THE DATASHEET OF

M4Q045-DA01-01

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 largevolume 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

Contents

	Page		Page
Information	**04**	About ebm-papst	04
		Types of fans and their function	05
		Expertise and technology	06
		Flexibility in every application – tailor-made for you	08
		Product names	09
		Optional special versions	10
		Service life	11
		Selecting the correct fan	12
		Fan installation	13
		Definitions	14
		Standard test equipment to determine the fan characteristics	15
DC axial fans	**16**	Axial fans	18
DC centrifugal fans	**148**	Centrifugal fans	150
		Tangential fans	232
		Centrifugal fans and blowers	234
DC fans – specials	**252**	Technical information	254
		Speed signals	256
		Alarm signals	258
		Speed setting	262
		FanCheck / R4R-Feature	265
		Climate and moisture protection	266
GreenTech EC axial fans	**268**	About GreenTech EC axial fans	270
		Progress made by ebm-papst	271
		GreenTech EC axial fans	272
		GreenTech EC in-line duct fans	292
AC axial fans	**298**	Axial fans	300
AC centrifugal fans	**336**	Centrifugal fans	338
Accessories	**350**	Finger guards, Inlet rings, Connection cables, Handheld Programmer, Accessories and Connection diagrams	352
Contacts	**382**	Contacts worldwide	382

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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**



What you get out of it.

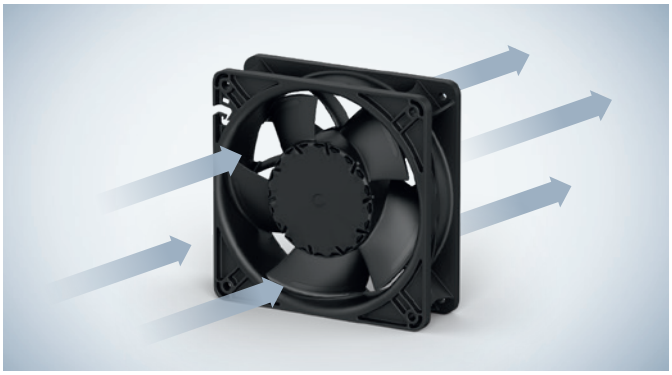
Collaborating with us brings you tangible benefits, such as a clear competitive edge in IoT and digital networking, sustainable product solutions that allow you to fulfil the latest environmental guidelines, and perfect system solutions from one source, shaped by uncompromising quality management in 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.

GREEN INTELLIGENCE

Types of fans
and their function

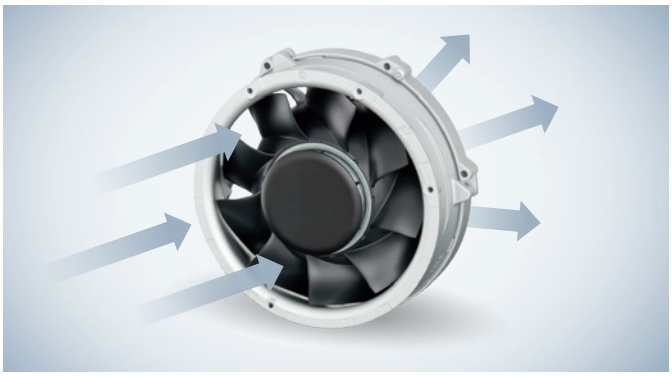
Axial fans: High air flow with medium to relatively high pressure increase

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.



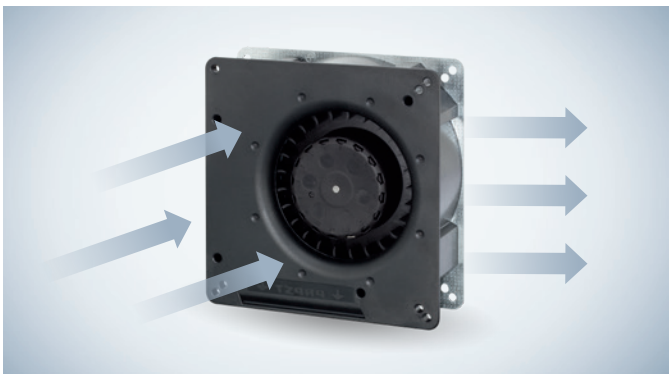
Diagonal fans: High air flow at relatively high pressure increase

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.



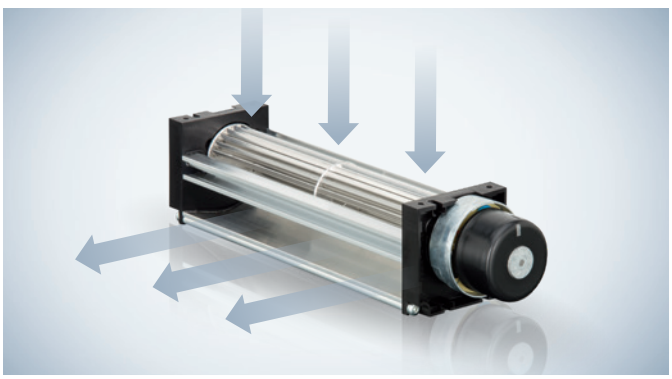
Centrifugal fans: High pressure increase at limited flow rate

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 abrasionresistant 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 brandmark 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 aboveaverage 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)

Information

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.

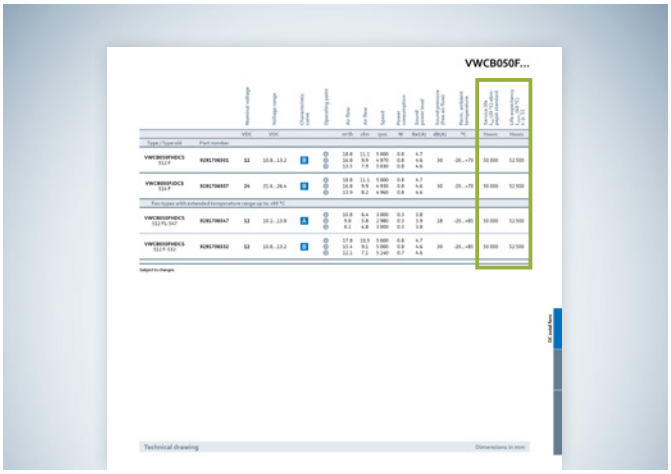
* IP= International degree of protection marking; For AC fans max. IP 65 available.

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).



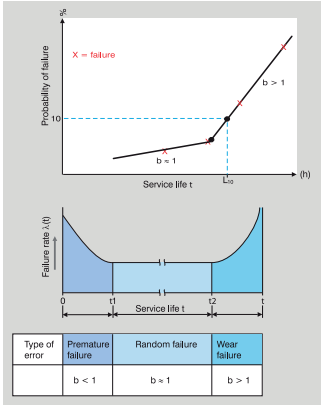
Service life L_{10} (40 °C)
All values in the first column are based on in-house service life endurance tests in which our products are operated in several operating positions at 40 °C as well as 70 °C until they fail. A fan is deemed to have failed when it deviates from its defined air flow and speed 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).

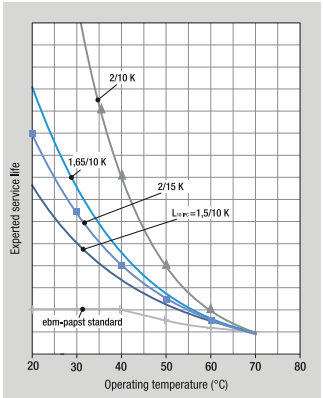
Summary:
The life span calculations have been carried out to the best of our knowledge and are based on experience gained by ebm-papst. The specified L_{10} (40 °C) and L_{10IPC} (40 °C) values all allow statements to be made about the theoretical calculated service life under certain assumptions. The 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.

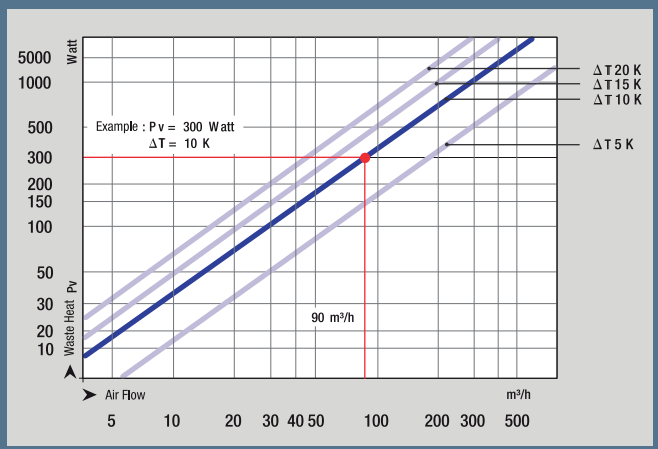
2. Admissible temperature increase
The air flow that the selected fan is required to generate, is determined by the dissipated energy and the admissible heating (ΔT) of the cooling airflow (from entry to exit of the device to be cooled). The maximum admissible ΔT depends greatly on the temperature sensitivity of the individual parts of the device.
For example, ΔT = 5K means that the average cooling airflow leaving the device to be cooled may be only 5°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. ΔT = 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 Δpf, 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.

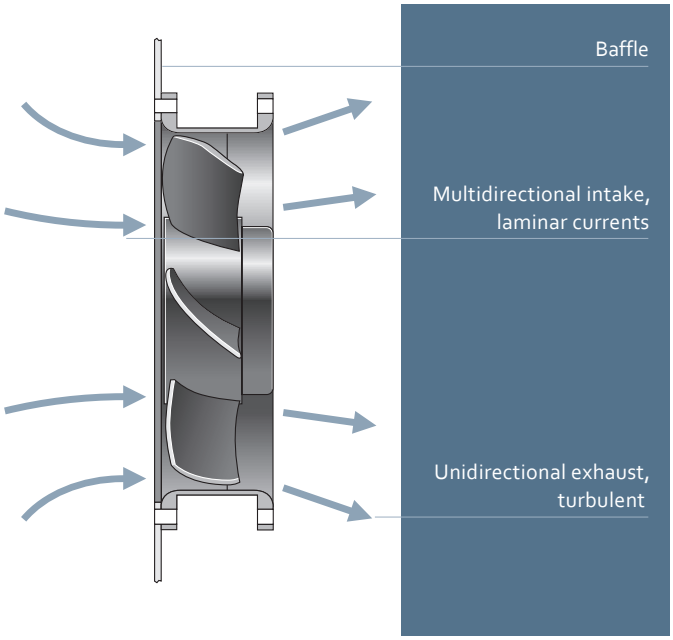


Definitions
P_V = amount of heat to be dissipated in [W]
C_{PL} = specific heat capacity of air in [J/kg/K]
C_{PL} = 1010 [J/kg/K] = 0.28 [Wh/kg/K]

ρ_L = air density in [kg/m³]
ρ_L = 1.2 kg/m³
$\Delta T = T_1 - T_2$ 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 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

ominal 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 ρ =1.2 kg/m³ 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 Δρ2 = Δρ1 (ρ2 / ρ1). 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 ρ =1.2 kg/m³ 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 L_{10} 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 beconstrued as a guarantee or warranty of properties.

Unit conversion:

Air flow	**Pressure**
1 cfm = 1.7 m³/h	1 Pa = 1x10^{-5} bar
1 l/s = 3.6 m³/h	1 inch H_2O = 249 Pa
1 l/min = 0.06 m³/h	1 mm H_2O = 9.81 Pa

Subject to technical changes.

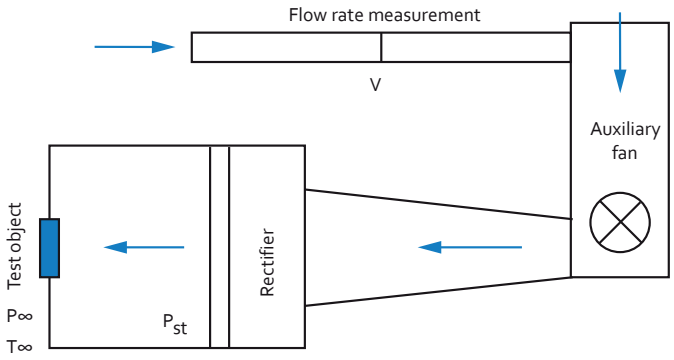
We do not support aerospace applications with our products. German and international patents (registered designs and utility models).

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

Standard test equipment
to determine the fan characteristics

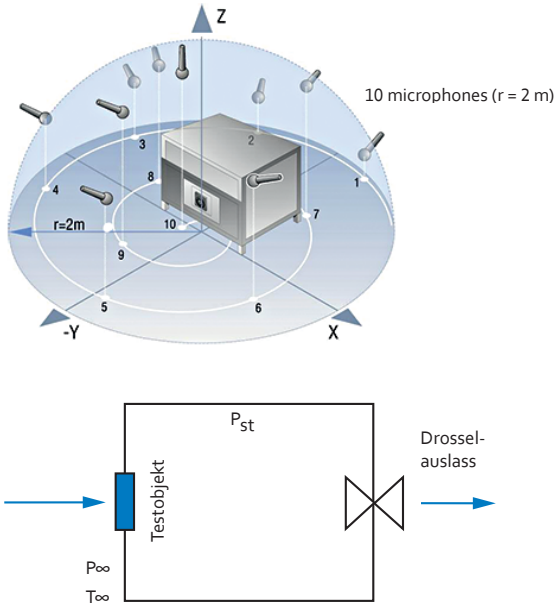
Pressure/air flow

Blow-down test facility acc. to ISO 5801



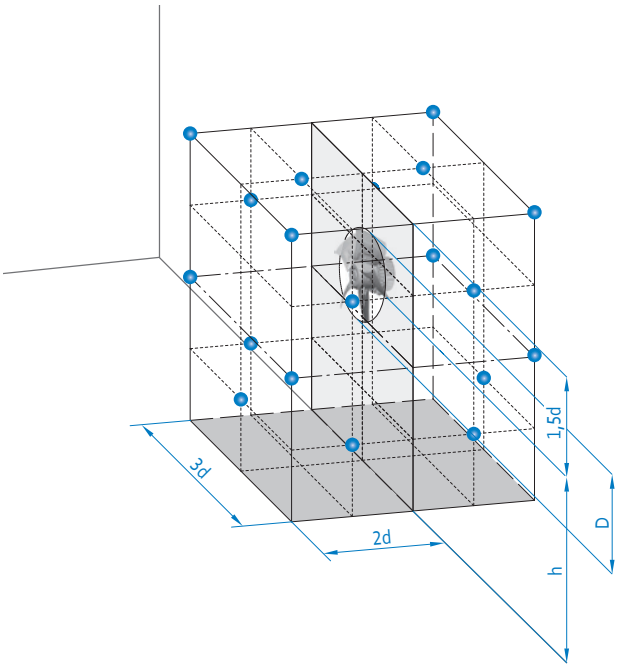
Sound power level pressure/air flow:

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



Sound pressure and sound power level

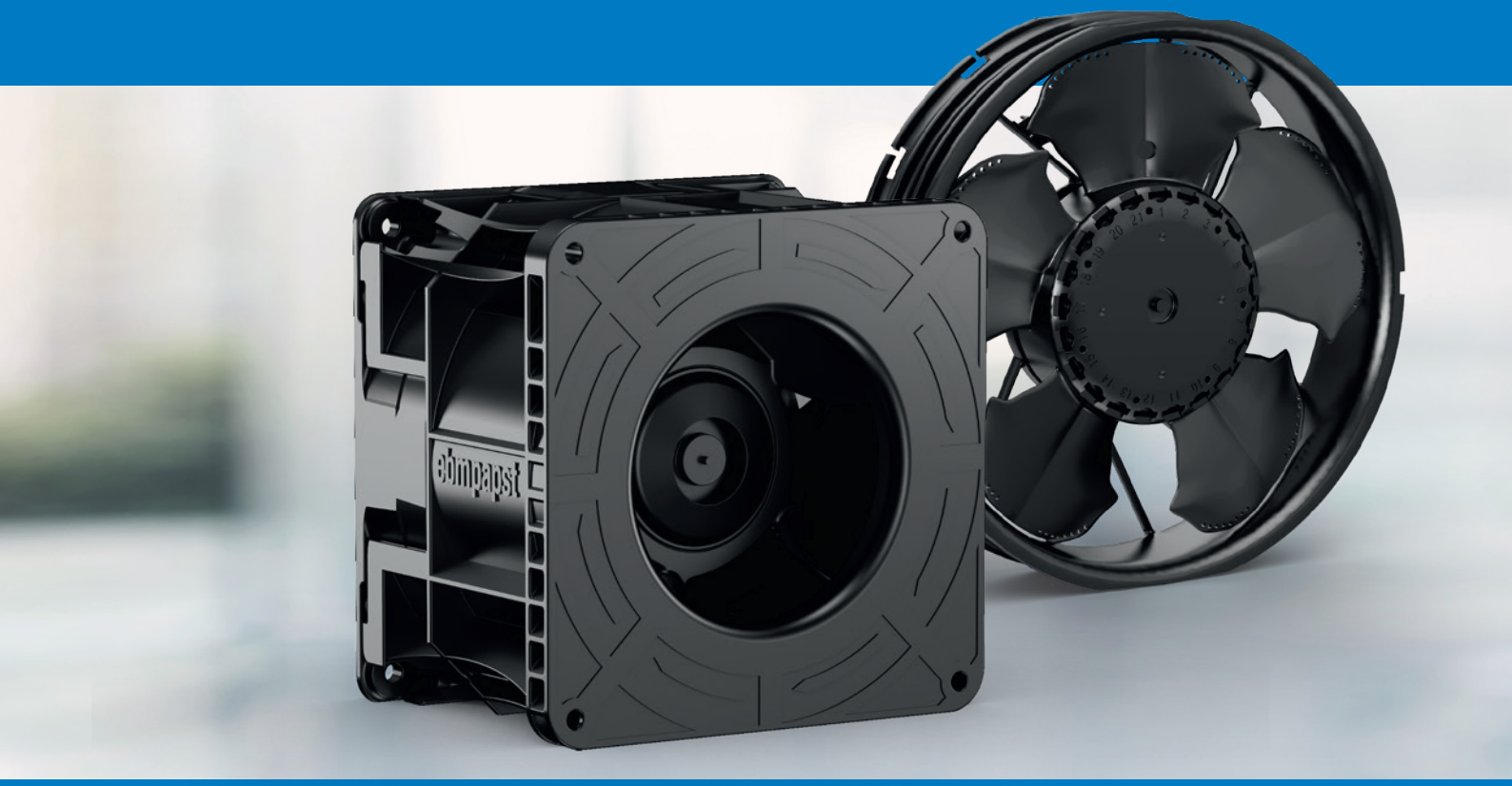
All acoustic values are determined in accordance with ISO 13347, DIN 45635 and ISO 3744/3745 as per accuracy class 2 and given in A-rated form.
For measurement of the sound pressure level Lp the microphone is located on the intake side of the fan being tested, generally at a distance of 1 m on the fan 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 ≥ 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 / Diameter	Air flow level	Standard

