |
| ∅ 280 | VBS0280RUNES | R1G 280 | 226 |
| ∅ 280 | VBS0280RUNES | R3G 280 | 228 |
| ∅ 310 | VBS0310RUNES | R3G 310 | 230 |
| 201...413 x 50 x 48 | VTS0030X... | QG 030 | 232 |
| ∅ 108 | VFS0108XULCS | *1G 108 | 234 |
| ∅ 120 | VFS0120XULCS | *1G 120 | 236 |
| ∅ 133 | VFS0133XULCS | *1G 133 | 238 |
| ∅ 140 | VFS0140XULES | *1G 140 | 240 |
| ∅ 146 | VFS0146XUNCS | *1G 146 | 242 |
| ∅ 160 | VFS0160XUNCS | *1G 160 | 244 |
| ∅ 133 | VHD0133XUNCS | D1G 133 | 246 |
| ∅ 133 | VHD0133XUNES | D1G 133 | 248 |
| ∅ 146 | VHD0146XUNES | D1G 146 | 250 |

VHS0035XUDAS

DC centrifugal fans · max. 9.6 m³/h · □ 51 × 15 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC or 24VDC with forward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 26
- Electrical protection class: III
- Weight: 36 g

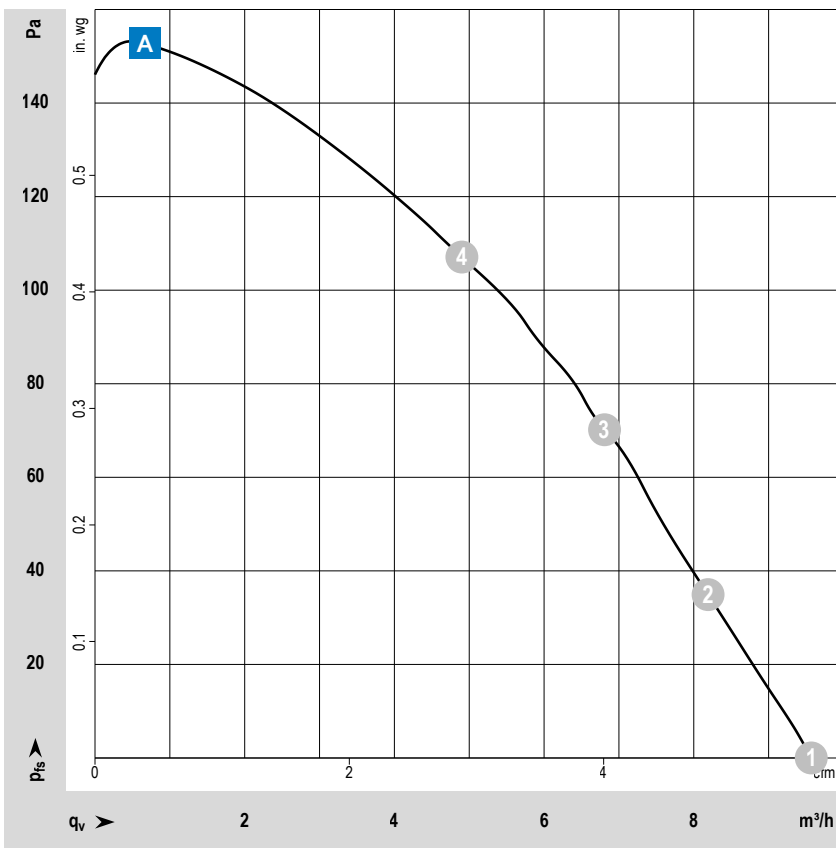
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- PWM control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

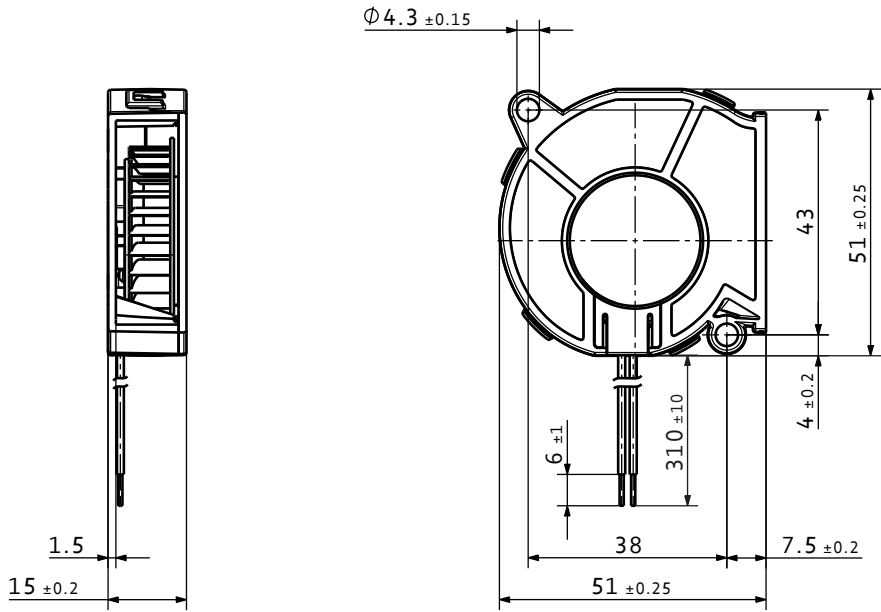
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|-------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | | °C | Hours |
| VHS0035XUDAS RLF 35-8/12 N | 9591904100 | 12 | 8...13.2 | A | ① | 9.6 | 5.7 | 6 700 | 4.0 | 5.4 | -20...+70 | 60 000 | 102 500 |
| | | | | | | 8.2 | 4.8 | 7 300 | 3.8 | 5.4 | | | |
| | | | | | | 6.8 | 4.0 | 7 940 | 3.7 | 5.5 | | | |
| | | | | | | 4.9 | 2.9 | 8 790 | 3.5 | 5.6 | | | |
| VHS0035XUDAS RLF 35-8/14 N | 9591904101 | 24 | 14...28 | A | ① | 9.3 | 5.5 | 6 700 | 3.3 | 5.4 | -20...+70 | 60 000 | 102 500 |
| | | | | | | 8.0 | 4.7 | 7 270 | 3.1 | 5.4 | | | |
| | | | | | | 6.6 | 3.9 | 7 850 | 3.0 | 5.5 | | | |
| | | | | | | 4.8 | 2.8 | 8 690 | 2.8 | 5.6 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0045X...

DC centrifugal fans · max. 30 m³/h · □ 65 x 66 mm



Material/Surface

- Scroll housing: Plastic (FDA approved)
- Impeller: Plastic (FDA approved)

Mechanische Characteristics

- Version: Small powerful centrifugal blower in 12VDC and 24VDC, Highly dynamic motor behavior, low noise and max pressure increase
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 160 g

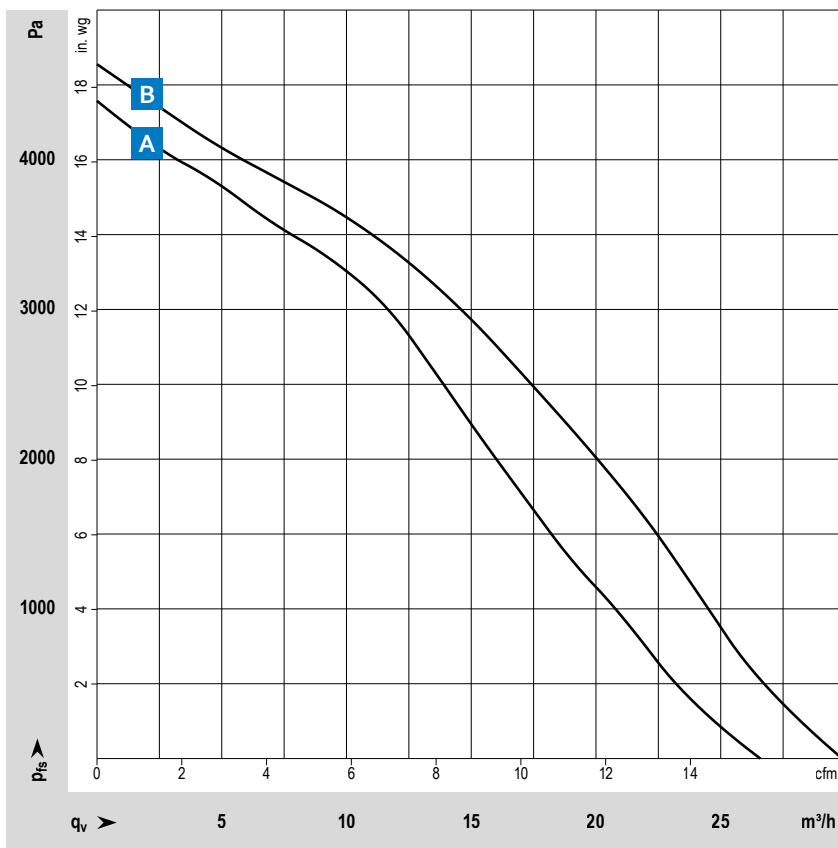
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Hose fitting at air inlet
– Diameter 22 mm
- PWM control input (Standard)
- Analog control input

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Air flow | Air flow | Speed | Power consumption | Sound pressure (free air flow) | Perm. ambient temperature | Lebensdauer L ₁₀ (25 °C) ebm-papst Standard | Lebensdauer-erwartung L ₁₀ IPC (25 °C) s. S. 11 |
|-------------------------------|-------------|-----------------|---------------|----------------------|----------|----------|--------|-------------------|--------------------------------|---------------------------|--|--|
| | | VDC | VDC | | m³/h | cfm | rpm | W | dB(A) | °C | Hours | Hours |
| VCS0045XUGAS RVE45-3/52/2P | 8315100111 | 12 | 9...15 | A | 26.6 | 15.7 | 33 000 | 27.7 | 58 | -20...+55 | 20 000 | 45 000 |
| VCS0045XUGAS RVE45-3/54/2P | 8315100100 | 24 | 16...30 | B | 30.0 | 17.6 | 36 500 | 34.5 | 58 | -20...+65 | 20 000 | 45 000 |
| VCS0045XUGAS RVE45-3/54/2A | 8315100115 | 24 | 16...30 | B | 30.0 | 17.6 | 36 500 | 34.5 | 58 | -20...+65 | 20 000 | 45 000 |

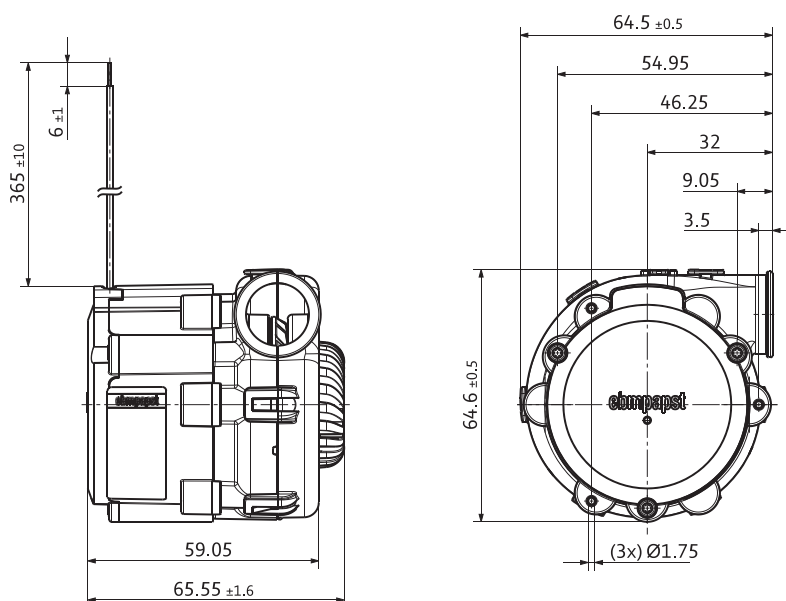
Subject to changes.

Extraction noise @ 1,000 Pa.

Blower with open intake side facing upwards, opposite side lays on 10 cm thick foam, outlet openings with hose and 4 mm standard nozzle (acoustically insulated), microphone 1.0 m vertical over blower, room noise level < 26 dB(A).

Technical drawing

Dimensions in mm



VHS0048X...

DC centrifugal fans · max. 27.2 m³/h · □ 76 x 27 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with forward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 26
- Electrical protection class: III
- Weight: 75 g

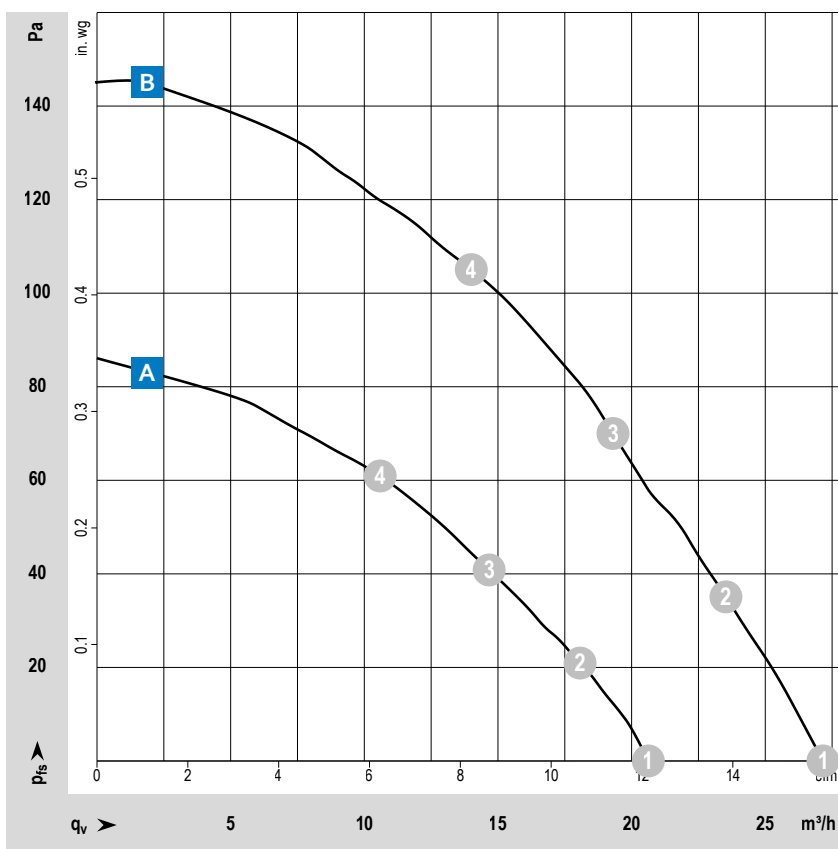
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm - alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

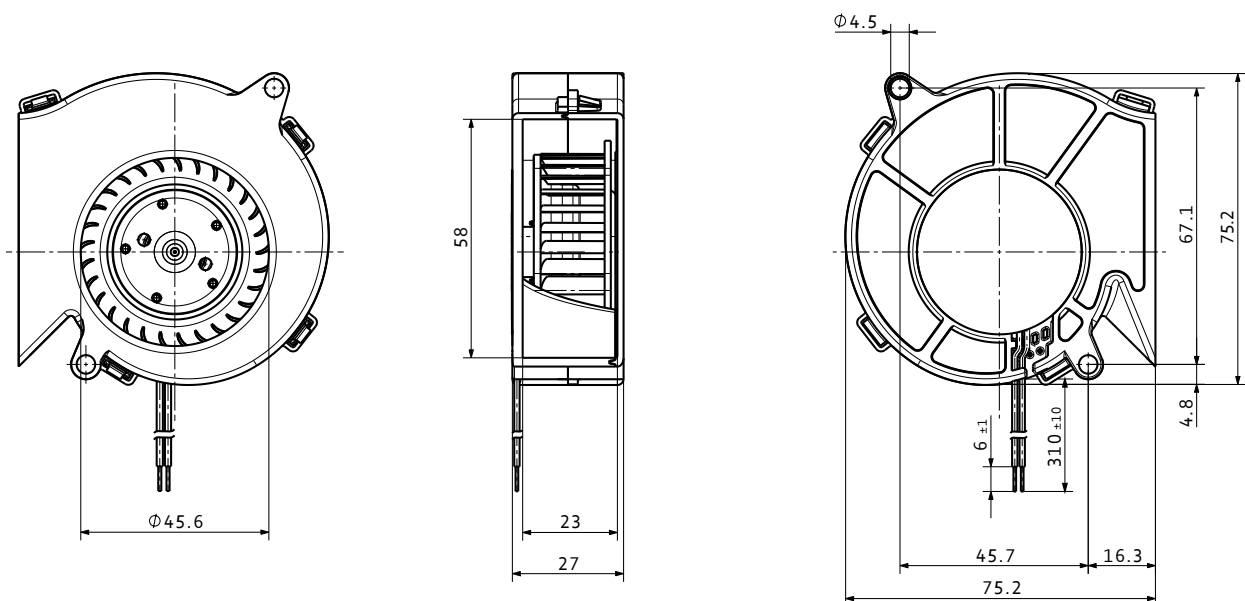
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|-----------------------------------|-------------|-----------------|---------------|----------------------|------------------|----------|----------|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | | | | | | |
| VHS0048XUEBS RL 48-19/12 ML | 9592207003 | 12 | 8...15 | A | ① ② ③ ④ | 20.6 | 12.1 | 3 500 | 2.3 | 5.4 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 18.1 | 10.7 | 3 770 | 2.1 | 5.2 | | | |
| | | | | | | 14.7 | 8.7 | 4 070 | 2.0 | 5.2 | | | |
| | | | | | | 10.6 | 6.2 | 4 490 | 1.7 | 5.2 | | | |
| VHS0048XUEBS RL 48-19/12 | 9592207001 | 12 | 8...13.5 | B | ① ② ③ ④ | 27.2 | 16.0 | 4 400 | 4.5 | 5.9 | -20...+70 | 60 000 | 102 500 |
| | | | | | | 23.5 | 13.8 | 4 790 | 4.2 | 5.7 | | | |
| | | | | | | 19.3 | 11.4 | 5 190 | 3.7 | 5.7 | | | |
| | | | | | | 14.0 | 8.2 | 5 750 | 3.3 | 5.8 | | | |
| VHS0048XUEBS RL 48-19/14 ML | 9592207004 | 24 | 18...28 | A | ① ② ③ ④ | 19.8 | 11.7 | 3 500 | 2.2 | 5.4 | -20...+70 | 70 000 | 117 500 |
| | | | | | | 17.6 | 10.4 | 3 730 | 2.1 | 5.2 | | | |
| | | | | | | 14.4 | 8.5 | 4 030 | 2.0 | 5.2 | | | |
| | | | | | | 10.4 | 6.1 | 4 400 | 1.7 | 5.2 | | | |
| VHS0048XUEBS RL 48-19/14 | 9592207002 | 24 | 18...26.4 | B | ① ② ③ ④ | 26.3 | 15.5 | 4 400 | 4.4 | 5.9 | -20...+70 | 60 000 | 102 500 |
| | | | | | | 22.7 | 13.4 | 4 720 | 4.0 | 5.7 | | | |
| | | | | | | 18.6 | 10.9 | 5 100 | 3.7 | 5.7 | | | |
| | | | | | | 13.6 | 8.0 | 5 630 | 3.2 | 5.8 | | | |
| VHS0048XUEBZ RL 48-19/18 R-016 | 9592207016 | 48 | 36...56 | B | ① ② ③ ④ | 26.1 | 15.4 | 4 400 | 5.6 | 5.9 | -32...+70 | 60 000 | 102 500 |
| | | | | | | 22.8 | 13.4 | 4 740 | 5.3 | 5.7 | | | |
| | | | | | | 19.2 | 11.3 | 5 220 | 4.8 | 5.7 | | | |
| | | | | | | 14.2 | 8.4 | 5 820 | 4.4 | 5.8 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VHS0065X...

DC centrifugal fans · max. 59 m³/h · 97 x 93,5 x 33 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with forward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 26
- Electrical protection class: III
- Weight: 160 g

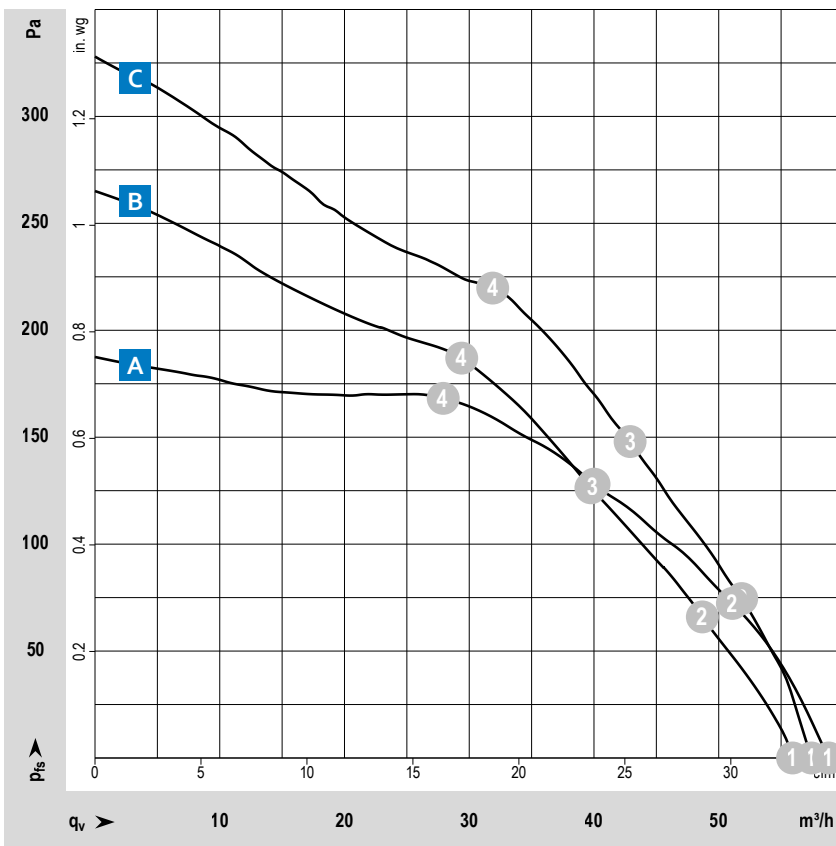
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

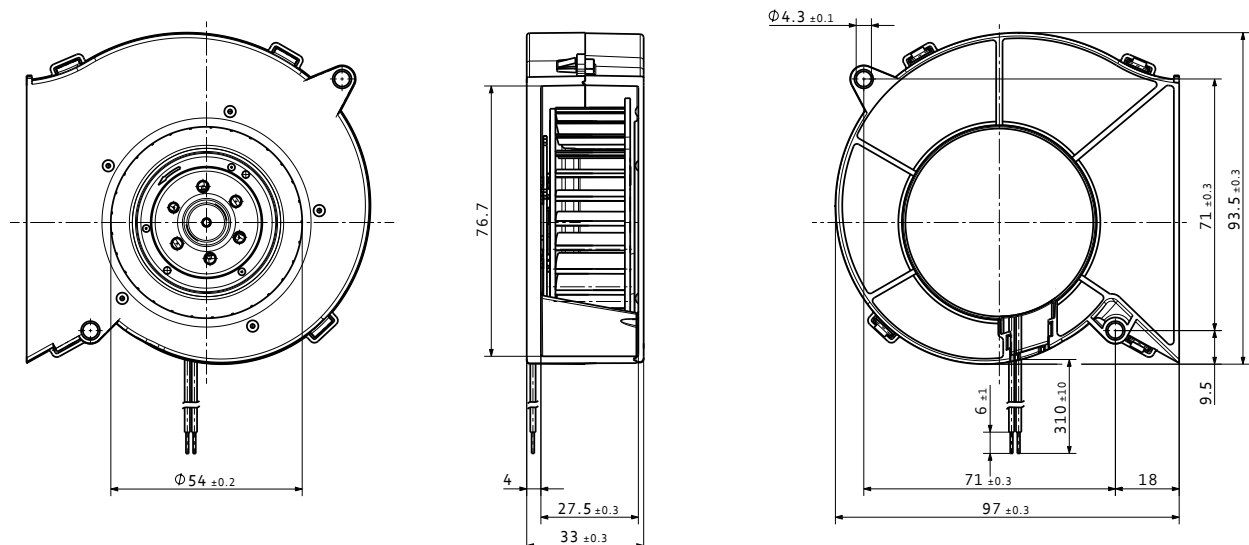
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ FC (40 °C) s.p. II |
|---------------------------------------|-------------|-----------------|---------------|----------------------|------------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | | | | | | |
| VHS0065XUFBS RL 65-21/12 | 9592910001 | 12 | 6.8...13.8 | B | ① ② ③ ④ | 55.0 | 32.4 | 4 500 | 14.7 | 6.9 | -20...+70 | 60 000 | 102 500 |
| | | | | | | 48.7 | 28.7 | 4 750 | 13.4 | 6.9 | | | |
| | | | | | | 39.6 | 23.3 | 5 060 | 11.8 | 6.8 | | | |
| | | | | | | 29.3 | 17.2 | 5 480 | 10.0 | 6.6 | | | |
| VHS0065XUFBS RL 65-21/12 H | 9592910004 | 12 | 6.8...13.2 | C | ① ② ③ ④ | 57.0 | 33.5 | 4 900 | 18.9 | 7.2 | -20...+55 | 55 000 | 92 500 |
| | | | | | | 52.0 | 30.6 | 5 100 | 17.6 | 7.1 | | | |
| | | | | | | 42.9 | 25.2 | 5 440 | 15.6 | 7.2 | | | |
| | | | | | | 31.9 | 18.8 | 5 880 | 13.2 | 6.9 | | | |
| VHS0065XUFBS RL 65-21/14 | 9592910003 | 24 | 12...26.4 | B | ① ② ③ ④ | 56.0 | 33.0 | 4 500 | 13.6 | 6.9 | -20...+70 | 60 000 | 102 500 |
| | | | | | | 48.7 | 28.7 | 4 760 | 12.4 | 6.9 | | | |
| | | | | | | 39.7 | 23.4 | 5 080 | 10.9 | 6.8 | | | |
| | | | | | | 29.4 | 17.3 | 5 460 | 9.2 | 6.6 | | | |
| VHS0065XUFBS RL 65-21/14 H | 9592910005 | 24 | 12...26.4 | C | ① ② ③ ④ | 57.0 | 33.5 | 4 900 | 17.8 | 7.2 | -20...+60 | 55 000 | 92 500 |
| | | | | | | 52.0 | 30.6 | 5 120 | 16.6 | 7.1 | | | |
| | | | | | | 43.2 | 25.4 | 5 500 | 14.7 | 7.2 | | | |
| | | | | | | 32.3 | 19.0 | 5 960 | 12.5 | 6.9 | | | |
| VHS0065XUFBZ RL 65-21/18/2 HPR-180 | 9792900180 | 48 | 36...60 | A | ① ② ③ ④ | 59.0 | 34.7 | 4 900 | 20.5 | 7.2 | -20...+70 | 55 000 | 92 500 |
| | | | | | | 51.0 | 30.0 | 4 910 | 17.2 | 7.0 | | | |
| | | | | | | 40.0 | 23.5 | 4 920 | 12.5 | 6.8 | | | |
| | | | | | | 27.9 | 16.4 | 4 910 | 8.4 | 6.5 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VHS0090XUJBS

DC centrifugal fans · max. 56 m³/h · □ 121 x 37 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with forward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings/Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 420 g

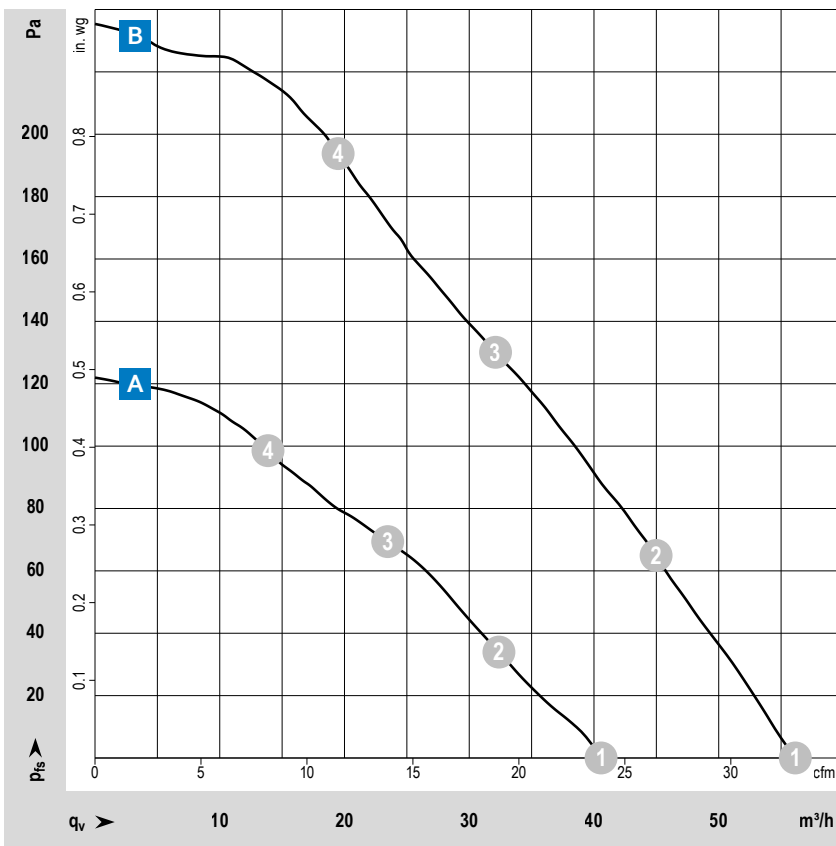
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54 / IP 68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

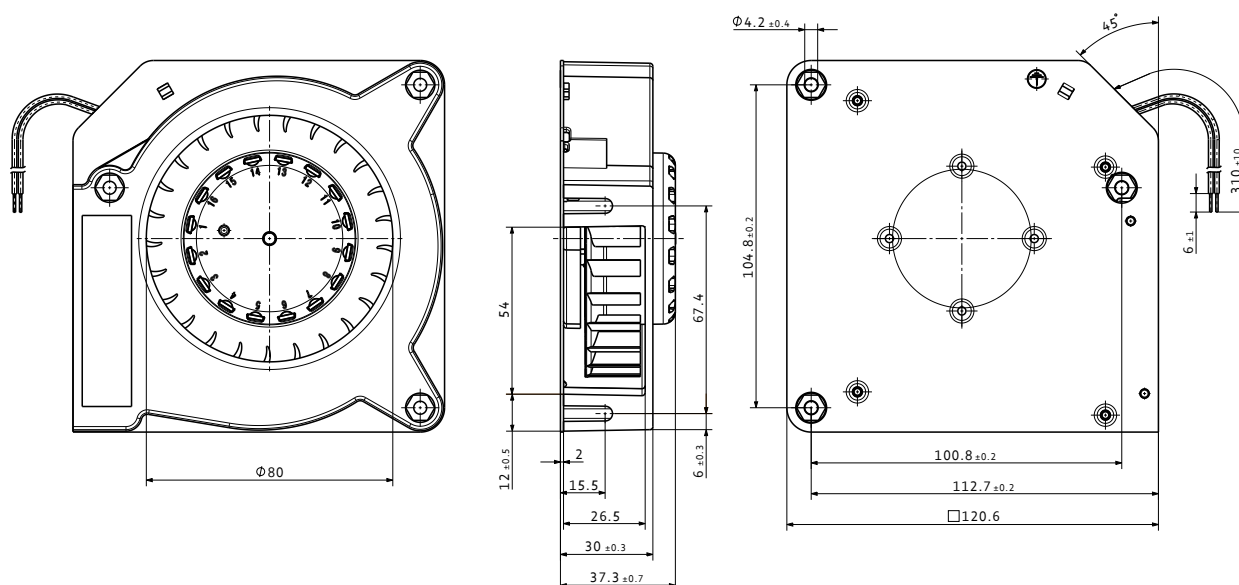
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|--------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VHS0090XUJBS RL 90-18/12 N | 9594310401 | 12 | 7...15 | A | ① | 38.2 | 22.5 | 2 500 | 5.5 | 6.2 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 31.5 | 18.5 | 2 670 | 5.0 | 6.0 | | | |
| | | | | | | 23.0 | 13.5 | 2 870 | 4.3 | 5.9 | | | |
| | | | | | | 13.8 | 8.1 | 3 100 | 3.4 | 5.8 | | | |
| VHS0090XUJBS RL 90-18/14 NG | 9594310409 | 24 | 12...28 | A | ① | 37.2 | 21.9 | 2 500 | 5.0 | 6.2 | -20...+75 | 62 500 | 105 000 |
| | | | | | | 30.7 | 18.1 | 2 640 | 4.5 | 6.0 | | | |
| | | | | | | 22.2 | 13.1 | 2 820 | 3.8 | 5.9 | | | |
| | | | | | | 13.4 | 7.9 | 3 040 | 3.1 | 5.8 | | | |
| VHS0090XUJBS RL 90-18/14 N | 9594310400 | 24 | 12...28 | A | ① | 40.6 | 23.9 | 2 500 | 6.1 | 6.2 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 32.4 | 19.1 | 2 690 | 5.4 | 6.0 | | | |
| | | | | | | 23.4 | 13.8 | 2 920 | 4.5 | 5.9 | | | |
| | | | | | | 13.9 | 8.2 | 3 180 | 3.7 | 5.8 | | | |
| VHS0090XUJBS RL 90-18/18 NH | 9594310413 | 48 | 36...53 | B | ① | 56.0 | 33.0 | 3 500 | 14.6 | 6.9 | -30...+65 | 32 500 | 55 000 |
| | | | | | | 45.0 | 26.5 | 3 750 | 12.6 | 6.8 | | | |
| | | | | | | 32.1 | 18.9 | 4 090 | 10.3 | 6.8 | | | |
| | | | | | | 19.5 | 11.5 | 4 470 | 8.1 | 6.8 | | | |

Subject to changes.

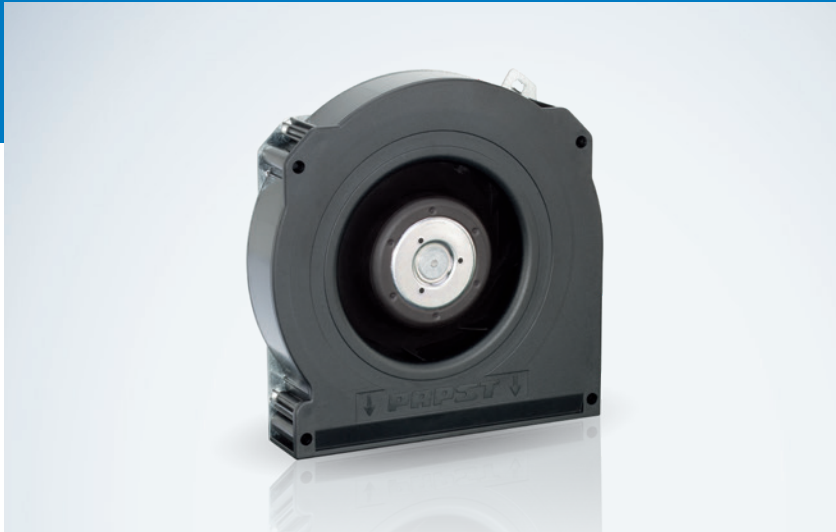
Technical drawing

Dimensions in mm



VCS0100XUGBS

DC centrifugal fans · max. 80 m³/h · □ 127 x 25 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with forward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 300 g

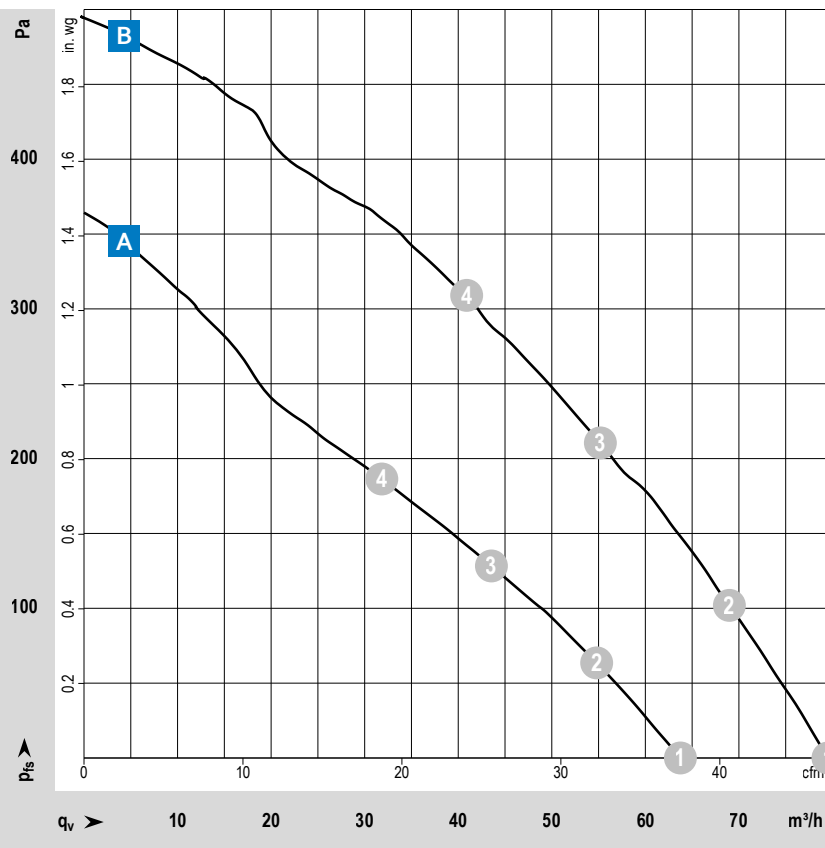
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

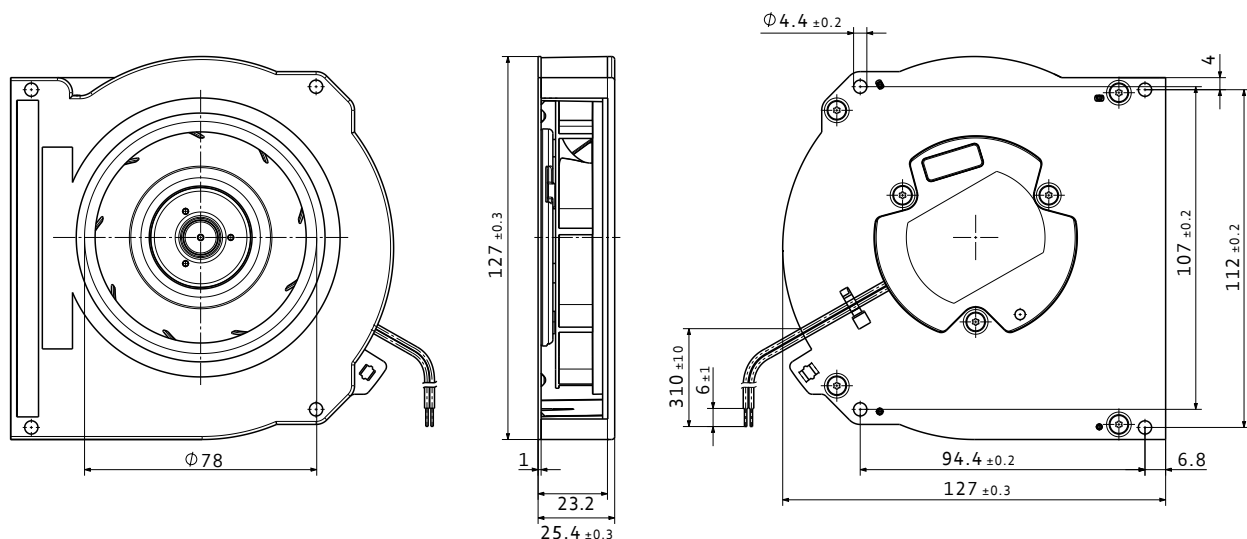
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s.p. II |
|---|-------------|-----------------|---------------|----------------------|------------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VCS0100XUGBS RLF 100-11/12 | 9593507051 | 12 | 8...15 | A | ① ② ③ ④ | 63.0 | 37.1 | 5 100 | 7.3 | 6.7 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 54.0 | 31.8 | 5 040 | 7.4 | 6.5 | | | |
| | | | | | | 42.9 | 25.2 | 5 020 | 7.5 | 6.4 | | | |
| | | | | | | 31.2 | 18.4 | 5 070 | 7.4 | 6.4 | | | |
| VCS0100XUGBS RLF 100-11/14 | 9593507052 | 24 | 16...30 | A | ① ② ③ ④ | 64.0 | 37.7 | 5 100 | 7.5 | 6.7 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 55.0 | 32.4 | 5 040 | 7.7 | 6.5 | | | |
| | | | | | | 43.5 | 25.6 | 5 020 | 7.8 | 6.4 | | | |
| | | | | | | 31.8 | 18.7 | 5 090 | 7.5 | 6.4 | | | |
| VCS0100XUGBS RLF 100-11/18 | 9593507056 | 48 | 36...60 | A | ① ② ③ ④ | 64.0 | 37.7 | 5 100 | 8.2 | 6.7 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 54.0 | 31.8 | 5 040 | 8.4 | 6.5 | | | |
| | | | | | | 43.5 | 25.6 | 5 000 | 8.5 | 6.4 | | | |
| | | | | | | 31.8 | 18.7 | 5 070 | 8.3 | 6.4 | | | |
| Fan type with speed signal and PWM control input as standard. Other versions on request | | | | | | | | | | | | | |
| VCS0100XUGBS RLF100-11/12/2HP | 9793510200 | 12 | 10...13.2 | B | ① ② ③ ④ | 80.0 | 47.1 | 6 400 | 18.8 | 7.2 | -20...+60 | 72 500 | 122 500 |
| | | | | | | 69.0 | 40.6 | 6 400 | 19.6 | 7.1 | | | |
| | | | | | | 56.0 | 33.0 | 6 400 | 20.2 | 7.0 | | | |
| | | | | | | 41.0 | 24.1 | 6 400 | 19.7 | 7.1 | | | |
| VCS0100XUGBS RLF100-11/18/2HP | 9793510182 | 48 | 43...53 | B | ① ② ③ ④ | 80.0 | 47.1 | 6 400 | 15.5 | 7.2 | -20...+70 | 72 500 | 122 500 |
| | | | | | | 69.0 | 40.6 | 6 340 | 16.1 | 7.1 | | | |
| | | | | | | 55.0 | 32.4 | 6 320 | 16.6 | 7.0 | | | |
| | | | | | | 41.0 | 24.1 | 6 360 | 16.1 | 7.1 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VHS0090XUJBS

DC centrifugal fans · max. 56 m³/h · □ 135 x 38 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with forward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22; 48V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 440 g

from page 14 Definitions

from page 350 Accessories

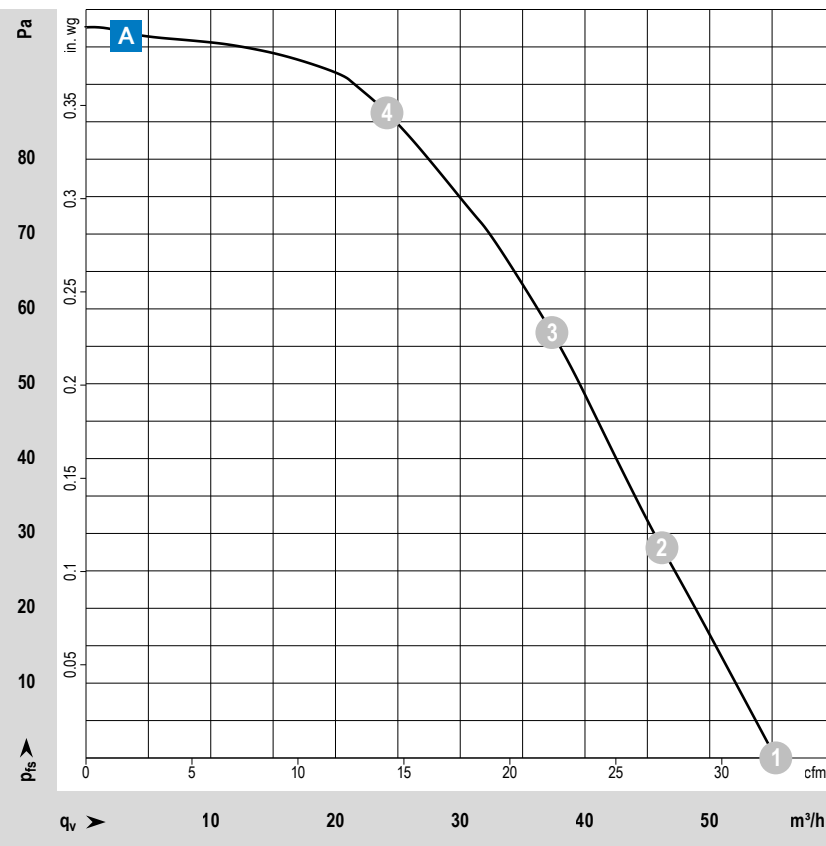
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54 / IP 68



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

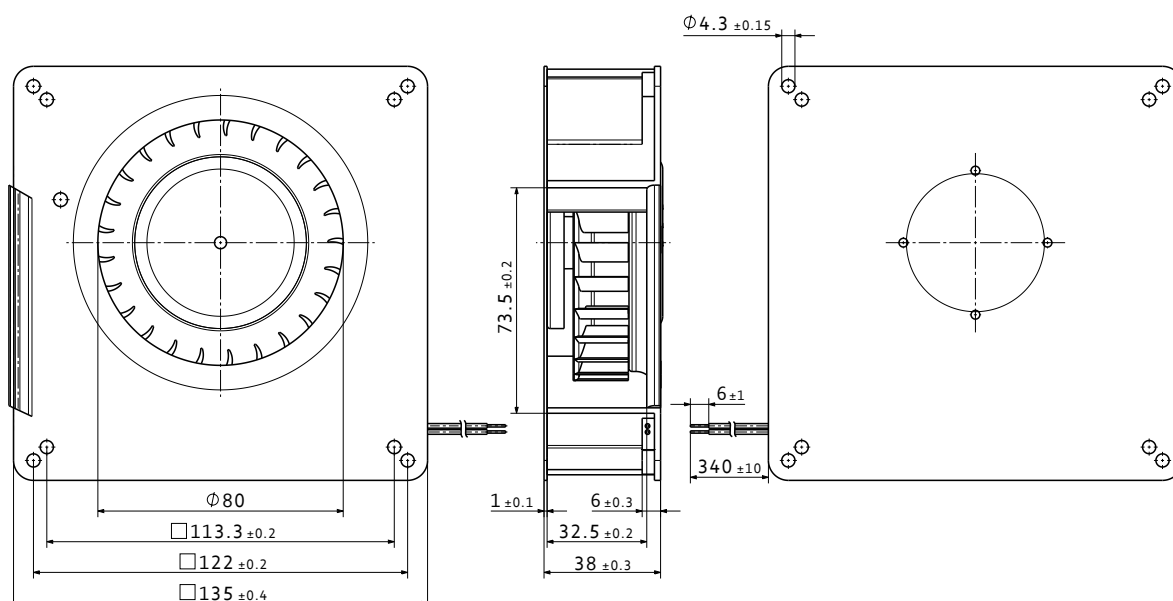
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|-------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | | °C | Hours |
| VHS0090XUJBS RG 90-18/12 N | 9594310201 | 12 | 7...15 | A | ① | 56.0 | 33.0 | 2 200 | 6.8 | 6.1 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 47.4 | 27.9 | 2 350 | 6.2 | 6.0 | | | |
| | | | | | | 38.5 | 22.7 | 2 530 | 5.5 | 5.8 | | | |
| | | | | | | 25.0 | 14.7 | 2 850 | 4.4 | 5.6 | | | |
| VHS0090XUJBS RG 90-18/14 N | 9594310200 | 24 | 12...28 | A | ① | 55.0 | 32.4 | 2 200 | 6.0 | 6.1 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 46.1 | 27.1 | 2 350 | 5.4 | 6.0 | | | |
| | | | | | | 37.4 | 22.0 | 2 480 | 4.8 | 5.7 | | | |
| | | | | | | 24.1 | 14.2 | 2 750 | 3.8 | 5.6 | | | |
| VHS0090XUJBS RG 90-18/18 N | 9594310202 | 48 | 36...56 | A | ① | 56.0 | 33.0 | 2 200 | 5.9 | 6.1 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 46.5 | 27.4 | 2 340 | 5.3 | 6.0 | | | |
| | | | | | | 37.2 | 21.9 | 2 490 | 4.7 | 5.7 | | | |
| | | | | | | 24.0 | 14.1 | 2 740 | 3.8 | 5.6 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0125XUJBS

DC centrifugal fans · max. 133 m³/h · □ 135 x 38 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with backward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings/Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22; 48V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 730 g

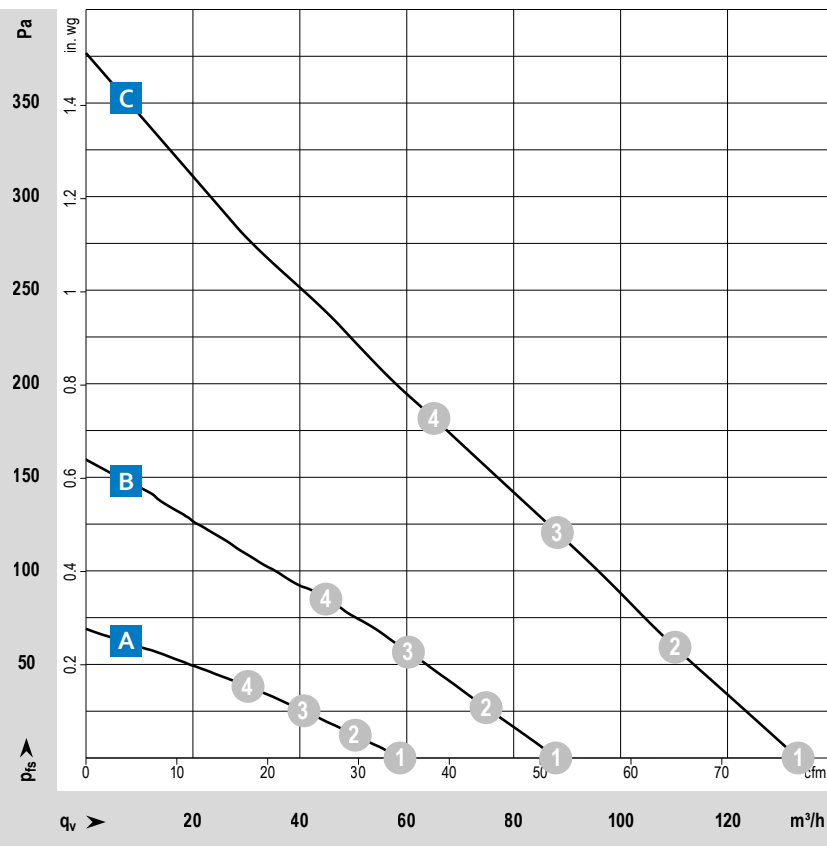
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54 / IP 68



Measuring conditions

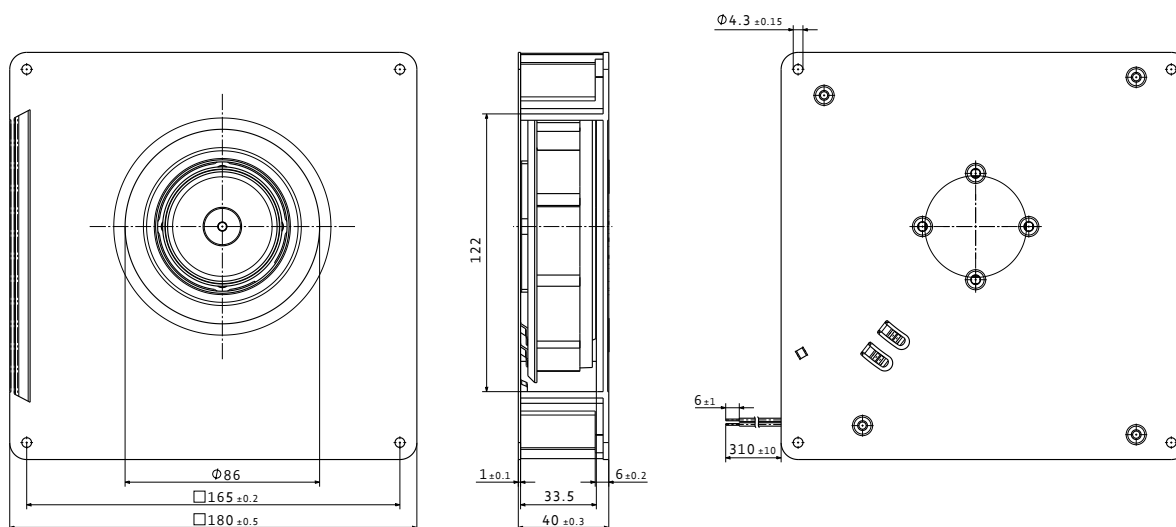
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ FC (40 °C) s.p. II |
|---------------------------------|-------------|-----------------|---------------|----------------------|------------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | | | | | | |
| VCS0125XUJBS RG 125-19/12 NM | 9594310123 | 12 | 7...15 | A | ① ② ③ ④ | 56.0 | 33.0 | 1 750 | 1.8 | 5.1 | -30...+75 | 70 000 | 117 500 |
| | | | | | | 48.9 | 28.8 | 1 730 | 1.8 | 5.1 | | | |
| | | | | | | 39.9 | 23.5 | 1 730 | 1.8 | 5.0 | | | |
| | | | | | | 29.9 | 17.6 | 1 750 | 1.8 | 4.9 | | | |
| VCS0125XUJBS RG 125-19/12 N | 9594310122 | 12 | 7...15 | B | ① ② ③ ④ | 84.0 | 49.4 | 2 550 | 5.1 | 6.1 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 72.0 | 42.4 | 2 490 | 5.2 | 6.0 | | | |
| | | | | | | 59.0 | 34.7 | 2 500 | 5.2 | 5.9 | | | |
| | | | | | | 44.1 | 26.0 | 2 540 | 5.0 | 5.8 | | | |
| VCS0125XUJBS RG 125-19/14 NM | 9594310121 | 24 | 12...28 | A | ① ② ③ ④ | 59.0 | 34.7 | 1 750 | 1.9 | 5.1 | -30...+75 | 70 000 | 117 500 |
| | | | | | | 50.0 | 29.4 | 1 700 | 2.0 | 5.1 | | | |
| | | | | | | 40.6 | 23.9 | 1 700 | 2.0 | 5.0 | | | |
| | | | | | | 30.2 | 17.8 | 1 730 | 1.9 | 4.9 | | | |
| VCS0125XUJBS RG 125-19/14 N | 9594310120 | 24 | 12...28 | B | ① ② ③ ④ | 86.0 | 50.6 | 2 550 | 4.6 | 6.1 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 73.0 | 43.0 | 2 500 | 4.8 | 6.0 | | | |
| | | | | | | 59.0 | 34.7 | 2 520 | 4.8 | 5.9 | | | |
| | | | | | | 44.2 | 26.0 | 2 560 | 4.6 | 5.8 | | | |
| VCS0125XUJBS RG 125-19/18 N | 9594310125 | 48 | 36...56 | B | ① ② ③ ④ | 88.0 | 51.8 | 2 550 | 4.7 | 6.1 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 75.0 | 44.1 | 2 510 | 4.8 | 6.0 | | | |
| | | | | | | 60.0 | 35.3 | 2 520 | 4.8 | 5.9 | | | |
| | | | | | | 44.9 | 26.4 | 2 560 | 4.7 | 5.8 | | | |
| VCS0125XUJBS RG 125-19/18 NH | 9594310149 | 48 | 36...56 | C | ① ② ③ ④ | 133.0 | 78.3 | 4 000 | 17.0 | 7.3 | -20...+70 | 55 000 | 92 500 |
| | | | | | | 110.0 | 64.7 | 3 940 | 17.5 | 7.3 | | | |
| | | | | | | 88.0 | 51.8 | 3 950 | 17.3 | 7.3 | | | |
| | | | | | | 65.0 | 38.3 | 3 990 | 17.0 | 7.2 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0133RUJCS

DC centrifugal fans · max. 378 m³/h · □ 165 x 70 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Mechanische Characteristics

- Version: Centrifugal fan in 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22; 48V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 700 g

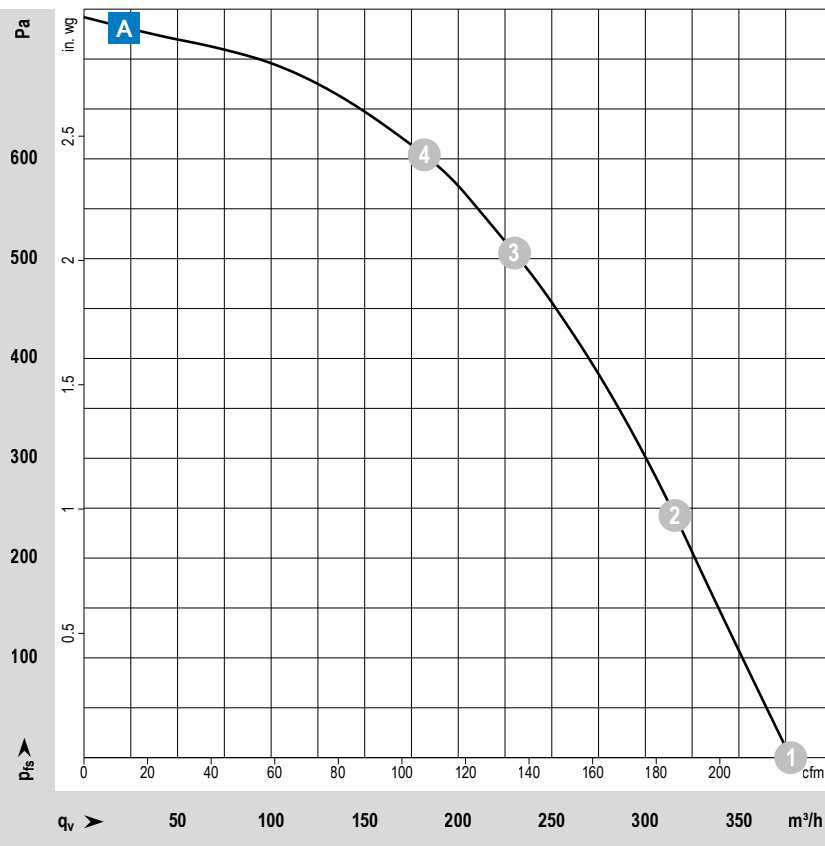
Conformity with standard(s)/Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

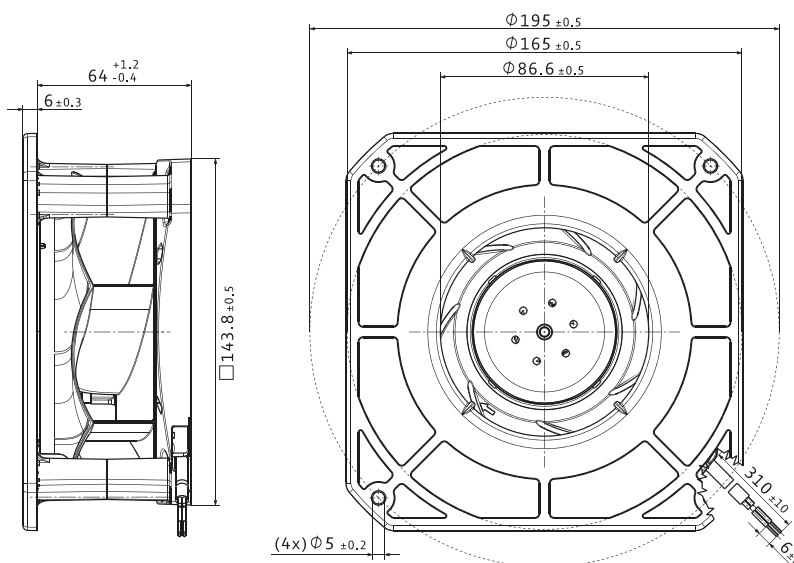
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s. p. II |
|------------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VCS0133RUJCS RG 133-33/18/2TDMO | 9594314200 | 48 | 36...60 | A | 1 | 378 | 222 | 5 600 | 63.0 | 8.1 | -20...+65 | 55 000 | 92 500 |
| | | | | | 2 | 316 | 186 | 5 600 | 71.2 | 8.0 | | | |
| | | | | | 3 | 230 | 135 | 5 600 | 79.3 | 7.8 | | | |
| | | | | | 4 | 182 | 107 | 5 600 | 78.0 | 7.9 | | | |

Subject to changes. The specific service life is valid when an external capacitor is wired by the customer. See information on wiring in the corresponding product data sheet.

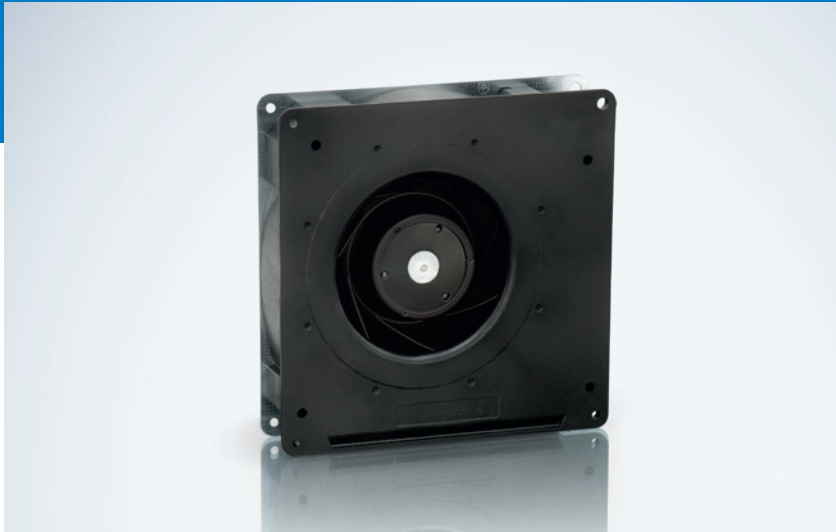
Technical drawing

Dimensions in mm



VCS0140XUJCZ

DC centrifugal fans · max. 121 m³/h · □ 180 x 40 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC or 24VDC with backward-curved impeller; powerful due to 3-phase motor concept; special commutation electronics for extremely quiet operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 750 g

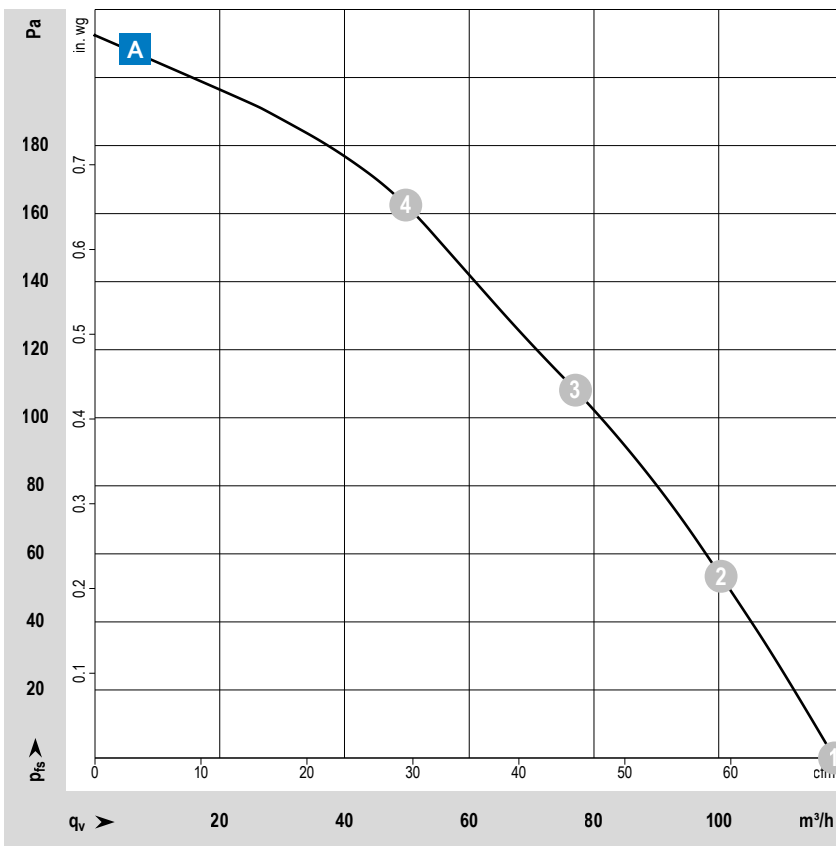
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / No Go Alarm
- Alarm with speed limit
- External temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

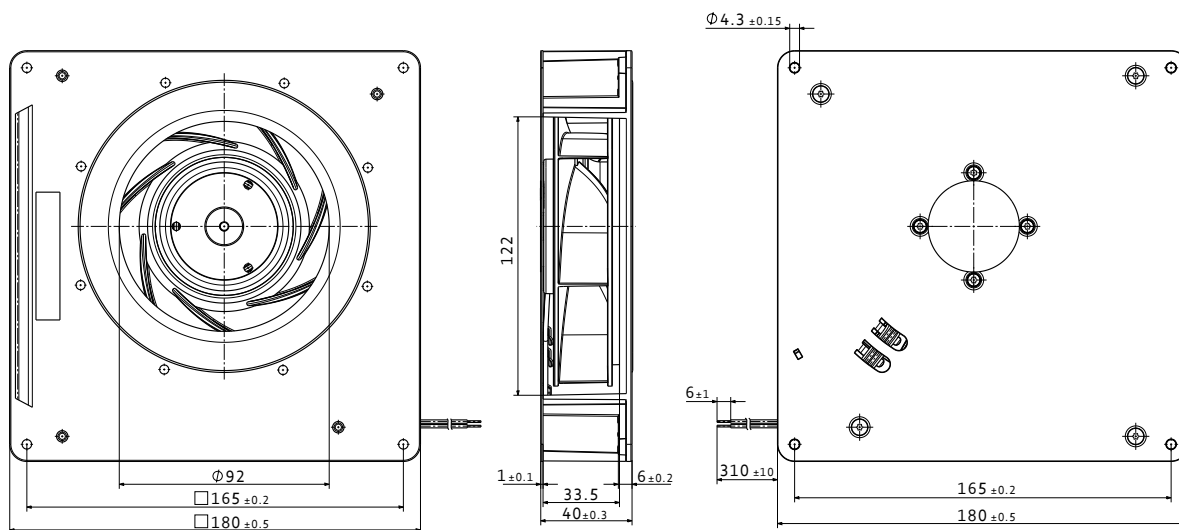
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II | |
|--|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|---|-----|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours | |
| VCS0140XUJCZ RG 140-22/12 N/2 TDAU-505 | 9794300505 | 12 | 10.8...13.2 | A | ① | 121.0 | 71.2 | 2 500 | 10.3 | 6.6 | -20...+70 | 62 500 | 105 000 | |
| | | | | | | ② | 102.0 | 60.0 | 2 500 | 10.2 | | | | 6.4 |
| | | | | | | ③ | 78.0 | 45.9 | 2 500 | 9.3 | | | | 6.1 |
| | | | | | | ④ | 49.8 | 29.3 | 2 500 | 7.6 | | | | 6.1 |
| VCS0140XUJCZ RG 140-22/14 N/2 TDPU | 9794300504 | 24 | 20.4...27.6 | A | ① | 119.0 | 70.0 | 2 500 | 9.4 | 6.6 | -20...+70 | 62 500 | 105 000 | |
| | | | | | | ② | 100.0 | 58.9 | 2 500 | 9.3 | | | | 6.4 |
| | | | | | | ③ | 77.0 | 45.3 | 2 500 | 8.8 | | | | 6.1 |
| | | | | | | ④ | 49.9 | 29.4 | 2 500 | 7.5 | | | | 6.1 |

Subject to changes.

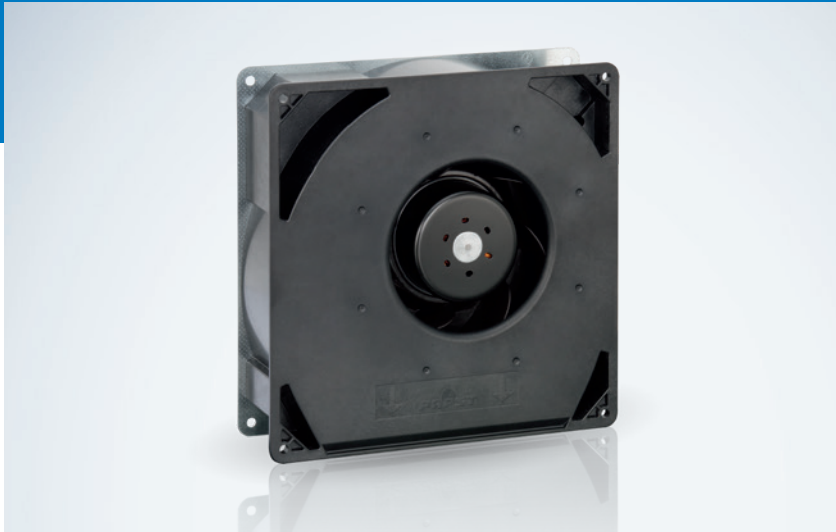
Technical drawing

Dimensions in mm



VCS0160XULCS

DC centrifugal fans · max. 209 m³/h · □ 220 x 56 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with backward-curved impeller
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22; 48V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 1.4 kg

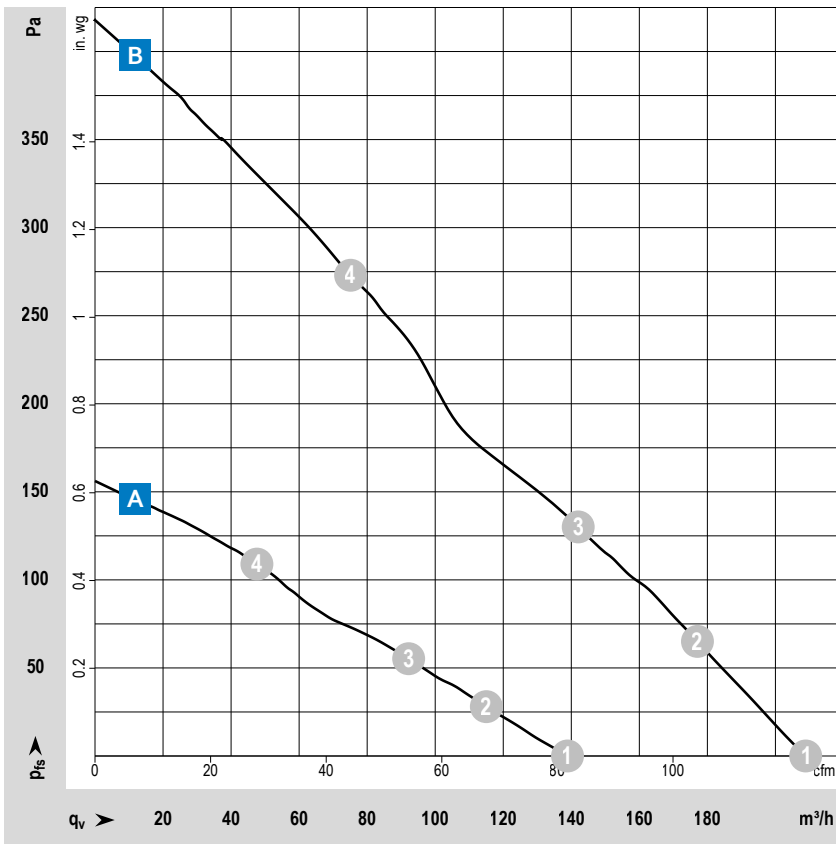
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

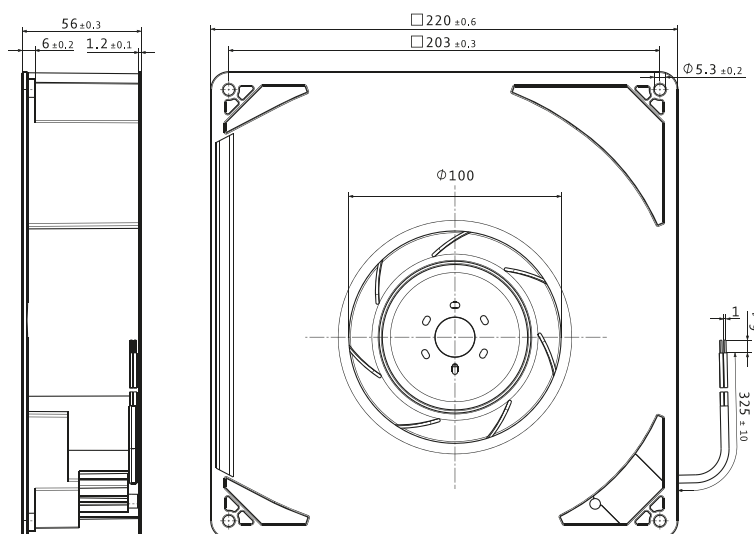
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|---------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | | | |
| VCS0160XULCS RG 160-28/12 N | 9595414101 | 12 | 7.5...14 | B | ① | 208 | 122 | 2 850 | 18.7 | 7.2 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 176 | 104 | 2 810 | 19.0 | 7.0 | | | |
| | | | | | ③ | 141 | 83 | 2 820 | 19.1 | 6.8 | | | |
| | | | | | ④ | 75 | 44 | 2 960 | 18.3 | 6.9 | | | |
| VCS0160XULCS RG 160-28/14 NM | 9595414102 | 24 | 12...28 | A | ① | 139 | 82 | 1 900 | 7.3 | 6.4 | -20...+70 | 80 000 | 135 000 |
| | | | | | ② | 115 | 68 | 1 900 | 7.6 | 6.2 | | | |
| | | | | | ③ | 92 | 54 | 1 900 | 7.6 | 5.8 | | | |
| | | | | | ④ | 48 | 28 | 1 930 | 7.1 | 5.7 | | | |
| VCS0160XULCS RG 160-28/14 N | 9595414100 | 24 | 12...28 | B | ① | 209 | 123 | 2 850 | 21.0 | 7.2 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 178 | 105 | 2 830 | 21.6 | 7.0 | | | |
| | | | | | ③ | 143 | 84 | 2 840 | 21.7 | 6.8 | | | |
| | | | | | ④ | 76 | 45 | 2 960 | 19.4 | 6.9 | | | |
| VCS0160XULCS RG 160-28/18 N | 9595414115 | 48 | 28...60 | B | ① | 209 | 123 | 2 850 | 18.6 | 7.2 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 177 | 104 | 2 800 | 19.2 | 7.0 | | | |
| | | | | | ③ | 142 | 84 | 2 810 | 19.2 | 6.8 | | | |
| | | | | | ④ | 75 | 44 | 2 930 | 17.6 | 6.9 | | | |

Subject to changes.

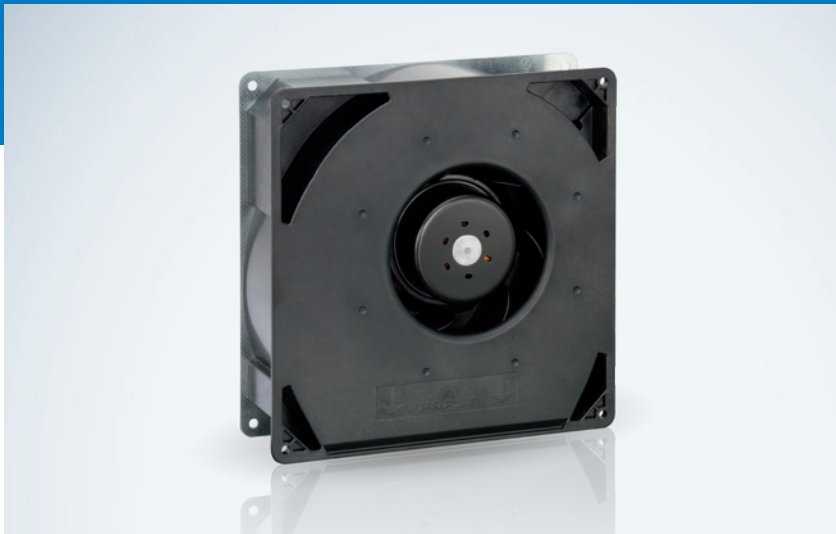
Technical drawing

Dimensions in mm



VCS0160XULCS

DC centrifugal fans · max. 436 m³/h · □ 220 x 56 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Sheet steel

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22; 48V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 1.4 kg

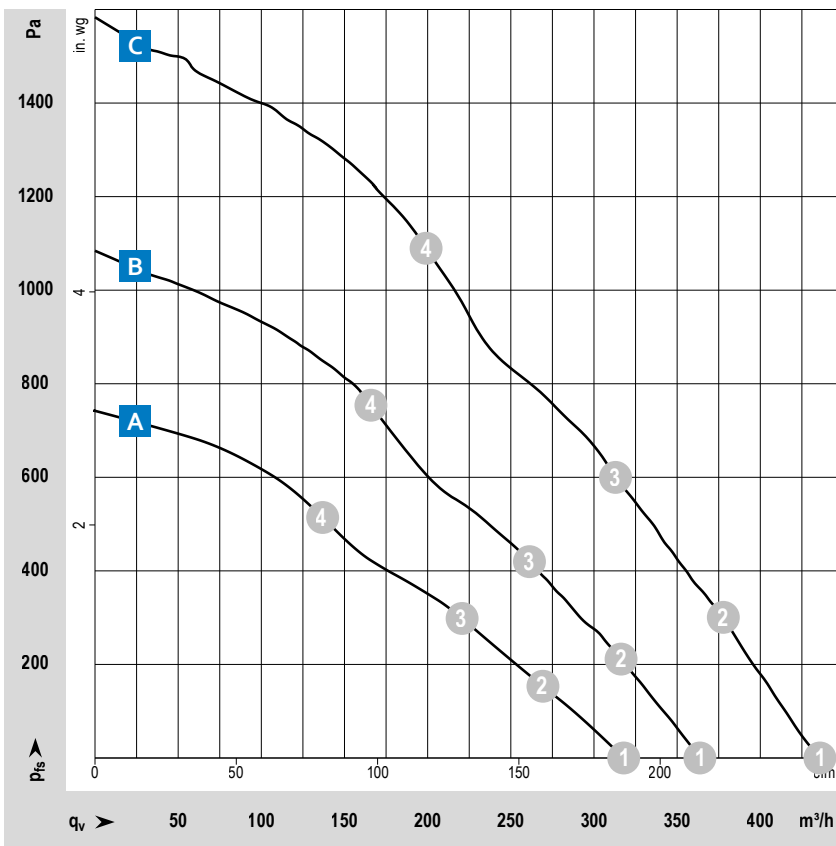
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

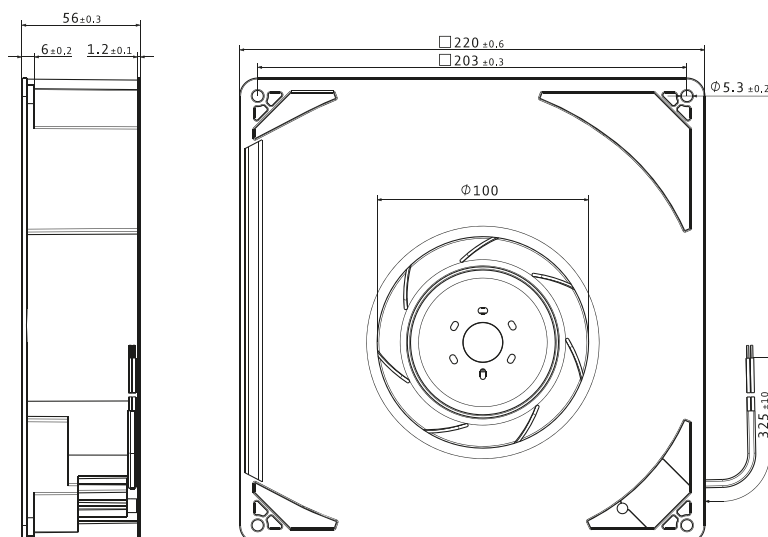
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s. p. II |
|---|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | | | |
| VCS0160XULCS RG 160-28/14 NTD | 9595414315 | 24 | 16...28 | A | ① | 317 | 187 | 4 200 | 66.2 | 8.1 | -20...+60 | 55 000 | 92 500 |
| | | | | | | 271 | 160 | 4 200 | 69.9 | 8.0 | | | |
| | | | | | | 222 | 131 | 4 200 | 70.0 | 7.8 | | | |
| | | | | | | 137 | 81 | 4 200 | 62.6 | 7.9 | | | |
| VCS0160XULCS RG 160-28/14 NTDH | 9595414353 | 24 | 16...28 | B | ① | 364 | 214 | 5 000 | 105.9 | 8.4 | -20...+60 | 50 000 | 85 000 |
| | | | | | | 316 | 186 | 5 000 | 113.0 | 8.2 | | | |
| | | | | | | 261 | 154 | 5 000 | 114.1 | 8.0 | | | |
| | | | | | | 166 | 98 | 5 000 | 102.1 | 8.2 | | | |
| VCS0160XULCS RG 160-28/18 NJ/2 TDHHP* | 9595414377 | 48 | 36...60 | C | ① | 436 | 257 | 6 000 | 177.8 | 8.8 | -20...+65 | 40 000 | 67 500 |
| | | | | | | 378 | 222 | 6 000 | 191.6 | 8.6 | | | |
| | | | | | | 313 | 184 | 6 000 | 193.2 | 8.5 | | | |
| | | | | | | 199 | 117 | 6 000 | 177.8 | 8.4 | | | |

Subject to changes.

*The specific service life is valid when an external capacitor is wired by the customer. See information on wiring in the corresponding product data sheet.