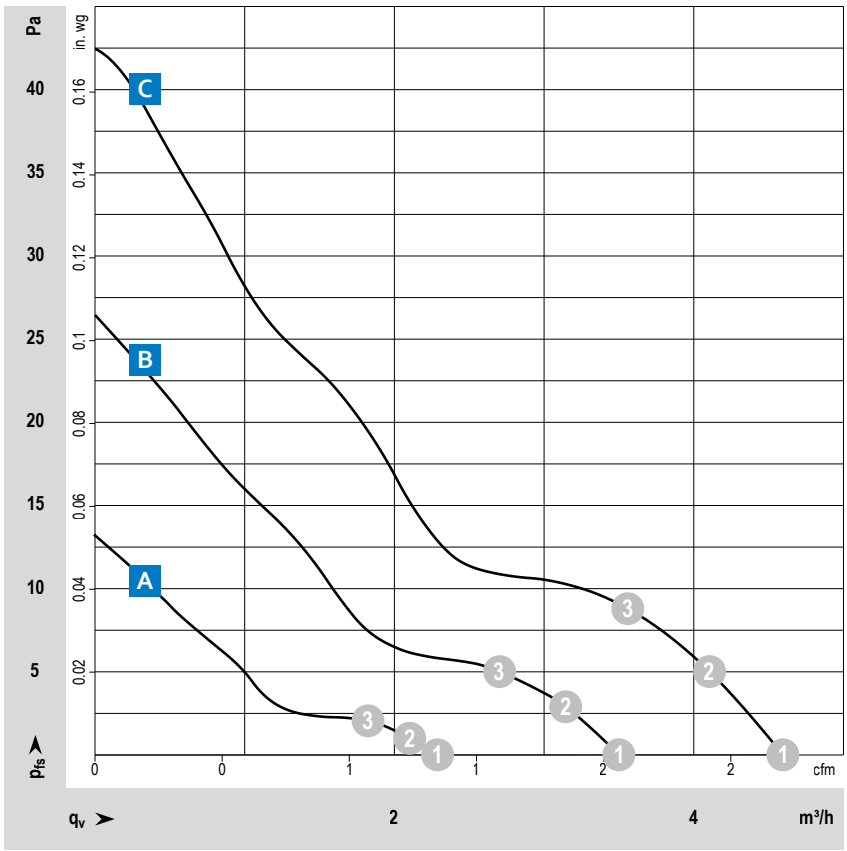
Dimensions in mm	Type	Type (old)	Page
☐ 25 x 8	**VWCA025A...**	250	18
☐ 40 x 10	**VWCA040F...**	400 F	20
☐ 40 x 20	**VWCC040Y...**	400	22
☐ 40 x 28	**VWCE040J...**	420 J	24
☐ 50 x 15	**VWCB050F...**	500 F	26
☐ 60 x 15	**VWCB060F...**	600 F	28
☐ 60 x 25	**VWCD060A...**	620	30
☐ 60 x 25	**VWCD060X...**	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
Ø 127	**VWS0113F...**	4400 F	72
Ø 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
Ø 150 x 38	**VWEF150X...**	7100 N	108
Ø 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
Ø 172 x 51	**VWEG172P...**	6300 N	122
Ø 172 x 51	**VWEG172P...**	6300 NTD	124
Ø 172 x 51	**VWEG172X...**	6300	126
Ø 172 x 51	**VWEG172X...**	6300 TD	128
Ø 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
Ø 200 x 70	**VKLH200CKLXS**	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
Ø 250	**VWLK280X..., VWLK280H...**	W1G 250	144
Ø 300	**VVY0300H..., VWR0300X..., VMA0300X...**	*1G 300	146

VWCA025A...

DC axial fan · max. 4.7 m³/h · ☐ 25 x 8 mm



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



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

Measuring conditions

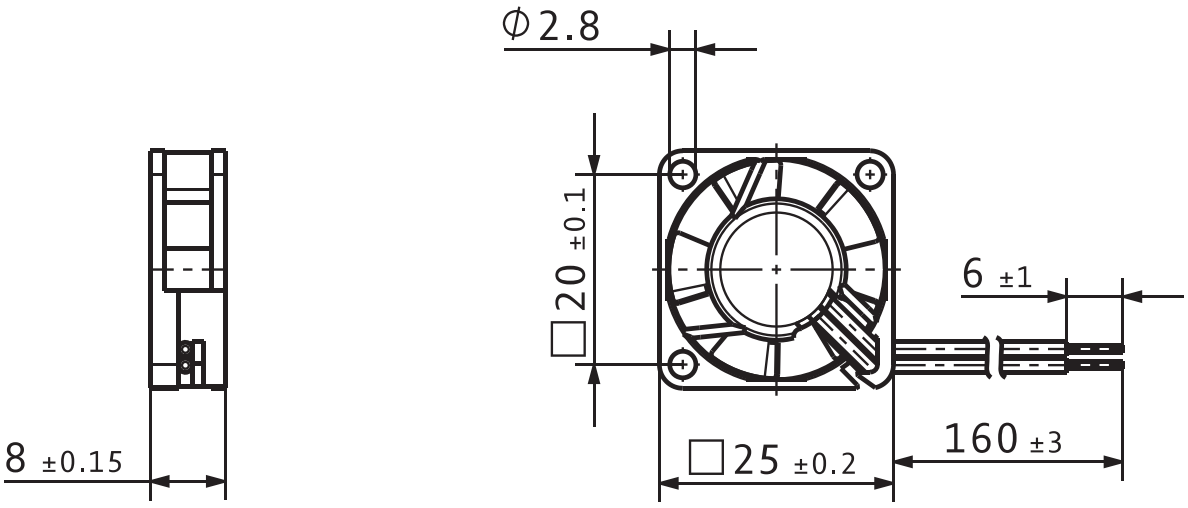
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound power level L_{WA} ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level L_pA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCA025AGBAS 255 M	**9290904202**	**5**	4.5...5.5	A	1 2 3	2.3 2.1 1.8	1.4 1.2 1.1	6 500 6 500 6 690	0.2 0.2 0.2	<3 <3 <3	5	-10...+70	45 000	47 500
VWCA025AGBAS 255 N	**9290904200**	**5**	4.5...5.5	B	1 2 3	3.5 3.2 2.7	2.0 1.9 1.6	9 600 9 610 9 880	0.4 0.4 0.4	<3 <3 <3	16	-10...+70	40 000	42 500
VWCA025AGBBS 255 H	**9290904201**	**5**	4.5...5.5	C	1 2 3	4.6 4.1 3.6	2.7 2.4 2.1	12 000 11 910 12 160	0.6 0.6 0.6	4.4 4.4 4.4	23	-10...+55	35 000	37 500
VWCA025AHBAS 252 N	**9290904203**	**12**	10...14	B	1 2 3	3.4 3.0 2.7	2.0 1.8 1.6	9 000 9 000 9 270	0.5 0.5 0.5	<3 <3 <3	15	-10...+70	40 000	42 500
VWCA025AHBBS 252 H	**9290904220**	**12**	10...14	C	1 2 3	4.7 4.2 3.6	2.8 2.5 2.1	12 000 11 950 12 230	0.6 0.6 0.6	4.4 4.4 4.4	23	-10...+55	35 000	37 500

Subject to changes.

Technical drawing

Dimensions in mm

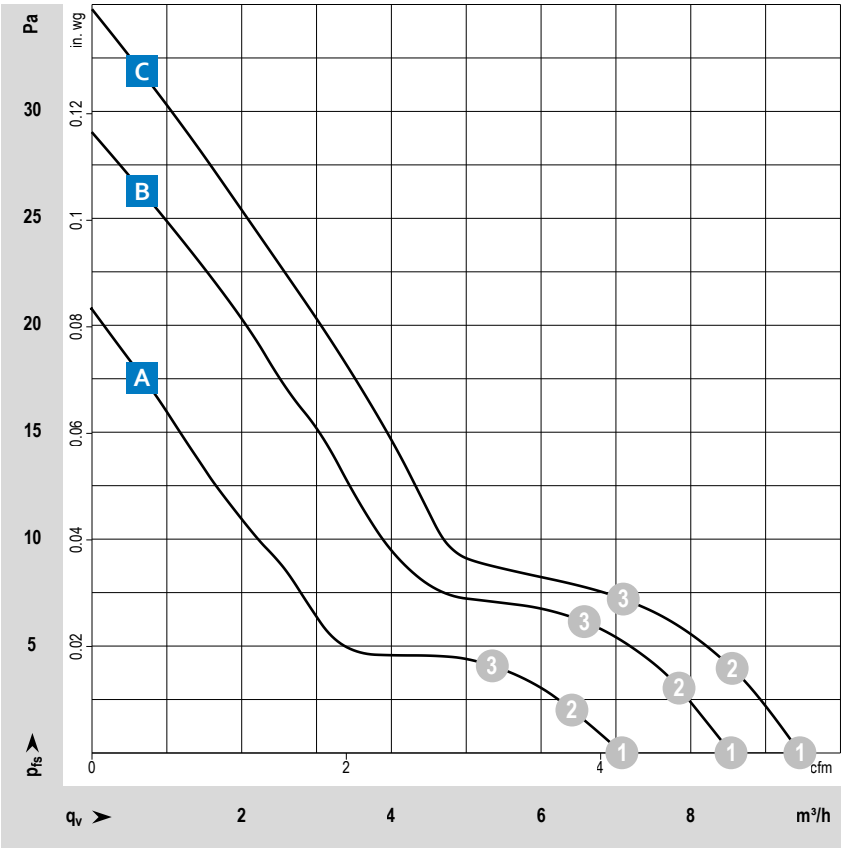


VWCA040F...

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



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



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

Measuring conditions

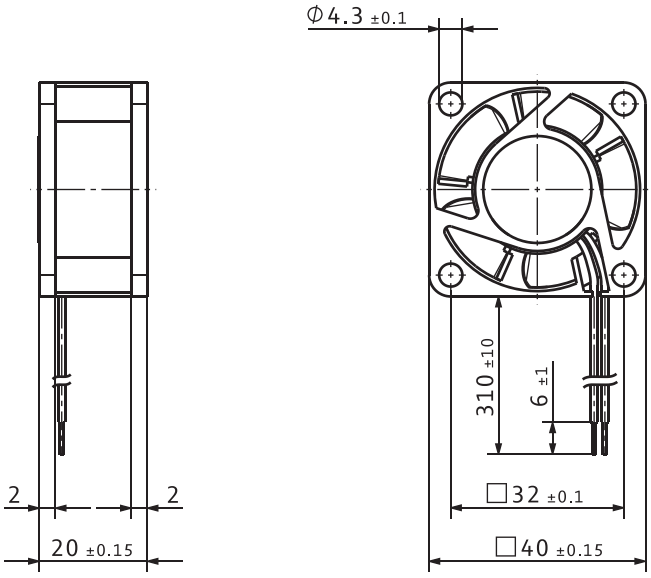
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{o}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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} (20 °C) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCA040FGDBS 405 F	**9291705010**	**5**	4.5...5.5	B	1	8.7	5.1	5 400	0.6	3.7				
					2	7.8	4.6	5 380	0.6	3.7	22.1	-20...+70	45 000	47 500
					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				
					2	8.9	5.2	5 970	0.7	4.4	26.0	-20...+70	45 000	47 500
					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				
					2	6.4	3.8	4 270	0.5	3.7	17.0	-20...+70	45 000	47 500
					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				
					2	8.1	4.8	5 350	0.6	4.2	22.1	-20...+70	45 000	47 500
					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				
					2	8.6	5.1	5 990	0.7	4.4	26.0	-20...+70	45 000	47 500
					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				
					2	7.8	4.6	5 390	0.7	4.2	22.1	-20...+70	45 000	47 500
					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				
					2	8.9	5.2	5 970	0.7	4.4	26.0	-20...+70	45 000	47 500
					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				
					2	6.0	3.5	4 310	0.3	3.7	17.0	-20...+85	45 000	47 500
					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				
					2	7.7	4.5	5 370	0.5	4.2	22.1	-20...+85	45 000	47 500
					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				
					2	8.5	5.0	5 960	0.6	4.4	26.0	-20...+85	45 000	47 500
					3	7.2	4.2	5 980	0.6	4.8				

Subject to changes.

Technical drawing

Dimensions in mm

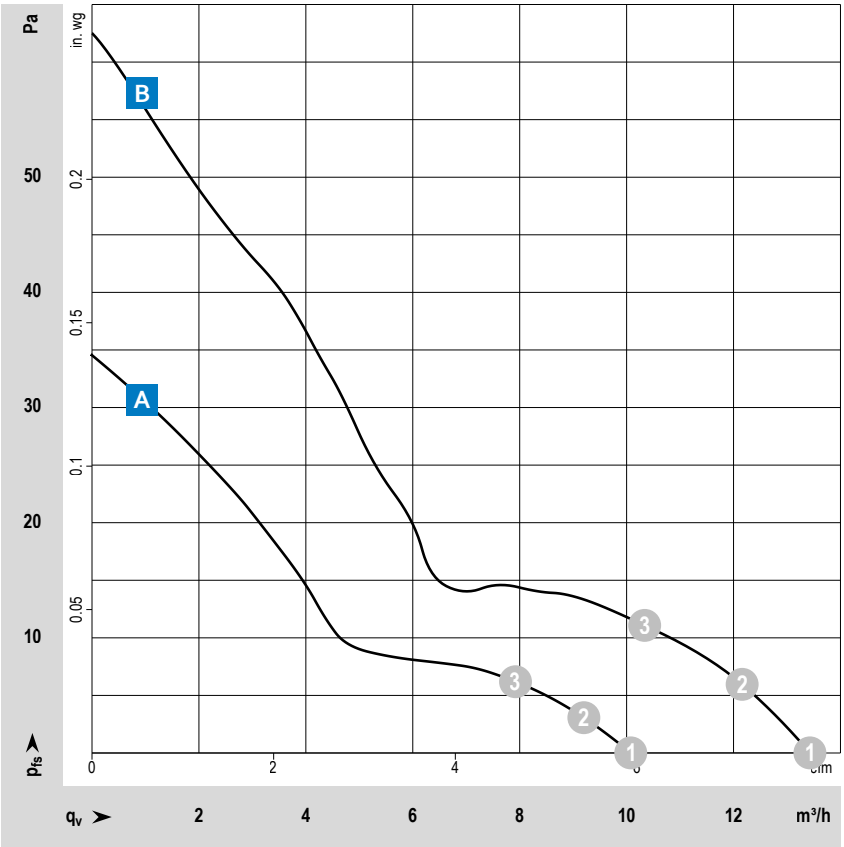


VWCC040Y...