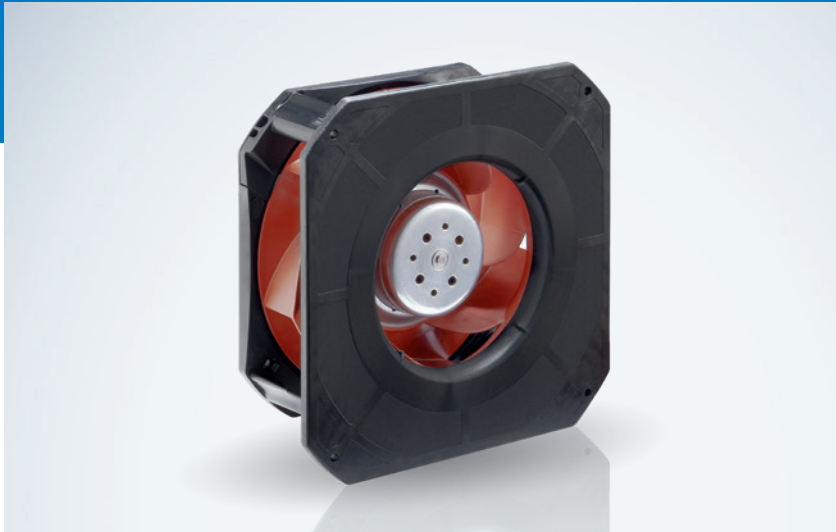
Technical drawing

Dimensions in mm



VCS0190RULDS

DC centrifugal fans · max. 922 m³/h · □ 226 x 85 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 1210 g

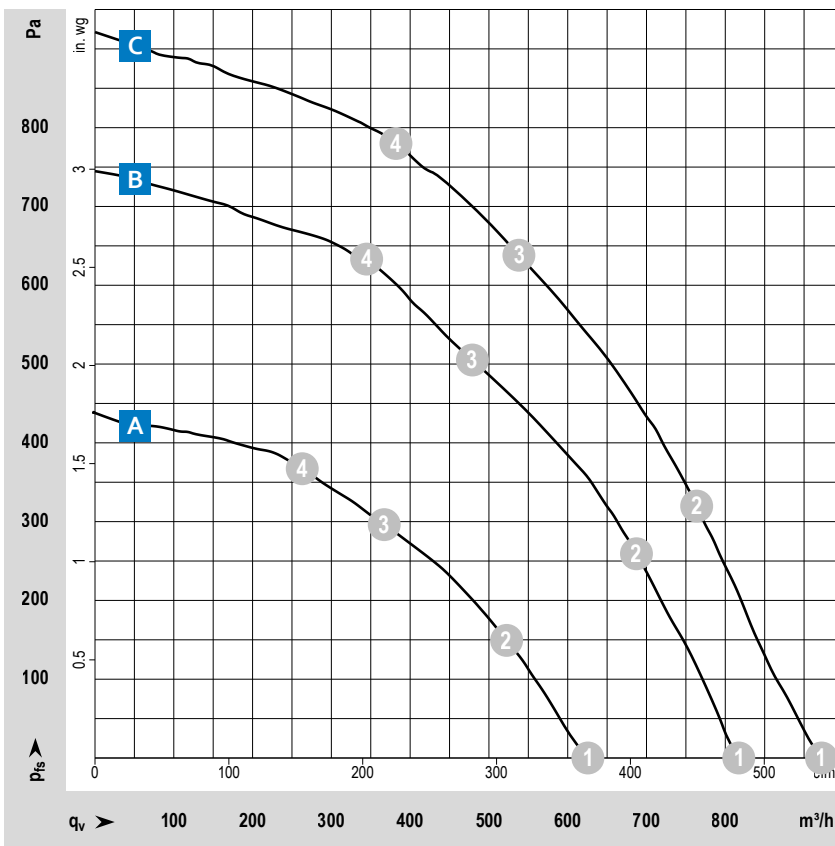
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

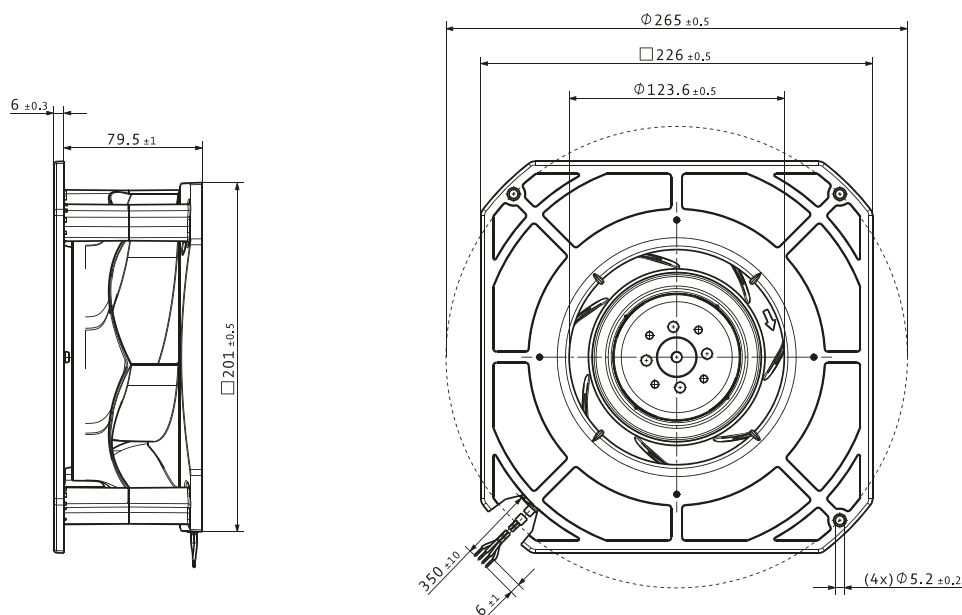
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|---|-------------|-----------------|---------------|----------------------|------------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|---|--|
| | | VDC | VDC | | | m ³ /h | cfm | | | | | | |
| VCS0160XULCS RG 190-39/14/2 TDMLO | 9595414741 | 24 | 16...30 | A | ① ② ③ ④ | 623 | 367 | 3 000 | 53.0 | 7.5 | -20...+60 | 55 000 | 92 500 |
| | | | | | | 521 | 307 | 2 990 | 68.0 | 7.3 | | | |
| | | | | | | 367 | 216 | 2 980 | 75.9 | 7.3 | | | |
| | | | | | | 263 | 155 | 3 040 | 73.2 | 7.4 | | | |
| VCS0160XULCS RG 190-39/14/2 TDMO | 9595420221 | 24 | 16...36 | B | ① ② ③ ④ | 817 | 481 | 3 900 | 107.3 | 8.3 | -20...+65 | 52 500 | 87 500 |
| | | | | | | 687 | 404 | 3 890 | 137.1 | 8.0 | | | |
| | | | | | | 479 | 282 | 3 860 | 150.0 | 8.0 | | | |
| | | | | | | 345 | 203 | 3 960 | 148.2 | 8.0 | | | |
| VCS0160XULCS RG 190-39/18/2 TDMLO | 9595414743 | 48 | 36...57 | A | ① ② ③ ④ | 626 | 368 | 3 000 | 53.4 | 7.5 | -20...+60 | 55 000 | 92 500 |
| | | | | | | 522 | 307 | 2 970 | 67.5 | 7.3 | | | |
| | | | | | | 367 | 216 | 2 970 | 75.2 | 7.3 | | | |
| | | | | | | 263 | 155 | 3 020 | 72.4 | 7.4 | | | |
| VCS0160XULCS RG 190-39/18/2 TDMO | 9595420223 | 48 | 36...72 | B | ① ② ③ ④ | 822 | 484 | 3 900 | 101.6 | 8.3 | -20...+65 | 52 500 | 87 500 |
| | | | | | | 683 | 402 | 3 880 | 129.3 | 8.0 | | | |
| | | | | | | 482 | 284 | 3 870 | 145.2 | 8.0 | | | |
| | | | | | | 342 | 201 | 3 930 | 138.6 | 8.0 | | | |
| VCS0160XULCS RG 190-39/18/2 TDO | 9595420220 | 48 | 36...72 | C | ① ② ③ ④ | 922 | 543 | 4 400 | 141.4 | 8.6 | -20...+65 | 40 000 | 67 500 |
| | | | | | | 764 | 450 | 4 340 | 179.6 | 8.3 | | | |
| | | | | | | 538 | 317 | 4 340 | 201.8 | 8.1 | | | |
| | | | | | | 382 | 225 | 4 400 | 192.8 | 8.1 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0220RULDS

DC centrifugal fans · max. 1 098 m³/h · □ 270 x 99 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 1560 g

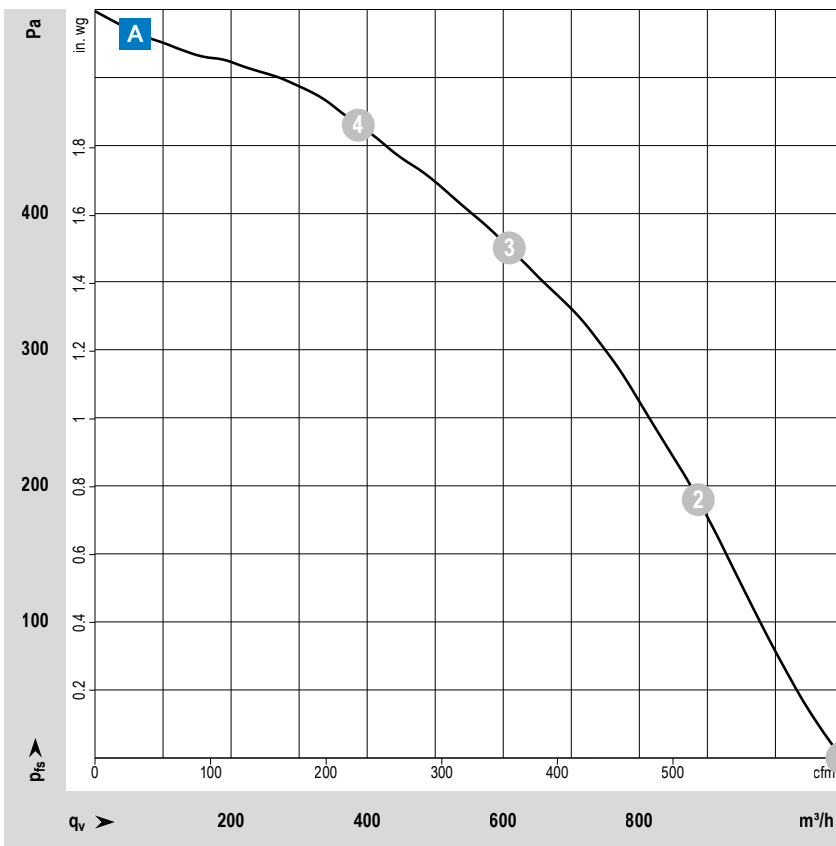
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

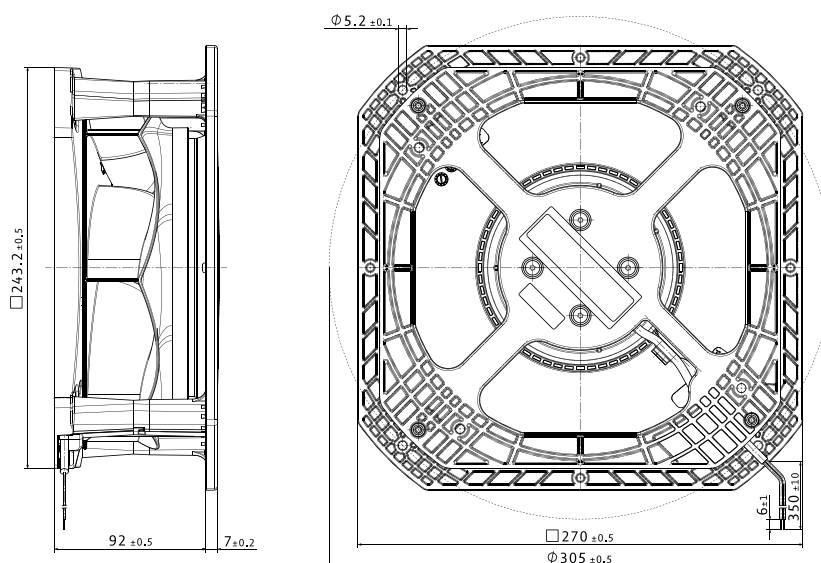
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|--|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VCS0220RULDS RG 220-43/14/2 TDMO | 9595420305 | 24 | 16...36 | A | 1 | 1 098 | 646 | 3 000 | 96.0 | 7.8 | -20...+55 | 55 000 | 92 500 |
| | | | | | 2 | 887 | 522 | 2 950 | 121.2 | 7.5 | | | |
| | | | | | 3 | 609 | 358 | 2 940 | 143.7 | 7.6 | | | |
| | | | | | 4 | 387 | 228 | 3 000 | 135.6 | 7.7 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0225RULDS

DC centrifugal fans · max. 1 445 m³/h · □ 270 x 119 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic

Characteristics

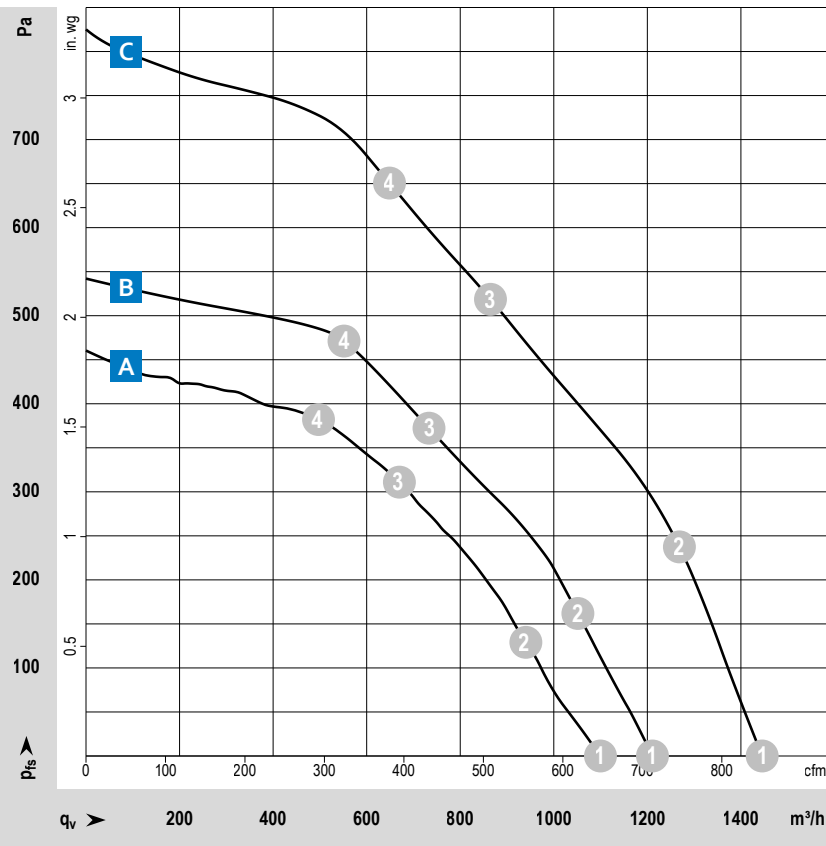
- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 1750 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

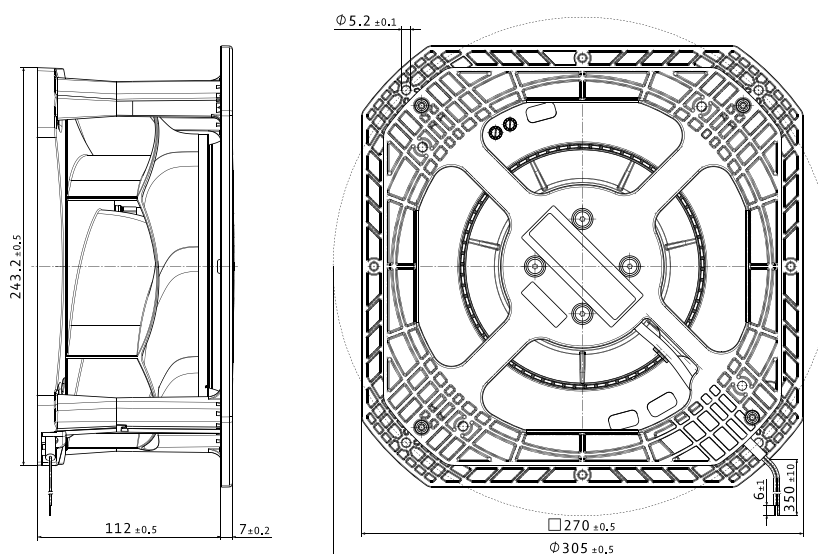
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IPFC} (40 °C) s.p. II |
|---|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | | | |
| VCS0225RULDS RG 225-55/14/2 TDMLO | 9595420431 | 24 | 16...36 | A | ① | 1 100 | 647 | 2 500 | 89.0 | 7.7 | -20...+65 | 52 500 | 87 500 |
| | | | | | ② | 940 | 553 | 2 460 | 107.4 | 7.5 | | | |
| | | | | | ③ | 670 | 394 | 2 480 | 125.7 | 7.4 | | | |
| | | | | | ④ | 497 | 293 | 2 520 | 120.4 | 7.5 | | | |
| VCS0225RULDS RG 225-55/18/2 TDMO | 9595420430 | 48 | 36...72 | B | ① | 1 211 | 713 | 2 800 | 123.3 | 8.1 | -20...+55 | 55 000 | 92 500 |
| | | | | | ② | 1 052 | 619 | 2 752 | 149.2 | 8.0 | | | |
| | | | | | ③ | 733 | 431 | 2 721 | 170.0 | 8.0 | | | |
| | | | | | ④ | 552 | 325 | 2 814 | 169.0 | 8.0 | | | |
| VCS0225RULDS RG 225-55/18/2 TDO | 9595420432 | 48 | 36...60 | C | ① | 1 445 | 850 | 3 300 | 183.4 | 8.5 | -20...+40 | 30 000 | 50 000 |
| | | | | | ② | 1 270 | 747 | 3 299 | 239.4 | 8.3 | | | |
| | | | | | ③ | 865 | 509 | 3 185 | 250.0 | 8.1 | | | |
| | | | | | ④ | 649 | 382 | 3 271 | 250.0 | 8.1 | | | |

Subject to changes.

The specific service life is valid when an external capacitor is wired between the positive and negative wires.

Technical drawing

Dimensions in mm



VFS0085XUJCS

DC centrifugal fans · max. 94 m³/h · Ø 85 x 68 mm



Material/Surface

- Impeller: Metal

Characteristics

- Version: Centrifugal fan in 24VDC with forward-curved impeller; Powerful due to 3-phase motor concept; Low-noise operation, fan requires scroll housing
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG24
- Electrical protection class: III
- Weight: 450 g

from page 14 Definitions

from page 350 Accessories

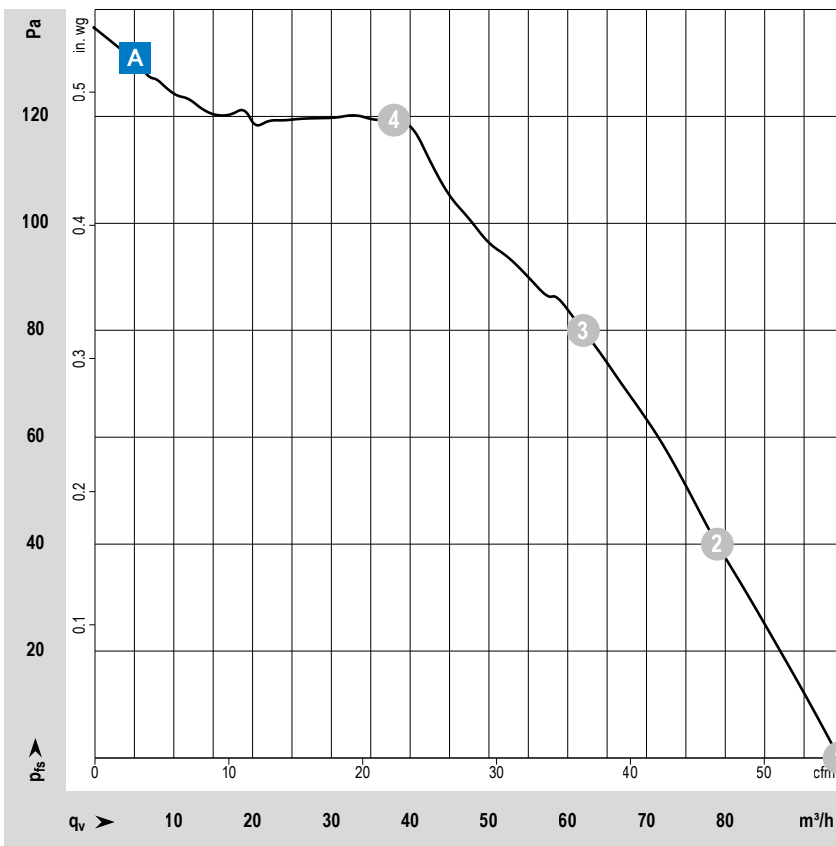
more at www.ebmpapst.com

Approvals

- UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- PWM control input
- Analog control input
- Multi-options control input (O)
- Moisture protection



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

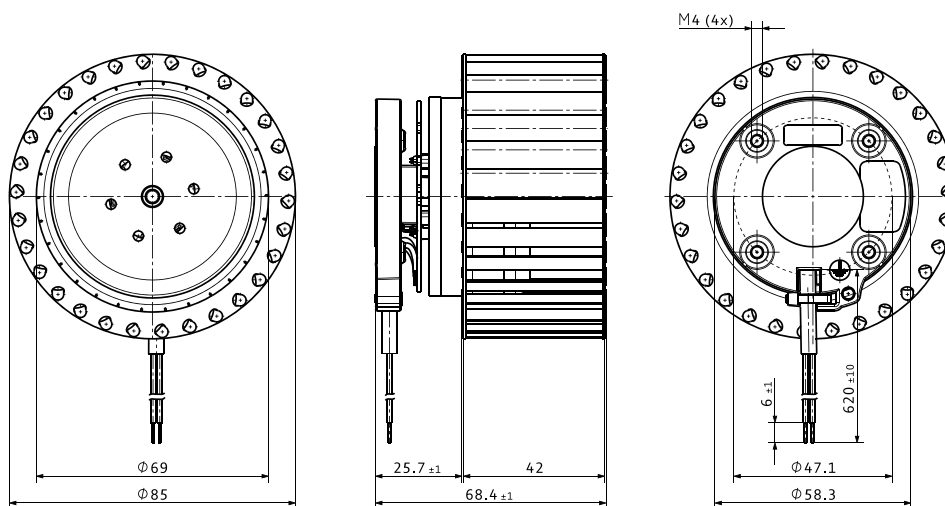
| | | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s. p. II |
|---|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | |
| VFS0085XUJCS RET 85-42/14/2 TDLOR-402 | 9594314402 | 24 | 20...28 | A | 1 | 94 | 55 | 2 850 | 13.0 | 6.9 | -20...+60 | 62 500 | 105 000 |
| | | | | | 2 | 79 | 46 | 2 850 | 10.8 | 6.7 | | | |
| | | | | | 3 | 62 | 36 | 2 850 | 8.6 | 6.7 | | | |
| | | | | | 4 | 38 | 22 | 2 850 | 5.9 | 6.6 | | | |

Subject to changes.

All nominal data were measured in the scroll housing.

Technical drawing

Dimensions in mm



VFS0097XUJCS

DC centrifugal fans · max. 230 m³/h · Ø 97 x 41 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Impeller: Metal

Characteristics

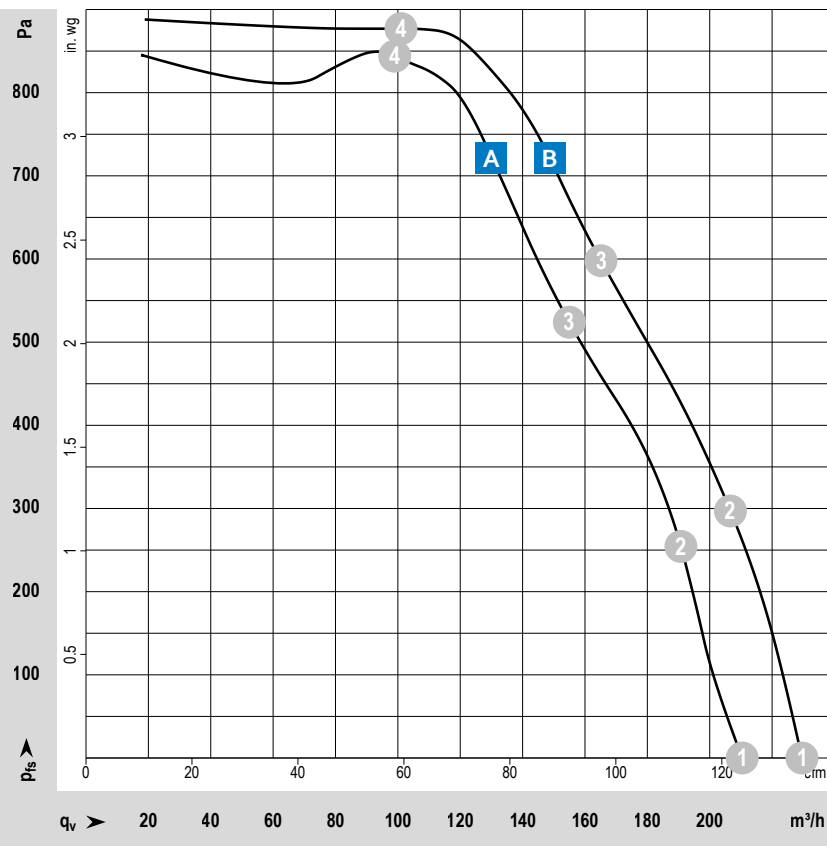
- Version: Centrifugal fan in 24 or 48VDC with forward-curved impeller; Powerful due to 3-phase motor concept; Low-noise operation, fan requires scroll housing
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 430 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

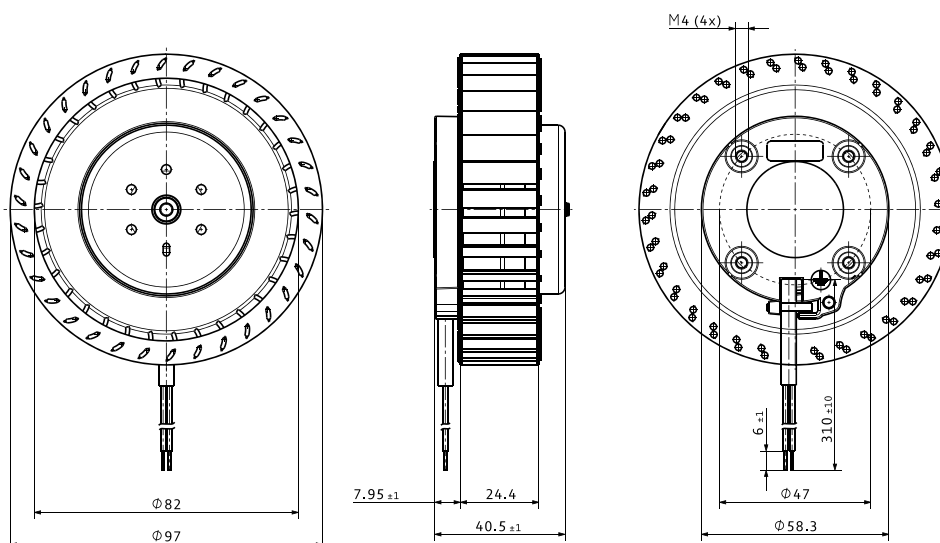
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|------------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VFS0097XUJCS RET 97-25/14/2 TDP | 9594314052 | 24 | 16...32 | A | ① | 210 | 124 | 5 600 | 140.1 | 8.4 | -20...+60 | 80 000 | 135 000 |
| | | | | | ② | 191 | 112 | 5 900 | 134.9 | | | | |
| | | | | | ③ | 155 | 91 | 6 030 | 109.6 | | | | |
| | | | | | ④ | 99 | 58 | 6 050 | 62.1 | | | | |
| VFS0097XUJCS RET 97-25/18/2 TDP | 9594314050 | 48 | 36...60 | B | ① | 230 | 135 | 6 000 | 169.1 | 8.6 | -20...+60 | 80 000 | 135 000 |
| | | | | | ② | 207 | 122 | 6 220 | 152.6 | | | | |
| | | | | | ③ | 165 | 97 | 6 210 | 111.2 | | | | |
| | | | | | ④ | 101 | 59 | 6 270 | 64.4 | | | | |

Subject to changes.

The specific service life is valid when an external capacitor is wired by the customer. See information on wiring in the corresponding product data sheet. All nominal data were measured in the scroll housing.

Technical drawing

Dimensions in mm



VBS0100XUGBS

DC centrifugal fans · max. 105 m³/h · Ø 104 x 25 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with backward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 160 g

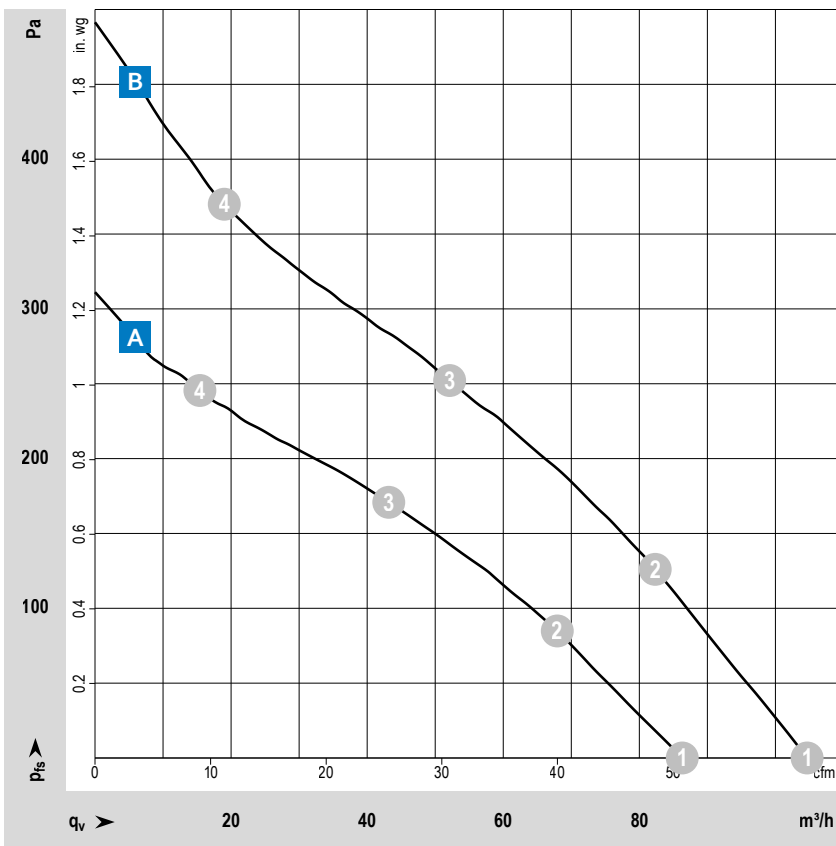
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: IP 54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

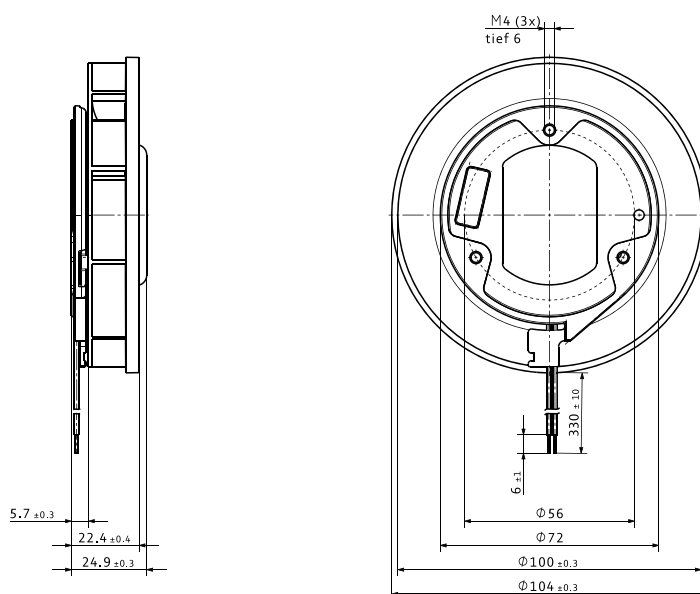
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ FC (40 °C) s. p. II |
|---------------------------------|-------------|-----------------|---------------|----------------------|------------------|----------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VBS0100XUGBS REF 100-11/12 | 9593507002 | 12 | 8...15 | A | ① ② ③ ④ | 86.0 | 50.6 | 5 400 | 6.7 | 7.0 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 68.0 | 40.0 | 5 170 | 7.3 | 6.6 | | | |
| | | | | | | 43.2 | 25.4 | 5 000 | 8.0 | 6.4 | | | |
| | | | | | | 15.4 | 9.1 | 5 400 | 6.7 | 6.8 | | | |
| VBS0100XUGBS REF 100-11/14 | 9593507003 | 24 | 16...30 | A | ① ② ③ ④ | 85.0 | 50.0 | 5 400 | 6.6 | 7.0 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 67.0 | 39.4 | 5 230 | 7.2 | 6.6 | | | |
| | | | | | | 43.1 | 25.4 | 5 070 | 7.8 | 6.4 | | | |
| | | | | | | 15.3 | 9.0 | 5 400 | 6.7 | 6.8 | | | |
| VBS0100XUGBS REF 100-11/18/2 | 9593507008 | 48 | 36...60 | A | ① ② ③ ④ | 83.0 | 48.9 | 5 400 | 7.3 | 7.0 | -20...+75 | 80 000 | 135 000 |
| | | | | | | 66.0 | 38.8 | 5 220 | 7.9 | 6.6 | | | |
| | | | | | | 42.3 | 24.9 | 5 050 | 8.4 | 6.4 | | | |
| | | | | | | 15.2 | 8.9 | 5 400 | 7.3 | 6.8 | | | |
| VBS0100XUGBS REF 100-11/18 H | 9593507005 | 48 | 36...56 | B | ① ② ③ ④ | 105.0 | 61.8 | 6 700 | 13.2 | 7.3 | -20...+70 | 67 500 | 115 000 |
| | | | | | | 82.0 | 48.3 | 6 430 | 14.4 | 7.0 | | | |
| | | | | | | 52.0 | 30.6 | 6 200 | 15.6 | 6.8 | | | |
| | | | | | | 19.0 | 11.2 | 6 690 | 13.3 | 7.3 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0101XUGDS

DC centrifugal fans · max. 195 m³/h · Ø 101 x 52 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with backward-curved impeller; compact and powerful
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 305 g

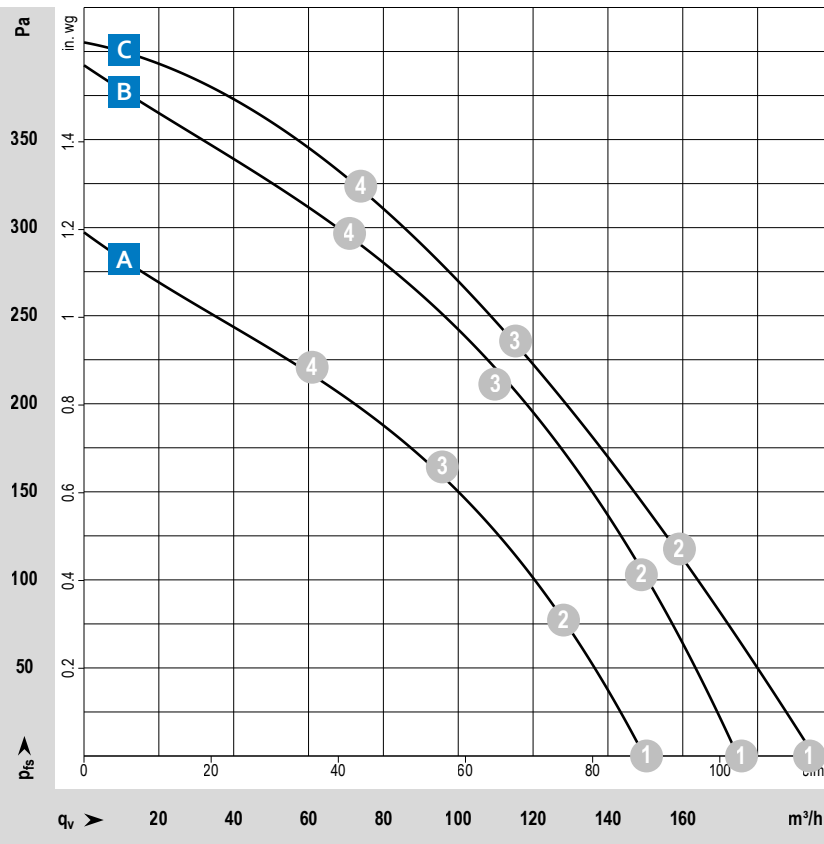
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

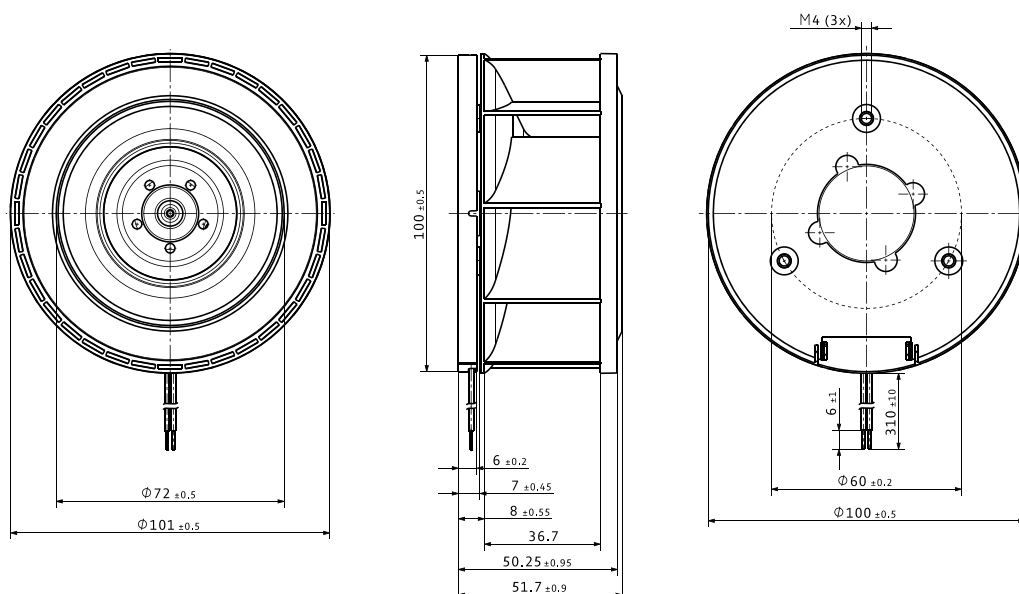
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|-----------------------------------|-------------|-----------------|---------------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VBS0101XUGDS RER 101-36/12 NH | 9793520196 | 12 | 9...13.6 | A | ① | 150 | 88 | 5 000 | 11.4 | 7.2 | -20...+70 | 65 000 | 110 000 |
| | | | | | ② | 128 | 75 | 4 900 | 12.2 | 7.0 | | | |
| | | | | | ③ | 96 | 57 | 4 820 | 12.9 | 7.0 | | | |
| | | | | | ④ | 61 | 36 | 4 870 | 12.5 | 6.9 | | | |
| VBS0101XUGDS RER 101-36/12 NHH | 9793520192 | 12 | 9...13.6 | C | ① | 191 | 112 | 6 000 | 20.6 | 7.9 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 156 | 92 | 5 800 | 22.0 | 7.7 | | | |
| | | | | | ③ | 114 | 67 | 5 690 | 22.5 | 7.6 | | | |
| | | | | | ④ | 74 | 44 | 5 800 | 22.0 | 7.5 | | | |
| VBS0101XUGDS RER 101-36/14 NHH | 9793520190 | 24 | 18...27.2 | C | ① | 195 | 115 | 6 050 | 22.5 | 7.9 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 161 | 95 | 5 760 | 22.4 | 7.7 | | | |
| | | | | | ③ | 117 | 69 | 5 630 | 23.0 | 7.6 | | | |
| | | | | | ④ | 73 | 43 | 5 780 | 22.6 | 7.5 | | | |
| VBS0101XUGDS RER 101-36/18 NHH | 9793520191 | 48 | 36...60 | B | ① | 176 | 104 | 5 850 | 17.0 | 7.7 | -20...+70 | 60 000 | 102 500 |
| | | | | | ② | 149 | 88 | 5 740 | 18.5 | 7.5 | | | |
| | | | | | ③ | 110 | 65 | 5 650 | 19.6 | 7.3 | | | |
| | | | | | ④ | 71 | 42 | 5 640 | 18.2 | 7.3 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0120XUJCS

DC centrifugal fans · max. 381 m³/h · Ø 120 x 54 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 430 g

from page 14 Definitions

from page 350 Accessories

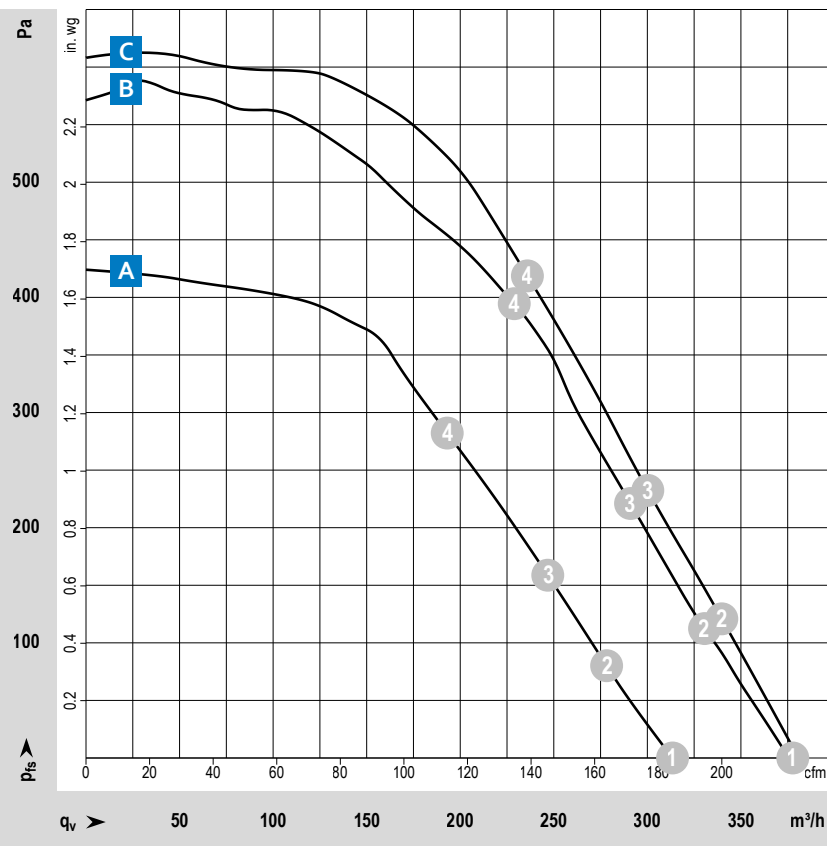
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

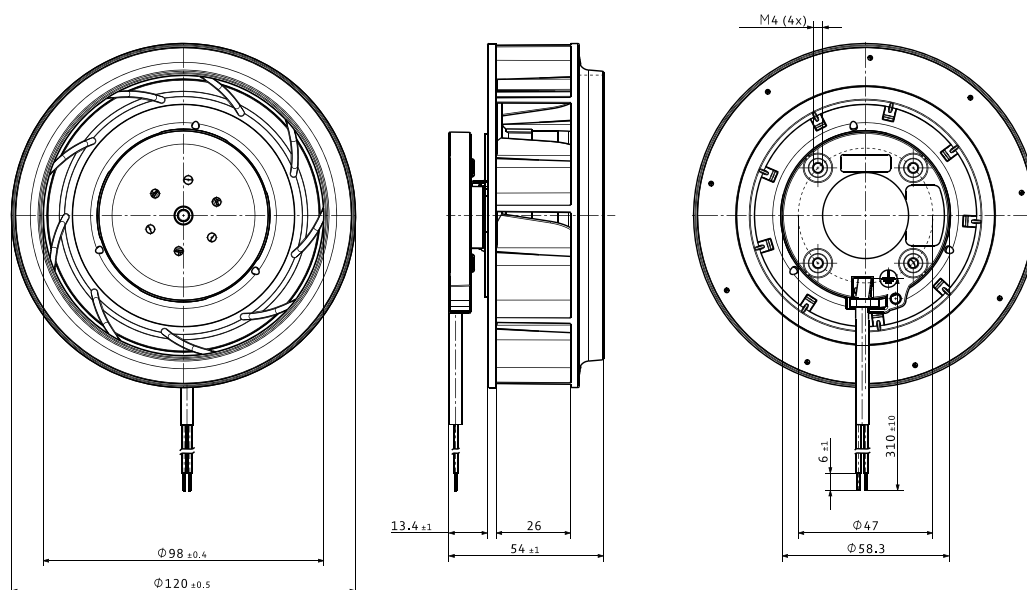
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|---|-------------|-----------------|---------------|----------------------|------------------|----------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | | Hours | Hours |
| VBS0120XUJCS RER 120-26/14/2 TDP | 9594314001 | 24 | 16...32 | B | ① ② ③ ④ | 376 | 221 | 6 100 | 96.1 | 8.4 | -20...+60 | 55 000 | 92 500 |
| | | | | | | 330 | 194 | 6 130 | 98.1 | | | | |
| | | | | | | 291 | 171 | 6 140 | 98.4 | | | | |
| | | | | | | 229 | 135 | 6 200 | 93.9 | | | | |
| VBS0120XUJCS RER 120-26/18/2 TDMP | 9594314005 | 48 | 36...60 | A | ① ② ③ ④ | 313 | 184 | 5 200 | 53.4 | 8.1 | -20...+60 | 57 500 | 97 500 |
| | | | | | | 278 | 164 | 5 200 | 54.1 | | | | |
| | | | | | | 247 | 145 | 5 200 | 54.7 | | | | |
| | | | | | | 193 | 114 | 5 200 | 53.7 | | | | |
| VBS0120XUJCS RER 120-26/18/2 TDP | 9594314000 | 48 | 36...60 | C | ① ② ③ ④ | 381 | 224 | 6 300 | 100.8 | 8.5 | -20...+60 | 50 000 | 85 000 |
| | | | | | | 340 | 200 | 6 300 | 103.4 | | | | |
| | | | | | | 300 | 177 | 6 300 | 103.9 | | | | |
| | | | | | | 236 | 139 | 6 360 | 100.3 | | | | |

Subject to changes.

The specific service life is valid when an external capacitor is wired by the customer. See information on wiring in the corresponding product data sheet.

Technical drawing

Dimensions in mm



VBS0125XUJBS

DC centrifugal fans · max. 152 m³/h · Ø 138 x 35 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC, 24VDC or 48VDC with backward-curved impeller
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 320 g

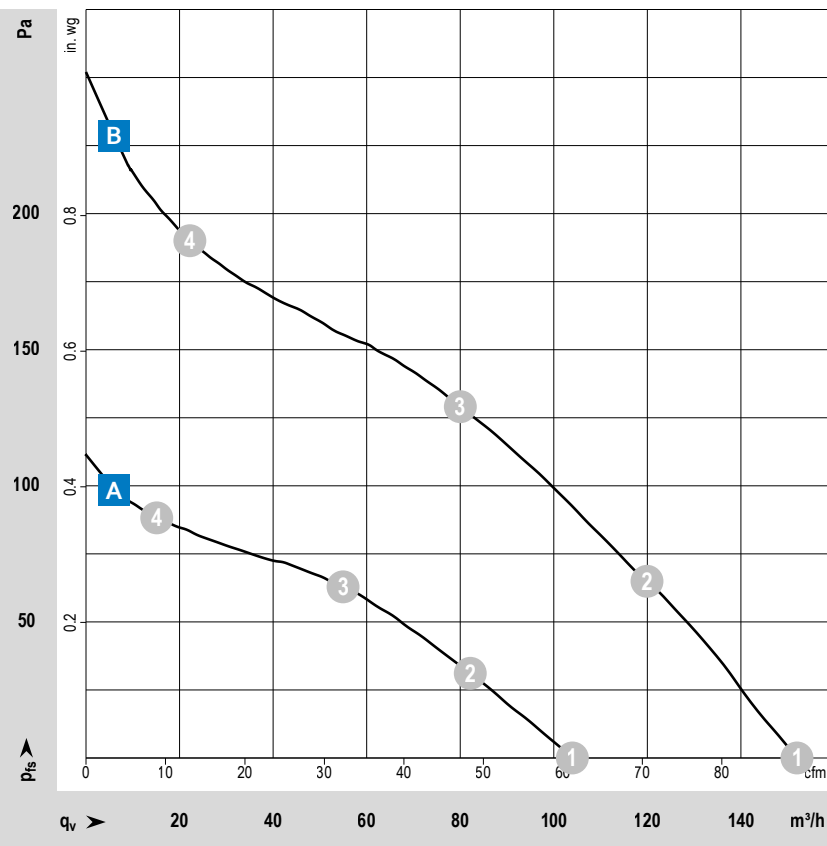
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54 / IP 68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

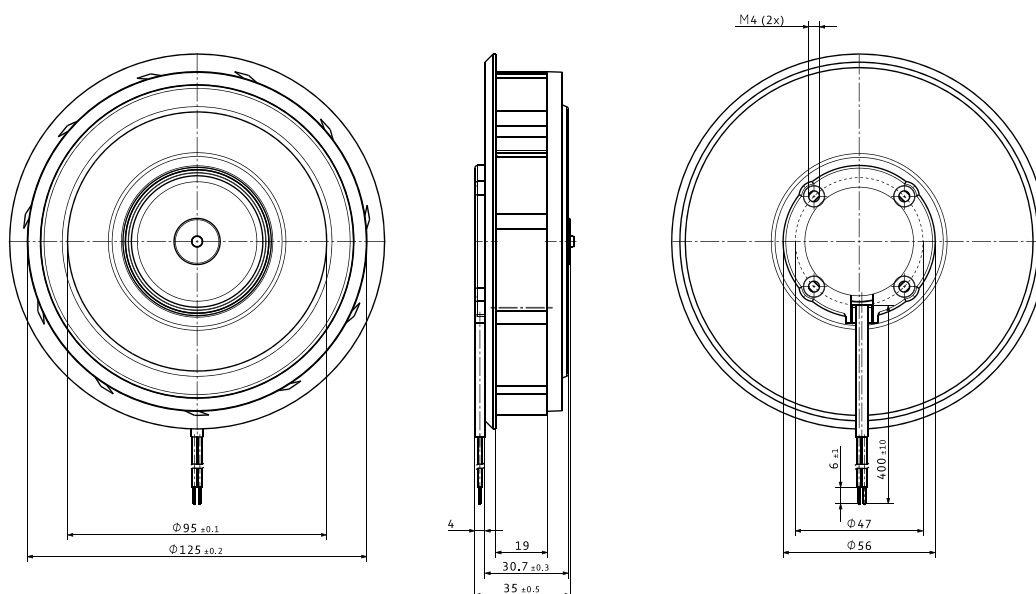
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|---|-------------|-----------------|---------------|----------------------|------------------|----------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m³/h | cfm | rpm | W | Bel(A) | | °C | Hours |
| VBS0120XUJCS RER 125-19/12 N | 9594310157 | 12 | 7...15 | A | ① ② ③ ④ | 100.0 | 58.9 | 2 650 | 3.8 | 6.0 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 80.0 | 47.1 | 2 560 | 4.2 | 5.9 | | | |
| | | | | | | 54.0 | 31.8 | 2 490 | 4.4 | 5.8 | | | |
| | | | | | | 15.0 | 8.8 | 2 620 | 4.0 | 5.8 | | | |
| VBS0120XUJCS RER 125-19/14 N | 9594310155 | 24 | 12...28 | A | ① ② ③ ④ | 104.0 | 61.2 | 2 650 | 4.1 | 6.0 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 82.0 | 48.3 | 2 560 | 4.4 | 5.9 | | | |
| | | | | | | 55.0 | 32.4 | 2 490 | 4.7 | 5.8 | | | |
| | | | | | | 15.1 | 8.9 | 2 620 | 4.2 | 5.8 | | | |
| VBS0120XUJCS RER 125-19/14 NH-172 | 9594310172 | 24 | 12...28 | B | ① ② ③ ④ | 152.0 | 89.5 | 4 000 | 10.2 | 6.9 | -20...+70 | 55 000 | 92 500 |
| | | | | | | 120.0 | 70.6 | 3 840 | 11.0 | 6.8 | | | |
| | | | | | | 80.0 | 47.1 | 3 720 | 11.6 | 6.9 | | | |
| | | | | | | 22.2 | 13.1 | 3 920 | 10.6 | 6.9 | | | |
| VBS0120XUJCS RER 125-19/18 N | 9594310170 | 48 | 36...56 | A | ① ② ③ ④ | 101.0 | 59.4 | 2 650 | 3.7 | 6.0 | -30...+75 | 62 500 | 105 000 |
| | | | | | | 81.0 | 47.7 | 2 560 | 4.0 | 5.9 | | | |
| | | | | | | 54.0 | 31.8 | 2 500 | 4.2 | 5.8 | | | |
| | | | | | | 15.1 | 8.9 | 2 620 | 3.8 | 5.8 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0133X...

DC centrifugal fans · max. 539 m³/h · Ø 133 x 91 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 890 g; 460 g RadiCal

from page 14 Definitions

from page 350 Accessories

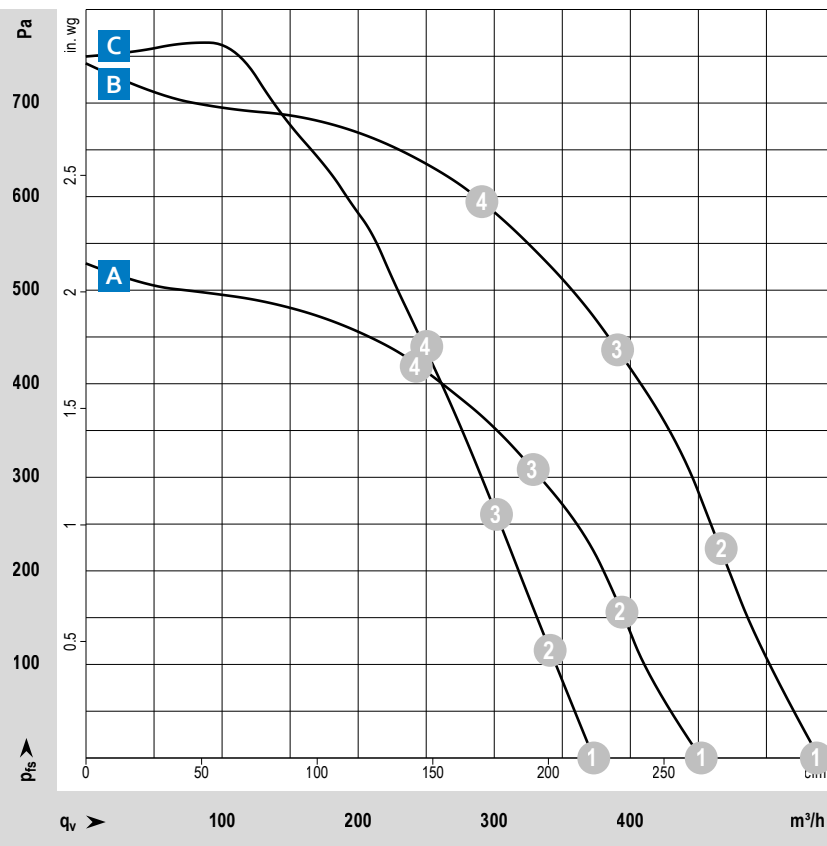
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP68



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

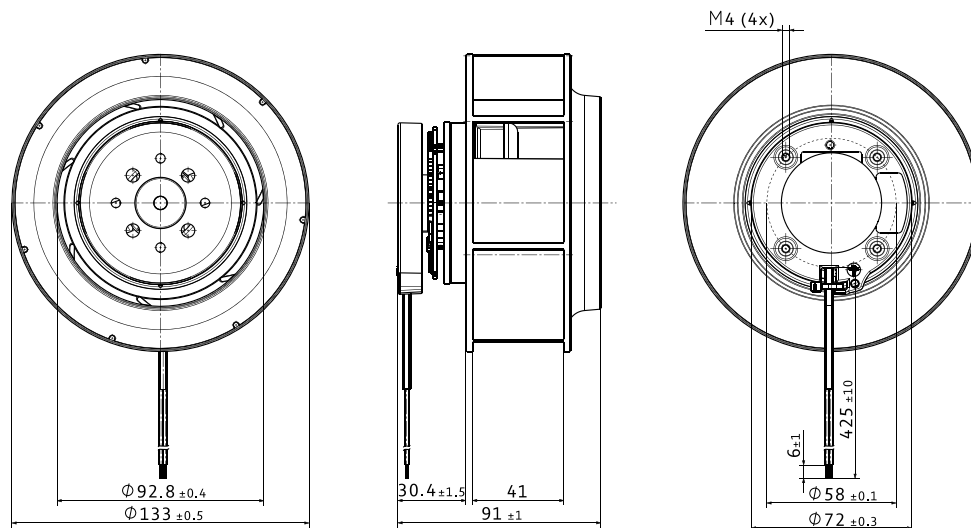
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|---|-------------|-----------------|---------------|----------------------|------------------|-------------------|-----|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VBS0133XULCS RER 133-41/14/2 TDMP | 9595414520 | 24 | 16...30 | A | ① ② ③ ④ | 452 | 266 | 5 000 | 58.5 | 8.3 | -20...+65 | 72 500 | 122 500 |
| | | | | | | 394 | 232 | 4 990 | 71.0 | 8.1 | | | |
| | | | | | | 329 | 194 | 4 980 | 80.1 | 7.9 | | | |
| | | | | | | 244 | 144 | 5 040 | 75.9 | 7.9 | | | |
| VBS0133XULDS RER 133-41/14/2 TDP | 9595420062 | 24 | 16...36 | B | ① ② ③ ④ | 539 | 317 | 6 000 | 90.8 | 8.6 | -20...+65 | 70 000 | 117 500 |
| | | | | | | 468 | 275 | 5 960 | 111.6 | 8.4 | | | |
| | | | | | | 391 | 230 | 5 960 | 127.7 | 8.3 | | | |
| | | | | | | 291 | 171 | 6 020 | 121.1 | 8.2 | | | |
| VBS0133XULDS RER 133-41/18/2 TDP | 9595420050 | 48 | 36...72 | B | ① ② ③ ④ | 537 | 316 | 6 000 | 93.2 | 8.6 | -20...+65 | 70 000 | 117 500 |
| | | | | | | 468 | 275 | 6 000 | 114.7 | 8.4 | | | |
| | | | | | | 382 | 225 | 5 840 | 120.0 | 8.3 | | | |
| | | | | | | 286 | 168 | 5 940 | 120.0 | 8.2 | | | |
| VBS0133RUJCS* RER 133-33/18/2 TDMO RadiCal | 9594314204 | 48 | 36...60 | C | ① ② ③ ④ | 373 | 220 | 5 600 | 58.9 | 8.7 | -20...+65 | 55 000 | 92 500 |
| | | | | | | 341 | 201 | 5 580 | 62.9 | 8.6 | | | |
| | | | | | | 302 | 178 | 5 530 | 67.6 | 8.4 | | | |
| | | | | | | 249 | 147 | 5 530 | 73.5 | 7.9 | | | |

Subject to changes.

*The specific service life is valid when an external capacitor is wired by the customer. See information on wiring in the corresponding product data sheet.

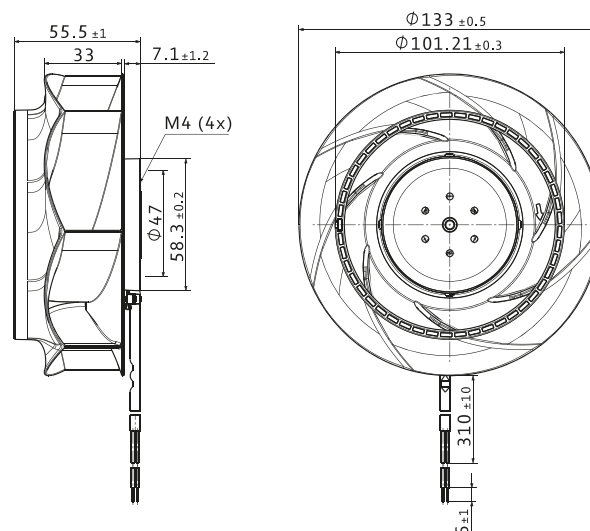
Technical drawing VBS0133XULCS + VBS0133XULDS RER 133 TD

Dimensions in mm



Technical drawing VBS0133RUJCS RER 133-33/18/2 TDMO RadiCal

Dimensions in mm



VBS0140XUJCS

DC centrifugal fans · max. 259 m³/h · Ø 140 x 36 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Impeller: Plastic

Characteristics

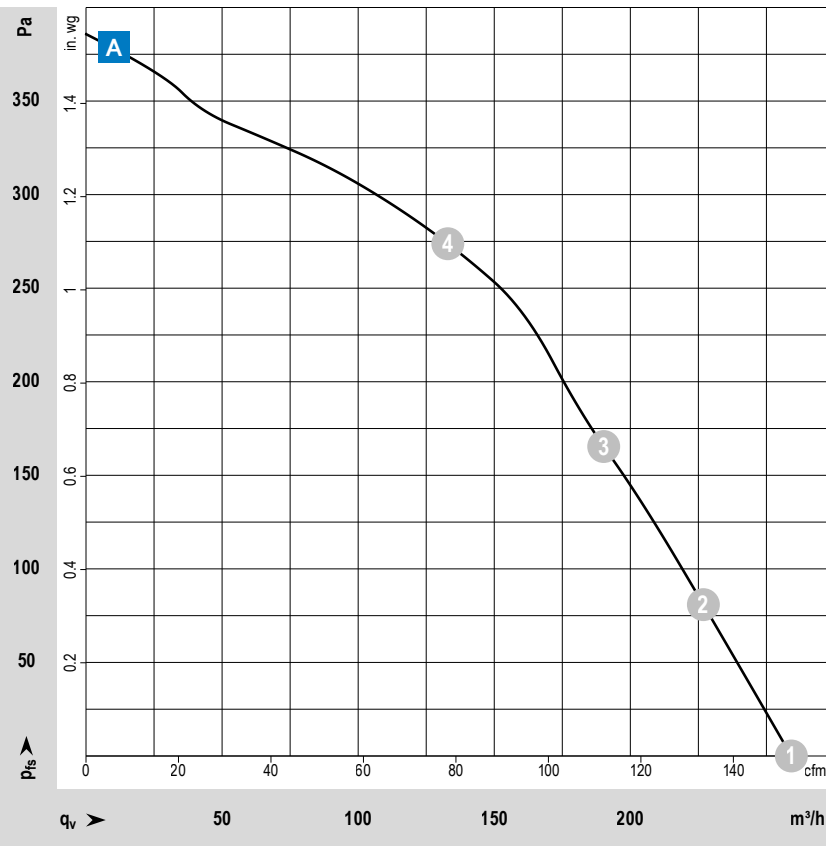
- Version: Centrifugal fan in 24VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 22
- Electrical protection class: III
- Weight: 360 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection



Measuring conditions

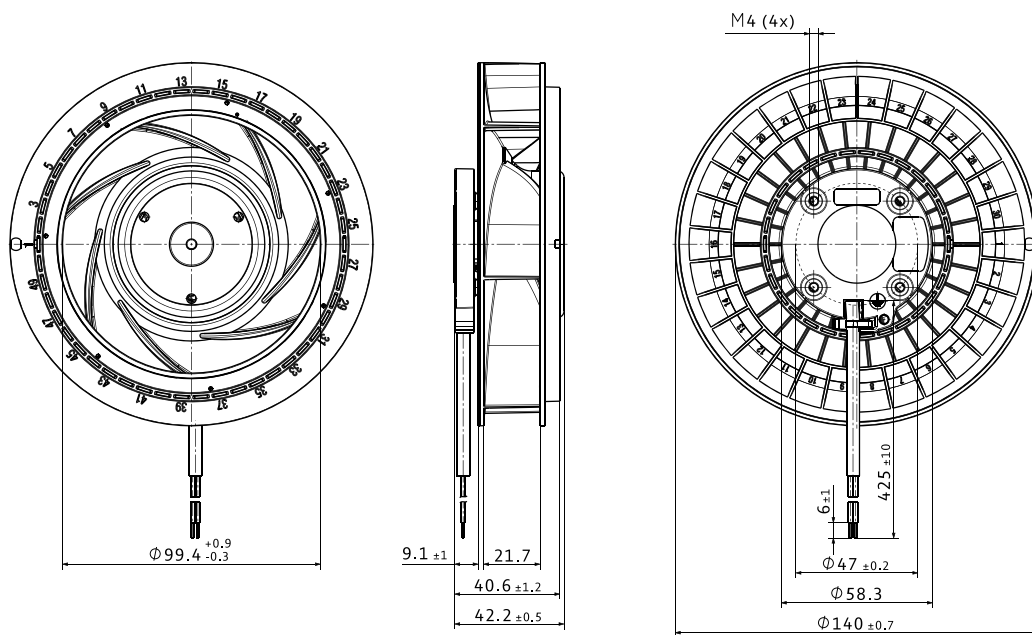
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s. p. II |
|--|-------------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | |
| VBS0140XUJCS RER 140-22/14 N/2TDP | 9594314500 | 24 | 20...28 | A | 1 | 259 | 152 | 3 850 | 37.5 | 7.8 | -20...+65 | 55 000 | 92 500 |
| | | | | | 2 | 227 | 134 | 3 850 | 39.4 | 7.8 | | | |
| | | | | | 3 | 190 | 112 | 3 850 | 40.7 | 7.6 | | | |
| | | | | | 4 | 133 | 78 | 3 850 | 35.7 | 7.1 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0160XULCS

DC centrifugal fans · max. 265 m³/h · Ø 165 x 51 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 12VDC or 24VDC with backward-curved impeller
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 22
- Electrical protection class: III
- Weight: 600 g

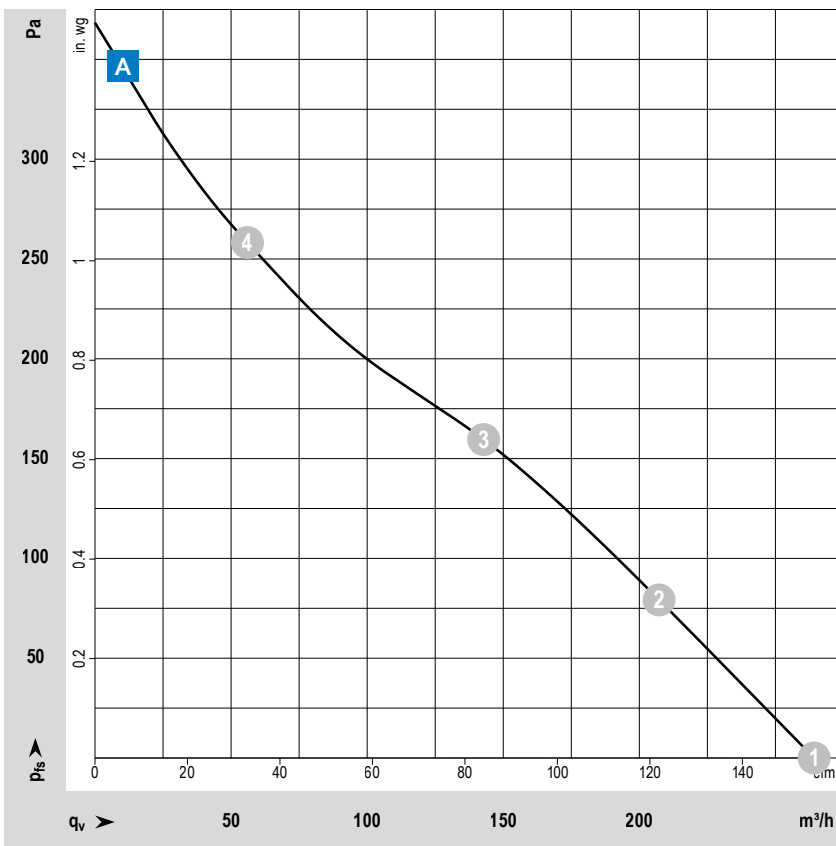
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

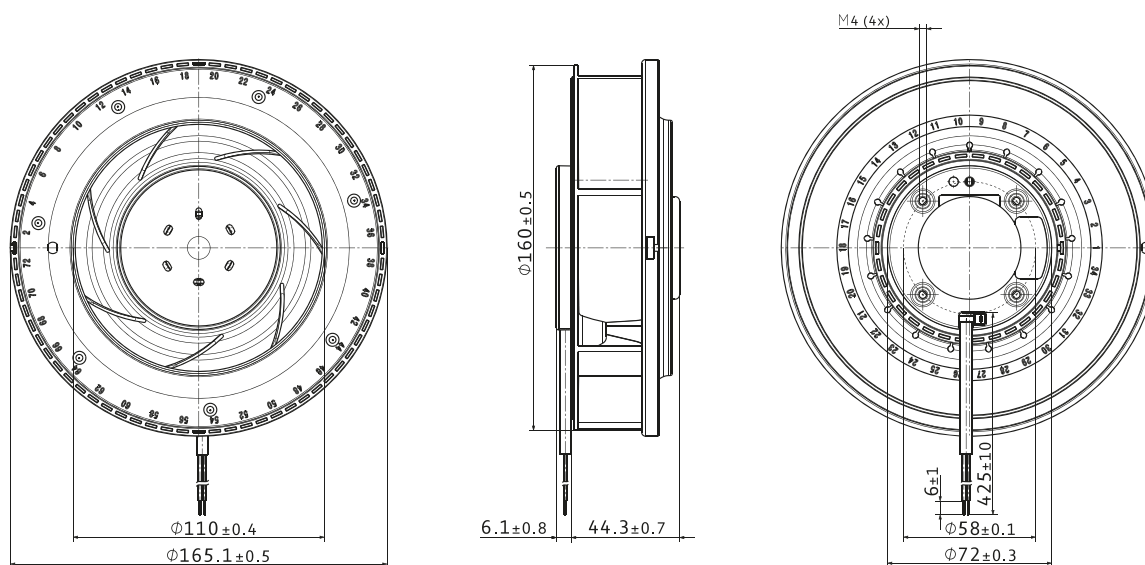
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|---------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | | °C | Hours |
| VBS0140XUJCS RER 160-28/12 N | 9595414153 | 12 | 7.5...14 | A | ① | 265 | 156 | 3 000 | 17.9 | 7.4 | -20...+70 | 75 000 | 127 500 |
| | | | | | | 209 | 123 | 2 870 | 18.9 | 7.0 | | | |
| | | | | | | 144 | 85 | 2 830 | 19.3 | 6.7 | | | |
| | | | | | | 56 | 33 | 3 040 | 17.8 | 7.1 | | | |
| VBS0140XUJCS RER 160-28/14 N | 9595414150 | 24 | 12...28 | A | ① | 264 | 155 | 3 000 | 17.0 | 7.4 | -20...+70 | 75 000 | 127 500 |
| | | | | | | 207 | 122 | 2 860 | 17.5 | 7.0 | | | |
| | | | | | | 143 | 84 | 2 810 | 17.8 | 6.7 | | | |
| | | | | | | 56 | 33 | 3 030 | 17.0 | 7.1 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0160XULCS

DC centrifugal fans · max. 373 m³/h · Ø 165 x 51 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: AWG 22
- Electrical protection class: III
- Weight: 600 g

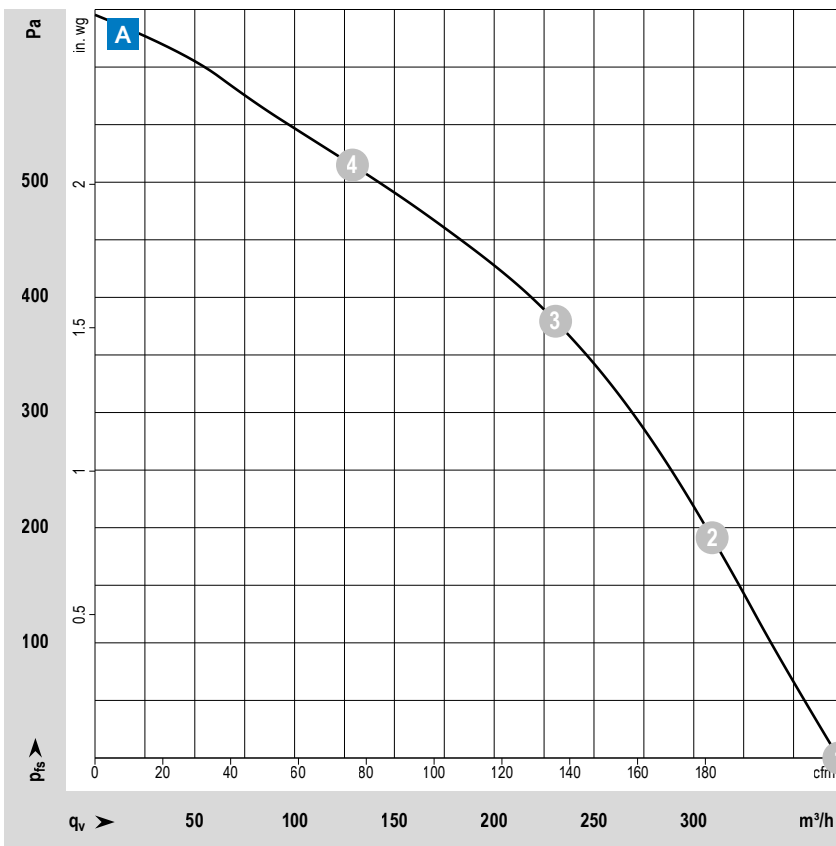
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

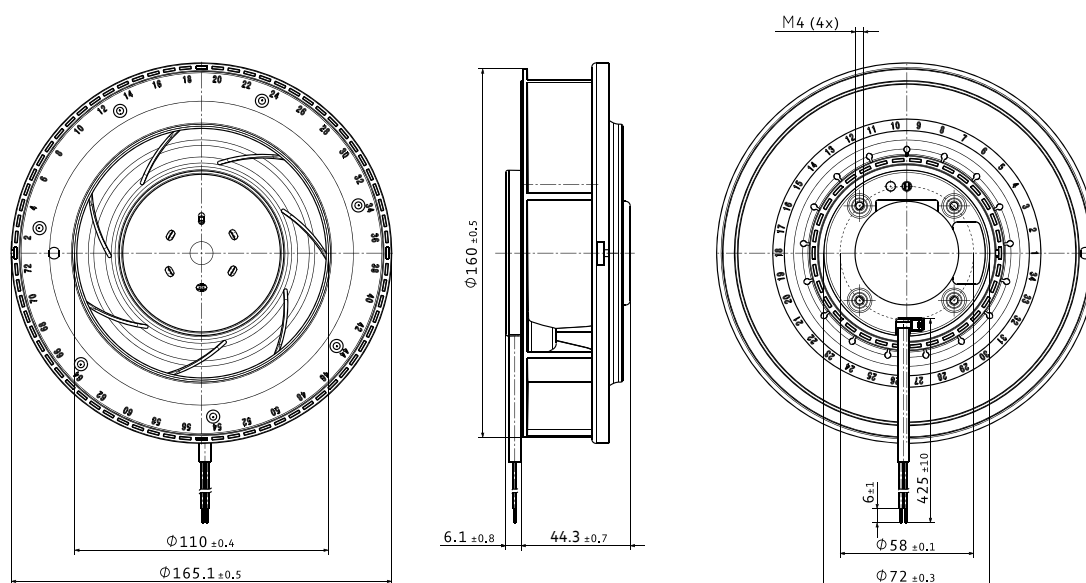
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s. p. II |
|---|-------------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | |
| VBS0160XULCS RER160-28/14N/ 2TDA | 9595414360 | 24 | 16...28 | B | 1 | 373 | 220 | 4 200 | 54.8 | 8.1 | -20...+60 | 55 000 | 92 500 |
| | | | | | 2 | 309 | 182 | 4 200 | 66.3 | 7.8 | | | |
| | | | | | 3 | 231 | 136 | 4 200 | 72.6 | 7.6 | | | |
| | | | | | 4 | 129 | 76 | 4 200 | 64.2 | 8.0 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0175XULDS

DC centrifugal fans · max. 755 m³/h · Ø 175 x 55 mm



Material/Surface

- Impeller: Metal

Characteristics

- Version: Centrifugal fan in 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 20; speed signal and control input AWG 22
- Electrical protection class: I
- Weight: 933 g

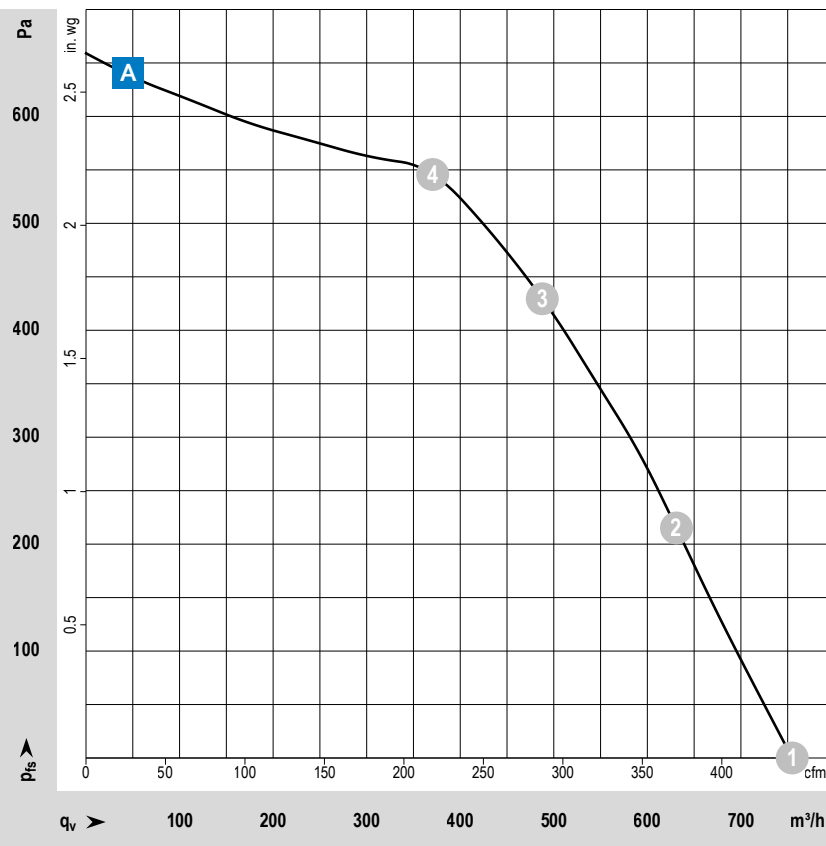
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Degree of protection: IP 54



Measuring conditions

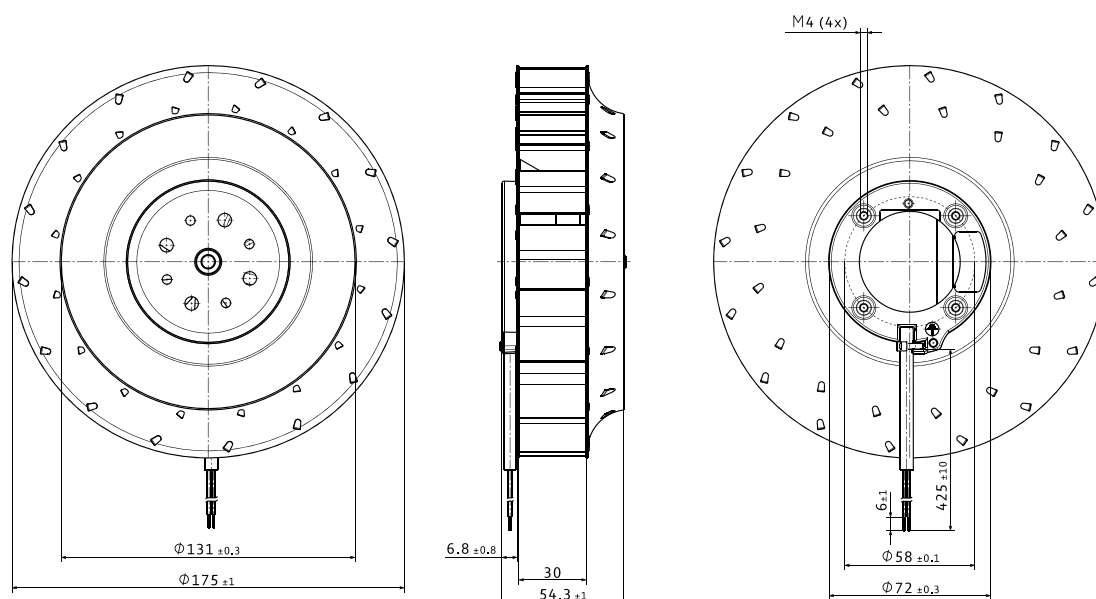
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10IFC} (40 °C) s. p. II |
|-------------------------------------|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VBS0175XULDS REF 175-30/18/2 TDP | 9595420160 | 48 | 36...72 | A | 1 | 755 | 444 | 4 400 | 139.2 | 9.0 | -20...+60 | 65 000 | 110 000 |
| | | | | | 2 | 631 | 371 | 4 380 | 154.2 | 8.8 | | | |
| | | | | | 3 | 488 | 287 | 4 310 | 160.0 | 8.6 | | | |
| | | | | | 4 | 372 | 219 | 4 340 | 160.0 | 8.6 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0175X...

DC centrifugal fans · max. 975 m³/h · Ø 175 x 69 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings/Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 775 g

from page 14 Definitions

from page 350 Accessories

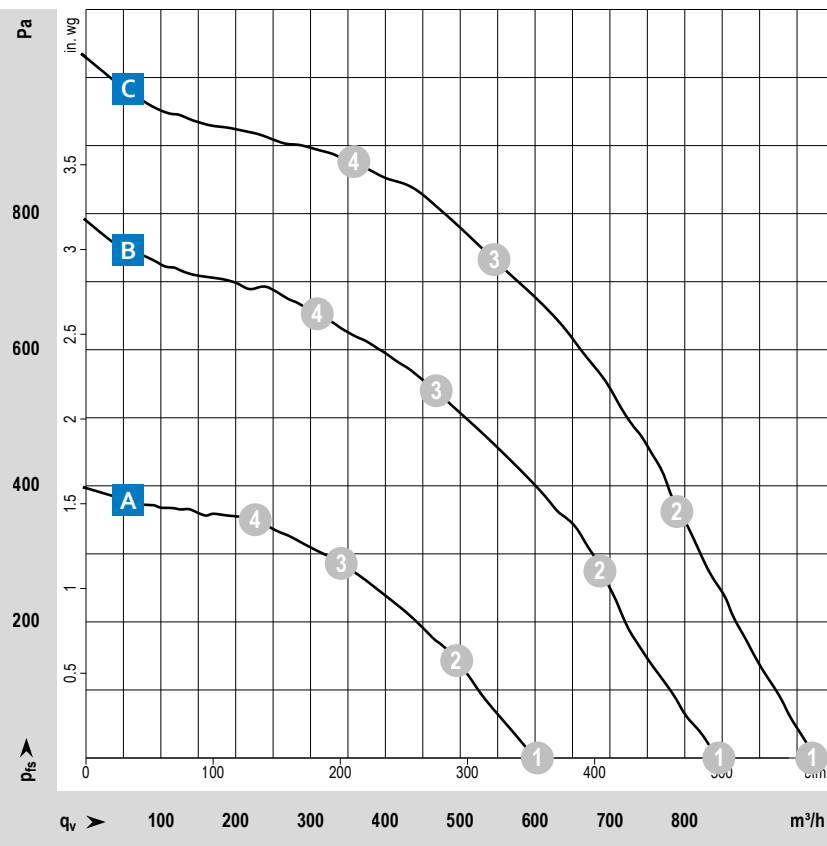
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP68



Measuring conditions

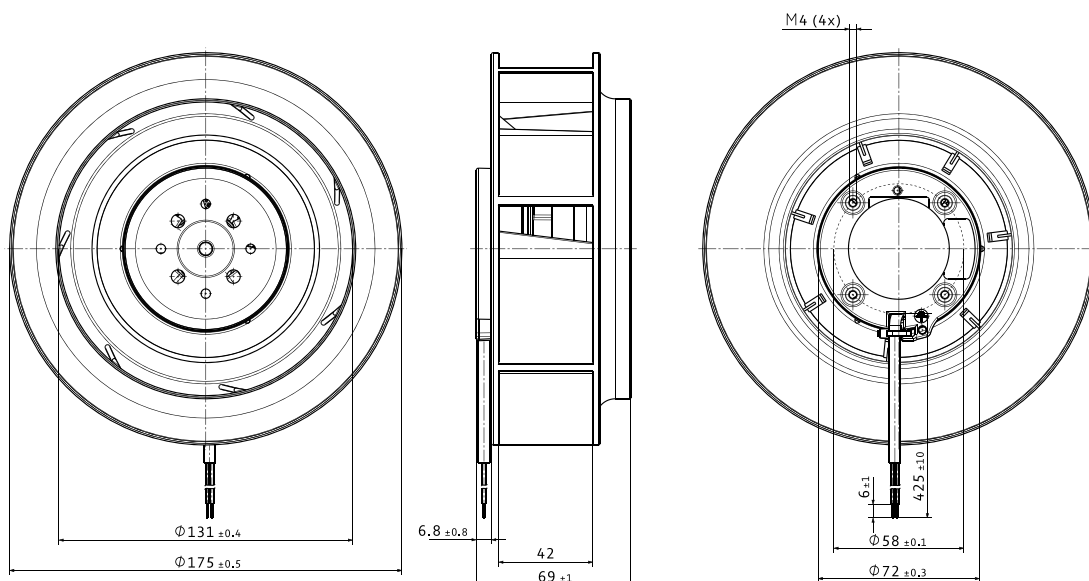
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ FC (40 °C) s.p. II |
|---|-------------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|---|
| | | VDC | VDC | | | m ³ /h | cfm | | | | | | |
| VBS0175XULCS RER 175-42/14/2 TDMLP | 9595414620 | 24 | 16...30 | A | ① | 592 | 348 | 3 400 | 48.8 | 7.6 | -20...+65 | 72 500 | 122 500 |
| | | | | | | 488 | 287 | 3 350 | 65.3 | 7.5 | | | |
| | | | | | | 336 | 198 | 3 350 | 78.3 | 7.4 | | | |
| | | | | | | 224 | 132 | 3 420 | 75.0 | 7.6 | | | |
| VBS0175XULDS RER 175-42/14/2 TDMP | 9595420102 | 24 | 16...36 | B | ① | 860 | 506 | 4 860 | 121.3 | 8.5 | -20...+65 | 70 000 | 117 500 |
| | | | | | | 687 | 404 | 4 700 | 150.0 | 8.3 | | | |
| | | | | | | 447 | 263 | 4 380 | 150.0 | 8.1 | | | |
| | | | | | | 301 | 177 | 4 550 | 150.0 | 8.3 | | | |
| VBS0175XULCS RER 175-42/18/2 TDMLP | 9595414600 | 48 | 36...57 | A | ① | 603 | 355 | 3 400 | 48.9 | 7.6 | -20...+65 | 72 500 | 122 500 |
| | | | | | | 495 | 291 | 3 370 | 67.0 | 7.5 | | | |
| | | | | | | 341 | 201 | 3 370 | 79.9 | 7.4 | | | |
| | | | | | | 226 | 133 | 3 440 | 76.1 | 7.6 | | | |
| VBS0175XULDS RER 175-42/18/2 TDMP | 9595420111 | 48 | 36...72 | B | ① | 846 | 498 | 4 800 | 110.4 | 8.5 | -20...+65 | 70 000 | 117 500 |
| | | | | | | 689 | 406 | 4 750 | 148.7 | 8.3 | | | |
| | | | | | | 468 | 275 | 4 660 | 170.0 | 8.2 | | | |
| | | | | | | 309 | 182 | 4 740 | 160.7 | 8.4 | | | |
| VBS0175XULDS RER 175-42/18/2 TDP | 9595420100 | 48 | 36...72 | C | ① | 975 | 574 | 5 400 | 168.8 | 8.6 | -20...+65 | 60 000 | 102 500 |
| | | | | | | 792 | 466 | 5 400 | 234.8 | 8.5 | | | |
| | | | | | | 545 | 321 | 5 360 | 280.0 | 8.6 | | | |
| | | | | | | 358 | 211 | 5 450 | 259.4 | 8.6 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0190R...

DC centrifugal fans · max. 965 m³/h · Ø 190 x 69 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Impeller: Plastic

Characteristics

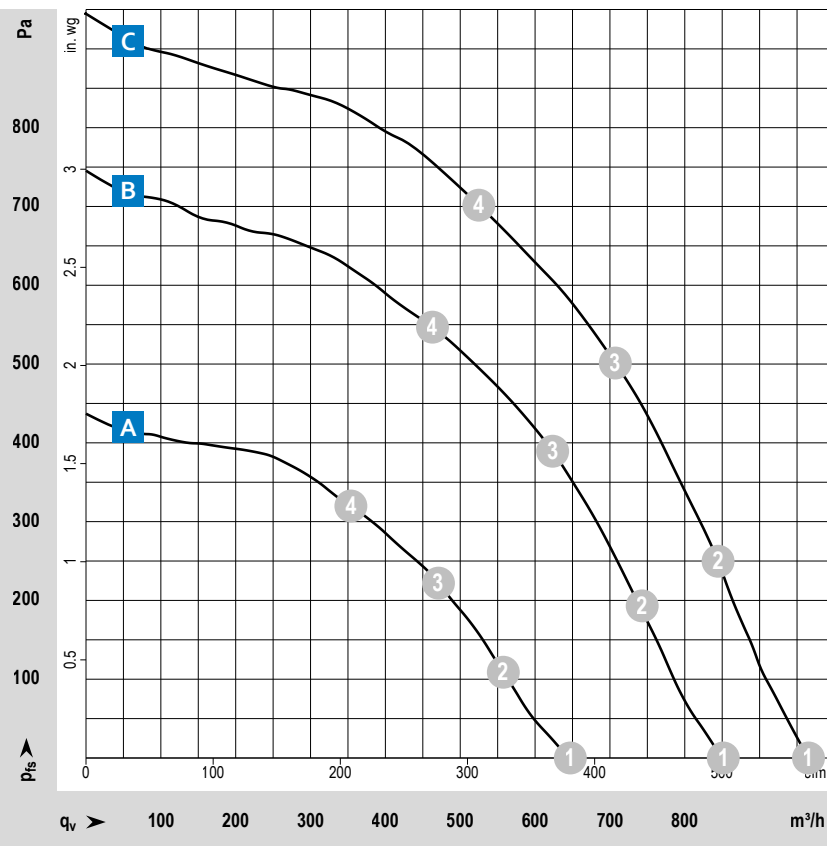
- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 858 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP68



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

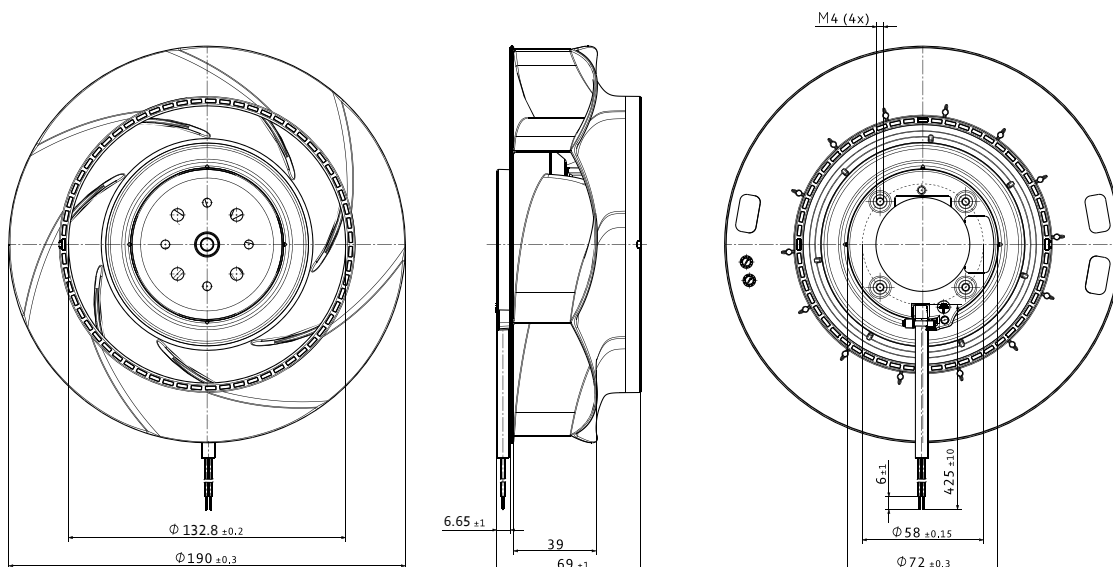
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|---|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | | °C | Hours |
| VBS0190RULCS RER 190-39/14/2 TDMLO | 9595414720 | 24 | 16...30 | A | ① | 654 | 385 | 3 000 | 58.4 | 7.7 | -20...+60 | 55 000 | 92 500 |
| | | | | | | 565 | 333 | 2 940 | 67.2 | 7.4 | | | |
| | | | | | | 477 | 281 | 2 940 | 77.6 | 7.2 | | | |
| | | | | | | 354 | 208 | 2 980 | 76.0 | 7.1 | | | |
| VBS0190RULDS RER 190-39/14/2 TDMO | 9595420202 | 24 | 16...36 | B | ① | 850 | 500 | 3 900 | 110.9 | 8.2 | -20...+65 | 52 500 | 87 500 |
| | | | | | | 740 | 436 | 3 850 | 130.9 | 8.1 | | | |
| | | | | | | 624 | 367 | 3 850 | 150.0 | 7.8 | | | |
| | | | | | | 463 | 273 | 3 880 | 147.4 | 7.7 | | | |
| VBS0190RULCS RER 190-39/18/2 TDMLO | 9595414724 | 48 | 36...57 | A | ① | 647 | 381 | 3 000 | 58.0 | 7.7 | -20...+65 | 55 000 | 92 500 |
| | | | | | | 558 | 328 | 2 940 | 66.9 | 7.4 | | | |
| | | | | | | 471 | 277 | 2 940 | 77.2 | 7.2 | | | |
| | | | | | | 354 | 208 | 2 960 | 78.5 | 7.1 | | | |
| VBS0190RULDS RER 190-39/18/2 TDO | 9595420304 | 48 | 36...72 | C | ① | 965 | 568 | 4 400 | 160.6 | 8.5 | -20...+65 | 40 000 | 67 500 |
| | | | | | | 845 | 497 | 4 350 | 189.1 | 8.4 | | | |
| | | | | | | 707 | 416 | 4 340 | 213.6 | 8.1 | | | |
| | | | | | | 525 | 309 | 4 360 | 210.0 | 8.0 | | | |

Subject to changes.

Speed control range from 800 rpm at 7 % PWM up to nominal speed at > 90 % PWM. Standstill at 0 % PWM, Standstill if control cable is interrupted.

Technical drawing

Dimensions in mm



VBS0190RUNCS

DC centrifugal fans · max. 820 m³/h · Ø 190 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Galvanized

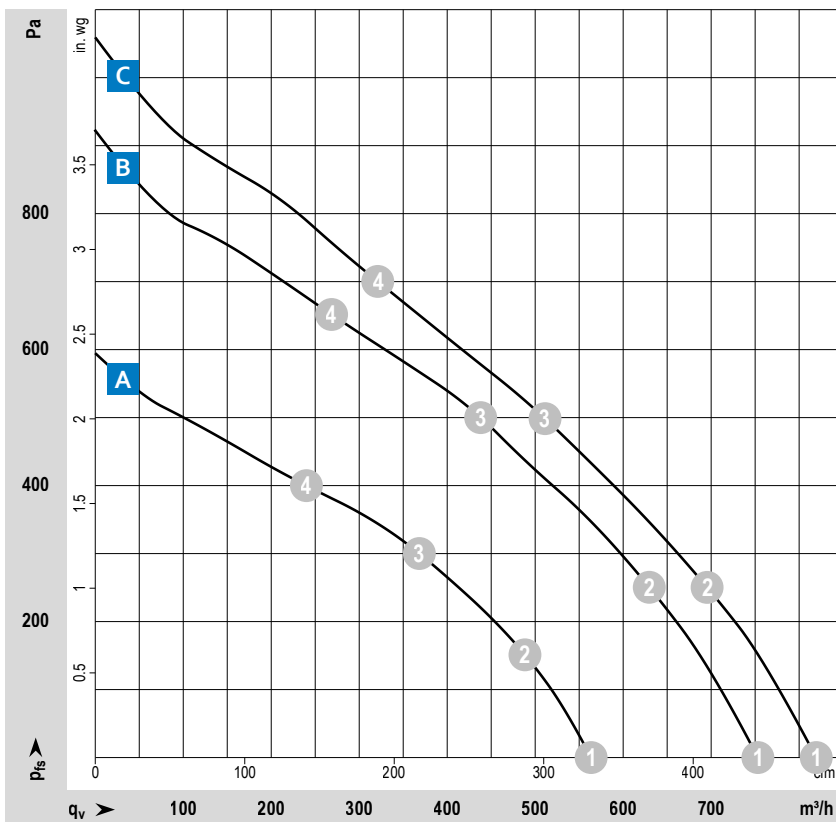
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on bottom; rotor on top on request
- Bearing: Ball bearings; (sealed)
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP24 KM, Electronics IP6K9K (mating connector installed)
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.25–1.46 kg

Approvals

- CSA CSA C22.2 Nr. 113; UL 507; EAC; CE
- **A**: UKCA not applicable;
- **B+C**: UKCA; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

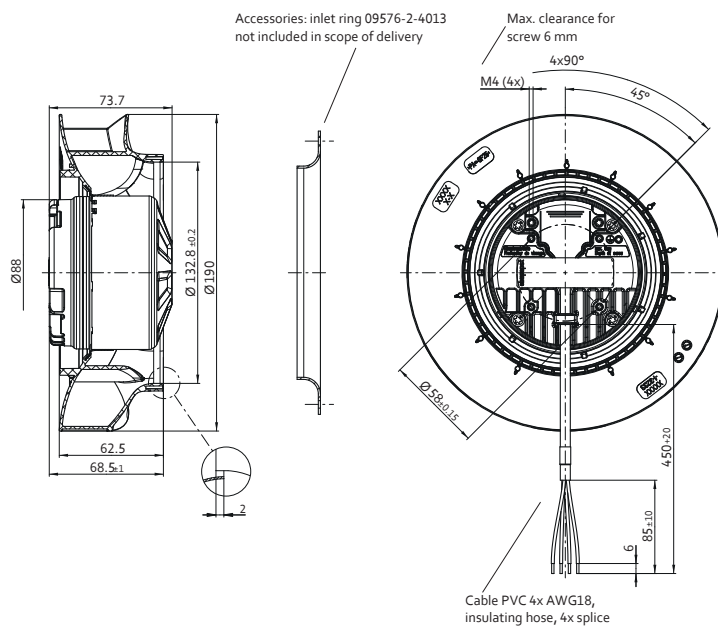
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current* A | Perm. ambient temperature °C |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|------------------|-------------------|-----|--------------|------------------------|---------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | |
| VBS0190RUNCS | R1G190RD6102 | centrifugal fan | 12 | 8...16 | A | ① ② ③ ④ | 620 | 365 | 3 565 | 89 | 5.72 | -25...+70 |
| | | | | | | | 535 | 315 | 3 505 | 95 | 6.15 | |
| | | | | | | | 405 | 240 | 3 470 | 102 | 6.67 | |
| | | | | | | | 260 | 155 | 3 535 | 97 | 6.28 | |
| VBS0190RUNCS | R1G190RD7902 | centrifugal fan | 24 | 16...28 | B | ① ② ③ ④ | 795 | 465 | 4 395 | 155 | 5.51 | -25...+60 |
| | | | | | | | 655 | 385 | 4 235 | 160 | 5.68 | |
| | | | | | | | 450 | 265 | 4 115 | 162 | 5.78 | |
| | | | | | | | 280 | 165 | 4 285 | 158 | 5.63 | |
| VBS0190RUNCS | R1G190RD1602 | centrifugal fan | 48 | 36...57 | C | ① ② ③ ④ | 820 | 480 | 4 500 | 165 | 3.40* | -25...+70 |
| | | | | | | | 695 | 410 | 4 380 | 165 | 3.40* | |
| | | | | | | | 510 | 300 | 4 215 | 167 | 3.50* | |
| | | | | | | | 320 | 190 | 4 345 | 165 | 3.40* | |
| | 09576-2-4013 | Inlet ring | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

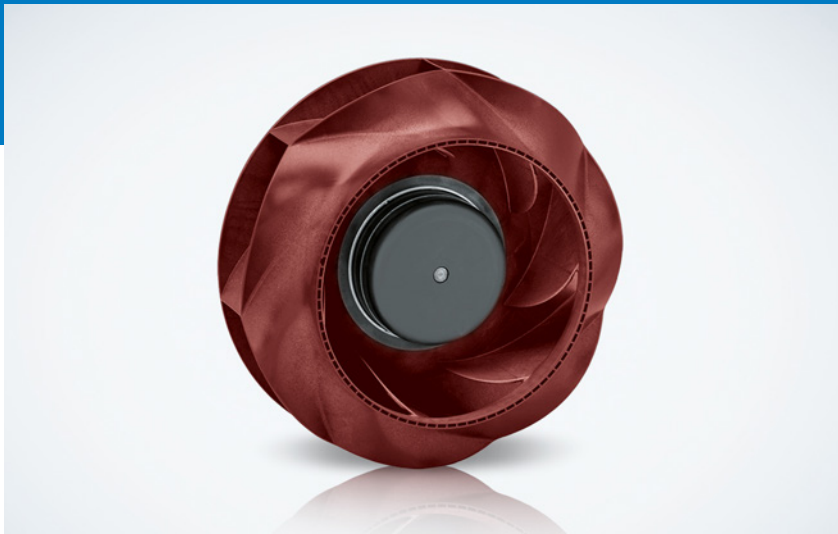
Technical drawing

Dimensions in mm



VBS0190R...

DC centrifugal fans · max. 930 m³/h · Ø 190 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Painted black

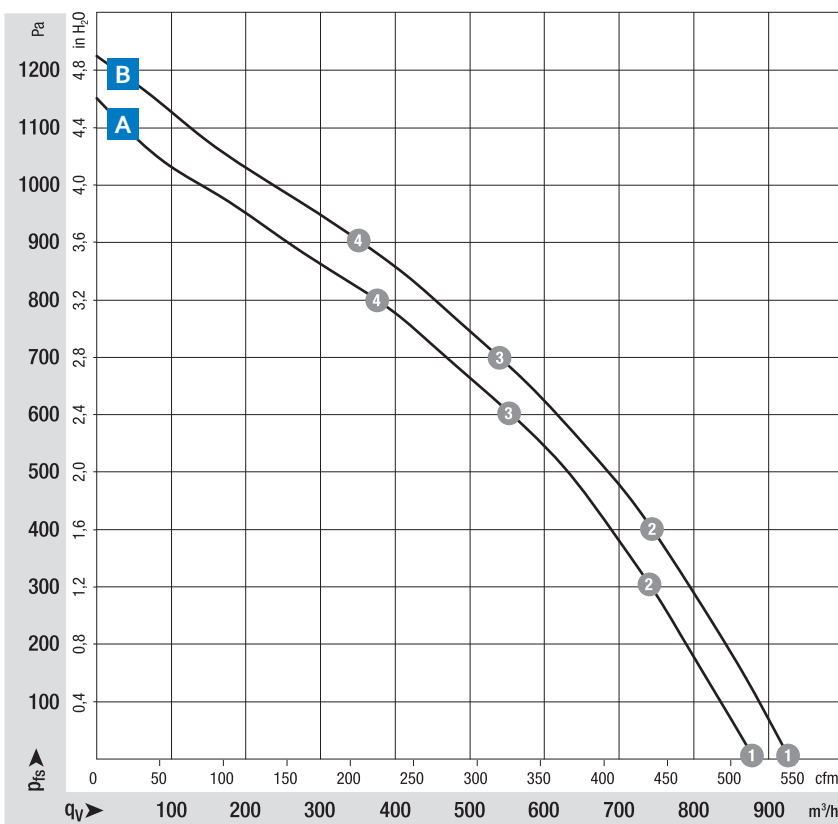
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on top; rotor on bottom on request
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP44, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.85 kg

Approvals

- EN 62368-1;
- A + B: CE, EAC;
- B: CCC

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

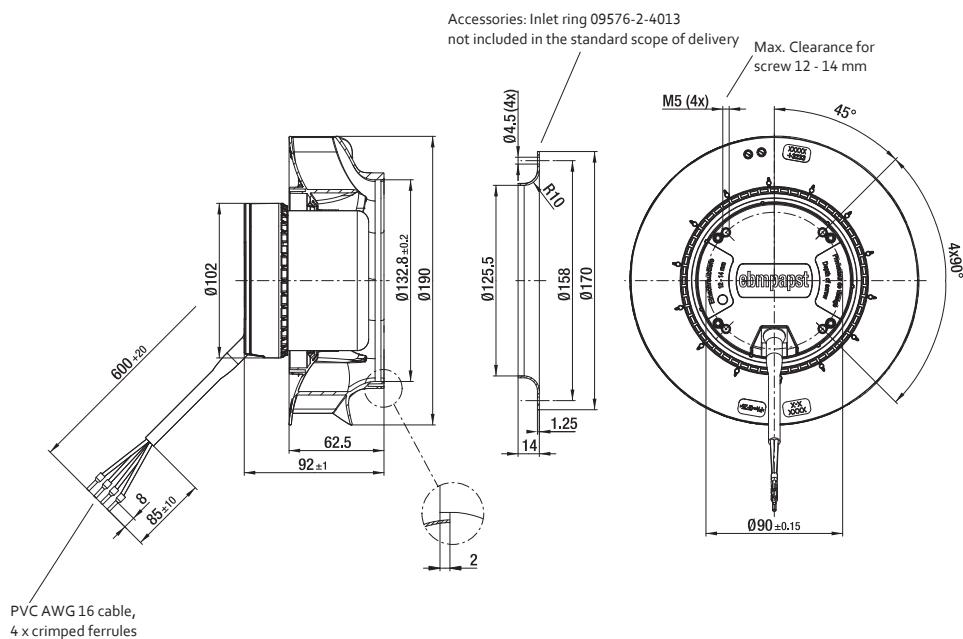
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Sound power level | Perm. ambient temperature |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|-----------------|-------------------|-----|-------|-------------------|---------------|-------------------|---------------------------|
| | | | | | | | m ³ /h | cfm | rpm | W | A | Bel(A) | °C |
| VBS0190RUNEZ | R3G190RN3801 | centrifugal fan | 24 | 16...28 | A | ① | 880 | 520 | 4 570 | 180 | 7.50* | 8.4 | -25...60 |
| | | | | | | | 740 | 435 | 4 525 | 188 | 7.83* | 7.9 | |
| | | | | | | | 550 | 325 | 4 435 | 199 | 8.34* | 7.7 | |
| | | | | | | | 375 | 220 | 4 520 | 191 | 7.96* | 8.1 | |
| VBS0190RUNES | R3G190RN9902 | centrifugal fan | 48 | 36...57 | B | ① | 930 | 545 | 4 800 | 192 | 4.00 | 8.4 | -25...60 |
| | | | | | | | 745 | 440 | 4 690 | 212 | 4.41 | 8.0 | |
| | | | | | | | 540 | 320 | 4 640 | 221 | 4.60 | 7.9 | |
| | | | | | | | 350 | 205 | 4 740 | 205 | 4.28 | 8.1 | |
| | 09576-2-4013 | Inlet ring | | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm



VBS0220RUNCS

DC centrifugal fans · max. 1 125 m³/h · Ø 220 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Galvanized

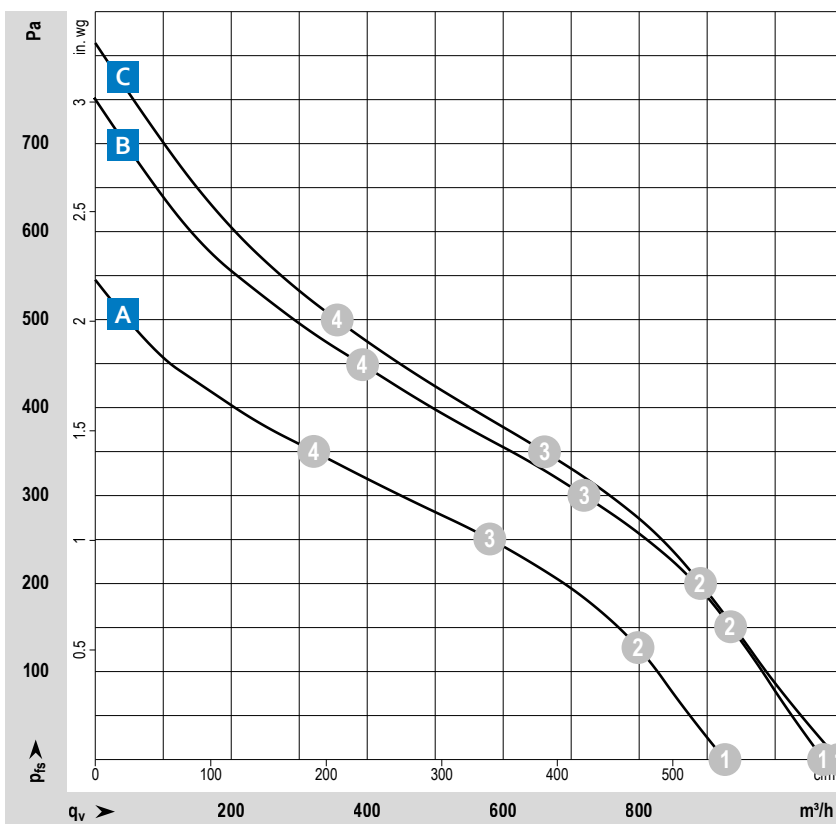
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on bottom; rotor on top on request
- Bearing: Ball bearings; (sealed)
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP24 KM, Electronics IP6K9K (mating connector installed)
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.50 kg

Approvals

- EAC; CSA CSA C22.2 Nr. 113; UL 507;
- **A**: CE not applicable;
- **B + C**: CE;
- CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

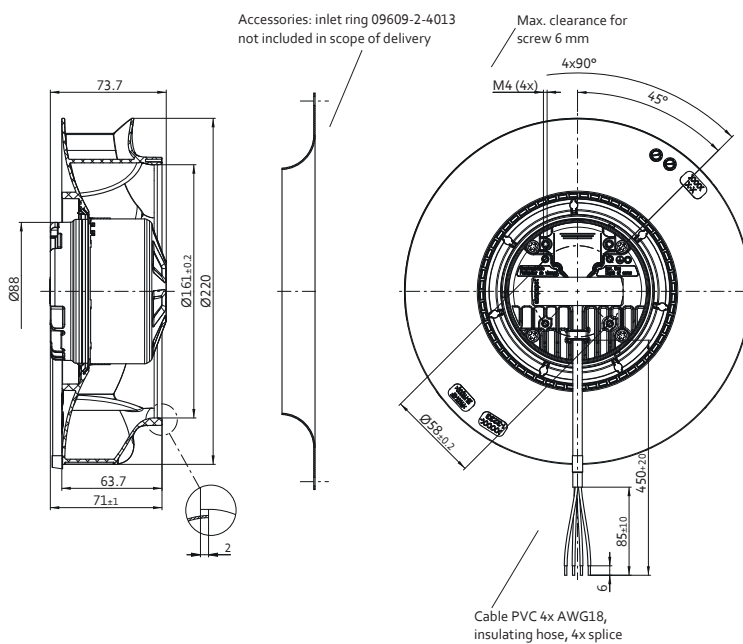
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Perm. ambient temperature °C |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|------------------|-------------------|-----|--------------|------------------------|--------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | |
| VBS0220RUNCS | R1G220RD6102 | centrifugal fan | 12 | 8...16 | A | ① ② ③ ④ | 990 | 585 | 2 905 | 110 | 8.77 | -25...+70 |
| | | | | | | | 855 | 505 | 2 855 | 112 | 9.01 | |
| | | | | | | | 620 | 365 | 2 790 | 117 | 9.43 | |
| | | | | | | | 345 | 205 | 2 890 | 113 | 9.01 | |
| VBS0220RUNCS | R1G220RD1002 | centrifugal fan | 24 | 16...28 | B | ① ② ③ ④ | 1 125 | 660 | 3 310 | 144 | 5.12 | -25...+60 |
| | | | | | | | 980 | 575 | 3 220 | 146 | 5.19 | |
| | | | | | | | 750 | 440 | 3 085 | 149 | 5.29 | |
| | | | | | | | 410 | 240 | 3 185 | 146 | 5.19 | |
| VBS0220RUNCS | R1G220RD0202 | centrifugal fan | 48 | 36...57 | C | ① ② ③ ④ | 1 095 | 645 | 3 240 | 136 | 2.80* | -25...+70 |
| | | | | | | | 890 | 525 | 3 100 | 139 | 2.90* | |
| | | | | | | | 660 | 390 | 3 010 | 141 | 2.90* | |
| | | | | | | | 355 | 210 | 3 140 | 138 | 2.90* | |
| | 09609-2-4013 | Inlet ring | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

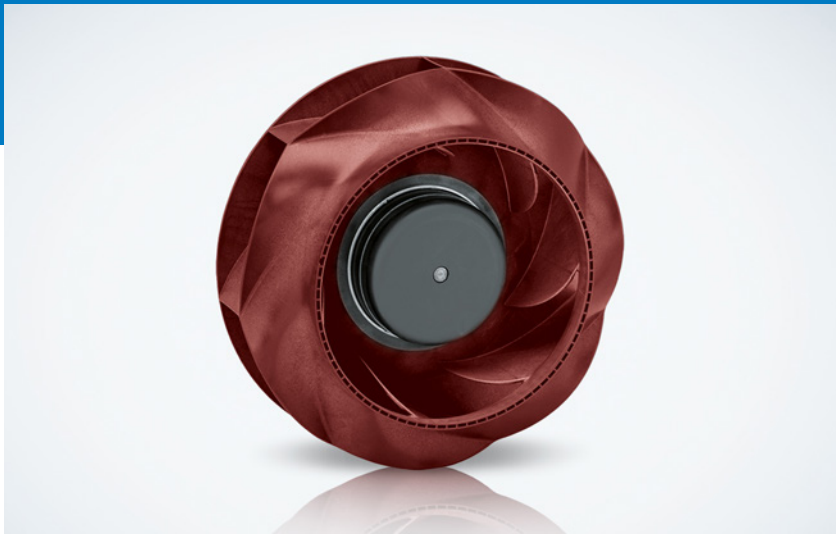
Technical drawing

Dimensions in mm



VBS0220RUNES

DC centrifugal fans · max. 1 210 m³/h · Ø 220 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Painted black

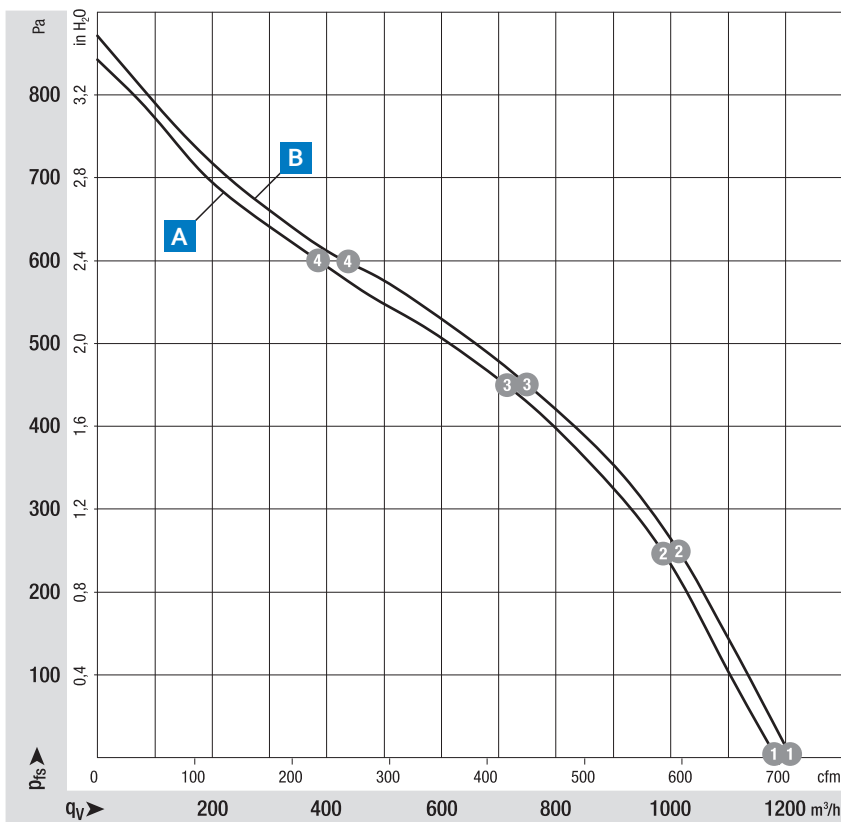
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on top; rotor on bottom on request
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 44, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.88 kg

Approvals

- EN 62368-1; CE; EAC; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

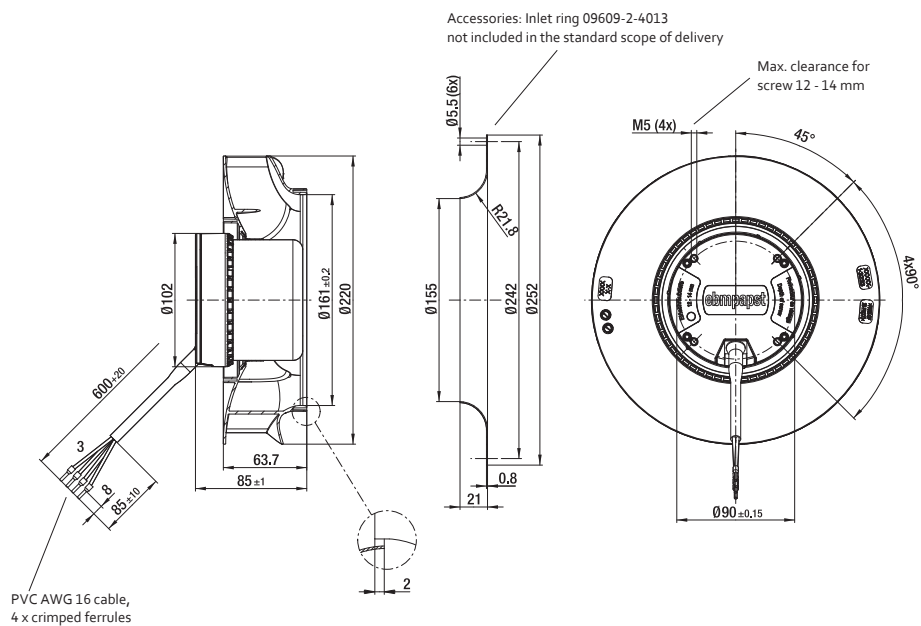
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Sound power level Bel(A) | Perm. ambient temperature °C | |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|-----------------|----------|-------|--------------|------------------------|--------------------|-----------------------------|---------------------------------|-----|
| | | | | | | | m³/h | cfm | | | | | | |
| VBS0220RUNES | R3G220RN1201 | centrifugal fan | 24 | 16...28 | A | ① | 1 185 | 695 | 3 460 | 157 | 6.50* | 8.1 | -25...+60 | |
| | | | | | | | ② | 990 | 580 | 3 420 | 171 | 7.11* | | 7.7 |
| | | | | | | | ③ | 715 | 420 | 3 360 | 182 | 7.59* | | 7.4 |
| | | | | | | | ④ | 385 | 225 | 3 455 | 168 | 6.97* | | 7.9 |
| VBS0220RUNES | R3G220RNB602 | centrifugal fan | 48 | 36...57 | B | ① | 1 210 | 715 | 3 510 | 160 | 3.40 | 8.1 | -25...+60 | |
| | | | | | | | ② | 1 015 | 595 | 3 450 | 168 | 3.50 | | 7.7 |
| | | | | | | | ③ | 750 | 440 | 3 385 | 178 | 3.71 | | 7.4 |
| | | | | | | | ④ | 440 | 260 | 3 460 | 167 | 3.47 | | 7.9 |
| | 09609-2-4013 | Inlet ring | | | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm



VBS0220RULDS

DC centrifugal fans · max. 1 248 m³/h · Ø 220 x 71 mm



Material/Surface

- Impeller: Plastic

Characteristics

- Version: Centrifugal fan in 24VDC or 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings/Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: III
- Weight: 890 g

from page 14 Definitions

from page 350 Accessories

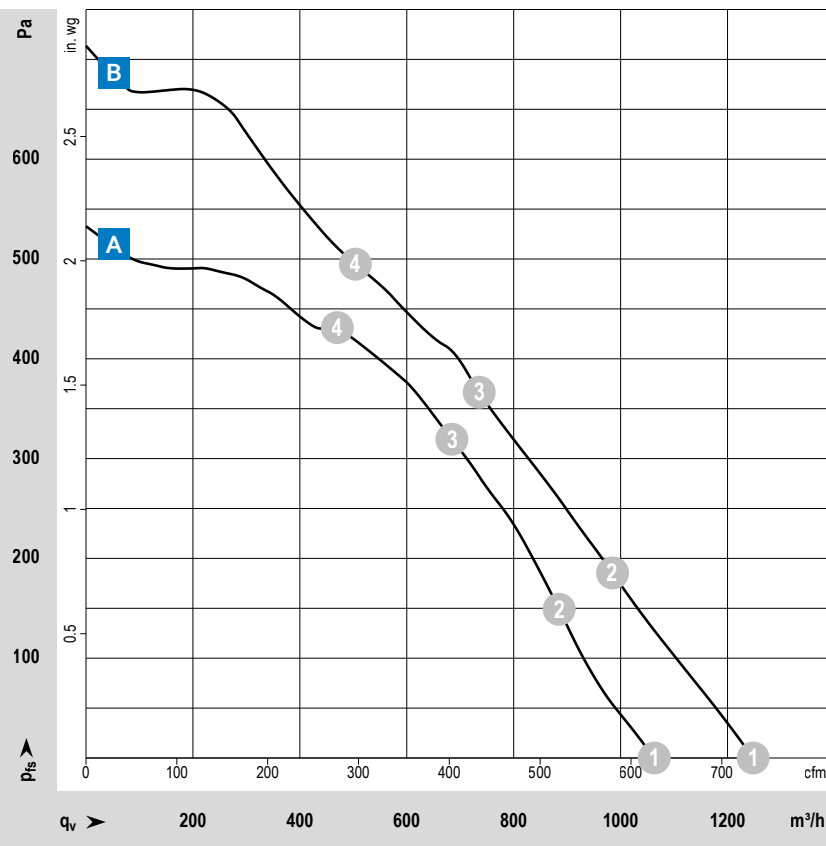
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP68



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

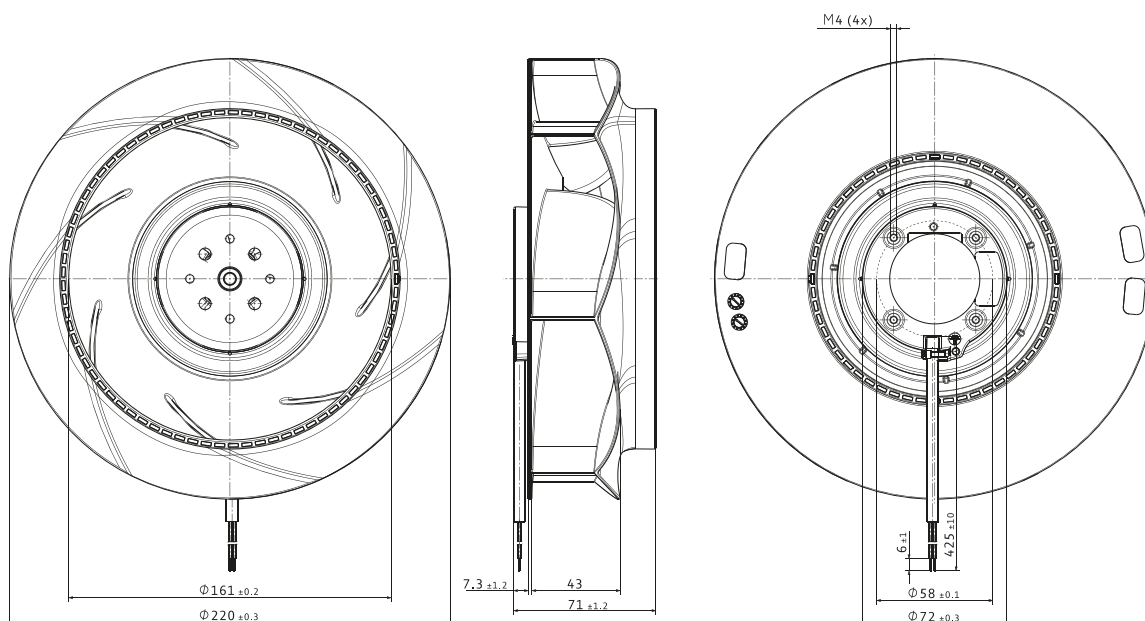
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s. p. II |
|---|-------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--|--|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | Hours | Hours |
| VBS0220RULDS RER 220-43/18/2 TDMO | 9595420303 | 48 | 36...72 | A | ① | 1 063 | 626 | 3 000 | 109.8 | 8.0 | -20...+55 | 65 000 | 110 000 |
| | | | | | | 885 | 521 | 2 960 | 126.6 | 8.0 | | | |
| | | | | | | 684 | 403 | 2 950 | 145.0 | 7.9 | | | |
| | | | | | | 470 | 277 | 3 040 | 141.7 | 7.9 | | | |
| VBS0220RULDS RER 220-43/18/2 TDO | 9595420304 | 48 | 36...72 | B | ① | 1 248 | 735 | 3 500 | 166.9 | 8.2 | -20...+55 | 60 000 | 102 500 |
| | | | | | | 984 | 579 | 3 270 | 170.0 | 8.0 | | | |
| | | | | | | 735 | 433 | 3 150 | 170.0 | 7.8 | | | |
| | | | | | | 504 | 297 | 3 250 | 170.0 | 7.8 | | | |

Subject to changes.

Speed control range from 800 rpm at 7 % PWM up to nominal speed at > 90 % PWM. Standstill at 0 % PWM, Standstill if control cable is interrupted.

Technical drawing

Dimensions in mm



VBS0225...

DC centrifugal fans · max. 1 588 m³/h · Ø 225 x 99 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Impeller: Plastic

Characteristics

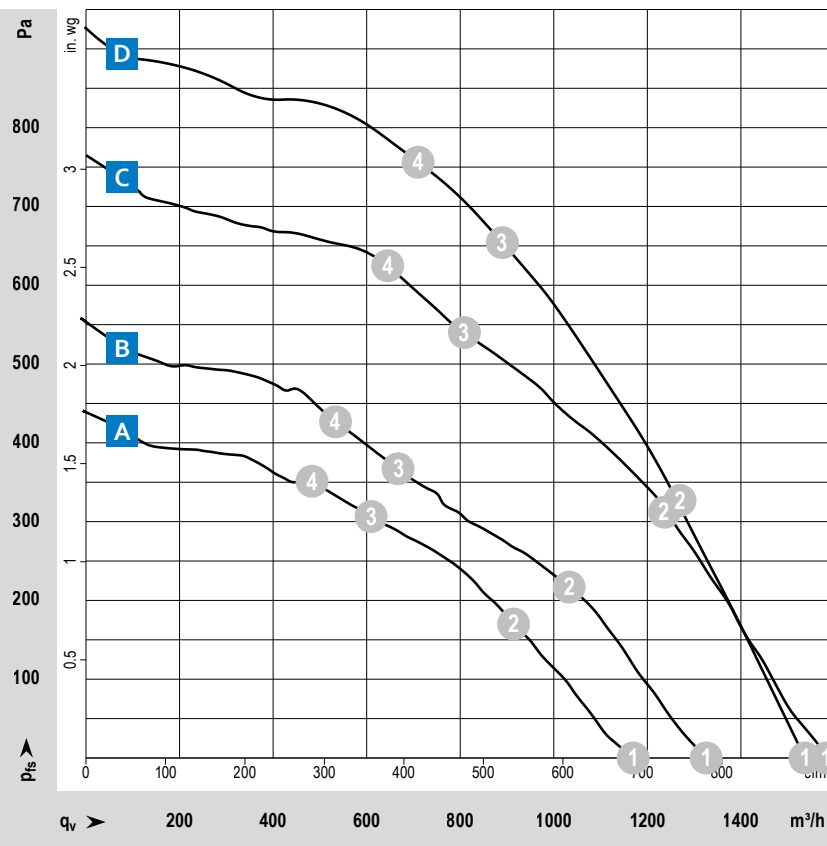
- Version: Centrifugal fan in 48VDC with backward-curved impeller; powerful due to 3-phase motor concept; low-noise operation
- Direction of air flow: axial: intake; centrifugal: exhaust
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation
- IP protection class: IP20
- Electrical hookup: single wires AWG 18, 20 or AWG 22; speed signal and control input AWG 22
- Electrical protection class: I
- Weight: 1 030 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC (only necessary >36V)

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life | Life expectancy |
|---|-------------------|-----------------|---------------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|---------------------------|--------------|-----------------|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | | °C | Hours |
| VBS0225XULDS RER 225-63/18/2 TDMLO | 9595420413 | 48 | 36...72 | A | ① | 1170 | 689 | 2 500 | 82.5 | 7.7 | -20...+55 | 55 000 | 92 500 |
| | | | | | | 914 | 538 | 2 460 | 117.7 | 7.5 | | | |
| | | | | | | 609 | 358 | 2 480 | 128.3 | 7.3 | | | |
| | | | | | | 483 | 284 | 2 520 | 124.4 | 7.4 | | | |
| VBS0225XULDS RER 225-63/18/2 TDMO | 9595420411 | 48 | 36...72 | B | ① | 1326 | 780 | 2 800 | 111.2 | 8.0 | -20...+55 | 55 000 | 92 500 |
| | | | | | | 1033 | 608 | 2 720 | 159.8 | 7.8 | | | |
| | | | | | | 667 | 393 | 2 650 | 160.0 | 7.6 | | | |
| | | | | | | 533 | 314 | 2 740 | 160.0 | 7.7 | | | |
| VBS0225XULDS RER 225-55/18/2 TDO | 9595420402 | 48 | 36...72 | C | ① | 1588 | 935 | 3 300 | 177.0 | 8.4 | -20...+55 | 52 500 | 87 500 |
| | | | | | | 1241 | 730 | 3 250 | 249.8 | 8.3 | | | |
| | | | | | | 809 | 476 | 3 220 | 255.0 | 8.1 | | | |
| | | | | | | 645 | 380 | 3 300 | 255.0 | 8.3 | | | |
| VBS0225RULFS RER 225-55/18/2 TDO RadiCal | 9595430400 | 48 | 36...72 | D | ① | 1537 | 905 | 3 500 | 216.9 | 8.6 | -20...+55 | 50 000 | 85 000 |
| | | | | | | 1265 | 745 | 3 460 | 271.2 | 8.3 | | | |
| | | | | | | 890 | 524 | 3 460 | 301.1 | 8.0 | | | |
| | | | | | | 710 | 418 | 3 490 | 293.7 | 8.1 | | | |

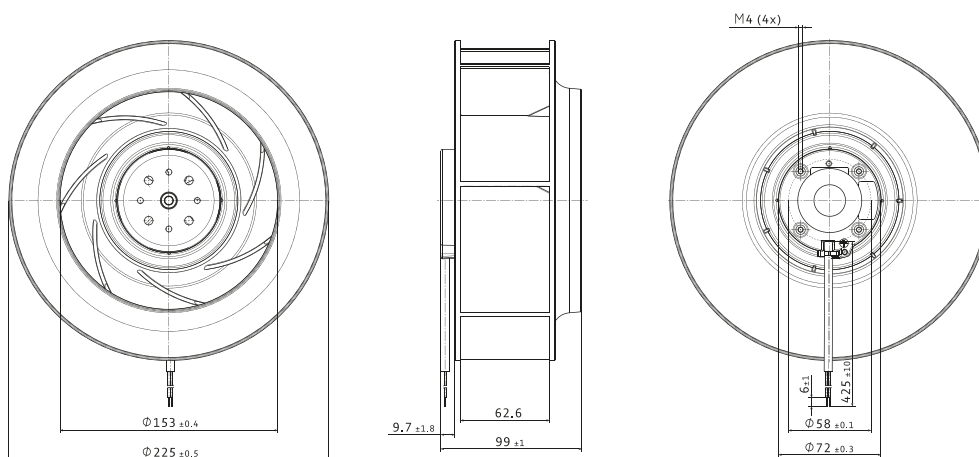
Subject to changes.

Speed control range from 800 rpm at 7 % PWM up to nominal speed at > 90 % PWM.

Standstill at 0 % PWM, Type O: Standstill if control cable is interrupted. Type P: Maximum speed if control cable is interrupted.

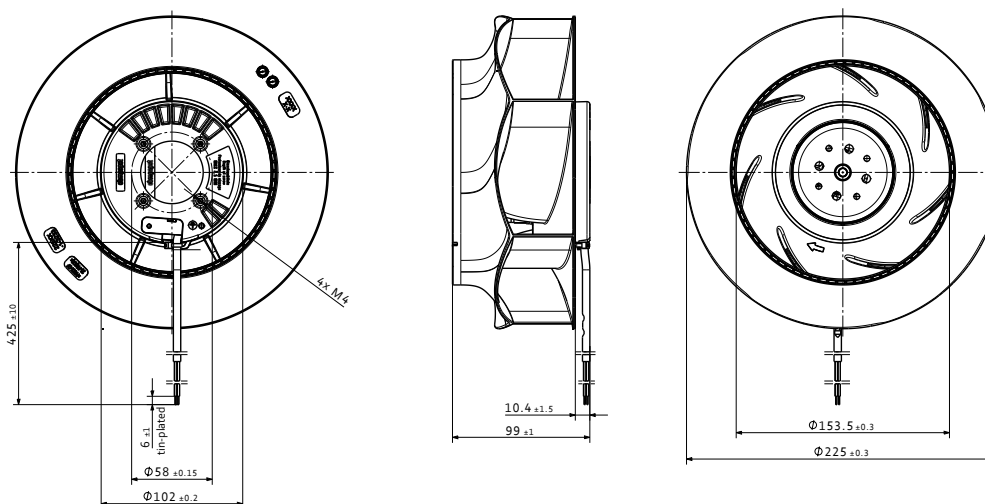
Technical drawing

Dimensions in mm



Technical drawing RadiCal

Dimensions in mm



VBS0225RUNCS

DC centrifugal fans · max. 1 165 m³/h · Ø 225 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Galvanized

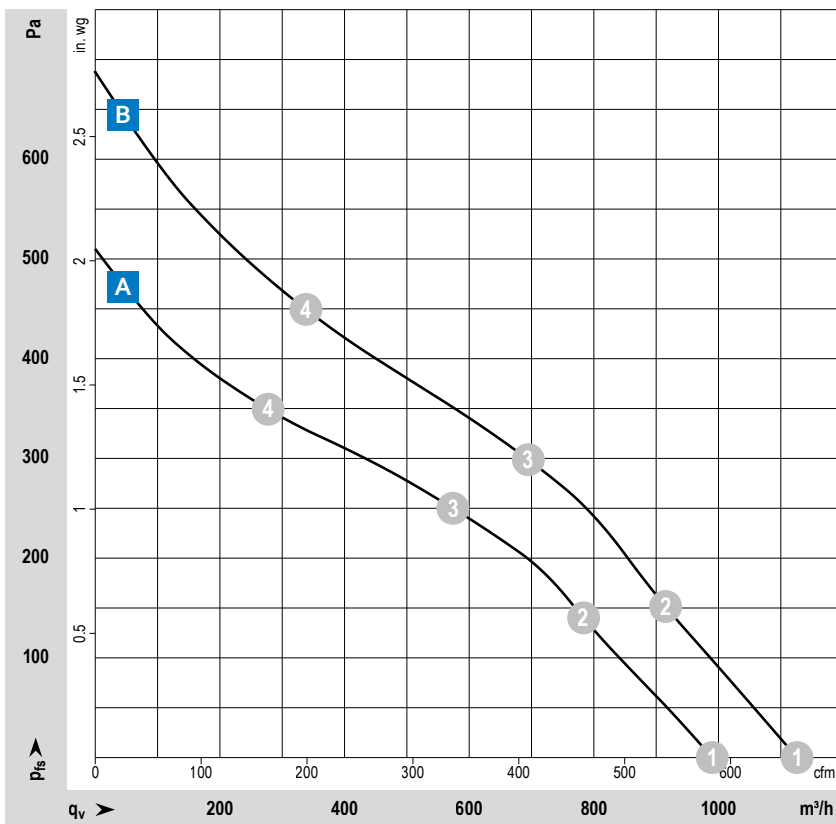
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on bottom; rotor on top on request
- Bearing: Ball bearings; (sealed)
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP24 KM, Electronics IP6K9K (mating connector installed)
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 1.60 kg

Approvals

- EAC; CSA CSA C22.2 Nr. 113; UL 507

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

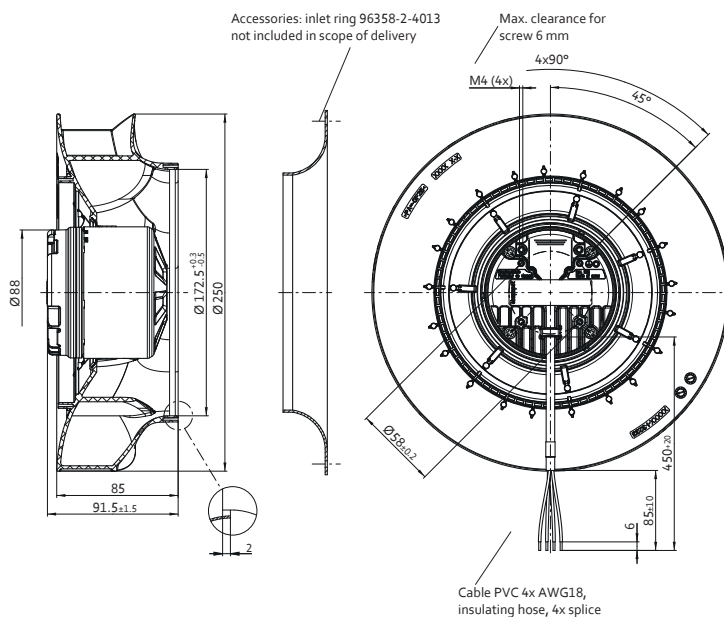
| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Perm. ambient temperature °C |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|--|-------------------|-----|--------------|------------------------|--------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | |
| VBS0225RUNCS | R1G225RD5902 | centrifugal fan | 12 | 8...16 | A | <ol style="list-style-type: none"> 1 2 3 4 | 1 045 | 615 | 2 490 | 100 | 7.89 | -25...+70 |
| | | | | | | | 840 | 495 | 2 410 | 105 | 8.37 | |
| | | | | | | | 615 | 365 | 2 405 | 108 | 8.57 | |
| | | | | | | | 295 | 175 | 2 530 | 98 | 7.69 | |
| VBS0225RUNCS | R1G225RD1402 | centrifugal fan | 24 | 16...28 | B | <ol style="list-style-type: none"> 1 2 3 4 | 1 165 | 685 | 2 775 | 130 | 4.63 | -25...+70 |
| | | | | | | | 960 | 565 | 2 645 | 134 | 4.77 | |
| | | | | | | | 715 | 420 | 2 600 | 135 | 4.82 | |
| | | | | | | | 350 | 205 | 2 790 | 129 | 4.60 | |
| | 96358-2-4013 | Inlet ring | | | | | | | | | | |

Subject to changes.

DC centrifugal fans

Technical drawing

Dimensions in mm



VBS0225RUNES

DC centrifugal fans · max. 1 335 m³/h · Ø 225 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Painted black

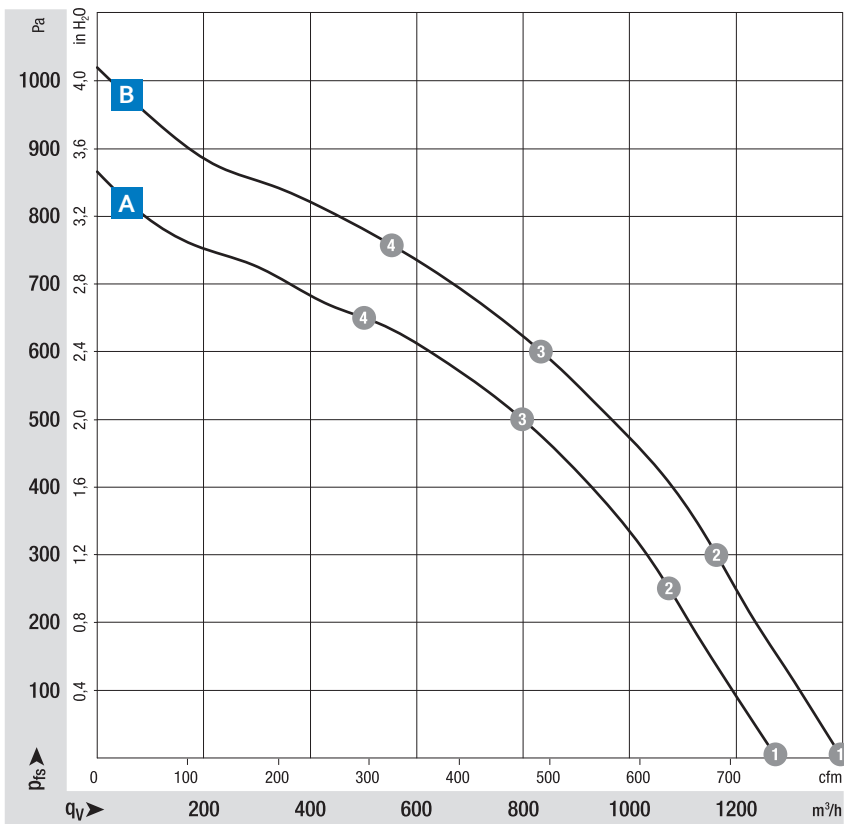
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on top; rotor on bottom on request
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 44, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.10 kg

Approvals

- EN 62368-1; CE; EAC; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

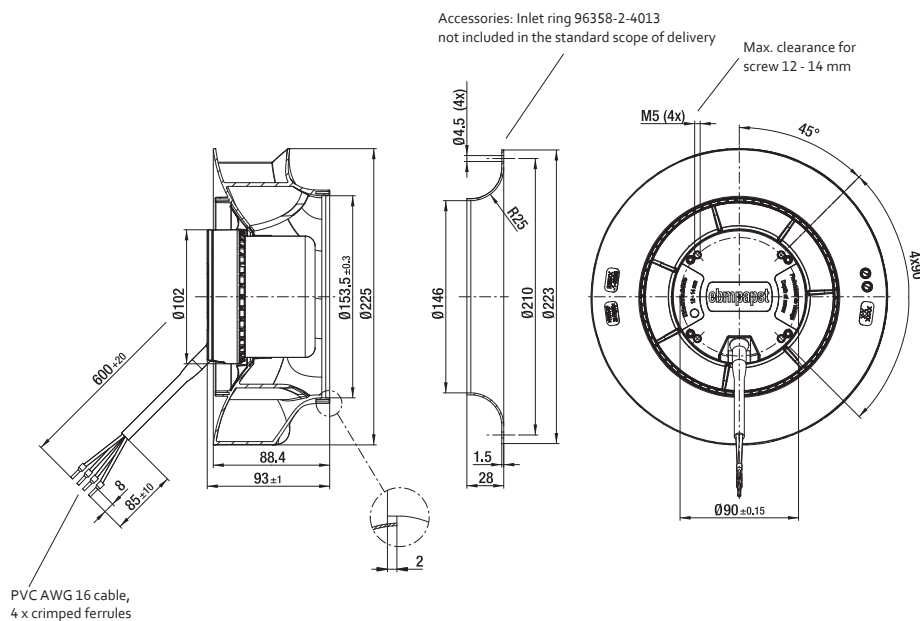
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current | Sound power level | Perm. ambient temperature |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|--|----------|----------|-------|-------------------|---------------|-------------------|---------------------------|
| | | | | | | | m³/h | cfm | rpm | W | A | Bel(A) | °C |
| VBS0225RUNES | R3G225RN2801 | centrifugal fan | 24 | 16...28 | A | <ol style="list-style-type: none"> 1 2 3 4 | 1 275 | 750 | 3 270 | 205 | 8.50* | 8.1 | -25...+60 |
| | | | | | | | 1 070 | 630 | 3 200 | 208 | 8.66* | 7.8 | |
| | | | | | | | 775 | 455 | 3 185 | 213 | 8.88* | 7.4 | |
| | | | | | | | 425 | 250 | 3 275 | 182 | 7.76* | 7.7 | |
| VBS0225RUNES | R3G225RN1802 | centrifugal fan | 48 | 36...57 | B | <ol style="list-style-type: none"> 1 2 3 4 | 1 335 | 785 | 3 400 | 230 | 4.80* | 8.4 | -25...+60 |
| | | | | | | | 1 095 | 645 | 3 375 | 236 | 4.90* | 8.0 | |
| | | | | | | | 785 | 460 | 3 355 | 244 | 5.10* | 7.6 | |
| | | | | | | | 455 | 265 | 3 435 | 218 | 4.50* | 7.9 | |
| | 96358-2-4013 | Inlet ring | | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm



VBS0250RUNES

DC centrifugal fans · max. 1 505 m³/h · Ø 250 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Galvanized

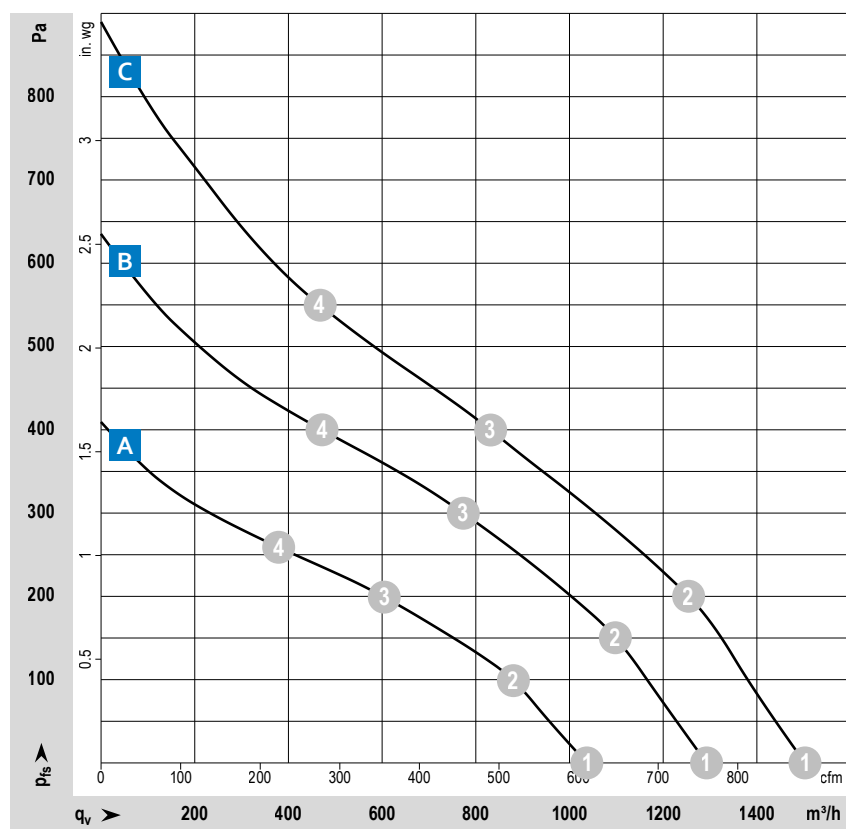
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on bottom; rotor on top on request
- Bearing: Ball bearings; (sealed)
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP24 KM, Electronics IP6K9K (mating connector installed)
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.00 kg

Approvals

- EAC; CSA CSA C22.2 Nr. 113; UL 507; **B** + **C**: CE; CCC on request (only applicable with >36V)





| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

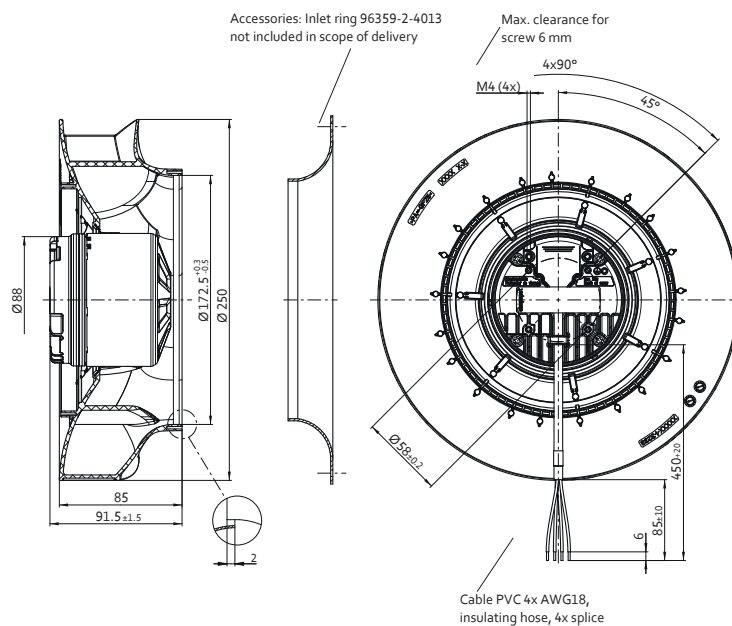
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Perm. ambient temperature |
|--------------|--------------|-----------------|---|-----------------|---------------|----------------------|--|-------------------|-----|-------|-------------------|---------------|---------------------------|
| | | | | VDC | VDC | | | m ³ /h | cfm | rpm | | | |
| VBS0250RUNES | R1G250RC7702 | centrifugal fan |  | 12 | 8...16 | A | <ol style="list-style-type: none"> 1 2 3 4 | 1 095 | 645 | 2 110 | 75 | 4.67 | -25...+70 |
| | | | | | | | | 935 | 550 | 2 065 | 80 | 4.96 | |
| | | | | | | | | 645 | 380 | 2 020 | 86 | 5.36 | |
| | | | | | | | | 405 | 240 | 2 070 | 82 | 5.08 | |
| VBS0250RUNES | R1G250RC8702 | centrifugal fan |  | 24 | 16...28 | B | <ol style="list-style-type: none"> 1 2 3 4 | 1 375 | 810 | 2 645 | 144 | 5.11 | -25...+60 |
| | | | | | | | | 1 170 | 690 | 2 565 | 149 | 5.32 | |
| | | | | | | | | 815 | 480 | 2 455 | 153 | 5.46 | |
| | | | | | | | | 500 | 295 | 2 550 | 150 | 5.34 | |
| VBS0250RUNES | R1G250RC8902 | centrifugal fan |  | 48 | 36...57 | C | <ol style="list-style-type: none"> 1 2 3 4 | 1 505 | 885 | 2 850 | 175 | 3.70* | -25...+60 |
| | | | | | | | | 1 255 | 740 | 2 755 | 179 | 3.70* | |
| | | | | | | | | 830 | 490 | 2 650 | 182 | 3.80* | |
| | | | | | | | | 470 | 275 | 2 795 | 177 | 3.70* | |
| | 96359-2-4013 | Inlet ring |  | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

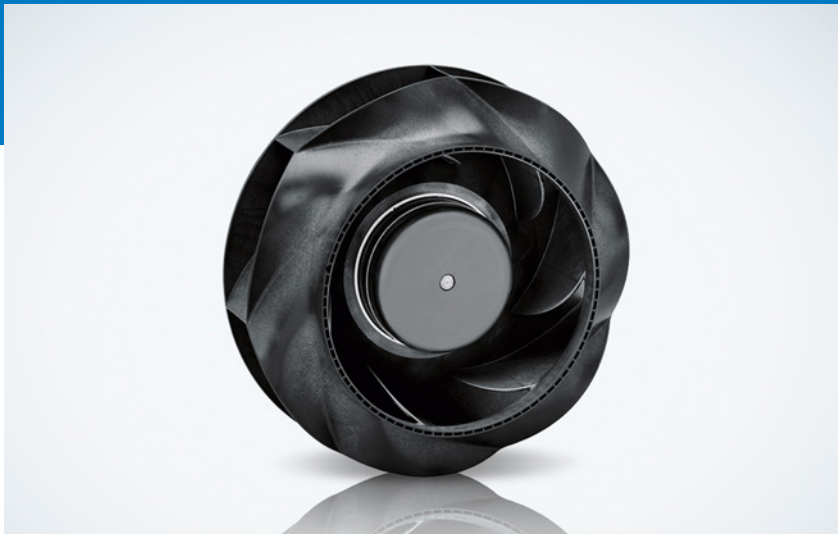
Technical drawing

Dimensions in mm



VBS0250RUNES

DC centrifugal fans · max. 1 640 m³/h · Ø 250 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Painted black

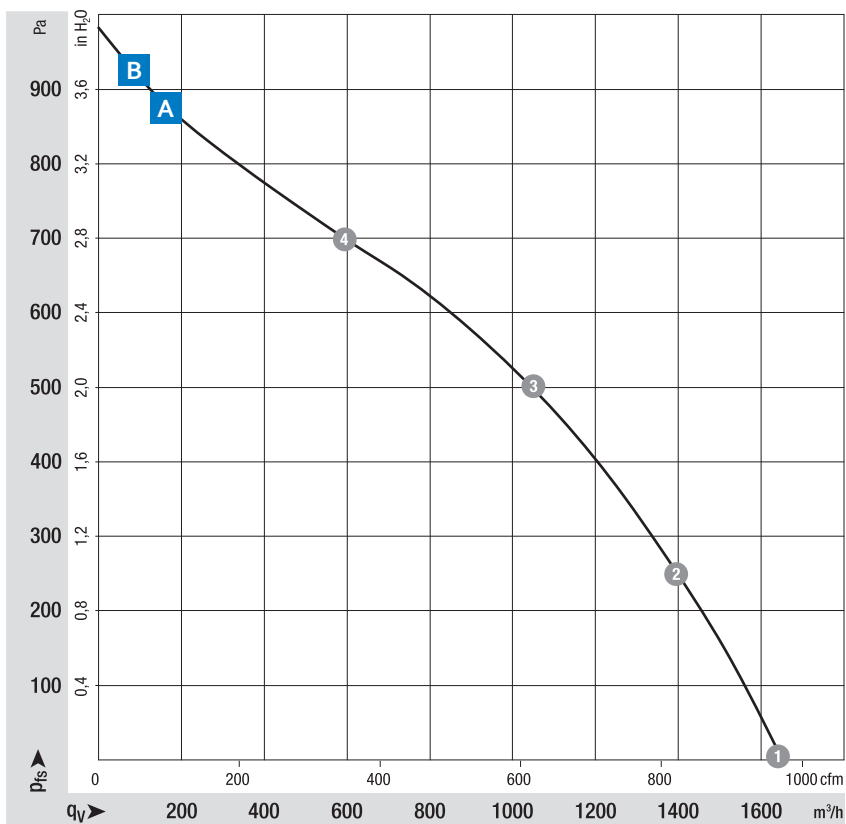
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on top; rotor on bottom on request
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 44, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.10 kg

Approvals

- EN 62368-1; CE; EAC; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

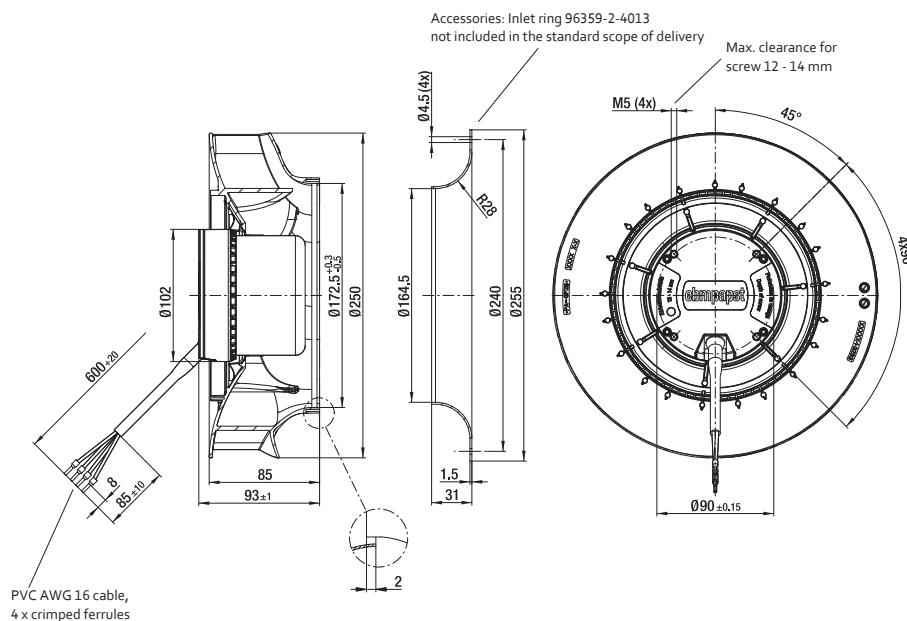
| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Sound power level Bel(A) | Perm. ambient temperature °C |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|------------------|----------|-----|--------------|------------------------|--------------------|-----------------------------|---------------------------------|
| | | | | | | | m³/h | cfm | | | | | |
| VBS0250RUNES | R3G250RN4601 | centrifugal fan | 24 | 16...28 | A | ① ② ③ ④ | 1 505 | 885 | 2 850 | 175 | 7.20* | 8.1 | -25...+60 |
| | | | | | | | 1 225 | 720 | 2 820 | 195 | 8.10* | 7.7 | |
| | | | | | | | 880 | 515 | 2 795 | 210 | 8.70* | 7.1 | |
| | | | | | | | 580 | 340 | 2 840 | 197 | 8.20* | 7.4 | |
| VBS0250RUNES | R3G250RNB502 | centrifugal fan | 48 | 36...57 | B | ① ② ③ ④ | 1 640 | 965 | 3 100 | 230 | 4.80* | - | -25...+60 |
| | | | | | | | 1 375 | 810 | 3 065 | 250 | 5.20* | | |
| | | | | | | | 1 010 | 595 | 3 025 | 266 | 5.60* | | |
| | | | | | | | 475 | 280 | 3 115 | 236 | 4.90* | | |
| | 96359-2-4013 | Inlet ring | | | | | | | | | | | |

Subject to changes.

DC centrifugal fans

Technical drawing

Dimensions in mm



VBS0280RUNES

DC centrifugal fans · max. 2 120 m³/h · Ø 280 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Galvanized

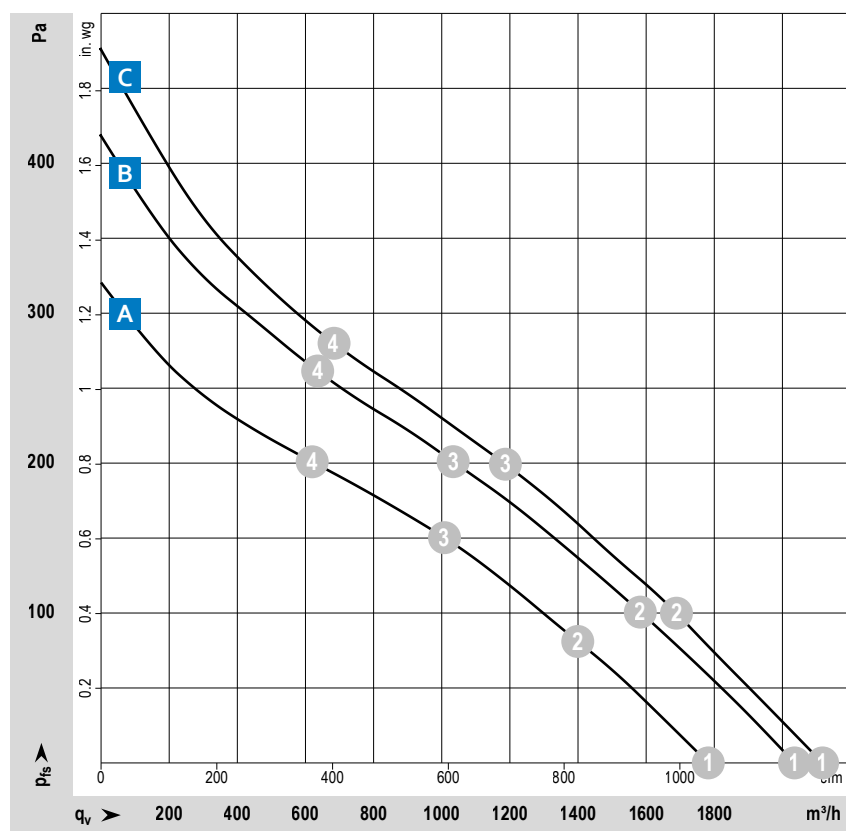
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on bottom; rotor on top on request
- Bearing: Ball bearings; (sealed)
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP24 KM, Electronics IP6K9K (mating connector installed)
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.30 kg

Approvals

- EAC; CSA CSA C22.2 Nr. 113; UL 507; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

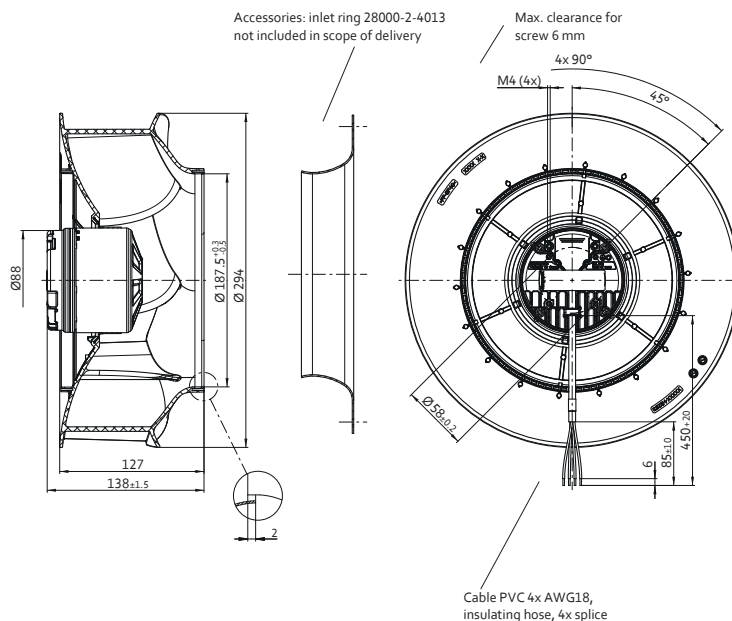
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Perm. ambient temperature °C |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|------------------|-------------------|-------|--------------|------------------------|--------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | |
| VBS0280RUNES | R1G280RC7502 | centrifugal fan | 12 | 8...16 | A | ① ② ③ ④ | 1 880 | 1 105 | 1 585 | 88 | 7.16 | -25...+70 |
| | | | | | | | 1 490 | 880 | 1 495 | 97 | 7.98 | |
| | | | | | | | 1 065 | 625 | 1 470 | 100 | 8.25 | |
| | | | | | | | 655 | 385 | 1 520 | 95 | 7.78 | |
| VBS0280RUNES | R1G280RC7102 | centrifugal fan | 24 | 16...28 | B | ① ② ③ ④ | 2 100 | 1 235 | 1 765 | 117 | 4.18 | -25...+60 |
| | | | | | | | 1 640 | 965 | 1 635 | 123 | 4.41 | |
| | | | | | | | 1 070 | 630 | 1 600 | 126 | 4.49 | |
| | | | | | | | 660 | 385 | 1 685 | 121 | 4.31 | |
| VBS0280RUNES | R1G280RC9302 | centrifugal fan | 48 | 36...57 | C | ① ② ③ ④ | 2 120 | 1 245 | 1 800 | 115 | 2.40* | -25...+60 |
| | | | | | | | 1 690 | 995 | 1 655 | 121 | 2.50* | |
| | | | | | | | 1 190 | 700 | 1 610 | 123 | 2.60* | |
| | | | | | | | 685 | 405 | 1 690 | 119 | 2.50* | |
| | 98000-2-4013 | Inlet ring | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm



VBS0280RUNES

DC centrifugal fans · max. 2 210 m³/h · Ø 280 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Painted black

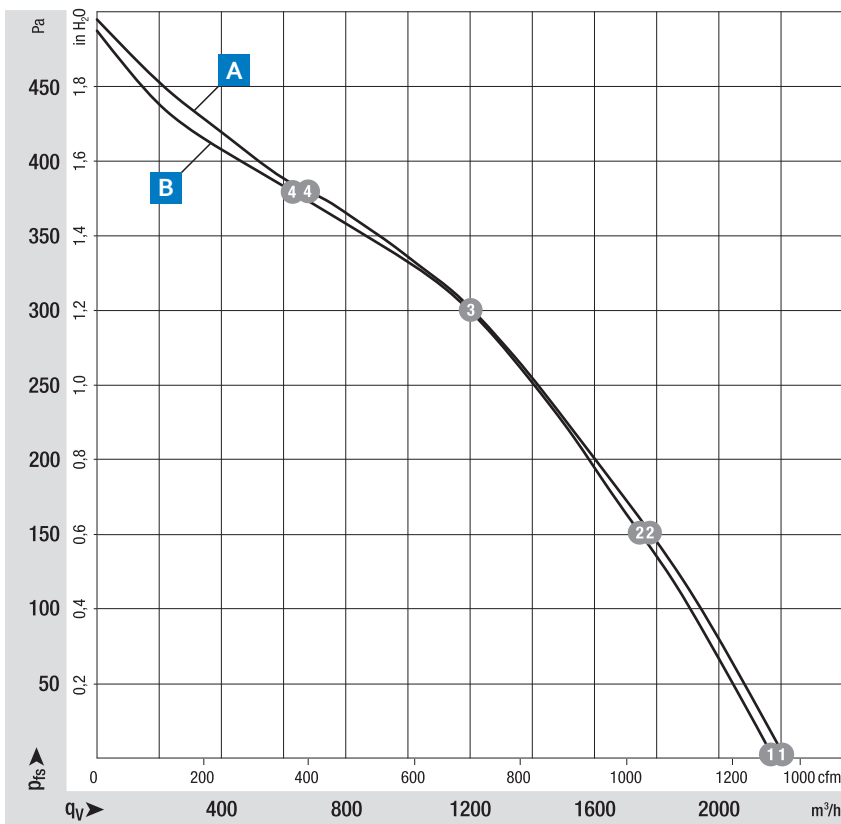
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on top; rotor on bottom on request
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 44, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.40 kg

Approvals

- EN 62368-1; CE; EAC; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

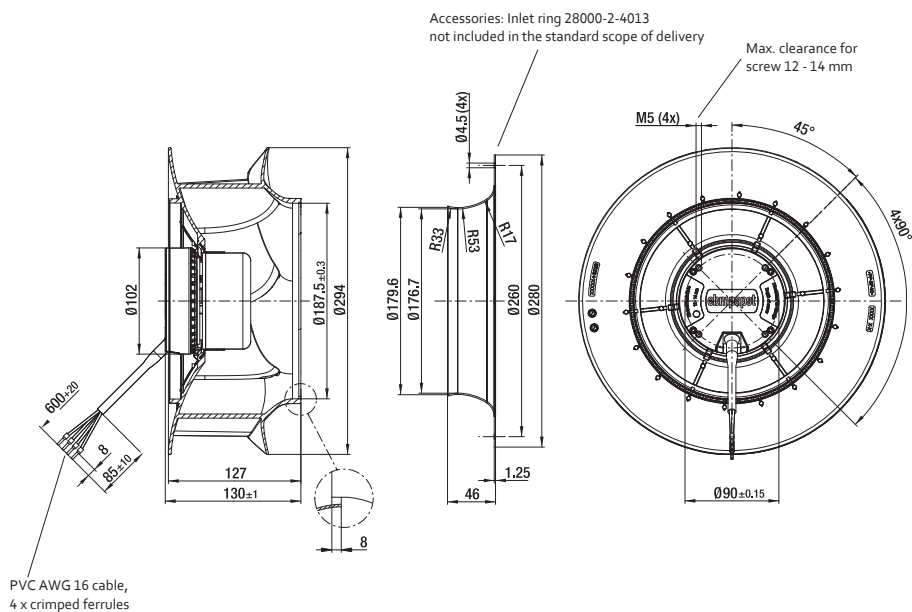
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Sound power level Bel(A) | Perm. ambient temperature °C |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|------------------|----------|-------|--------------|------------------------|--------------------|-----------------------------|---------------------------------|
| | | | | | | | m³/h | cfm | | | | | |
| VBS0280RUNES | R3G280RN3001 | centrifugal fan | 24 | 16...28 | A | ① ② ③ ④ | 2 210 | 1 300 | 1 900 | 142 | 5.90 | 7.4 | -25...+60 |
| | | | | | | | 1 775 | 1 045 | 1 870 | 162 | 6.76 | 6.7 | |
| | | | | | | | 1 205 | 710 | 1 840 | 173 | 7.21 | 6.4 | |
| | | | | | | | 675 | 400 | 1 905 | 153 | 6.36 | 6.8 | |
| VBS0280RUNES | R3G280RNB102 | centrifugal fan | 48 | 36...57 | B | ① ② ③ ④ | 2 175 | 1 280 | 1 910 | 140 | 2.90* | 7.4 | -25...+60 |
| | | | | | | | 1 745 | 1 030 | 1 845 | 158 | 3.30* | 6.7 | |
| | | | | | | | 1 200 | 705 | 1 830 | 163 | 3.40* | 6.4 | |
| | | | | | | | 630 | 370 | 1 900 | 141 | 2.93* | 6.8 | |
| | 28000-2-4013 | Inlet ring | | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm



VBS0310RUNES

DC centrifugal fans · max. 2 375 m³/h · Ø 310 mm



Material/Surface

- Impeller: PA plastic
- Rotor: Painted black

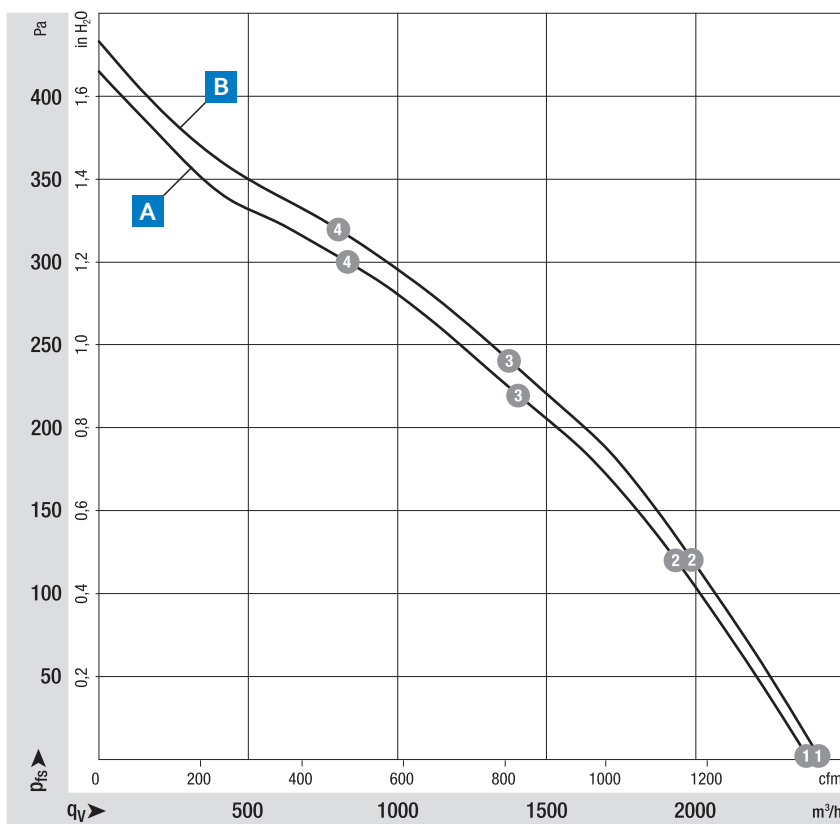
Characteristics

- Version: DC centrifugal fan – RadiCal®, backward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: Shaft horizontal or rotor on top; rotor on bottom on request
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 44, depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.90 kg

Approvals

- EN 62368-1; CE; EAC; CCC on request (only applicable with >36V)

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

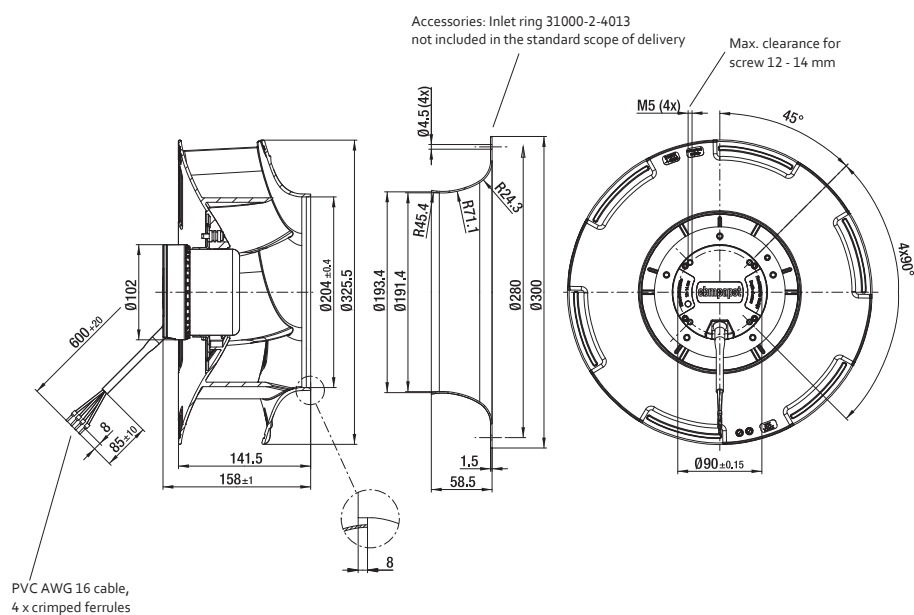
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Sound power level | Perm. ambient temperature |
|--------------|--------------|-----------------|------------------------|----------------------|----------------------|--|----------|-------|-------|-------------------|---------------|-------------------|---------------------------|
| | | | | | | | m³/h | cfm | rpm | W | A | Bel(A) | °C |
| VBS0310RUNES | R3G310RN9901 | centrifugal fan | 24 | 16...28 | A | <ol style="list-style-type: none"> 1 2 3 4 | 2 310 | 1 360 | 1 580 | 108 | 4.50* | - | -25...+60 |
| | | | | | | | 1 865 | 1 095 | 1 510 | 132 | 5.50* | | |
| | | | | | | | 1 335 | 785 | 1 485 | 138 | 5.80* | | |
| | | | | | | | 855 | 505 | 1 510 | 131 | 5.50* | | |
| VBS0310RUNES | R3G310RN9802 | centrifugal fan | 48 | 36...57 | B | <ol style="list-style-type: none"> 1 2 3 4 | 2 375 | 1 400 | 1 620 | 123 | 2.60 | 7.0 | -25...+60 |
| | | | | | | | 1 960 | 1 155 | 1 555 | 144 | 3.00 | 6.6 | |
| | | | | | | | 1 330 | 780 | 1 535 | 152 | 3.20 | 6.2 | |
| | | | | | | | 705 | 415 | 1 580 | 137 | 2.80 | 6.5 | |
| | 31000-2-4013 | Inlet ring | | | | | | | | | | | |

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm



VTS0030X...