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



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 $p_A$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

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

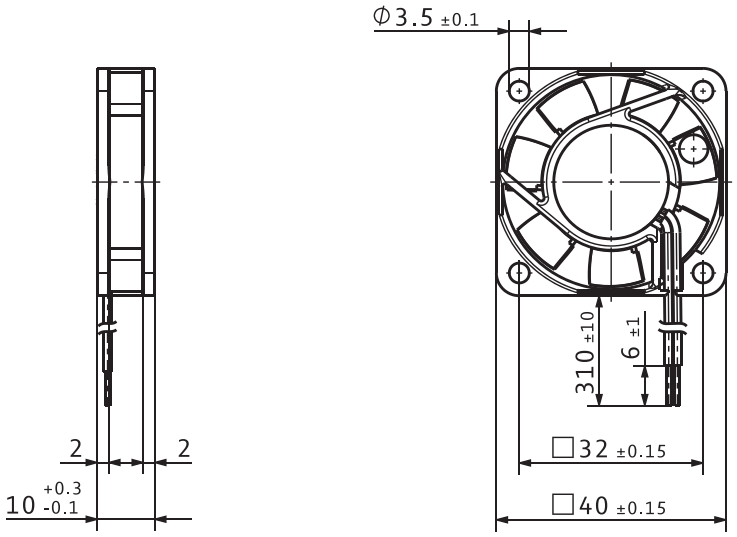
- Additional fan types with extended temperature range up to +85 °C

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} (20 °C) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCC040YGDCS 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				
VWCC040YHDCS 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				
VWCC040YHDCS 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				
VWCC040YJDCS 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				
VWCC040YJDCS 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														
VWCC040YHDCS 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

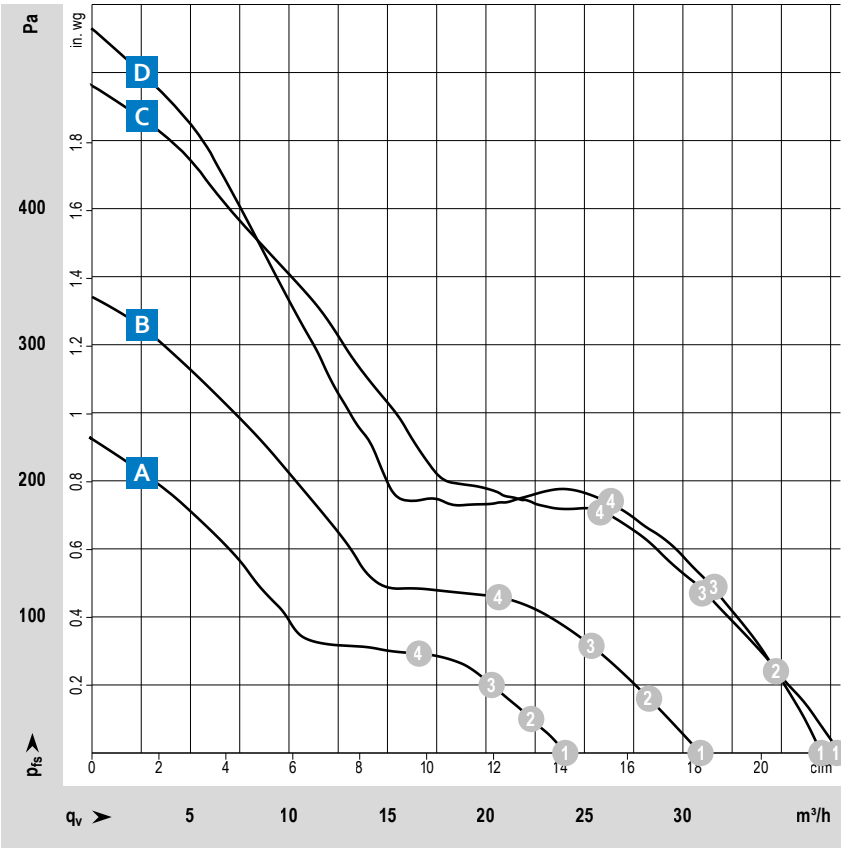


VWCE040J...

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



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 $p_A$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

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

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

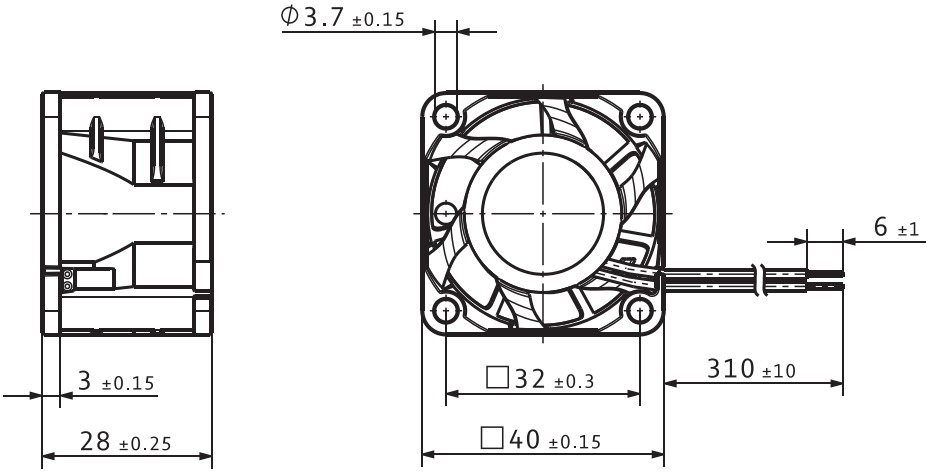
- Additional fan types with protection class IP68, -40 °C, Speed signal, PWM control input and EMC limit values, class B

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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														
VWC0040JUDBS 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.

Technical drawing

Dimensions in mm

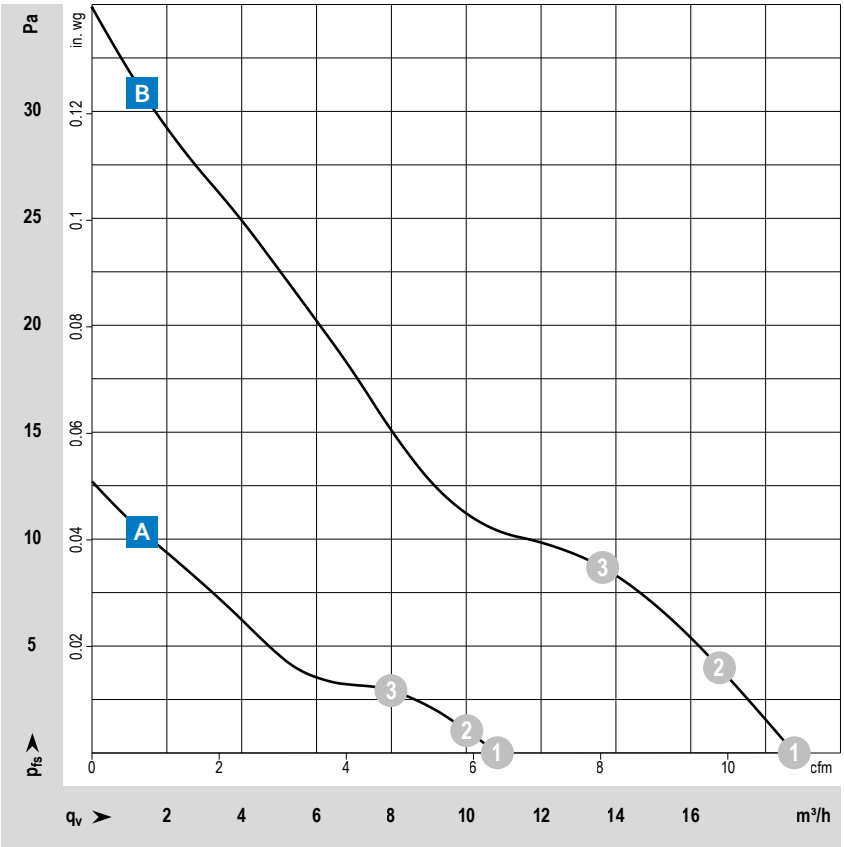


VWCB050F...

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



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



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

Measuring conditions

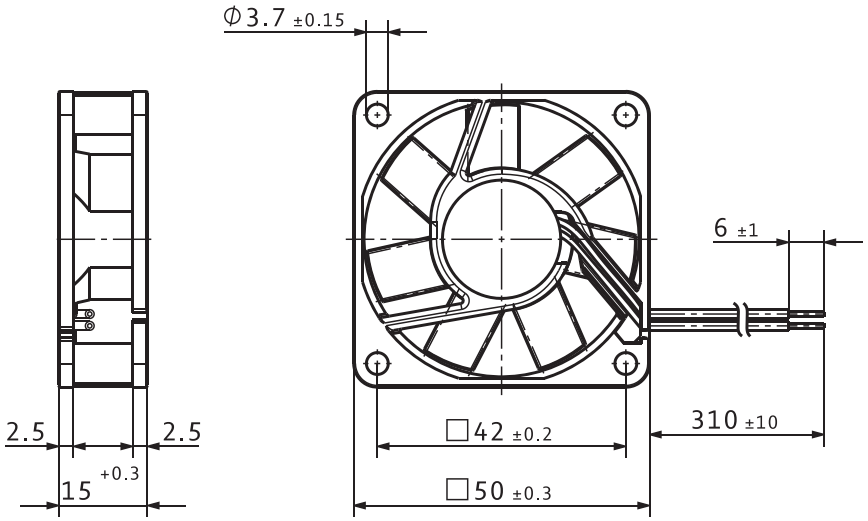
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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} (20 °C) ebmpapst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCB050FHDCS 512 F	**9291706501**	**12**	10.8...13.2	B	1 2 3	18.8 16.8 13.5	11.1 9.9 7.9	5 000 4 970 5 030	0.8 0.8 0.8	4.7 4.6 4.6	30	-20...+70	50 000	52 500
VWCB050FJDCS 514 F	**9291706507**	**24**	21.6...26.4	B	1 2 3	18.8 16.8 13.9	11.1 9.9 8.2	5 000 4 930 4 960	0.8 0.8 0.8	4.7 4.6 4.6	30	-20...+70	50 000	52 500
Fan types with extended temperature range up to +85 °C														
VWCB050FHDCS 512 FL-547	**9291706547**	**12**	10.2...13.8	A	1 2 3	10.8 9.8 8.1	6.4 5.8 4.8	3 000 2 980 3 000	0.3 0.3 0.3	3.8 3.9 3.8	18	-20...+85	50 000	52 500
VWCB050FHDCS 512 F-532	**9291706532**	**12**	10.8...13.2	B	1 2 3	17.8 15.4 12.1	10.5 9.1 7.1	5 000 5 000 5 140	0.8 0.8 0.7	4.7 4.6 4.6	30	-20...+85	50 000	52 500

Subject to changes.

Technical drawing

Dimensions in mm

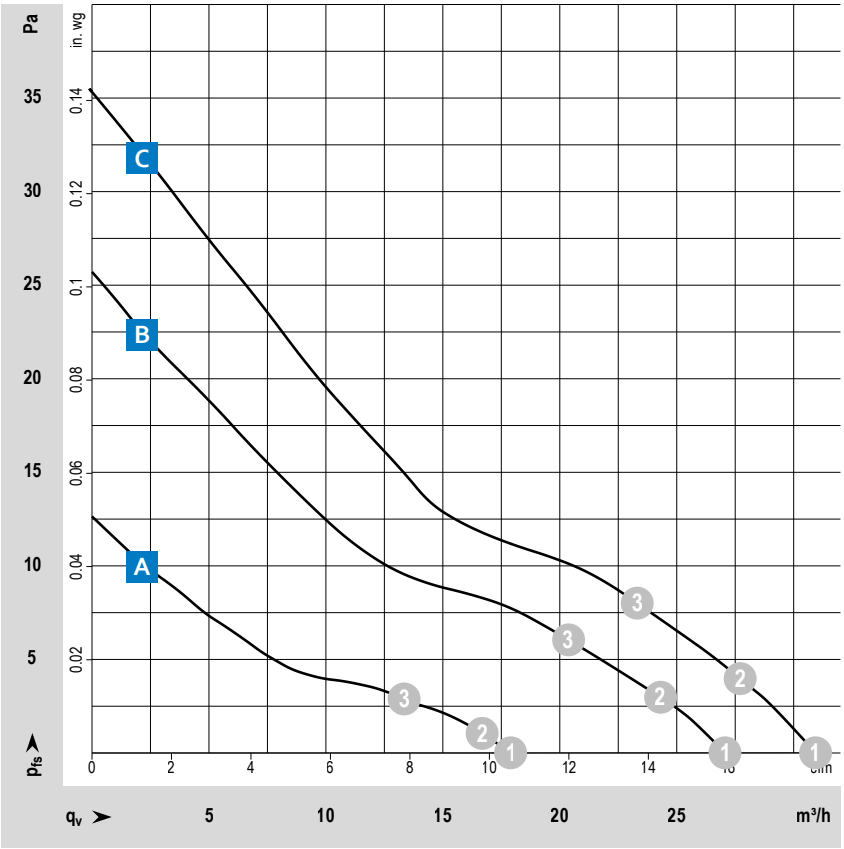


VWCB060F...

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



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



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

Measuring conditions

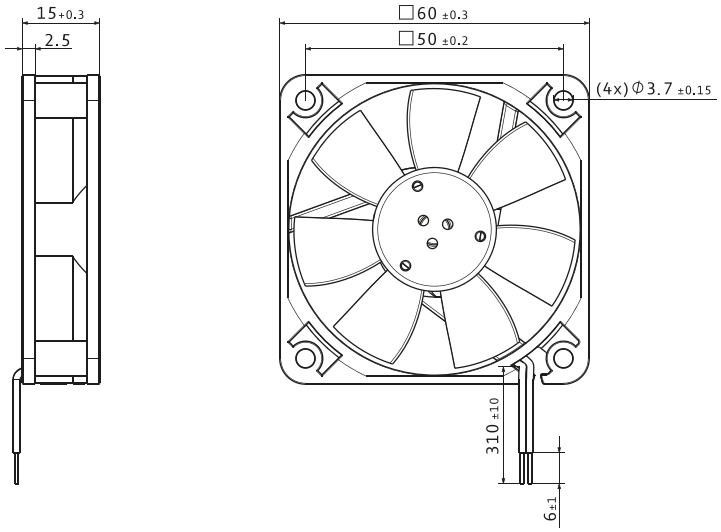
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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} (20 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCB060FGDDS 605 F	**9291708611**	**5**	4.5...5.2	B	1 2 3	26.8 24.4 20.4	15.8 14.4 12.0	3 900 3 820 3 760	1.0 1.0 1.0	4.5 4.4 4.6	27	-20...+50	50 000	52 500
VWCB060FHDCS 612 FL	**9291708607**	**12**	11.5...13.2	A	1 2 3	17.9 16.3 13.6	10.5 9.6 8.0	2 650 2 600 2 580	0.4 0.4 0.4	3.5 3.5 3.7	16	-20...+70	50 000	52 500
VWCB060FHDDS 612 F	**9291708601**	**12**	10.8...13.2	B	1 2 3	27.0 24.4 20.3	15.9 14.4 11.9	3 900 3 830 3 780	0.9 0.9 0.9	4.5 4.4 4.6	27	-20...+70	50 000	52 500
VWCB060FHDES 612 FH	**9291708615**	**12**	10.0...13.2	C	1 2 3	31.3 28.3 23.4	18.4 16.7 13.8	4 500 4 400 4 310	1.3 1.3 1.3	4.7 4.6 4.9	31	-20...+60	45 000	47 500
VWCB060FJDDS 614 F	**9291708612**	**24**	21.6...26.4	B	1 2 3	27.1 24.4 20.3	16.0 14.4 11.9	3 900 3 800 3 750	0.9 0.9 0.9	4.5 4.4 4.6	27	-20...+70	50 000	20 000
VWCB060FJDEZ 614 F/39 H-691	**9291706691**	**24**	16...28	C	1 2 3	30.9 27.8 23.3	18.2 16.4 13.7	4 500 4 410 4 370	1.2 1.3 1.3	4.7 4.6 4.9	31	-20...+60	45 000	47 500
Fan types with extended temperature range up to +80 / 85 °C														
VWCB060FHDCS 612 FL-680	**9291706680**	**12**	11.5...14	A	1 2 3	18.0 15.9 13.3	10.6 9.4 7.8	2 650 2 600 2 590	0.4 0.4 0.4	3.5 3.5 3.7	16	-20...+85	50 000	52 500
VWCB060FHDDS 612 F-637	**9291708637**	**12**	10.8...12.6	B	1 2 3	27.0 24.1 20.0	15.9 14.2 11.8	3 900 3 810 3 790	0.8 0.8 0.8	4.5 4.4 4.6	27	-20...+80	50 000	52 500

Subject to changes.

Technical drawing

Dimensions in mm

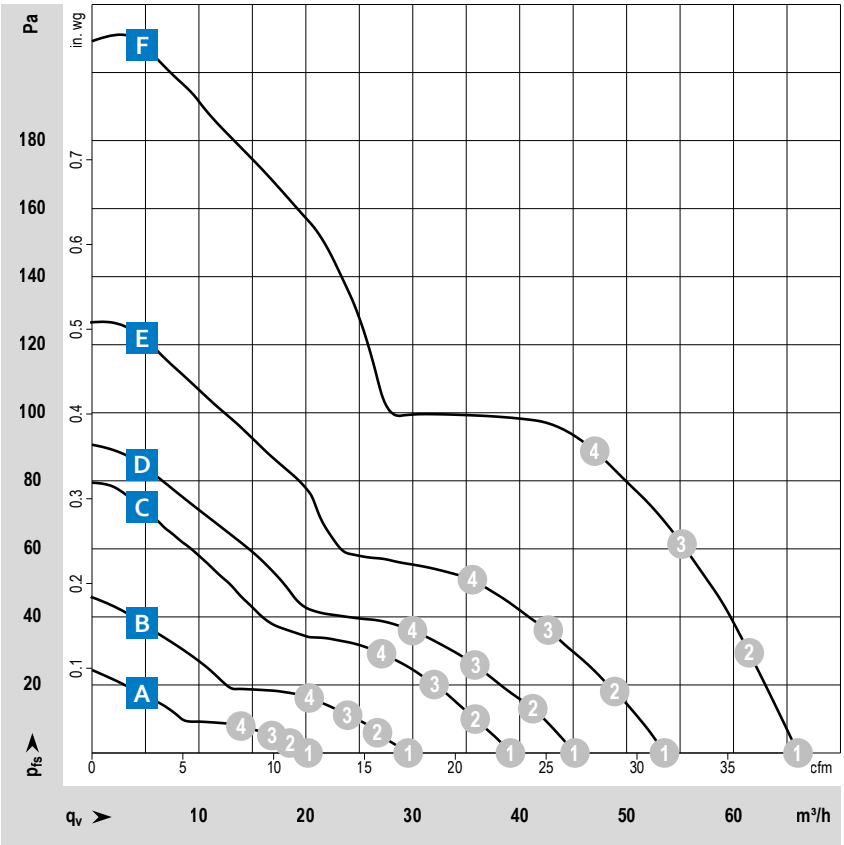


VWCD060A...