DC tangential fans · max. 142 m³/h · 201...413 x 50 x 48 mm



Material/Surface

- Housing: Aluminum
- Housing side parts: Plastic
- Impeller: Aluminum

Characteristics

- Version: Tangential blower in 12 VDC and 24 VDC. Uniform laminar air flow over the entire length
- Bearing: Ball bearings/Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 24
- Electrical protection class: III
- Weight: 235 / 290 / 380 / 415 g

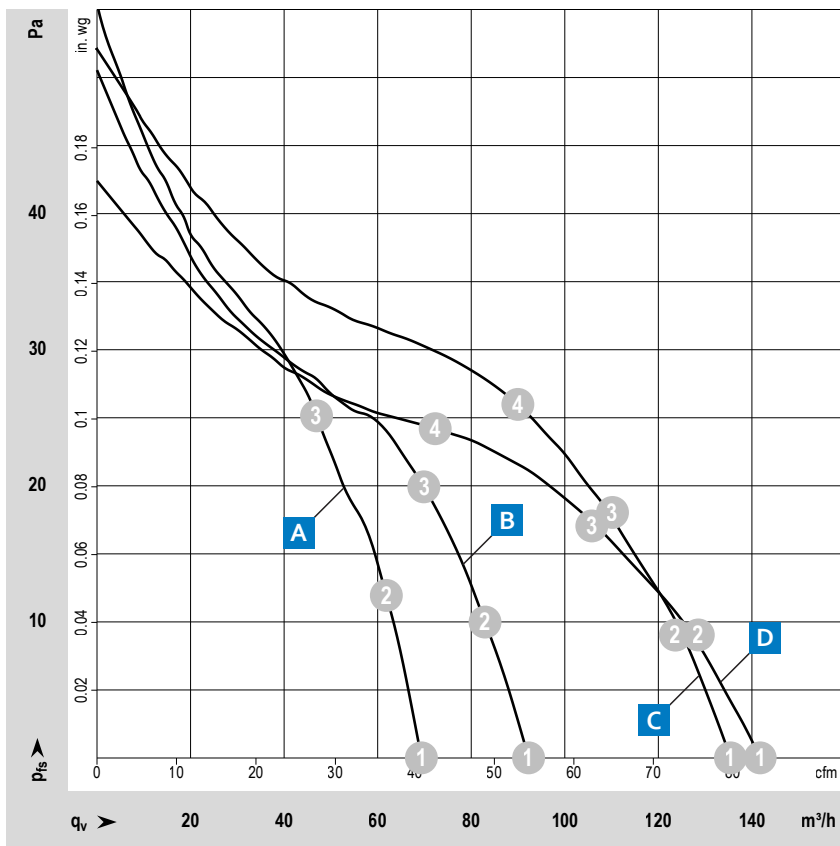
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

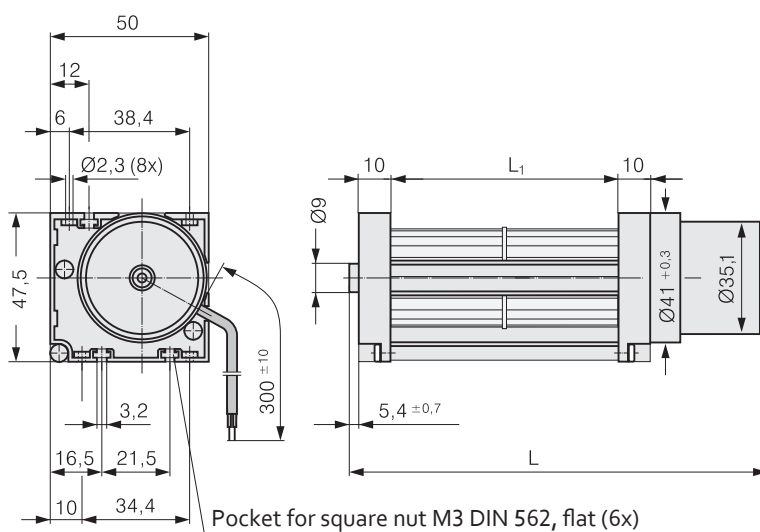
| Type / Type old | Part number | Nominal voltage | Voltage range | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ (40 °C) s.p. II |
|-------------------------------|-------------|-----------------|---------------|----------------------|------------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|---|
| | | VDC | VDC | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VTS0030XUFBS QG 030-148/12 | 9392708001 | 12 | 8...14 | A | ① ② ③ | 69.0 | 40.6 | 4 450 | 4.9 | 5.9 | 49 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 62.0 | 36.5 | 4 750 | 4.3 | 5.8 | | | | |
| | | | | | | 46.8 | 27.5 | 5 220 | 3.5 | 5.5 | | | | |
| VTS0030XUFCS QG 030-198/12 | 9392715011 | 12 | 8...14 | B | ① ② ③ | 90.0 | 53.0 | 4 300 | 5.7 | 6.0 | 51 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 81.0 | 47.7 | 4 490 | 5.1 | 5.8 | | | | |
| | | | | | | 68.0 | 40.0 | 4 740 | 4.5 | 5.6 | | | | |
| VTS0030XUFCS QG 030-303/12 | 9392715001 | 12 | 8...14 | C | ① ② ③ ④ | 128.0 | 75.3 | 3 950 | 7.3 | 6.2 | 51 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 118.0 | 69.5 | 4 150 | 6.7 | 6.0 | | | | |
| | | | | | | 104.0 | 61.2 | 4 420 | 5.9 | 5.8 | | | | |
| | | | | | | 85.0 | 50.0 | 4 720 | 4.9 | 5.5 | | | | |
| VTS0030XUFCS QG 030-353/12 | 9392715015 | 12 | 8...14 | D | ① ② ③ ④ | 139.0 | 81.8 | 3 700 | 8.2 | 6.1 | 51 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 127.0 | 74.7 | 3 950 | 7.3 | 6.1 | | | | |
| | | | | | | 108.0 | 63.6 | 4 350 | 6.1 | 6.0 | | | | |
| | | | | | | 75.0 | 44.1 | 4 820 | 4.6 | 5.9 | | | | |
| VTS0030XUFBS QG 030-148/14 | 9392708002 | 24 | 16...28 | A | ① ② ③ | 66.0 | 38.8 | 4 450 | 4.7 | 5.9 | 49 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 59.0 | 34.7 | 4 700 | 4.2 | 5.8 | | | | |
| | | | | | | 44.0 | 25.9 | 5 080 | 3.5 | 5.5 | | | | |
| VTS0030XUFCS QG 030-198/14 | 9392715013 | 24 | 16...28 | B | ① ② ③ | 92.0 | 54.1 | 4 400 | 6.3 | 6.0 | 51 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 83.0 | 48.9 | 4 580 | 5.7 | 5.8 | | | | |
| | | | | | | 70.0 | 41.2 | 4 830 | 4.9 | 5.6 | | | | |
| VTS0030XUFCS QG 030-303/14 | 9392715002 | 24 | 16...28 | C | ① ② ③ ④ | 135.0 | 79.5 | 4 080 | 8.3 | 6.2 | 51 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 125.0 | 73.6 | 4 290 | 7.6 | 6.0 | | | | |
| | | | | | | 110.0 | 64.7 | 4 600 | 6.7 | 5.8 | | | | |
| | | | | | | 90.0 | 53.0 | 4 950 | 5.6 | 5.6 | | | | |
| VTS0030XUFCS QG 030-353/14 | 9392715008 | 24 | 16...28 | D | ① ② ③ ④ | 142.0 | 83.6 | 3 800 | 7.6 | 6.1 | 51 | -20...+60 | 30 000 | 50 000 |
| | | | | | | 127.0 | 74.7 | 4 040 | 6.8 | 6.1 | | | | |
| | | | | | | 106.0 | 62.4 | 4 360 | 5.8 | 6.0 | | | | |
| | | | | | | 72.0 | 42.4 | 4 790 | 4.5 | 5.9 | | | | |

Subject to changes.

The values for service life were recorded with the fan installed horizontally.

Technical drawing

Dimensions in mm



| Type | L | L ₁ | Mass |
|-------------------------------|------------|----------------|-------|
| VTS0030XUFBS QG 030-148/.. | 203.4 +1.5 | 148 | 235 g |
| VTS0030XUFCS QG 030-198/.. | 260.4 +1.5 | 198 | 290 g |
| VTS0030XUFCS QG 030-303/.. | 365.4 +1.5 | 303 | 380 g |
| VTS0030XUFCS QG 030-353/.. | 415.4 +1.5 | 353 | 415 g |

VFS0108XULCS

DC centrifugal fans and blowers · max. 225 m³/h · Ø 108 mm



Material/Surface

- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Painted black

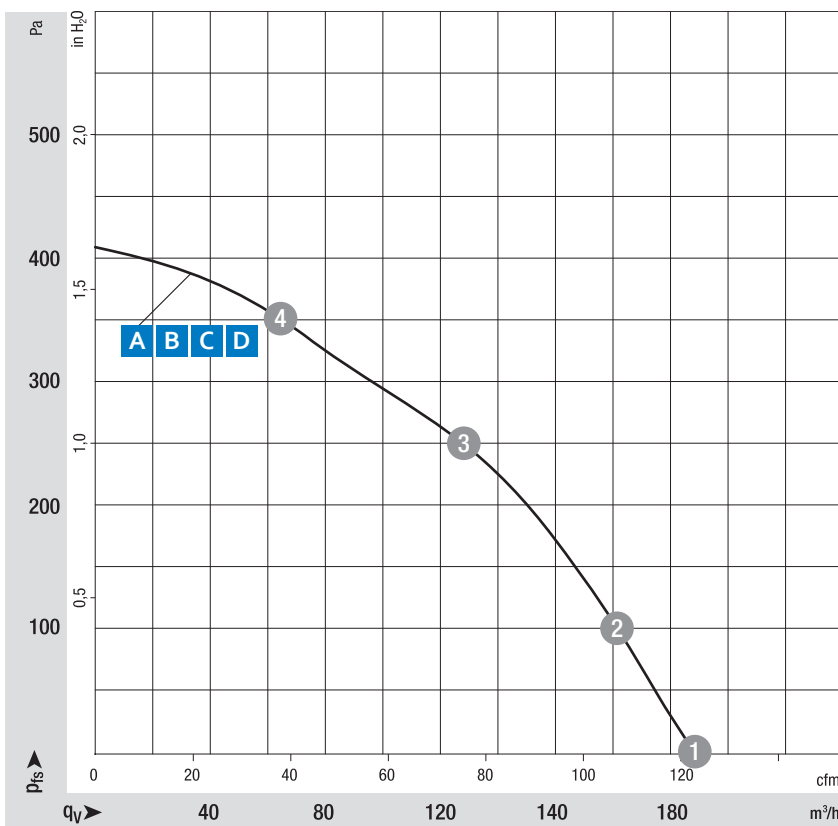
Characteristics

- Version: DC centrifugal fan with housing (without flange), forward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 22
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: centrifugal fan 0.7 kg; centrifugal blower 1.4 kg

Approvals

- EAC;
- **B**: UL 1004-1; CSA C22.2 Nr. 77;
- **B + D**: EN 62368-1;
- **C**: EN 60034-1; EN 60204-1; EN 60335-1; CCC on request (only applicable with >36V)

| | |
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| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

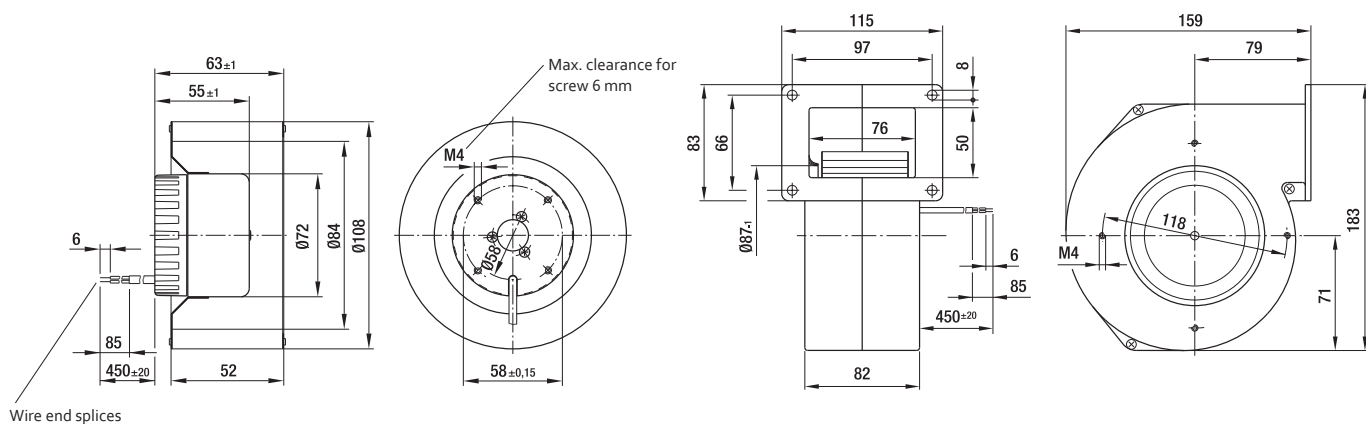
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Min. back-pressure Pa | Perm. ambient temperature °C |
|--------------|--------------|--------------------------------|------------------------|----------------------|----------------------|--|-------------------|-----|--------------|------------------------|--------------------|--------------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | | |
| VFS0108XULCS | R1G108AB1702 | centrifugal fan | 24 | 16...28 | A | <ul style="list-style-type: none"> ① ② ③ ④ | 225 | 130 | 3 235 | 55 | 2.26 | 0 | -25...+60 |
| | | | | | | | 190 | 115 | 3 480 | 51 | 2.06 | 149 | |
| VHS0108XULCS | G1G108AB1702 | centrifugal blower with flange | 24 | 16...28 | B | | 140 | 85 | 3 800 | 44 | 1.76 | 313 | |
| | | | | | | | 90 | 55 | 4 055 | 38 | 1.49 | 414 | |
| VFS0108XULCS | R1G108AB4102 | centrifugal fan | 48 | 36...57 | C | <ul style="list-style-type: none"> ① ② ③ ④ | 220 | 130 | 3 200 | 52 | 1.04 | 0 | -25...+60 |
| | | | | | | | 175 | 105 | 3 520 | 47 | 0.92 | 174 | |
| VHS0108XULCS | G1G108AB4102 | centrifugal blower with flange | 48 | 36...57 | D | | 115 | 65 | 3 875 | 40 | 0.76 | 327 | |
| | | | | | | | 65 | 40 | 4 100 | 34 | 0.66 | 415 | |

Subject to changes.

Technical drawing

Dimensions in mm



VFS0120XULCS

DC centrifugal fans and blowers · max. 275 m³/h · Ø 120 mm



Material/Surface

- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Galvanized

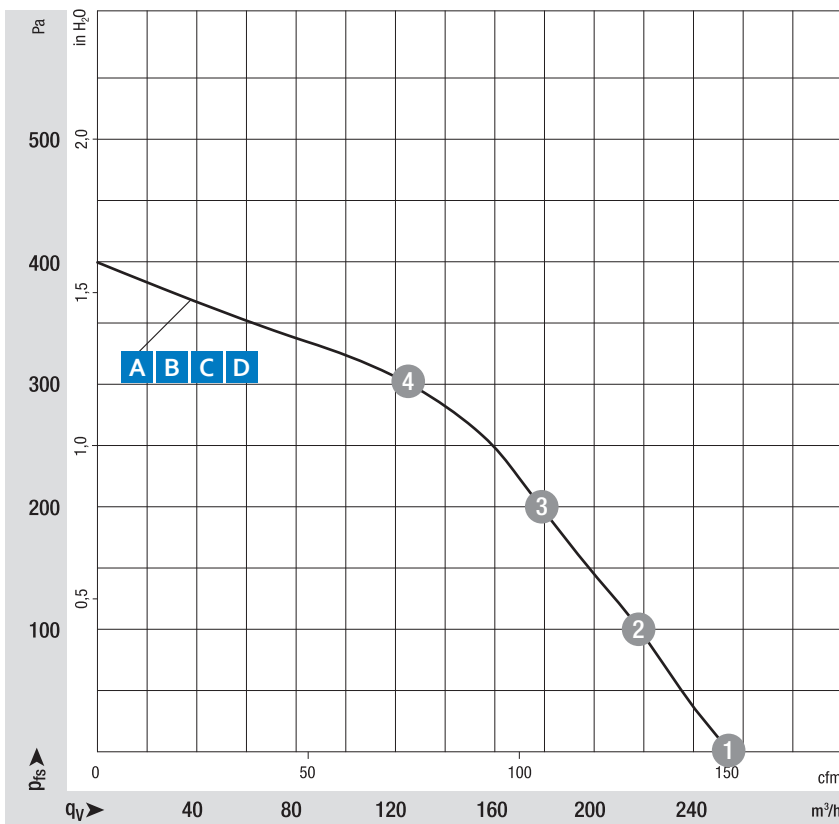
Characteristics

- Version: DC centrifugal fan with housing (without flange), forward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 22
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: centrifugal fan 0.8 kg; centrifugal blower 1.5 kg

Approvals

- EAC;
- A: 62368-1; UL 1004-1;
- B: EN 60034-1; EN 60204-1; EN 62368-1; UL 1004-1; CSA C22.2 Nr. 77;
- D: EN 60034-1; EN 60204-1; EN 60335-1; CCC on request (only applicable with >36V)

| | |
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Measuring conditions

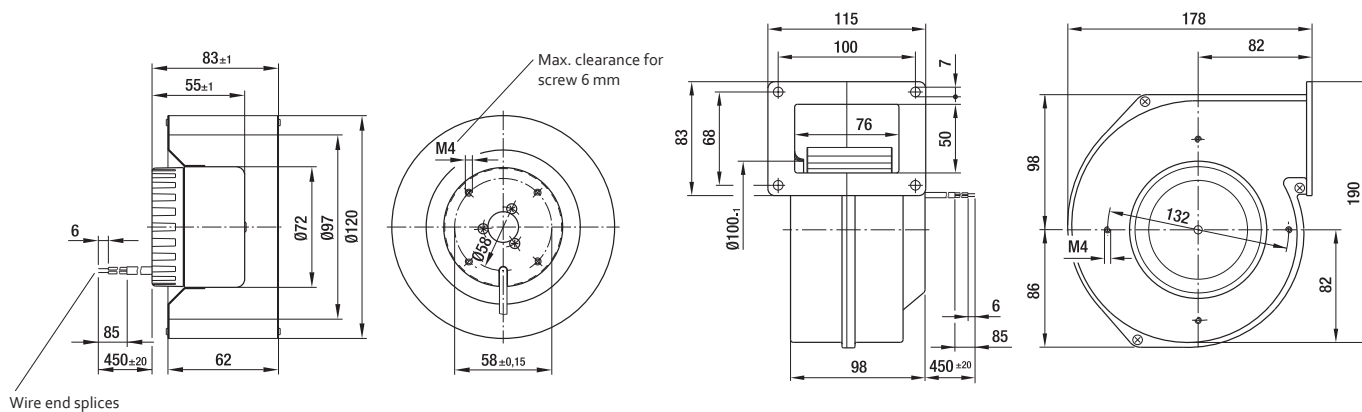
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Min. back-pressure Pa | Perm. ambient temperature °C |
|--------------|--------------|--------------------------------|------------------------|----------------------|----------------------|--|----------|-----|--------------|------------------------|--------------------|--------------------------|---------------------------------|
| | | | | | | | m³/h | cfm | | | | | |
| VFS0120XULCS | R1G120AB6702 | centrifugal fan | 24 | 16...28 | A | <ul style="list-style-type: none"> 1 2 3 4 | 270 | 160 | 2380 | 49 | 2.09 | 0 | -25...+60 |
| | | | | | | | 215 | 125 | 2685 | 45 | 1.81 | 165 | |
| VHS0120XULCS | G1G120AB6702 | centrifugal blower with flange | 24 | 16...28 | B | | 150 | 90 | 3055 | 38 | 1.51 | 351 | |
| | | | | | | | 90 | 55 | 3295 | 32 | 1.25 | 403 | |
| VFS0120XULCS | R1G120AB7102 | centrifugal fan | 48 | 36...57 | C | <ul style="list-style-type: none"> 1 2 3 4 | 275 | 160 | 2420 | 51 | 1.05 | 0 | -25...+60 |
| | | | | | | | 240 | 140 | 2615 | 48 | 0.95 | 119 | |
| VHS0120XULCS | G1G120AB7102 | centrifugal blower with flange | 48 | 36...57 | D | | 200 | 115 | 2855 | 45 | 0.87 | 246 | |
| | | | | | | | 140 | 85 | 3155 | 38 | 0.74 | 382 | |

Subject to changes.

Technical drawing

Dimensions in mm



VFS0133XULCS

DC centrifugal fans and blowers · max. 245 m³/h · Ø 133 mm



Material/Surface

- Housing: Hot-dip galvanized sheet steel
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Galvanized

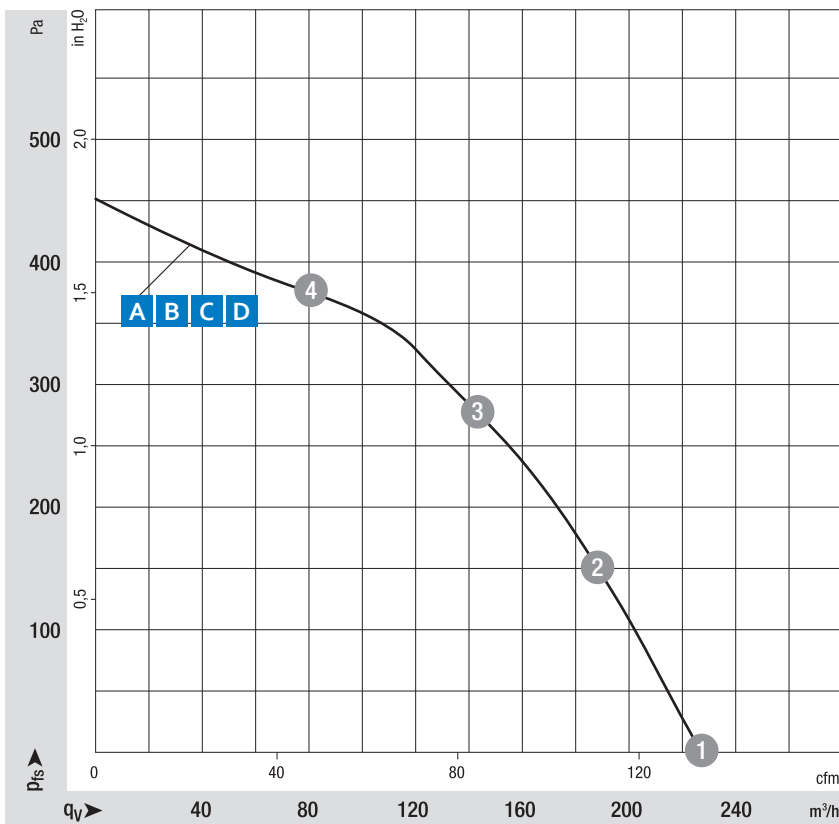
Characteristics

- Version: DC centrifugal fan with housing (without flange), forward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 22
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: centrifugal fan 0.7 kg; centrifugal blower 1.3 kg

Approvals

- EAC;
- A: EN 62368-1;
- B: EN 60034-1; EN 602041; EN 60335-1; UL 1004-1; CSA C22.2 Nr. 77; CCC on request (only applicable with >36V)

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| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

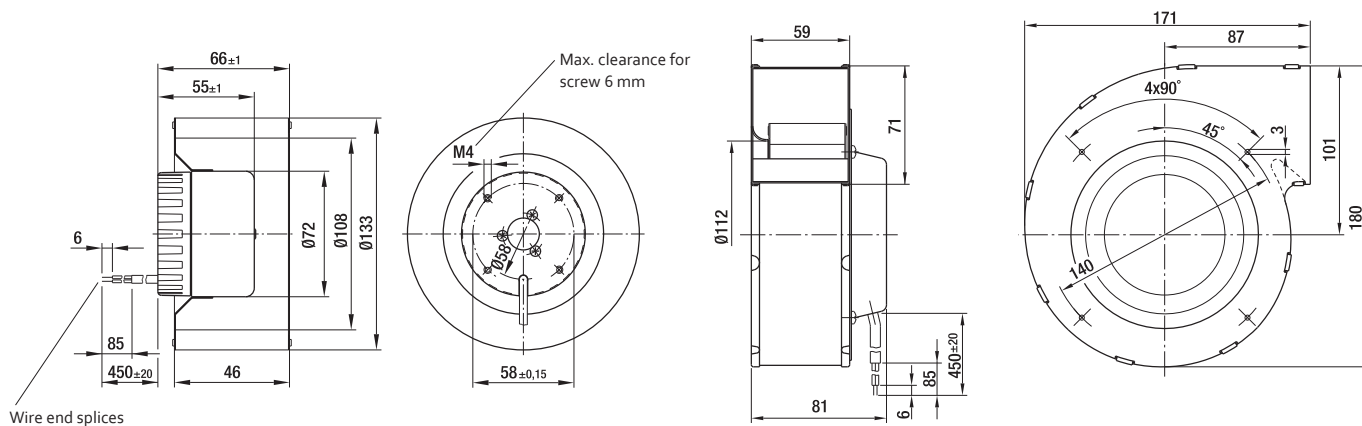
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Min. back-pressure Pa | Perm. ambient temperature °C |
|--------------|--------------|--------------------------------|------------------------|----------------------|----------------------|--|-------------------|-----|--------------|------------------------|--------------------|--------------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | | |
| VFS0133XULCS | R1G133AE1902 | centrifugal fan | 24 | 16...28 | A | <ul style="list-style-type: none"> 1 2 3 4 | 240 | 140 | 2 155 | 50 | 2.13 | 0 | -25...+60 |
| | | | | | | | 200 | 120 | 2 385 | 45 | 1.87 | 164 | |
| | | | | | | | 150 | 90 | 2 725 | 40 | 1.59 | 319 | |
| | | | | | | | 100 | 60 | 3 020 | 33 | 1.30 | 403 | |
| VHS0133XULCS | G1G133DE1902 | centrifugal blower with flange | 24 | 16...28 | B | | | | | | | | |
| VFS0133XULCS | R1G133AE0302 | centrifugal fan | 48 | 36...57 | C | <ul style="list-style-type: none"> 1 2 3 4 | 245 | 145 | 2 175 | 58 | 1.26 | 0 | -25...+60 |
| | | | | | | | 200 | 120 | 2 415 | 51 | 1.07 | 173 | |
| | | | | | | | 165 | 100 | 2 670 | 46 | 0.94 | 294 | |
| | | | | | | | 110 | 65 | 3 075 | 40 | 0.79 | 429 | |
| VHS0133XULCS | G1G133DE0302 | centrifugal blower with flange | 48 | 36...57 | D | | | | | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VFS0140XULES

DC centrifugal fans and blowers · max. 435 m³/h · Ø 140 mm



Material/Surface

- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Painted black

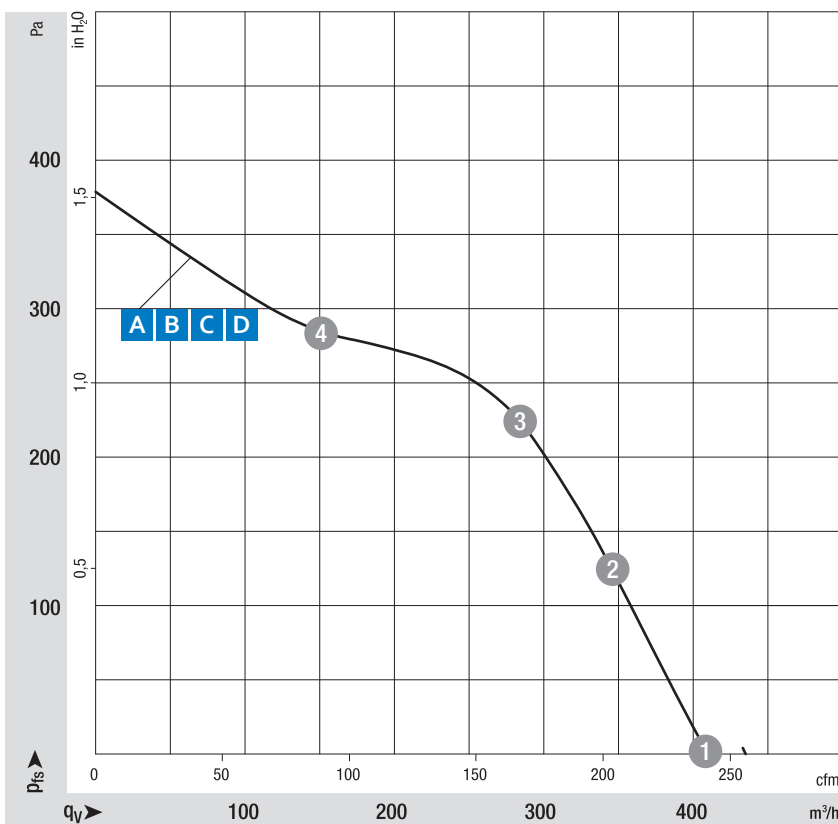
Characteristics

- Version: DC centrifugal fan with housing (flange), forward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 22; depending on installation and position
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: centrifugal fan 1.0 kg; centrifugal blower 2.5 kg

Approvals





- EAC;
- B + D EN 60034-1; EN 60204-1; EN 60335-1; CCC on request (only applicable with >36V)

| | |
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| more at | www.ebmpapst.com |



Measuring conditions

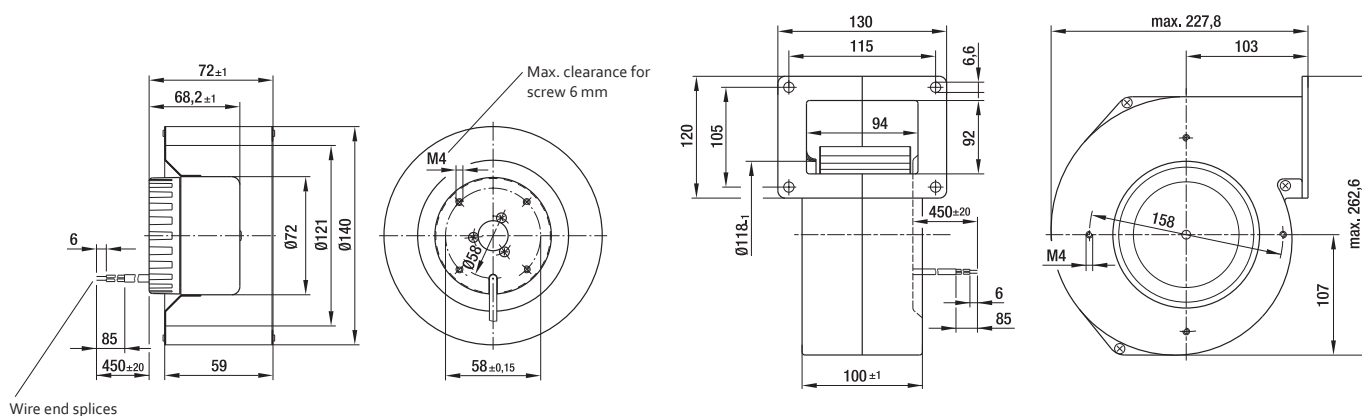
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | | Nominal voltage | | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Min. back-pressure | Perm. ambient temperature |
|--------------|--------------|--------------------------------|---|-----------------|---------|----------------------|--|-------------------|-----|-------|-------------------|---------------|--------------------|---------------------------|
| | | | | VDC | VDC | | | m ³ /h | cfm | | | | | |
| VFS0140XULES | R1G140AV1702 | centrifugal fan |  | 24 | 16...28 | A | <ul style="list-style-type: none"> ① ② ③ ④ | 435 | 255 | 1875 | 67 | 2.80 | 0 | -25...+60 |
| VHS0140XULES | G1G140AV1702 | centrifugal blower with flange |  | 24 | 16...28 | B | | 370 | 220 | 2025 | 63 | 2.57 | 138 | |
| | | | | | | | | 275 | 160 | 2285 | 57 | 2.25 | 288 | |
| | | | | | | | | 150 | 90 | 2590 | 44 | 1.75 | 346 | |
| VFS0140XULES | R1G140AV2102 | centrifugal fan |  | 48 | 36...57 | C | <ul style="list-style-type: none"> ① ② ③ ④ | 435 | 255 | 1855 | 66 | 1.40 | 0 | -25...+60 |
| VHS0140XULES | G1G140AV2102 | centrifugal blower with flange |  | 48 | 36...57 | D | | 355 | 210 | 2050 | 61 | 1.25 | 160 | |
| | | | | | | | | 265 | 155 | 2305 | 55 | 1.10 | 302 | |
| | | | | | | | | 150 | 90 | 2560 | 43 | 0.86 | 338 | |

Subject to changes.

Technical drawing

Dimensions in mm



VFS0146XUNCS

DC centrifugal fans and blowers · max. 500 m³/h · Ø 146 mm



Material/Surface

- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Painted black

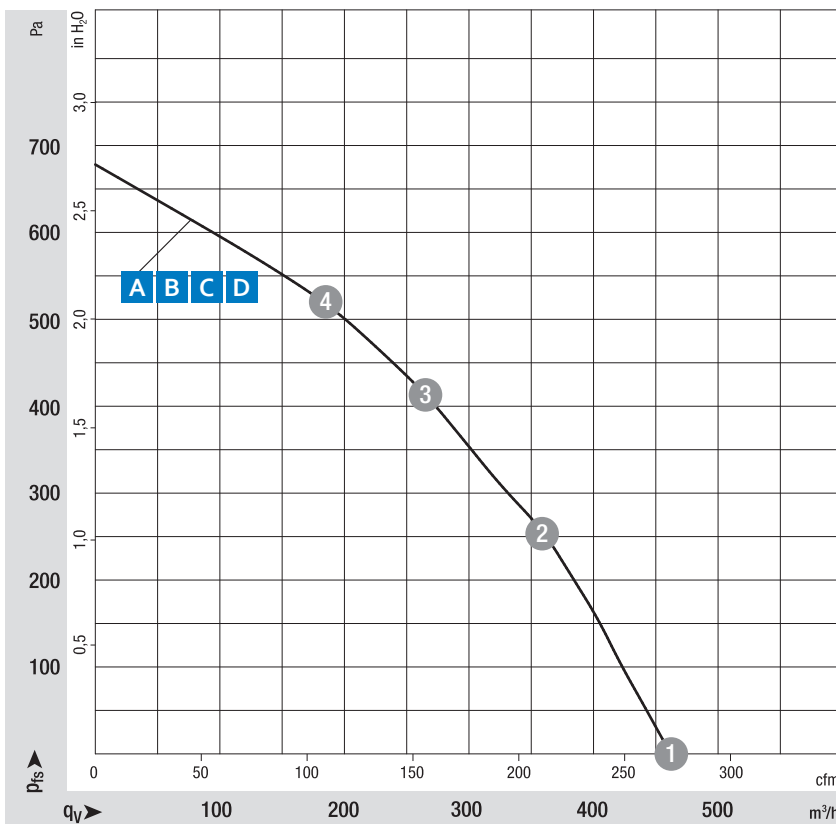
Characteristics

- Version: DC centrifugal fan with housing (flange), forward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 42
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: centrifugal fan 1.4 kg; centrifugal blower 2.8 kg

Approvals

- CSA C22.2 Nr.77; EAC; UL 1004-1; **A + B + D**: EN 62368-1; CCC on request (only applicable with >36V)

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| more at | www.ebmpapst.com |

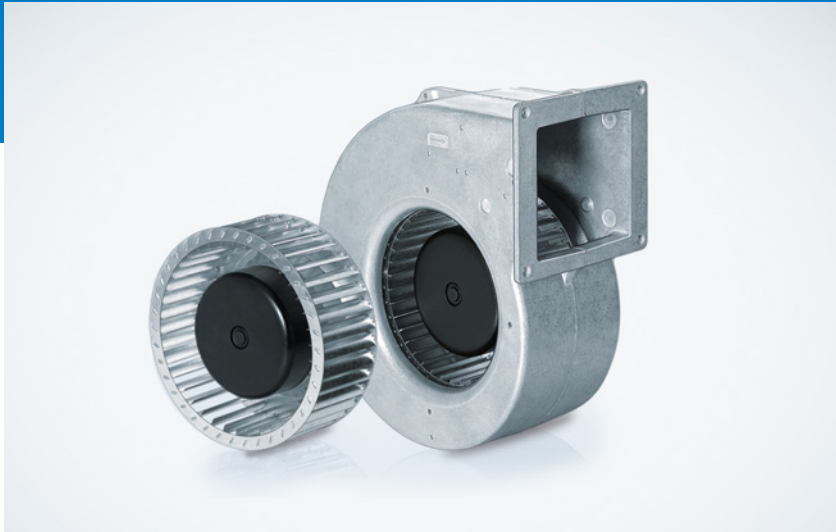


Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

VFS0160XUNCS

DC centrifugal fans and blowers · max. 545 m³/h · Ø 160 mm



Material/Surface

- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Painted black

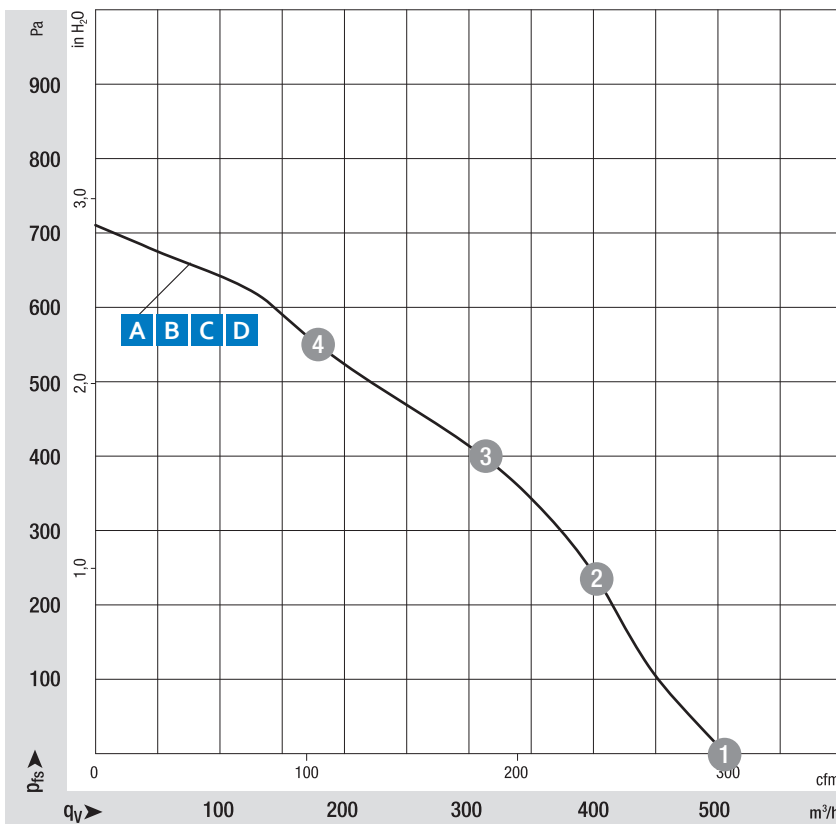
Characteristics

- Version: DC centrifugal fan with housing (flange), forward-curved, single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 42
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: centrifugal fan 1.4 kg; centrifugal blower 2.8 kg

Approvals

- CSA C22.2 Nr.77; EAC; UL 1004-1; B + D: EN 62368-1; CCC on request (only applicable with >36V)

| | |
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| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

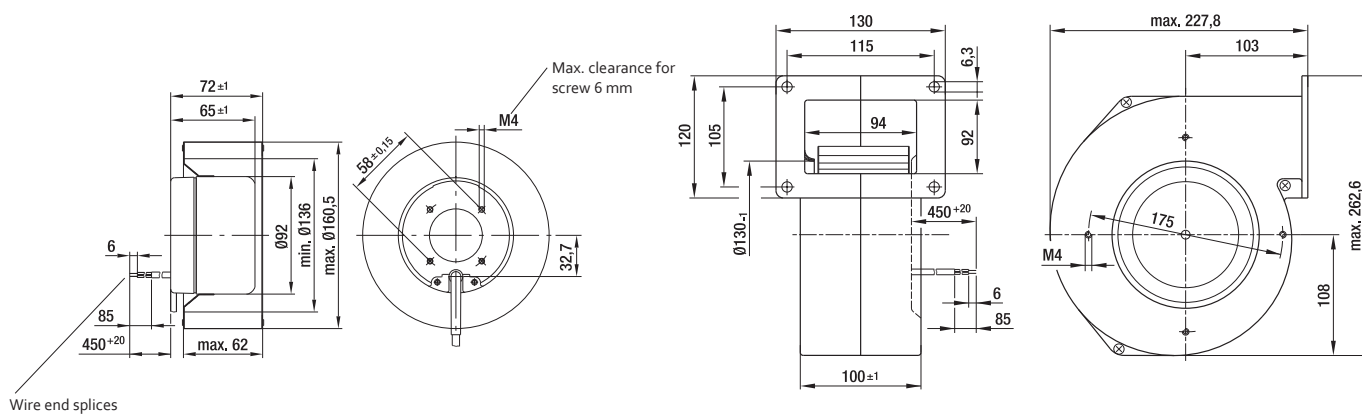
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage VDC | Voltage range VDC | Characteristic curve | Operating point | Air flow | | Speed rpm | Power consumption W | Input current A | Min. back-pressure Pa | Perm. ambient temperature °C |
|--------------|--------------|--------------------------------|------------------------|----------------------|----------------------|--|-------------------|-----|--------------|------------------------|--------------------|--------------------------|---------------------------------|
| | | | | | | | m ³ /h | cfm | | | | | |
| VFS0160XUNCS | R1G160AH2952 | centrifugal fan | 24 | 16...28 | A | <ul style="list-style-type: none"> ① ② ③ ④ | 540 | 320 | 1 870 | 134 | 6.43 | 0 | -25...+60 |
| | | | | | | | 450 | 256 | 2 115 | 121 | 5.54 | 229 | |
| | | | | | | | 340 | 200 | 2 420 | 110 | 4.82 | 456 | |
| | | | | | | | 200 | 120 | 2 825 | 102 | 4.20 | 645 | |
| VHS0160XUNCS | G1G160BH2952 | centrifugal blower with flange | 24 | 16...28 | B | | | | | | | | |
| VFS0160XUNCS | R1G160AH3952 | centrifugal fan | 48 | 36...57 | C | <ul style="list-style-type: none"> ① ② ③ ④ | 545 | 320 | 1 890 | 134 | 3.27 | 0 | -25...+60 |
| | | | | | | | 450 | 265 | 2 145 | 120 | 2.78 | 235 | |
| | | | | | | | 340 | 200 | 2 470 | 111 | 2.40 | 468 | |
| | | | | | | | 195 | 115 | 2 885 | 103 | 2.10 | 660 | |
| VHS0160XUNCS | G1G160BH3952 | centrifugal blower with flange | 48 | 36...57 | D | | | | | | | | |

Subject to changes.

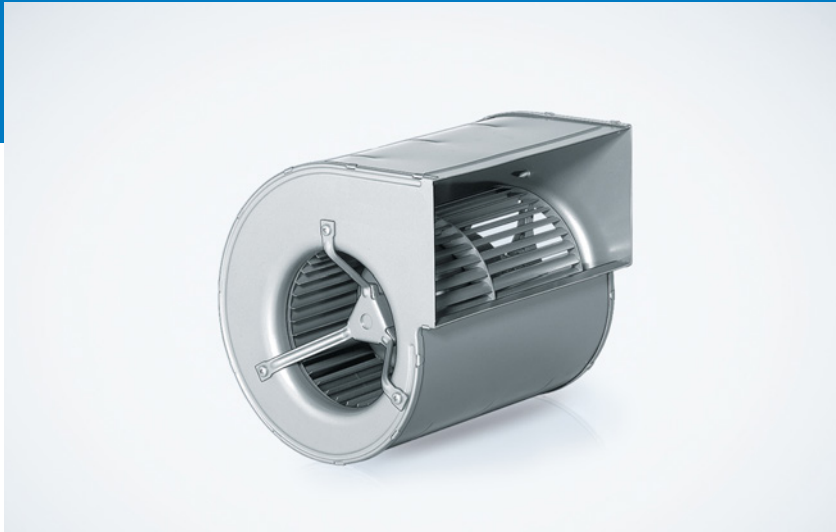
Technical drawing

Dimensions in mm



VHD0133XUNCS

DC centrifugal blower · max. 745 m³/h · Ø 133 mm



Material/Surface

- Housing: Galvanized Sheet steel
- Impeller: Galvanized Sheet steel
- Rotor: Painted black

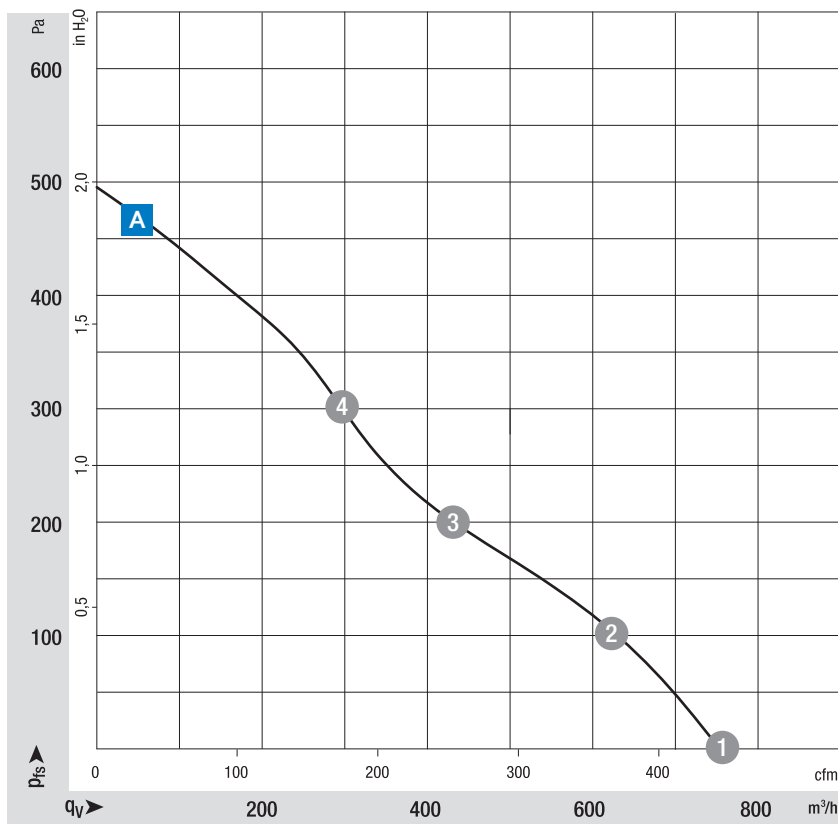
Characteristics

- Version: DC centrifugal fan, forward-curved, dual inlet, with housing (flange or without flange)
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 42
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 2.8 kg

Approvals

- CSA C22.2 Nr.77; EAC; UL 1004-1; CCC on request (only applicable with >36V)

| | |
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| more at | www.ebmpapst.com |



Measuring conditions

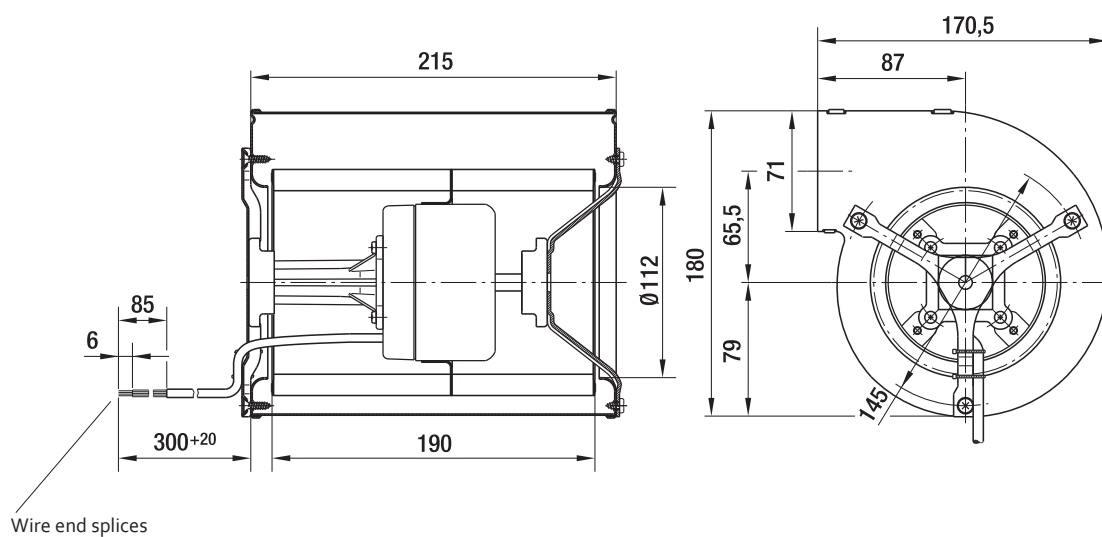
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage | | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Min. back-pressure | Perm. ambient temperature |
|--------------|--------------|--------------------------------|-----------------|---------|----------------------|-----------------|-------------------|-----|-------|-------------------|---------------|--------------------|---------------------------|
| | | | VDC | VDC | | | m ³ /h | cfm | | | | | |
| VHD0133XUNCS | D1G133AB2952 | centrifugal blower with flange | 24 | 16...28 | A | ① | 745 | 435 | 1900 | 135 | 6.23 | 55 | -25...+60 |
| | | | | | | ② | 535 | 315 | 2300 | 116 | 5.04 | 185 | |
| | | | | | | ③ | 375 | 220 | 2655 | 107 | 4.41 | 278 | |
| | | | | | | ④ | 250 | 145 | 3050 | 97 | 3.87 | 417 | |
| VHD0133XUNCS | D1G133AB3952 | centrifugal blower with flange | 48 | 36...57 | A | ① | 745 | 440 | 1890 | 130 | 3.24 | 58 | -25...+60 |
| | | | | | | ② | 575 | 340 | 2230 | 114 | 2.64 | 174 | |
| | | | | | | ③ | 375 | 220 | 2640 | 104 | 2.21 | 290 | |
| | | | | | | ④ | 265 | 155 | 3005 | 98 | 1.98 | 412 | |

Subject to changes.

Technical drawing

Dimensions in mm



VHD0133XUNES

DC centrifugal blower · max. 1 105 m³/h · Ø 133 mm



Material/Surface

- Housing: Galvanized Sheet steel
- Impeller: Galvanized Sheet steel
- Rotor: Painted black

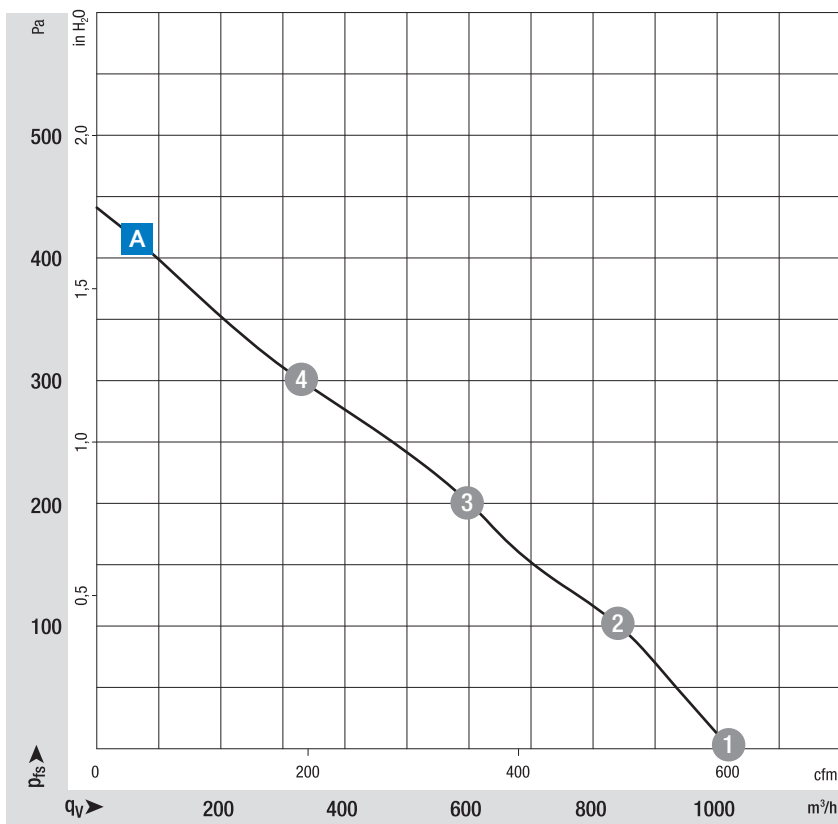
Characteristics

- Version: DC centrifugal fan, forward-curved, dual inlet, with housing (without flange)
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 42
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 3.4 kg

Approvals

- EN 62368-1; CSA C22.2 Nr.77; EAC; UL 1004-1

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

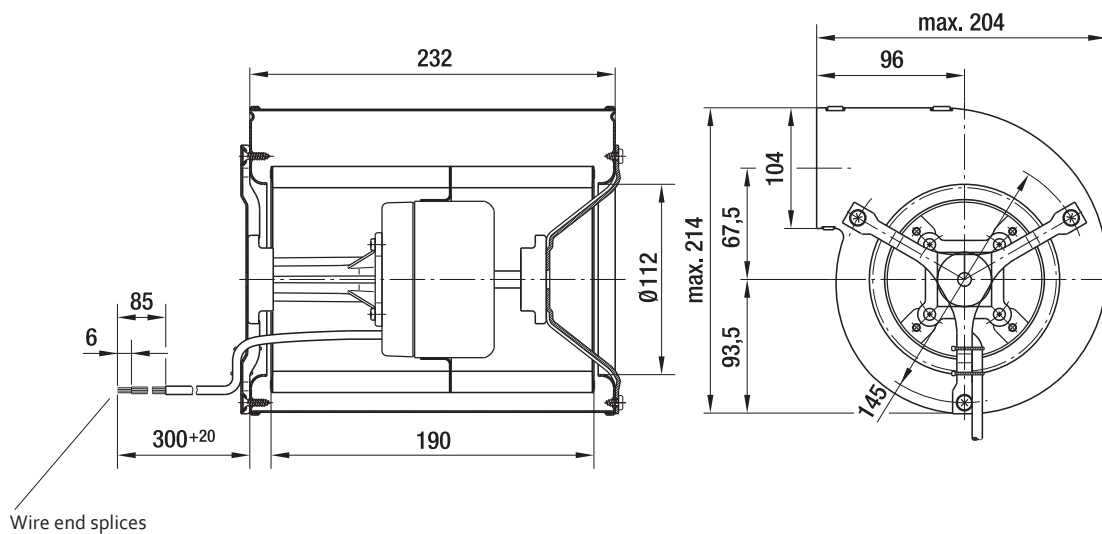
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Fan type | Nominal voltage | | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Min. back-pressure | Perm. ambient temperature |
|--------------|--------------|--------------------------------|-----------------|----------|----------------------|-----------------|-------------------|-----|-------|-------------------|---------------|--------------------|---------------------------|
| | | | VDC | VDC | | | m ³ /h | cfm | | | | | |
| VHD0133XUNES | D1G133DC1352 | centrifugal blower with flange | 24 | 16...28 | A | ① | 1 095 | 645 | 1 675 | 147 | 6.46 | 0 | -25...+60 |
| | | | | | | | 770 | 450 | 2 095 | 127 | 5.18 | 155 | |
| | | | | | | | 465 | 275 | 2 530 | 108 | 4.27 | 318 | |
| | | | | | | | 275 | 160 | 2 745 | 92 | 3.64 | 392 | |
| VHD0133XUNES | D1G133DC1752 | centrifugal blower with flange | 48 | 36...579 | A | ① | 1 105 | 650 | 1 700 | 145 | 3.32 | 0 | -25...+60 |
| | | | | | | | 905 | 530 | 1 925 | 134 | 2.94 | 117 | |
| | | | | | | | 705 | 415 | 2 200 | 125 | 2.63 | 210 | |
| | | | | | | | 505 | 295 | 2 520 | 114 | 2.34 | 330 | |

Subject to changes.

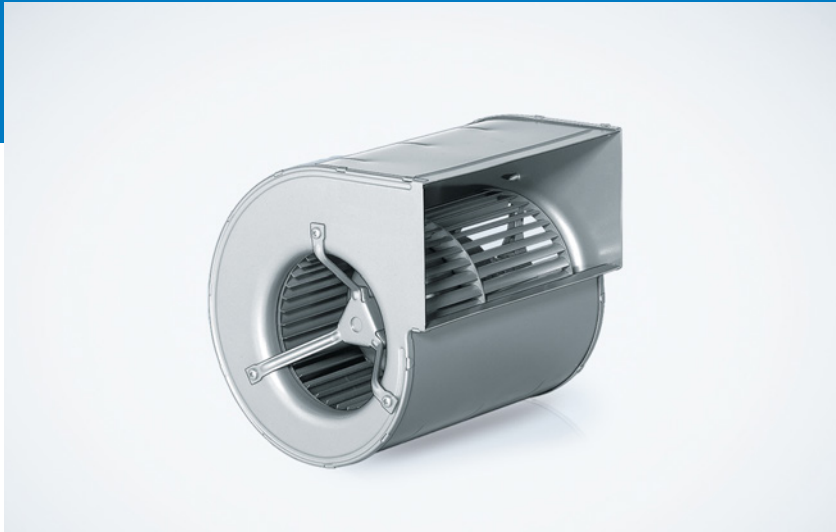
Technical drawing

Dimensions in mm



VHD0146XUNES

DC centrifugal blower · max. 1 085 m³/h · Ø 146 mm



Material/Surface

- Housing: Galvanized Sheet steel
- Impeller: Galvanized Sheet steel
- Rotor: Painted black

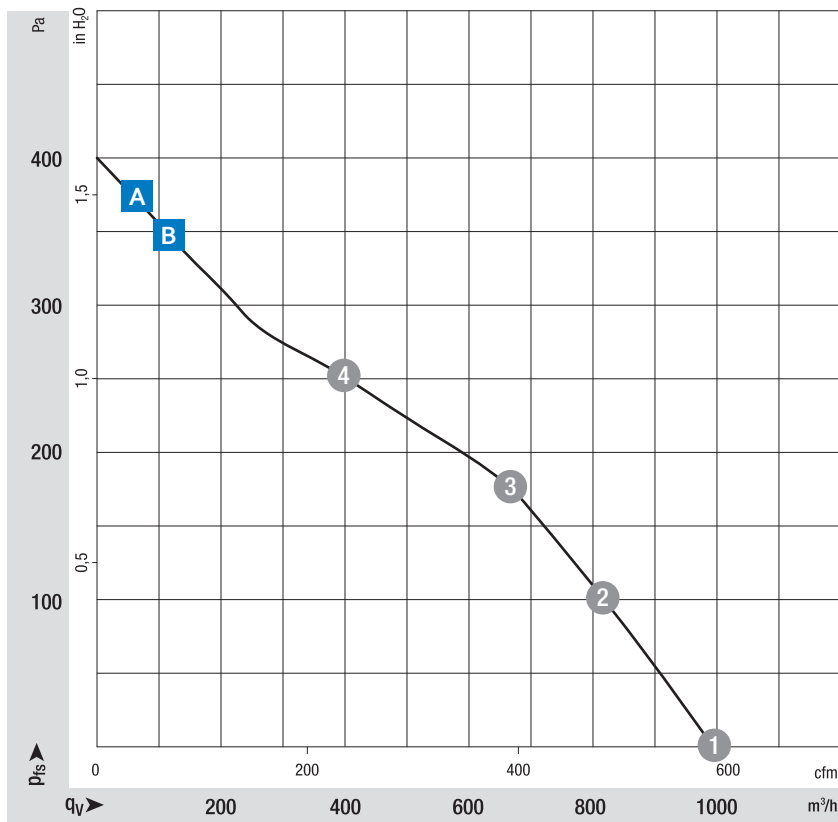
Characteristics

- Version: DC centrifugal fan, forward-curved, dual inlet, with housing (without flange)
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP 42
- Electrical protection class: III; requires supply with safety extra-low voltage SELV
- Weight: 3.1 kg; 3.4 kg

Approvals

- CSA C22.2 Nr.77; EAC; UL 1004-1;
- **B**: EN 60034-1; EN 60204-1; EN 60335-1

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

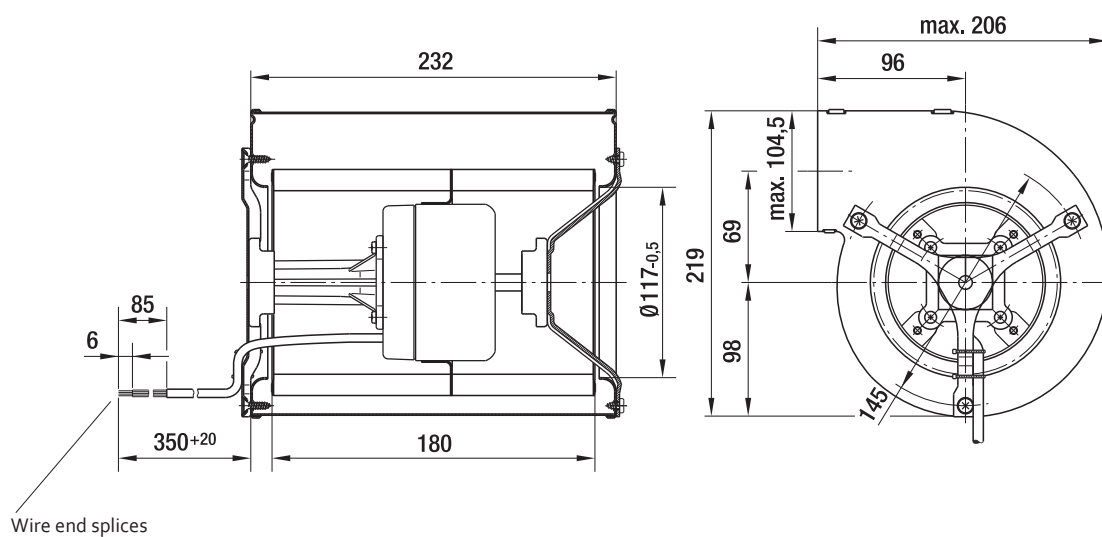
Noise: Total sound p_{r,wer} level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Fan type | Nominal voltage | | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Input current | Min. back-pressure | Perm. ambient temperature |
|--------------|--------------|--------------------------------|-----------------|---------|----------------------|-----------------|-------------------|-----|-------|-------------------|---------------|--------------------|---------------------------|
| | | | VDC | VDC | | | m ³ /h | cfm | | | | | |
| VHD0146XUNES | D1G146AA1952 | centrifugal blower with flange | 24 | 16...28 | A | ① | 1 085 | 640 | 1 445 | 130 | 5.56 | 0 | -25...+60 |
| | | | | | | | 915 | 535 | 1 630 | 120 | 4.94 | 92 | |
| | | | | | | | 735 | 430 | 1 840 | 111 | 4.45 | 190 | |
| | | | | | | | 500 | 295 | 2 115 | 97 | 3.81 | 270 | |
| VHD0146XUNES | D1G146AA3352 | centrifugal blower with flange | 48 | 36...57 | B | ① | 1 070 | 630 | 1 475 | 130 | 2.86 | 0 | -25...+60 |
| | | | | | | | 925 | 545 | 1 640 | 121 | 2.58 | 91 | |
| | | | | | | | 755 | 445 | 1 840 | 114 | 2.35 | 187 | |
| | | | | | | | 490 | 290 | 2 175 | 100 | 2.05 | 295 | |

Subject to changes.

Technical drawing

Dimensions in mm



ebm-papst

DC fans – specials



ebmpapst

engineering a better life

DC fans

Specials

| | Page |
|---------------------------------|------|
| Technical information | 254 |
| Speed signals | 256 |
| Alarm signals | 258 |
| Speed setting | 262 |
| FanCheck / R4R-Feature | 265 |
| Climate and moisture protection | 266 |

Cooling capacity and efficiency

Greater power density, increasing miniaturization and extreme electronic component density are placing increased demands on the cooling capacity and efficiency of fans. Therefore, intelligent and space-saving integration of the fan in the device configuration is very important:

- Tailor-made cooling adapted to the situation as and when required.
- Programmable cooling by defining speed profiles.
- Transparency of function thanks to complete, interactive monitoring in all operating conditions.

Standard fans in electronics cooling have proven themselves a million times over.

With a constant speed and an appropriate sound level, they continuously provide the air flow required for extreme cases. But these extreme situations occur seldom – if at all – during operation. What is needed is an intelligent fan that adapts automatically to the level of cooling required at the time.

ebm-papst provides intelligent cooling concepts that are optimally adapted to practical requirements. For example:

Speed adjustment via temperature sensor

ebm-papst answers with a complete range of DC fans with temperaturecontrolled speed adjustment via a temperature sensor, available in a variety of standard dimensions.

Installation is very simple. Either an external temperature sensor in the form of an exposed wire that can be placed anywhere, or an internal sensor located directly in the fan hub in the air flow provides continuous and undissipated thermal information to the control electronics for speed adjustment. A range of temperature sensors can be found on page 262.

DC fans with separate control input

Open or closed-loop speed control is also possible with DC fans that have a separate control input. So a control voltage or a pulse-width modulated signal can be used to vary the speed. These options are used primarily in devices that have the appropriate standard interfaces and require varied fans depending on the load.

Speed signal

DC fans with speed signal.

The integrated "electronic tachometer" continuously provides an actual speed signal for external evaluation. A very simple signal evaluation on the customer side informs the user of the current fan speed at all times. The speed signal is provided by a separate wire.

Alarm signal

For applications that require monitored fan operation with an alarm signal, ebm-papst offers a number of alarm signals variants. Depending on the type of fan in question, the signal will either be static, already evaluated, or a continuous, interface-compatible, high or low signal. The alarm signal is provided by a separate wire.

Powerful GreenTech motor

Fans with three-phase EC drives and microprocessor-controlled motor electronics. The torque of these three-phase motors, which is virtually independent of the rotor position, allows the fan to run very smoothly. The speed of these fans can be controlled over a very wide speed range by means of PWM, analog voltage, or temperature. Optionally, the fans can be supplied with reversible direction of rotation and active brake operation.

Robust over the long term

Our fan solutions offer maximum operational reliability even in harsh ambient conditions and are extremely durable. They withstand temperature changes, high humidity levels and UV light. We can say this with confidence because we subject each of our solutions to the following voluntary, extremely demanding tests:

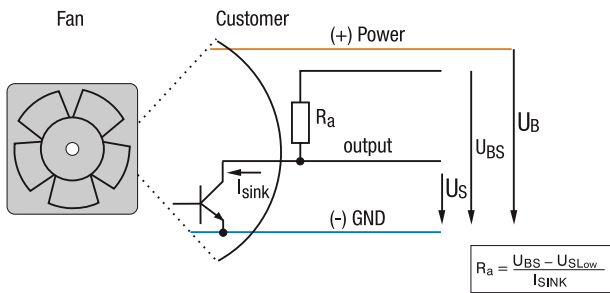
- Shock and vibration test
- Corrosion test
- Highly accelerated life test (HALT)
- Temperature change rain test
- EMC test

Speed signals

Speed signal /2

- Speed-proportional, square-wave signal for external monitoring of the fan motor speed
- 2, 3, or 6 pulses per revolution
- Open-collector signal output
- Extremely wide operating voltage range
- Easy adaptation to user interface
- Connection via separate cable
- The sensor signal also serves as a major comparison variable for setting and maintaining the setpoint speed for interactive or controlled cooling with one or more interconnected fans.

Electrical hookup



All voltages measured to ground. External load resistor $R_a / U_s / U_{BS}$ required.

Available on request

- Electrically isolated speed signal circuit
- Varying voltage potentials for power and logic circuit

Signal data

| | Speed signal $U_{S,Low}$ | Condition I_{sink} | Speed signal $U_{S,High}$ | Tach operating voltage $U_{BS,max.}$ | Admissible sink current $I_{sink,max.}$ | Pulses per revolution* |
|-----------|-----------------------------|-------------------------|------------------------------|---|--|------------------------|
| Type | VDC | mA | VDC | VDC | mA | |
| 12 / 24 V | ≤ 0,4 | 2 | ≤ 30 | 30 | 4 | 2 |
| 48 V | ≤ 0,4 | 2 | ≤ 60 | 60 | 4 | 2 |

Subject to changes.

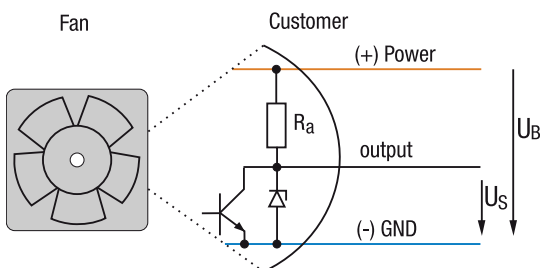
Standard value, can vary depending on fan series.

* Depending on the fan electronics other values are feasible e. g. 3 or 6.

Speed signal /12

- Speed-proportional, square-wave signal for external monitoring of the fan motor speed
- 2, 3, or 6 pulses per revolution
- TTL-compatible
- Integrated pull-up resistor
- Connection via separate cable
- The sensor signal also serves as a major comparison variable for setting and maintaining the setpoint speed for interactive or controlled cooling with one or more interconnected fans.

Electrical hookup



All voltages measured to ground.

Available on request

- Electrically isolated speed signal circuit
- Varying voltage potentials for power and logic circuit

Signal data

| | Speed signal $U_{S,Low}$ | Condition I_{sink} | Speed signal $U_{S,High}$ | Condition I_{source} | Admissible sink current $I_{sink,max.}$ | Pulses per revolution* |
|----------------|-----------------------------|-------------------------|------------------------------|---------------------------|--|------------------------|
| Type | VDC | mA | VDC | mA | mA | |
| 12 / 24 / 48 V | ≤ 0,4 | 1 | 2,5–5,5 | 1 | 1 | 2 |

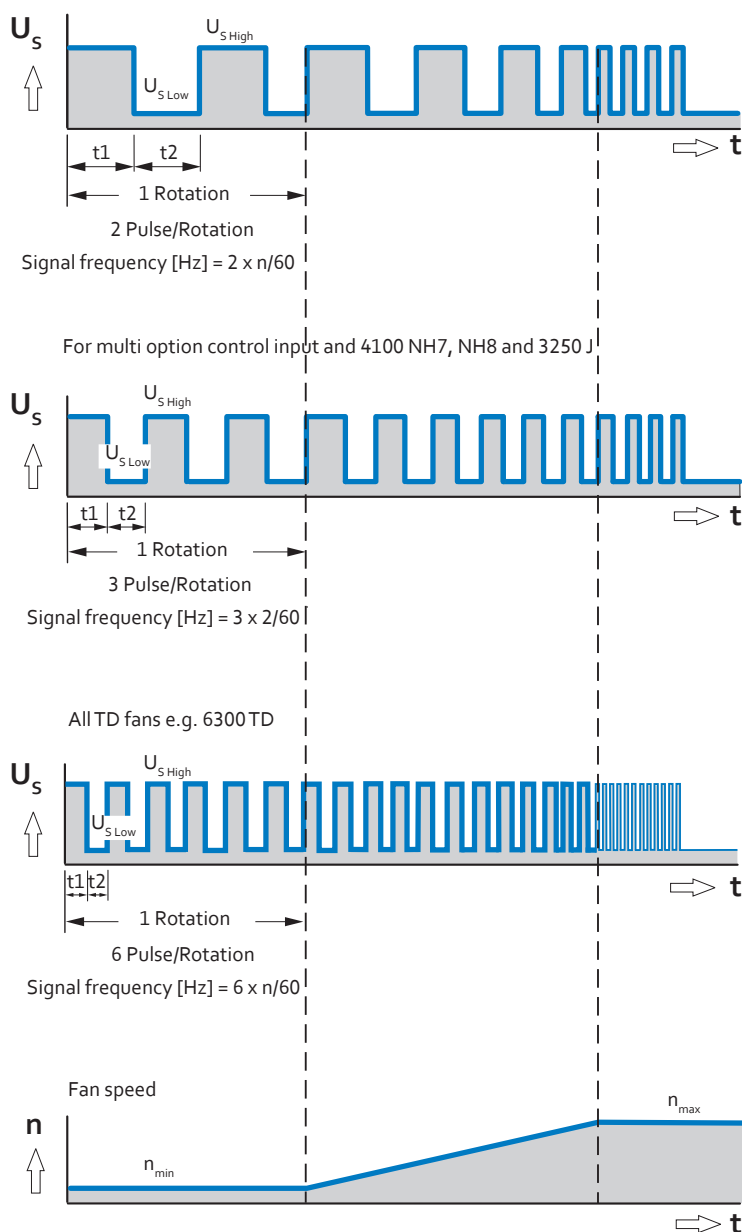
Subject to changes.

Standard value, can vary depending on fan series.

* Depending on the fan electronics other values are feasible e. g. 3 or 6.

Signal output voltage

Standard signal for all types (exceptions see below)



Note

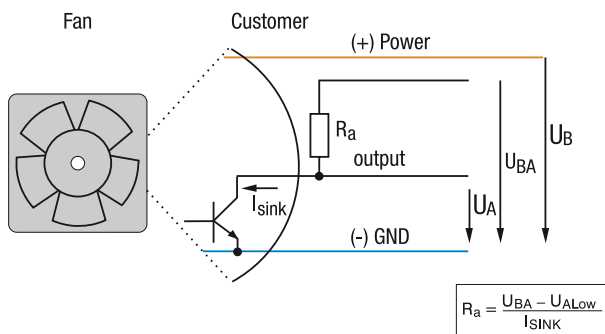
Fans that come with these fan specials could have variations with respect to the temperature range, voltage range, and power consumption compared to standard fans without specials.

Alarm signals

Alarm signal /17 speed limit

- Alarm signal for speed monitoring
- Signal output via open collector
- The fan emits a continuous high signal during trouble-free operation within the permissible voltage range.
- Low signal when speed limit is not reached
- After elimination of the fault, the fan returns to its setpoint speed; the alarm signal reverts to high.

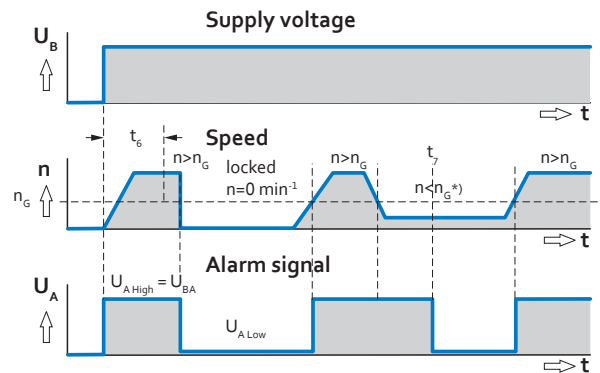
Electrical hookup



All voltages measured to ground. External load resistor R_a from U_a to U_{BA} required.

Available on request

- Integrated signal storage for subsequent recognition of short-term faults (latch).
- Alarm circuit open collector or TTL.
- Electrically isolated for maximum device safety; Defects in the power circuit do not affect the alarm circuit.

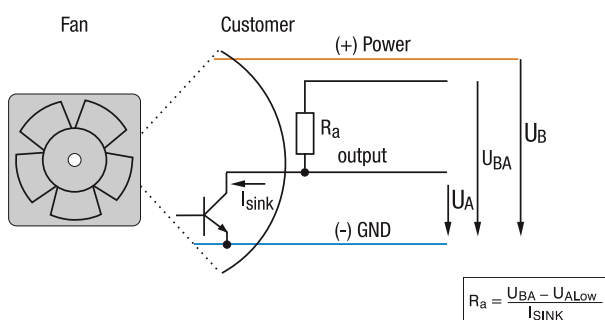


t_6 = Alarm signal suppression during startup; t_7 = Alarm delay time during run-up
* $n <$ speed limit n_g by braking or locking

Alarm signal /19 speed limit

- Alarm signal for speed monitoring
- Signal output via open collector
- The fan emits a continuous low signal during trouble-free operation within the permissible voltage range.
- High signal when speed limit is not reached
- After elimination of the fault, the fan returns to its setpoint speed; the alarm signal reverts to low.

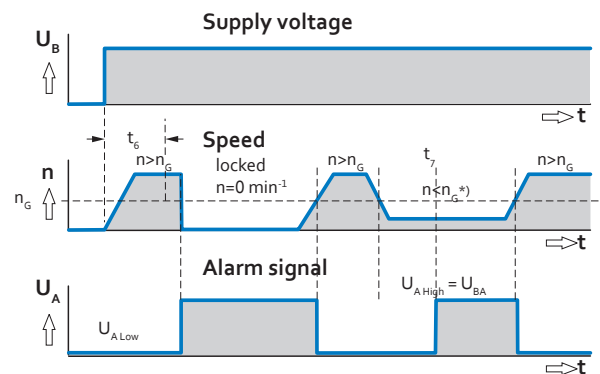
Electrical hookup



All voltages measured to ground. External load resistor R_a from U_a to U_{BA} required.

Available on request

- Integrated signal storage for subsequent recognition of short-term faults (latch).
- Alarm circuit open collector or TTL.
- Electrically isolated for maximum device safety; Defects in the power circuit do not affect the alarm circuit.



t_6 = Alarm signal suppression during startup; t_7 = Alarm delay time during run-up
* $n <$ speed limit n_g by braking or locking

Alarm signal data

| Type | Alarm output voltage $U_{A,Low}$ | Condition | Condition I_{sink} | Alarm output voltage $U_{A,High}$ | Condition | Condition I_{source} | Alarm operating voltage $U_{BA,max}$ | Max. permissible sink current |
|-----------|-------------------------------------|-----------|-------------------------|--------------------------------------|-----------|---------------------------|---|----------------------------------|
| | VDC | | mA | VDC | | mA | VDC | mA |
| 12 / 24 V | ≤ 0.4 | $n > n_G$ | 2 | ≤ 30 | $n > n_G$ | 0 | 30 | 10 |
| 48 V | ≤ 0.4 | $n > n_G$ | 2 | ≤ 60 | $n > n_G$ | 0 | 60 | 10 |

Subject to changes.

Standard value, can vary depending on fan series.

Selectable parameters:

- Speed limit
- t6 Alarm signal suppression during start-up
- t7 Alarm delay time during run-up

For existing products, information about alarm signals is included in the product data sheet.

Note

Fans that come with these fan specials could have variations with respect to the temperature range, voltage range, and power consumption compared to standard fans without specials.

Alarm signal data

| Type | Alarm output voltage | Condition | Condition | Alarm output voltage | Condition | Condition | Alarm operating voltage | Max. permissible |
|-----------|----------------------|-----------|------------|----------------------|-----------|--------------|-------------------------|------------------|
| | $U_{A,Low}$ | | I_{sink} | $U_{A,High}$ | | I_{source} | $U_{BA,max}$ | sink current |
| | VDC | | mA | VDC | | mA | VDC | mA |
| 12 / 24 V | ≤ 0.4 | $n > n_G$ | 2 | ≤ 30 | $n > n_G$ | 0 | 30 | 10 |
| 48 V | ≤ 0.4 | $n > n_G$ | 2 | ≤ 60 | $n > n_G$ | 0 | 60 | 10 |

Subject to changes.

Standard value, can vary depending on fan series.

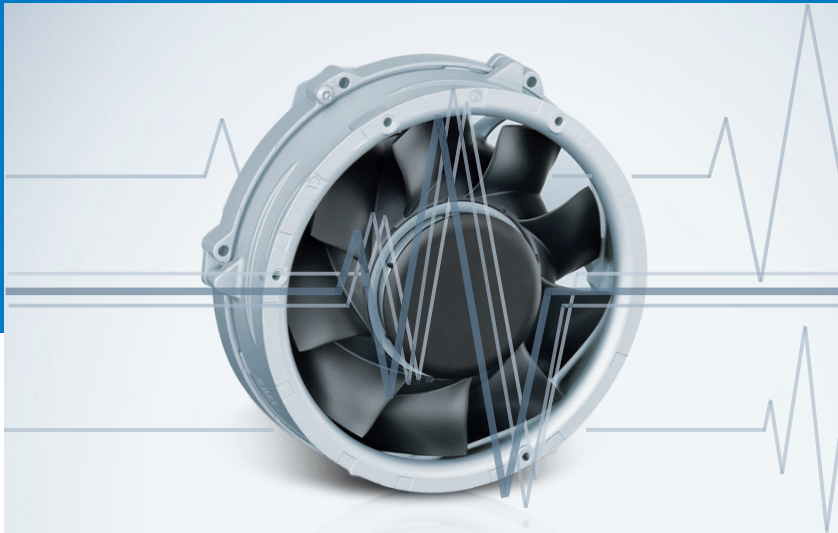
For existing products, information about alarm signals is included in the product data sheet.

Note

Fans that come with these fan specials could have variations with respect to the temperature range, voltage range, and power consumption compared to standard fans without specials.

Speed setting

via temperature sensor



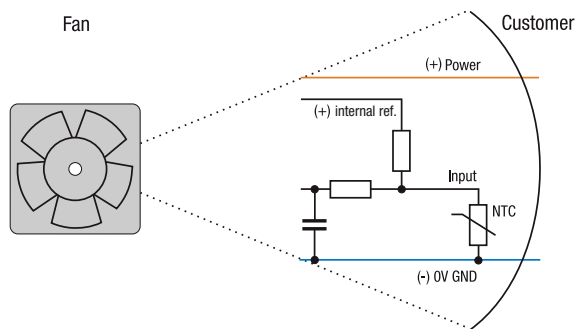
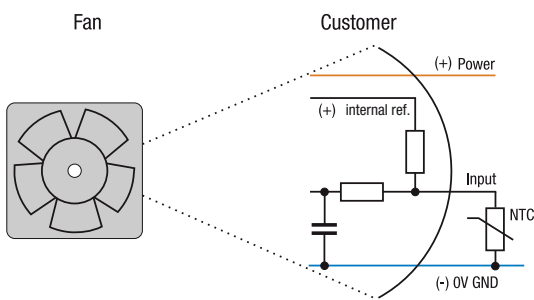
The control variable is a temperature sensor that is either integrated in the fan or connected to an additional control cable.

External temperature sensor type T

Ext. NTC resistor type LZ370 (p. 366) is required (not included in the standard scope of delivery)

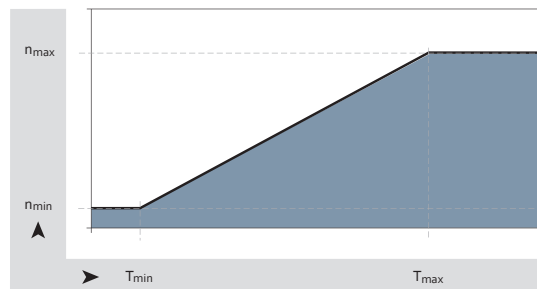
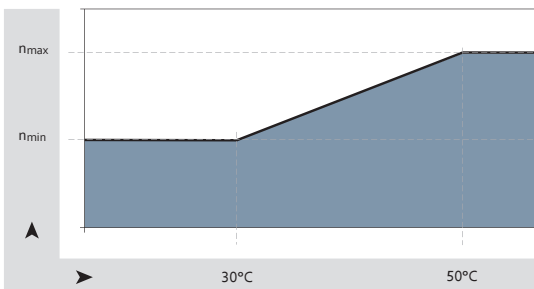
Internal temperature sensor type I

NTC integrated in the fan hub



Standard speed/temperature curve for type T and type I

Optionally available with selectable temperature/speed curve



$$n_{\min} \approx \frac{1}{2} n_{\max}$$

$$T_{\min} \approx 30\text{ }^{\circ}\text{C}; T_{\max} = 50\text{ }^{\circ}\text{C}$$

$$n_{\min} \approx 800\text{ 1/min}$$

$$n_{\max} \text{ based on model}$$

$$T_{\min} \approx 5\text{ }^{\circ}\text{C}$$

$$T_{\max} \leq 85\text{ }^{\circ}\text{C, based on model}$$

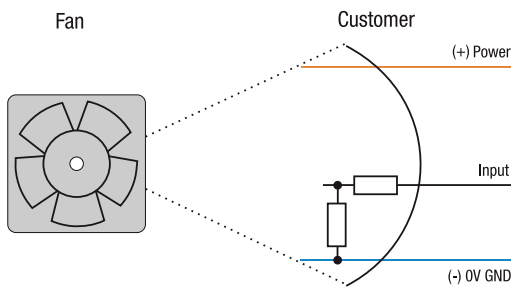
Speed setting

via control voltage
or PWM signal

The control variable is a PWM signal
or analog control voltage.