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



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



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

Measuring conditions

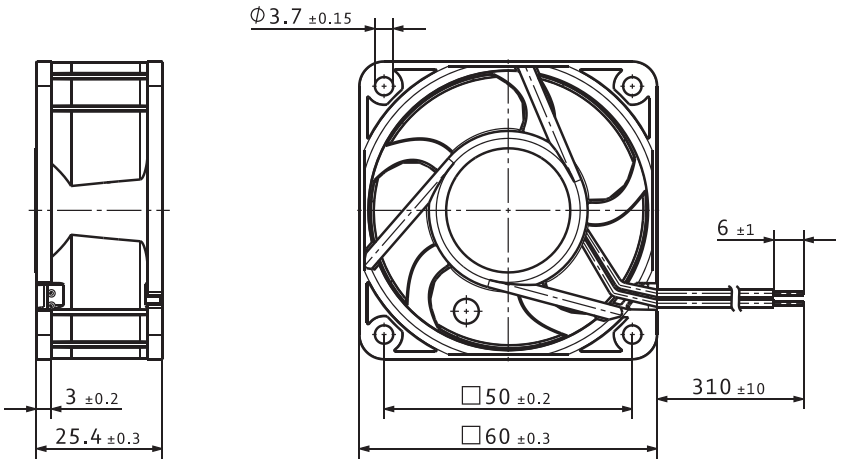
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD060AHEFS 622 N	9292207003	12	8...15	C	1	39.1	23.0	6 100	1.9	5.3	35	-20...+70	72 500	122 500
					2	36.2	21.3	6 030	1.9	5.3				
					3	32.0	18.8	5 980	1.9	5.1				
					4	27.1	16.0	6 000	1.9	5.1				
VWCD060AHEFS 622 H	9292207004	12	8...15	D	1	45.2	26.6	6 850	2.2	5.5	39	-20...+70	70 000	117 500
					2	41.2	24.2	6 750	2.3	5.5				
					3	35.9	21.1	6 700	2.3	5.4				
					4	30.0	17.7	6 700	2.3	5.3				
VWCD060AHEGS 622 HH	9292207006	12	8...15	E	1	54.0	31.8	8 200	3.4	6.0	43	-20...+70	65 000	110 000
					2	48.8	28.7	8 080	3.5	5.9				
					3	42.6	25.1	8 000	3.6	5.8				
					4	35.6	21.0	8 020	3.6	5.6				
VWCD060AHEGS 622/2 H3P	9692200205	12	8...15	F	1	66.0	38.8	9 700	8.1	6.6	48	-20...+70	62 500	105 000
					2	61.0	35.9	9 700	8.5	6.5				
					3	55.0	32.4	9 690	8.9	6.3				
					4	47.1	27.7	9 680	9.1	6.2				
VWCD060AJEDS 624 L	9292207005	24	18...28	A	1	20.2	11.9	3 200	1.0	3.7	20	-20...+70	80 000	135 000
					2	18.7	11.0	3 180	1.0	3.7				
					3	16.6	9.8	3 180	1.0	3.6				
					4	14.0	8.2	3 180	1.0	3.7				
VWCD060AJEES 624 M	9292207007	24	18...28	B	1	29.6	17.4	4 550	1.3	4.6	29	-20...+70	77 500	130 000
					2	26.8	15.8	4 480	1.4	4.5				
					3	23.8	14.0	4 500	1.4	4.5				
					4	20.2	11.9	4 520	1.3	4.5				
VWCD060AJEFS 624 N	9292207008	24	18...28	C	1	39.1	23.0	6 100	2.1	5.3	35	-20...+70	72 500	122 500
					2	35.9	21.1	6 050	2.1	5.3				
					3	31.9	18.8	6 000	2.1	5.1				
					4	27.0	15.9	6 000	2.1	5.1				
VWCD060AJEFS 624 H	9292207009	24	18...28	D	1	44.1	26.0	6 850	2.4	5.5	39	-20...+70	70 000	117 500
					2	40.7	24.0	6 750	2.5	5.5				
					3	35.9	21.1	6 690	2.5	5.4				
					4	30.3	17.8	6 680	2.5	5.3				
VWCD060AJEGS 624 HH	9292207010	24	18...28	E	1	55.0	32.4	8 200	3.2	6.0	43	-20...+70	65 000	110 000
					2	49.6	29.2	8 050	3.3	5.9				
					3	43.4	25.5	7 920	3.4	5.8				
					4	36.5	21.5	7 890	3.4	5.6				
VWCD060AJEGS 624/2 H3P	9692200204	24	18...28	F	1	66.0	38.8	9 700	7.0	6.6	48	-20...+70	62 500	105 000
					2	61.0	35.9	9 700	7.4	6.5				
					3	55.0	32.4	9 710	7.7	6.3				
					4	46.6	27.4	9 700	7.9	6.2				

Subject to changes.

Technical drawing

Dimensions in mm

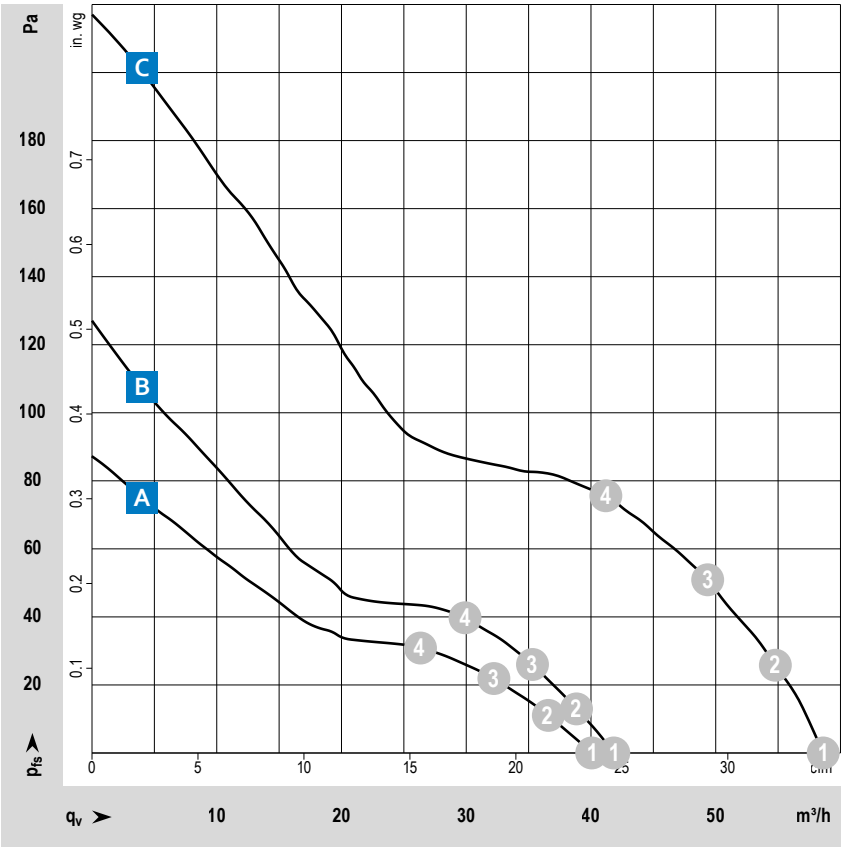


VWCD060X...

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



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



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

Measuring conditions

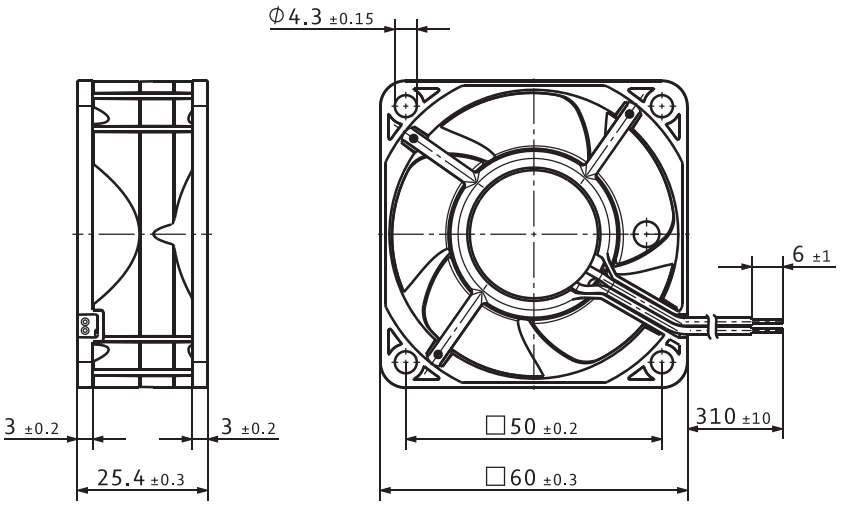
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD060XHEFS 632 NU	**9292308002**	**12**	6...15	A	1 2 3 4	40.1 36.5 32.3 26.4	23.6 21.5 19.0 15.5	5 900 5 820 5 780 5 770	1.6 1.7 1.7 1.7	5.2 5.2 5.2 5.3	33	-20...+70	85 000	142 500
VWCD060XHEFS 632/2 HPU	**9692300186**	**12**	10.8...13.2	B	1 2 3 4	41.8 38.9 35.3 30.0	24.6 22.9 20.8 17.7	6 300 6 240 6 250 6 250	1.6 1.7 1.8 1.9	5.5 5.5 5.4 5.4	35	-20...+70	85 000	142 500
VWCD060XJEFZ 634 NU	**9292308004**	**24**	12...30	A	1 2 3 4	38.9 35.7 31.8 26.3	22.9 21.0 18.7 15.5	5 900 5 840 5 790 5 780	1.6 1.7 1.8 1.8	5.2 5.2 5.2 5.3	34	-20...+70	85 000	142 500
VWCD060XJEGS 634 HHU	**9692300188**	**24**	18...28	C	1 2 3 4	58.0 54.0 48.8 40.9	34.1 31.8 28.7 24.1	8 500 8 500 8 480 8 460	3.1 3.4 3.7 3.8	6.5 6.4 6.2 6.2	44	-20...+70	75 000	127 500
VWCD060XJEGS 634/2 HHPU	**9692300189**	**24**	18...28	C	1 2 3 4	58.0 54.0 48.8 40.9	34.1 31.8 28.7 24.1	8 500 8 500 8 480 8 460	3.1 3.4 3.7 3.8	6.5 6.4 6.2 6.2	44	-20...+70	75 000	127 500
VWCD060XKEFS 638/2 HPU	**9692300193**	**48**	40...60	B	1 2 3 4	41.5 38.8 35.2 29.7	24.4 22.8 20.7 17.5	6 300 6 280 6 270 6 250	1.9 2.0 2.1 2.1	5.5 5.5 5.4 5.4	35	-20...+70	85 000	142 500
VWCD060XKEGS 638/2 HHPU	**9692300192**	**48**	40...60	C	1 2 3 4	59.0 55.0 49.4 41.3	34.7 32.4 29.1 24.3	8 500 8 500 8 500 8 460	3.3 3.6 3.9 4.0	6.5 6.4 6.2 6.2	44	-20...+70	75 000	127 500

Subject to changes.

Technical drawing

Dimensions in mm

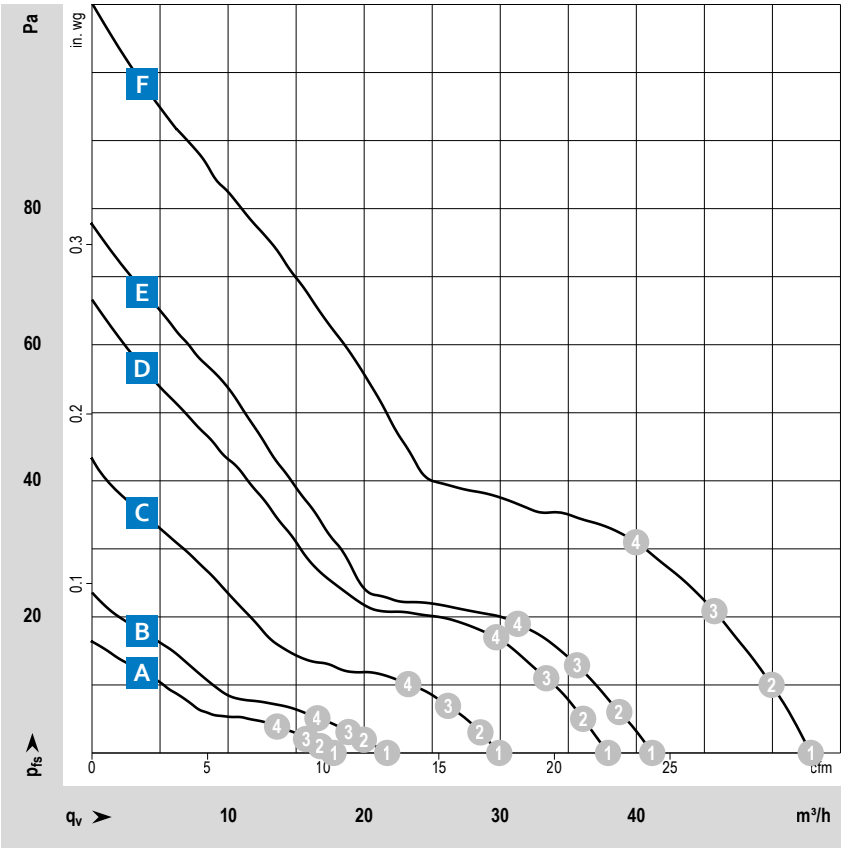


VWCD060Y...

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



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 $p_A$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

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

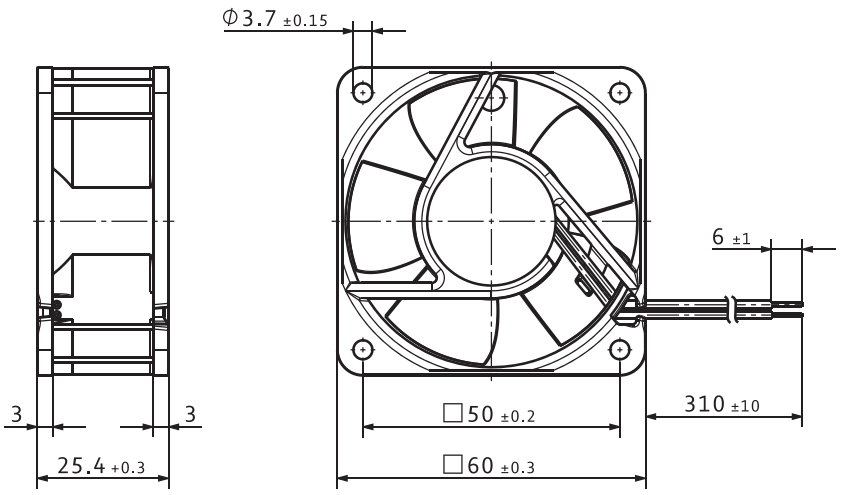
- Some fan types suitable for use at high ambient temperatures up to 85 °C.

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD060YHECS 612 NGLE	**9292206177**	**12**	8...15	A	1 2 3 4	17.1 16.3 15.4 13.8	10.1 9.6 9.1 8.1	2 500 2 490 2 470 2 470	0.6 0.6 0.6 0.6	3.6 3.6 3.5 3.5	16	-20...+85	80 000	135 000
VWCD060YHECS 612 NLE	**9272206171**	**12**	8...15	A	1 2 3 4	17.7 16.7 15.5 13.8	10.4 9.8 9.1 8.1	2 500 2 480 2 480 2 470	0.3 0.3 0.3 0.3	3.6 3.6 3.5 3.5	16	-20...+85	80 000	135 000
VWCD060YHEDS 612 NGMLE	**9292206172**	**12**	8...15	B	1 2 3 4	23.0 21.7 20.2 17.6	13.5 12.8 11.9 10.4	3 000 2 990 2 970 2 960	0.7 0.7 0.7 0.7	4.0 3.9 3.8 3.9	19	-20...+80	80 000	135 000
VWCD060YHECS 612 NMLE	**9292206174**	**12**	8...15	B	1 2 3 4	21.7 20.2 18.6 16.4	12.8 11.9 10.9 9.7	3 000 2 990 3 000 2 990	0.5 0.5 0.5 0.5	4.0 3.9 3.8 3.9	19	-20...+85	80 000	135 000
VWCD060YHEES 612 NGME	**9272206175**	**12**	8...15	C	1 2 3 4	31.0 29.2 26.9 23.3	18.2 17.2 15.8 13.7	4 100 4 060 4 030 4 000	1.2 1.2 1.2 1.2	4.7 4.7 4.7 4.6	28	-20...+75	80 000	135 000
VWCD060YHEES 612 NME	**9292206173**	**12**	8...15	C	1 2 3 4	29.9 28.4 26.3 23.2	17.6 16.7 15.5 13.7	4 100 4 080 4 040 4 030	0.9 0.9 1.0 1.0	4.7 4.7 4.7 4.6	28	-20...+75	80 000	135 000
VWCD060YHEFS 612 NN	**9272206018**	**12**	8...15	D	1 2 3 4	37.9 36.0 33.4 29.7	22.3 21.2 19.7 17.5	5 100 5 070 5 030 5 000	1.4 1.5 1.5 1.5	5.2 5.2 5.1 5.1	35	-20...+70	70 000	117 500
VWCD060YHEFS 612 NH	**9272206026**	**12**	8...15	E	1 2 3 4	41.2 38.7 35.8 31.3	24.2 22.8 21.1 18.4	5 600 5 540 5 510 5 500	1.7 1.8 1.8 1.8	5.5 5.4 5.4 5.3	37	-20...+70	70 000	117 500
VWCD060YHEGS 612 NHH-118	**9272206118**	**12**	8...15	F	1 2 3 4	53.0 49.9 45.9 40.0	31.2 29.4 27.0 24.0	6 800 6 730 6 630 6 570	2.6 2.7 2.8 2.8	5.9 5.8 5.7 5.6	41	-20...+70	60 000	102 500

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

Technical drawing

Dimensions in mm

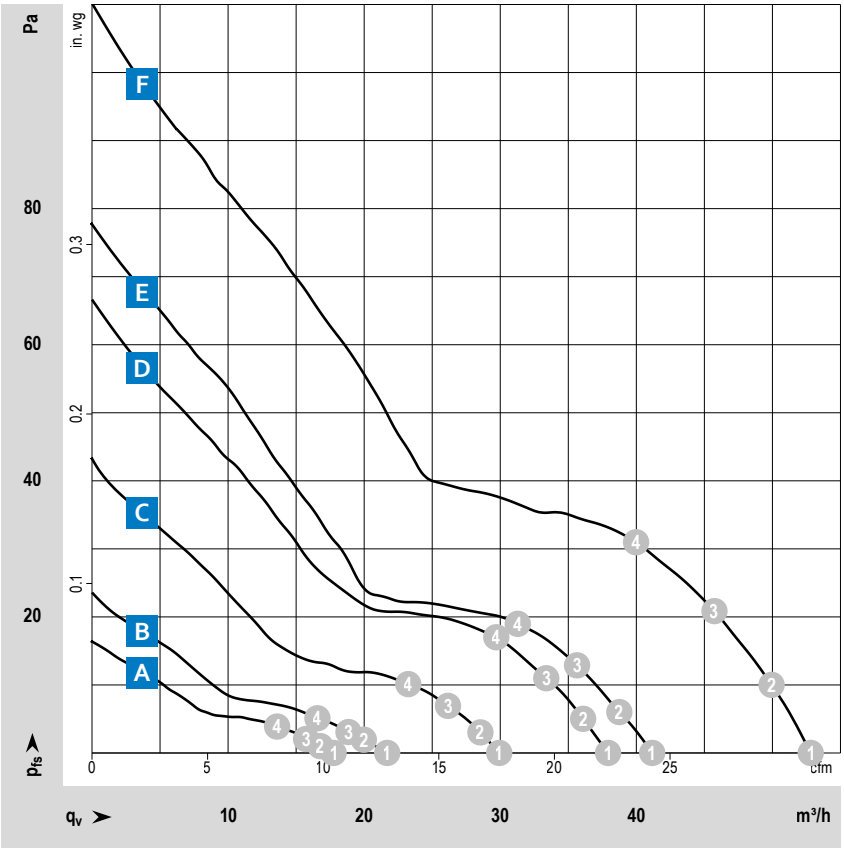


VWCD060Y...

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



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 $p_A$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

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

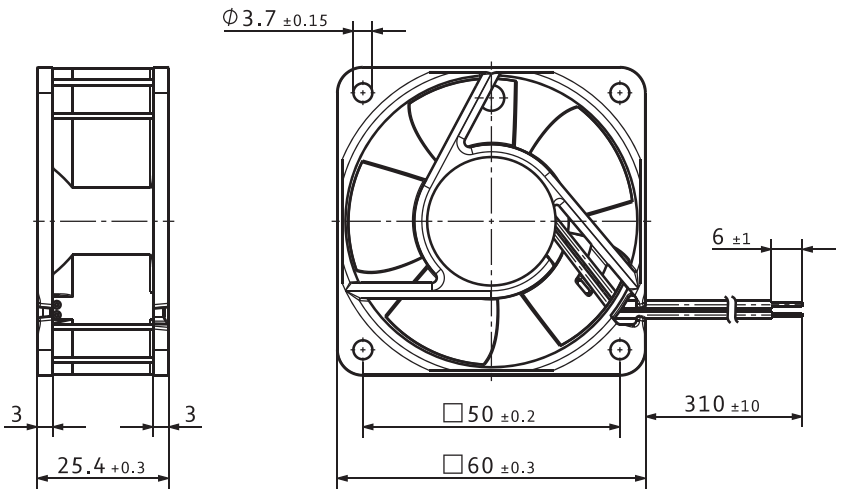
- Some fan types suitable for use at high ambient temperatures up to 85 °C.

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD060YJECS 614 NGL	**9272206012**	**24**	18...28	A	1 2 3 4	17.1 16.6 15.8 13.8	10.1 9.8 9.3 8.1	2 500 2 500 2 500 2 490	1.0 1.0 1.0 1.0	3.6 3.6 3.5 3.5	16	-20...+70	80 000	135 000
VWCD060YJECS 614 NL	**9292206097**	**24**	18...28	A	1 2 3 4	17.4 16.9 15.7 14.1	10.2 9.9 9.2 8.3	2 500 2 490 2 490 2 480	0.9 0.9 0.9 0.9	3.6 3.6 3.5 3.5	16	-20...+70	80 000	135 000
VWCD060YJEDS 614 NGML	**9292206010**	**24**	18...28	B	1 2 3 4	20.6 19.8 18.7 16.8	12.1 11.7 11.0 9.9	3 000 3 000 2 990 2 990	1.2 1.2 1.2 1.2	4.0 3.9 3.8 3.9	19	-20...+70	80 000	135 000
VWCD060YJEDS 614 NML	**9292206140**	**24**	18...28	B	1 2 3 4	20.5 19.9 18.8 16.6	12.1 11.7 11.1 9.8	3 000 3 000 2 990 2 980	0.9 0.9 0.9 0.9	4.0 3.9 3.8 3.9	19	-20...+70	80 000	135 000
VWCD060YJEES 614 NGM	**9272206011**	**24**	18...28	C	1 2 3 4	29.9 28.4 26.3 23.1	17.6 16.7 15.5 13.6	4 100 4 090 4 070 4 070	1.6 1.6 1.6 1.6	4.7 4.7 4.7 4.6	28	-20...+70	80 000	135 000
VWCD060YJEES 614 NM	**9272206032**	**24**	18...28	C	1 2 3 4	30.0 28.3 26.4 23.1	17.7 16.7 15.5 13.6	4 100 4 080 4 060 4 050	1.3 1.3 1.3 1.3	4.7 4.7 4.7 4.6	28	-20...+70	80 000	135 000
VWCD060YJEFS 614 NN	**9272206076**	**24**	18...28	D	1 2 3 4	37.6 35.7 33.1 28.7	22.1 21.0 19.5 16.9	5 100 5 080 5 050 5 050	1.9 2.0 2.0 2.0	5.2 5.2 5.1 5.1	35	-20...+70	70 000	117 500
VWCD060YJEFS 614 NH	**9272206072**	**24**	18...26	E	1 2 3 4	41.4 39.4 36.5 31.8	24.4 23.2 21.5 18.7	5 600 5 560 5 520 5 510	1.9 1.9 2.0 2.0	5.5 5.4 5.4 5.3	37	-20...+70	70 000	117 500
VWCD060YJEGS 614 NHH	**9272206033**	**24**	18...26	F	1 2 3 4	52.0 49.7 45.7 39.5	30.6 29.3 26.9 23.0	6 850 6 790 6 730 6 710	2.8 2.8 2.9 2.9	5.9 5.8 5.7 5.6	41	-20...+70	60 000	102 500
VWCD060YKEFS 618 NN	**9292206152**	**48**	36...56	D	1 2 3 4	38.0 36.1 33.4 29.4	22.4 21.2 19.7 17.3	5 100 5 060 5 020 5 000	2.1 2.1 2.1 2.1	5.2 5.2 5.1 5.1	35	-20...+65	70 000	117 500

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

Technical drawing

Dimensions in mm

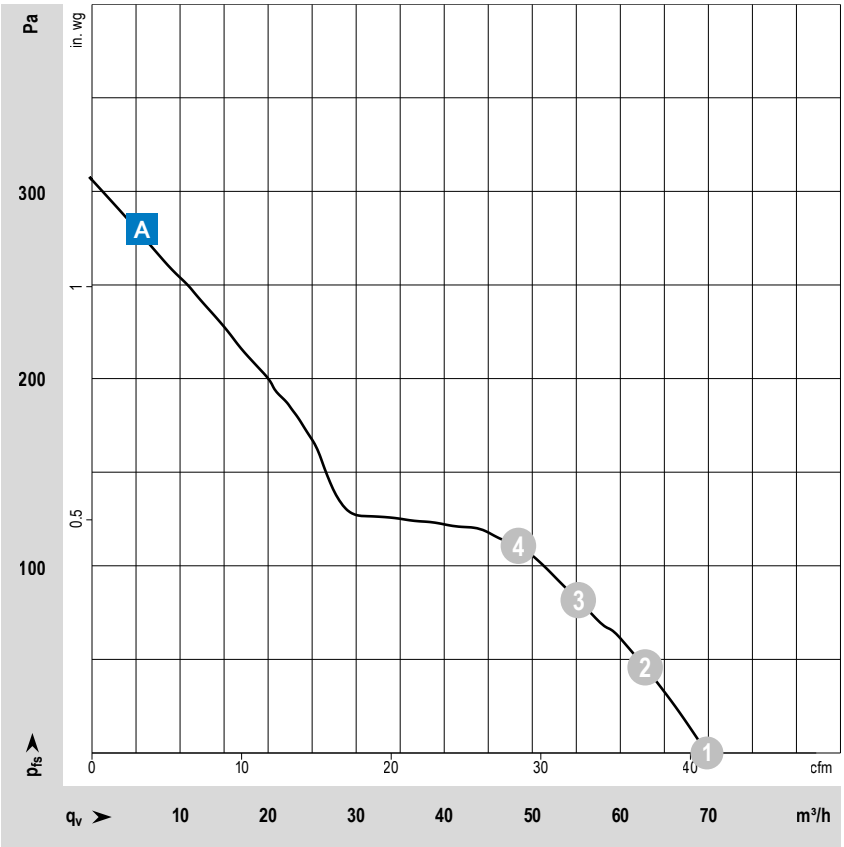


VWCE060J...

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



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



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

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

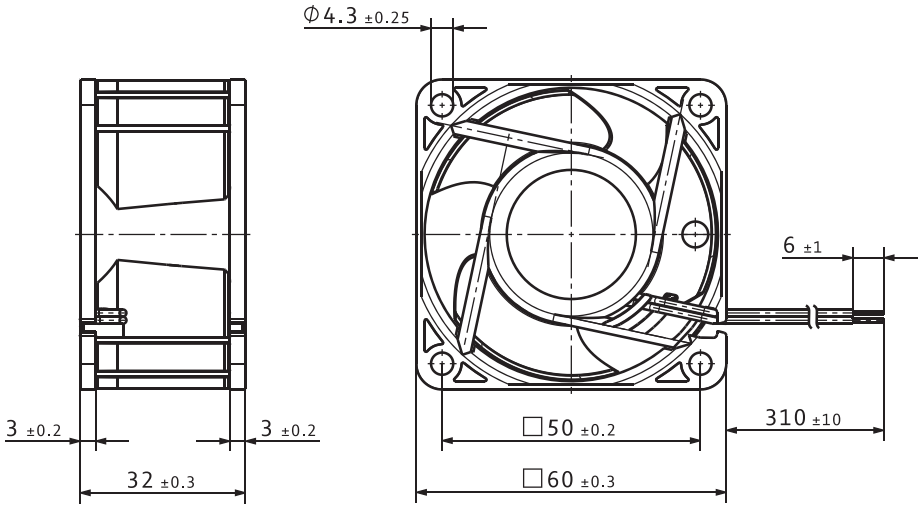
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCE060JHEHS 612 JH	**9292512003**	**12**	7...13.6	A	1 2 3 4	70 63 55 48	41 37 32 28	11 700 11 510 11 390 11 330	6.6 6.9 7.2 7.3	6.8 6.6 6.4 6.4	53	-20...+70	57 500	97 500
VWCE060JJEHS 614 JH	**9292512004**	**24**	14...26.4	A	1 2 3 4	69 62 55 48	41 36 32 28	11 700 11 510 11 420 11 350	6.8 7.1 7.4 7.5	6.8 6.6 6.4 6.4	53	-20...+70	57 500	97 500
VWCE060JKEHS 618 JH	**9692510166**	**48**	36...56	A	1 2 3 4	70 63 55 49	41 37 32 29	11 700 11 530 11 440 11 380	6.8 7.2 7.5 7.6	6.8 6.6 6.4 6.4	53	-20...+70	57 500	97 500

Subject to changes.

Technical drawing

Dimensions in mm

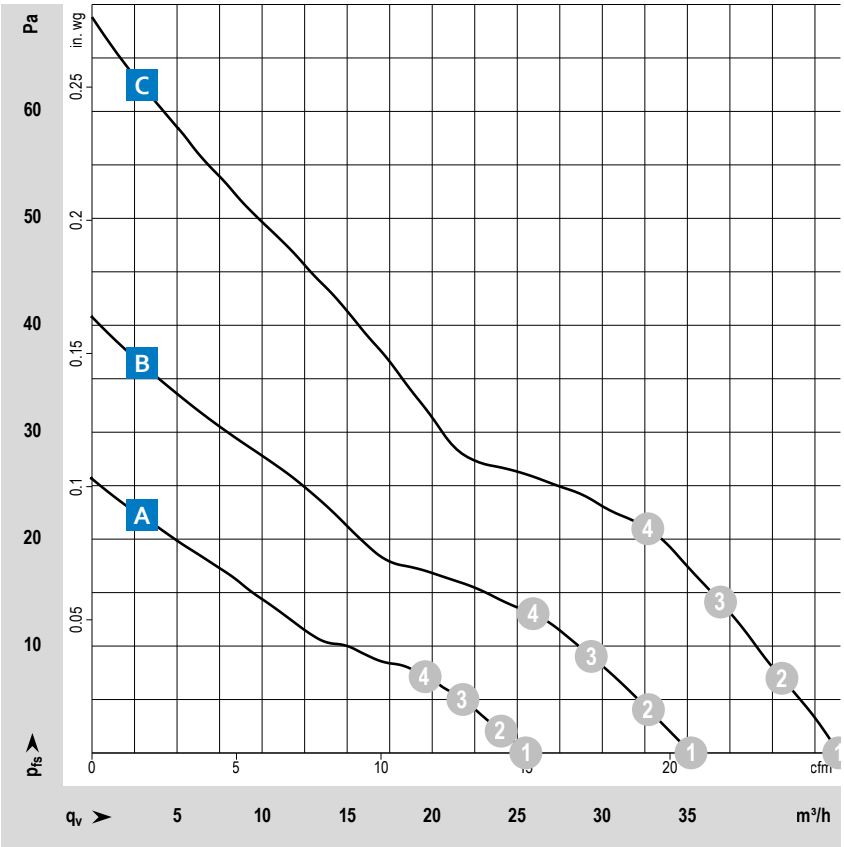


VWCB070F...

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



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 $p_A$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

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

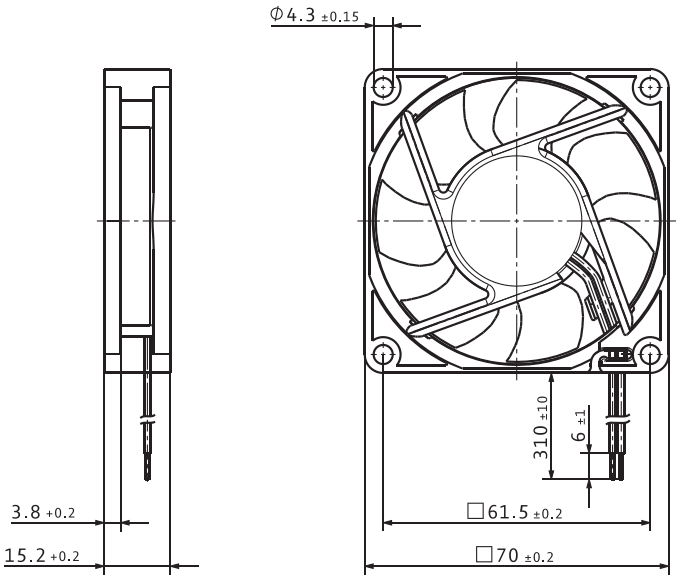
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCB070FHEDS 712 F/2L-005*	**9292504005**	**12**	8...13.8	A	1 2 3 4	25.5 23.8 21.8 19.4	15.0 14.0 12.8 11.0	3 300 3 260 3 210 3 200	0.7 0.7 0.7 0.7	4.5 4.4 4.4 4.4	25	-20...+70	60 000	102 500
VWCB070FHEES 712 F/2M-006*	**9292504006**	**12**	8...13.8	B	1 2 3 4	35.2 32.5 29.3 25.9	20.7 19.1 17.2 15.0	4 300 4 230 4 150 4 090	0.9 1.0 1.0 1.0	5.0 4.9 4.9 4.8	32	-20...+70	60 000	102 500
VWCB070FHEFS 712 F	**9292504001**	**12**	8...13.8	C	1 2 3 4	43.9 40.6 36.8 32.7	25.8 23.9 21.7 19.0	5 300 5 230 5 160 5 100	1.5 1.6 1.6 1.6	5.5 5.4 5.3 5.3	38	-20...+70	60 000	102 500
VWCB070FJEFS 714 F	**9292504007**	**24**	18...28	C	1 2 3 4	43.5 40.2 36.6 32.7	25.6 23.7 21.5 19.0	5 300 5 230 5 150 5 080	1.4 1.4 1.5 1.5	5.5 5.4 5.3 5.3	38	-20...+70	60 000	102 500

Subject to changes.