Speed setting via analog control voltage type A

Standard control range 0...10 V

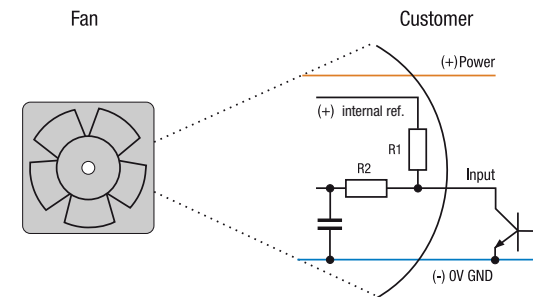


Typical input resistance > 10 kΩ

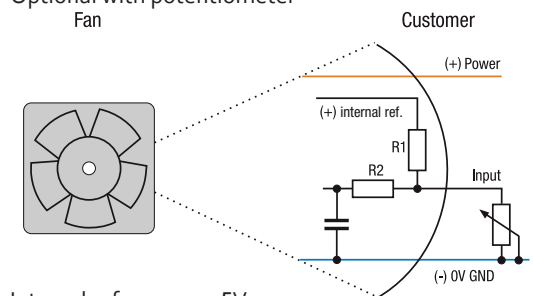
Speed setting via PWM type P

Standard PWM signal in two versions

- a) PWM frequency, mainly 1...10 kHz (0-100%), Open-collector input
- b) Four-wire interface according to Intel specifications for 12 VDC fans, PWM frequency 25 kHz, incl. speed signal /2



Optional with potentiometer

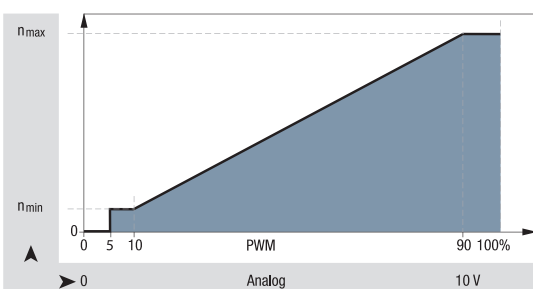


Internal reference = +5V

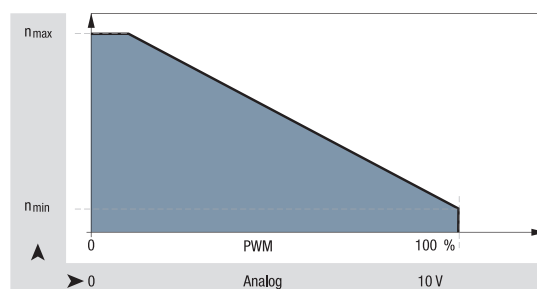
R1 typical 4.7...10 kΩ

R2 typical 100 kΩ

Standard P / A curve

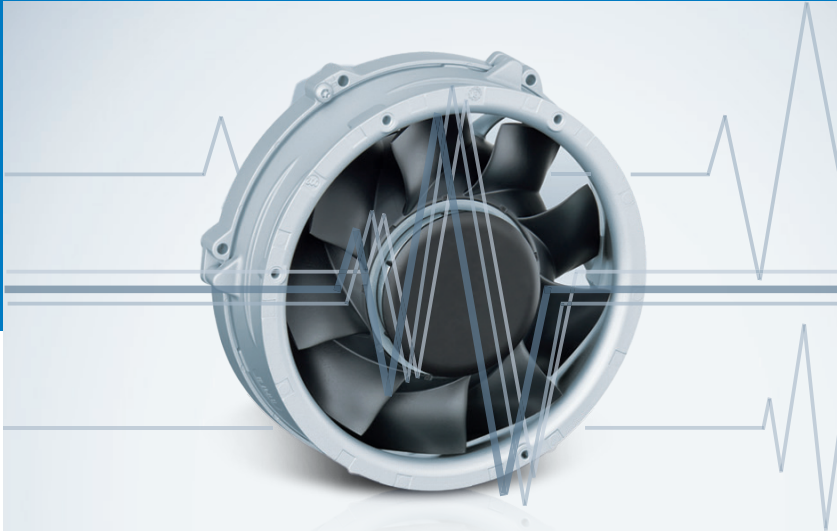


Optionally available with selectable P / A speed curve



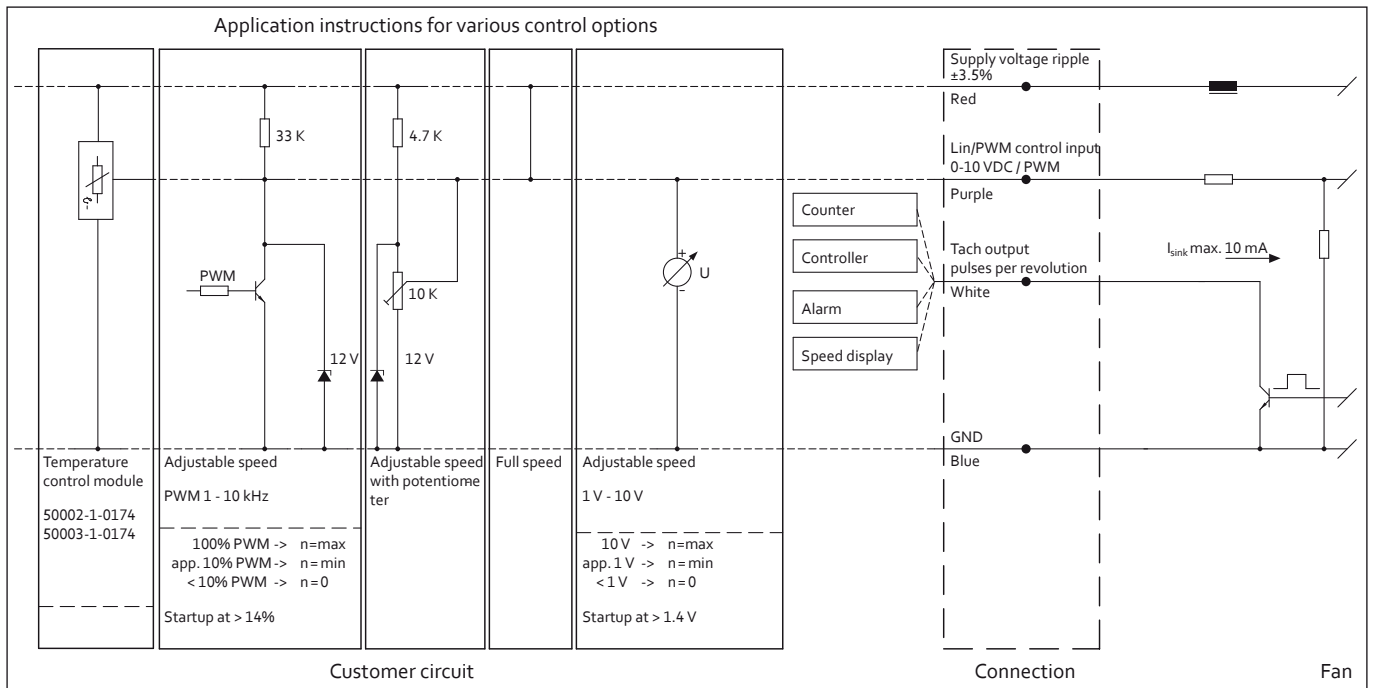
Speed setting

via multi-option control input

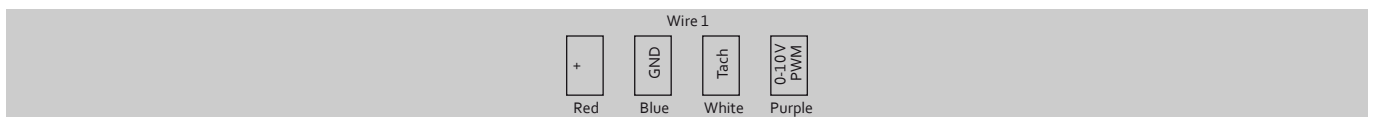


- Customer can operate input either with PWM signal, analog voltage, external temperature control module, or resistor.
- The control signal speed characteristics of the fan differ from the standard curve of the A and P inputs (see p. 263).
- To reach the maximum speed, the control cable must be connected to the U_B .
- The control input is usually combined with an open collector tachometer (type /2, see page 256)

Speed setting via multi-option control input type O



DC fans – specials



| Wire | Connection | Color | Assignment/function |
|------|------------|-------|-----------------------------------|
| 1 | + | red | Supply voltage ripple $\pm 3,5\%$ |
| | GND | blue | GND |

| Wire | Connection | Color | Assignment/function |
|------|-------------|--------|---|
| 1 | Tach | white | Tach output: 3 Impulse / revolution |
| | 0-10V / PWM | purple | Control input (Impedance 100 k Ω) |

FanCheck

R4R *Ready for Restart*

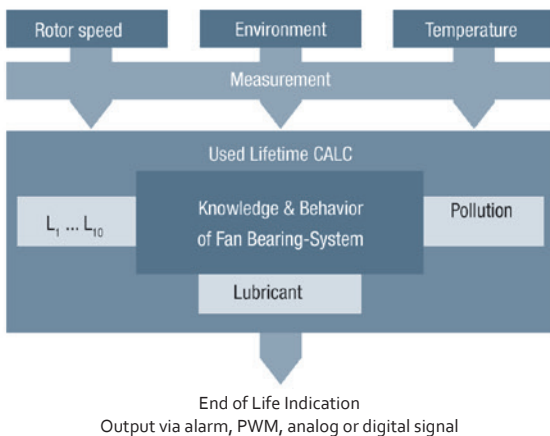
FanCheck is a diagnostic tool integrated into the fan electronics for determining the remaining service life of the fan, dependant, upon temperature, speed, and preset environmental parameters.

The FanCheck system emits a pulse width modulated signal, which reflects the remaining service life of the fan. The pulse width is proportional to the remaining service life of the fan. The FanCheck signal has a pulse width of 10 % at the end of the service life and a pulse width of 90 % with full service life.

Basic data, such as the ball bearing system, bearing lubrication or lubricant used, are programmed in advance as parameters into the software.

The customer defines the environmental conditions, such as the use of fans in moist, dusty, or dirty environments; other parameters such as ambient temperature and speed are determined continuously. Based on all the influencing parameters, the software can, by means of a complex algorithm, calculate the remaining service life for each individual fan.

Functionality



IT equipment such as servers, routers, and in-row cooling applications must be 100% operational. For this reason, maintenance work is often carried out during operation.

If a single fan or a plug-in unit with several fans is taken out of service for this purpose, this can create a tricky situation: The remaining fans must provide adequate air flow. As a result of this and the back pressure of applications, air flows through the fan taken out of service and it is driven by an external source, as with a wind turbine.

The problem is that when driven by an external source, these speeds can amount to several thousand revolutions per minute and in the opposite direction of rotation.

R4R manages a feat of strength: Thanks to high-torque motors and state-of-the-art electronics, it still guarantees a proper start-up process, enabling efficient and fast system maintenance, including the replacement of fans while the system is running.

Climate- and moisture protection



- Capable of satisfying special requirements for a broad range of applications
- Resistance of fans to environmental conditions such as dust, splashing water, humidity, spray water, and salt spray.
- Competent solutions to adapt fans to environmental conditions.

Moisture protection

A coat of paint over the motor and circuit board protect the fans against spray water and condensation.

Degree of protection IP 54 / IP 68*

In the degree of protection IP 54, the motor and circuit boards are coated and therefore protected against spray water and moisture. The degree of protection IP 68 is important for ebm-papst products, as it ensures a high degree of protection for the encapsulated motor and electronics against foreign bodies and water, while protecting the user against potential hazards upon contact. Degrees of protection higher than IP 68 are possible on request.

In addition, the IP68 protection enables ATEX certification according to DIN EN 60 079-7 (Group 2A, T4) for use in explosive atmospheres according to the certified protection class and resistance to salt spray.

Salt spray protection

Salt spray represents one of the most difficult requirements for product durability. ebm-papst has the technology to protect fans and blowers from salt spray reliably and for the long term.

Stainless steel bearings

Special bearings made of stainless steel provide additional protection.

Solutions that are available and are used may differ depending on the fan size. We would be glad to develop solutions tailored to the demands of your application.

Degree of protection – IP code*

| Protection against foreign bodies and accidental contact (first digit) | | Water protection (second digit) | |
|--|---|---------------------------------|--|
| X | No protection | X | No protection |
| 1 | Protection against foreign objects > 50 mm (back of the hand) | 1 | Protection against dripping water or condensation |
| 2 | Protection against foreign objects > 12 mm (finger) | 2 | Protection against dripping water, fans tilted 15° from vertical |
| 3 | Protection against foreign objects > 2.5 mm (tool) | 3 | Protection against sprayed water up to 60° from vertical |
| 4 | Protection against foreign objects > 1 mm (wire) | 4 | Protection against sprayed water from all sides |
| 5 | Protection against dust in harmful quantities | 5 | Protection against low-pressure water jets |
| 6 | Dust-proof | 6 | Protection against high-pressure water jets |
| | | 7 | Protection against temporary submersion (15 cm - 1 m) |
| | | 8 | Protection against continuous submersion |

* IP = International degree of protection marking
For AC- and EC-fans max. IP 65 available.

Product overview

GreenTech EC axial fans



EC axial compact fans, in particular our new AxiACi series, stand for flexibility, high efficiency and enable a wide range of applications.



The wide voltage possible in EC axial compact fans reduces the logistics costs and warehousing, as the fan, regardless of the line voltage, can be used with its specified values: without switching, the EC axial fan adapts to every power supply – from 90 to 264 VAC at line frequencies of 50 and 60 Hz. Voltage fluctuations in the power system are automatically compensated for.



Unlike conventional AC technology, the state-of-the-art drive concept of this fan series is not linked to a fixed power frequency. EC axial compact fans therefore offer a significantly higher air flow and a significant pressure increase.



The extremely quiet and highly efficient motor impresses with its long service life and is equally suitable for use in technologically demanding new projects and as a replacement for obsolete AC solutions.

ebmpapst

engineering a better life

Type code example: VWCL119PJGJZ

| V | W | C | L | 119 | P | J | G | J | Z |
|------------------|-----------------------------------|-----------------|----------------|-----------|------------|-------|------------|----------------|----------|
| Product category | Product type Airflow direction | Product version | Overall length | Size [mm] | Brand name | Motor | Motor size | Air flow level | Standard |
| | | | | | | | Diameter | | |

| Dimensions in mm | Type | Type (old) | Page |
|------------------|--------------|------------|------|
| □ 80 x 32 | VWCE080ASJHS | AC 8300 | 272 |
| □ 92 x 38 | VWCJ092JSGKS | AC 3200 J | 274 |
| □ 92 x 38 | VWCF092D... | AxiACi 92 | 276 |
| □ 119 x 25 | VWCH119FSJMS | AC 4400 FN | 278 |
| □ 119 x 38 | VWCF119D... | AxiACi 120 | 280 |
| □ 119 x 38 | VWCF119YSGLS | ACi 4400 | 282 |
| ∅ 172 x 51 | VWEK172XSPLS | AC 6200 N | 284 |
| ∅ 130 | VWEH151X... | W1G 130 | 286 |
| ∅ 200 | VWLJ225X... | W3G 200 | 288 |
| ∅ 250 | VWLK280X... | W3G 250 | 290 |
| ∅ 98,5 x 130 | VUS0092XSGBS | AC 100 | 292 |

GreenTech EC axial fans

Progress made by ebm-papst.
The best example: Greentech EC axial fans from ebm-papst.

Our latest fans in the AxiACi series stand for flexibility, high efficiency and enable a wide range of applications ranging from cooling and ICT applications to switch cabinet cooling. The best – all in the same dimensions as conventional AC fans. The extremely quiet and highly efficient motor impresses with its long service life and is the perfect replacement for obsolete AC solutions in particular. The wide voltage range (90-264 VAC) and operating temperatures of up to -40°C (also when starting) also offer a practical solution. Our GreenTech EC axial compact fans are available up to IP65 as an option and, thanks to corresponding certificates, are also suitable for use with natural refrigerants.

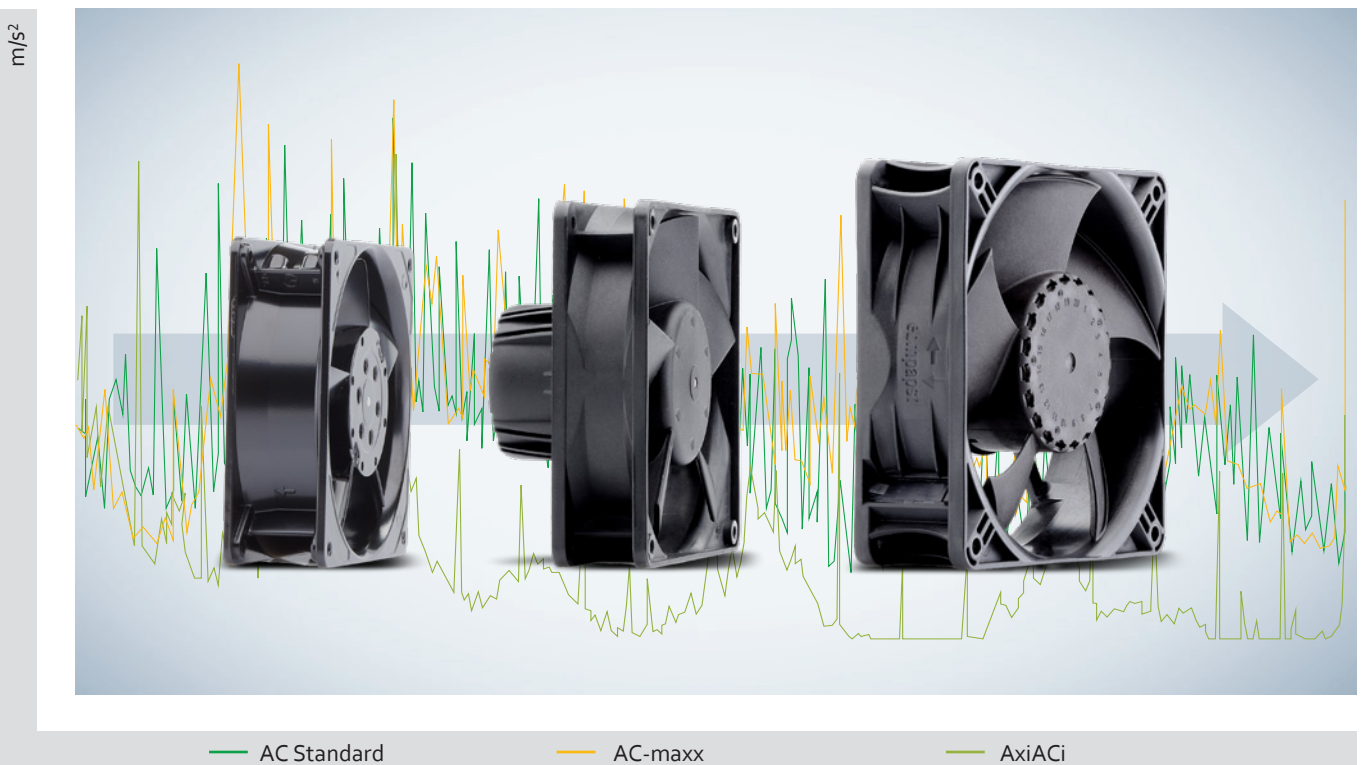
Many years of experience, quality and continuous product improvement

Better, in the same size. Our products have been developed for many years and have been optimized to meet your requirements. Our new generation of GreenTech EC axial compact fans offer a wealth of advantages in the same dimensions as conventional AC fans. This makes switching your applications to the new fans much easier.

Quiet is not always quiet when psychoacoustic, subjective noise characteristics are at play.

As well as increasing efficiency, one of our main objectives when further developing the pure AC fan series into our AxiACi series is significantly reducing noise as much as possible – both in the aerodynamics and in the motor. In terms of aerodynamics, we achieve this with perfectly designed and coordinated fan housing/fan impeller combinations. A motor always generates vibrations that are transmitted to your application. In the worst-case scenario, in sound-wave form, these are considered disruptive. In the development phase, this structure-borne noise is difficult to predict and varies from application to application. Our aim is to develop motors with as little structure-borne noise as possible so that this problem does not occur in the first place. With our AxiACi motor technology, we have succeeded.

If we look at the sum of the acceleration levels, ACmaxx and AC 4656N are comparable. However, AxiACi120 has a noticeable lower base level and also significantly lower peaks during acceleration amplitudes and therefore its structure-borne noise is much less intrusive. As a result, it also offers noise benefits for sensitive applications.



Progress made by ebm-papst

That means for you:

Cost optimization

■ Lower energy costs due to greater efficiency

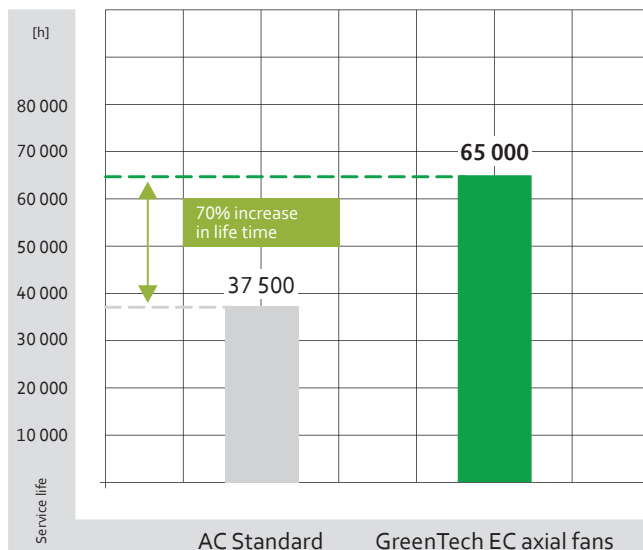
A drive concept based on state-of-the-art GreenTech EC technology with outstanding motor efficiency level. The energy consumption is up to 80 % lower than in AC fans of the same size. The energy savings alone mean that the products pay for themselves after only a few months. The savings made over the entire service life, especially in systems with multiple fans, are worth it.

■ Reduction in logistics costs as independent from line frequency and line voltage

The GreenTech EC axial compact fans are prepared for direct connection to all AC voltages and frequencies thanks to the "wide voltage capability" of the fan. A certain speed version can be operated worldwide, regardless of the 110 VAC or 230 VAC power supply. Voltage and frequency fluctuations during the power supply operation are compensated automatically. This reduces logistics costs and makes warehousing easier.

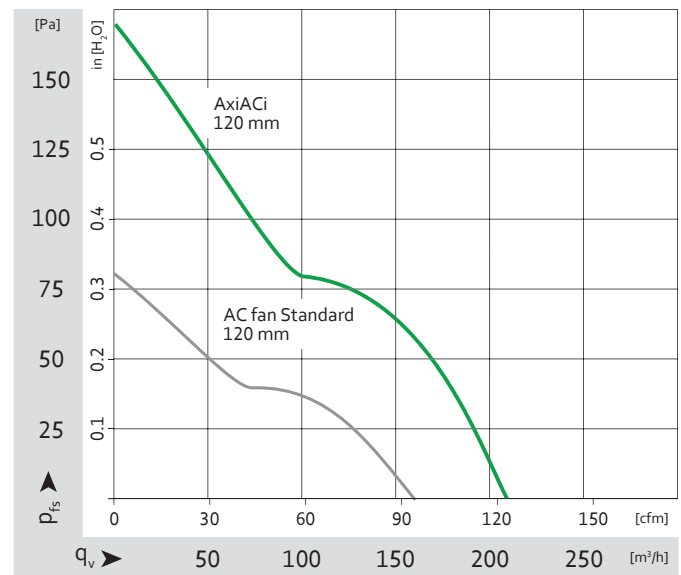
■ Long service life

The efficiency of GreenTech EC axial compact fans is up to 75% greater than that of conventional AC fans. This not only saves energy, it also means that the motor heats itself up less. The bearing system in particular responds positively to heating itself up less: the reason why the fans have a service life that is up to 70 % longer! This also extends the service and maintenance intervals significantly. Investments in replacement fans and downtimes, which are even more expensive, remain small enough to manage.



Higher performance

Unlike conventional AC technology, the state-of-the-art drive concept of this fan series is not linked to a fixed power frequency. This allows the motor speed to be increased over a wide range. This enables significantly higher air flow rates and significant pressure increases.



Flexibility and countless possible uses

- IP65 provides protection against harmful environmental influences and harsh operating conditions
- Natural refrigerant? No problem!
Safety approvals according to DIN EN 60335-2-89, 60335-2-24, DIN EN 60079-7 enable use with natural, explosive refrigerants
- Everything is possible, from standby mode, overload mode at peak times or night reduction to temperature-controlled, quiet operation. From speed monitoring to long-term function monitoring via alarm or speed signal, the fans offer optional interfaces that allow easy and quick implementation of operational monitoring.
- Further information on these fan options can be found in the chapter "DC compact fan specials" on page 252.
- Or you can simply talk to our application engineers about the ideal GreenTech EC axial compact fan for you.

VWCE080ASJHS

GreenTech EC axial fans · max. 80 m³/h · □ 80 x 32 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

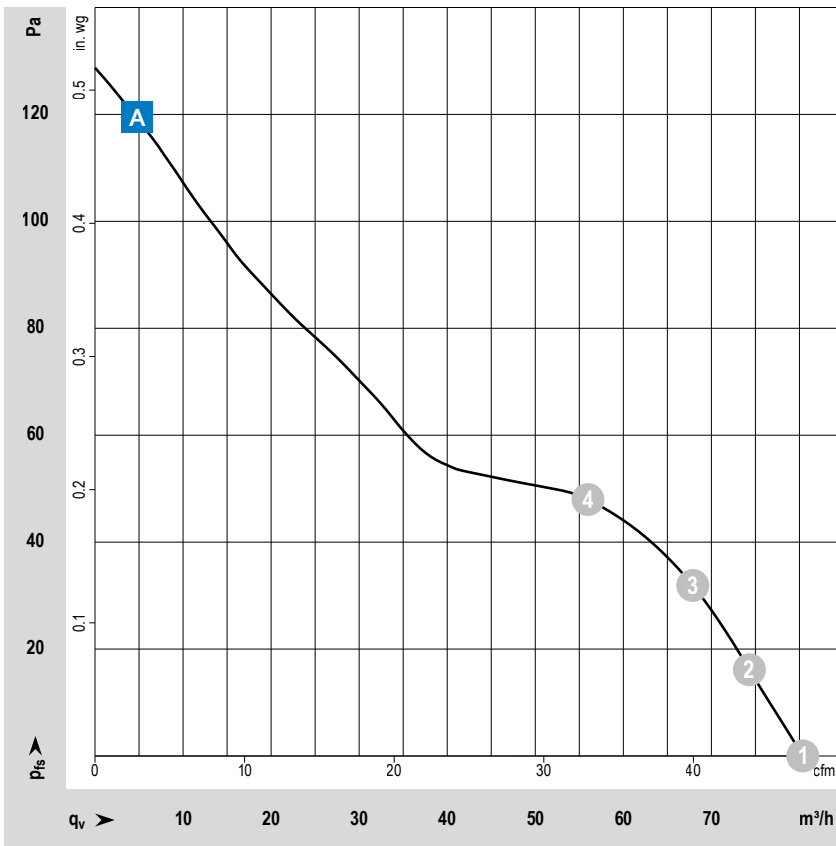
- Version: Efficient AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 325 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP65



Measuring conditions

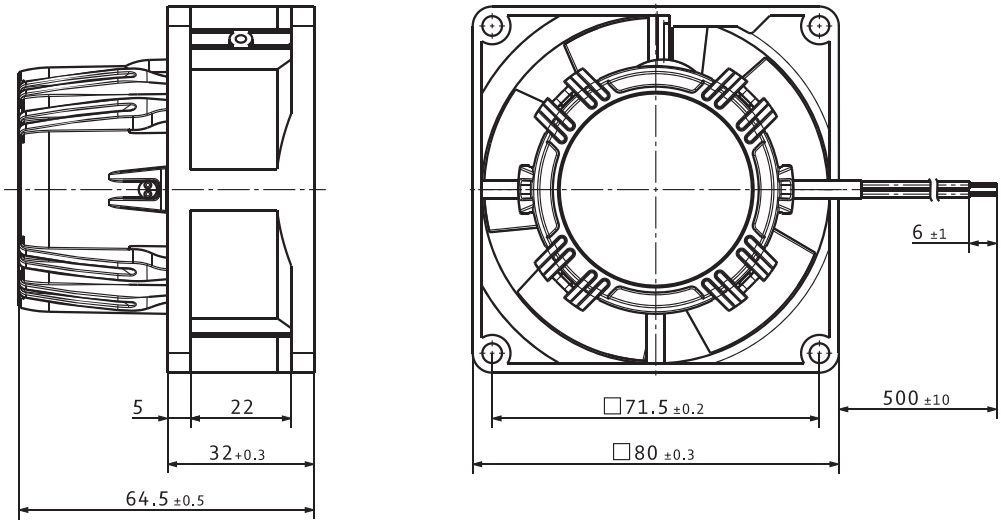
Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s. p. II |
|----------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | | |
| VWCE080ASJHS AC 8300 H | 9204305004 | 100...240 | 50/60 | A | ① | 80 | 47 | 5 000 | 8.2 | 6.6 | 48 | -20...+75 | 55 000 | 92 500 |
| | | | | | ② | 74 | 44 | 5 000 | 8.3 | 6.5 | | | | |
| | | | | | ③ | 68 | 40 | 5 020 | 8.4 | 6.4 | | | | |
| | | | | | ④ | 56 | 33 | 5 060 | 8.2 | 6.3 | | | | |

Subject to changes. Speed variants available on request.

Technical drawing Dimensions in mm



GreenTech EC axial fans

VWCJ092JSGKS

GreenTech EC axial fans · max. 144 m³/h · □ 92 x 38 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

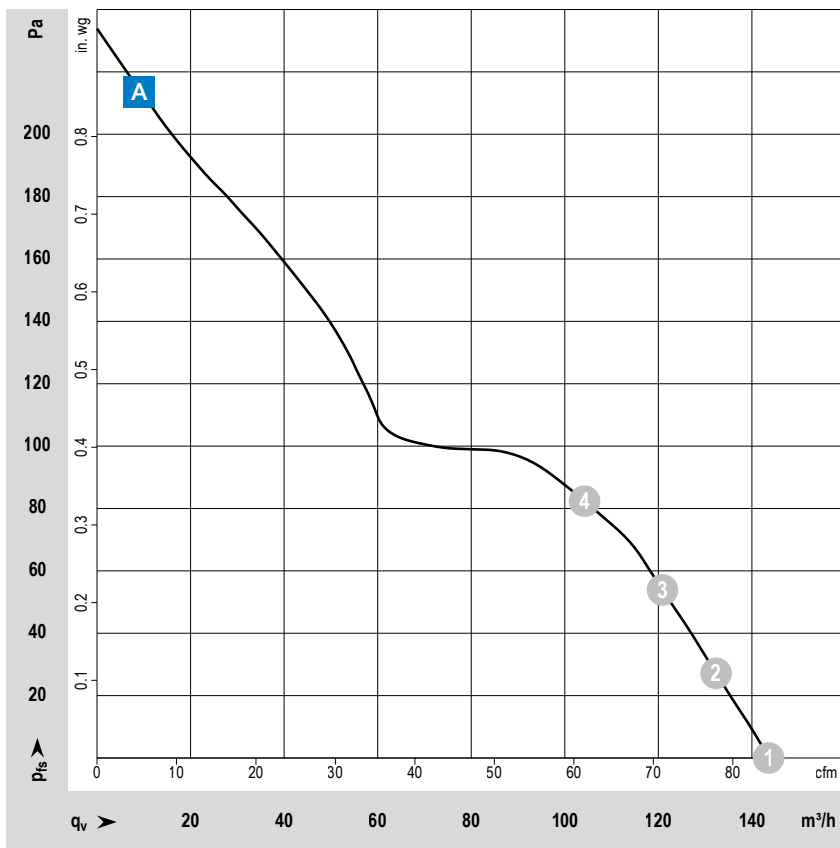
- Version: Efficient AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 325 g

Approvals

- UL507, CSA22.3, VDE0805, CCC, EAC

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP65



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

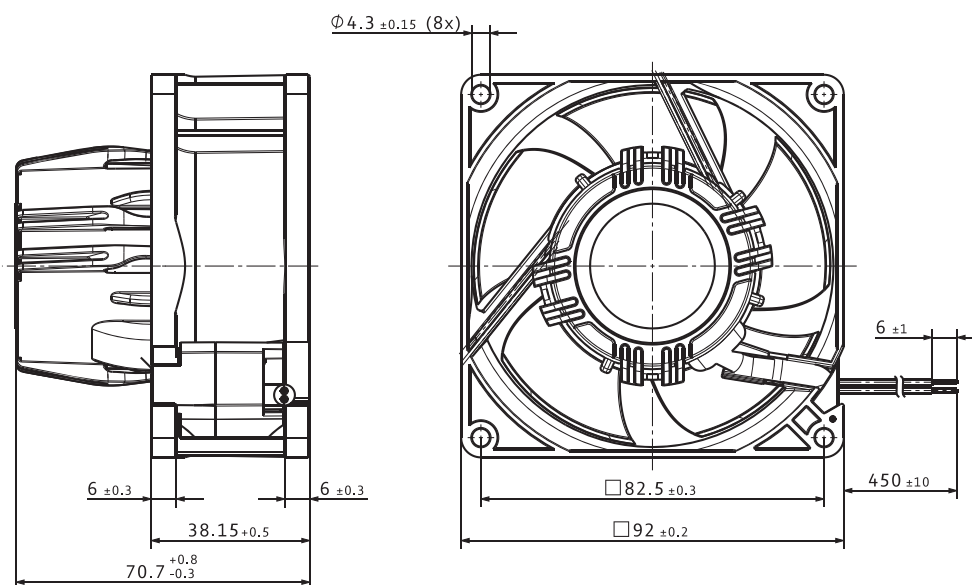
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10ipfc} (40 °C) s.p. II |
|----------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| Voltage range 85...265 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | | |
| VWCJ092JSGKS AC 3200 JH | 9203510002 | 100...240 | 50/60 | A | ① | 144 | 85 | 6 800 | 10.7 | 6.8 | 55 | -20...+70 | 70 000 | 117 500 |
| | | | | | ② | 132 | 78 | 6 680 | 11.3 | 6.7 | | | | |
| | | | | | ③ | 121 | 71 | 6 580 | 11.7 | 6.6 | | | | |
| | | | | | ④ | 104 | 61 | 6 470 | 12.3 | 6.4 | | | | |

Subject to changes. Speed variants available on request.

Technical drawing

Dimensions in mm



VWCF092D...

GreenTech EC axial fans · max. 92 m³/h · □ 92 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Efficient and compact latest-generation AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via cable 310mm, AWG 20
- Electrical protection class: III
- Weight: 235 g

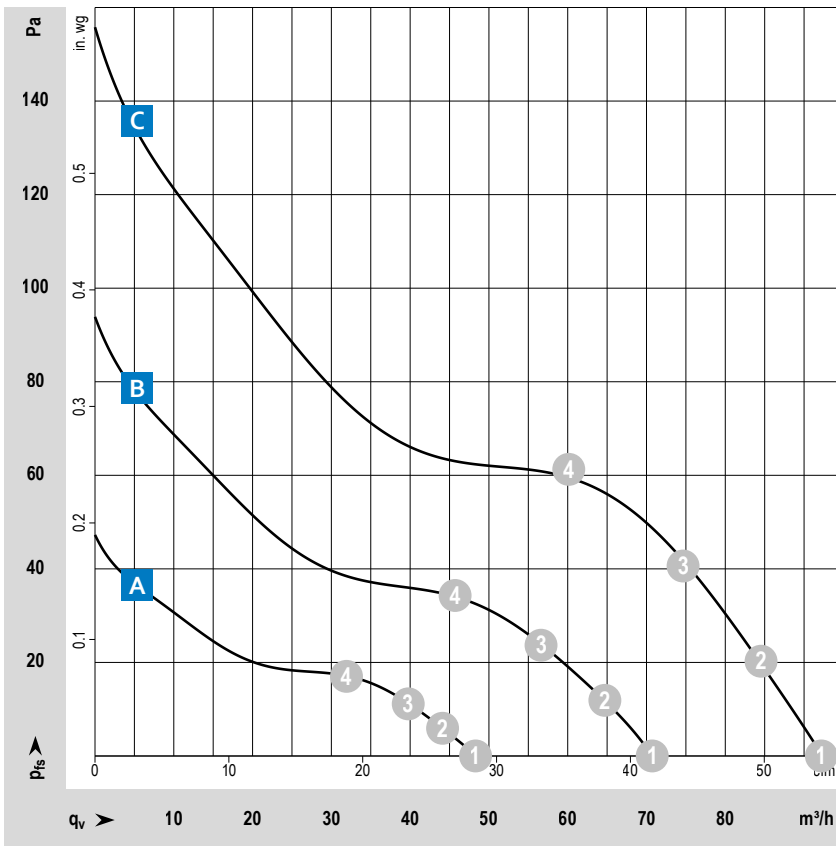
Approvals

- Approvals: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- optional: EN 60335-1, 60335-2-24, 60335-2-89; DIN EN 60079-7, Group IIA, T4

Options

- Salt spray protection
- Degree of protection: IP65

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

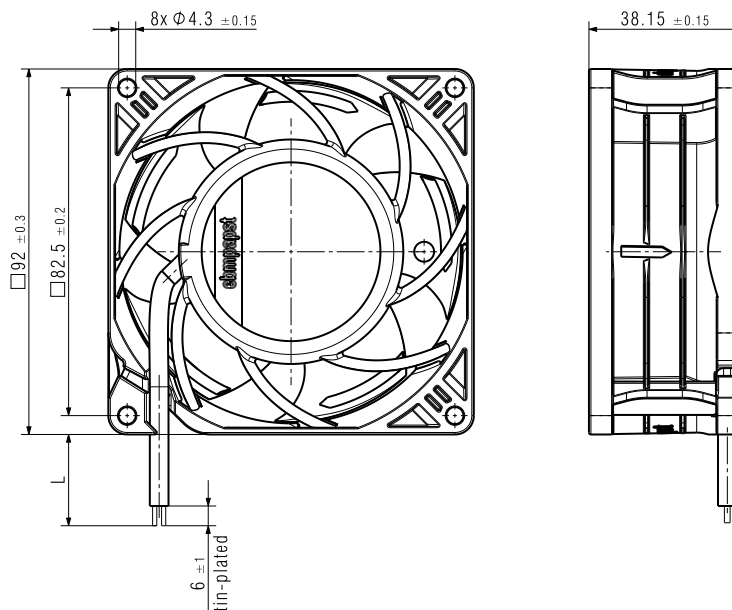
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|----------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | | |
| VWCF092DSGGS AxiACi92R | 8315100281 | 100...240 | 50/60 | C | ① | 48.3 | 28.4 | 2 500 | 1.4 | 4.2 | 31 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 44.4 | 26.1 | 2 500 | 1.5 | 4.2 | | | | |
| | | | | | ③ | 39.5 | 23.2 | 2 500 | 1.5 | 4.2 | | | | |
| | | | | | ④ | 31.9 | 18.8 | 2 500 | 1.5 | 4.2 | | | | |
| VWCF092DSGHS AxiACi92R | 8315100282 | 100...240 | 50/60 | B | ① | 71.0 | 41.8 | 3 500 | 2.4 | 4.7 | 37 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 65.0 | 38.3 | 3 500 | 2.5 | 4.7 | | | | |
| | | | | | ③ | 57.0 | 33.5 | 3 500 | 2.6 | 4.7 | | | | |
| | | | | | ④ | 45.5 | 26.8 | 3 500 | 2.7 | 4.7 | | | | |
| VWCF092DSGJS AxiACi92R | 8315100283 | 100...240 | 50/60 | A | ① | 92.0 | 54.1 | 4 500 | 3.8 | 5.4 | 44 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 84.0 | 49.4 | 4 500 | 4.2 | 5.4 | | | | |
| | | | | | ③ | 75.0 | 44.1 | 4 500 | 4.6 | 5.3 | | | | |
| | | | | | ④ | 60.0 | 35.3 | 4 500 | 4.8 | 5.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCH119FSJMS

GreenTech EC axial fans · max. 201 m³/h · □ 119 x 25 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Efficient AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 370 g

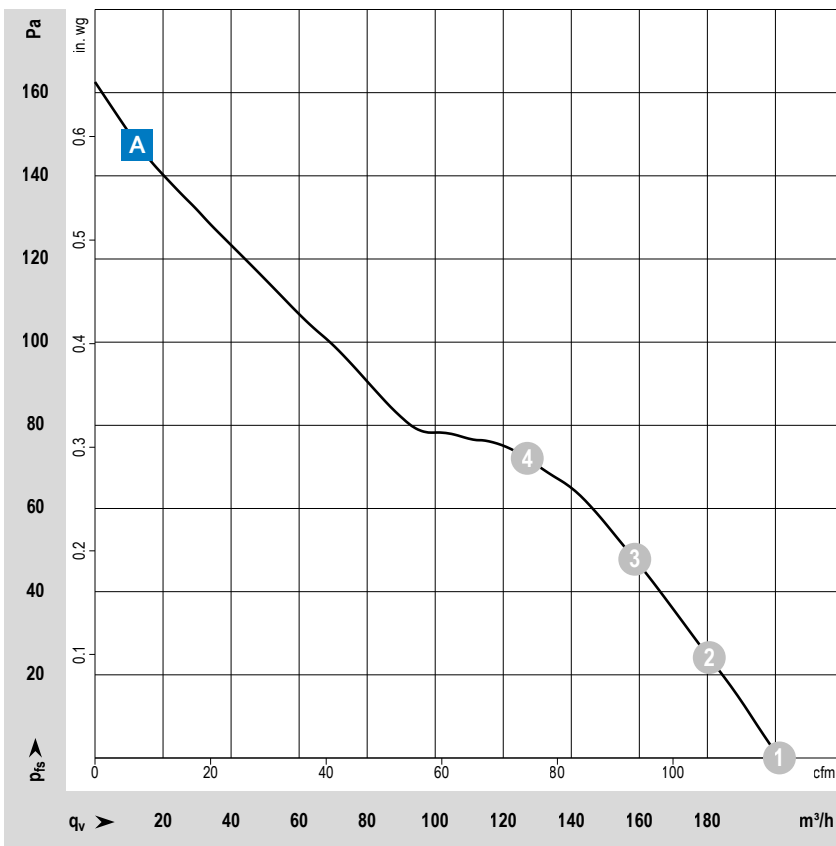
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

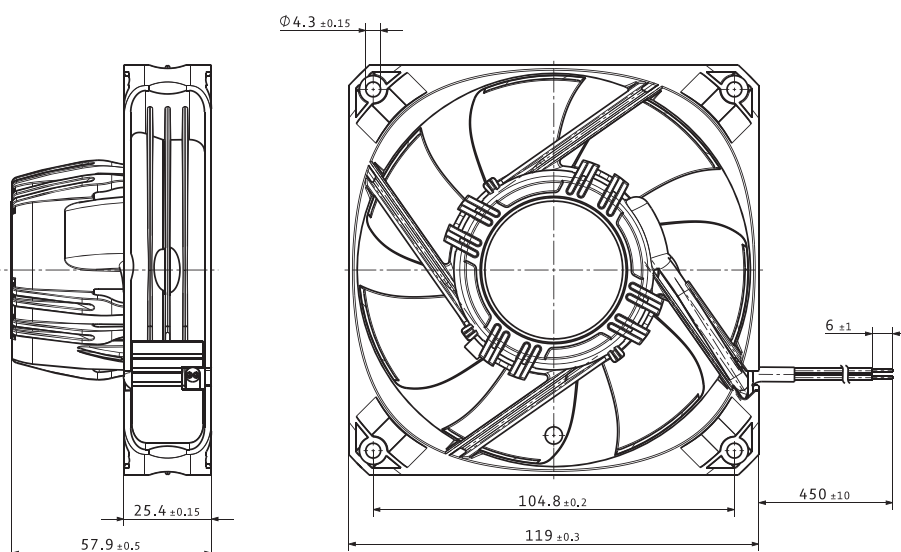
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10ipfc} (40 °C) s. p. II | |
|-----------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|--|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours | |
| Type / Type old | Part number | | | | | | | | | | | | | | |
| VWCH119FSJMS AC 4400 FNN | 9204307001 | 100...240 | 50/60 | A | 1 | 201 | 118 | 4 850 | 11.4 | 6.6 | | | | | |
| | | | | | 2 | 180 | 106 | 4 730 | 12.3 | 6.5 | | | | | |
| | | | | | 3 | 159 | 94 | 4 610 | 13.0 | 6.3 | 53 | -20...+70 | 60 000 | 102 500 | |
| | | | | | 4 | 127 | 75 | 4 530 | 13.4 | 6.2 | | | | | |

Subject to changes. Speed variants available on request.

Technical drawing

Dimensions in mm



VWCF119D...

GreenTech EC axial fans · max. 175 m³/h · □ 119 × 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Efficient and compact latest-generation AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via single wires (AWG 24)
- Electrical protection class: III
- Weight: 250 g

from page 14 Definitions

from page 350 Accessories

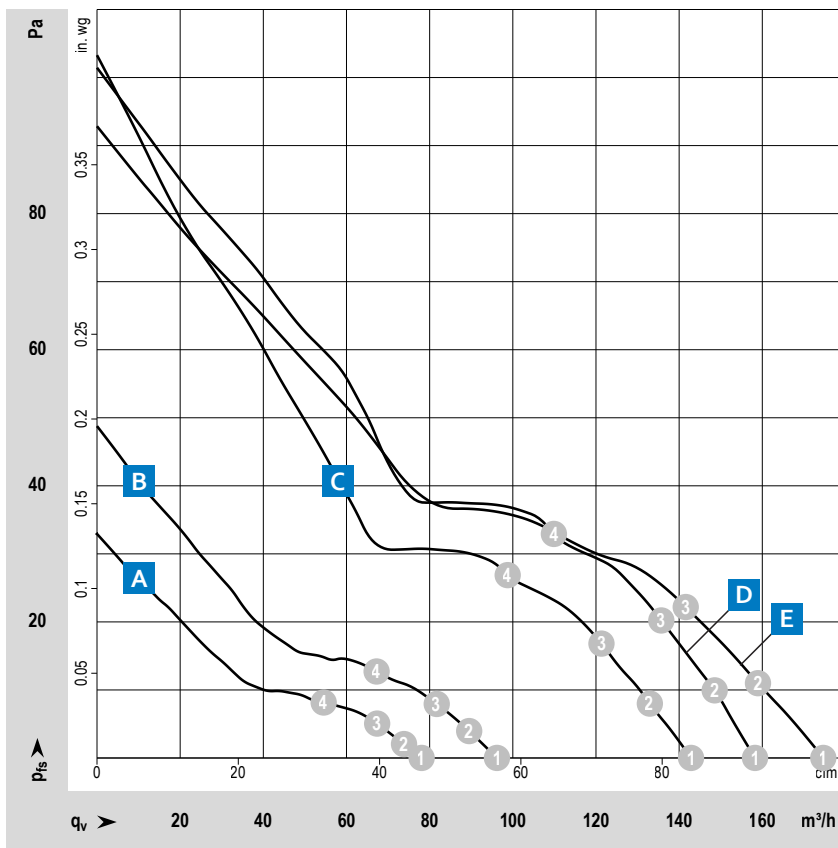
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- optional: EN 60335-1, 60335-2-24, 60335-2-89; DIN EN 60079-7, Group IIA, T4

Options

- Salt spray protection
- Degree of protection: IP65



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

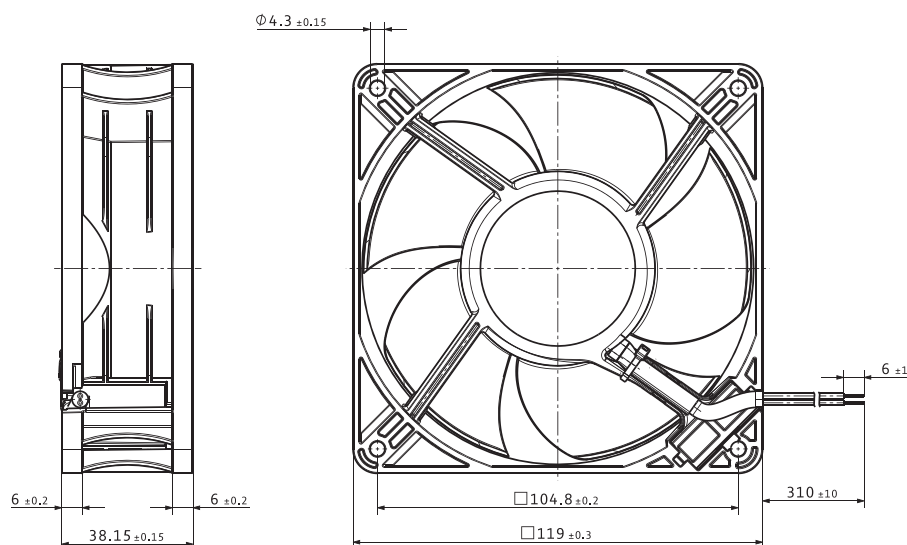
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Voltage range 90...264 VAC | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| Type / Type old | Part number | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCF119DSGHS AxiACi120LR | 8315100216 | 100...240 | 50/60 | A | ① | 78 | 46 | 1 500 | 1.4 | 3.6 | 23 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 73 | 43 | 1 500 | 1.5 | 3.5 | | | | |
| | | | | | ③ | 67 | 39 | 1 500 | 1.5 | 3.3 | | | | |
| | | | | | ④ | 54 | 32 | 1 510 | 1.5 | 3.5 | | | | |
| VWCF119DSGJS AxiACi120MLR | 8315100215 | 100...240 | 50/60 | B | ① | 96 | 57 | 1 850 | 1.5 | 4.2 | 25 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 90 | 53 | 1 840 | 1.6 | 4.0 | | | | |
| | | | | | ③ | 82 | 48 | 1 840 | 1.7 | 3.9 | | | | |
| | | | | | ④ | 68 | 40 | 1 850 | 1.9 | 4.0 | | | | |
| VWCF119DSGKS AxiACi120NR | 8315100214 | 100...240 | 50/60 | C | ① | 143 | 84 | 2 700 | 3.0 | 5.2 | 36 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 133 | 78 | 2 690 | 3.4 | 5.1 | | | | |
| | | | | | ③ | 122 | 72 | 2 690 | 3.7 | 5.0 | | | | |
| | | | | | ④ | 99 | 58 | 2 690 | 4.3 | 5.0 | | | | |
| VWCF119DSGLS AxiACi120HR | 8315100213 | 100...240 | 50/60 | D | ① | 158 | 93 | 3 000 | 3.9 | 5.4 | 39 | -40...+70 | 65 000 | 110 000 |
| | | | | | ② | 149 | 88 | 3 000 | 4.4 | 5.4 | | | | |
| | | | | | ③ | 135 | 79 | 3 000 | 4.9 | 5.4 | | | | |
| | | | | | ④ | 110 | 65 | 3 000 | 5.6 | 5.2 | | | | |
| VWCF119DSGLS AxiACi120HHR | 8315100206 | 100...240 | 50/60 | E | ① | 175 | 103 | 3 300 | 4.4 | 5.6 | 43 | -40...+70 | 65 000 | 110 000 |
| | | | | | ② | 159 | 94 | 3 240 | 4.9 | 5.5 | | | | |
| | | | | | ③ | 141 | 83 | 3 180 | 5.2 | 5.3 | | | | |
| | | | | | ④ | 110 | 65 | 3 110 | 5.6 | 5.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCF119YSGLS

GreenTech EC axial fans · max. 178 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: Efficient and compact latest-generation AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via single wires (AWG 24)
- Electrical protection class: III
- Weight: 250 g

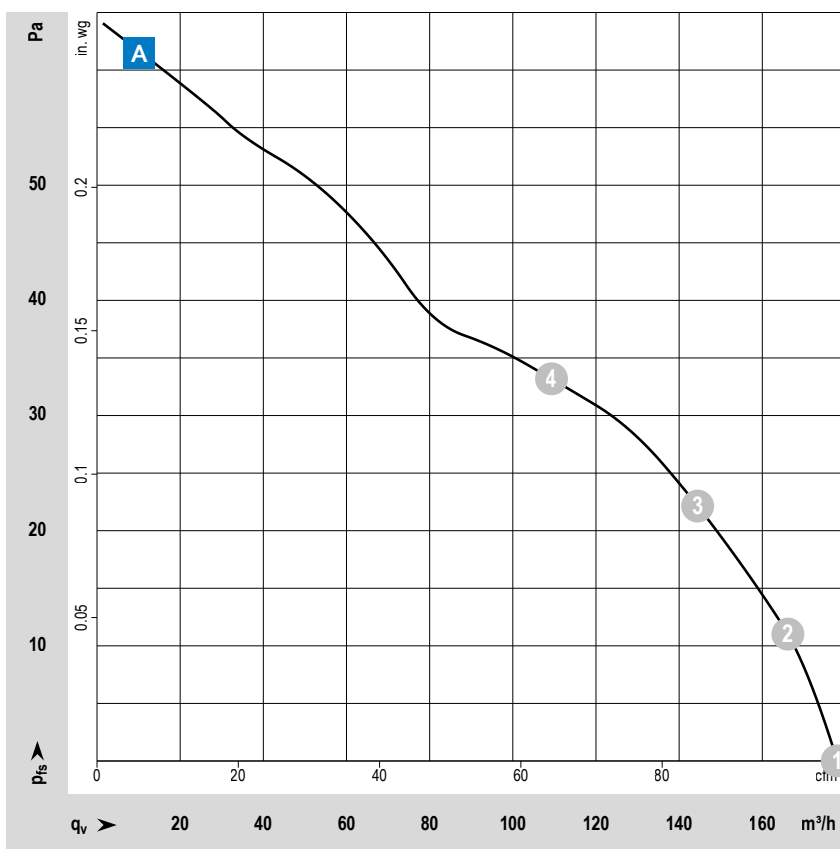
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- optional: EN 60335-1, 60335-2-24, 60335-2-89; DIN EN 60079-7, Group IIA, T4

Options

- Speed signal
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP65
- Approval for refrigeration products acc. to EN60335-24 / EN60335-89 and ATEX acc. to EN60079-15

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

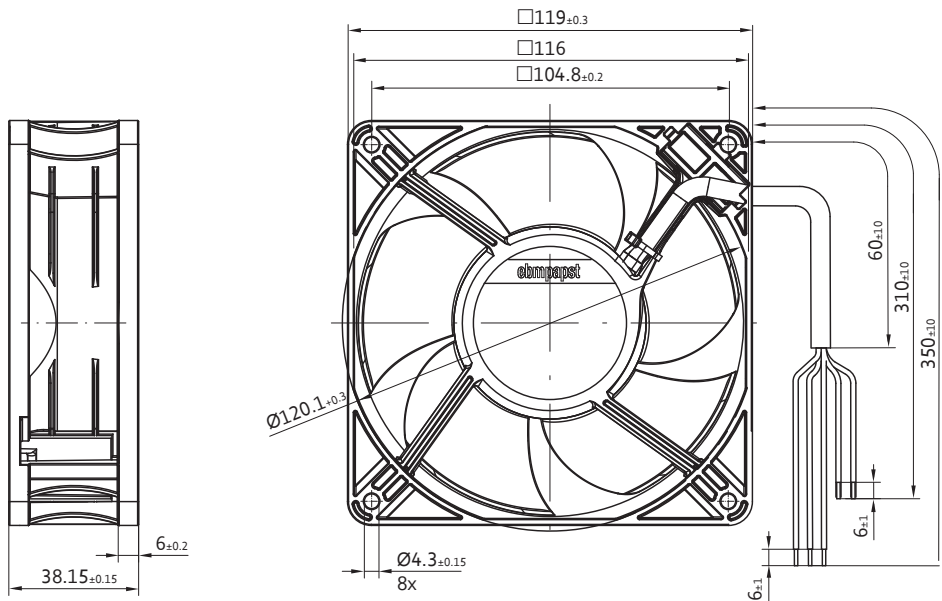
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10ipfc} (40 °C) s.p. II |
|---------------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|--|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | | |
| VWCF119YSGLS ACi 4400 HHAU | 9203509300 | 100...240 | 50/60 | A | ① | 181 | 107 | 3 300 | 4.8 | 5.5 | 43 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 162 | 95 | 3 190 | 5.1 | 5.3 | | | | |
| | | | | | ③ | 141 | 83 | 3 080 | 5.4 | 5.1 | | | | |
| | | | | | ④ | 107 | 63 | 2 970 | 5.8 | 5.2 | | | | |
| VWCF119YSGLS ACi 4400/2 HHPU | 8315100017 | 100...240 | 50/60 | A | ① | 178 | 105 | 3 300 | 4.8 | 5.5 | 43 | -40...+75 | 65 000 | 110 000 |
| | | | | | ② | 166 | 98 | 3 260 | 5.3 | 5.3 | | | | |
| | | | | | ③ | 144 | 85 | 3 150 | 5.7 | 5.1 | | | | |
| | | | | | ④ | 109 | 64 | 3 033 | 6.0 | 5.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEK172XSLPS

GreenTech EC axial fans · max. 326 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: Efficient AC fan, suitable for use worldwide thanks to wide voltage
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via single wires AWG 22
- Electrical protection class: III
- Weight: 905 g

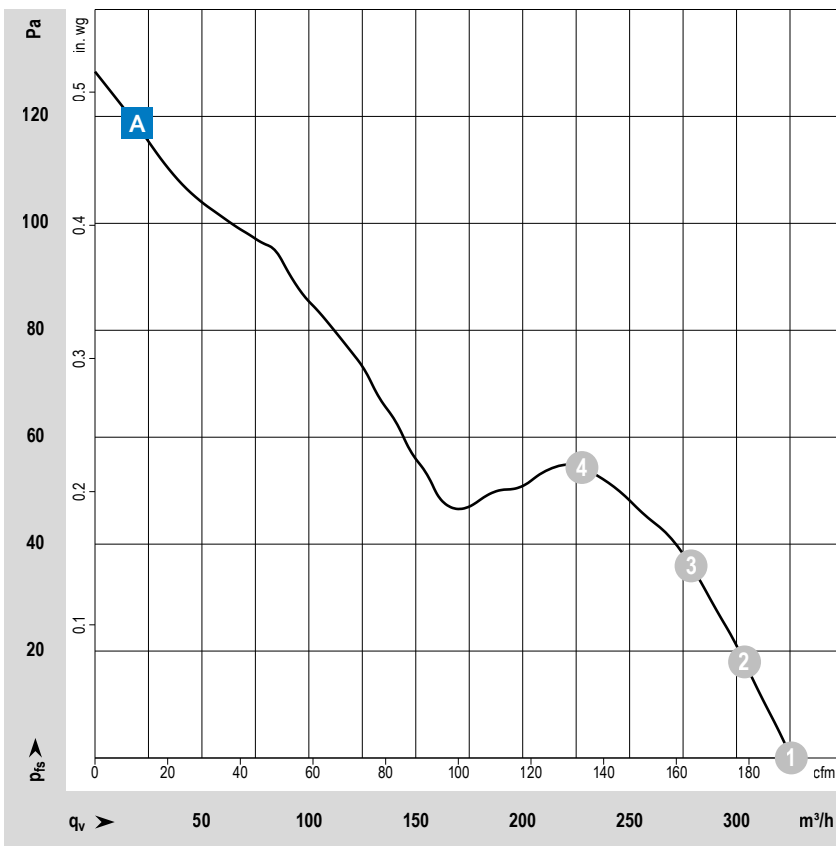
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA

Options

- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP65

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

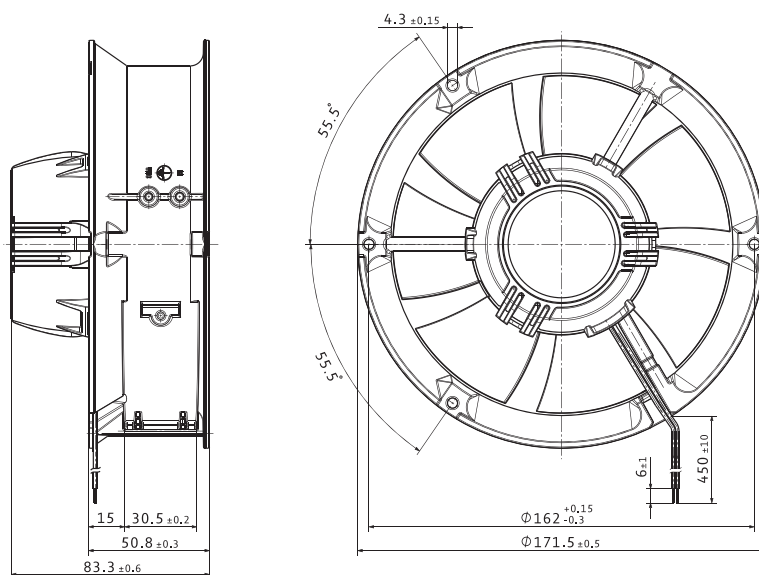
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10ipfc} (40 °C) s. p. II |
|----------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| Type / Type old | Part number | | | | | | | | | | | | | |
| VWEK172XSLPS AC 6200 NM | 9205414000 | 100...240 | 50/60 | A | ① | 326 | 192 | 2 850 | 11.7 | 6.0 | 50 | -20...+72 | 80 000 | 135 000 |
| | | | | | ② | 304 | 179 | 2 850 | 12.8 | 5.9 | | | | |
| | | | | | ③ | 279 | 164 | 2 850 | 13.7 | 5.9 | | | | |
| | | | | | ④ | 227 | 134 | 2 820 | 14.1 | 5.8 | | | | |

Subject to changes. Speed variants available on request.

Technical drawing

Dimensions in mm



VWEH151X...

GreenTech EC axial fans · max. 370 m³/h · Ø 130 mm



Material/Surface

- Fan housing: Plastic
- Blades: Plastic

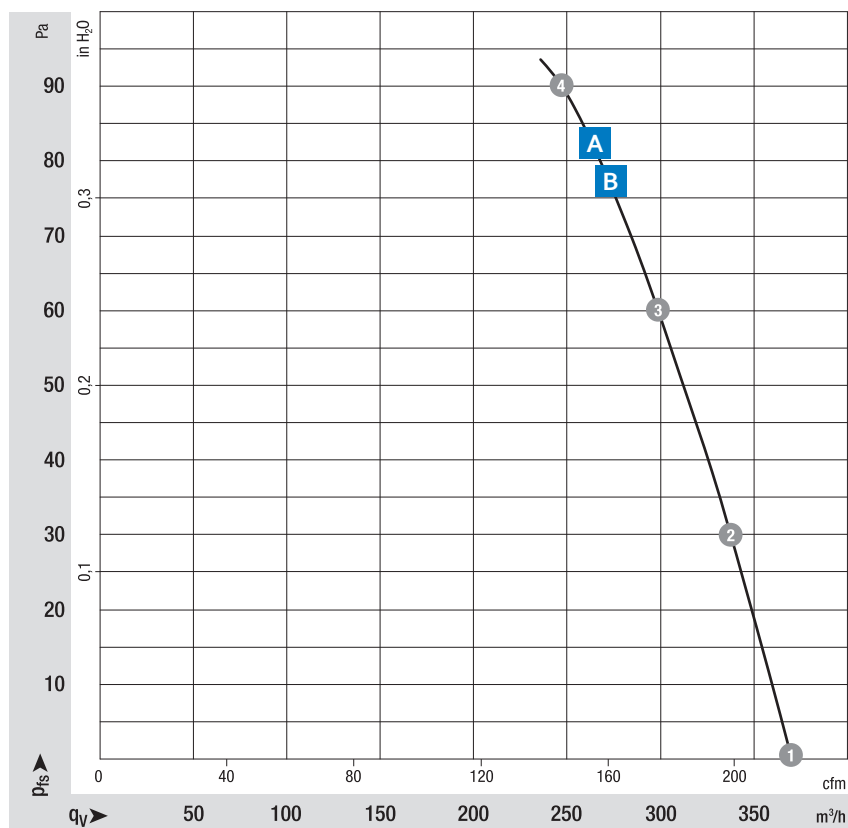
Characteristics

- Direction of air flow: "V", exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: 55
- Electrical hookup: Plug-in connection on motor side
- Electrical protection class: II
- Weight: 750 g

Approvals

- EN 60335-1; EN 60335-2-24; EN 60335-2-80; EN 60335-2-89; CE; UKCA; EAC; CSA C22.2 Nr.77 + CAN/CSA-E60730-1; VDE; UL 1004-3 + 60730-1; **B**: CCC

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

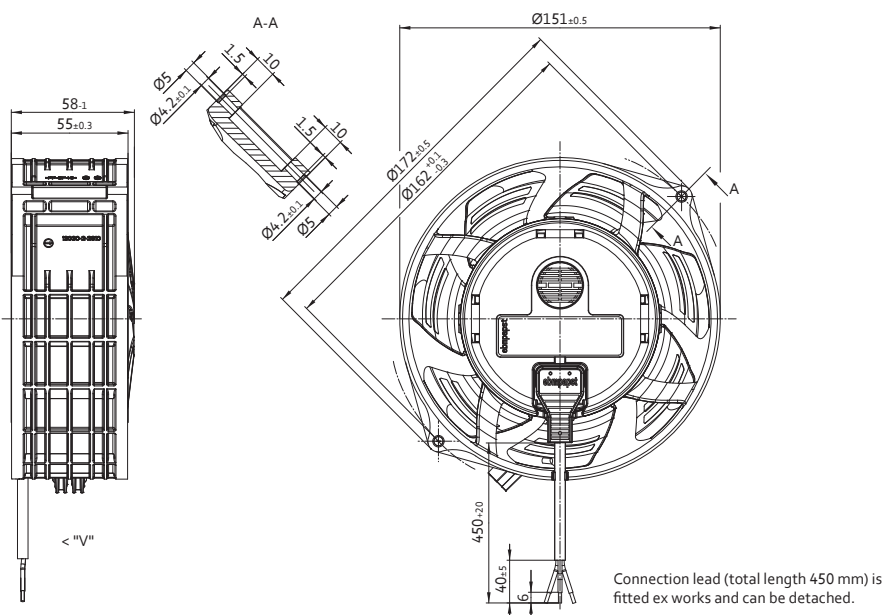
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Max. input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|--------------------|-------------------|----------------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | A | Bel(A) | dB(A) | Pa | °C |
| VWEH151XSLMS | W1G130AA4901 | 1~ 115 | 50/60 | A | ① | 365 | 215 | 3 200 | 23 | 0.35 | 6.3 | 55 | 90 | -30...+60 |
| | | | | | | 330 | 195 | 3 200 | 23 | 0.35 | 6.3 | | | |
| | | | | | | 285 | 170 | 3 200 | 24 | 0.37 | 6.1 | | | |
| | | | | | | 230 | 135 | 3 200 | 24 | 0.38 | 6.2 | | | |
| VWEH151XSLPS | W1G130AA2501 | 1~ 230 | 50/60 | B | ① | 370 | 220 | 3 200 | 23 | 0.19 | 6.3 | 55 | 90 | -30...+70 |
| | | | | | | 335 | 200 | 3 200 | 24 | 0.19 | 6.1 | | | |
| | | | | | | 295 | 175 | 3 200 | 24 | 0.19 | 6.0 | | | |
| | | | | | | 240 | 140 | 3 200 | 24 | 0.19 | 6.3 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLJ225X...

GreenTech EC axial fans · max. 1 060 m³/h · Ø 200 mm



Material/Surface

- Fan housing: Metal
- Blades: Plastic
- Rotor: Thick-film passivated

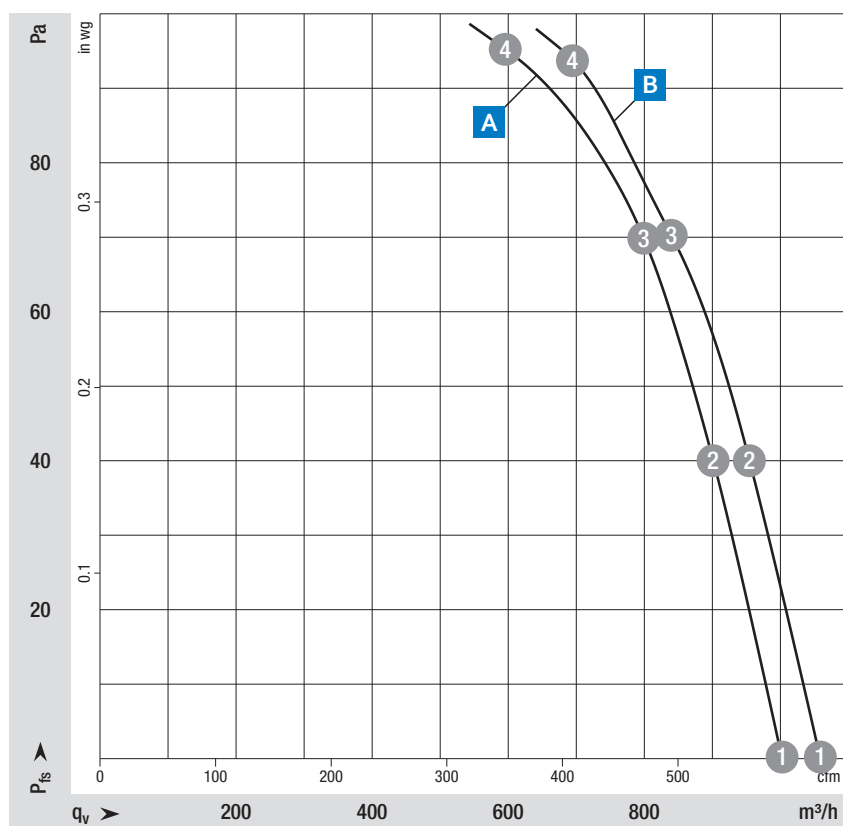
Characteristics

- Version: EC axial fan – HyBlade®, sickle-shaped blades (S series)
- Direction of air flow: "V"
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP54
- Electrical hookup: via terminal strip
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 1.6 kg

Approvals

- EN 60335-1; CE; CCC on request; CSA C22.2 Nr.77 + CAN/CSA-E60730-1; UL 1004-7 + 60730-1

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

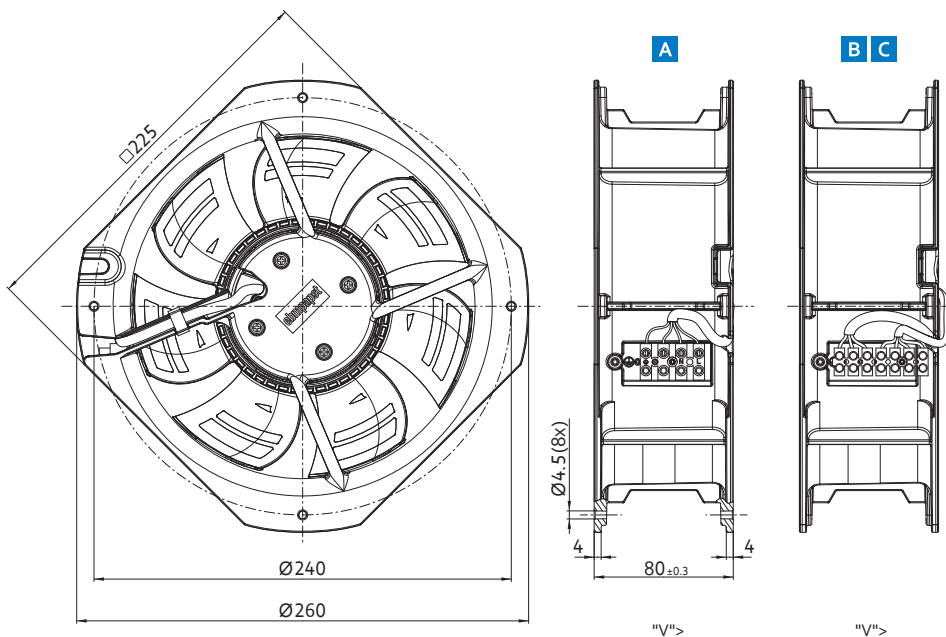
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Max. input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|--------------------|-------------------|----------------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | A | Bel(A) | dB(A) | Pa | °C |
| VWLJ225XSLTS | W3G200HD0103 | 1~ 200-240 | 50/60 | A | ① | 1 000 | 590 | 2 970 | 50 | 0.49 | 6.5 | 58 | 96 | -25...+60 |
| | | | | | | 900 | 530 | 2 885 | 55 | 0.53 | 6.4 | | | |
| | | | | | | 800 | 470 | 2 825 | 58 | 0.56 | 6.5 | | | |
| | | | | | | 600 | 350 | 2 900 | 54 | 0.55 | 7.1 | | | |
| VWLJ225XSLSZ | W3G200HD2310 | 1~ 115 | 50/60 | B | ① | 1 060 | 625 | 3 150 | 62 | 1.00 | 6.6 | 59 | 94 | -25...+60 |
| | | | | | | 955 | 560 | 3 050 | 65 | 1.00 | 6.6 | | | |
| | | | | | | 840 | 495 | 2 930 | 65 | 1.00 | 7.2 | | | |
| | | | | | | 695 | 410 | 2 900 | 65 | 1.00 | 7.4 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLK280X...

GreenTech EC axial fans · max. 1 905 m³/h · Ø 250 mm



Material/Surface

- Fan housing: Metal
- Blades: Plastic
- Rotor: Thick-film passivated

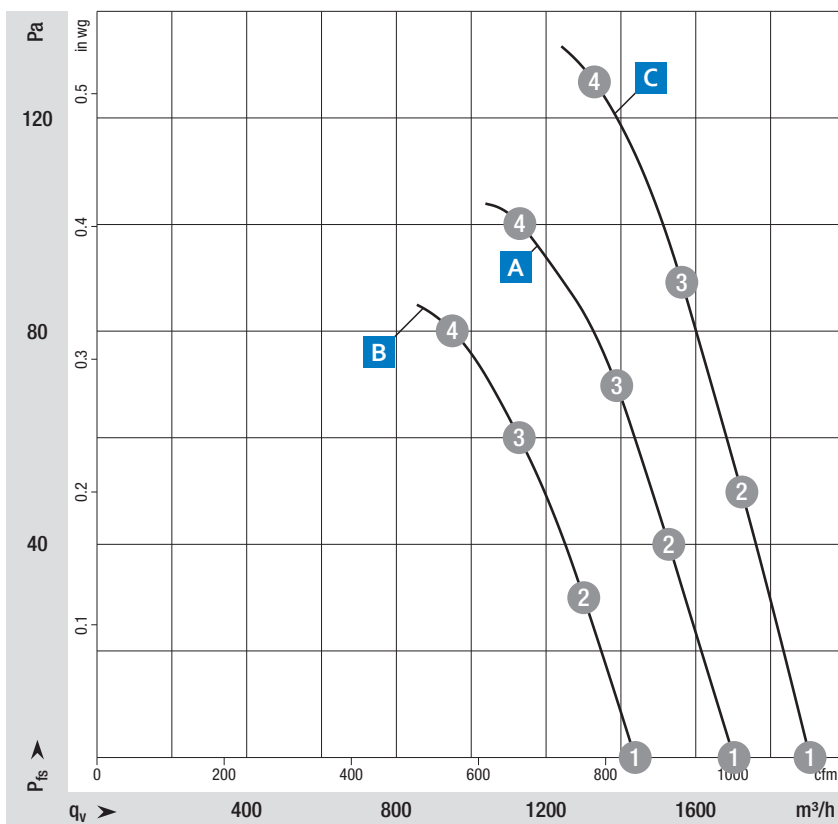
Characteristics

- Version: EC axial fan – HyBlade®, sickle-shaped blades (S series)
- Direction of air flow: "V"
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP54
- Electrical hookup: via terminal strip
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 2.1 kg

Approvals

- EN 60335-1; CE; UL 1004-7+ 60730-1; CSA C22.2 Nr. 77 + CAN /CSA-E60730-1;
- **A**: CCC on request

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

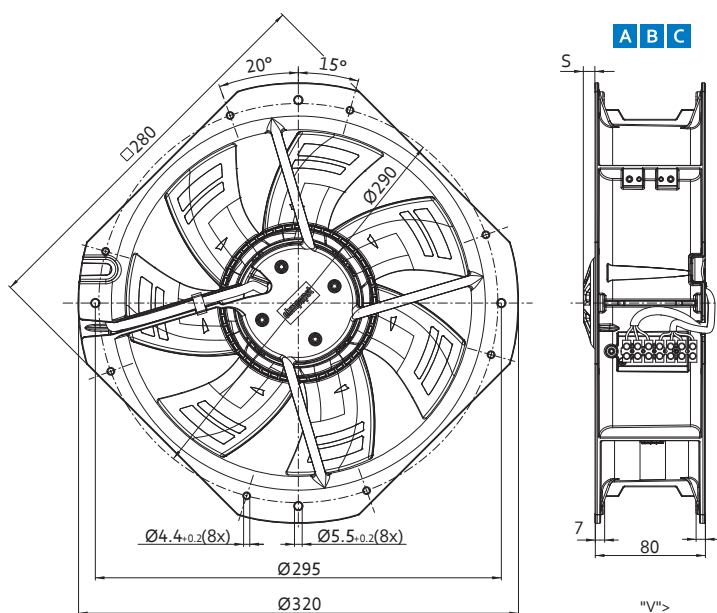


| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Max. input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature | |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|-------|-------|-------------------|--------------------|-------------------|----------------|--------------------|---------------------------|-----|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | | W |
| VWLK280XSLVS | W3G250HH0703 | 1~ 200-240 | 50/60 | A | ① | 1 700 | 1 000 | 2465 | 67 | 0.59 | 6.9 | 62 | 100 | -25...+60 | |
| | | | | | | ② | 1 530 | 900 | 2410 | 75 | 0.65 | | | | 6.9 |
| | | | | | | ③ | 1 385 | 815 | 2370 | 81 | 0.68 | | | | 6.8 |
| | | | | | | ④ | 1 125 | 660 | 2330 | 83 | 0.72 | | | | 6.9 |
| VWLK280XSLTZ | W3G250HH5303 | 1~ 115 | 50/60 | B | ① | 1 440 | 845 | 2 140 | 43 | 0.72 | 6.3 | 56 | 80 | -25...+50 | |
| | | | | | | ② | 1 300 | 765 | 2 100 | 49 | 0.80 | | | | 6.3 |
| | | | | | | ③ | 1 130 | 665 | 2 070 | 53 | 0.86 | | | | 6.4 |
| | | | | | | ④ | 950 | 560 | 2 040 | 56 | 0.90 | | | | 6.5 |
| VWLL280XSLVZ | W3G250HK3511 | 1~ 115 | 50/60 | C | ① | 1 905 | 1 120 | 2 820 | 93 | 1.43 | 7.0 | 64 | 130 | -25...+60 | |
| | | | | | | ② | 1 725 | 1 015 | 2 760 | 106 | 1.61 | | | | 7.1 |
| | | | | | | ③ | 1 570 | 925 | 2 725 | 114 | 1.72 | | | | 7.1 |
| | | | | | | ④ | 1 345 | 790 | 2 700 | 125 | 1.90 | | | | 7.1 |

Subject to changes.