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

Technical drawing

Dimensions in mm

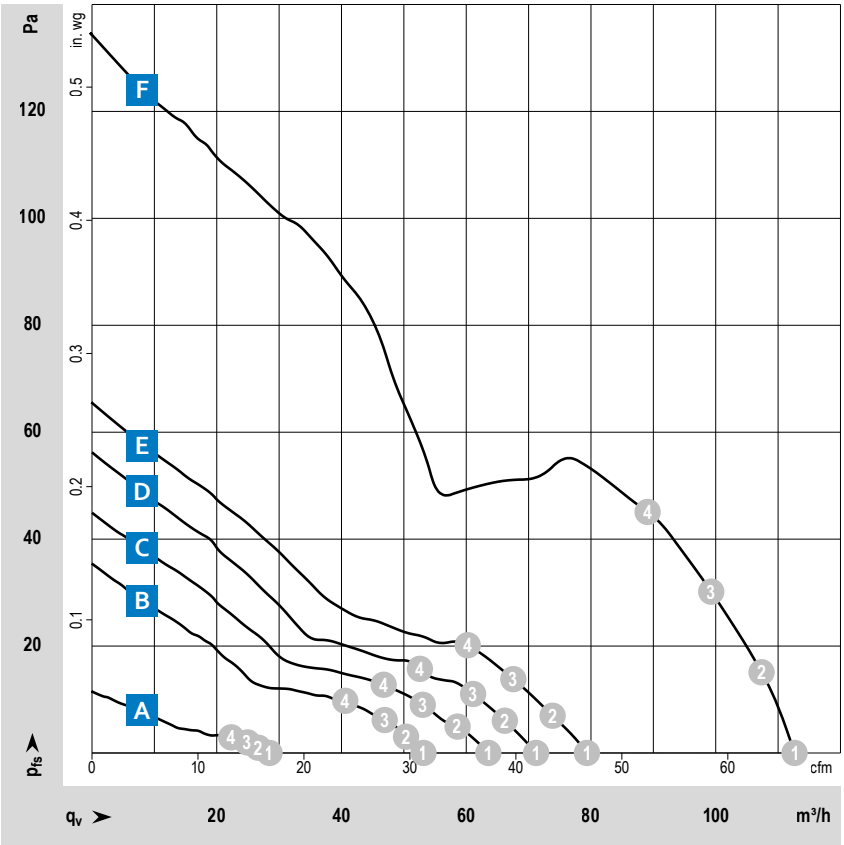


VWCD080A...

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



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



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

Measuring conditions

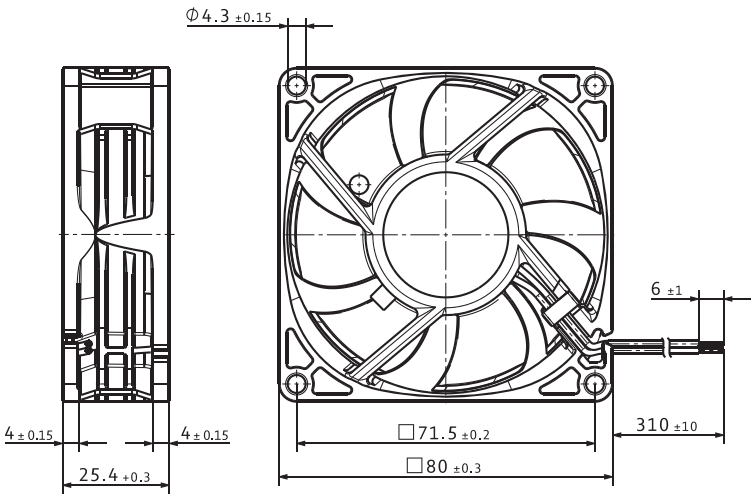
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD080AHEES 8452/2 L	**9292507011**	**12**	8...15	A	1	28.5	16.8	1 700	0.3	3.3	14	-20...+75	80 000	135 000
					2	26.8	15.8	1 690	0.3	3.3				
					3	25.1	14.8	1 680	0.3	3.3				
					4	22.6	13.3	1 680	0.3	3.2				
VWCD080AHEGS 8452 M	**9292507006**	**12**	8...15	B	1	53.0	31.2	3 100	1.0	4.9	32	-20...+75	80 000	135 000
					2	50.0	29.4	3 080	1.0	4.8				
					3	46.3	27.3	3 060	1.0	4.8				
					4	41.1	24.2	3 060	1.0	4.8				
VWCD080AHEGS 8452/2 N	**9292507013**	**12**	8...15	C	1	64.0	37.7	3 600	1.6	5.3	36	-20...+70	70 000	117 500
					2	59.0	34.7	3 560	1.6	5.3				
					3	53.0	31.2	3 560	1.6	5.2				
					4	47.2	27.8	3 560	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	4 000	2.3	5.6	38	-20...+70	70 000	117 500
					2	66.0	38.8	3 950	2.3	5.5				
					3	61.0	35.9	3 930	2.4	5.5				
					4	53.0	31.2	3 960	2.3	5.4				
VWCD080AHEHS 8452/2 HHP	**9292507012**	**12**	10.8...13.2	E	1	79.0	46.5	4 400	3.3	5.9	42	-20...+60	65 000	110 000
					2	74.0	43.6	4 360	3.3	5.8				
					3	68.0	40.0	4 320	3.4	5.7				
					4	60.0	35.3	4 300	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	6 200	7.1	6.8	50	-20...+70	60 000	102 500
					2	107.0	63.0	6 200	7.5	6.7				
					3	99.0	58.3	6 130	7.5	6.7				
					4	89.0	52.4	6 100	7.5	6.6				
VWCD080AJEJS 8454/2 H4P	**9692530181**	**24**	20.0...26.4	F	1	113.0	66.5	6 200	7.0	6.8	50	-20...+70	60 000	102 500
					2	108.0	63.6	6 200	7.3	6.7				
					3	100.0	58.9	6 200	7.5	6.7				
					4	90.0	53.0	6 160	7.5	6.6				

Subject to changes.

Technical drawing

Dimensions in mm

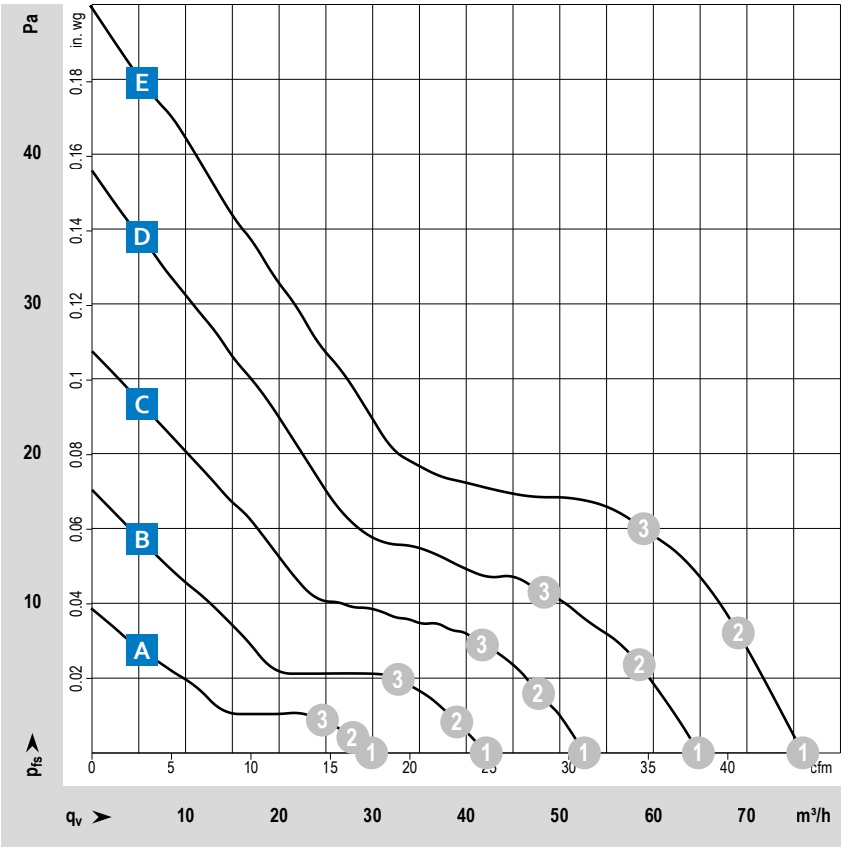


VWCD080Y...

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



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 $p_A$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

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

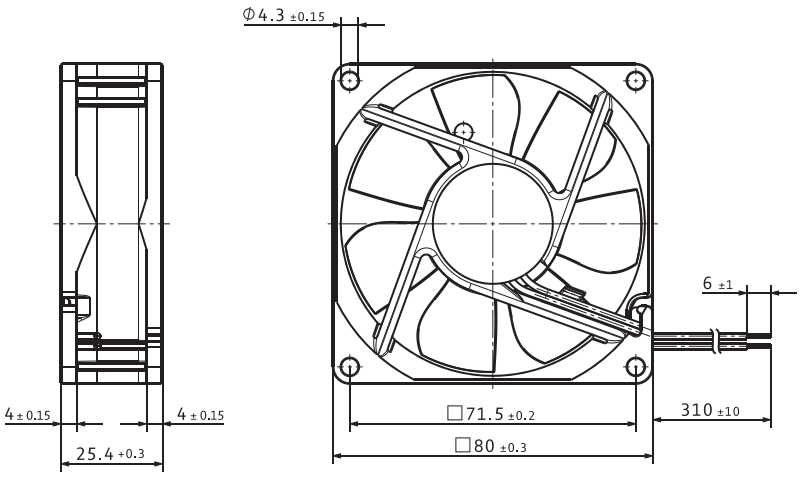
- Some fan types suitable for use at high ambient temperatures up to 85 °C.

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD080YHEES 8412 NGLE	**9292506262**	**12**	8...15	**A**	1 2 3	30.1 27.6 23.7	17.7 16.2 13.9	1 500 1 490 1 480	0.4 0.4 0.4	3.2 3.2 3.2	12	-20...+85	80 000	135 000
VWCD080YHEES 8412 NLE	**9292506263**	**12**	8...15	**A**	1 2 3	30.0 27.4 23.6	17.7 16.1 13.9	1 500 1 490 1 480	0.3 0.3 0.3	3.2 3.2 3.2	17	-20...+85	80 000	135 000
VWCD080YHEFS 8412 NGMLE	**9292506264**	**12**	8...15	**B**	1 2 3	39.5 36.6 31.7	23.2 21.5 18.7	2 050 2 030 2 020	0.8 0.8 0.8	3.6 3.7 3.7	19	-20...+80	80 000	135 000
VWCD080YHEFS 8412 NMLE	**9292506265**	**12**	8...15	**B**	1 2 3	42.0 38.2 32.6	24.7 22.5 19.2	2 050 2 040 2 030	0.6 0.6 0.6	3.6 3.7 3.7	21	-20...+85	80 000	135 000
VWCD080YHEGS 8412 NGME	**9292506266**	**12**	8...15	**C**	1 2 3	53.0 47.9 41.1	31.2 28.2 24.2	2 600 2 590 2 560	1.3 1.3 1.3	4.2 4.2 4.2	26	-20...+75	80 000	135 000
VWCD080YHEGS 8412 NME	**9292506267**	**12**	8...15	**C**	1 2 3	51.0 46.9 39.9	30.0 27.6 23.5	2 600 2 580 2 570	0.9 0.9 0.9	4.2 4.2 4.2	27	-20...+75	80 000	135 000
VWCD080YHEGS 8412 NG	**9292506104**	**12**	8...15	**D**	1 2 3	65.0 59.0 48.5	38.3 34.7 28.5	3 100 3 080 3 090	1.7 1.8 1.8	4.7 4.7 4.7	32	-20...+70	70 000	117 500
VWCD080YHEGS 8412 N	**9292506125**	**12**	8...15	**D**	1 2 3	64.0 58.0 50.0	37.7 34.1 29.4	3 100 3 060 3 050	1.6 1.6 1.6	4.7 4.7 4.7	32	-20...+70	70 000	117 500
VWCD080YHEHS 8412 NH	**9292506115**	**12**	8...13.2	**E**	1 2 3	74.0 68.0 58.0	43.6 40.0 34.1	3 600 3 560 3 550	2.0 2.0 2.1	5.1 5.0 5.0	37	-20...+70	70 000	117 500
VWCD080YHEHS 8412 NH-217	**9292506217**	**12**	8...15	**E**	1 2 3	75.0 68.0 55.0	44.1 40.0 32.4	3 600 3 540 3 550	2.3 2.3 2.3	5.1 5.0 5.0	37	-20...+70	70 000	117 500

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

Technical drawing

Dimensions in mm

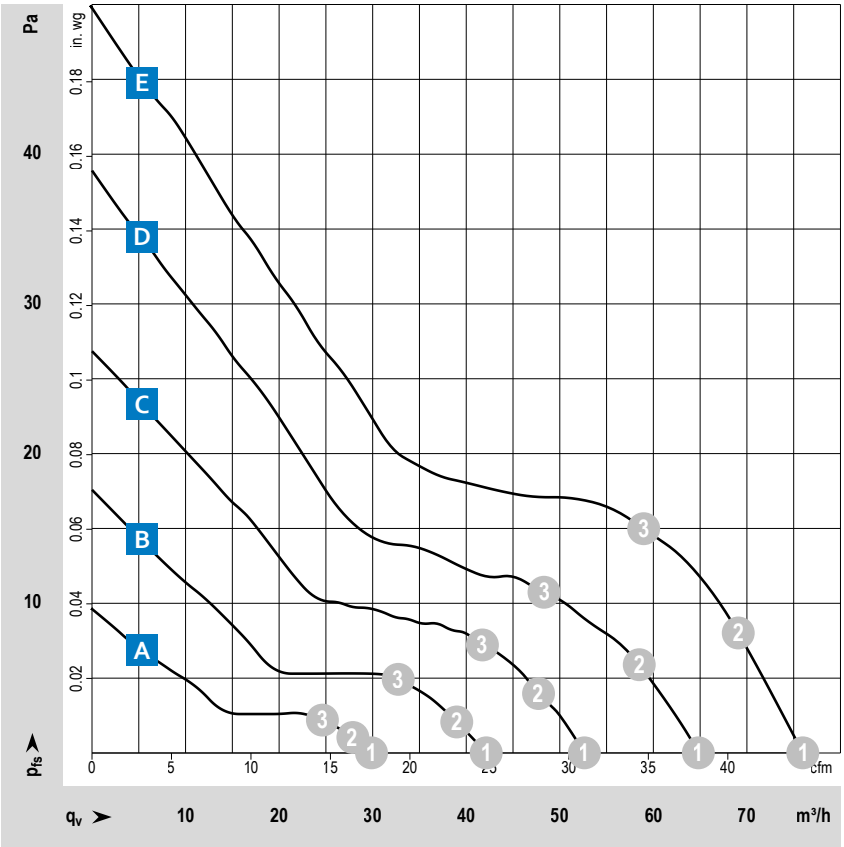


VWCD080Y...

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



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 $p_A$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

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

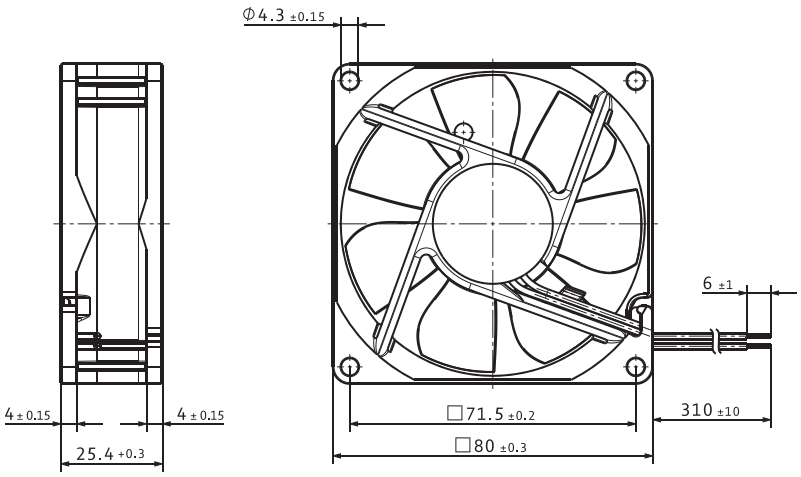
- Some fan types suitable for use at high ambient temperatures up to 85 °C.

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD080YJEES 8414 NGL	9292506106	24	18...28	A	1 2 3	29.9 27.4 23.5	17.6 16.1 13.8	1 500 1 490 1 490	0.9 0.9 0.9	3.2 3.2 3.2	12	-20...+70	80 000	135 000
VWCD080YJEGS 8414 NL	9292506142	24	18...28	A	1 2 3	29.0 27.1 23.9	17.1 16.0 14.1	1 500 1 500 1 490	0.8 0.8 0.9	3.2 3.2 3.2	17	-20...+70	80 000	135 000
VWCD080YJEFS 8414 NGML	9292506108	24	18...28	B	1 2 3	41.5 38.1 32.9	24.4 22.4 19.4	2 050 2 050 2 040	1.3 1.3 1.3	3.6 3.7 3.7	19	-20...+70	80 000	135 000
VWCD080YJEFS 8414 NML	9292506144	24	18...28	B	1 2 3	42.1 38.3 33.0	24.8 22.5 19.4	2 050 2 040 2 020	1.0 1.0 1.0	3.6 3.7 3.7	21	-20...+70	80 000	135 000
VWCD080YJEGS 8414 NGM	9292506107	24	18...28	C	1 2 3	51.0 46.8 39.3	30.0 27.5 23.1	2 600 2 590 2 580	1.4 1.4 1.4	4.2 4.2 4.2	26	-20...+70	80 000	135 000
VWCD080YJEGS 8414 NM	9292506143	24	18...28	C	1 2 3	51.0 46.4 39.0	30.0 27.3 23.0	2 600 2 580 2 570	1.3 1.3 1.3	4.2 4.2 4.2	27	-20...+70	80 000	135 000
VWCD080YJEGS 8414 NG	9292506109	24	18...28	D	1 2 3	64.0 57.0 47.0	37.7 33.5 27.7	3 100 3 080 3 090	1.9 1.9 1.9	4.7 4.7 4.7	32	-20...+70	70 000	117 500
VWCD080YJEGS 8414 N	9292506126	24	18...28	D	1 2 3	65.0 59.0 49.0	38.3 34.7 28.8	3 100 3 070 3 080	1.9 1.9 1.9	4.7 4.7 4.7	32	-20...+70	70 000	117 500
VWCD080YJEHS 8414 NH	9292506124	24	18...26	E	1 2 3	75.0 69.0 59.0	44.1 40.6 34.7	3 600 3 550 3 540	2.2 2.2 2.3	5.1 5.0 5.0	37	-20...+70	70 000	117 500
VWCD080YKEGS 8418 N	9292506289	48	36...56	D	1 2 3	65.0 59.0 49.0	38.3 34.7 28.8	3 100 3 070 3 080	2.1 2.1 2.1	4.7 4.7 4.7	32	-20...+70	70 000	117 500

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

Technical drawing

Dimensions in mm

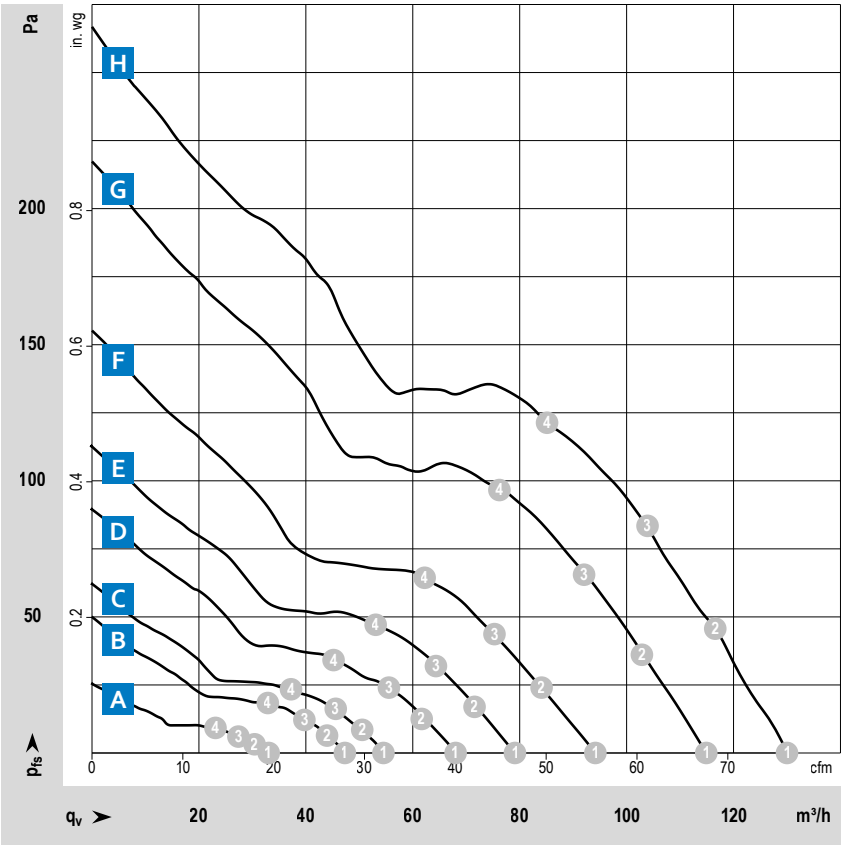


VWCE080P...

DC axial fan · max. 130 m³/h · ☐ 80 x 32 mm



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



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

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

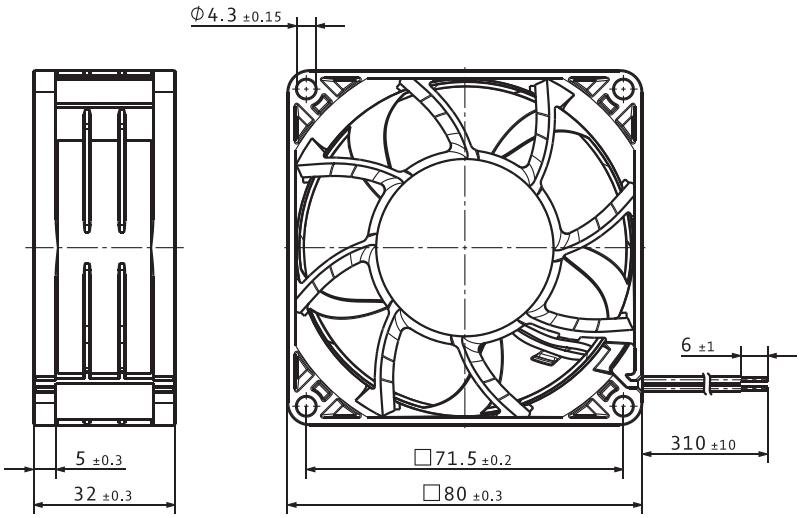
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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

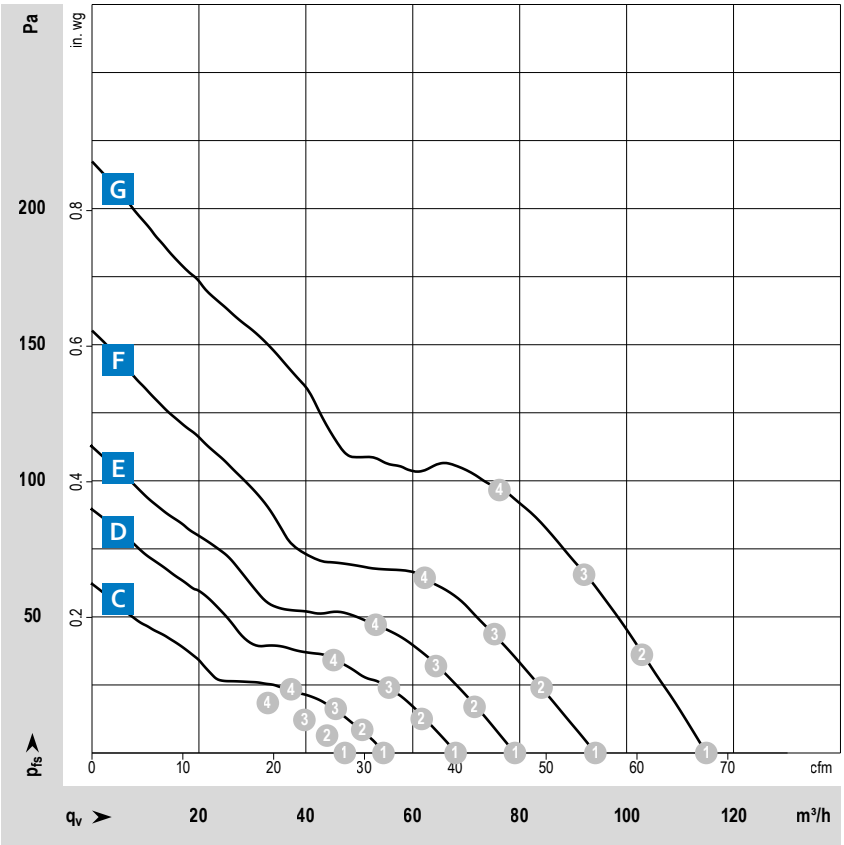


VWCE080P...

DC axial fan · max. 116 m³/h · ☐ 80 x 32 mm



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 $p_s$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

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

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

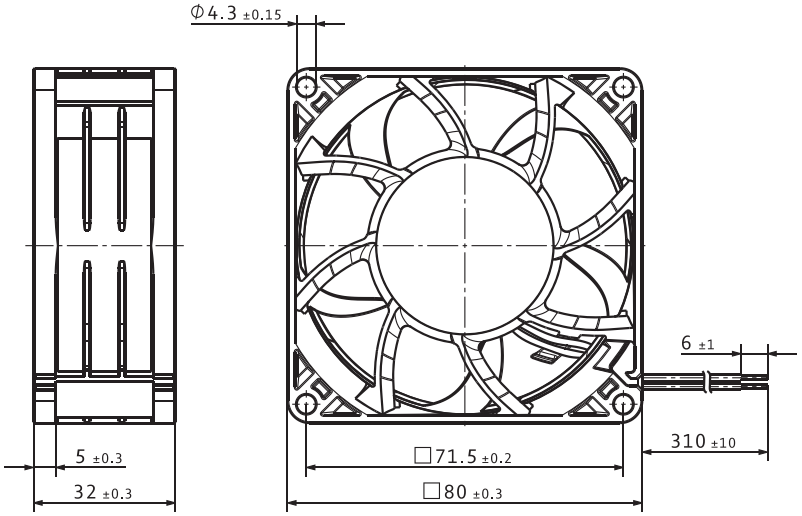
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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				
VWC0080PUFBS 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 12 VDC on the previous page.

Technical drawing

Dimensions in mm

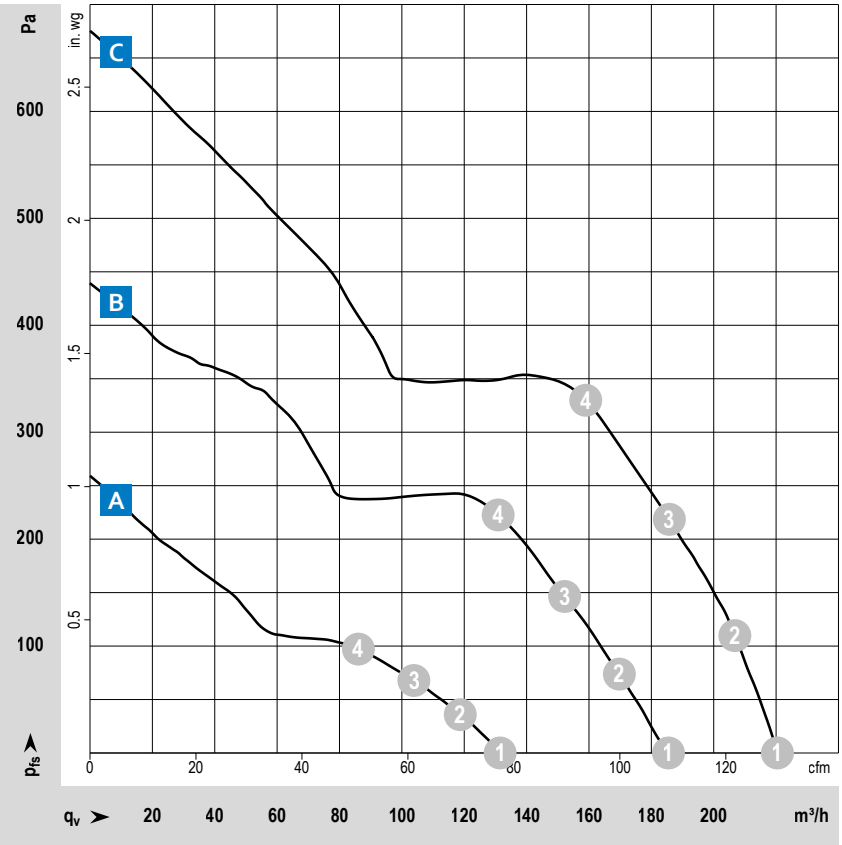


VWCF080J...

DC axial fan · max. 220 m³/h · ☐ 80 x 38 mm



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



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

Measuring conditions

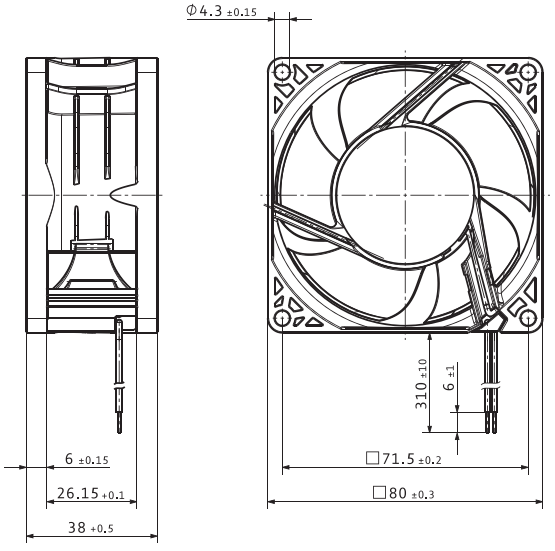
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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) ebmpapst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCF080JHFKS 8212 JN	**9292910002**	**12**	7...13.8	A	1 2 3 4	132 119 104 86	78 70 61 51	8 400 8 220 8 080 8 000	9.3 9.9 10.5 10.8	6.9 6.8 6.6 6.5	55	-20...+70	62 500	105 000
VWCF080JHFLS 8212 JH3 S-Force	**9692910193**	**12**	6...13.8	B	1 2 3 4	186 169 151 129	109 99 89 76	12 000 11 700 11 480 11 280	23.8 25.1 26.4 27.2	8.0 7.8 7.6 7.5	66	-20...+70	55 000	92 500
VWCF080JHFMS 8212 JH4 S-Force	**9692910196**	**12**	6...13.8	C	1 2 3 4	218 201 179 154	128 118 105 91	14 000 13 860 13 570 13 350	36.5 39.9 41.3 42.7	8.4 8.4 8.2 8.0	71	-20...+70	50 000	85 000
VWCF080JJFKS 8214 JN	**9292910003**	**24**	18...26.4	A	1 2 3 4	132 118 102 86	78 69 60 51	8 400 8 200 8 060 7 960	10.0 10.4 10.9 11.2	6.9 6.8 6.6 6.5	55	-20...+70	62 500	105 000
VWCF080JJFLS 8214 JH3 S-Force	**9692910194**	**24**	12...27.6	B	1 2 3 4	185 170 152 131	109 100 89 77	12 000 11 740 11 550 11 400	23.1 24.6 25.8 26.6	8.0 7.8 7.6 7.5	66	-20...+70	55 000	92 500
VWCF080JJFMS 8214 JH4 S-Force	**9692910197**	**24**	12...27.6	C	1 2 3 4	220 207 186 159	129 122 109 94	14 000 14 000 13 830 13 580	34.8 39.3 41.4 42.5	8.4 8.4 8.2 8.0	71	-20...+70	50 000	85 000
VWCF080JKFKS 8218 JN	**9292910006**	**48**	36...53	A	1 2 3 4	130 118 103 85	77 69 61 50	8 400 8 200 8 040 7 930	10.1 10.6 10.9 11.2	6.9 6.8 6.6 6.5	55	-20...+70	62 500	105 000
VWCF080JKFLS 8218 JH3 S-Force	**9692910232**	**48**	36...53	B	1 2 3 4	187 171 154 132	110 101 91 78	12 000 11 820 11 610 11 460	23.3 24.7 26.0 27.0	8.0 7.8 7.6 7.5	66	-20...+70	55 000	92 500
VWCF080JKFMS 8218 JH4 S-Force	**9692910198**	**48**	20...58	C	1 2 3 4	219 204 186 161	129 120 109 95	14 000 14 000 14 000 13 880	33.5 38.1 41.8 43.4	8.4 8.4 8.2 8.0	71	-20...+70	55 000	85 000

Subject to changes.