Technical drawing

Dimensions in mm



| S | Value |
|---|-------|
| A | 8.4 |
| B | 8.4 |
| C | 20.7 |

VUS0092XSGBS

GreenTech EC in-line duct fan · max. 100 m³/h · Ø 98.5 x 130 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: AC fan with wide voltage; in-line duct fan for easy installation in pipe systems, e.g. in wet room ventilation
- Direction of air flow: intake over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via 3-pin Europa terminal strip max. 1.5 mm²
- Electrical protection class: III
- Weight: 400 g

from page 14 Definitions

from page 350 Accessories

more at www.ebmpapst.com

Approvals

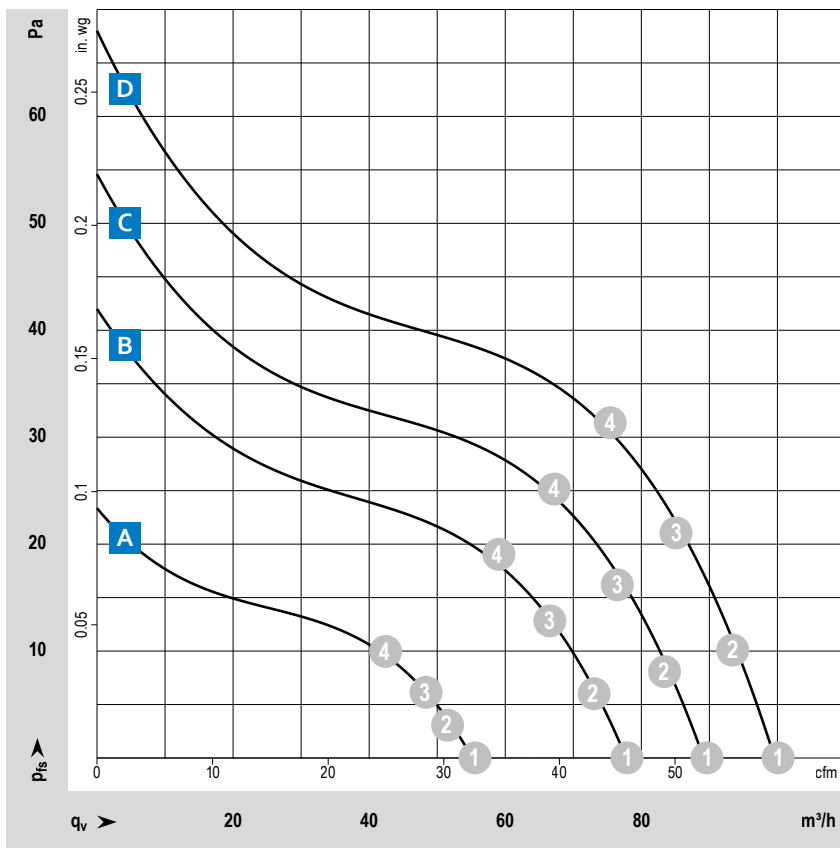
- Approvals: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- Conformity with standard(s): EN 60335-1, CE

Options

- new impeller for high pressure
- Two speeds over jumper adjustable
- Speed signal
- PWM control input
- Analog control input 0...10 VDC
- Moisture protection
- Degree of protection: IP44 (IP45 depending on installation position)

Special features

- Boost function
- Vibration-isolated motor
- two aerodynamic impellers available for more air flow or pressure-oriented design



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

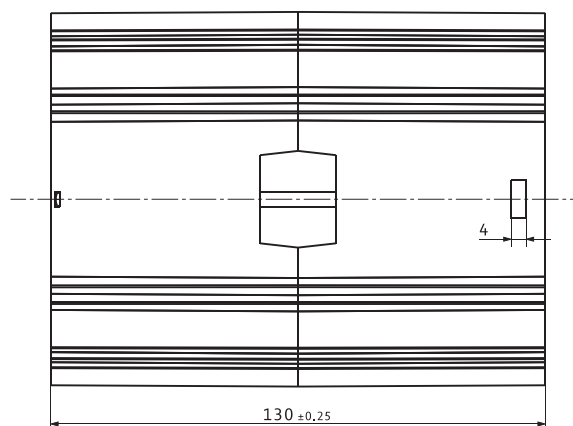
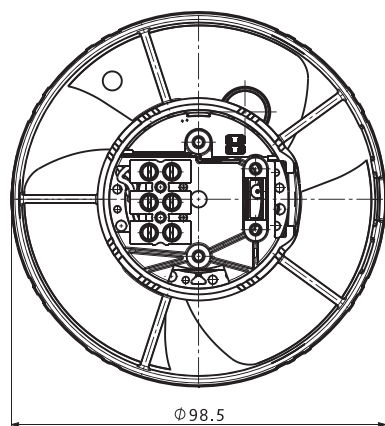
| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10ipsc} (40 °C) s. p. 11 | |
|----------------------------|--|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|---------|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours | |
| Type / Type old | Part number | | | | | | | | | | | | | | |
| nominal boost | High air flow VUS0092XSGBS AC 100 MR | 9203510011 | 100...240 | 50-60 | A | 1 | 56.0 | 33.0 | 2 050 | 1.9 | 4.5 | 33 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 51.0 | 30.0 | 2 040 | 1.9 | 4.5 | | | | |
| | | | | | | 3 | 47.8 | 28.1 | 2 040 | 2.0 | 4.5 | | | | |
| | | | | | | 4 | 42.5 | 25.0 | 2 040 | 2.0 | 4.5 | | | | |
| | | | | | C | 1 | 90.0 | 53.0 | 3 150 | 4.3 | 5.5 | 40 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 83.0 | 48.9 | 3 130 | 4.4 | 5.5 | | | | |
| | | | | | | 3 | 76.0 | 44.7 | 3 120 | 4.6 | 5.4 | | | | |
| | | | | | | 4 | 67.0 | 39.4 | 3 130 | 4.8 | 5.4 | | | | |
| nominal boost | High air flow VUS0092XSGBS AC 100 NR | 9203510005 | 100...240 | 50-60 | B | 1 | 78.0 | 45.9 | 2 750 | 2.8 | 5.1 | 35 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 73.0 | 43.0 | 2 740 | 2.9 | 5.1 | | | | |
| | | | | | | 3 | 67.0 | 39.4 | 2 740 | 3.0 | 5.0 | | | | |
| | | | | | | 4 | 59.0 | 34.7 | 2 740 | 3.1 | 4.9 | | | | |
| | | | | | D | 1 | 100.0 | 58.9 | 3 500 | 4.9 | 5.8 | 42 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 93.0 | 54.7 | 3 490 | 5.1 | 5.7 | | | | |
| | | | | | | 3 | 85.0 | 50.0 | 3 490 | 5.3 | 5.7 | | | | |
| | | | | | | 4 | 75.0 | 44.1 | 3 490 | 5.5 | 5.6 | | | | |

Subject to changes. *On request

| Impeller | Type | Boost off, Jumper low | Boost off, Jumper high | Boost on |
|---------------|---------------|-----------------------|------------------------|----------|
| High air flow | AC 100 MR | 1 250 | 2 050 | 3 150 |
| High air flow | AC 100 NR | 2 200* | 2 750 | 3 500 |
| High pressure | AC100 MR-018 | 1 250* | 2 050* | 3 150* |
| High pressure | AC 100 NR-017 | 2 180 | 2 680 | 3 300 |

Technical drawing

Dimensions in mm



VUS0092XSGBS

GreenTech EC in-line duct fan · max. 78 m³/h · Ø 98.5 x 130 mm



Material/Surface

- Housing: Plastic
- Impeller: Plastic

Characteristics

- Version: AC fan with wide voltage; in-line duct fan for easy installation in pipe systems, e.g. in wet room ventilation
- Direction of air flow: intake over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via 3-pin Europa terminal strip max. 1.5 mm²
- Electrical protection class: III
- Weight: 400 g

from page 14 Definitions

from page 350 Accessories

more at www.ebmpapst.com

Approvals

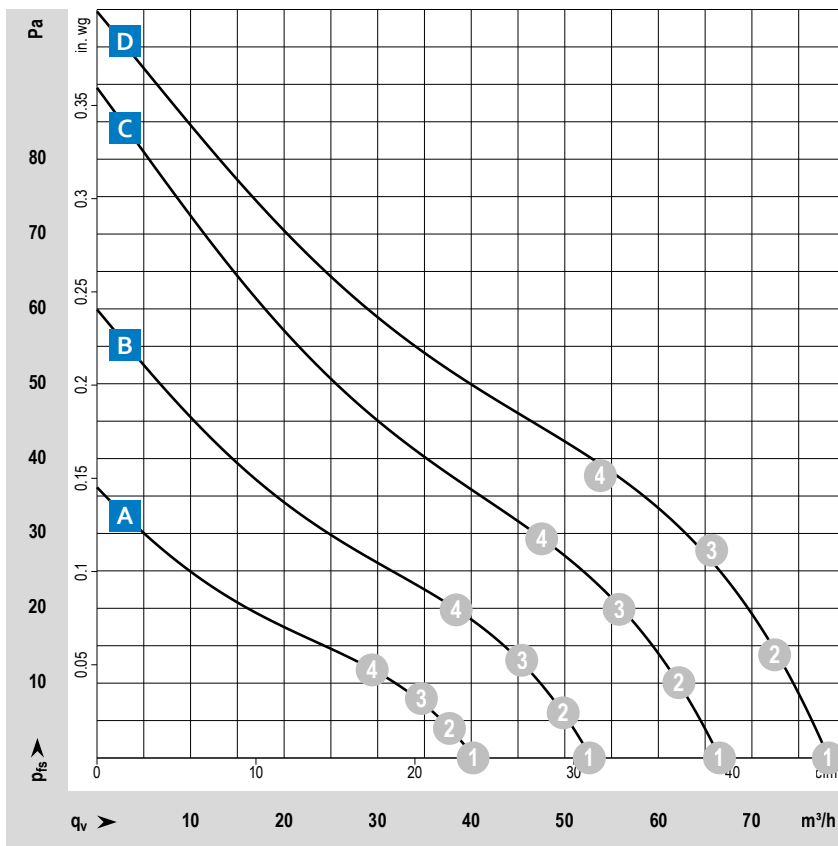
- Approvals: DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA
- Conformity with standard(s): EN 60335-1, CE

Options

- new impeller for high pressure
- Two speeds over jumper adjustable
- Speed signal
- PWM control input
- Analog control input 0...10 VDC
- Moisture protection
- Degree of protection: IP44 (IP45 depending on installation position)

Special features

- Boost function
- Vibration-isolated motor
- two aerodynamic impellers available for more air flow or pressure-oriented design



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

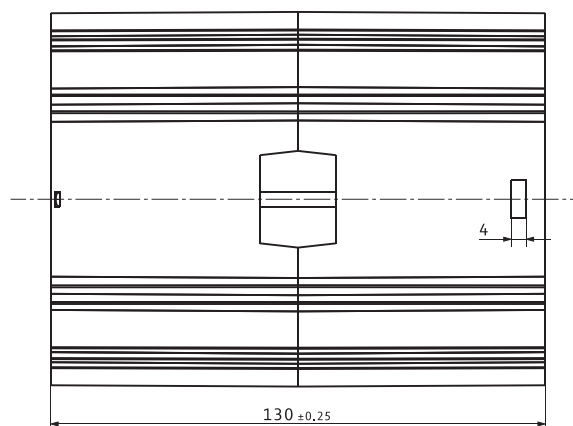
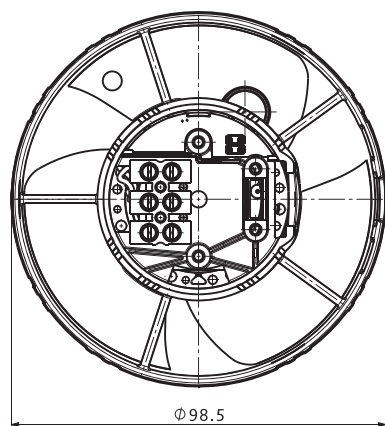
| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L _{10ipfc} (40 °C) s. p. 11 | |
|----------------------------|--|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|---------|
| Voltage range 90...264 VAC | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours | |
| Type / Type old | Part number | | | | | | | | | | | | | | |
| nominal boost | High pressure VUS0092XSGBS AC 100 MR-018 | 9203510018 | 100...240 | 50-60 | A | 1 | 40.2 | 23.7 | 2 100 | 1.8 | 4.6 | 31 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 37.9 | 22.3 | 2 090 | 1.8 | 4.5 | | | | |
| | | | | | | 3 | 34.8 | 20.5 | 2 090 | 1.9 | 4.4 | | | | |
| | | | | | | 4 | 29.7 | 17.5 | 2 090 | 1.9 | 4.4 | | | | |
| | | | | | D | 1 | 78.0 | 45.9 | 3 900 | 4.2 | 5.9 | 38 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 73.0 | 43.0 | 3 880 | 4.4 | 5.8 | | | | |
| | | | | | | 3 | 66.0 | 38.8 | 3 870 | 4.7 | 5.6 | | | | |
| | | | | | | 4 | 54.0 | 31.8 | 3 880 | 4.9 | 5.5 | | | | |
| nominal boost | High pressure VUS0092XSGBS AC 100 NR-017 | 9203510017 | 100...240 | 50-60 | B | 1 | 53.0 | 31.2 | 2 650 | 2.4 | 4.8 | 33 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 49.7 | 29.3 | 2 650 | 2.6 | 4.8 | | | | |
| | | | | | | 3 | 45.3 | 26.7 | 2 650 | 2.7 | 4.7 | | | | |
| | | | | | | 4 | 38.6 | 22.7 | 2 650 | 2.8 | 4.5 | | | | |
| | | | | | C | 1 | 67.0 | 39.4 | 3 300 | 4.0 | 5.3 | 40 | -10...+55 | 70 000 | 117 500 |
| | | | | | | 2 | 62.0 | 36.5 | 3 280 | 4.2 | 5.3 | | | | |
| | | | | | | 3 | 56.0 | 33.0 | 3 290 | 4.3 | 5.2 | | | | |
| | | | | | | 4 | 47.3 | 27.8 | 3 290 | 4.5 | 5.0 | | | | |

Subject to changes.

| Impeller | Bezeichnung | Boost off, Jumper low | Boost off, Jumper high | Boost on |
|---------------|---------------|-----------------------|------------------------|----------|
| High air flow | AC 100 MR | 1 250 | 2 050 | 3 150 |
| High air flow | AC 100 NR | 2 200* | 2 750 | 3 500 |
| High pressure | AC100 MR-018 | 1 250* | 2 050* | 3 150* |
| High pressure | AC 100 NR-017 | 2 180 | 2 680 | 3 300 |

Technical drawing

Dimensions in mm



VUS0092XSGBS

GreenTech EC in-line duct fan



Highest energy efficiency

- 0.03 - 0.045 W/m³/h free air (specific fan power)

Boost speed

- 2 speed settings possible via boost function

Vibration isolation

- Reduced transmission of vibrations from motor to housing

Intelligence

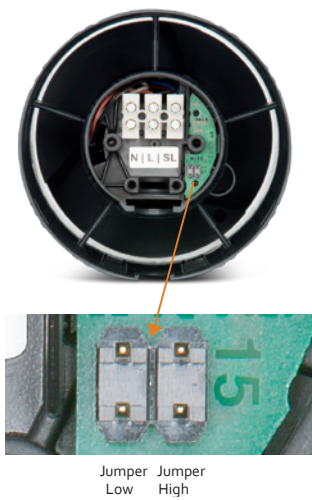
- Can be expanded to include set value requirement and signal outputs as an option

from page 14 Definitions

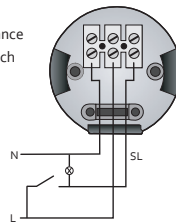
from page 350 Accessories

more at www.ebmpapst.com

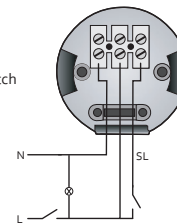
Examples of connections



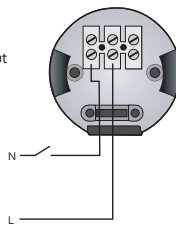
Example 1:
Nom speed endurance
Boost via light switch



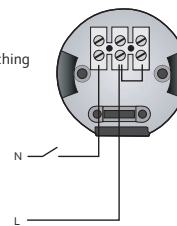
Example 2:
Nom speed via
light switch
Separate boost switch



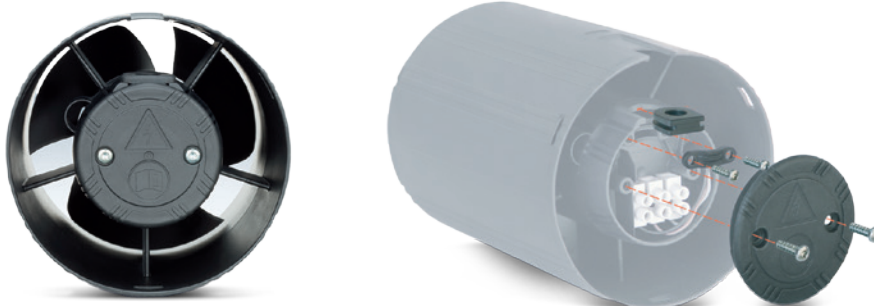
Example 3:
Simple connection
Nom speed without
switching



Example 4:
Simple connection
Boost without switching



Scope of delivery



Product overview

AC axial fans



The tried-and-tested AC fans from ebmpapst are used wherever DC voltage is not available. In addition to complete devices, you will also find fans without external housing. These offer benefits whenever the air duct design can be integrated in the device that is being ventilated.



AC fans are available in many sizes, with variants with exhaust or intake over struts – with plug connection or exposed connection wires.



Fan drive using shaded-pole or capacitor motors based on the familiar external rotor principle. This construction combining high performance with profitability.



All fan types are designed in IP20 as standard. IP65 solutions and special protection types are available on request.

ebmpapst

engineering a better life

Type code example: VWCL119PJGJZ

| V | W | C | L | 119 | P | J | G | J | Z | |
|------------------|-----------------------------------|-----------------|----------------|-----------|------------|-------|------------|---|----------------|----------|
| Product category | Product type Airflow direction | Product version | Overall length | Size [mm] | Brand name | Motor | Motor size | | Air flow level | Standard |
| | | | | | | | Diameter | | | |

| Dimension in mm | Type | Type (old) | Page |
|-----------------|--------------------------|------------|------|
| □ 80 x 38 | VWCF080A... | 8000 N | 300 |
| ∅ 76 x 37 | VVY0076XQHCS | 8000 TV | 302 |
| □ 92 x 25 | VWCD092A... | 3900 | 304 |
| □ 92 x 38 | VWCF092A... | 3000 | 306 |
| □ 119 x 25 | VWCD119A... | 9900 | 308 |
| □ 119 x 38 | VWCF119X..., VUCF119Y... | 4000 N | 310 |
| □ 119 x 38 | VWCF119A..., VWCF119X... | 4000 Z | 312 |
| ∅ 108 x 37 | VVY0108XQHCS | 4600 TZ | 314 |
| □ 135 x 38 | VWCF135AQKMS | 5600 | 316 |
| 150 x 172 x 38 | VWLF150X2LPS | W2E 142 | 318 |
| ∅ 150 x 55 | VVEH150X... | W2S 130 AA | 320 |
| ∅ 150 x 55 | VUEH150XQLPS | W2S 130 BM | 322 |
| ∅ 172 x 51 | VWEG172X... | W2E 143 | 324 |
| □ 225 x 80 | VWLJ225X... | W2E 200 | 326 |
| □ 280 x 80 | VWLJ280H... | W2E 250 | 328 |
| ∅ 200 | VJH0200X2MES | K2E 200 | 330 |
| ∅ 200 | VJH0200X3MES | K2D 200 | 334 |

VWCF080A...

AC axial fans · max. 52 m³/h · □ 80 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via 2 single wires; Grounding lug for M4 or 8-32 UNC
- Electrical protection class: I
- Weight: 490 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

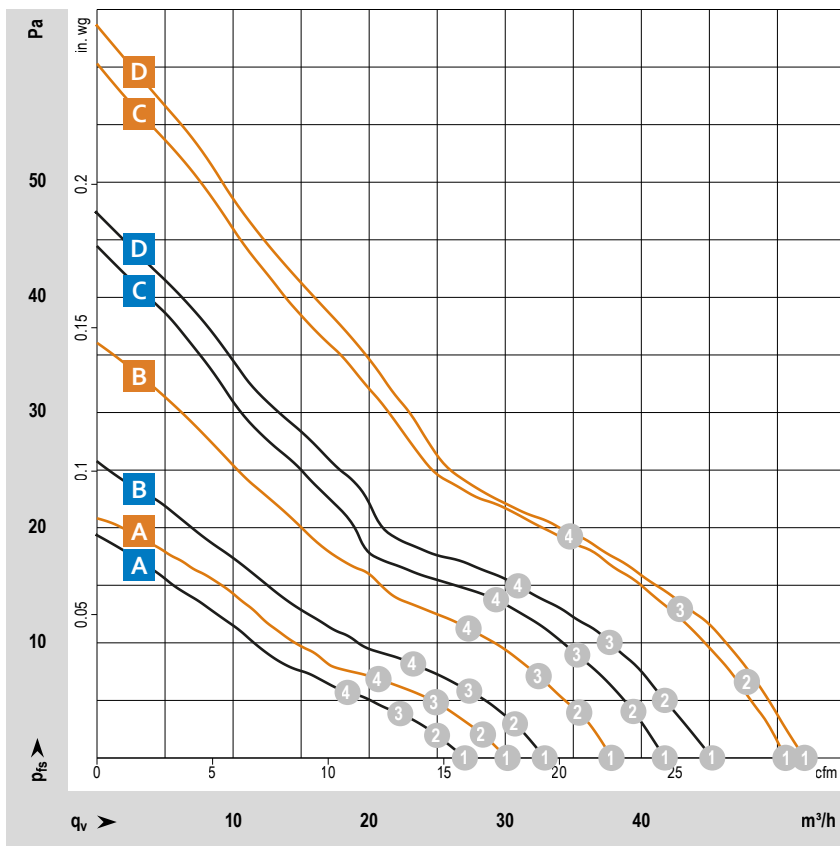
Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP65

Note

- Please note our series AC 8300. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 273

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

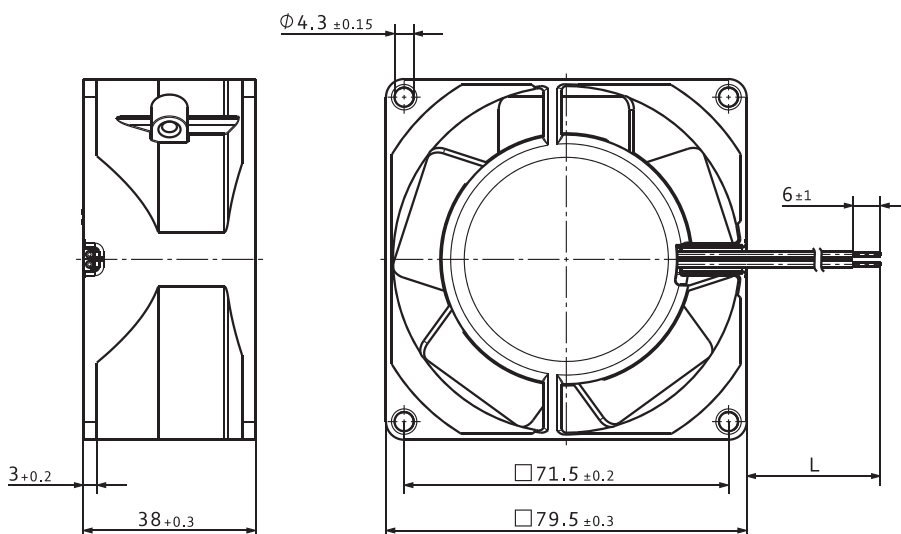
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | |
| VWCF080AQHDS 8880 N | 9244014343 | 230 | 50 | A | ① | 27.0 | 15.9 | 1750 | 7.0 | 3.6 | 18 | -10...+80 | 60 000 | 102 500 |
| | | | | | ② | 25.2 | 14.8 | 1750 | 7.0 | 3.6 | | | | |
| | | | | | ③ | 22.7 | 13.4 | 1740 | 7.0 | 3.6 | | | | |
| | | | | | ④ | 18.9 | 11.1 | 1790 | 6.9 | 3.7 | | | | |
| VWCF080AQHES 8850 N | 9274014213 | 230 | 50 | B | ① | 32.9 | 19.4 | 2150 | 11.3 | 4.0 | 24 | -10...+70 | 52 500 | 87 500 |
| | | | | | ② | 30.9 | 18.2 | 2140 | 11.3 | 4.0 | | | | |
| | | | | | ③ | 27.8 | 16.4 | 2140 | 11.3 | 3.9 | | | | |
| | | | | | ④ | 23.0 | 13.5 | 2140 | 11.3 | 3.9 | | | | |
| VWCF080AQHFS 8550 N | 9274014208 | 230 | 50 | C | ① | 41.7 | 24.5 | 2700 | 10.7 | 4.6 | 30 | -10...+70 | 52 500 | 87 500 |
| | | | | | ② | 39.2 | 23.1 | 2700 | 10.7 | 4.6 | | | | |
| | | | | | ③ | 35.4 | 20.8 | 2700 | 10.7 | 4.5 | | | | |
| | | | | | ④ | 29.6 | 17.4 | 2700 | 10.7 | 4.5 | | | | |
| VWCF080AQHFZ 8556 N | 9274014210 | 230 | 50 | D | ① | 45.2 | 26.6 | 2800 | 11.2 | 4.6 | 31 | -40...+90 | 52 500 | 87 500 |
| | | | | | ② | 41.7 | 24.5 | 2790 | 11.2 | 4.6 | | | | |
| | | | | | ③ | 37.6 | 22.1 | 2790 | 11.2 | 4.5 | | | | |
| | | | | | ④ | 31.0 | 18.2 | 2790 | 11.1 | 4.6 | | | | |
| VWCF080AQHDS 8830 N | 9244014342 | 115 | 60 | A | ① | 30.2 | 17.8 | 1950 | 4.3 | 3.7 | 21 | -10...+80 | 62 500 | 105 000 |
| | | | | | ② | 28.1 | 16.5 | 1940 | 4.4 | 3.7 | | | | |
| | | | | | ③ | 25.3 | 14.9 | 1920 | 4.4 | 3.7 | | | | |
| | | | | | ④ | 20.9 | 12.3 | 1920 | 4.4 | 3.7 | | | | |
| VWCF080AQHES 8800 N | 9244014212 | 115 | 60 | B | ① | 37.8 | 22.2 | 2500 | 11.6 | 4.2 | 28 | -10...+70 | 55 000 | 92 500 |
| | | | | | ② | 35.7 | 21.0 | 2480 | 11.6 | 4.2 | | | | |
| | | | | | ③ | 32.2 | 19.0 | 2470 | 11.6 | 4.1 | | | | |
| | | | | | ④ | 27.0 | 15.9 | 2480 | 11.6 | 4.2 | | | | |
| VWCF080AQHFZ 8500 N | 9274014207 | 115 | 60 | C | ① | 51.0 | 30.0 | 3200 | 9.3 | 4.9 | 34 | -10...+75 | 55 000 | 92 500 |
| | | | | | ② | 47.2 | 27.8 | 3200 | 9.3 | 4.9 | | | | |
| | | | | | ③ | 42.3 | 24.9 | 3190 | 9.4 | 4.9 | | | | |
| | | | | | ④ | 34.7 | 20.4 | 3190 | 9.4 | 5.0 | | | | |
| VWCF080AQHFZ 8506 N | 9274014209 | 115 | 60 | D | ① | 52.0 | 30.6 | 3300 | 9.4 | 5.0 | 35 | -40...+95 | 55 000 | 92 500 |
| | | | | | ② | 48.4 | 28.5 | 3330 | 9.4 | 5.0 | | | | |
| | | | | | ③ | 43.2 | 25.4 | 3320 | 9.4 | 5.0 | | | | |
| | | | | | ④ | 35.2 | 20.7 | 3320 | 9.4 | 5.0 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



| Type / Type old | L in mm | Connection wires |
|------------------------|---------|------------------|
| VWCF080AQHDS 8880 N | 310 | AWG 18, TR 64 |
| VWCF080AQHDS 8830 N | 310 | AWG 18, TR 64 |
| VWCF080AQHES 8800 N | 310 | AWG 18, TR 64 |
| VWCF080AQHFS 8550 N | 310 | AWG 18, TR 64 |
| VWCF080AQHFZ 8500 N | 310 | AWG 18, TR 64 |
| VWCF080AQHFZ 8556 N | 310 | AWG 22 |
| VWCF080AQHFZ 8506 N | 310 | AWG 22 |
| VWCF080AQHES 8850 N | 440 | AWG 18, TR 64 |

VVY0076XQHCS

AC axial fans · max. 47 m³/h · Ø 76 x 37 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Impeller: Metal
- Mounting bracket: Metal

Characteristics

- Version: Classic AC fan without housing; compact and robust
- Direction of air flow: Exhaust over mounting bracket
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via 2 single wires
- Electrical protection class: I
- Weight: 370 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP65

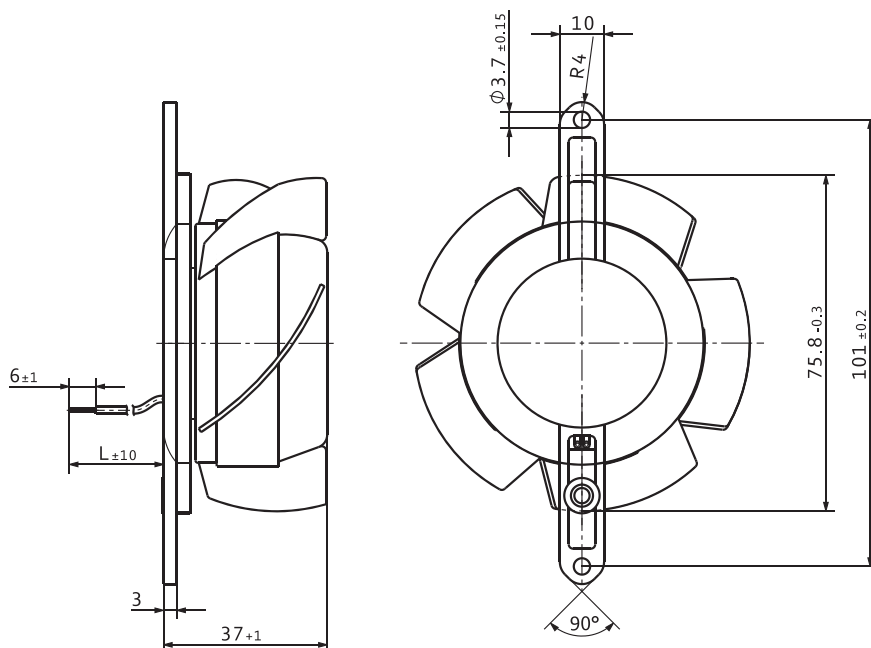
| Type / Type old | Part number | Nominal voltage | Frequency | Air flow | | Speed | Power consumption | Sound pressure (free air flow) | Perm. ambient temperature | Service life | Life expectancy |
|-------------------------|-------------|-----------------|-----------|-------------------|------|-------|-------------------|--------------------------------|---------------------------|--------------|-----------------|
| | | VAC | Hz | m ³ /h | cfm | rpm | | W | | dB(A) | °C |
| VVY0076XQHCS 8880 TV | 9244014667 | 230 | 50 | 24 | 14.1 | 1 650 | 9.0 | 15 | -10...+80 | 60 000 | 102 500 |
| VVY0076XQHCS 8850 TV | 9244014666 | 230 | 50 | 31 | 18.2 | 2 100 | 12.0 | 20 | -10...+70 | 52 500 | 87 500 |
| VVY0076XQHCS 8550 TV | 9244014665 | 230 | 50 | 40 | 23.5 | 2 650 | 12.0 | 27 | -10...+70 | 52 500 | 87 500 |
| VVY0076XQHCS 8556 TV | 9244014664 | 230 | 50 | 40 | 23.5 | 2 750 | 12.0 | 28 | -40...+90 | 52 500 | 87 500 |
| VVY0076XQHCS 8830 TV | 9244014663 | 115 | 60 | 27 | 15.9 | 1 850 | 8.0 | 18 | -10...+80 | 62 500 | 105 000 |
| VVY0076XQHCS 8800 TV | 9244014662 | 115 | 60 | 36 | 21.2 | 2 450 | 11.0 | 24 | -10...+70 | 55 000 | 92 500 |
| VVY0076XQHCS 8500 TV | 9244014661 | 115 | 60 | 47 | 27.7 | 3 150 | 11.0 | 32 | -10...+75 | 55 000 | 92 500 |
| VVY0076XQHCS 8506 TV | 9244014660 | 115 | 60 | 47 | 27.7 | 3 250 | 11.0 | 33 | -40...+95 | 55 000 | 92 500 |

Subject to changes.

The air flow and sound level of fans without external housing depend on the installation conditions.
 The stated air flow and noise have been measured with an orifice 76.5 mm Ø at a distance of approx. 17 mm from the mounting bracket.
 The air flow capacity of fan series 8000 N is achievable because of the exceptionally favorable installation conditions.
 The noise in the optimal operating range can be measured for these fans only in a specific application.

Technical drawing

Dimensions in mm



| Type / Type old | L in mm | Connection wires |
|-------------------------|---------|------------------|
| VVY0076XQHCS 8880 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8850 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8830 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8800 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8550 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8500 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8556 TV | 325 | AWG 18, TR 64 |
| VVY0076XQHCS 8506 TV | 325 | AWG 18 |

VWCD092A...

AC axial fans · max. 65 m³/h · □ 92 x 25 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any (for ball bearings)
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 flat plugs 2.8 x 0.5 mm; Grounding lug for M4 or 8-32 UNC
- Electrical protection class: I
- Weight: 280 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

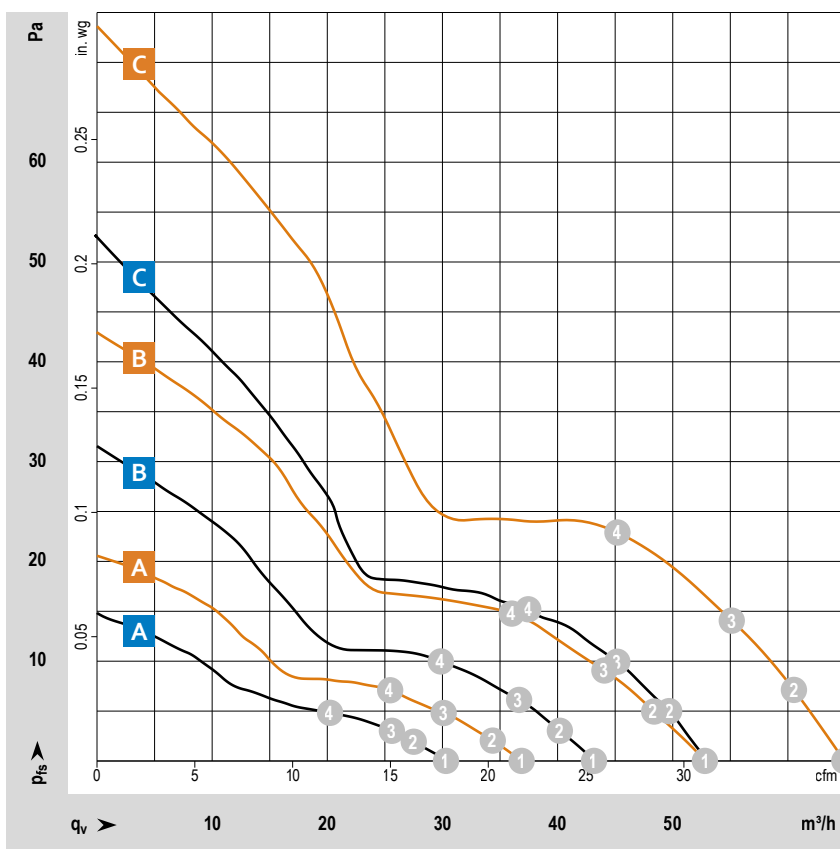
Options

- Moisture protection

Note

- Please note our series AxiACi92. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 276

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

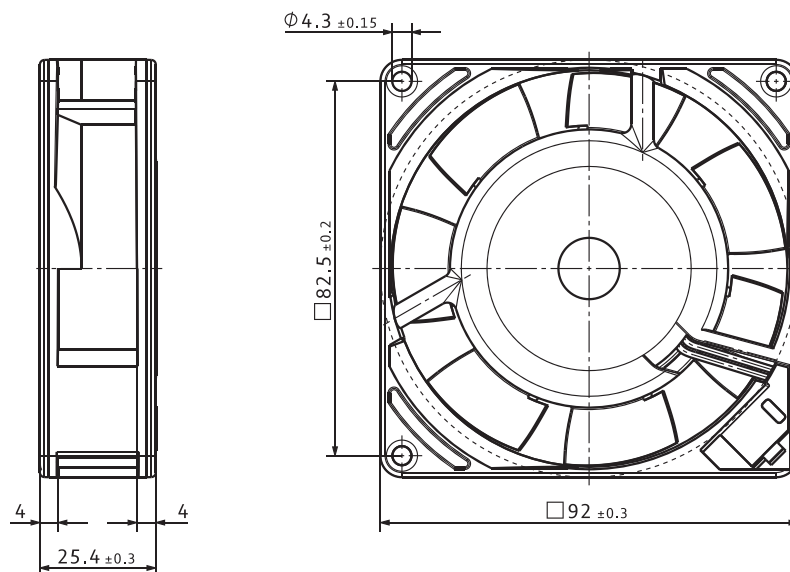
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|---|--|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | |
| VWCD092AQFES 3950 L | 9282708115 | 230 | 50 | A | ① | 30.2 | 17.8 | 1550 | 9.0 | 3.5 | 24 | -10...+80 | 70 000 | 117 500 |
| | | | | | ② | 28.0 | 16.5 | 1530 | 9.1 | 3.4 | | | | |
| | | | | | ③ | 25.5 | 15.0 | 1510 | 9.0 | 3.3 | | | | |
| | | | | | ④ | 21.2 | 12.5 | 1500 | 9.0 | 3.4 | | | | |
| VWCD092AQFES 3956 L | 9282708102 | 230 | 50 | A | ① | 30.3 | 17.8 | 1550 | 6.3 | 3.5 | 24 | -40...+80 | 70 000 | 117 500 |
| | | | | | ② | 28.0 | 16.5 | 1530 | 6.3 | 3.4 | | | | |
| | | | | | ③ | 25.5 | 15.0 | 1510 | 6.3 | 3.3 | | | | |
| | | | | | ④ | 20.6 | 12.1 | 1500 | 6.2 | 3.4 | | | | |
| VWCD092AQFFS 3950 M | 9282708113 | 230 | 50 | B | ① | 42.7 | 25.1 | 2150 | 7.6 | 4.4 | 29 | -10...+80 | 70 000 | 117 500 |
| | | | | | ② | 39.3 | 23.1 | 2140 | 7.6 | 4.2 | | | | |
| | | | | | ③ | 36.2 | 21.3 | 2100 | 7.6 | 4.1 | | | | |
| | | | | | ④ | 30.0 | 17.7 | 2090 | 7.6 | 4.0 | | | | |
| VWCD092AQFFS 3956 M | 9282708104 | 230 | 50 | B | ① | 43.2 | 25.4 | 2150 | 8.5 | 4.4 | 29 | -40...+80 | 70 000 | 117 500 |
| | | | | | ② | 40.0 | 23.5 | 2130 | 8.5 | 4.2 | | | | |
| | | | | | ③ | 36.3 | 21.4 | 2100 | 8.4 | 4.1 | | | | |
| | | | | | ④ | 29.9 | 17.6 | 2090 | 8.4 | 4.0 | | | | |
| VWCD092AQFGS 3950 | 9282708114 | 230 | 50 | C | ① | 53.0 | 31.2 | 2650 | 11.3 | 5.0 | 35 | -20...+80 | 55 000 | 92 500 |
| | | | | | ② | 49.8 | 29.3 | 2640 | 11.3 | 4.9 | | | | |
| | | | | | ③ | 45.6 | 26.8 | 2620 | 11.3 | 4.8 | | | | |
| | | | | | ④ | 37.0 | 21.8 | 2610 | 11.3 | 4.7 | | | | |
| VWCD092AQFGS 3956 | 9282708100 | 230 | 50 | C | ① | 53.0 | 31.2 | 2650 | 10.7 | 5.0 | 35 | -40...+80 | 55 000 | 92 500 |
| | | | | | ② | 49.7 | 29.3 | 2660 | 10.7 | 4.9 | | | | |
| | | | | | ③ | 45.3 | 26.7 | 2636 | 10.7 | 4.8 | | | | |
| | | | | | ④ | 37.2 | 21.9 | 2630 | 10.7 | 4.7 | | | | |
| VWCD092AQFES 3900 L | 9282708122 | 115 | 60 | A | ① | 35.8 | 21.1 | 1850 | 5.4 | 4.2 | 27 | -10...+80 | 70 000 | 117 500 |
| | | | | | ② | 33.2 | 19.5 | 1820 | 5.4 | 4.1 | | | | |
| | | | | | ③ | 30.1 | 17.7 | 1790 | 5.4 | 3.9 | | | | |
| | | | | | ④ | 24.9 | 14.7 | 1760 | 5.4 | 3.7 | | | | |
| VWCD092AQFFS 3906 M | 9282708105 | 115 | 60 | B | ① | 53.0 | 31.2 | 2600 | 6.5 | 4.9 | 34 | -40...+80 | 70 000 | 117 500 |
| | | | | | ② | 48.6 | 28.6 | 2560 | 6.5 | 4.7 | | | | |
| | | | | | ③ | 43.9 | 25.8 | 2520 | 6.5 | 4.5 | | | | |
| | | | | | ④ | 36.3 | 21.4 | 2490 | 6.5 | 4.3 | | | | |
| VWCD092AQFGS 3900 | 9282708116 | 115 | 60 | C | ① | 64.0 | 37.7 | 3150 | 7.8 | 5.4 | 40 | -20...+80 | 60 000 | 102 500 |
| | | | | | ② | 59.0 | 34.7 | 3130 | 7.9 | 5.3 | | | | |
| | | | | | ③ | 53.0 | 31.2 | 3110 | 7.9 | 5.2 | | | | |
| | | | | | ④ | 43.4 | 25.5 | 3090 | 7.9 | 5.0 | | | | |
| VWCD092AQFGS 3906 | 9282708101 | 115 | 60 | C | ① | 65.0 | 38.3 | 3150 | 8.1 | 5.4 | 40 | -40...+80 | 60 000 | 102 500 |
| | | | | | ② | 60.0 | 35.3 | 3150 | 8.2 | 5.3 | | | | |
| | | | | | ③ | 55.0 | 32.4 | 3120 | 8.2 | 5.2 | | | | |
| | | | | | ④ | 45.3 | 26.7 | 3110 | 8.3 | 5.0 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCF092A...

AC axial fans · max. 89 m³/h · □ 92 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via 2 single wires; grounding screw M4 x 8
- Electrical protection class: I
- Weight: 420 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

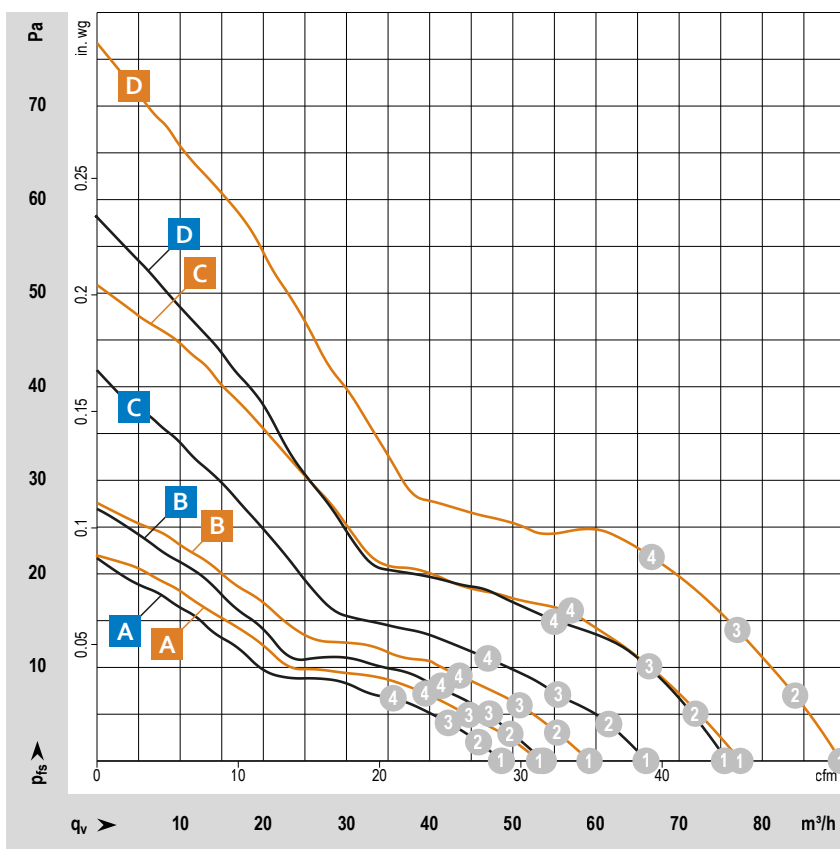
Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP65

Note

- Please note our series AxiACi 92. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 276

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

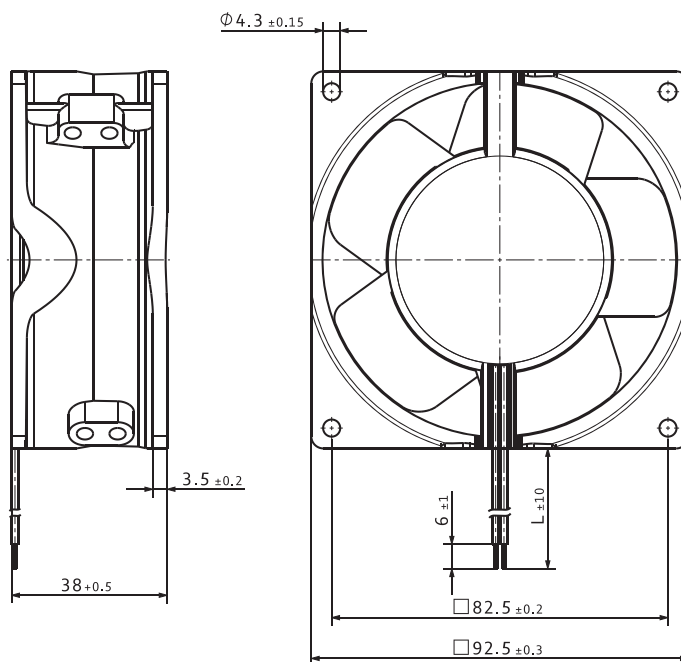
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|----------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | |
| VWCF092AQHGS 3856 | 9244014723 | 230 | 50 | B | ① | 54 | 32 | 1950 | 9.7 | 4.2 | 26 | -40...+90 | 60 000 | 102 500 |
| | | | | | ② | 50 | 29 | 1930 | 9.8 | 4.1 | | | | |
| | | | | | ③ | 47 | 28 | 1920 | 9.8 | 4.0 | | | | |
| | | | | | ④ | 41 | 24 | 1900 | 9.8 | 4.0 | | | | |
| VWCF092AQHGS 3550 | 9244014721 | 230 | 50 | C | ① | 36 | 36.5 | 2300 | 8.1 | 4.7 | 32 | -10...+80 | 60 000 | 102 500 |
| | | | | | ② | 35 | 34.7 | 2260 | 8.2 | 4.5 | | | | |
| | | | | | ③ | 32 | 32.4 | 2250 | 8.2 | 4.3 | | | | |
| | | | | | ④ | 28 | 27.9 | 2240 | 8.2 | 4.4 | | | | |
| VWCF092AQHGS 3556 | 9244014710 | 230 | 50 | C | ① | 68 | 40 | 2400 | 9.9 | 4.8 | 33 | -40...+90 | 60 000 | 102 500 |
| | | | | | ② | 64 | 38 | 2390 | 9.9 | 4.8 | | | | |
| | | | | | ③ | 58 | 34 | 2370 | 10.0 | 4.7 | | | | |
| | | | | | ④ | 51 | 30 | 2360 | 10.0 | 4.6 | | | | |
| VWCF092AQHHS 3650 | 9244014701 | 230 | 50 | D | ① | 76 | 45 | 2650 | 12.1 | 5.1 | 36 | -10...+55 | 52 500 | 87 500 |
| | | | | | ② | 72 | 42 | 2680 | 12.1 | 5.0 | | | | |
| | | | | | ③ | 66 | 39 | 2680 | 12.1 | 4.9 | | | | |
| | | | | | ④ | 55 | 32 | 2700 | 11.8 | 4.8 | | | | |
| VWCF092AQHHS 3656 | 9244014700 | 230 | 50 | D | ① | 75 | 44 | 2700 | 11.4 | 5.1 | 37 | -40...+75 | 52 500 | 87 500 |
| | | | | | ② | 71 | 42 | 2700 | 11.5 | 5.1 | | | | |
| | | | | | ③ | 66 | 39 | 2710 | 11.5 | 5.0 | | | | |
| | | | | | ④ | 55 | 32 | 2730 | 11.3 | 4.9 | | | | |
| VWCF092AQHFS 3800 | 9244014722 | 115 | 60 | A | ① | 51 | 30 | 1900 | 6.1 | 4.0 | 26 | -10...+80 | 62 500 | 105 000 |
| | | | | | ② | 47 | 28 | 1880 | 6.1 | 4.1 | | | | |
| | | | | | ③ | 43 | 25 | 1850 | 6.1 | 3.9 | | | | |
| | | | | | ④ | 37 | 22 | 1850 | 6.1 | 3.9 | | | | |
| VWCF092AQHGS 3806 | 9244014709 | 115 | 60 | B | ① | 57 | 34 | 2150 | 7.1 | 4.3 | 29 | -40...+95 | 62 500 | 105 000 |
| | | | | | ② | 52 | 31 | 2080 | 7.1 | 4.3 | | | | |
| | | | | | ③ | 48 | 28 | 2060 | 7.1 | 4.1 | | | | |
| | | | | | ④ | 42 | 25 | 2040 | 7.2 | 4.0 | | | | |
| VWCF092AQHGS 3500 | 9244014712 | 115 | 60 | C | ① | 77 | 45 | 2790 | 6.3 | 5.0 | 35 | -10...+80 | 62 500 | 105 000 |
| | | | | | ② | 72 | 42 | 2770 | 6.4 | 5.0 | | | | |
| | | | | | ③ | 66 | 39 | 2750 | 6.5 | 4.9 | | | | |
| | | | | | ④ | 57 | 34 | 2730 | 6.5 | 5.0 | | | | |
| VWCF092AQHHS 3600 | 9244014706 | 115 | 60 | D | ① | 88 | 52 | 3100 | 10.3 | 5.4 | 41 | -10...+65 | 55 000 | 92 500 |
| | | | | | ② | 82 | 48 | 3100 | 10.3 | 5.4 | | | | |
| | | | | | ③ | 75 | 44 | 3100 | 10.3 | 5.3 | | | | |
| | | | | | ④ | 65 | 38 | 3090 | 10.4 | 5.2 | | | | |
| VWCF092AQHHS 3606 | 9244014705 | 115 | 60 | D | ① | 89 | 52 | 3200 | 10.1 | 5.5 | 42 | -40...+75 | 55 000 | 92 500 |
| | | | | | ② | 84 | 49 | 3170 | 10.1 | 5.4 | | | | |
| | | | | | ③ | 77 | 45 | 3160 | 10.2 | 5.4 | | | | |
| | | | | | ④ | 67 | 39 | 3150 | 10.2 | 5.3 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



| Version | L in mm | Type / Type old |
|-----------------|---------|-----------------|
| Sleeve bearings | 310 | AWG18, TR 64 |
| Ball bearings | 310 | AWG18 |

VWCD119A...

AC axial fans · max. 132 m³/h · □ 119 x 25 mm



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 flat plugs 2.8 x 0.5 mm; Grounding lug for M4
- Electrical protection class: I
- Weight: 320 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

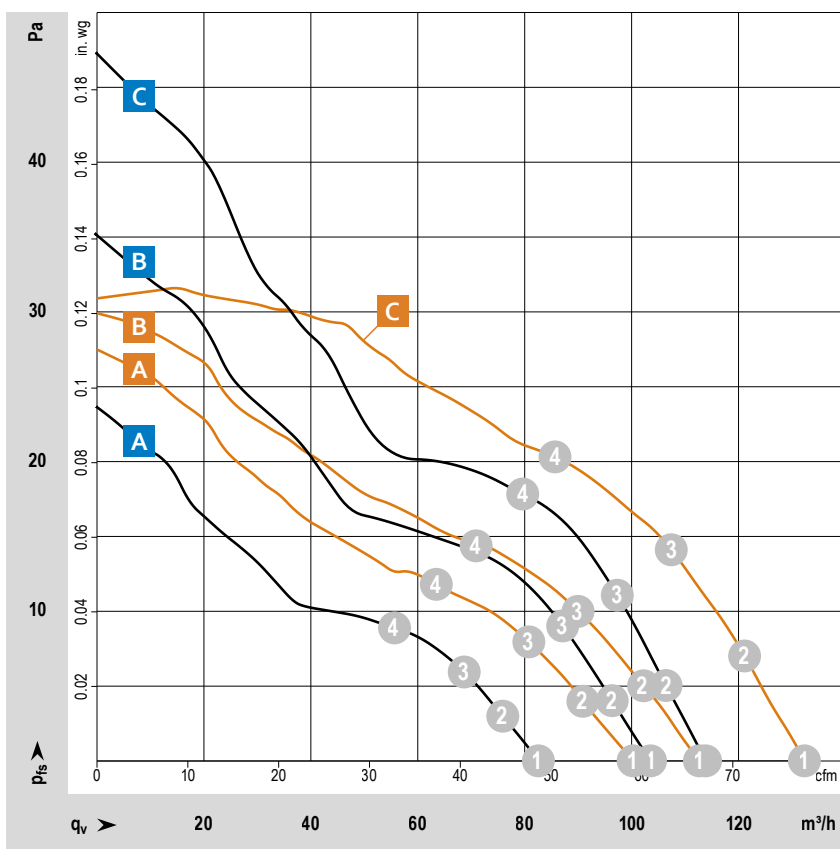
Options

- Moisture protection

Note

- Please note our series AxiACi 120. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 280

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

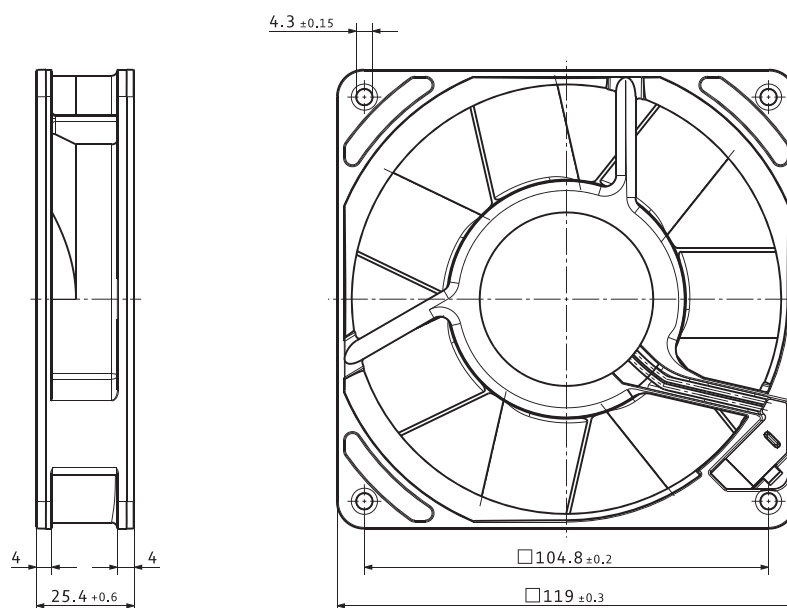
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | | | | | | |
| VWCD119AQFHS 9956 L | 9282708003 | 230 | 50 | A | ① | 83 | 49 | 1850 | 9.3 | 4.4 | 29 | -40...+80 | 57 500 | 97 500 |
| | | | | | ② | 76 | 45 | 1800 | 9.3 | 4.2 | | | | |
| | | | | | ③ | 69 | 41 | 1760 | 9.3 | 4.2 | | | | |
| | | | | | ④ | 56 | 33 | 1710 | 9.3 | 4.3 | | | | |
| VWCD119AQFJS 9956 M | 9282708005 | 230 | 50 | B | ① | 104 | 61 | 2250 | 9.7 | 4.9 | 35 | -40...+80 | 57 500 | 97 500 |
| | | | | | ② | 96 | 57 | 2200 | 9.8 | 4.8 | | | | |
| | | | | | ③ | 87 | 51 | 2140 | 9.8 | 4.8 | | | | |
| | | | | | ④ | 71 | 42 | 2080 | 9.8 | 5.0 | | | | |
| VWCD119AQFJS 9950 | 9282708012 | 230 | 50 | C | ① | 110 | 65 | 2450 | 13.3 | 5.2 | 37 | -20...+70 | 47 500 | 80 000 |
| | | | | | ② | 103 | 61 | 2420 | 13.2 | 5.1 | | | | |
| | | | | | ③ | 94 | 55 | 2380 | 13.2 | 5.0 | | | | |
| | | | | | ④ | 77 | 45 | 2340 | 13.2 | 5.1 | | | | |
| VWCD119AQFJS 9956 | 9282708001 | 230 | 50 | C | ① | 114 | 67 | 2450 | 14.1 | 5.2 | 37 | -40...+70 | 47 500 | 80 000 |
| | | | | | ② | 106 | 62 | 2440 | 14.1 | 5.1 | | | | |
| | | | | | ③ | 97 | 57 | 2400 | 14.1 | 5.0 | | | | |
| | | | | | ④ | 80 | 47 | 2340 | 14.1 | 5.1 | | | | |
| VWCD119AQFHS 9906 L | 9282708004 | 115 | 60 | A | ① | 100 | 59 | 2150 | 8.1 | 5.0 | 34 | -40...+80 | 62 500 | 105 000 |
| | | | | | ② | 91 | 54 | 2090 | 8.1 | 4.8 | | | | |
| | | | | | ③ | 81 | 48 | 2000 | 8.2 | 4.7 | | | | |
| | | | | | ④ | 64 | 38 | 1900 | 8.3 | 4.8 | | | | |
| VWCD119AQFJS 9906 M | 9282708006 | 115 | 60 | B | ① | 113 | 67 | 2450 | 7.8 | 5.3 | 37 | -40...+80 | 62 500 | 105 000 |
| | | | | | ② | 102 | 60 | 2350 | 7.9 | 5.1 | | | | |
| | | | | | ③ | 90 | 53 | 2240 | 8.0 | 5.0 | | | | |
| | | | | | ④ | 72 | 42 | 2110 | 8.2 | 4.9 | | | | |
| VWCD119AQFJS 9900 | 9282708015 | 115 | 60 | C | ① | 132 | 78 | 2850 | 11.4 | 5.8 | 42 | -20...+70 | 52 500 | 87 500 |
| | | | | | ② | 121 | 71 | 2750 | 11.6 | 5.7 | | | | |
| | | | | | ③ | 107 | 63 | 2640 | 11.9 | 5.5 | | | | |
| | | | | | ④ | 85 | 50 | 2480 | 12.2 | 5.4 | | | | |
| VWCD119AQFJS 9906 | 9282708002 | 115 | 60 | C | ① | 132 | 78 | 2850 | 11.6 | 5.8 | 42 | -40...+70 | 52 500 | 87 500 |
| | | | | | ② | 121 | 71 | 2740 | 11.8 | 5.7 | | | | |
| | | | | | ③ | 107 | 63 | 2640 | 12.0 | 5.5 | | | | |
| | | | | | ④ | 85 | 50 | 2500 | 12.3 | 5.4 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWCF119X..., VUCF119Y...

AC axial fans · max. 174 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: intake over struts; types 4890 N and 4840 N exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 flat plugs 2.8 x 0.5 mm; Grounding lug for M4
- Electrical protection class: I
- Weight: 550 g

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

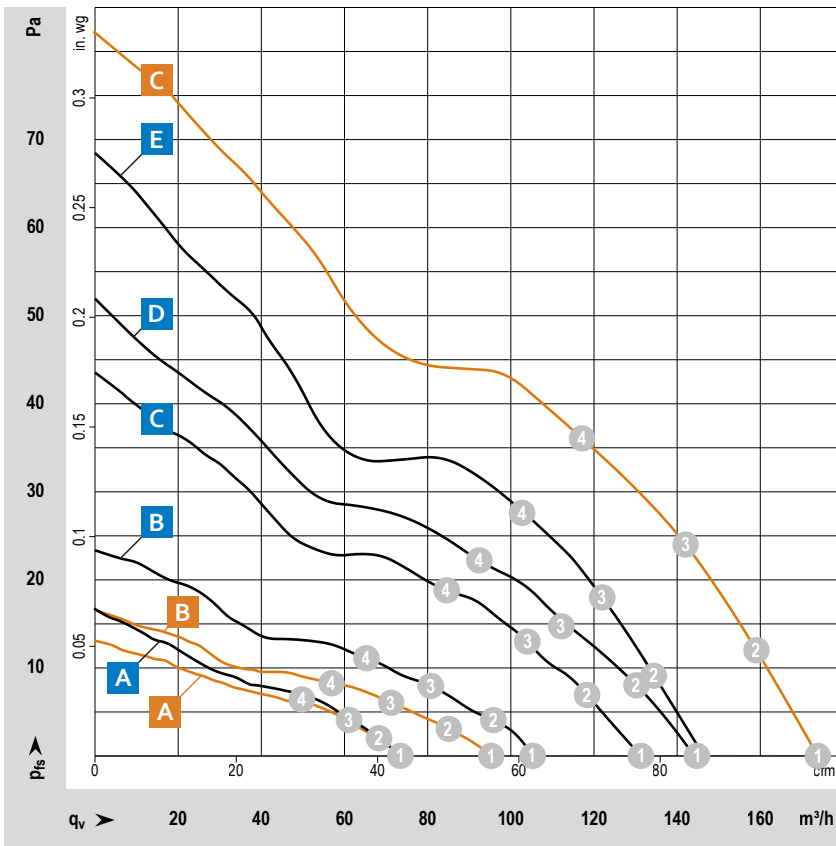
- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Versions with reinforced mounting flanges and exposed external single wires
- Speed signal
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP65

Note

- Please note our series AxiACi 120. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 280



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

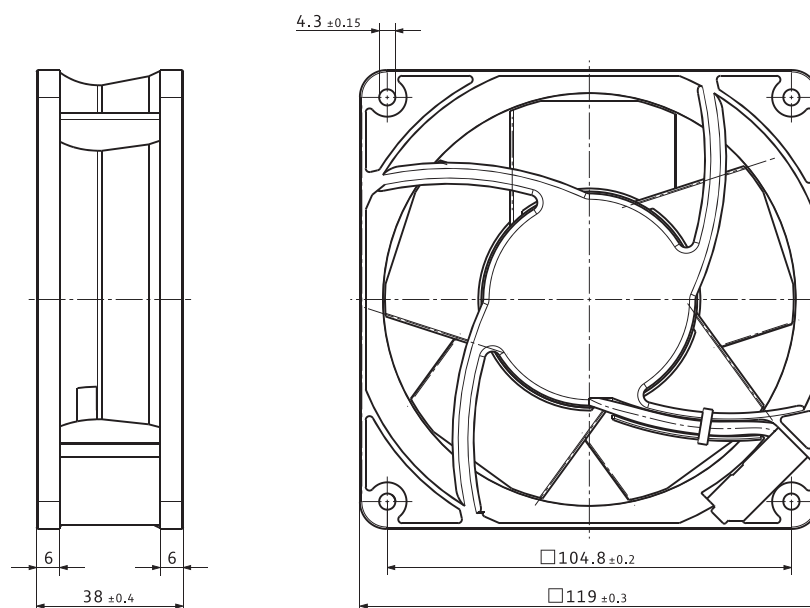
| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|-------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | |
| VWCF119XQHHS 4890 N | 9244014264 | 230 | 50 | A | ① | 73 | 43 | 1 500 | 10.5 | 3.9 | 25 | -10...+70 | 55 000 | 92 500 |
| | | | | | ② | 68 | 40 | 1 480 | 10.6 | 3.9 | | | | |
| | | | | | ③ | 61 | 36 | 1 450 | 10.6 | 4.0 | | | | |
| | | | | | ④ | 51 | 30 | 1 440 | 10.5 | 4.2 | | | | |
| VUCF119YQHJS 4850 N* | 9274014111 | 230 | 50 | B | ① | 105 | 62 | 1 850 | 9.2 | 4.9 | 32 | -10...+70 | 57 500 | 97 500 |
| | | | | | ② | 95 | 56 | 1 810 | 9.2 | 4.9 | | | | |
| | | | | | ③ | 81 | 48 | 1 770 | 9.3 | 4.8 | | | | |
| | | | | | ④ | 65 | 38 | 1 720 | 9.3 | 4.8 | | | | |
| VUCF119YQHKS 4580 N* | 9274014113 | 230 | 50 | C | ① | 131 | 77 | 2 350 | 19.9 | 5.6 | 41 | -10...+55 | 40 000 | 67 500 |
| | | | | | ② | 119 | 70 | 2 330 | 19.8 | 5.5 | | | | |
| | | | | | ③ | 104 | 61 | 2 310 | 19.9 | 5.5 | | | | |
| | | | | | ④ | 85 | 50 | 2 260 | 19.9 | 5.5 | | | | |
| VUCF119YQHKS 4550 N* | 9274014115 | 230 | 50 | D | ① | 144 | 85 | 2 550 | 18.3 | 5.7 | 44 | -10...+55 | 42 500 | 72 500 |
| | | | | | ② | 130 | 77 | 2 520 | 18.4 | 5.7 | | | | |
| | | | | | ③ | 113 | 67 | 2 500 | 18.5 | 5.6 | | | | |
| | | | | | ④ | 92 | 54 | 2 450 | 18.5 | 5.6 | | | | |
| VUCF119YQHKS 4650 N | 9274014351 | 230 | 50 | E | ① | 146 | 86 | 2 600 | 19.8 | 5.8 | 46 | -10...+55 | 37 500 | 62 500 |
| | | | | | ② | 135 | 79 | 2 600 | 19.9 | 5.6 | | | | |
| | | | | | ③ | 122 | 72 | 2 590 | 20.0 | 5.5 | | | | |
| | | | | | ④ | 103 | 61 | 2 540 | 20.0 | 5.4 | | | | |
| VUCF119YQHKS 4656 N | 9274014139 | 230 | 50 | E | ① | 146 | 86 | 2 600 | 18.0 | 5.5 | 47 | -40...+85 | 37 500 | 62 500 |
| | | | | | ② | 135 | 79 | 2 580 | 18.1 | 5.6 | | | | |
| | | | | | ③ | 121 | 71 | 2 560 | 18.2 | 5.5 | | | | |
| | | | | | ④ | 102 | 60 | 2 520 | 18.5 | 5.4 | | | | |
| VWCF119XQHHS 4840 N | 9244014279 | 115 | 60 | A | ① | 74 | 44 | 1 550 | 6.0 | 3.6 | 26 | -10...+75 | 57 500 | 97 500 |
| | | | | | ② | 67 | 39 | 1 510 | 6.1 | 3.7 | | | | |
| | | | | | ③ | 60 | 35 | 1 470 | 6.1 | 3.8 | | | | |
| | | | | | ④ | 49 | 29 | 1 450 | 6.1 | 3.9 | | | | |
| VUCF119YQHJS 4800 N* | 9244014110 | 115 | 60 | B | ① | 95 | 56 | 1 700 | 7.8 | 4.8 | 32 | -10...+75 | 60 000 | 102 500 |
| | | | | | ② | 84 | 49 | 1 640 | 7.9 | 4.6 | | | | |
| | | | | | ③ | 71 | 42 | 1 580 | 7.9 | 4.5 | | | | |
| | | | | | ④ | 56 | 33 | 1 520 | 7.9 | 4.5 | | | | |
| VUCF119YQHKS 4600 N | 9274014116 | 115 | 60 | C | ① | 174 | 102 | 3 100 | 17.5 | 6.3 | 50 | -10...+60 | 40 000 | 67 500 |
| | | | | | ② | 159 | 94 | 3 040 | 17.8 | 6.2 | | | | |
| | | | | | ③ | 142 | 84 | 2 990 | 18.2 | 6.1 | | | | |
| | | | | | ④ | 117 | 69 | 2 890 | 18.9 | 5.9 | | | | |
| VUCF119YQHKS 4606 N | 9274014147 | 115 | 60 | C | ① | 164 | 97 | 3 100 | 18.5 | 6.3 | 51 | -40...+90 | 40 000 | 67 500 |
| | | | | | ② | 153 | 90 | 3 070 | 18.7 | 6.2 | | | | |
| | | | | | ③ | 138 | 81 | 3 020 | 19.0 | 6.1 | | | | |
| | | | | | ④ | 114 | 67 | 2 930 | 19.5 | 5.9 | | | | |

Subject to changes.

* Fan with 3 blades.

Technical drawing

Dimensions in mm



VWCF119A..., VWCF119X...

AC axial fans · max. 182 m³/h · □ 119 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 flat plugs 2.8 x 0.5 mm; Grounding lug for M4 x 8
- Electrical protection class: I
- Weight: 540 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

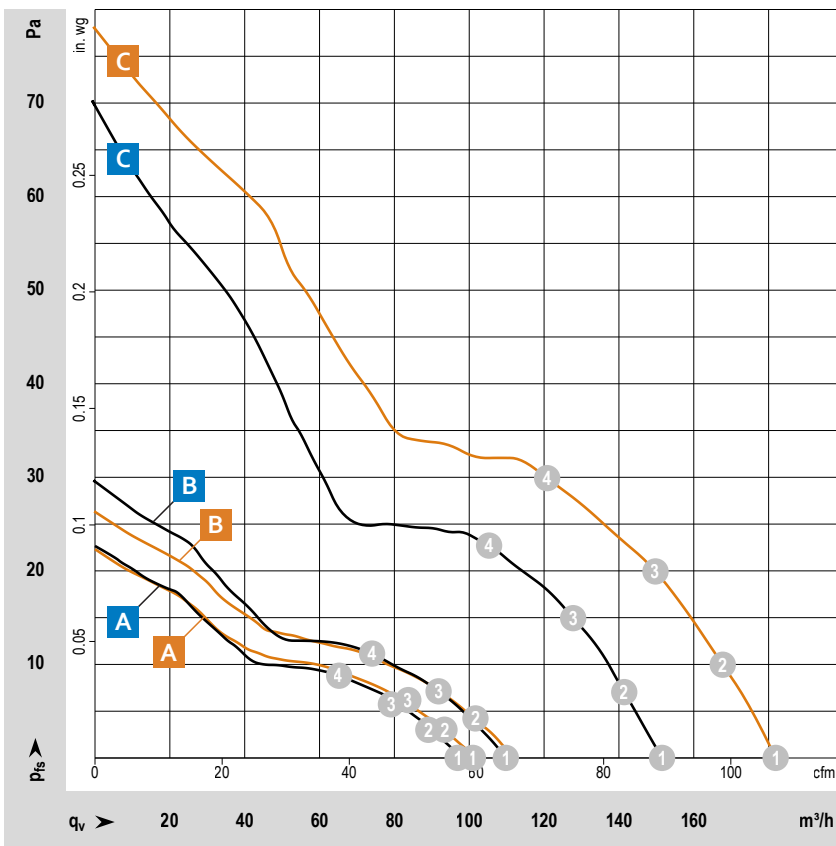
Options

- Speed signal
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP65

Note

- Please note our series AxiACi 120. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 280

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

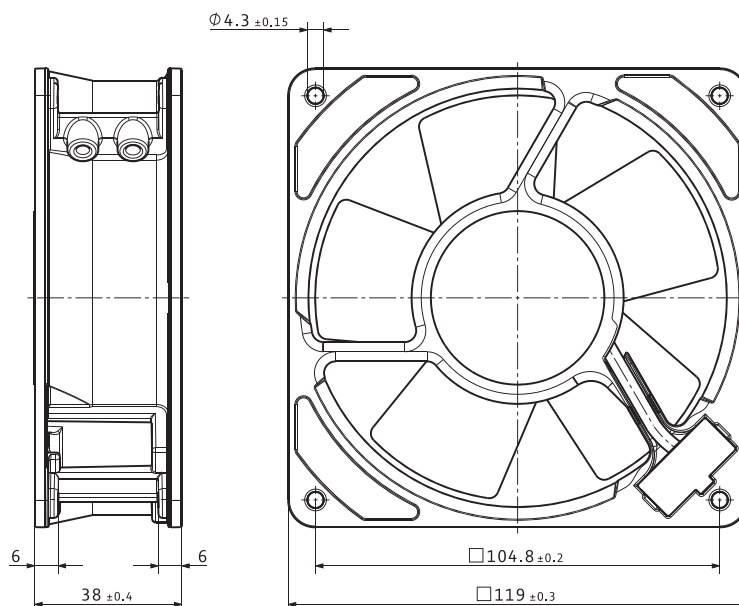
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | |
| VWCF119AQHJS 4850 Z | 9274014829 | 230 | 50 | A | ① | 98 | 58 | 1 700 | 11.0 | 4.0 | 26 | -10...+65 | 50 000 | 85 000 |
| | | | | | ② | 90 | 53 | 1 670 | 11.0 | 3.9 | | | | |
| | | | | | ③ | 81 | 48 | 1 630 | 11.0 | 3.7 | | | | |
| | | | | | ④ | 66 | 39 | 1 590 | 11.0 | 3.9 | | | | |
| VWCF119AQHJS 4856 Z | 9274014828 | 230 | 50 | A | ① | 98 | 58 | 1 700 | 11.7 | 4.0 | 26 | -40...+75 | 50 000 | 85 000 |
| | | | | | ② | 90 | 53 | 1 660 | 11.7 | 3.9 | | | | |
| | | | | | ③ | 82 | 48 | 1 660 | 11.8 | 3.7 | | | | |
| | | | | | ④ | 66 | 39 | 1 590 | 11.8 | 3.9 | | | | |
| VWCF119XQHJZ 4580 Z | 9274014841 | 230 | 50 | B | ① | 110 | 65 | 1 900 | 10.4 | 4.3 | 30 | -10...+65 | 50 000 | 85 000 |
| | | | | | ② | 102 | 60 | 1 870 | 10.4 | 4.1 | | | | |
| | | | | | ③ | 91 | 54 | 1 830 | 10.5 | 4.0 | | | | |
| | | | | | ④ | 74 | 44 | 1 790 | 10.5 | 4.1 | | | | |
| VWCF119XQHJS 4586 Z | 9244014840 | 230 | 50 | B | ① | 108 | 64 | 1 900 | 13.2 | 4.3 | 30 | -40...+75 | 50 000 | 85 000 |
| | | | | | ② | 100 | 59 | 1 880 | 13.2 | 4.1 | | | | |
| | | | | | ③ | 91 | 54 | 1 850 | 13.2 | 4.0 | | | | |
| | | | | | ④ | 75 | 44 | 1 810 | 13.2 | 4.1 | | | | |
| VWCF119AQHKS 4650 Z | 9274014801 | 230 | 50 | C | ① | 149 | 88 | 2 650 | 18.2 | 5.1 | 40 | -10...+50 | 37 500 | 62 500 |
| | | | | | ② | 140 | 82 | 2 640 | 18.3 | 5.1 | | | | |
| | | | | | ③ | 128 | 75 | 2 620 | 18.3 | 5.0 | | | | |
| | | | | | ④ | 106 | 62 | 2 600 | 18.4 | 5.2 | | | | |
| VWCF119AQHKS 4656 Z | 9274014800 | 230 | 50 | C | ① | 152 | 89 | 2 650 | 16.8 | 5.1 | 40 | -40...+75 | 37 500 | 62 500 |
| | | | | | ② | 141 | 83 | 2 630 | 17.0 | 5.1 | | | | |
| | | | | | ③ | 128 | 75 | 2 620 | 17.1 | 5.0 | | | | |
| | | | | | ④ | 106 | 62 | 2 600 | 17.2 | 5.2 | | | | |
| VWCF119XQHJS 4800 Z | 9244014833 | 115 | 60 | A | ① | 102 | 60 | 1 800 | 10.7 | 4.2 | 28 | -10...+70 | 52 500 | 87 500 |
| | | | | | ② | 93 | 55 | 1 750 | 10.7 | 4.1 | | | | |
| | | | | | ③ | 83 | 49 | 1 690 | 10.7 | 4.0 | | | | |
| | | | | | ④ | 67 | 39 | 1 630 | 10.8 | 4.0 | | | | |
| VWCF119XQHJS 4536 Z | 9244014836 | 115 | 60 | B | ① | 112 | 66 | 2 000 | 9.5 | 4.4 | 32 | -40...+75 | 52 500 | 87 500 |
| | | | | | ② | 103 | 61 | 1 950 | 9.6 | 4.3 | | | | |
| | | | | | ③ | 91 | 54 | 1 880 | 9.6 | 4.2 | | | | |
| | | | | | ④ | 74 | 44 | 1 800 | 9.7 | 4.2 | | | | |
| VWCF119AQHKS 4600 Z | 9274014803 | 115 | 60 | C | ① | 174 | 102 | 3 100 | 16.3 | 5.6 | 45 | -10...+60 | 40 000 | 67 500 |
| | | | | | ② | 161 | 95 | 3 080 | 16.6 | 5.5 | | | | |
| | | | | | ③ | 145 | 85 | 3 040 | 16.9 | 5.5 | | | | |
| | | | | | ④ | 118 | 69 | 3 000 | 17.1 | 5.5 | | | | |
| VWCF119AQHKS 4606 Z | 9274014802 | 115 | 60 | C | ① | 182 | 107 | 3 100 | 17.0 | 5.6 | 45 | -40...+85 | 40 000 | 67 500 |
| | | | | | ② | 168 | 99 | 3 050 | 17.4 | 5.5 | | | | |
| | | | | | ③ | 150 | 88 | 2 990 | 17.7 | 5.5 | | | | |
| | | | | | ④ | 121 | 71 | 2 940 | 18.0 | 5.5 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VVY0108XQHCS

AC axial fans · max. 140 m³/h · Ø 108 x 37 mm



| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Material/Surface

- Impeller: Metal
- Mounting bracket: Metal

Characteristics

- Version: Classic AC fan without housing; compact and robust
- Direction of air flow: Exhaust over mounting bracket
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: Via 2 single wires
- Electrical protection class: I
- Weight: 430 g

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP65

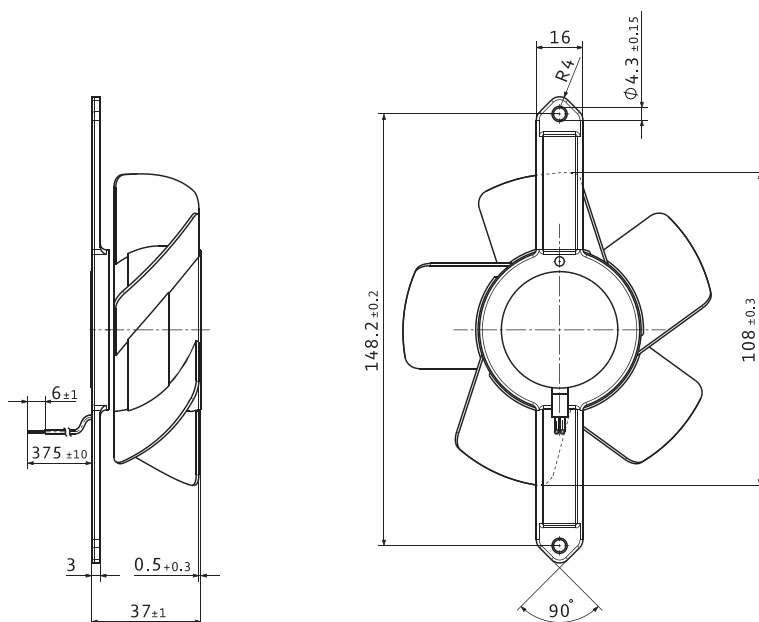
| Type / Type old | Part number | Nominal voltage | Frequency | Air flow | Air flow | Speed | Power consumption | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy $L_{10\text{IPC}}$ (40 °C) s.p. II |
|-------------------------|-------------|-----------------|-----------|-------------------|----------|-------|-------------------|--------------------------------|---------------------------|--|--|
| | | VAC | Hz | m ³ /h | cfm | rpm | W | dB(A) | °C | Hours | Hours |
| VVY0108XQHCS 4650 TZ | 9244014892 | 230 | 50 | 125 | 73.6 | 2 600 | 19.0 | 42 | -10...+50 | 37 500 | 62 500 |
| VVY0108XQHCS 4656 TZ | 9244014896 | 230 | 50 | 125 | 73.6 | 2 600 | 19.0 | 42 | -40...+65 | 37 500 | 62 500 |
| VVY0108XQHCS 4600 TZ | 9244014885 | 115 | 60 | 140 | 82.4 | 2 950 | 18.0 | 45 | -10...+50 | 40 000 | 67 500 |
| VVY0108XQHCS 4606 TZ | 9244014895 | 115 | 60 | 140 | 82.4 | 2 950 | 18.0 | 45 | -40...+75 | 40 000 | 67 500 |

Subject to changes.

Förderleistung und Geräusch von Lüftern ohne AußenHousing hängen von ihren Einbauverhältnissen ab. Der genannte Air flow wurde in einer Lochblende von $\varnothing 109$ mm und einem Abstand von ca. 17 mm vom Mounting bracket ermittelt. Bei besonders günstigen Einbauverhältnissen sind die Förderleistungen der Serie 4000 Z erreichbar. Das Geräusch im optimalen Betriebsbereich kann für diese Lüfter nur im konkreten Anwendungsfall gemessen werden.

Technical drawing

Dimensions in mm



| Type / Type old | Type / Type old |
|-------------------------|-----------------|
| VVY0108XQHCS 4650 TZ | AWG 22, TR 32 |
| VVY0108XQHCS 4600 TZ | AWG 22, TR 32 |
| VVY0108XQHCS 4656 TZ | AWG 18 |
| VVY0108XQHCS 4606 TZ | AWG 18 |

VWCF135AQKMS

AC axial fans · max. 271 m³/h · □ 135 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan with housing; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 flat plugs 2.8 x 0.5 mm; Grounding lug for M4 x 8
- Electrical protection class: I
- Weight: 800 g

from page 14 Definitions

from page 350 Accessories

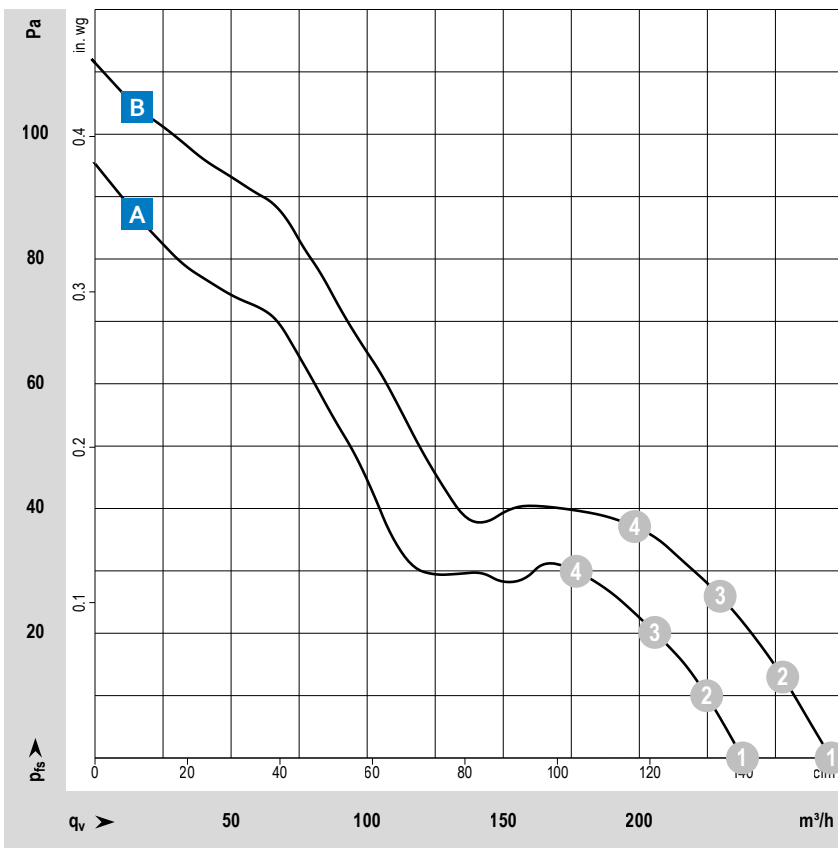
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

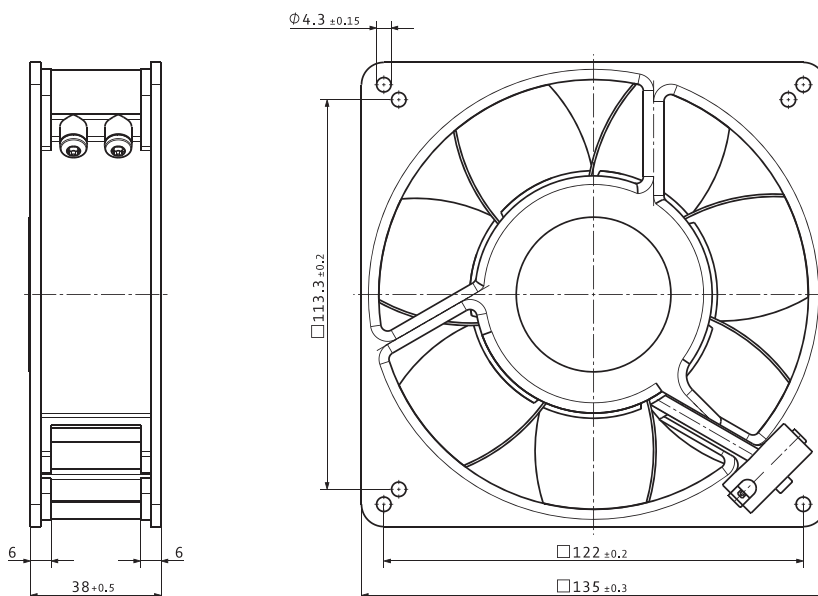
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | dB(A) | °C | Hours | Hours |
| VWCF135AQKMS 5656 S | 9245012001 | 230 | 50 | A | ① | 238 | 140 | 2 700 | 34.7 | 6.0 | 46 | -35...+70 | 45 000 | 75 000 |
| | | | | | ② | 225 | 132 | 2 690 | 35.0 | 6.0 | | | | |
| | | | | | ③ | 205 | 121 | 2 680 | 35.2 | 5.9 | | | | |
| | | | | | ④ | 177 | 104 | 2 670 | 35.1 | 6.0 | | | | |
| VWCF135AQKMS 5606 S | 9245012002 | 115 | 60 | B | ① | 271 | 160 | 3 100 | 30.7 | 6.4 | 50 | -35...+80 | 47 500 | 80 000 |
| | | | | | ② | 253 | 149 | 3 060 | 31.2 | 6.3 | | | | |
| | | | | | ③ | 230 | 135 | 3 030 | 31.7 | 6.2 | | | | |
| | | | | | ④ | 198 | 117 | 3 000 | 32.1 | 6.2 | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLF150X2LPS

AC axial fans · max. 380 m³/h · 150 x 172 x 38 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

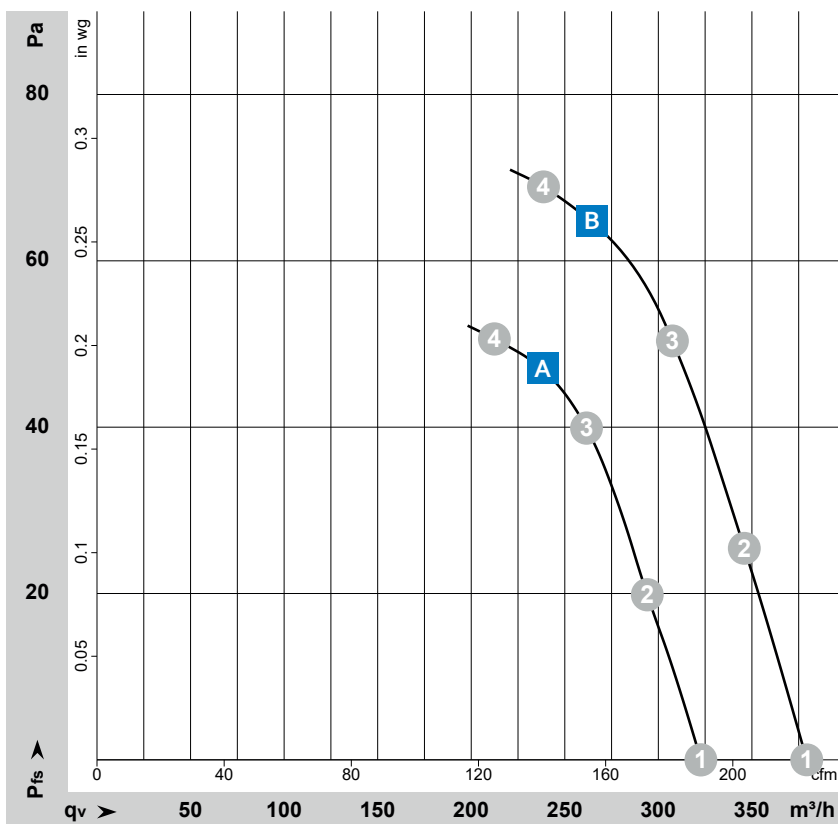
Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP22; depending on installation and position
- Electrical hookup: Plug
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 0.77 kg

Approvals

- EN 60335-1; CE; UKCA; UL 507; CSA C22.2 Nr.113; VDE; EAC; CCC on request

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

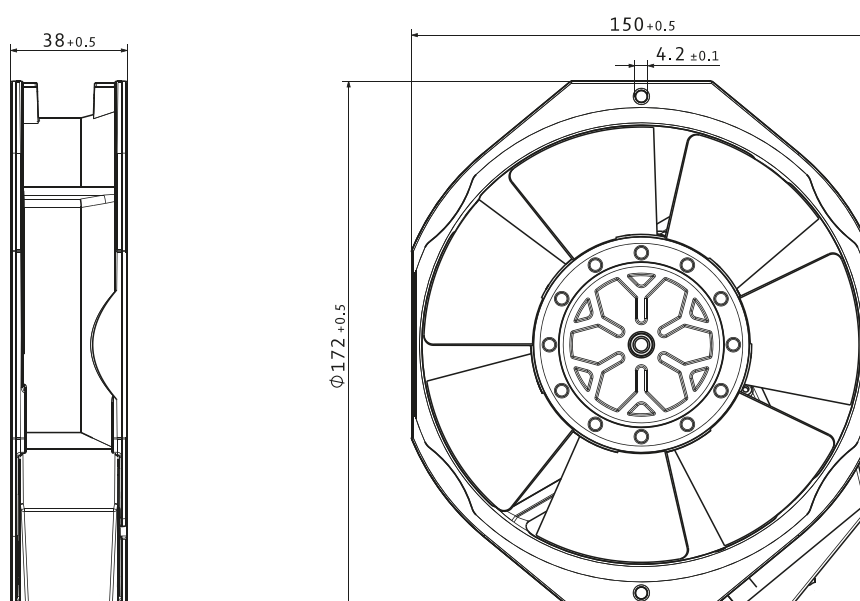
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|-------------------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | | | | | | |
| VWLF150X2LPS 7056 ES | W2E142BB0101 | 230 | 50 | A | ① | 325 | 190 | 2 800 | 27 | 6.4 | 51 | -25...+55 | 60 000 | 102 500 |
| | | | | | ② | 295 | 175 | 2 805 | 26 | | | | | |
| | | | | | ③ | 260 | 155 | 2 785 | 27 | | | | | |
| | | | | | ④ | 210 | 125 | 2 775 | 27 | | | | | |
| VWLF150X2LPS 7006 ES | W2E142BB0501 | 115 | 60 | B | ① | 380 | 225 | 3 350 | 28 | 6.8 | 56 | -25...+65 | 55 000 | 92 500 |
| | | | | | ② | 345 | 205 | 3 305 | 27 | | | | | |
| | | | | | ③ | 310 | 180 | 3 255 | 28 | | | | | |
| | | | | | ④ | 240 | 140 | 3 230 | 29 | | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEH150X...

AC axial fans · max. 375 m³/h · Ø 150 x 55 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires, wire ends with wire end splices; Grounding lug for M4 x 8
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 1.1 kg

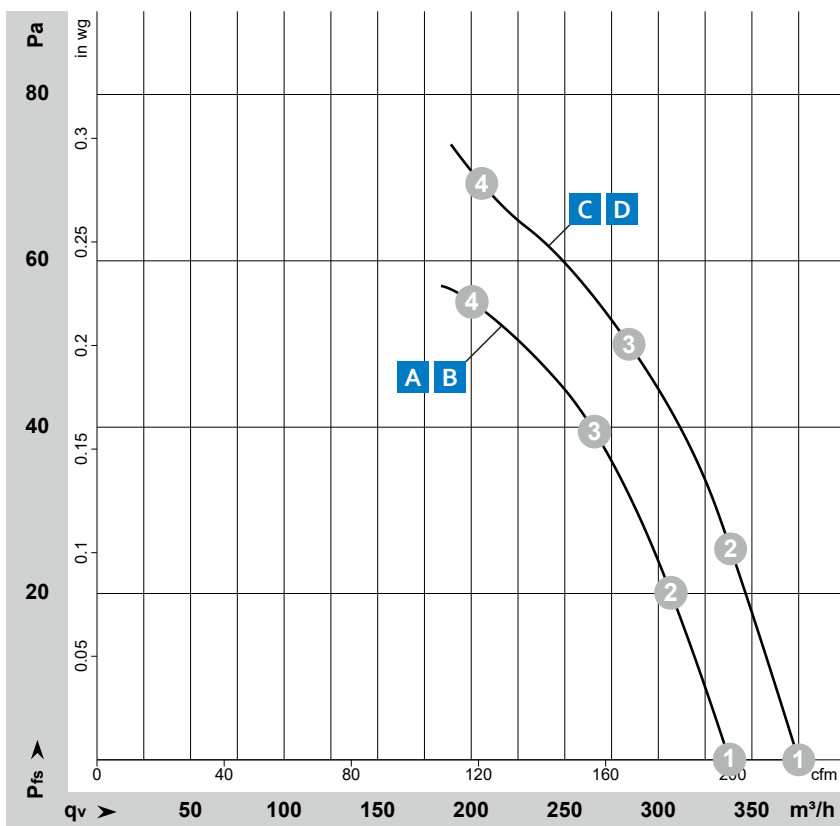
Approvals

- EN 60335-1; CE; UKCA; VDE; UL 507; CSA 22.2 Nr. 113; EAC; CCC on request

Note

- Please note our series VWEH151. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 286

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

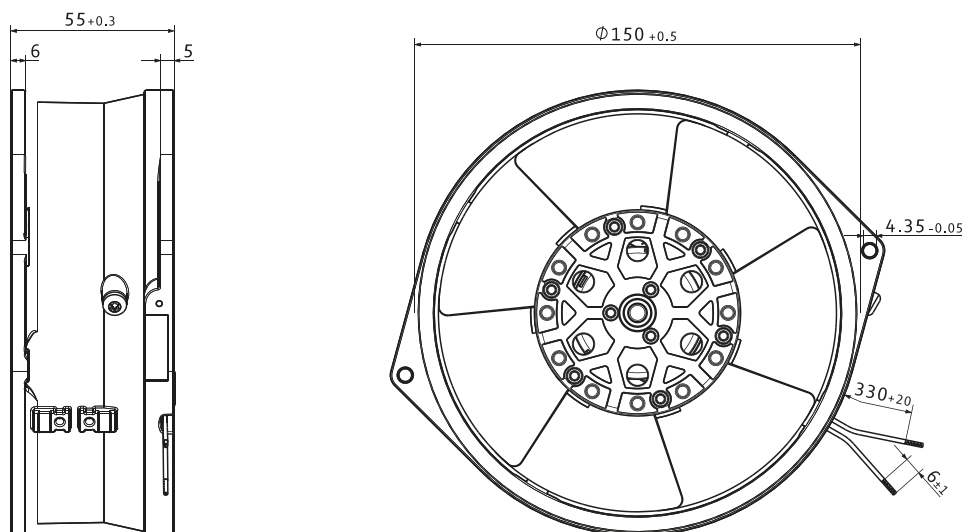
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard | Life expectancy L ₁₀ PC (40 °C) s.p. II |
|-------------------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | | | |
| VWEH150XQLPS 7855 ES | W2S130AA0301 | 230 | 50 | A | ① | 340 | 200 | 2 800 | 45 | 6.0 | 49 | -25...+50 | 60 000 | 102 500 |
| | | | | | ② | 305 | 180 | 2 795 | 45 | | | | | |
| | | | | | ③ | 265 | 155 | 2 780 | 46 | | | | | |
| | | | | | ④ | 200 | 120 | 2 780 | 46 | | | | | |
| VWEH150XQLPZ 7856 ES | W2S130AA0397 | 230 | 50 | B | ① | 340 | 200 | 2 800 | 45 | 6.0 | 49 | -25...+70 | 60 000 | 102 500 |
| | | | | | ② | 305 | 180 | 2 795 | 45 | | | | | |
| | | | | | ③ | 265 | 155 | 2 780 | 46 | | | | | |
| | | | | | ④ | 200 | 120 | 2 780 | 46 | | | | | |
| VWEH150XQLNS 7805 ES | W2S130AA2501 | 115 | 60 | C | ① | 375 | 220 | 3 250 | 38 | 6.4 | 53 | -25...+70 | 60 000 | 102 500 |
| | | | | | ② | 340 | 200 | 3 210 | 40 | | | | | |
| | | | | | ③ | 285 | 165 | 3 180 | 41 | | | | | |
| | | | | | ④ | 205 | 120 | 3 185 | 41 | | | | | |
| VWEH150XQLNZ 7806 ES | W2S130AA2597 | 115 | 60 | D | ① | 375 | 220 | 3 250 | 38 | 6.4 | 53 | -25...+90 | 60 000 | 102 500 |
| | | | | | ② | 340 | 200 | 3 210 | 40 | | | | | |
| | | | | | ③ | 285 | 165 | 3 180 | 41 | | | | | |
| | | | | | ④ | 205 | 120 | 3 185 | 41 | | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VUEH150XQLPS

AC axial fans · max. 435 m³/h · Ø 150 x 55 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: intake over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires, wire ends with wire end splices; Grounding lug for M4 x 8
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 1.1 kg

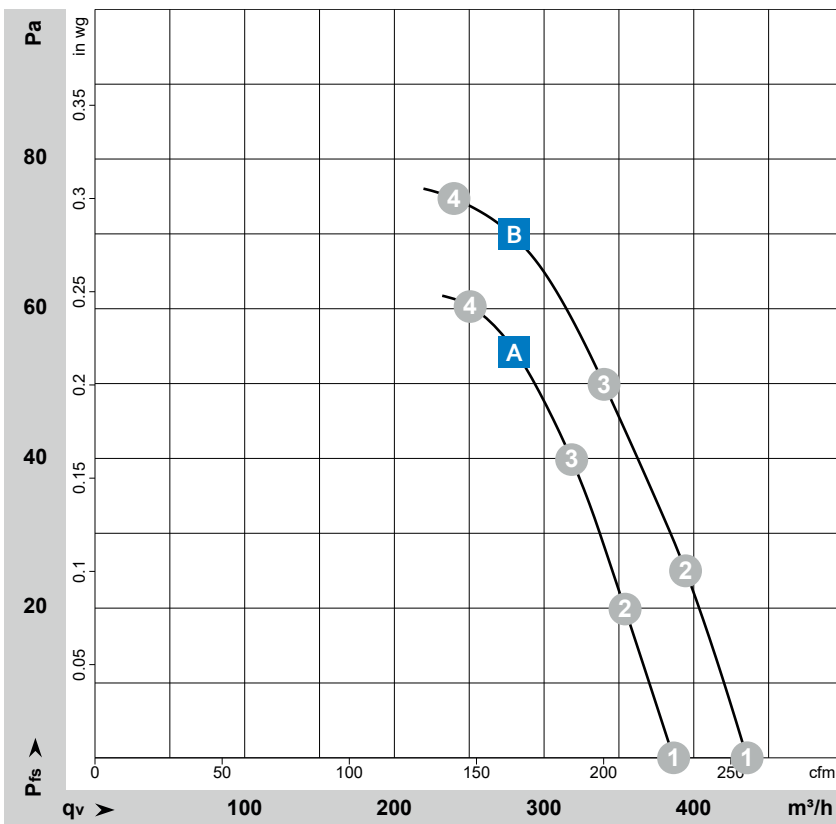
Approvals

- EN 60335-1; CE; UKCA; VDE; UL 507; CSA 22.2 Nr. 113; EAC;
- **A**: CCC on request

Note

- Please note our series VWEH151. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 286

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

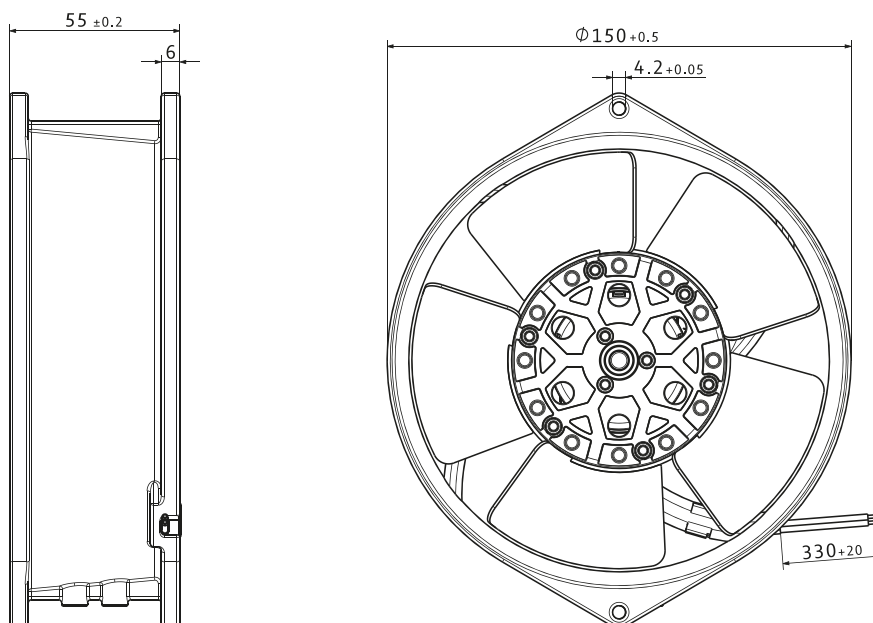
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10PFC} (40 °C) s.p. II |
|-------------------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | | | | | | |
| VUEH150XQLPS 7450 ES | W2S130BM0301 | 230 | 50 | A | ① | 385 | 230 | 2 700 | 47 | 6.8 | 60 | -25...+50 | 65 000 | 110 000 |
| | | | | | ② | 355 | 210 | 2 735 | 50 | | | | | |
| | | | | | ③ | 320 | 185 | 2 730 | 51 | | | | | |
| | | | | | ④ | 250 | 150 | 2 710 | 51 | | | | | |
| VUEH150XQLPS 7400 ES | W2S130BM1501 | 115 | 60 | B | ① | 435 | 255 | 3 050 | 46 | 6.9 | 62 | -25...+70 | 50 000 | 85 000 |
| | | | | | ② | 395 | 230 | 3 060 | 49 | | | | | |
| | | | | | ③ | 340 | 200 | 3 000 | 50 | | | | | |
| | | | | | ④ | 240 | 140 | 2 990 | 51 | | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWEG172X...

AC axial fans · max. 500 m³/h · Ø 172 x 51 mm



Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: exhaust over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 flat plugs 2.8 x 0.5 mm; Grounding lug for M4 x 6
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 1.0 kg

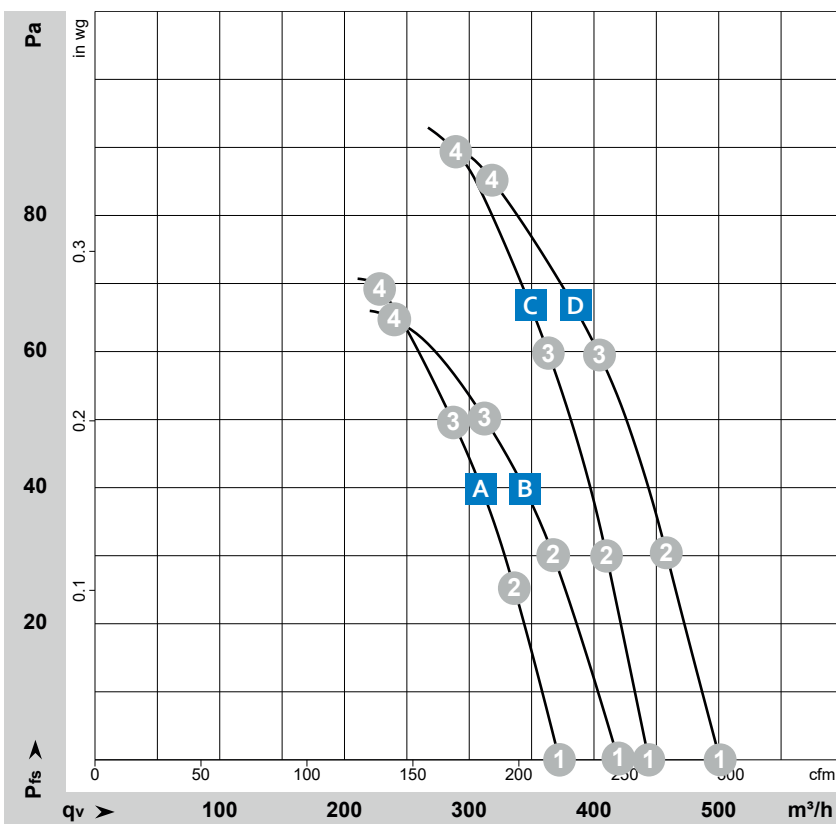
Approvals

- EN 60335-1; CE; UKCA; VDE; UL 507; CSA 22.2 Nr. 113; EAC;
- **A+B+D**: CCC on request

Note

- Please note our series VWEK172. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 284

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

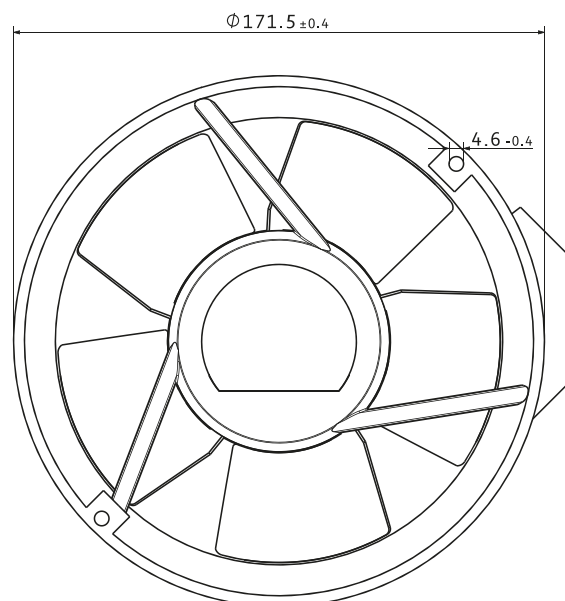
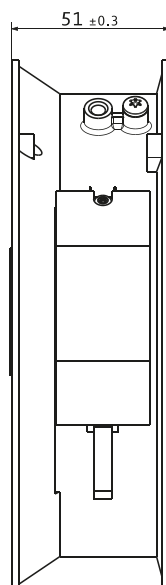
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Sound pressure (free air flow) | Perm. ambient temperature | Service life L_{10} (40 °C) ebm-papst standard | Life expectancy L_{10IFC} (40 °C) s.p. II |
|-------------------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|--------------------------------|---------------------------|--|---|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | | | | | | |
| VWEG172X2LPS 6058 ES | W2E143AA0901 | 230 | 50 | A | ① | 370 | 220 | 2 800 | 24 | 5.9 | 55 | -25...+70 | 62 500 | 105 000 |
| | | | | | ② | 335 | 200 | 2 840 | 25 | | | | | |
| | | | | | ③ | 285 | 170 | 2 825 | 25 | | | | | |
| | | | | | ④ | 230 | 135 | 2 810 | 26 | | | | | |
| VWEG172X2LQS 6078 ES | W2E143AB0901 | 230 | 50 | B | ① | 420 | 245 | 2 800 | 26 | 6.3 | 54 | -25...+60 | 62 500 | 105 000 |
| | | | | | ② | 365 | 215 | 2 770 | 27 | | | | | |
| | | | | | ③ | 310 | 185 | 2 755 | 27 | | | | | |
| | | | | | ④ | 240 | 140 | 2 750 | 28 | | | | | |
| VWEG172X2LPS 6008 ES | W2E143AA1501 | 115 | 60 | C | ① | 445 | 260 | 3 300 | 26 | 6.4 | 60 | -25...+70 | 57 000 | 97 500 |
| | | | | | ② | 410 | 240 | 3 340 | 28 | | | | | |
| | | | | | ③ | 365 | 215 | 3 315 | 29 | | | | | |
| | | | | | ④ | 290 | 170 | 3 270 | 30 | | | | | |
| VWEG172X2LPS 6028 ES | W2E143AB1501 | 115 | 60 | D | ① | 500 | 295 | 3 300 | 29 | 6.7 | 58 | -25...+75 | 57 000 | 97 500 |
| | | | | | ② | 460 | 270 | 3 230 | 32 | | | | | |
| | | | | | ③ | 405 | 240 | 3 200 | 33 | | | | | |
| | | | | | ④ | 320 | 185 | 3 165 | 34 | | | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLJ225X...

AC axial fans · max. 1 005 m³/h · □ 225 x 80 mm



Material/Surface

- Fan housing: Metal
- Impeller: Metal

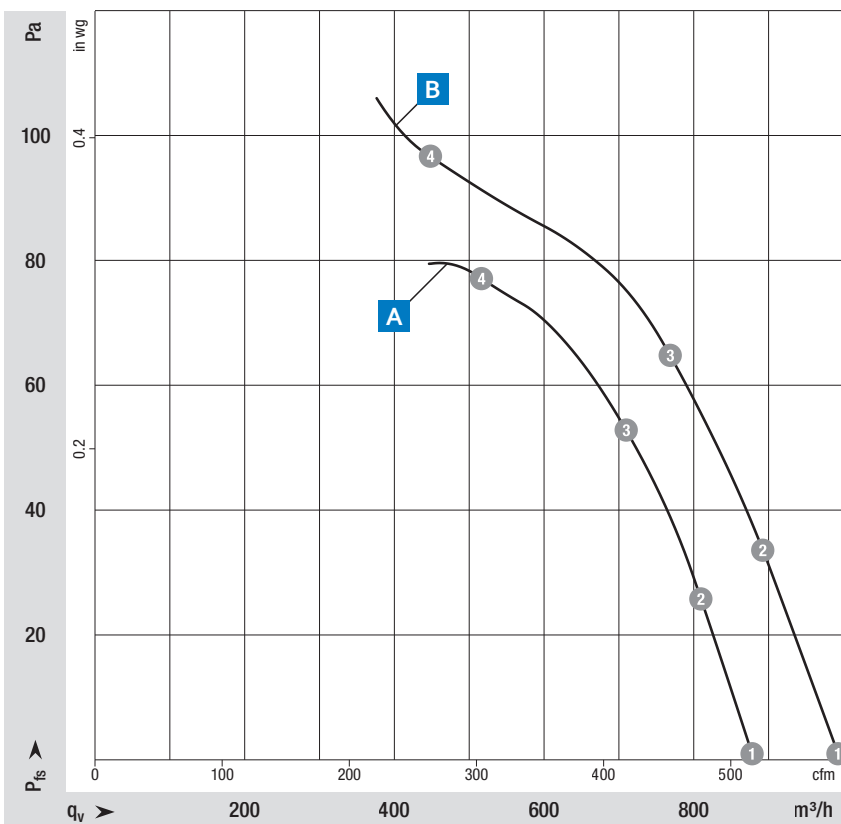
Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: "V"
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP44, depending on installation and position
- Electrical hookup: via terminal strip, Capacitor connected
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 2.0 / 2.1 kg

Approvals

- EN 60335-1; CE; UKCA; VDE; EAC; CCC on request;
- A: UL 507; CSA 22.2 Nr. 113
- B: UL 1004-3; CSA 22.2 Nr. 77

| | |
|---------------|--|
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| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

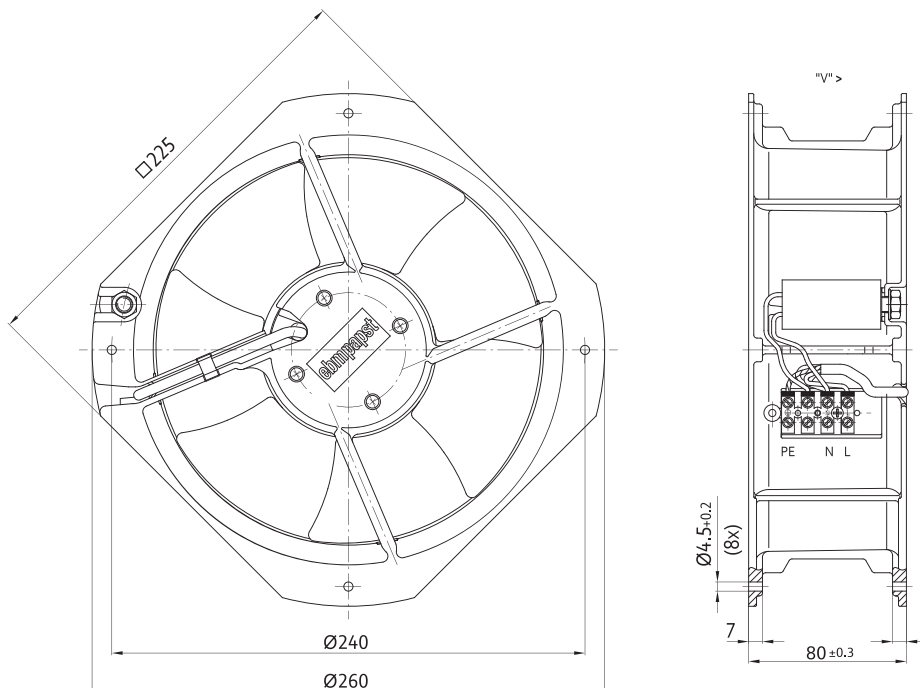
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Speed | Power consumption | Input current | Capacitor | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|-------|-------------------|---------------|-----------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | rpm | W | A | μF/VDB | Pa | °C |
| Type | Part number | | | | | | | | | | | |
| VWLJ225X2MUS | W2E200HK8601 | 1-115 | 50 | A | ① | 880 | 2 640 | 56 | 0.56 | 5.0/220 | 80 | -25...+60 |
| | | | | | ② | 800 | 2 590 | 58 | 0.57 | | | |
| | | | | | ③ | 675 | 2 525 | 62 | 0.59 | | | |
| | | | | | ④ | 495 | 2 475 | 64 | 0.60 | | | |
| VWLJ225X2MTS | W2E200HK3801 | 1-115 | 60 | B | ① | 995 | 2 980 | 67 | 0.58 | 5.0/220 | 95 | -25...+65 |
| | | | | | ② | 870 | 2 855 | 72 | 0.63 | | | |
| | | | | | ③ | 745 | 2 760 | 76 | 0.66 | | | |
| | | | | | ④ | 470 | 2 665 | 79 | 0.69 | | | |
| VWLJ225X2MTS | W2E200HK3801 | 1-230 | 50 | A | ① | 885 | 2 630 | 60 | 0.30 | 1.5/450 | 80 | -25...+55 |
| | | | | | ② | 790 | 2 585 | 64 | 0.31 | | | |
| | | | | | ③ | 665 | 2 525 | 67 | 0.31 | | | |
| | | | | | ④ | 500 | 2 480 | 69 | 0.32 | | | |
| VWLJ225X2MTS | W2E200HK3801 | 1-230 | 60 | B | ① | 1 005 | 3 000 | 70 | 0.31 | 1.5/450 | 95 | -25...+65 |
| | | | | | ② | 890 | 2 900 | 75 | 0.33 | | | |
| | | | | | ③ | 750 | 2 800 | 79 | 0.35 | | | |
| | | | | | ④ | 510 | 2 705 | 83 | 0.36 | | | |

Subject to changes.

Technical drawing

Dimensions in mm



VWLJ280H...

AC axial fans · max. 1 855 m³/h · □ 280 x 80 mm



Material/Surface

- Fan housing: Metal
- Impeller: Plastic

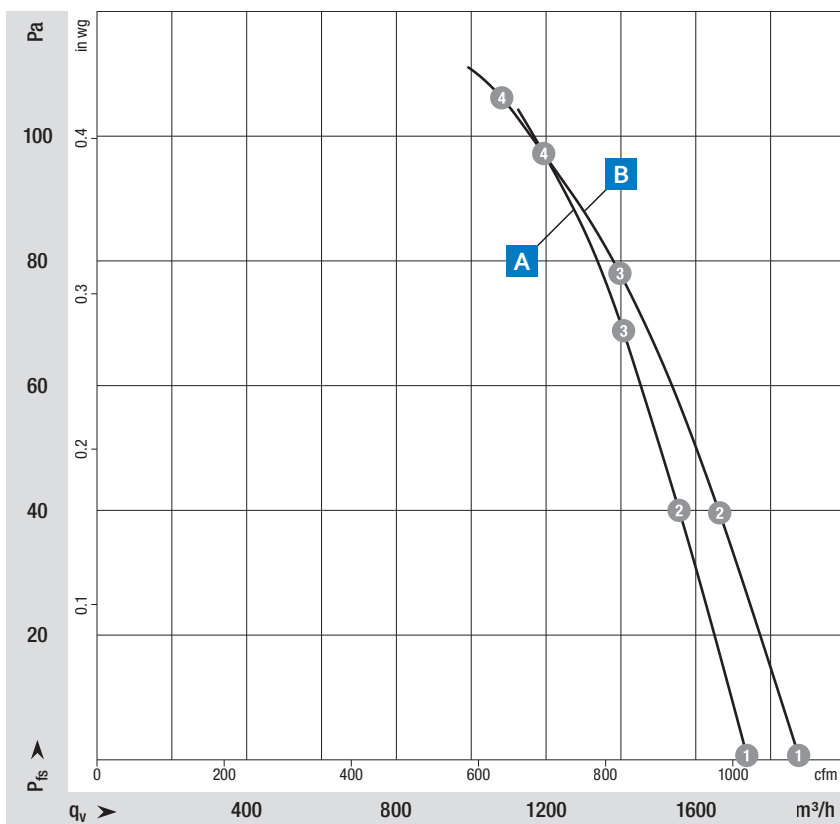
Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: "V"
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP44, depending on installation and position
- Electrical hookup: via terminal strip, Capacitor connected
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 2.7 kg

Approvals

- EN 60335-1; CE; UKCA; VDE; UL 1004-3; CSA 22.2 Nr. 77;
- **B**: EAC; CCC on request

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| | | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|---------------|-------------------|----------------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | A | Bel(A) | dB(A) | Pa | °C |
| Type | Part number | | | | | | | | | | | | | |
| VWLJ280H2MWS | W2E250HP0801 | 1-115 | 50 | A | ① | 1 720 | 1 010 | 2 545 | 102 | 0.91 | 6.9 | 62 | 100 | -25...+50 |
| | | | | | ② | 1 555 | 915 | 2 470 | 109 | 0.97 | 6.8 | | | |
| | | | | | ③ | 1 365 | 805 | 2 390 | 117 | 1.04 | 6.7 | | | |
| | | | | | ④ | 1 100 | 650 | 2 300 | 124 | 1.10 | 7.0 | | | |
| | | 1-115 | 60 | B | ① | 1 855 | 1 090 | 2 725 | 137 | 1.19 | 7.1 | 64 | 100 | -25...+45 |
| | | | | | ② | 1 640 | 965 | 2 570 | 145 | 1.26 | 6.9 | | | |
| | | | | | ③ | 1 380 | 810 | 2 395 | 152 | 1.32 | 6.8 | | | |
| | | | | | ④ | 1 005 | 590 | 2 250 | 160 | 1.40 | 7.0 | | | |
| VWLJ280H2MWZ | W2E250HP0601 | 1-230 | 50 | A | ① | 1 695 | 995 | 2 550 | 101 | 0.44 | 7.0 | 63 | 100 | -25...+60 |
| | | | | | ② | 1 525 | 895 | 2 475 | 109 | 0.48 | 6.9 | | | |
| | | | | | ③ | 1 360 | 800 | 2 405 | 115 | 0.50 | 6.8 | | | |
| | | | | | ④ | 1 120 | 660 | 2 320 | 125 | 0.55 | 6.9 | | | |
| | | 1-230 | 60 | B | ① | 1 840 | 1 085 | 2 750 | 134 | 0.59 | 7.1 | 64 | 110 | -25...+50 |
| | | | | | ② | 1 625 | 960 | 2 595 | 145 | 0.63 | 7.0 | | | |
| | | | | | ③ | 1 320 | 780 | 2 400 | 153 | 0.66 | 6.8 | | | |
| | | | | | ④ | 920 | 545 | 2 300 | 160 | 0.71 | 7.4 | | | |

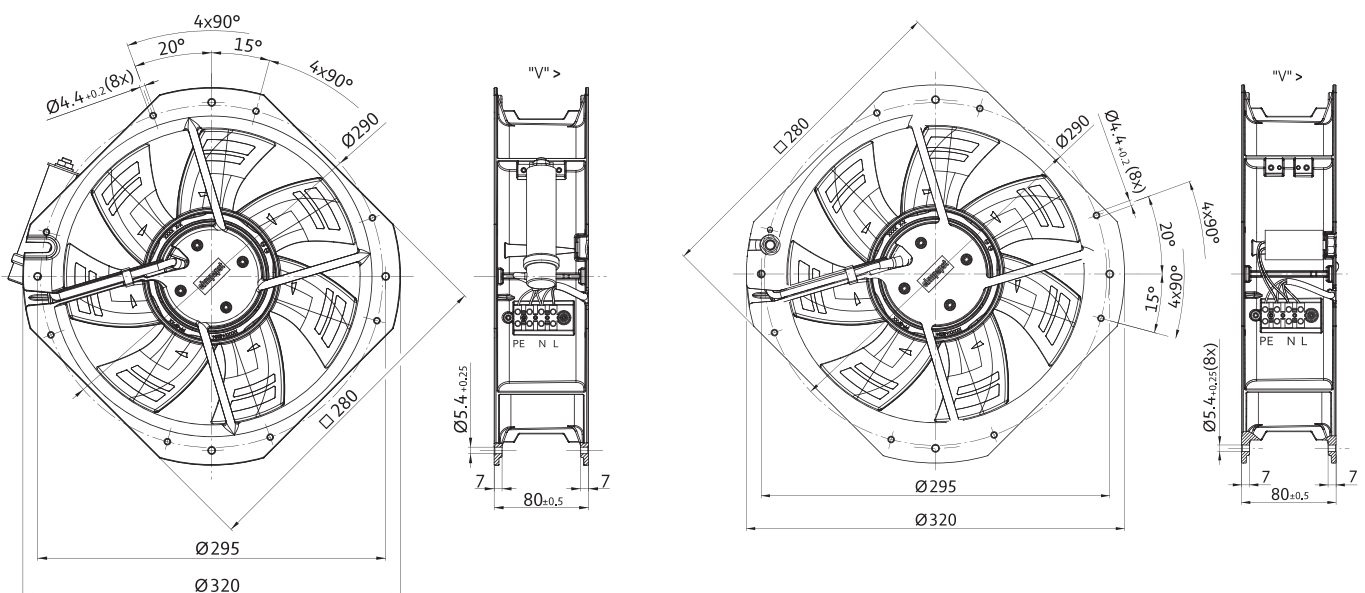
Subject to changes.

Technical drawing

Dimensions in mm

VWLJ280H2MWS W2E250HP0801

VWLJ280H2MWZ W2E250HP0601



VJH0200X2MES

AC diagonal module · max. 840 m³/h · Ø 200 mm



Material/Surface

- Housing: Plastic
- Support bracket: Plastic
- Impeller: Plastic

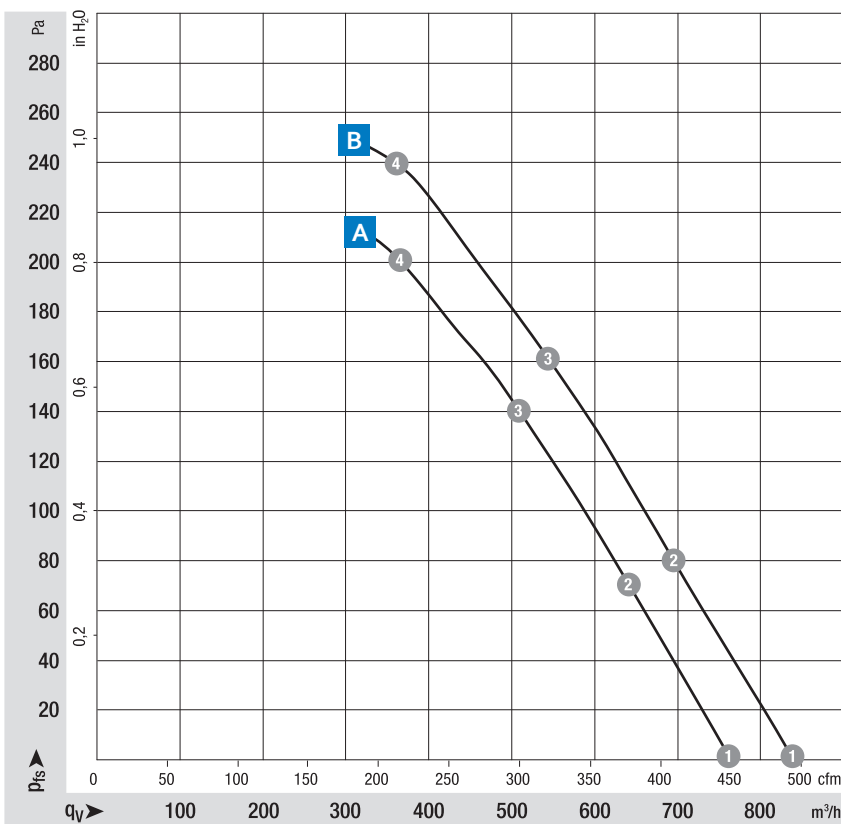
Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: "V", single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP44, Plug IP20; depending on installation and position
- Electrical hookup: via plug
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 2.1 kg

Approvals

- CE; UKCA; EAC; UL 1004-3; CSA C22.2 Nr.77; CCC on request

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

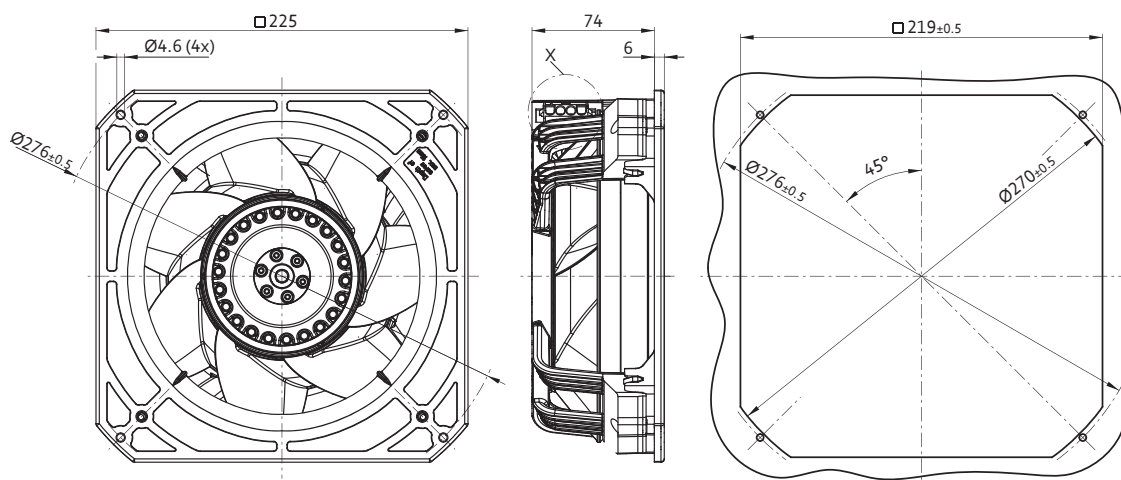
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|---------------|-------------------|----------------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | A | Bel(A) | dB(A) | Pa | °C |
| VJH0200X2MES | K2E200AA1201 | 1-115 | 50 | A | ① | 765 | 450 | 2 650 | 64 | 0.56 | 7.0 | 62 | 200 | -25...+65 |
| | | | | | ② | 635 | 375 | 2 610 | 67 | 0.59 | 6.7 | 60 | | |
| | | | | | ③ | 500 | 295 | 2 580 | 70 | 0.61 | 6.7 | 59 | | |
| | | | | | ④ | 345 | 205 | 2 595 | 68 | 0.60 | 6.9 | 61 | | |
| | | 1-115 | 60 | B | ① | 840 | 495 | 2 910 | 88 | 0.77 | 7.2 | 64 | 230 | -25...+65 |
| | | | | | ② | 690 | 405 | 2 810 | 93 | 0.82 | 6.9 | 61 | | |
| | | | | | ③ | 535 | 315 | 2 755 | 96 | 0.84 | 6.9 | 61 | | |
| | | | | | ④ | 365 | 215 | 2 780 | 95 | 0.83 | 7.1 | 63 | | |

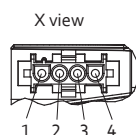
Subject to changes.

Technical drawing

Dimensions in mm



Coded plug system
 Universal Mate-N-Lok
 Connector shell: AMP 350 780-1
 3x plug pins: AMP 926 885-1
 Mating connector (not included in scope of delivery):
 Connector shell: AMP 350 779-4
 3x sockets: AMP 926 884-1



1 = not used
 2 = N + capacitor
 3 = L
 4 = PE

VJH0200X2MES

AC diagonal module · max. 850 m³/h · Ø 200 mm



Material/Surface

- Housing: Plastic
- Support bracket: Plastic
- Impeller: Plastic

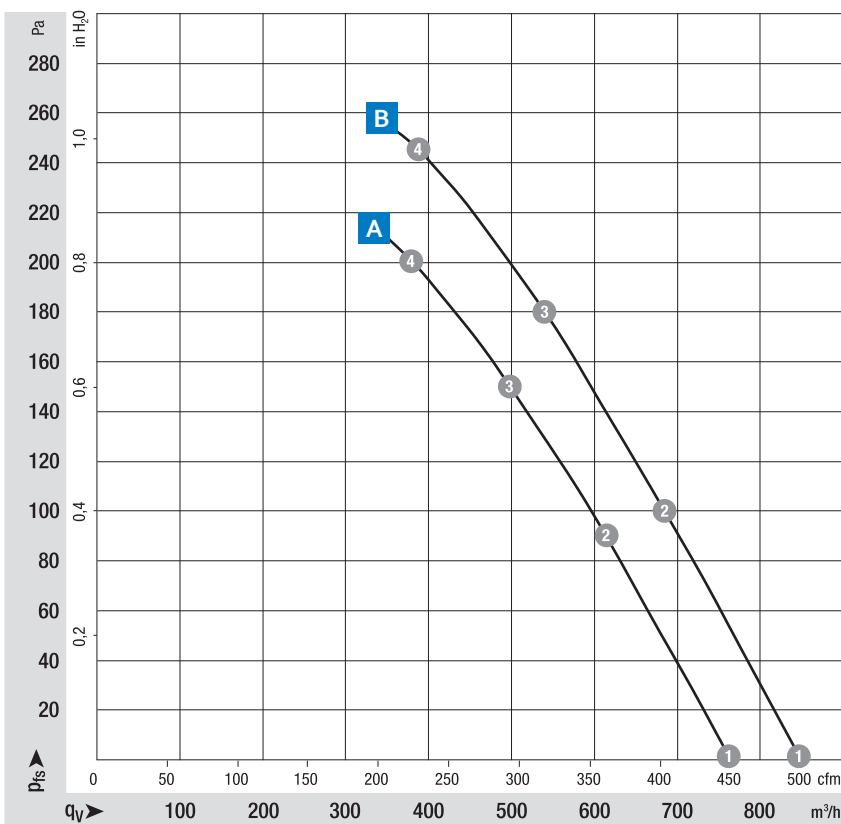
Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: "V", single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: Motor IP44, Plug IP20; depending on installation and position
- Electrical hookup: via plug
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 2.1 kg

Approvals

- CE; UKCA; EAC; CSA C22.2 Nr.77; UL 1004-3; CCC on request

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

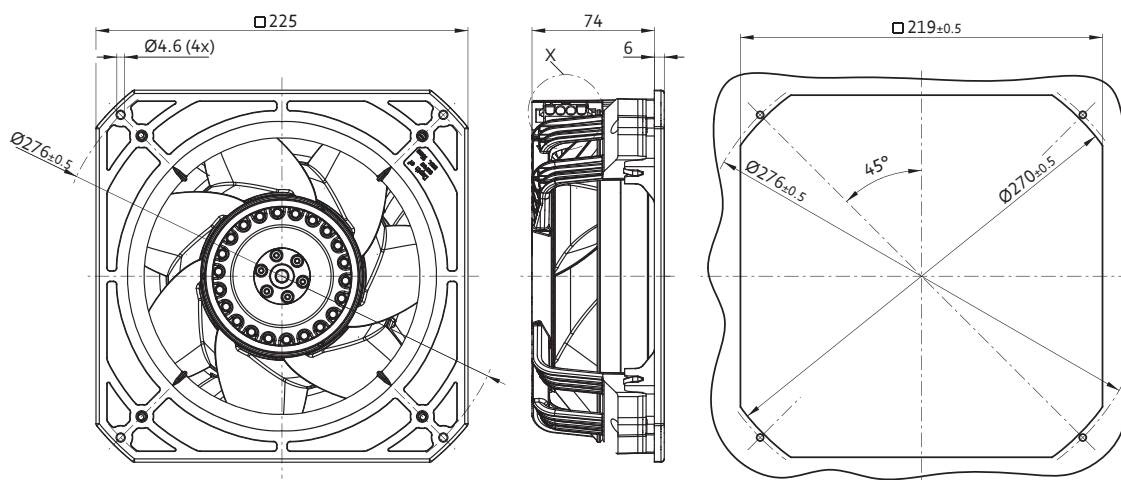
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|---------------|-------------------|----------------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | A | Bel(A) | dB(A) | Pa | °C |
| VJH0200X2MES | K2E200AA5202 | 1-230 | 50 | A | ① | 765 | 450 | 2 650 | 65 | 0.30 | 7.0 | 62 | 200 | -25...+80 |
| | | | | | ② | 645 | 380 | 2 625 | 66 | 0.29 | 6.8 | 60 | | |
| | | | | | ③ | 510 | 300 | 2 605 | 68 | 0.30 | 6.7 | 59 | | |
| | | | | | ④ | 360 | 210 | 2 610 | 68 | 0.29 | 6.9 | 61 | | |
| | | 1-230 | 60 | B | ① | 850 | 500 | 2 950 | 90 | 0.40 | 7.3 | 65 | 245 | -25...+80 |
| | | | | | ② | 715 | 420 | 2 880 | 92 | 0.41 | 7.0 | 62 | | |
| | | | | | ③ | 565 | 335 | 2 820 | 95 | 0.42 | 6.9 | 61 | | |
| | | | | | ④ | 380 | 225 | 2 845 | 94 | 0.41 | 7.1 | 63 | | |

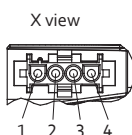
Subject to changes.

Technical drawing

Dimensions in mm



Coded plug system
 Universal Mate-N-Lok
 Connector shell: AMP 350 780-1
 3x plug pins: AMP 926 885-1
 Mating connector (not included in scope of delivery):
 Connector shell: AMP 350 779-4
 3x sockets: AMP 926 884-1



1 = not used
 2 = N + capacitor
 3 = L
 4 = PE

VJH0200X3MES

AC diagonal module · max. 880 m³/h · Ø 200 mm



Material/Surface

- Housing: Plastic
- Support bracket: Plastic
- Impeller: Plastic

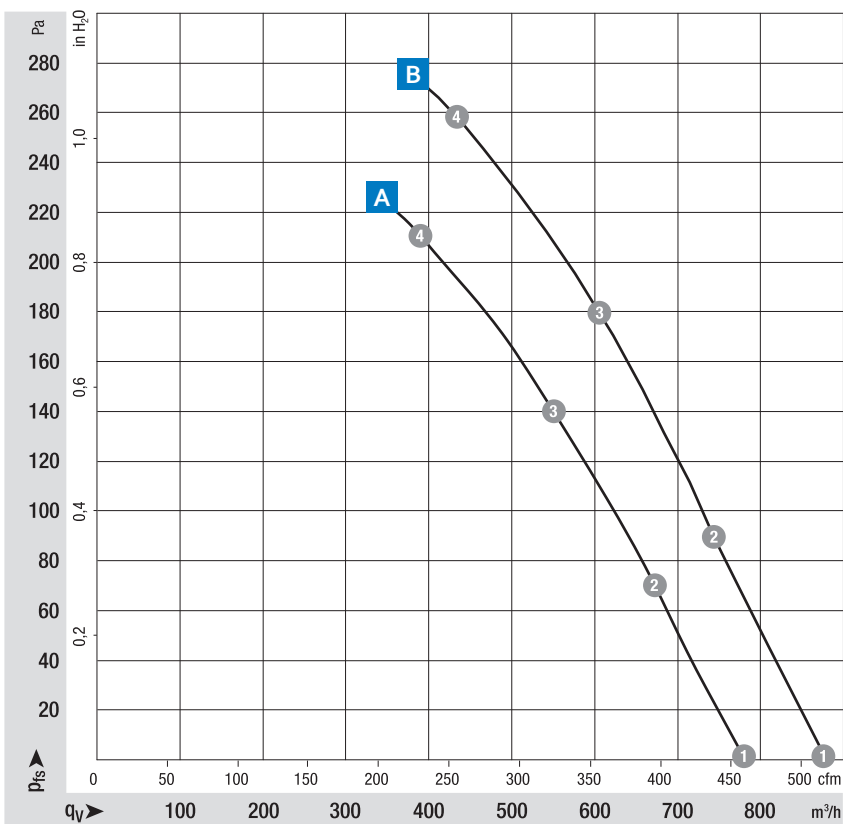
Characteristics

- Version: Classic AC fan; compact and robust
- Direction of air flow: "V", single inlet
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Maintenance-free ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP44, depending on installation and position
- Electrical hookup: via plug
- Electrical protection class: I (with customer connection to grounding conductor)
- Weight: 2.0 kg

Approvals

- DIN EN 60335-1; EAC; CCC on request

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

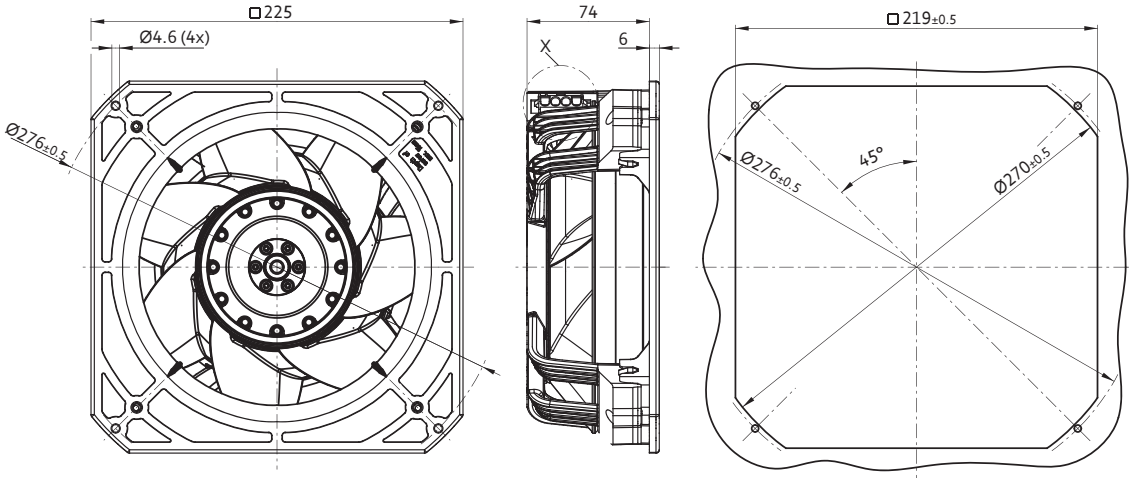
Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Input current | Sound power level | Sound pressure | Max. back-pressure | Perm. ambient temperature |
|--------------|--------------|-----------------|-----------|----------------------|-----------------|-------------------|----------|-------|-------------------|---------------|-------------------|----------------|--------------------|---------------------------|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | A | Bel(A) | dB(A) | Pa | °C |
| VJH0200X3MES | K2D200AA0202 | 3- 400Y | 50 | A | ① | 780 | 460 | 2 700 | 65 | 0.15 | 7.1 | 62 | 210 | -25...+75 |
| | | | | | ② | 670 | 395 | 2 690 | 69 | 0.16 | 6.9 | | | |
| | | | | | ③ | 540 | 315 | 2 675 | 72 | 0.16 | 6.8 | | | |
| | | | | | ④ | 365 | 215 | 2 685 | 70 | 0.16 | 7.0 | | | |
| | | 3- 400Y | 60 | B | ① | 880 | 520 | 3 050 | 90 | 0.16 | 7.3 | 65 | 260 | -25...+75 |
| | | | | | ② | 735 | 435 | 3 005 | 95 | 0.16 | 7.1 | | | |
| | | | | | ③ | 590 | 345 | 2 970 | 98 | 0.17 | 7.0 | | | |
| | | | | | ④ | 405 | 240 | 2 980 | 96 | 0.17 | 7.2 | | | |

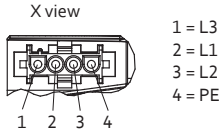
Subject to changes.

Technical drawing

Dimensions in mm



Coded plug system
 Universal Mate-N-Lok
 Connector shell: AMP 350 780-1
 4 x plug pins: AMP 926 885-1
 Mating connector (not included in scope of delivery):
 Connector shell: AMP 350 779-4
 4x sockets: AMP 926 884-1



Product overview

AC centrifugal fans



The tried-and-tested AC fans from ebm-papst are used wherever DC voltage is not available. In addition to complete devices, you will also find fans without external housing. These offer economic benefits whenever the air duct design can be integrated in the device that is being ventilated.



AC centrifugal fans are available in many sizes with forward or backward-curved fan impeller. Depending on the installation situation, it is a pure fan impeller or is combined with a housing with optimized air flow and noise.



Fan drives through shaded-pole or capacitor motors usually incorporate the familiar external rotor principle. This design combines high performance with economic efficiency. ebm-papst also offers particularly flat AC fans with an internal rotor motor. The advantage of these is their fast start-up to full speed, resulting in lower mass moments of inertia.



All fan types are designed in IP20 as standard. IP54/IP68 solutions and special protection types are available on request.

ebmpapst

engineering a better life

Type code example: VBH0450PTTLZ

| V | B | H | 0450 | P | T | T | L | Z |
|------------------|-----------------------------------|-----------------|----------|------------|-------|------------|--------------|----------|
| Product category | Product type Airflow direction | Product version | Diameter | Brand name | Motor | Motor size | | Standard |
| | | | | | | Diameter | Stack length | |

| Dimension in mm | Type | Type (old) | Page |
|-----------------|--------------|------------|------|
| □ 121 x 37 | VHS0090XQHCS | RL 90 | 338 |
| □ 135 x 38 | VHS0090XQHCS | RG 90 | 340 |
| □ 180 x 40 | VCS0125XQHCS | RG 125 | 342 |
| □ 220 x 56 | VCS0160XQKDS | RG 160 | 344 |
| ∅ 138 x 40 | VBS0125XQHCS | RER 125 | 346 |
| ∅ 176 x 54 | VBS0160XQKDS | RER 160 | 348 |

VHS0090XQHCS

AC centrifugal fans · max. 38.3 m³/h · □ 121 x 37 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Metal

Characteristics

- Version: Classic AC fan in centrifugal design with housing and forward-curved impeller; compact and robust
- Direction of air flow: centrifugal; Discharge through window in housing
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires; Housing base with flat plugs 6.3 x 0.8 mm for ground conductor
- Electrical protection class: I
- Weight: 680 g

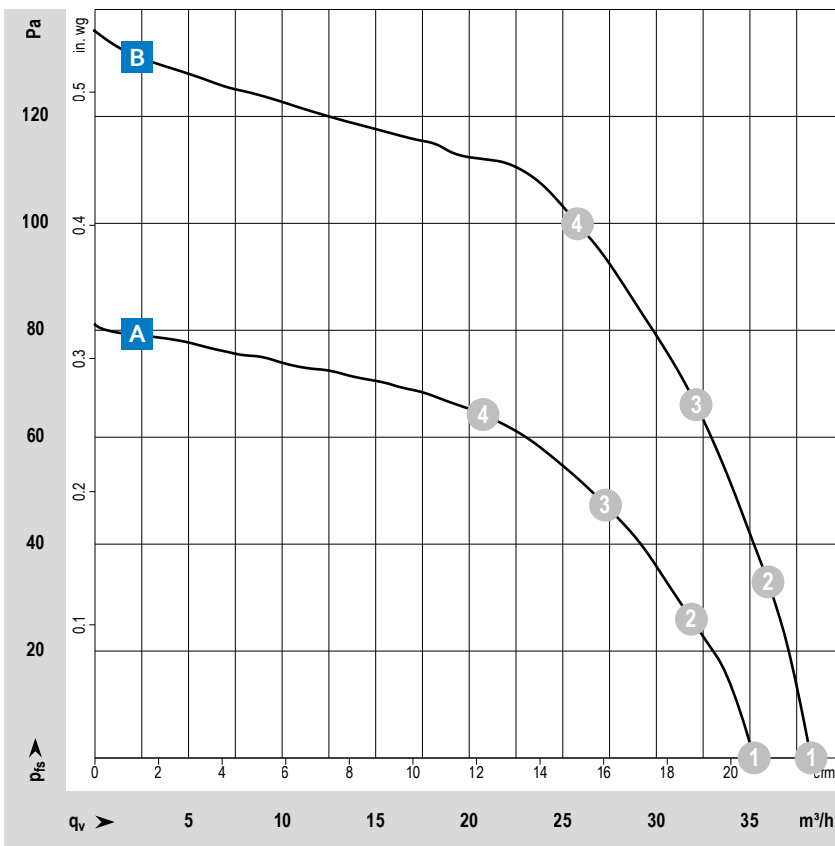
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

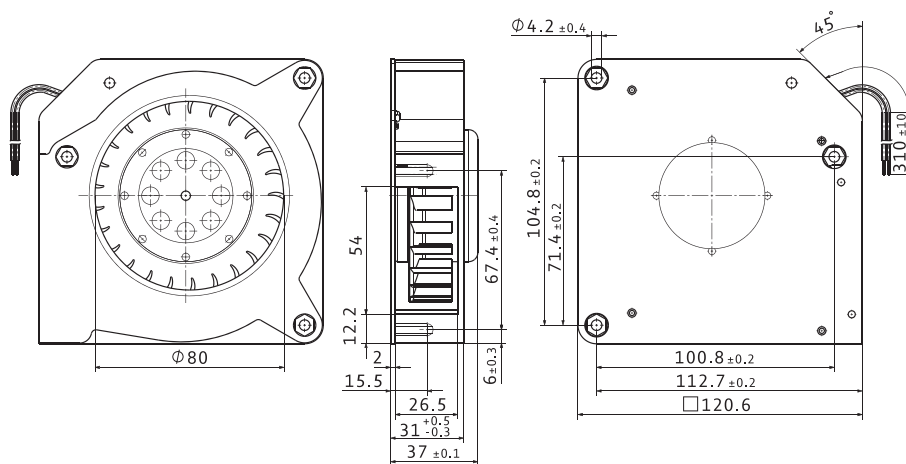
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound p_rwer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard |
|-----------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|---------------------------|--|
| | | VAC | Hz | | | m ³ /h | cfm | | | | | |
| VHS0090XQHCS RL 90-18/50 | 9214014004 | 230 | 50 | A | ① | 33.9 | 20.0 | 2 450 | 19.3 | 6.0 | -10...+50 | 37 500 |
| | | | | | ② | 31.9 | 18.8 | 2 440 | 19.3 | 6.1 | | |
| | | | | | ③ | 27.2 | 16.0 | 2 520 | 18.6 | 5.9 | | |
| | | | | | ④ | 21.0 | 12.4 | 2 590 | 17.9 | 5.7 | | |
| VHS0090XQHCS RL 90-18/56 | 9214014019 | 230 | 50 | A | ① | 35.2 | 20.7 | 2 450 | 22.3 | 6.0 | -30...+70 | 37 500 |
| | | | | | ② | 31.9 | 18.8 | 2 460 | 22.1 | 6.1 | | |
| | | | | | ③ | 27.2 | 16.0 | 2 550 | 21.3 | 5.9 | | |
| | | | | | ④ | 20.7 | 12.2 | 2 630 | 20.6 | 5.7 | | |
| VHS0090XQHCS RL 90-18/00 | 9214014005 | 115 | 60 | B | ① | 38.3 | 22.5 | 2 550 | 21.4 | 6.2 | -10...+60 | 37 500 |
| | | | | | ② | 36.0 | 21.2 | 2 730 | 21.5 | 6.2 | | |
| | | | | | ③ | 32.1 | 18.9 | 2 940 | 20.4 | 6.2 | | |
| | | | | | ④ | 25.8 | 15.2 | 3 120 | 19.2 | 6.1 | | |
| VHS0090XQHCS RL 90-18/06 | 9214014021 | 115 | 60 | B | ① | 35.7 | 21.0 | 2 550 | 17.1 | 6.2 | -30...+85 | 37 500 |
| | | | | | ② | 32.9 | 19.4 | 2 570 | 17.0 | 6.2 | | |
| | | | | | ③ | 29.2 | 17.2 | 2 750 | 16.1 | 6.2 | | |
| | | | | | ④ | 23.3 | 13.7 | 2 920 | 15.1 | 6.1 | | |

Subject to changes.

Technical drawing

Dimensions in mm



| Type / Type old | Connection wires |
|-----------------------------|------------------|
| VHS0090XQHCS RL 90-18/50 | AWG 18, TR 32 |
| VHS0090XQHCS RL 90-18/00 | AWG 18, TR 32 |
| VHS0090XQHCS RL 90-18/56 | AWG 22 |
| VHS0090XQHCS RL 90-18/06 | AWG 22 |

VHS0090XQHCS

AC centrifugal fans · max. 50 m³/h · □ 135 x 38 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Metal

Characteristics

- Version: Classic AC fan in centrifugal design with housing and forward-curved impeller; compact and robust
- Direction of air flow: centrifugal; Discharge through window in housing
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires AWG 22
- Electrical protection class: I
- Weight: 560 g

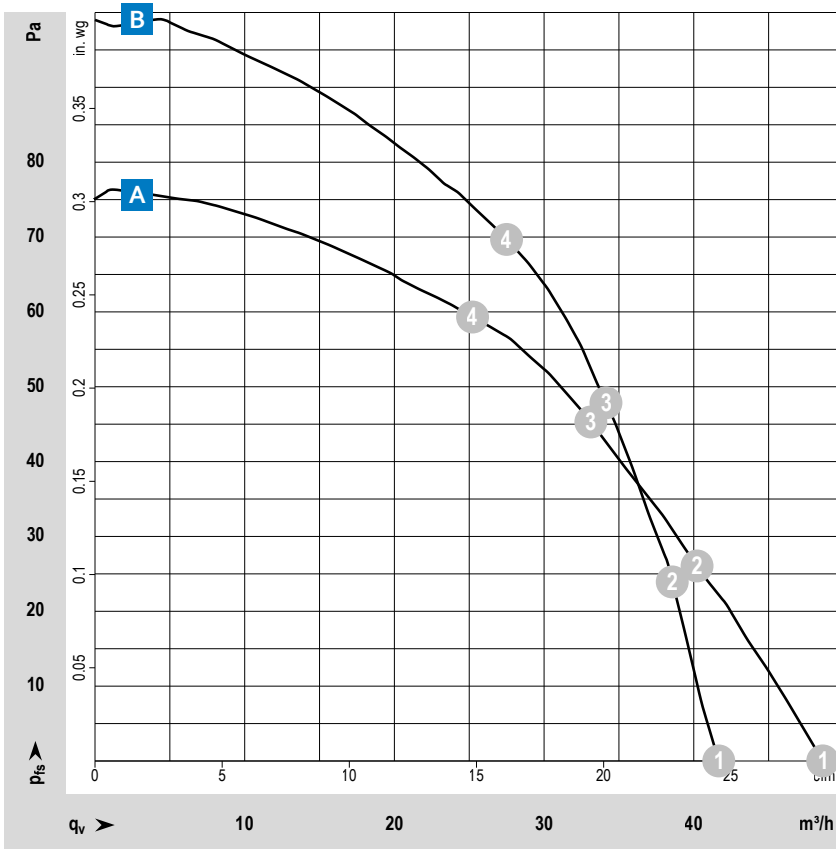
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

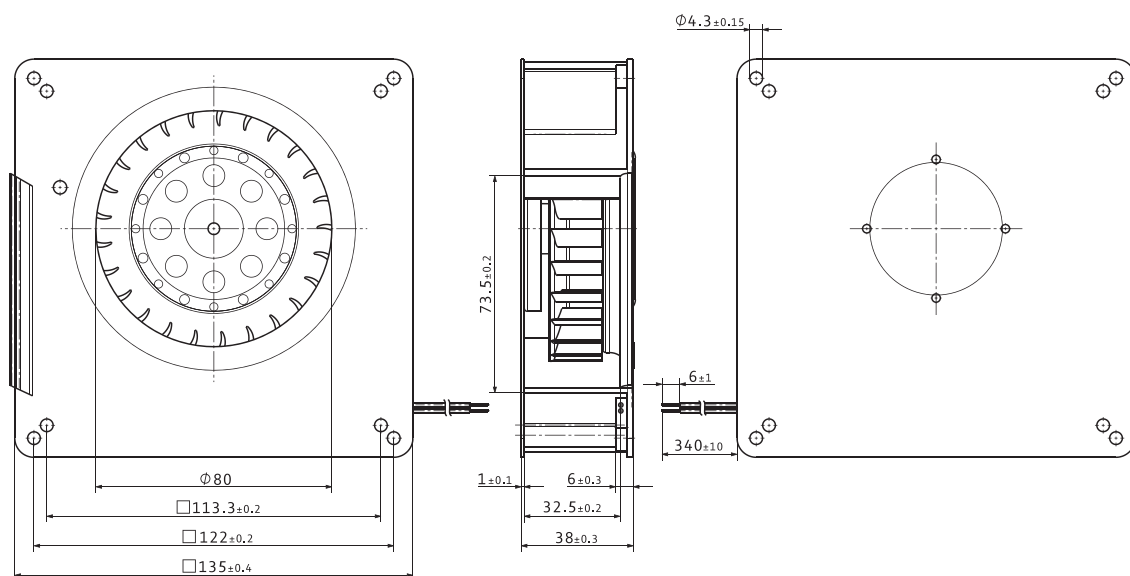
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | Air flow | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard |
|-----------------------------|-------------|-----------------|-----------|----------------------|-----------------|----------|----------|-------|-------------------|-------------------|---------------------------|--|
| | | VAC | Hz | | | m³/h | cfm | | | | | |
| VHS0090XQHCS RG 90-18/50 | 9544014005 | 230 | 50 | B | ① | 49 | 29 | 2 200 | 20.6 | 6.1 | -30...+60 | 35 000 |
| | | | | | | 40 | 24 | 2 330 | 19.6 | 5.9 | | |
| | | | | | | 33 | 19 | 2 420 | 18.9 | 5.7 | | |
| | | | | | | 25 | 15 | 2 510 | 18.1 | 5.6 | | |
| VHS0090XQHCS RG 90-18/56 | 9544014001 | 230 | 50 | B | ① | 50 | 29 | 2 200 | 20.1 | 6.1 | -30...+60 | 35 000 |
| | | | | | | 41 | 24 | 2 340 | 19.0 | 5.9 | | |
| | | | | | | 34 | 20 | 2 440 | 18.2 | 5.7 | | |
| | | | | | | 26 | 15 | 2 530 | 17.4 | 5.6 | | |
| VHS0090XQHCS RG 90-18/00 | 9544014006 | 115 | 60 | A | ① | 42 | 25 | 1 900 | 16.8 | 5.8 | -30...+65 | 35 000 |
| | | | | | | 40 | 23 | 2 270 | 16.0 | 5.9 | | |
| | | | | | | 35 | 20 | 2 530 | 15.0 | 5.8 | | |
| | | | | | | 28 | 16 | 2 750 | 13.9 | 5.9 | | |
| VHS0090XQHCS RG 90-18/06 | 9544014002 | 115 | 60 | A | ① | 43 | 25 | 1 900 | 13.1 | 5.8 | -30...+65 | 35 000 |
| | | | | | | 38 | 22 | 2 200 | 12.4 | 5.9 | | |
| | | | | | | 33 | 19 | 2 400 | 11.7 | 5.8 | | |
| | | | | | | 26 | 15 | 2 570 | 10.9 | 5.9 | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0125XQHCS

AC centrifugal fans · max. 84 m³/h · □ 180 x 40 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Metal

Characteristics

- Version: Classic AC fan in centrifugal design with housing and backward-curved impeller; compact and robust
- Direction of air flow: centrifugal; Discharge through window in housing
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires AWG 22
- Electrical protection class: I
- Weight: 850 g

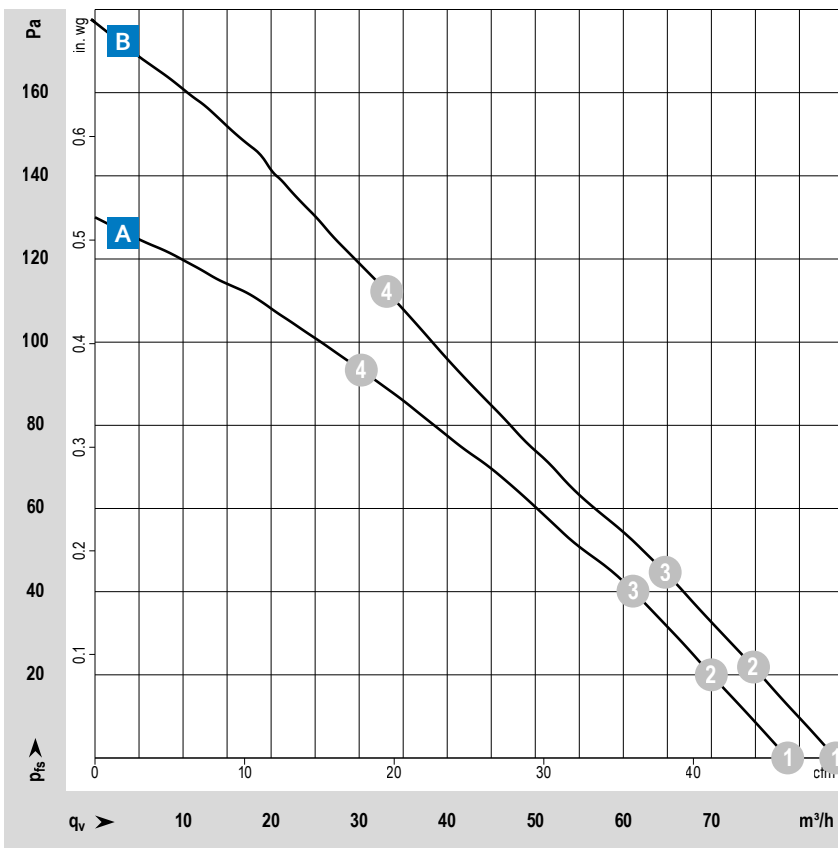
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

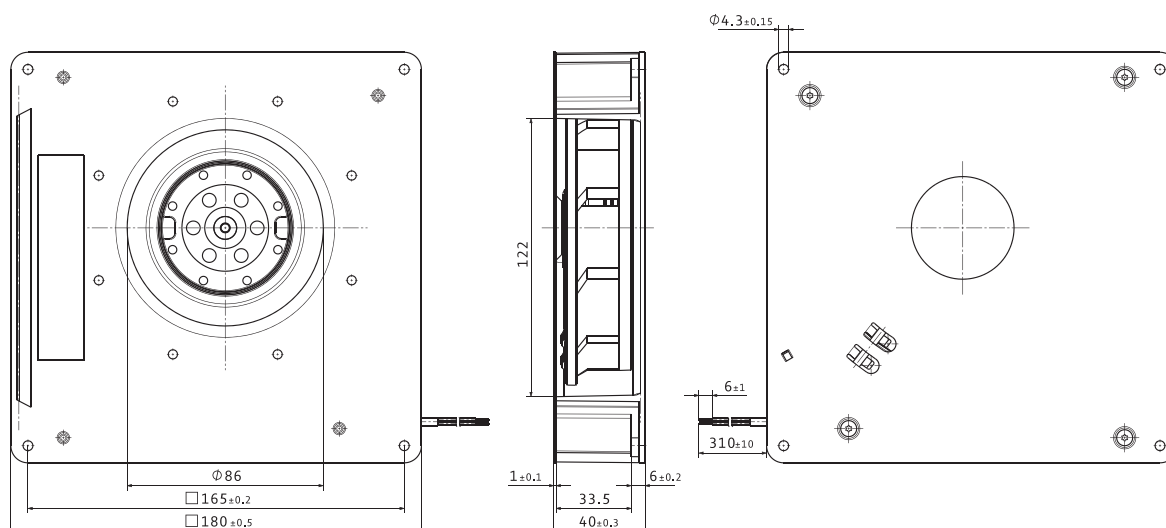
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life |
|------------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|------|-------|-------------------|-------------------|---------------------------|--|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | L ₁₀ (40 °C) ebm-papst standard |
| VCS0125XQHCS RG 125-19/56 | 9544014101 | 230 | 50 | A | ① | 79.0 | 46.5 | 2 550 | 20.3 | 6.2 | -30...+70 | 37 500 |
| | | | | | ② | 70.0 | 41.2 | 2 530 | 20.4 | 6.1 | | |
| | | | | | ③ | 61.0 | 35.9 | 2 520 | 20.4 | 6.0 | | |
| | | | | | ④ | 30.2 | 17.8 | 2 580 | 19.5 | 5.8 | | |
| VCS0125XQHCS RG 125-19/06 | 9544014102 | 115 | 60 | B | ① | 84.0 | 49.4 | 2 750 | 16.8 | 6.4 | -30...+80 | 40 000 |
| | | | | | ② | 75.0 | 44.1 | 2 720 | 17.0 | 6.3 | | |
| | | | | | ③ | 65.0 | 38.3 | 2 700 | 17.0 | 6.2 | | |
| | | | | | ④ | 33.1 | 19.5 | 2 830 | 16.2 | 6.0 | | |

Subject to changes.

Technical drawing

Dimensions in mm



VCS0160XQKDS

AC centrifugal fans · max. 211 m³/h · □ 220 x 56 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic
- Base plate: Metal

Characteristics

- Version: Classic AC fan in centrifugal design with housing and backward-curved impeller; compact and robust
- Direction of air flow: centrifugal; Discharge through window in housing
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires AWG 18
- Electrical protection class: I
- Weight: 1.7 kg

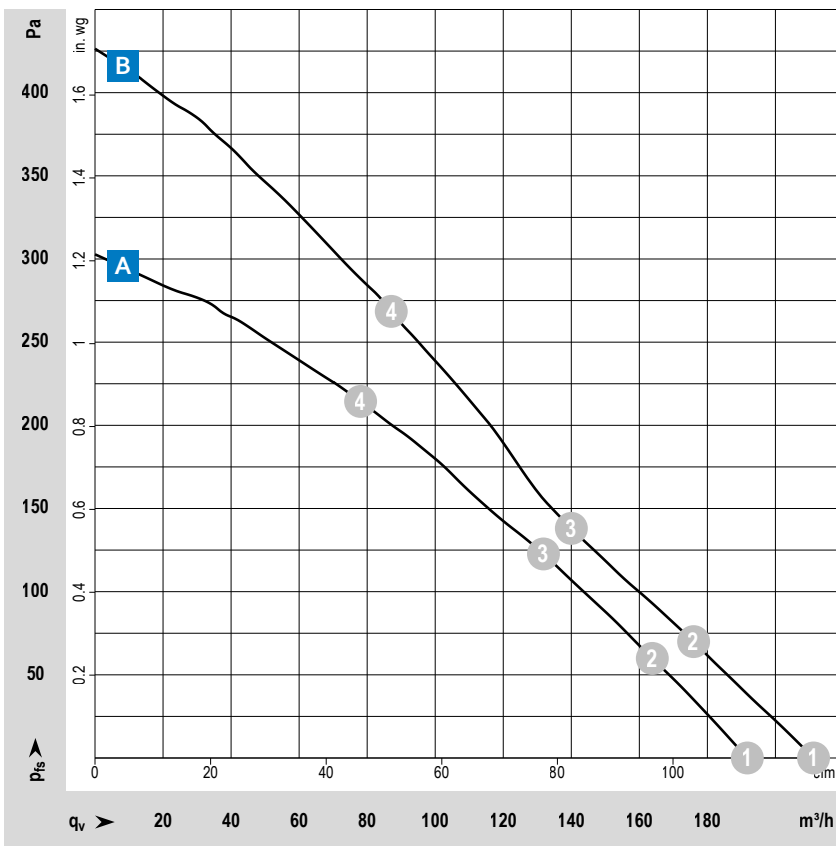
Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54

| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |



Measuring conditions

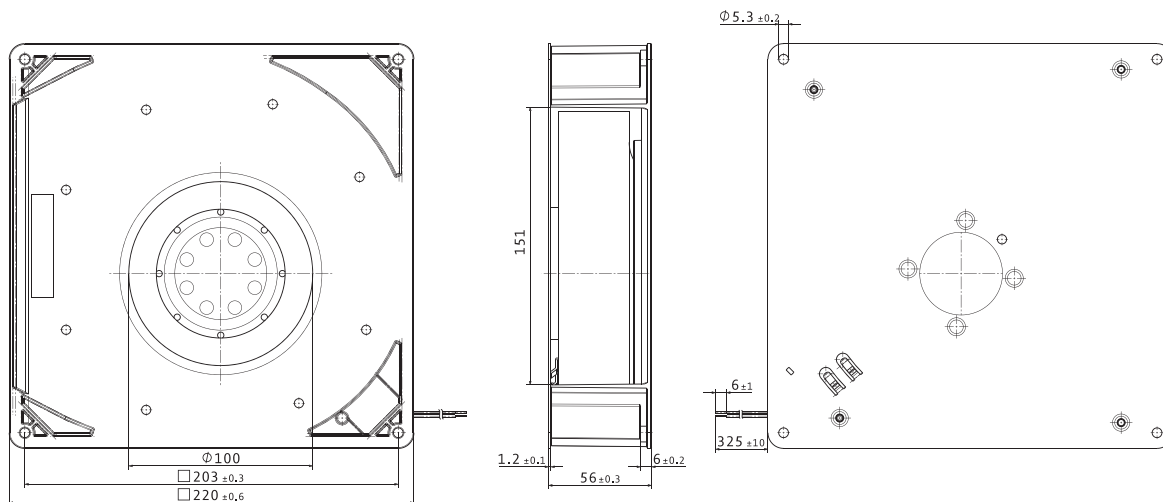
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life |
|-------------------------------|-------------|-----------------|-----------|----------------------|-----------------|-------------------|-----|-------|-------------------|-------------------|---------------------------|--|
| | | VAC | Hz | | | m ³ /h | cfm | rpm | W | Bel(A) | °C | L ₁₀ (40 °C) ebm-papst standard |
| VCS0160XQKDS RG 160-28/56S | 9545020001 | 230 | 50 | A | ① | 192 | 113 | 2 750 | 48.7 | 7.1 | -30...+70 | 30 000 |
| | | | | | ② | 164 | 97 | 2 730 | 49.2 | 7.0 | | |
| | | | | | ③ | 132 | 78 | 2 720 | 48.9 | 6.8 | | |
| | | | | | ④ | 78 | 46 | 2 780 | 46.1 | 6.5 | | |
| VCS0160XQKDS RG 160-28/06S | 9545020002 | 115 | 60 | B | ① | 211 | 124 | 3 050 | 49.9 | 7.4 | -30...+80 | 27 500 |
| | | | | | ② | 176 | 104 | 2 960 | 52.1 | 7.2 | | |
| | | | | | ③ | 140 | 82 | 2 900 | 53.2 | 7.0 | | |
| | | | | | ④ | 87 | 51 | 3 130 | 47.8 | 6.9 | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0125XQHCS

AC centrifugal fans · max. 108 m³/h · Ø 138 x 40 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic with sheet steel reinforced

Characteristics

- Version: Classic AC fan in centrifugal design without housing with backward-curved impeller; compact and robust
- Direction of air flow: centrifugal
- Direction of rotation: clockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires AWG 22
- Electrical protection class: I
- Weight: 500 g

from page 14 Definitions

from page 350 Accessories

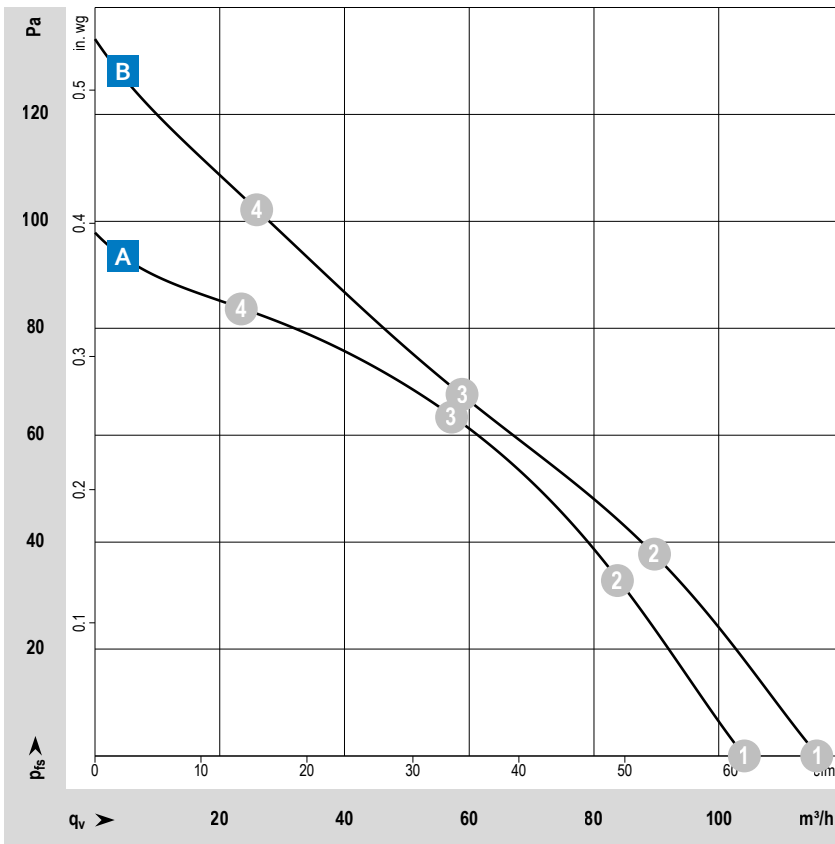
more at www.ebmpapst.com

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection
- Salt spray protection
- Degree of protection: up to IP54



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.

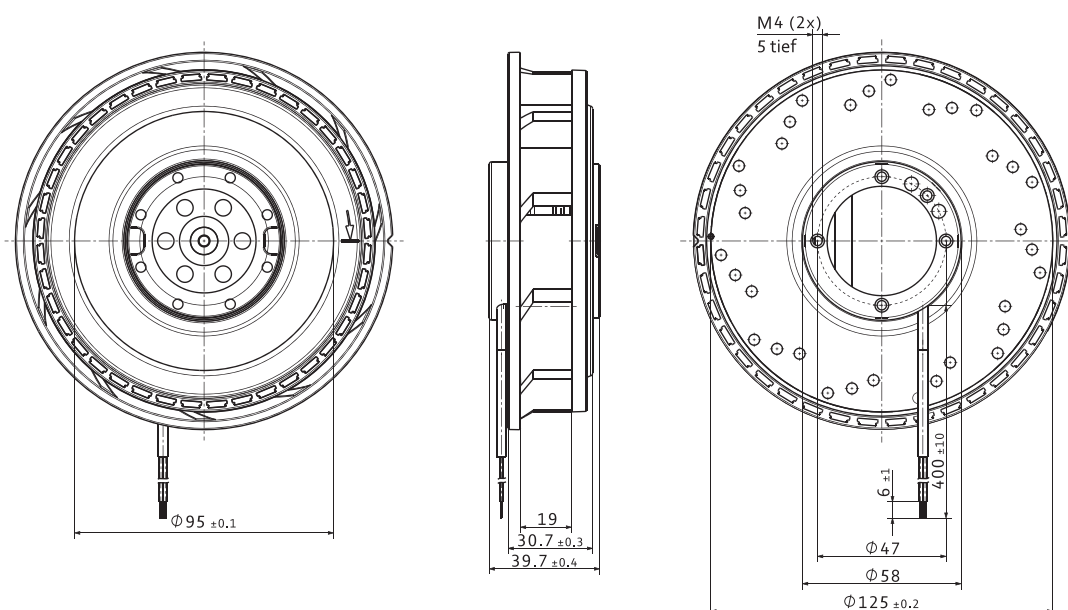
Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation! For detailed information see <http://www.ebmpapst.com/general-conditions>

| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard |
|-------------------------------|-------------|-----------------|-----------|----------------------|-----------------|----------|------|-------|-------------------|-------------------|---------------------------|--|
| | | VAC | Hz | | | m³/h | cfm | rpm | | | | |
| VBS0125XQHCS RER 125-19/56 | 9544014151 | 230 | 50 | A | ① | 104.0 | 61.2 | 2 600 | 19.2 | 6.4 | -30...+60 | 37 500 |
| | | | | | ② | 84.0 | 49.4 | 2 550 | 19.7 | 6.2 | | |
| | | | | | ③ | 57.0 | 33.5 | 2 520 | 19.9 | 6.0 | | |
| | | | | | ④ | 23.5 | 13.8 | 2 620 | 19.0 | 5.9 | | |
| VBS0125XQHCS RER 125-19/06 | 9544014152 | 115 | 60 | B | ① | 108.0 | 63.6 | 2 900 | 15.3 | 6.6 | -30...+70 | 40 000 |
| | | | | | ② | 86.0 | 50.6 | 2 750 | 16.1 | 6.4 | | |
| | | | | | ③ | 59.0 | 34.7 | 2 630 | 16.7 | 6.2 | | |
| | | | | | ④ | 25.0 | 14.7 | 2 800 | 15.8 | 6.2 | | |

Subject to changes.

Technical drawing

Dimensions in mm



VBS0160XQKDS

AC centrifugal fans · max. 273 m³/h · Ø 176 x 54 mm



Material/Surface

- Scroll housing: Plastic
- Impeller: Plastic with sheet steel reinforced

Characteristics

- Version: Classic AC fan in centrifugal design without housing with backward-curved impeller; compact and robust
- Direction of air flow: centrifugal
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Sleeve bearings or ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: via 2 single wires AWG 18
- Electrical protection class: I
- Weight: 1.0 kg

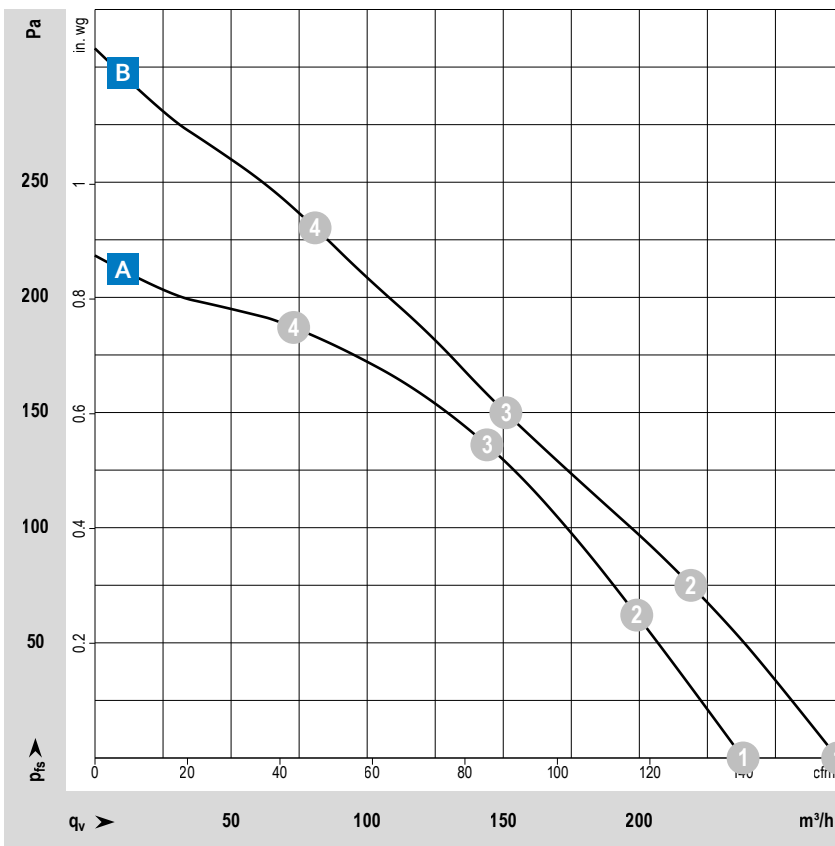
| | |
|---------------|--|
| from page 14 | Definitions |
| from page 350 | Accessories |
| more at | www.ebmpapst.com |

Approvals

- DIN EN 62368, UL507, CSA C22.2 Nr. 113, EAC, CE, UKCA, CCC

Options

- Moisture protection



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
 Noise: Total sound power level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under the specified measuring conditions and may differ depending on the installation conditions. In the event of deviation from the standard configuration, the parameters must be checked after installation!
 For detailed information see <http://www.ebmpapst.com/general conditions>

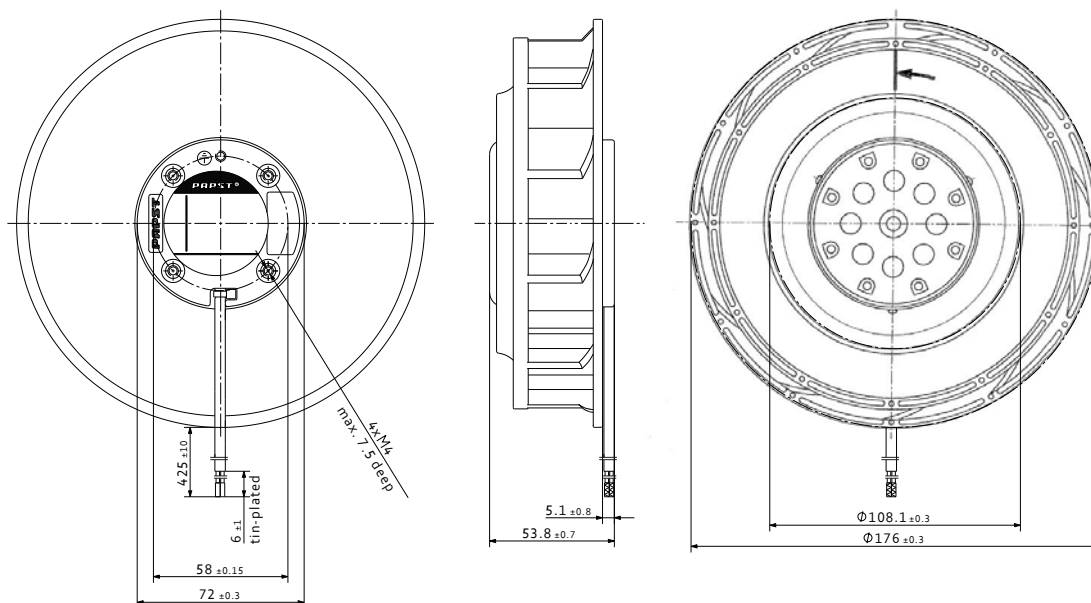
| Type / Type old | Part number | Nominal voltage | Frequency | Characteristic curve | Operating point | Air flow | | Speed | Power consumption | Sound power level | Perm. ambient temperature | Service life L ₁₀ (40 °C) ebm-papst standard |
|--------------------------------|-------------|-----------------|-----------|----------------------|-----------------|----------|-----|-------|-------------------|-------------------|---------------------------|--|
| | | VAC | Hz | | | m³/h | cfm | rpm | | | | |
| VBS0160XQKDS RER 160-28/56S | 9545020051 | 230 | 50 | A | ① | 238 | 140 | 2 850 | 46.7 | 7.3 | -30...+60 | 30 000 |
| | | | | | ② | 199 | 117 | 2 800 | 48.7 | 7.2 | | |
| | | | | | ③ | 144 | 85 | 2 770 | 49.7 | 6.9 | | |
| | | | | | ④ | 73 | 43 | 2 820 | 47.1 | 6.7 | | |
| VBS0160XQKDS RER 160-28/06S | 9545020052 | 115 | 60 | B | ① | 273 | 161 | 3 250 | 47.3 | 7.7 | -30...+70 | 30 000 |
| | | | | | ② | 219 | 129 | 3 080 | 51.9 | 7.5 | | |
| | | | | | ③ | 151 | 89 | 2 900 | 55.4 | 7.1 | | |
| | | | | | ④ | 81 | 48 | 3 130 | 50.4 | 7.0 | | |

Subject to changes.

Förderleistung und Geräusch von Centrifugal Lüftern ohne Außenhousing hängen von ihren Einbauverhältnissen ab. Der genannte Air flow und das Geräusch wurden unter folgenden Measuring conditions ermittelt:
Montage des Centrifugallüfters auf Grundplatte 260 x 260 mm.
Deckplatte 260 x 260 mm, mit Lufterlassöffnung Ø 100 mm, konzentrisch zum Lüfterrand.

Technical drawing

Dimensions in mm



ebm-papst

Accessories



ebm-papst offers a comprehensive selection of accessories for optimum fan operation, from temperature sensors for speed-controlled fans, to guard grills for all variants, to cables, filters, and screens, to spacers and installation parts. Even with very special accessories, you can be sure that we will assist you every way possible. The sales experts at ebm-papst will be happy to answer your questions about installing and using fans.

From selection to accessories:

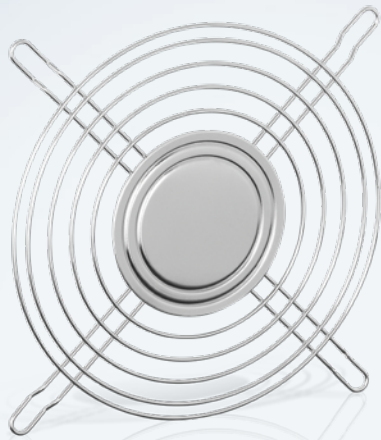
Insist on the efficient and reliable service provided by ebm-papst.

ebmpapst

engineering a better life

| | Page |
|---------------------|------|
| Finger guards | 352 |
| Filter fan guards | 362 |
| Air inlet grill | 365 |
| Inlet rings | 366 |
| Connection cables | 368 |
| Handheld Programmer | 369 |
| Accessories | 370 |
| Connection diagrams | 371 |

Finger guards



Material

- Galvanized or nickel-plated steel wire

Note

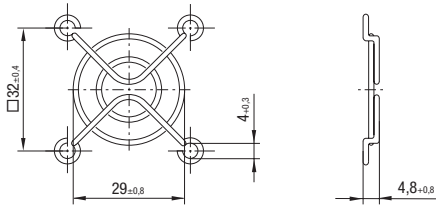
- Finger guard according to DIN EN ISO 13857 (previously EN 294).
- Additional finger guards that do not satisfy DIN EN ISO 13857 available on request.
- Our finger guards are designed specifically to be used with ebm-papst fans. They combine the highest degree of safety with minimum effect on the operating noise. Please note that the safety-related clearances cannot be guaranteed when finger guards made by other manufacturers are used.

More at www.ebmpapst.com

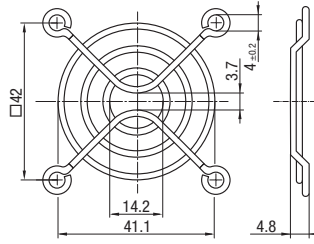
| Fan size | Fan type | Type | Part number | Side | Drawing see page |
|-----------|---|---------|-------------|---------------|------------------|
| 40 x 40 | VWCA040F..., VWCC040Y..., VWCE040J... | LZ29-1 | 9920029001 | Intake/Outlet | 353 |
| 50 x 50 | VWCB050F... | LZ31 | 9920031000 | Intake/Outlet | 353 |
| 60 x 60 | VWCB060F..., VWCD060A..., VWCD060X..., VWCD060Y..., VWCE060J... | LZ28 | 9920028000 | Intake/Outlet | 353 |
| | | LZ28-1 | 9920028001 | | |
| | | LZ22-2 | 9920022002 | | |
| 80 x 80 | VWCD080A..., VWCD080Y..., VWCE080P..., VWCF080J..., VVY0076X... | LZ32-4 | 9920032004 | Intake/Outlet | 353 |
| | | LZ22-N | 9920022001 | | |
| | | LZ32-14 | 9920145006 | | |
| 92 x 92 | VWCD092Y..., VWCE092P..., VWCF092J..., VWCF092P..., VWCD092A..., VWCF092A... | LZ23 | 9920023000 | Intake/Outlet | 353 |
| | | LZ23-1 | 9920023001 | | |
| 119 x 119 | VWCD119F..., VWCE119P..., VWCF119A..., VUCF119Y..., VWCF119X..., VWCF119A..., VWCD119A... | LZ20 | 9920020000 | Intake/Outlet | 353 |
| | | LZ30 | 9920030000 | | |
| | | LZ30-3 | 9920030003 | | |
| | | LZ30-4 | 9920030004 | | |
| 127 x 127 | VKCF119A... VKCF127A... VWCF127Y... | LZ30-4 | 9920030004 | Intake/Outlet | 354 |
| | | LZ35 | 9920035000 | | |
| | | LZ35-2 | 9920035002 | | |
| 135 x 135 | VWCF135Y..., VWCF135A... | LZ25 | 9920025000 | Intake/Outlet | 354 |
| 140 x 140 | VUCG140A... | LZ53 | 9920053000 | Intake/Outlet | 354 |
| | | LZ24 | 9920024000 | | |
| Ø 150 | VWEF150X..., VWEH150X... | LZ27 | 9920027000 | Intake/Outlet | 355 |
| | | LZ36 | 9920036000 | | |
| | | LZ26 | 9920026000 | | |
| Ø 172 | VWEG172P..., VWEG172X... VKEG178X... | LZ37 | 9920037000 | Intake/Outlet | 355 |
| | | LZ37-10 | 9920145004 | | |
| | | LZ38 | 9920038000 | | |
| | | LZ39 | 9920039000 | | |
| 172 x 150 | VWLG150X... | LZ52 | 9920052000 | Outlet side | 355 |
| 172 x 160 | VKLG160X..., VKS0154X... | LZ38 | 9920038000 | Intake side | |
| 220 x 200 | VWLG200F..., VWS0184F... | LZ22 | 9920022000 | Intake/Outlet | 355 |

Subject to changes. Dimensions in mm.

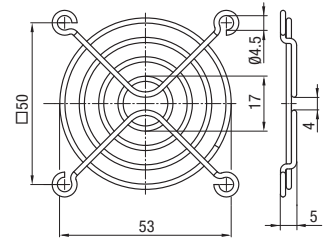
LZ29-1 Fan size 40 x 40



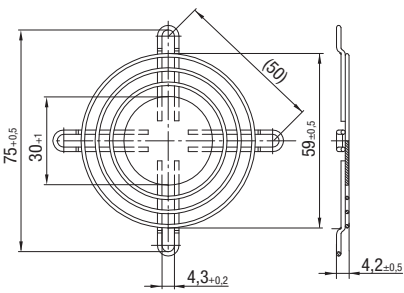
LZ31 Fan size 50 x 50



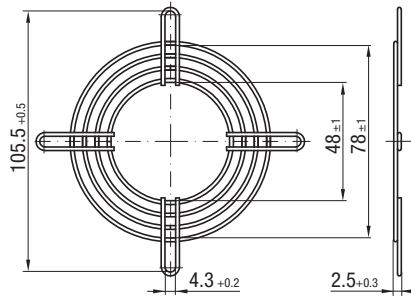
LZ28 Fan size 60 x 60



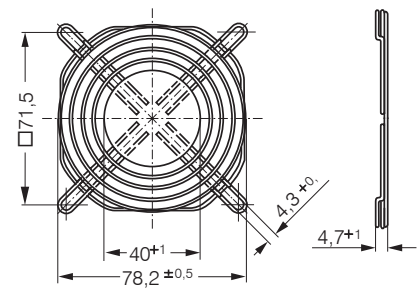
LZ28-1 Fan size 60 x 60



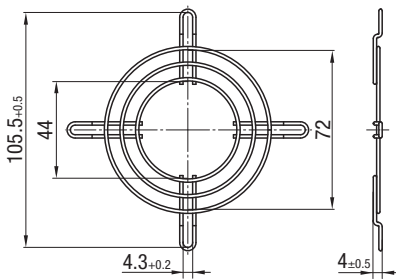
LZ22-2 Fan size 80 x 80



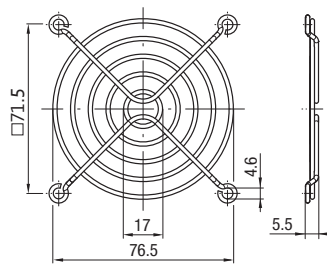
LZ32-4 Fan size 80 x 80



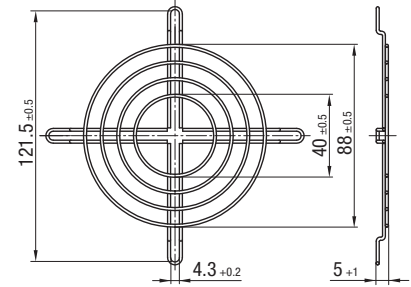
LZ22-N Fan size 80 x 80



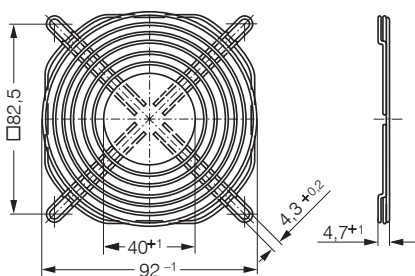
LZ32-14 Fan size 80 x 80



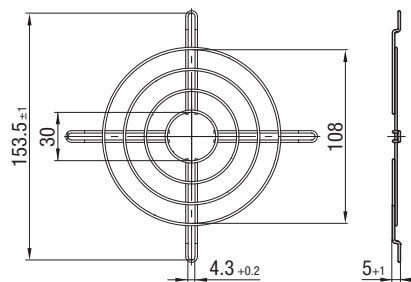
LZ23 Fan size 92 x 92



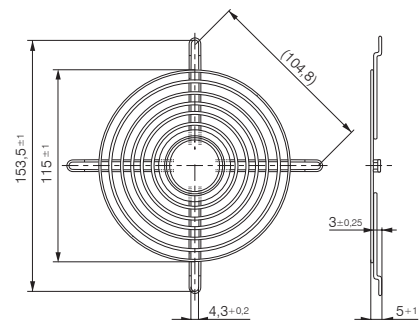
LZ23-1 Fan size 92 x 92



LZ20 Fan size 119 x 119

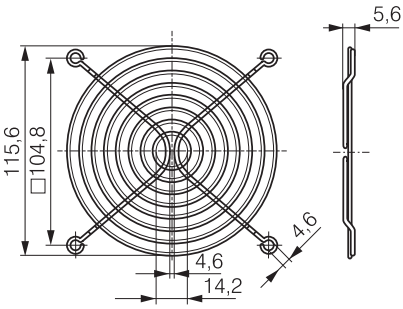


LZ30 Fan size 119 x 119

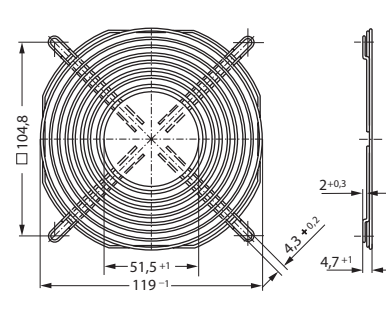


Finger guards

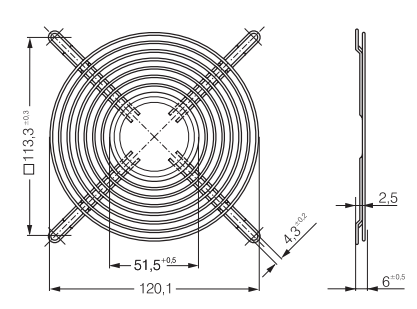
LZ30-3 Fan size 119 x 119



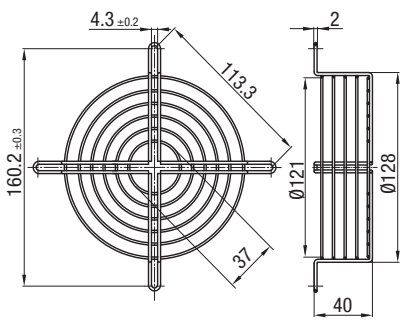
LZ30-4 Fan size 119 x 119



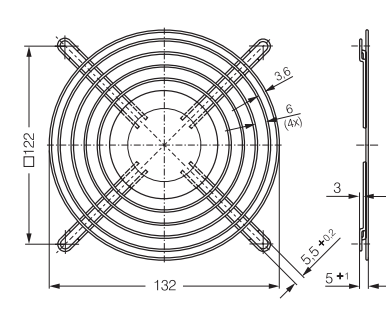
LZ35 Fan size 127 x 127



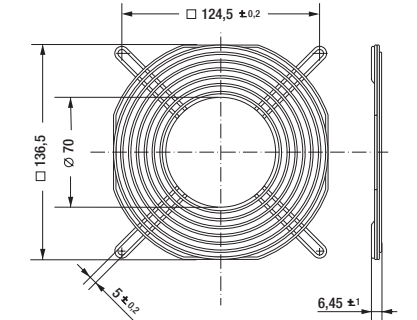
LZ35-2 Fan size 127 x 127



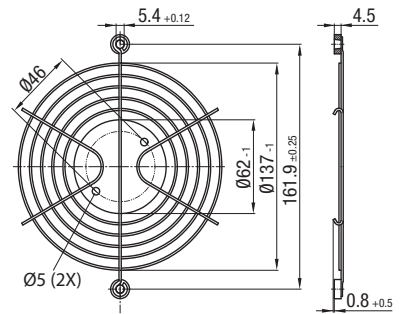
LZ25 Fan size 135 x 135



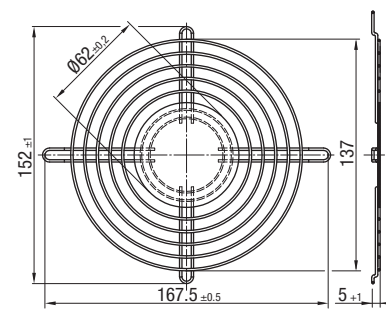
LZ53 Fan size 140 x 140



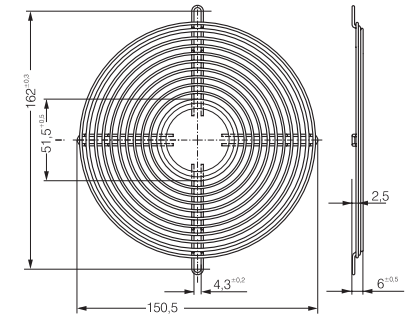
LZ24 Fan size Ø 150



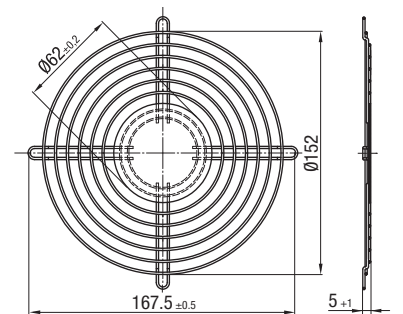
LZ27 Fan size Ø 150



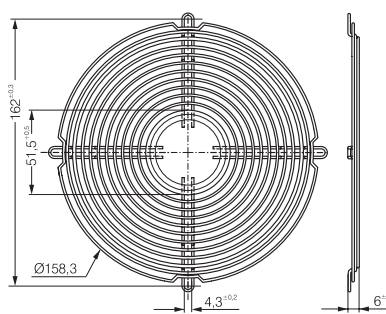
LZ36 Fan size Ø 150



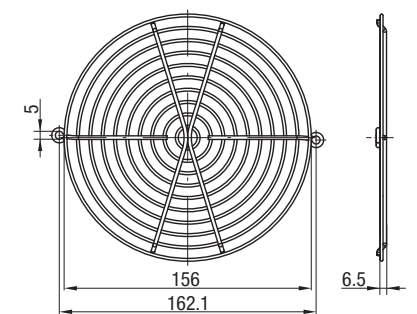
LZ26 Fan size Ø 172



LZ37 Fan size Ø 172

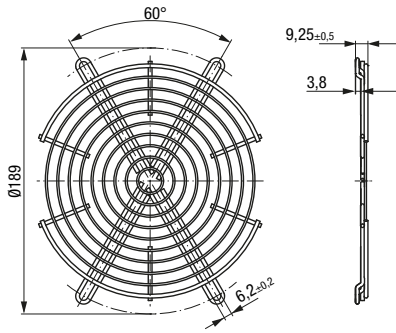


LZ37-10 Fan size Ø 172



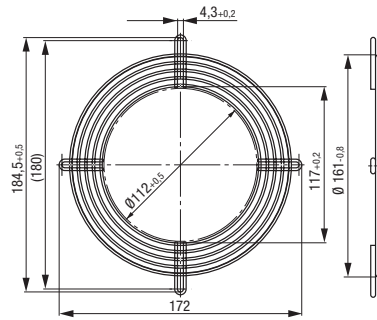
LZ38-1

Lüftereinheit



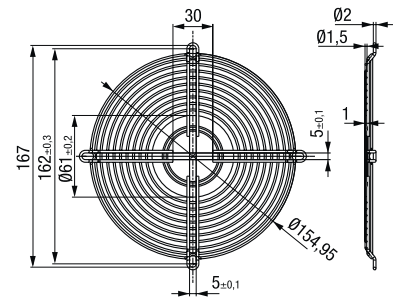
LZ39

Fan size Ø 172



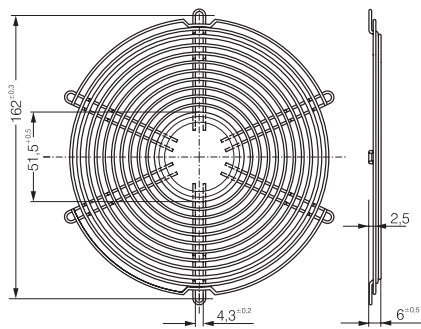
LZ52

Fan size Ø 172



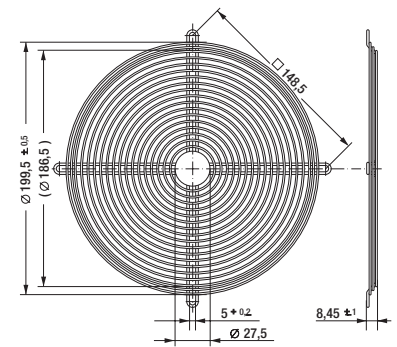
LZ38

Fan size 172 x 150; 172 x 160; Ø 172



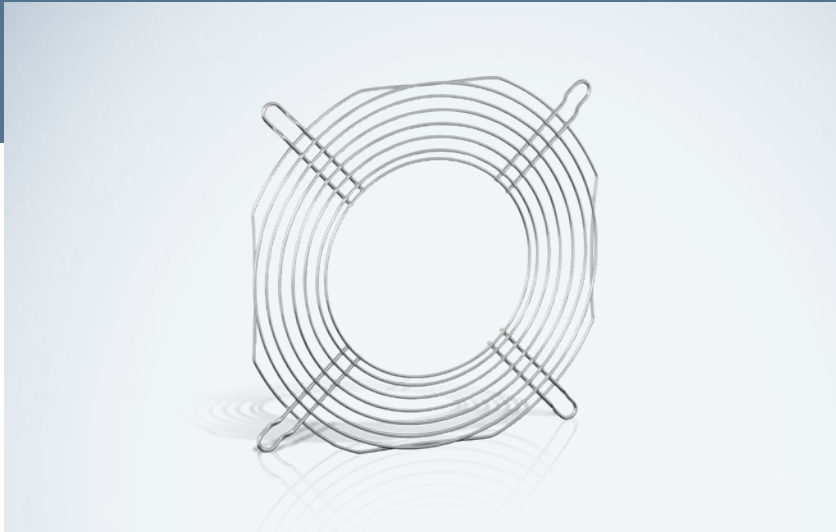
LZ22

Fan size 220 x 200



Finger guards

ACmaxx / ACi



Material

- Galvanized or nickel-plated steel wire

Note

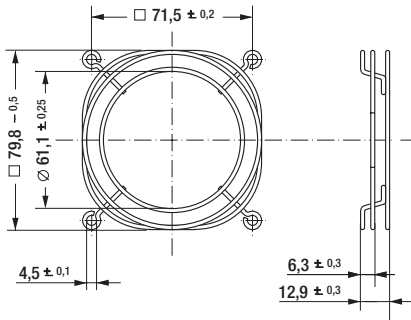
- Finger guard according to DIN EN ISO 13857 (previously EN 294).
- Finger guards for air outlet described on this page are specifically for fan series ACmaxx.
- For air intake side the standard finger guards with a corresponding dimension can be used.

More at www.ebmpapst.com

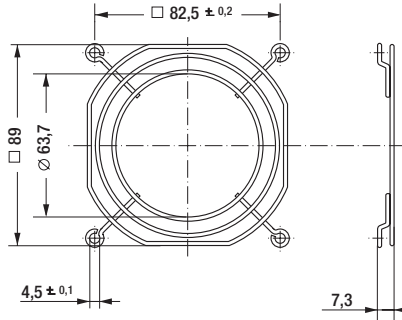
| Finger guards made of metal | | | | | |
|-------------------------------|---------------------------|---------|-------------|---------------|------------------|
| Fan size | Fan type | Type | Part number | Side | Drawing see page |
| 80 x 80 | VWCE080ASJHS | LZ32-7 | 9920032007 | Outlet side | 357 |
| | | LZ22-N | 9920022001 | Intake side | 353 |
| | | LZ22-2 | 9920022002 | | |
| | | LZ32-14 | 9920145006 | | |
| | | LZ32-4 | 9920032004 | | |
| 92 x 92 | VWCJ092JSGKS | LZ23-6 | 9920023006 | Outlet side | 357 |
| | | LZ23 | 9920023000 | Intake side | 353 |
| | | LZ23-1 | 9920023001 | | |
| 119 x 119 | VWCF119Y..., VWCH119FSJMS | LZ20 | 9920020000 | Intake side | 353 |
| | | LZ30 | 9920030000 | | |
| | | LZ30-3 | 9920030003 | | |
| | | LZ30-4 | 9920030004 | Outlet side | 354 |
| | | LZ30-9 | 9920030009 | | |
| Ø 172 | VWEK172XSLPS | LZ26 | 9920026000 | Intake side | 354 |
| | | LZ37 | 9920037000 | | |
| | | LZ37-10 | 9920145004 | | |
| | | LZ52 | 9920052000 | Outlet side | 355 |
| | | LZ37-2 | 9920037002 | | |
| Finger guards made of plastic | | | | | |
| Fan size | Fan type | Type | Part number | Side | Drawing see page |
| 119 x 119 | VWCH119FSJMS, VWCF119Y... | LZ30-5 | 9920030005 | Intake side | 361 |
| | | LZ30-6 | 9920030006 | | |
| Ø 172 | VWCF119Y... | LZ30-P | 9920030001 | Intake/Outlet | 361 |
| Filter fan guards | | | | | |
| Fan size | Fan type | Type | Part number | Side | Drawing see page |
| 80 x 80 | VWCE080ASJHS | FF80 | 9920034002 | Intake side | 363 |
| 92 x 92 | VWCJ092JSGKS | FF92 | 9920034003 | Intake side | 363 |
| 119 x 119 | VWCH119FSJMS | FF119 | 9920034004 | Intake side | 363 |
| Ø 172 | VWEK172XSLPS | FF172 | 9920034005 | Intake side | 363 |

Subject to changes. Dimensions in mm.

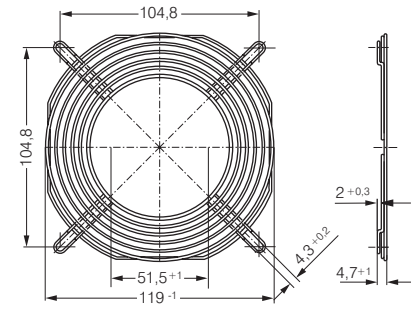
LZ32-7 Fan size 80 x 80



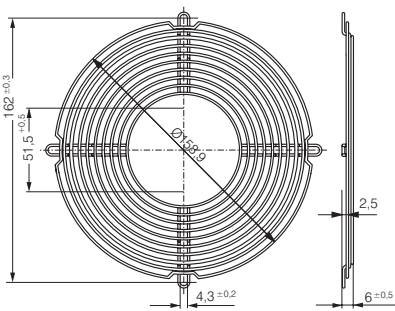
LZ23-6 Fan size 92 x 92



LZ30-9 Fan size 119 X 119



LZ37-2 Fan size $\varnothing 172$



Finger guards



Material

- Steel wire, plastic-coated, with silver-metallic gloss

More at www.ebmpapst.com

| Fan size | Fan type | Part number | Side |
|----------|-------------|--|---------------|
| Ø 200 | VWLJ225X... | 78128-2-4039 | Intake/Outlet |
| Ø 250 | VWLK280X... | 09418-2-4039 72880-2-4039 | Intake/Outlet |

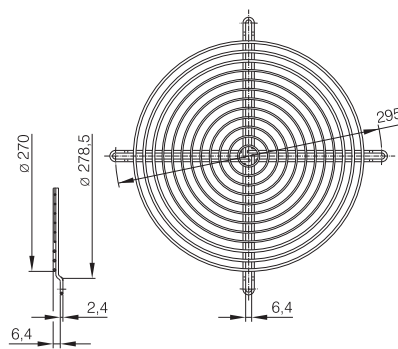
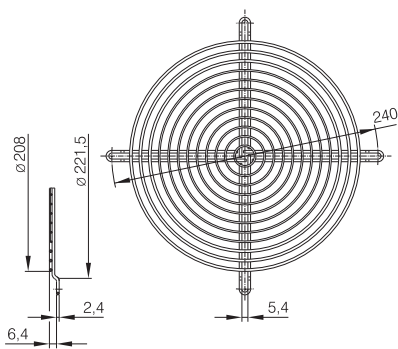
Subject to changes. Dimensions in mm.

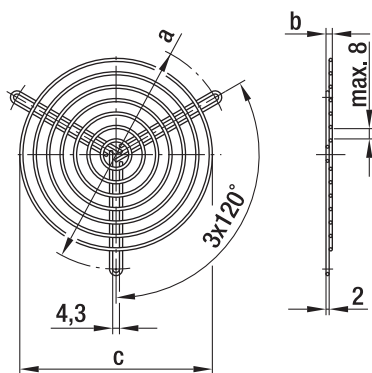
78128-2-4039

Fan size Ø 200

09418-2-4039

Fan size Ø 250

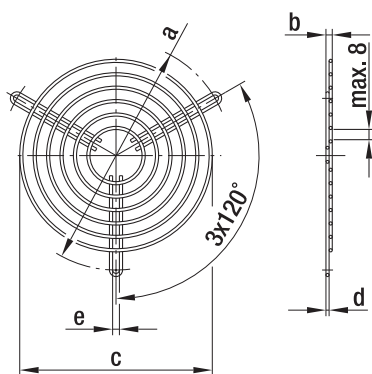




Finger guards for centrifugal blowers with dual inlet
Material: Steel wire

| Fan size | Part number | a | b | c | Coating | Highlights |
|----------|--------------|-------|-----|-------|--|---------------|
| 097 | 83319-2-4039 | 96.0 | 3.5 | 71.0 | Phosphated, plastic-coated in RAL no. 9005 | for D2E097-CH |
| | 09485-2-4039 | 114.0 | 3.5 | 88.0 | Phosphated, plastic-coated in RAL no. 9005 | for D2E097-B |
| 133/146 | 09500-2-4039 | 145.0 | 4.0 | 122.0 | Phosphated, plastic-coated in RAL no. 9005 | |

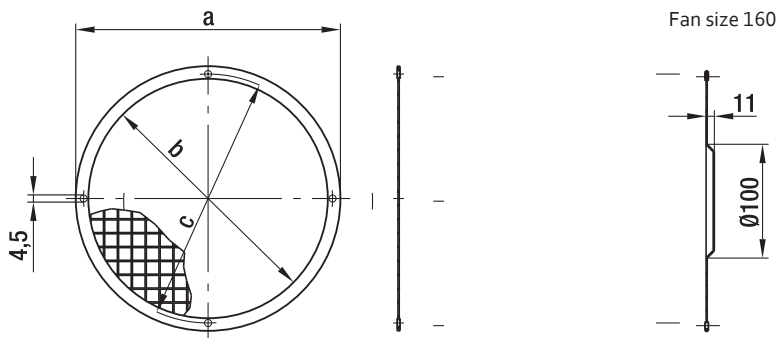
Subject to changes. Dimensions in mm.



Finger guards for centrifugal blowers with dual inlet (versions with EW motor)
Material: Phosphated steel wire, plasticcoated, silver-metallic gloss

| Fan size | Part number | a | b | c | d | e |
|----------|--------------|-------|------|-------|-----|-----|
| 160 | 35000-2-4039 | 182.0 | 12.0 | 144.0 | 2.4 | 4.5 |

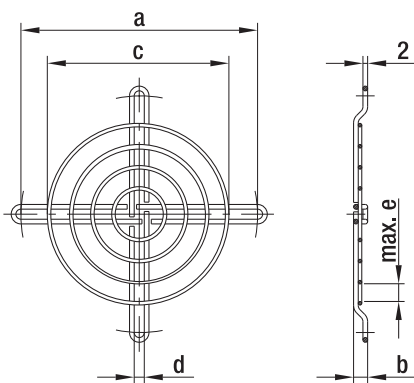
Subject to changes. Dimensions in mm.



Finger guards for centrifugal blowers with single inlet
Material: Welded screens made of hot-dip galvanized steel, border made of tin (0.4 mm thick)

| Fan size | Part number | a | b | c | Highlights |
|----------|--------------|-------|-------|-------|-----------------------------------|
| 085 | 09489-2-4039 | 90.0 | 74.0 | 84.0 | 3 drilled holes staggered by 120° |
| 108 | 09490-2-4039 | 126.0 | 110.0 | 118.0 | |
| 120 | 09494-2-4039 | 140.0 | 124.0 | 132.0 | |
| 140/146 | 09492-2-4039 | 168.0 | 152.0 | 158.0 | |
| 160 | 09503-2-4039 | 183.0 | 170.0 | 175.0 | see picture fan size 160 |

Subject to changes. Dimensions in mm.



Finger guards for centrifugal blowers with single inlet
Material: Steel wire

| Fan size | Part number | a | b | c | d | e | Coating |
|----------|--------------|-------|-----|-------|-----|-----|---------------------------------------|
| 076/085 | 98214-2-4039 | 101.0 | 6.0 | 79.0 | 4.3 | 8.0 | Plastic coated, silver-metallic gloss |
| 108 | 98214-2-4039 | 120.0 | 3.5 | 88.0 | 4.3 | 8.0 | Plastic coated, silver-metallic gloss |
| 140/146 | 25028-2-4039 | 162.0 | 8.5 | 139.0 | 4.3 | 8.0 | Galvanized, chromitized in blue |
| 160 | 17729-2-4039 | 175.0 | 3.5 | 139.0 | 4.6 | 7.0 | Galvanized, chromitized in blue |

Subject to changes. Dimensions in mm.

Finger guards



Material

- Fiberglass-reinforced plastic

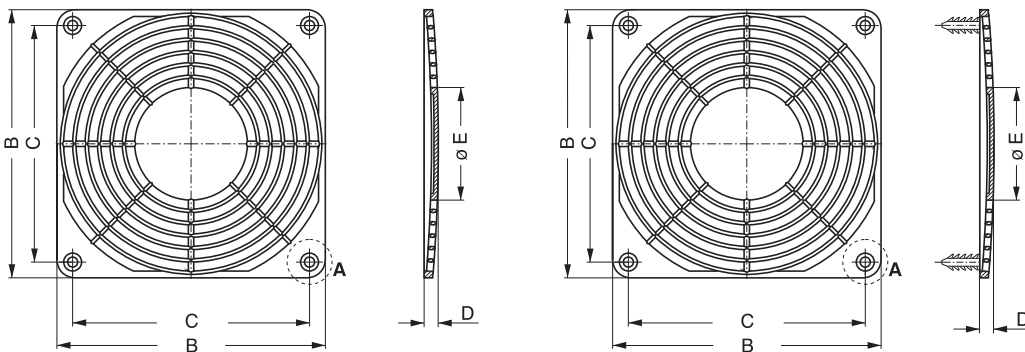
Note

- Finger guard according to DIN EN ISO 13857 (previously EN 294).
- Plastic guards may not be used for the following models:
 - VWCF080J from 12.000 rpm
 - VWCF092J from 11.000 rpm
 - VUCF119Y from 7.500 rpm

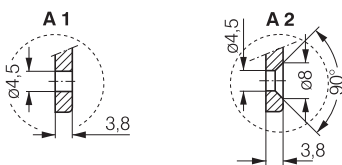
More at www.ebmpapst.com

| Fan size | Fan type | Type | Part number | B | C | D | E | Mounting |
|-----------|---|--------|-------------|---------------|----------------|-----|----|----------|
| 60 x 60 | VWCB060F..., VWCD060A..., VWCD060X..., VWCD060Y..., VWCE060J... | LZ28-3 | 9920028003 | 60 \pm 0.5 | 50.0 \pm 0.2 | 3.0 | 24 | A3 |
| | | LZ32-2 | 9920032002 | | | | | A1 |
| 80 x 80 | VWCD080A..., VWCD080Y..., VWCE080P..., VWCF080J..., VWCF080A... | LZ32-P | 9920032001 | 80 \pm 0.5 | 71.5 \pm 0.2 | 7.0 | 34 | A2 |
| | | LZ32-3 | 9920032003 | | | | | A3 |
| 92 x 92 | VWCD092Y..., VWCE092P..., VWCF092J..., VWCF092P..., VWCD092A..., VWCF092A... | LZ23-2 | 9920023002 | 92 \pm 0.5 | 82.5 \pm 0.2 | 6.5 | 46 | A1 |
| | | LZ23-3 | 9920023003 | | | | | A3 |
| 119 x 119 | VWCD119F..., VWCE119P..., VWCF119A..., VUCF119Y..., VWCF119X..., VWCD119A..., VKCF119A... | LZ30-5 | 9920030005 | 119 \pm 0.5 | 105 \pm 0.2 | 6.5 | 50 | A2 |
| | | LZ30-6 | 9920030006 | | | | | A4 |
| | | LZ30-P | 9920030001 | | | | | A2 |
| 127 x 127 | VWCF127Y..., VKCF127A..., | LZ33-1 | 9920033001 | 127 \pm 0.5 | 113 \pm 0.2 | 6.5 | 50 | A2 |
| | | LZ33-2 | 9920033002 | | | | | A4 |

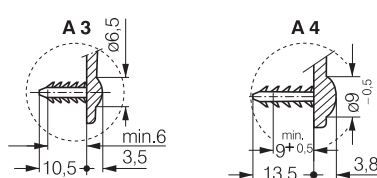
Subject to changes. Dimensions in mm.



Screw connection



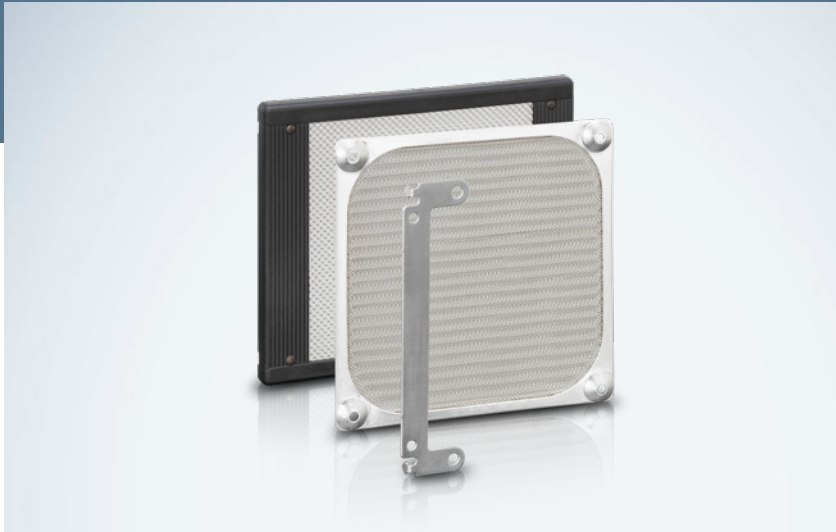
Barbed inserts



Only suitable for bore hole diameter 4.3 - 4.7.

Filter fan guards

119 x 119



Material

- Filter guard LZ40 N: black, fiberglass-reinforced plastic with inserted wire mesh LZ60.
- Coarse filter LZ60: stainless steel wire mesh
- Mounting lug LZ40-1 for mounting

More at

www.ebmpapst.com

Fan type DC

VWCD119F..., VWCE119P..., VWCF119A..., VUCF119Y..., VKCF119A...

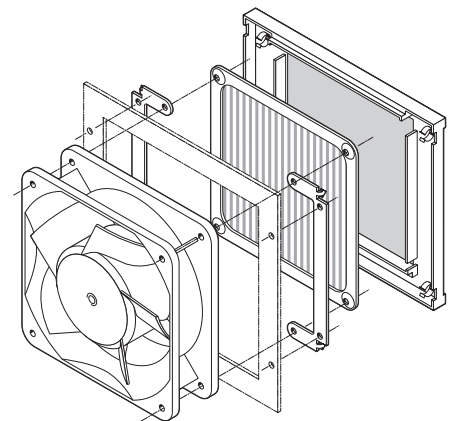
Fan type AC

VWCD119A..., VWCF119X..., VWCF119A..., VWCH119FSJMS

Fan type ACi

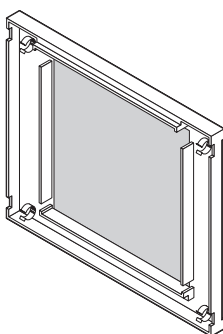
VWCF119Y...

Subject to changes. Dimensions in mm.



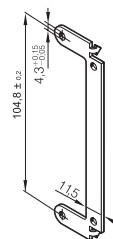
LZ40N

Filter guard



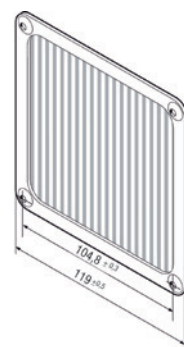
LZ40-1

Mounting lug



LZ60

Coarse filter



Filter fan guards



Material

- Guard cover: Injection-molded polycarbonate (PC) with mat surface.
- Mounting plate: wire mesh with black powder coating
- Filter pad: white, synthetically bonded fibers

Note

- Filter fan guards suitable for fitting on axial fan series in sizes: 60 mm, 80 mm, 92 mm, 119 mm, \varnothing 172 mm.
- All filter units fit directly on the existing mounting holes of the fans.
- Filter fan guards consisting of 3 parts: external guard cover, internal mounting plate, and replaceable filter pad.
- The filter pad can be replaced quickly and easily via a quick release on the guard cover.
- The filter pads can be replaced even while the fan is running, as protection is provided by the welded wire mesh.

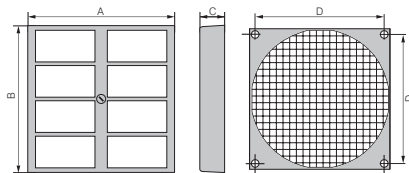
More at www.ebmpapst.com

| Fan size | Fan type | Type | Part number | A | B | C | D | Repl. filter* |
|---|--|-------|-------------|-----|-----|------|-------|---------------|
| 60 x 60 | VWCB060F..., VWCD060A..., VWCD060X..., VWCD060Y..., VWCE060J... | FF60 | 9920340001 | 65 | 65 | 13.5 | 50.0 | RF 60 |
| 80 x 80 | VWCD080A..., VWCD080Y..., VWCE080P..., VWCF080J..., VWCF080A... | FF80 | 9920340002 | 85 | 85 | 14.0 | 71.5 | RF 80 |
| 92 x 92 | VWCD092Y..., VWCE092P..., VWCF092J..., VWCF092P..., VWCD092A..., VWCF092A... | FF92 | 9920340003 | 125 | 105 | 17.5 | 82.5 | RF 92 |
| 119 x 119 | VWCD119F..., VWCE119P..., VWCF119A..., VUCF119Y..., VWCF119X..., VWCD119A... | FF119 | 9920340004 | 162 | 136 | 18.5 | 104.5 | RF 119 |
| \varnothing 172 172 x 150 172 x 160 | VKEG178X..., VWEG172X..., VWEG172P..., VKLG160X..., VWLG150X..., VKS0154X... | FF172 | 9920340005 | 226 | 190 | 19.5 | 162.0 | RF 172 |

Subject to changes. Dimensions in mm. * Replacement filter available only in packages of 5.

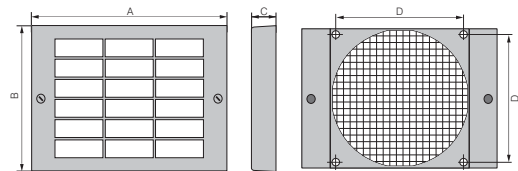
FF60 / FF80

Fan size: 60 x 60 mm / 80 x 80 mm



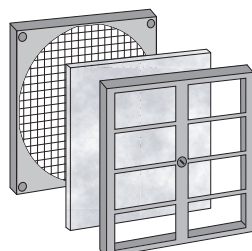
FF92 / FF 119

Fan size: 92 x 92 mm / 119 x 119 mm



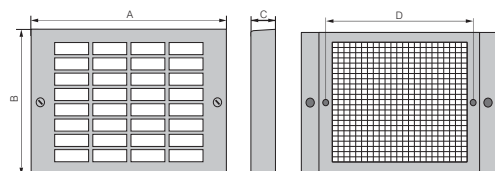
Filter performance

The filter fan guard filters 75 % of dust particles with a size of 5-10 microns and can withstand temperatures of up to 100 °C. Filter class G3 according to DIN EN 779. Flame-retardant according to DIN 53438, class F1. When a clean filter is installed, a reduction of air flow of 20-30 % is possible.



FF 172

Fan size: \varnothing 172 mm



Finger guards

For compact centrifugal modules



Material

- PA plastic, fiberglass-reinforced

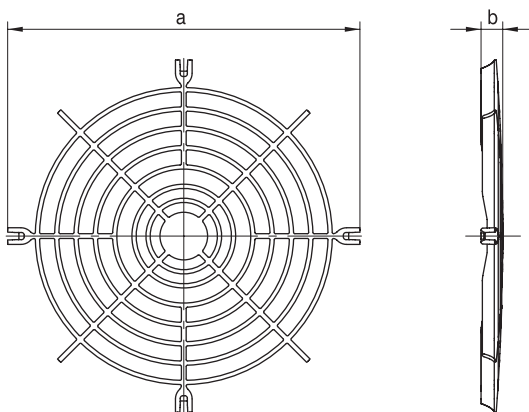
Highlights

- Flame protection class in line with UL 94V-0

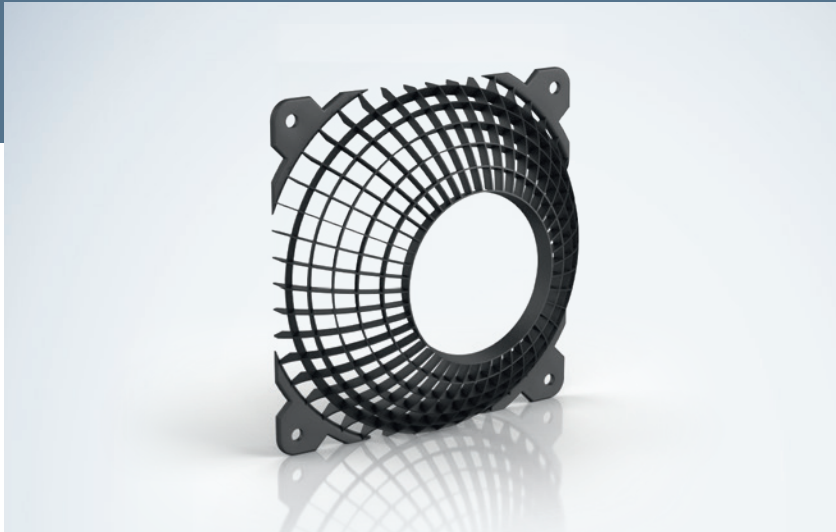
More at www.ebmpapst.com

| Fan size | Fan type | Type | Part number | a | b |
|----------|-------------|--------|-------------|-----|-----|
| Ø 190 | VCS0190R... | LZ46-1 | 9920046001 | 133 | 9.0 |
| Ø 220 | VCS0220R... | LZ47-1 | 9920047001 | 166 | 8.7 |
| Ø 225 | VCS0225R... | LZ48-1 | 9920048001 | 158 | 8.7 |

Subject to changes. Dimensions in mm.



Air inlet grill



Material

- PA plastic, fiberglass-reinforced

Highlights

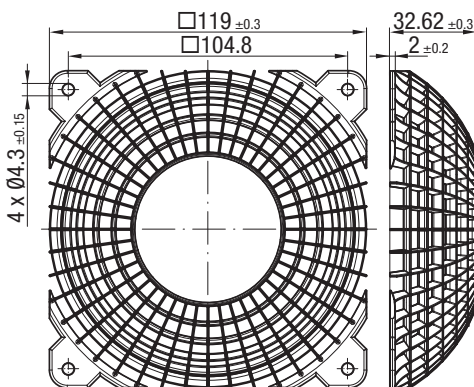
- For axial and diagonal fans
- Assembled on the air intake, the fan grid reduces the noise emission dramatically and minimizes disturbing low frequency sound.

More at

www.ebmpapst.com

| Fan size | Fan type | Type | Part number | Side |
|-----------|---|--------|-------------|-------------|
| 119 x 119 | VWCF119Y..., VWCF119A..., VWCD119F..., VWCH119F..., VWCE119P..., VUCF119Y..., VWCF119X..., VWCD119A..., VKCF119A... | FG 119 | 9920070000 | Intake side |

Subject to changes. Dimensions in mm.

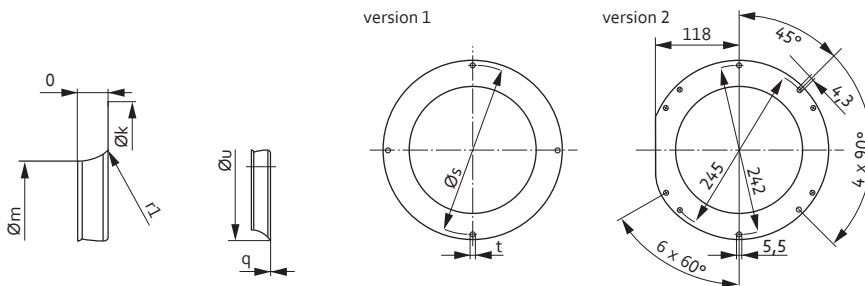


Inlet rings

For centrifugal fans

Material

- Galvanized sheet steel

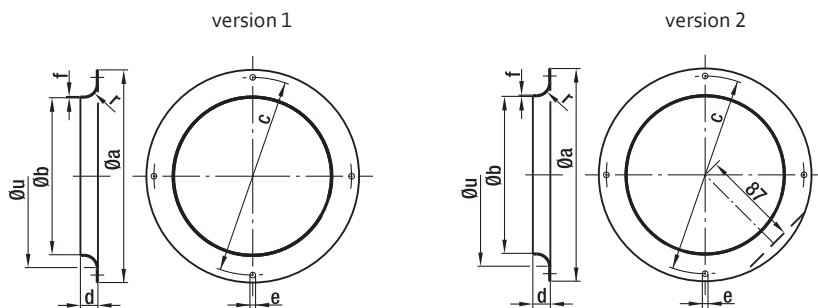


Inlet rings for backward curved centrifugal fans

| Fan size ¹⁾ | Type | Part number | version | k | m | o | q | r1 | s | t | u |
|------------------------|-------------|--------------|---------|-------|-------|------|------|------|-------|---------|-------|
| RER 120 (S)/120 (K) | LZ 1000-120 | 96120-2-4013 | 1 | 146.0 | 94.4 | 18.0 | 0.80 | 16.0 | 134.0 | 4 x 4.5 | 126.0 |
| RER 133 (K) | LZ 1000-133 | 09566-2-4013 | 1 | 129.0 | 87.0 | 13.0 | 1.00 | 8.0 | 118.0 | 4 x 4.5 | 103.0 |
| RER 160 (S) | LZ 1000-160 | 09569-2-4013 | 1 | 142.0 | 100.0 | 9.0 | 1.00 | 8.0 | 132.0 | 4 x 4.5 | - |
| RER 175/190 (K) | LZ 1000-175 | 09576-2-4013 | 1 | 170.0 | 125.5 | 14.0 | 1.25 | 10.0 | 158.0 | 4 x 4.5 | 146.0 |
| RER 220 TD (K) | LZ 1000-220 | 09609-2-4013 | 2 | 252.0 | 155.0 | 21.0 | 0.80 | 21.8 | 242.0 | 6 x 5.5 | 119.0 |
| RER 225 TD (K) | LZ 1000-225 | 96358-2-4013 | 1 | 223.0 | 146.0 | 28.0 | 1.50 | 25.0 | 210.0 | 4 x 4.5 | 196.0 |

Subject to changes. Dimensions in mm.

¹⁾ Fan size with key for impeller material: (P) = plastic, (S) = sheet steel, (A) = aluminum



Inlet rings for forward curved centrifugal fans

| Fan size | Part number | version | a | b | c | d | e | f | r | u | Highlights |
|----------|--------------|---------|-------|-------|-------|------|---------|------|------|---|-----------------------------------|
| 085 | 09560-2-4013 | 1 | 92.0 | 63.4 | 84.0 | 6.0 | 3 x 4.2 | 0.80 | 6.8 | - | 3 drilled holes staggered by 120° |
| 097 | 09563-2-4013 | 1 | 116.0 | 80.0 | 108.0 | 10.0 | 3 x 4.5 | 0.80 | 10.0 | - | 3 drilled holes staggered by 120° |
| 108 | 09566-2-4013 | 1 | 129.0 | 87.0 | 118.0 | 13.0 | 4 x 4.5 | 1.00 | 8.0 | - | |
| 120 | 09569-2-4013 | 1 | 142.0 | 100.0 | 132.0 | 9.0 | 4 x 4.5 | 1.00 | 8.0 | - | |
| 133 | 09572-2-4013 | 1 | 150.0 | 112.0 | 142.0 | 12.0 | 4 x 4.5 | 1.00 | 10.0 | - | |
| 140/146 | 09576-2-4013 | 1 | 170.0 | 125.5 | 158.0 | 14.0 | 4 x 4.5 | 1.25 | 10.0 | - | |
| 160 | 09588-2-4013 | 2 | 185.0 | 130.0 | 175.0 | 17.0 | 4 x 4.5 | 0.75 | 12.0 | - | |

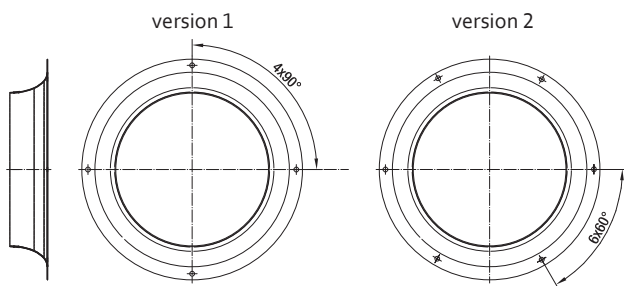
Subject to changes. Dimensions in mm.

Inlet ringn / Luftfilter

für Centrifugallüfter

Material

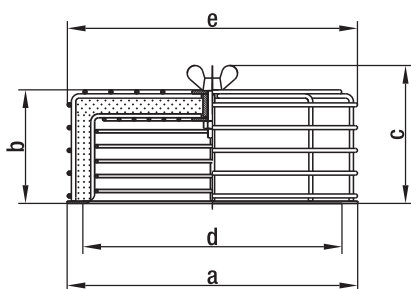
- Galvanized sheet steel



Inlet rings without measuring device for backward curved centrifugal fans

| Fan size | Part number | version | Dimensions |
|----------|--------------|---------|--------------------------------|
| 190 | 09576-2-4013 | 1 | See corresponding product page |
| 220 | 09609-2-4013 | 2 | See corresponding product page |
| 225 | 96358-2-4013 | 1 | See corresponding product page |
| 250 | 96359-2-4013 | 1 | See corresponding product page |
| 280 | 28000-2-4013 | 1 | See corresponding product page |
| 310 | 31000-2-4013 | 1 | See corresponding product page |

Subject to changes. Dimensions in mm.



Material

- Steel wire or sheet steel, plastic coated in RAL no. 9005, black

Filter

- Viledon filter type R: PSB / 29 OS (according to DIN 24185)
- Separation capacity: < 86 %
- Efficiency: < 20 %
- Dust binding capacity: 650 g/m²

Air filters for centrifugal blowers (with die-cast aluminum housing)

| Fan size | Part number | a | b | c | d | e | Replacement filter |
|-------------|--------------|-------|------|------|---------|-------|--------------------|
| 108/120 | 95777-1-5171 | 142.0 | 66.0 | 83.0 | 118-132 | 145.0 | 95779-1-5171 |
| 140/146/160 | 95778-1-5171 | 185.0 | 74.0 | 91.0 | 158-175 | 185.0 | 95780-1-5171 |

Subject to changes. Dimensions in mm.

Cables



Characteristics

- Cable with molded plug connection in varying lengths.
- Wire end with wire end ferrules, crimped ferrules, or tin-plated.
- Straight or angled plug.
- For all fan types with flat plug 2.8 / 3.0 x 0.5.

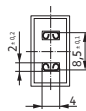
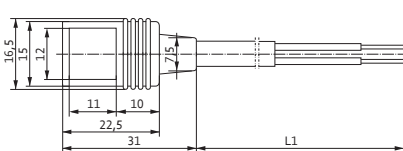
More at www.ebmpapst.com

| Part number | Type | L1 | Wires | Plug | Wire end | Flat push-on receptacle | Application |
|-------------|----------|-------|----------------------|------|----------|-------------------------|-------------|
| 9920120000 | LZ120 | 610 | 0.5 mm ² | G | C | 2.8 x 0.5 | AC |
| 9920120004 | LZ120-4 | 2 000 | 0.5 mm ² | G | A | 2.8 x 0.5 | AC |
| 9920120005 | LZ120-5 | 380 | 0.5 mm ² | W | B | 2.8 x 0.5 | DC |
| 9920120006 | LZ120-6 | 610 | 0.5 mm ² | W | B | 2.8 x 0.5 | DC |
| 9920120010 | LZ120-10 | 2 500 | 0.5 mm ² | G | B | 2.8 x 0.5 | AC |
| 9920120011 | LZ120-11 | 2 000 | 0.5 mm ² | G | A | 2.8 x 0.5 | DC |
| 9920120013 | LZ120-13 | 5 000 | 0.5 mm ² | G | B | 2.8 x 0.5 | AC |
| 9920120016 | LZ120-16 | 800 | 0.5 mm ² | G | B | 2.8 x 0.5 | AC |
| 9920120017 | LZ120-17 | 3 000 | 0.5 mm ² | G | A | 2.8 x 0.5 | AC |
| 9920120018 | LZ120-18 | 4 000 | 0.5 mm ² | G | A | 2.8 x 0.5 | AC |
| 9920126000 | LZ126 | 1 000 | 0.5 mm ² | G | C | 2.8 x 0.5 | AC |
| 9920127000 | LZ127 | 1 600 | 0.5 mm ² | G | B | 2.8 x 0.5 | AC |
| 9920130001 | LZ130-1 | 610 | 0.82 mm ² | G | C | 2.8 x 0.5 | AC* |
| 9920140000 | LZ140 | 610 | 0.73 mm ² | G | B | 2.8 x 0.8 | AC |

Subject to changes. Dimensions in mm.
* UL-approved

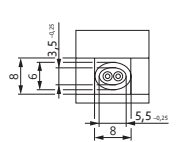
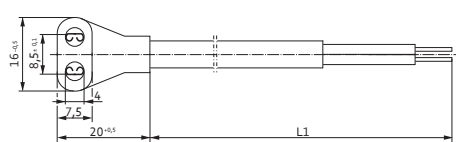
Cable

Straight plug (G)



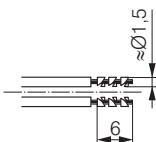
Cable

Angled plug (W)



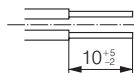
Wire end ferrules

Wire end A



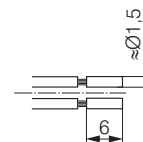
Tin-plated

Wire end B

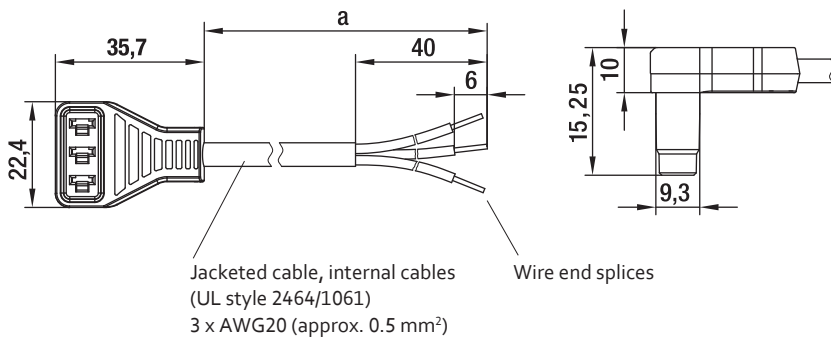


Wire end ferrules

Wire end C



Cable (ESM) / Handheld Programmer



Design

- Cable conforms to UL standards sealed plug.
- Customized cables on request.

Cables for energy-saving motors 115/230 VAC

| Part number | a |
|--------------|-------|
| 13060-4-1040 | 450 |
| 13061-4-1040 | 1 500 |

Subject to changes. Dimensions in mm.



Characteristics

- Easy speed programming
- Battery operated
- User-friendly navigation menu
- Protective cover with folding stand

For Energy Saving Motor (ESM) based products

| Part number |
|-----------------|
| CBC 000-AF08-01 |

Subject to changes. Dimensions in mm.

Makes quick work of programming the two ESM adjustable operating speeds. Eliminates the need for a PC, software adapter and second cable. Especially for use in production or by sales representatives. Automatic shut-off function for extended battery life. Mini USB plug for downloading software updates. Batteries, programming cable, and operating instructions included in scope of delivery.

Accessories

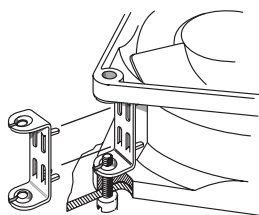
In addition to the accessories and installation parts listed here, ebm-papst also supplies a number of additional, sometimes very special parts for fans.

Our company sales team is happy to offer you their expert assistance with all your questions regarding the installation and use of our fans.

| Fan type | Type | Part number |
|---|-------|-------------|
| VWCE119P... | LZ212 | 9920212000 |
| VWCD092Y..., VWCD119F..., VWCD080Y..., VWCD080A... | LZ261 | 9920261000 |
| VWCF119X..., VUCF119Y..., VWCF135Y..., VWCF127Y..., VWCF135A..., VWEF150X..., VWEH150X..., VWEK172X..., VWEG172X..., VWEG172P..., VWLG150X..., VWEF150X..., VWEH150X... | LZ210 | 9920210000 |
| | LZ215 | 9920215000 |
| For all temperature-controlled fans | LZ370 | 4871104201 |
| | LZ550 | 6030020000 |
| For all fans with mounting holes of 4.3 mm | LZ551 | 6030053002 |

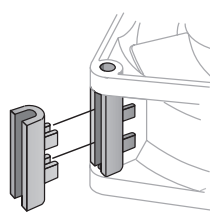
Subject to changes. Dimensions in mm.

LZ212



Screw clip of rustproof spring steel. For mounting fans with threaded pin 3.5 DIN EN ISO 1478 (7970).

LZ261



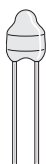
Spacer of fiberglass-reinforced plastic. For mounting with screws through both fan mounting flanges.

LZ210



Screw clip of hardened steel. For mounting fans with threaded pin 6-32 UNC or 3.5 DIN 7970.

LZ370



Required performance data

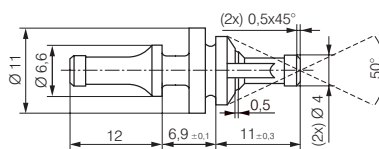
$R_{25} = 100 \text{ K}\Omega \pm 5\% @ 25^\circ\text{C}$

B-value = 4190 $\pm 2\%$

$P_{\text{max}} = 0.25 \text{ W}$

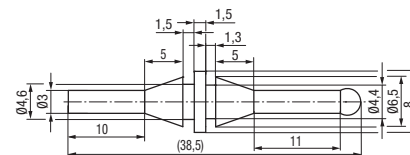
Temperature sensor for speed-controlled fan operation. Temperature range 30...50 °C.

LZ550



Rubber anti-vibration mounts for fans with a hole diameter of $4.3 \pm 0.2 \text{ mm}$ and flange thickness of 3 to 5.5 mm. For a carrier plate with a hole diameter of $6.5 \pm 0.15 \text{ mm}$ and plate thickness of 1 to 2 mm.

LZ551

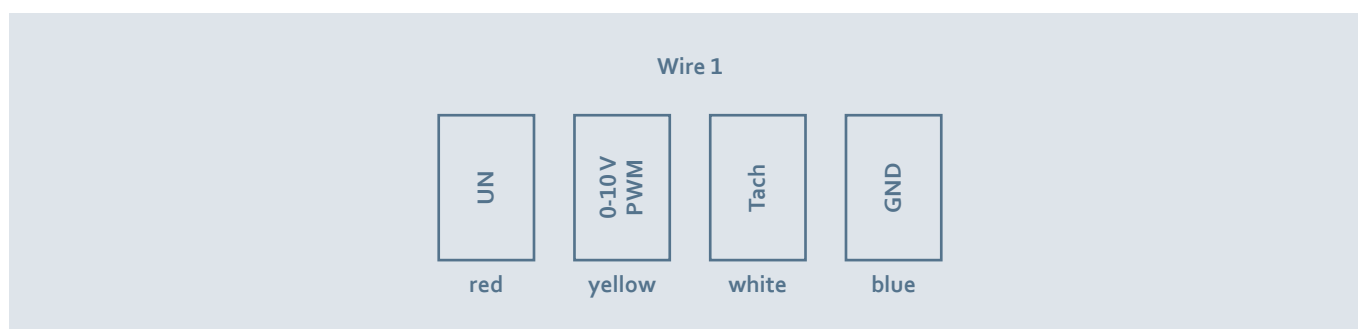


Rubber anti-vibration mounts for fans with a hole diameter of $4.3 \pm 0.2 \text{ mm}$ and flange thickness of 2 to 4 mm. For a carrier plate with a hole diameter of $4.4 \pm 0.15 \text{ mm}$ and plate thickness of 1 to 2 mm.

Connection diagrams EC E)

Technical features (nominal voltage 24 / 48 VDC):

- Tach output
- Motor current limitation
- Soft start
- Control input 0-10VDC / PWM
- Overvoltage detection
- Thermal overload protection for electronics
- Reverse polarity protection

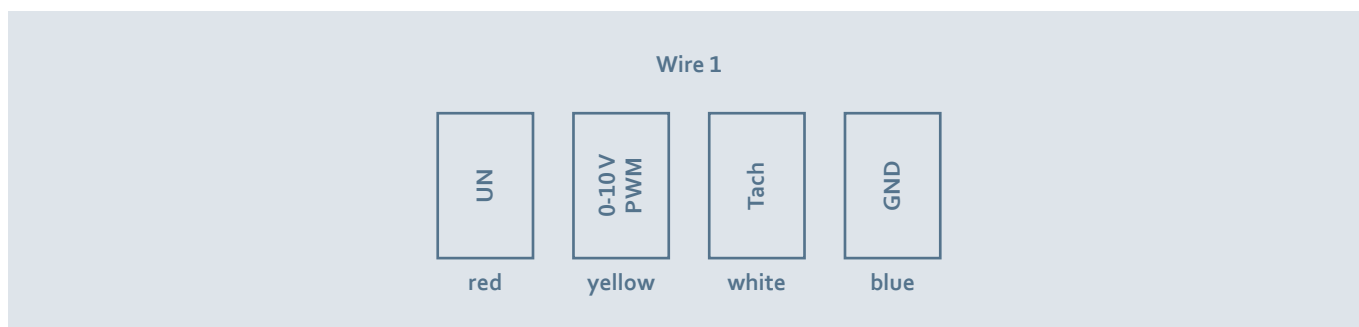


| Wire | Designation | Color | Assignment/function |
|------|-------------|--------|---|
| 1 | UN +24 VDC | red | Power supply 24 VDC, supply voltage ripple $\pm 3.5\%$ |
| | 0-10V /PWM | yellow | Control input $R_e > 40\text{ K}$ |
| | Tach | white | Tach output, 3 pulses per revolution, $I_{\text{sink max.}} = 10\text{ mA}$ |
| | GND | blue | Reference ground |

Connection diagrams EC G)

Technical features (nominal voltage 24 / 48 VDC):

- Tach output
- Soft start
- Control input 0-10VDC / PWM

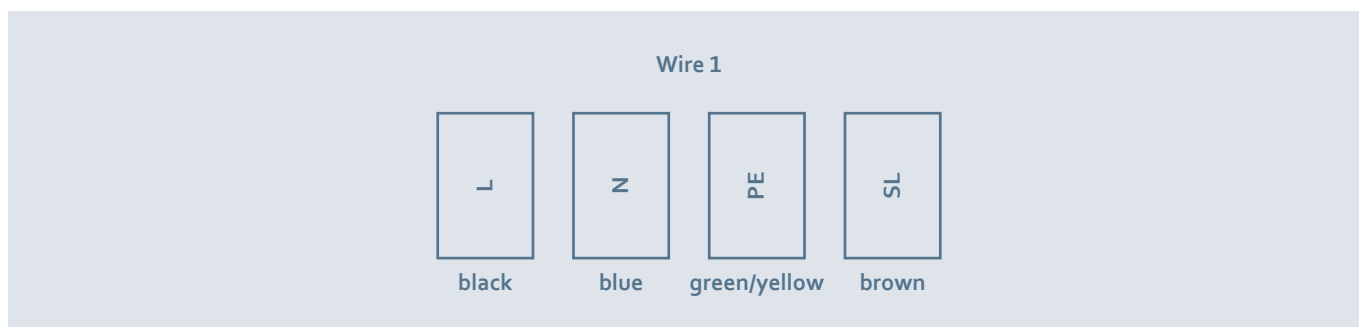


| Wire | Designation | Color | Assignment/function |
|------|-------------|--------|--|
| 1 | UN +24 VDC | red | Power supply 24/48 VDC, supply voltage ripple $\pm 3.5\%$ |
| | 1-10V /PWM | yellow | Control input $R_e > 100\text{ K}$ |
| | Tach | white | Tach output: 2 pulses / revolution (M1G045/M1G055) 3 pulses / revolution (M1G074/M1G084) |
| | GND | blue | Reference ground |

Connection diagrams EC H3)

Technical features (M3G 055 with 2 speed stages):

- Speed setting input (230V)
- Power limitation
- Motor current limitation
- Soft start
- Thermal overload protection for electronics / motor
- Line undervoltage detection

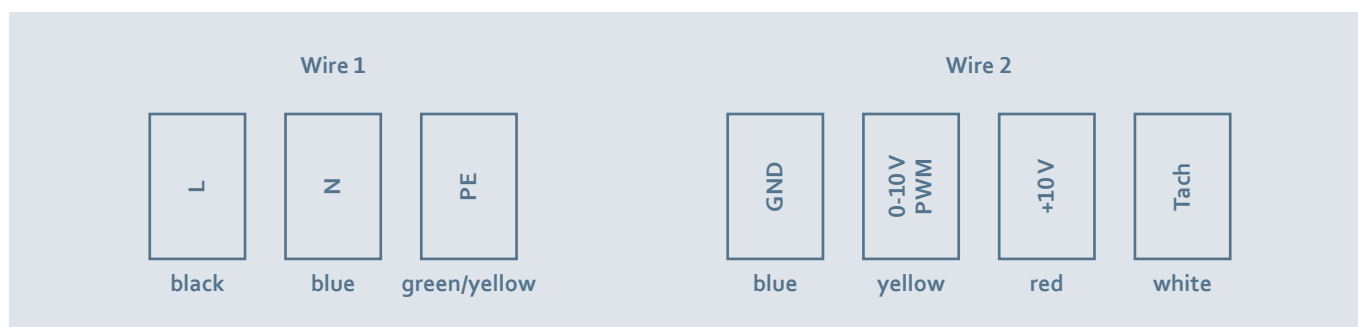


| Wire | Designation | Color | Assignment/function |
|------|-------------|--------------|--|
| 1 | L | black | Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range |
| | N | blue | Neutral conductor |
| | PE | green/yellow | Ground conductor |
| | SL | brown | Speed selection: switch open = speed 1; switch closed = speed 2 |

Connection diagrams EC H4)

Technical features (M3G 055 speed-controlled):

- Output 10 VDC max. 1.1 mA
- Tach output
- Power limitation
- Motor current limitation
- Soft start
- Control input 0-10 VDC / PWM
- Control interface with SELV potential safely disconnected from the mains
- Overvoltage detection
- Thermal overload protection for electronics / motor
- Line undervoltage detection

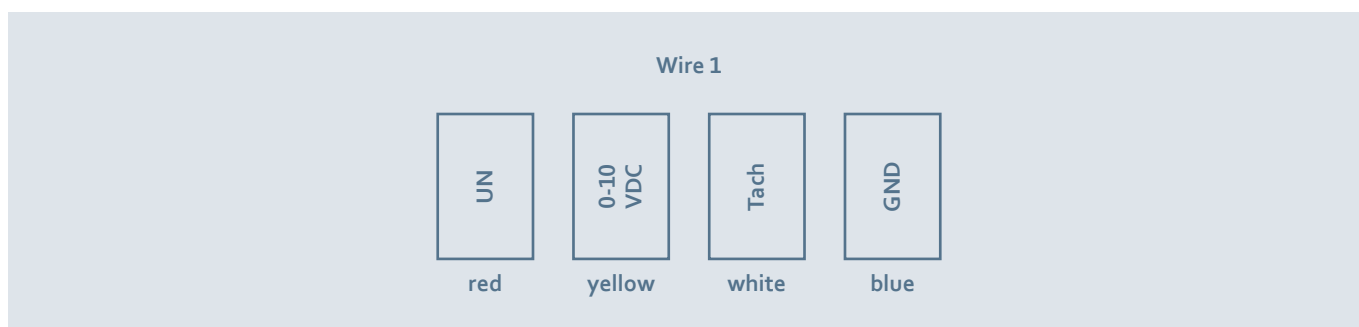


| Wire | Designation | Color | Assignment/function |
|------|------------------|--------------|---|
| 1 | L | black | Power supply 115/230 VAC, 50 - 60 Hz, see type plate for voltage range |
| | N | blue | Neutral conductor |
| | PE | green/yellow | Ground conductor |
| 2 | GND | blue | GND - Connection for control interface |
| | 0-10 V PWM | yellow | Control input 0-10 V or PWM, electrically isolated |
| | 10 V/max. 1.1 mA | red | Voltage output +10 V / 1.1 mA, electrically isolated, not short-circuit-proof |
| | Tach | white | Tach output: Open collector, 1 pulse per revolution, electrically isolated |

Connection diagrams EC J5)

Technical features (nominal voltage 24 / 48 VDC):

- Control input 0-10VDC / PWM
- Output 10VDC max. 1.1 mA
- Power limitation
- Soft start
- Motor current limitation
- Tach output
- Thermal overload protection for electronics / motor
- Overvoltage detection
- Line undervoltage detection
- Control interface with SELV potential safely disconnected from the mains

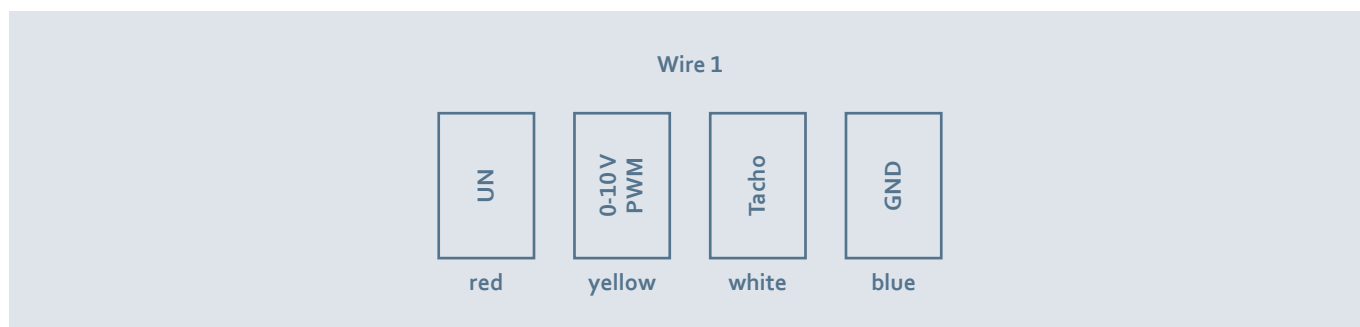


| Wire | Designation | Color | Assignment/function |
|------|---------------|--------|---|
| 1 | UN +24/48 VDC | red | Power supply 24/48 VDC, supply voltage ripple $\pm 3.5\%$ |
| | 0-10 VDC | yellow | Control input $R_e > 100\text{ K}$ |
| | Tach | white | Tach output, 3 pulses per revolution, $I_{\text{sink max.}} = 10\text{ mA}$ |
| | GND | blue | Reference ground |

Connection diagrams EC Q)

Technical features:

- Tach output
- Motor current limitation
- Soft start
- Control input 0-10VDC / PWM
- Overvoltage detection
- Thermal overload protection for electronics
- Reverse polarity protection

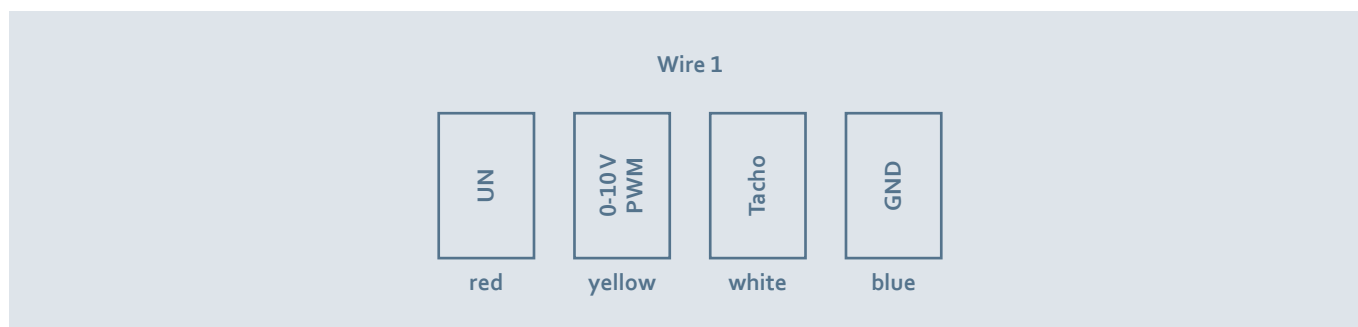


| Wire | Designation | Color | Assignment/function |
|------|---------------|--------|---|
| 1 | UN +12/24 VDC | red | Power supply 12/24 VDC, supply voltage ripple $\pm 3.5\%$ |
| | PWM/LIN | yellow | Control input $R_e > 40\text{ K}$ |
| | Tach | white | Tach output, 3 pulses per revolution, $I_{\text{sink max.}} = 10\text{ mA}$ |
| | GND | blue | Reference ground |

Connection diagrams EC R)

Technical features:

- Tach output
- Motor current limitation
- Soft start
- Control input 0-10VDC / PWM
- Overvoltage detection
- Thermal overload protection for electronics
- Reverse polarity protection

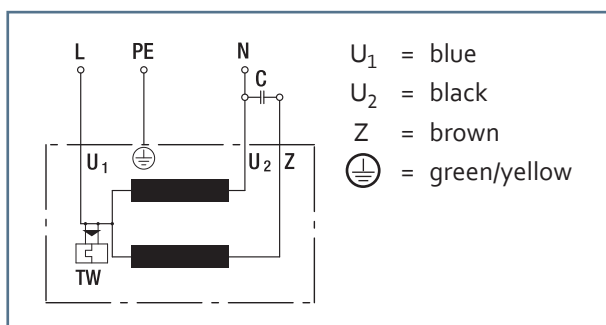


| Wire | Designation | Color | Assignment/function |
|------|-------------|--------|---|
| 1 | UN +48VDC | red | Power supply 48VDC, supply voltage ripple $\pm 3.5\%$ |
| | 0-10V /PWM | yellow | Control input $R_e > 100\text{ K}$ |
| | Tacho | white | Tach output, 3 pulses per revolution, $I_{\text{sink max.}} = 10\text{ mA}$ |
| | GND | blue | Reference ground |

Connection diagrams AC A1) / A3) / C2)

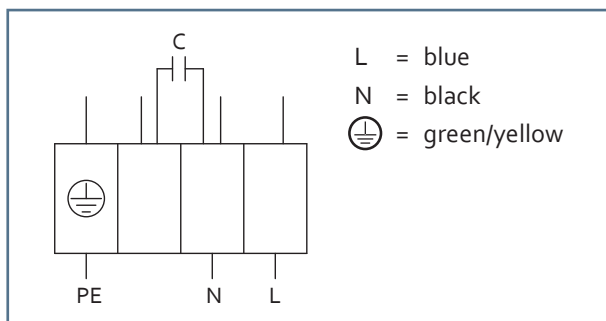
A1) Single-phase capacitor motor (1- 115/230 VAC power line)

with thermal overload protector wired internally



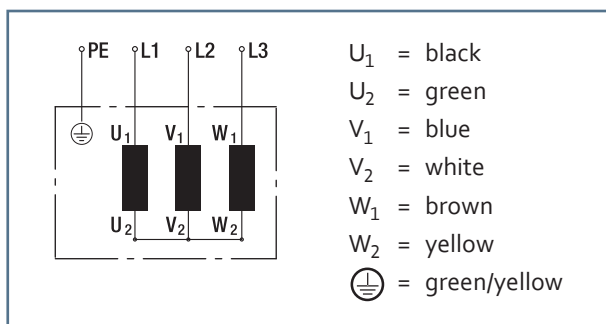
A3) Single-phase capacitor motor (1- 115/230 VAC power line)

with thermal overload protector wired internally



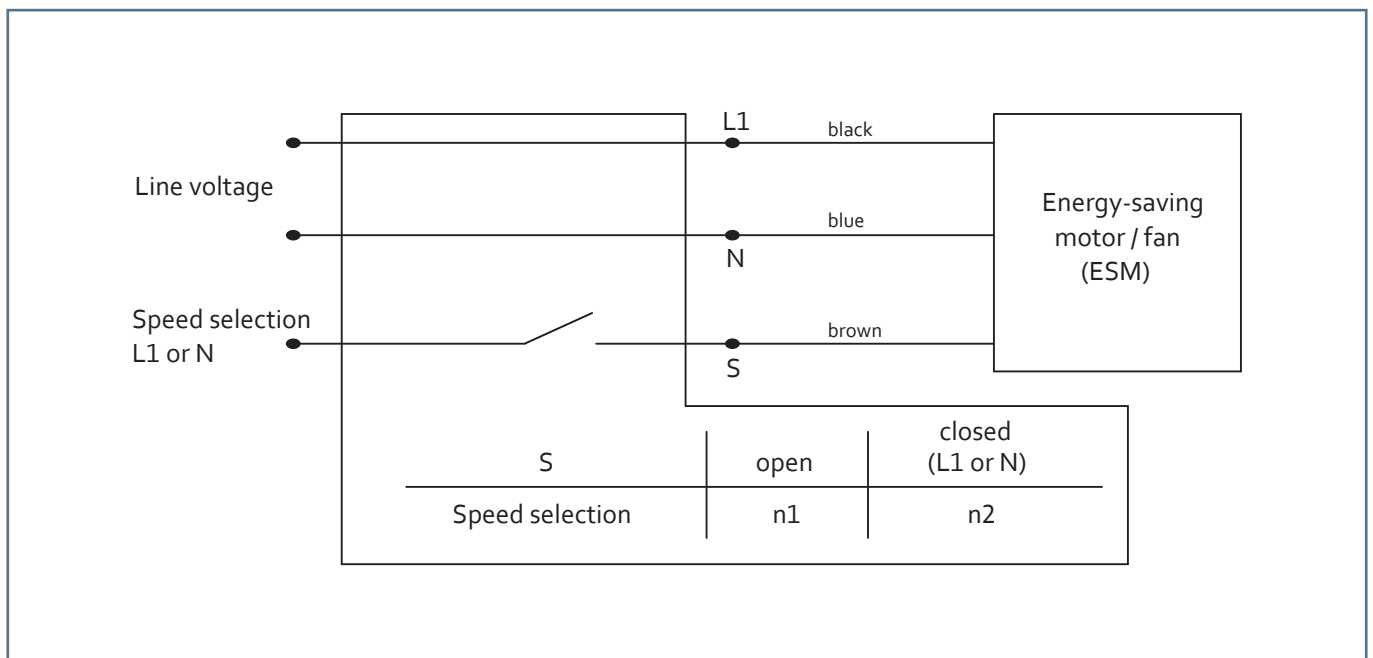
C2) Star connection (3- 400 VAC power line)

without thermal overload protector



Connection diagrams AC J7)

J7) Energy-saving motor (ESM) (1~ 115/230 VAC power line)



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