Technical drawing

Dimensions in mm

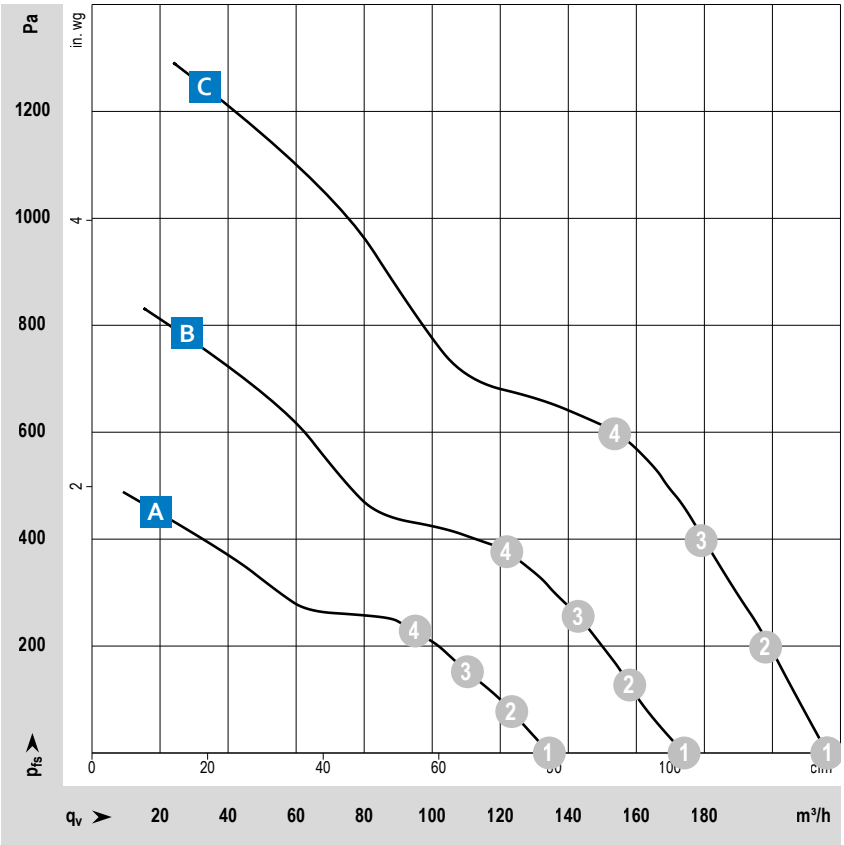


VWCF080K...

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



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



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

Measuring conditions

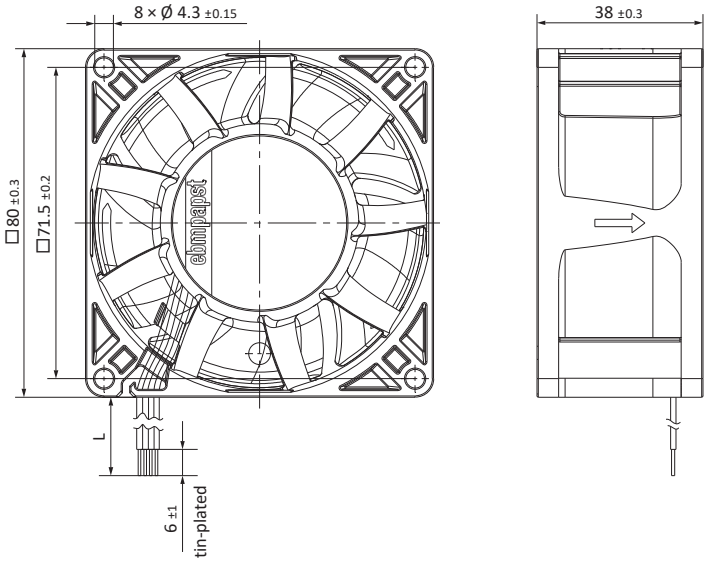
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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

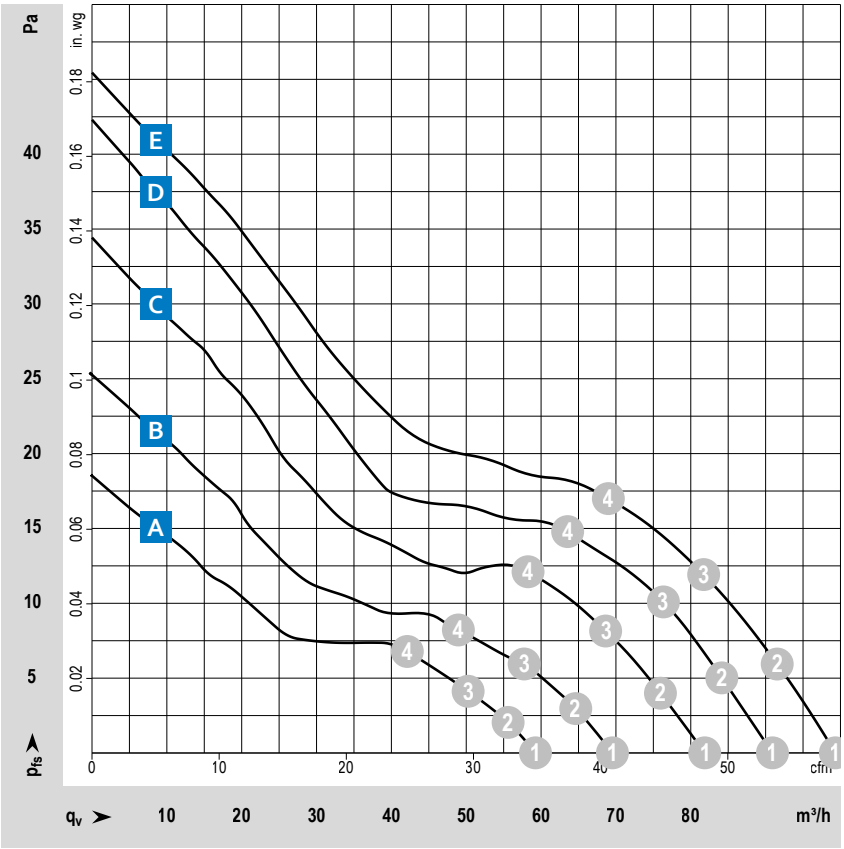


VWCD092Y...

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



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



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

Measuring conditions

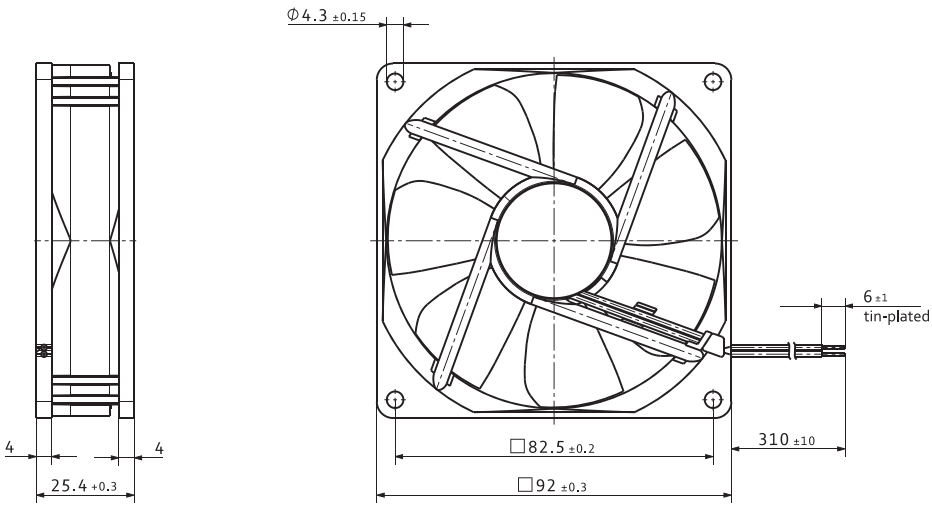
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD092YHEGS 3412 NGLE	**9292506407**	**12**	8...15	A	1 2 3 4	58.0 54.0 48.4 41.3	34.1 31.8 28.5 24.3	1 950 1 920 1 890 1 860	0.9 0.9 1.0 1.0	4.1 4.0 3.9 3.8	23	-20...+80	80 000	135 000
VWCD092YHEGS 3412 NLE	**9292506409**	**12**	8...15	A	1 2 3 4	59.0 55.0 49.5 42.8	34.7 32.4 29.1 25.2	1 950 1 920 1 890 1 870	0.7 0.7 0.7 0.7	4.1 4.0 3.9 3.8	23	-20...+85	80 000	135 000
VWCD092YHEHS 3412 NGME	**9292506406**	**12**	8...15	B	1 2 3 4	68.0 64.0 57.0 48.2	40.0 37.7 33.5 28.4	2 300 2 260 2 220 2 180	1.4 1.5 1.5 1.5	4.5 4.4 4.3 4.2	28	-20...+75	75 000	127 500
VWCD092YHEHS 3412 NME	**9292506410**	**12**	8...15	B	1 2 3 4	68.0 63.0 57.0 47.7	40.0 37.1 33.5 28.1	2 300 2 270 2 240 2 220	1.0 1.0 1.1 1.1	4.5 4.4 4.3 4.2	28	-20...+75	75 000	127 500
VWCD092YHEHS 3412 NG	**9292506302**	**12**	8...15	C	1 2 3 4	81.0 75.0 68.0 57.0	47.7 44.1 40.0 33.5	2 700 2 670 2 640 2 650	1.7 1.8 1.8 1.8	4.9 4.7 4.7 4.6	33	-20...+70	70 000	117 500
VWCD092YHEHS 3412 N	**9292506324**	**12**	8...15	C	1 2 3 4	81.0 75.0 68.0 57.0	47.7 44.1 40.0 33.5	2 700 2 660 2 630 2 620	1.5 1.5 1.6 1.6	4.9 4.7 4.7 4.6	33	-20...+70	70 000	117 500
VWCD092YHEJS 3412 NGH	**9292506303**	**12**	8...15	D	1 2 3 4	91.0 84.0 76.0 64.0	53.6 49.4 44.7 37.7	3 000 2 940 2 910 2 880	2.3 2.3 2.4 2.4	5.1 5.0 4.8 4.8	36	-20...+70	70 000	117 500
VWCD092YHEJS 3412 NH	**9292506323**	**12**	8...15	D	1 2 3 4	91.0 84.0 76.0 64.0	53.6 49.4 44.7 37.7	3 000 2 940 2 900 2 880	2.0 2.1 2.1 2.1	5.1 5.0 4.8 4.8	36	-20...+70	70 000	117 500
VWCD092YHEJS 3412 NGHH	**9292506304**	**12**	8...13.2	E	1 2 3 4	98.0 91.0 81.0 69.0	57.7 53.6 47.7 40.6	3 250 3 190 3 140 3 110	2.9 3.0 3.1 3.1	5.3 5.2 5.1 5.0	39	-20...+60	70 000	117 500
VWCD092YHEJS 3412 NHH	**9292506316**	**12**	8...13.2	E	1 2 3 4	99.0 91.0 82.0 69.0	58.3 53.6 48.3 40.6	3 250 3 210 3 160 3 110	2.4 2.5 2.5 2.6	5.3 5.2 5.1 5.0	39	-20...+60	70 000	117 500

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

Technical drawing

Dimensions in mm

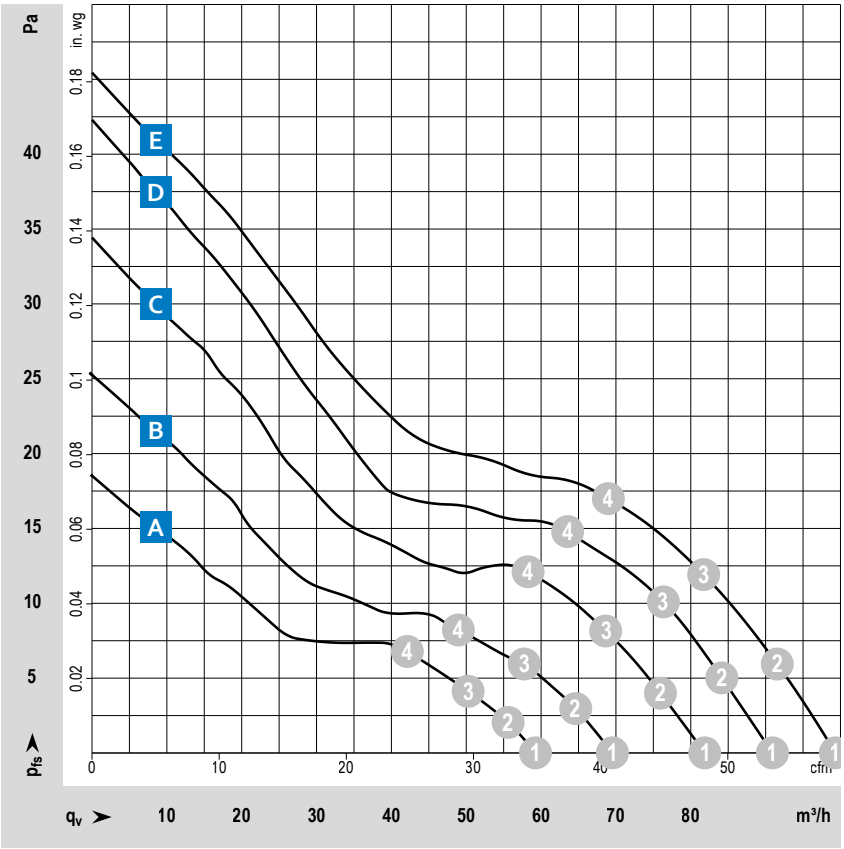


VWCD092Y...

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



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_{ow}er 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

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

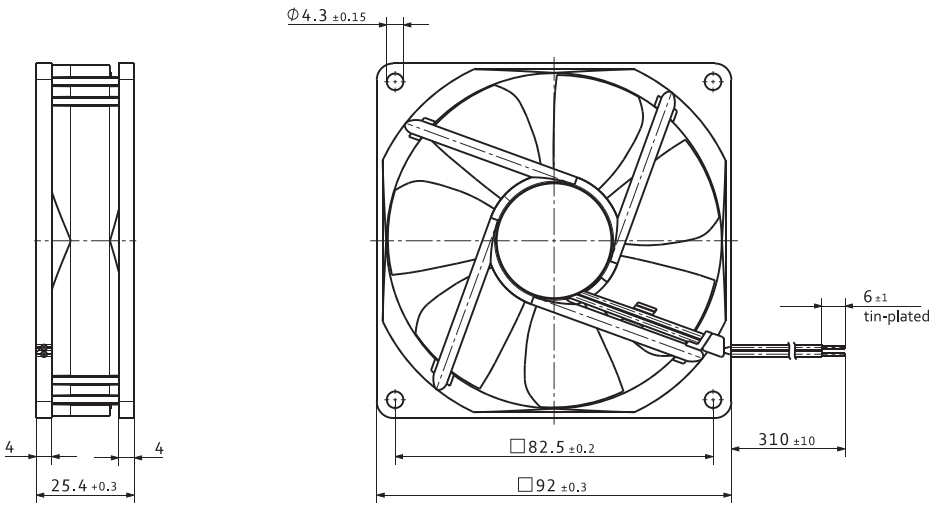
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD092YHEGS 3414 NGL	**9292506305**	**24**	18...28	A	1 2 3 4	55.0 52.0 47.3 40.2	32.4 30.6 27.8 23.7	1 950 1 920 1 900 1 890	1.2 1.2 1.2 1.2	4.1 4.0 3.9 3.8	23	-20...+70	80 000	135 000
VWCD092YHEGS 3414 NL	**9292506322**	**24**	18...28	A	1 2 3 4	56.0 52.0 47.4 41.1	33.0 30.6 27.9 24.2	1 950 1 930 1 910 1 890	1.1 1.1 1.1 1.1	4.1 4.0 3.9 3.8	23	-20...+70	80 000	135 000
VWCD092YHEHS 3414 NGM	**9292506306**	**24**	18...28	B	1 2 3 4	69.0 65.0 58.0 48.7	40.6 38.3 34.1 28.7	2 300 2 280 2 250 2 260	1.6 1.6 1.6 1.6	4.5 4.4 4.3 4.2	28	-20...+70	75 000	127 500
VWCD092YHEHS 3414 NM	**9292506327**	**24**	18...28	B	1 2 3 4	70.0 65.0 58.0 48.3	41.2 38.3 34.1 28.4	2 300 2 280 2 250 2 240	1.4 1.4 1.4 1.4	4.5 4.4 4.3 4.2	28	-20...+70	75 000	127 500
VWCD092YHEHS 3414 NG	**9292506307**	**24**	18...28	C	1 2 3 4	82.0 76.0 68.0 58.0	48.3 44.7 40.0 34.1	2 700 2 660 2 620 2 600	2.0 2.0 2.0 2.1	4.9 4.7 4.7 4.6	33	-20...+70	70 000	117 500
VWCD092YHEHS 3414 N	**9292506321**	**24**	18...28	C	1 2 3 4	82.0 76.0 68.0 57.0	48.3 44.7 40.0 33.5	2 700 2 650 2 620 2 600	1.8 1.8 1.9 1.9	4.9 4.7 4.7 4.6	33	-20...+70	70 000	117 500
VWCD092YHEJS 3414 NGH	**9292506308**	**24**	18...26	D	1 2 3 4	92.0 85.0 76.0 65.0	54.1 50.0 44.7 38.3	3 000 2 960 2 900 2 880	2.6 2.6 2.7 2.7	5.1 5.0 4.8 4.8	36	-20...+70	70 000	117 500
VWCD092YHEJS 3414 NH	**9292506319**	**24**	18...26	D	1 2 3 4	92.0 85.0 76.0 64.0	54.1 50.0 44.7 37.7	3 000 2 950 2 900 2 870	2.2 2.3 2.3 2.3	5.1 5.0 4.8 4.8	36	-20...+70	70 000	117 500
VWCD092YJEJS 3414 NHH	**9292506320**	**24**	18...26	E	1 2 3 4	100.0 92.0 82.0 70.0	58.9 54.1 48.3 41.2	3 250 3 200 3 140 3 110	2.5 2.5 2.6 2.6	5.3 5.2 5.1 5.0	39	-20...+70	70 000	117 500
VWCD092YKEHS 3418 N	**9292506422**	**48**	36...56	C	1 2 3 4	82.0 76.0 68.0 57.0	48.3 44.7 40.0 33.5	2 700 2 660 2 620 2 620	2.3 2.3 2.3 2.3	4.8 4.7 4.7 4.6	33	-20...+70	70 000	117 500

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

Technical drawing

Dimensions in mm

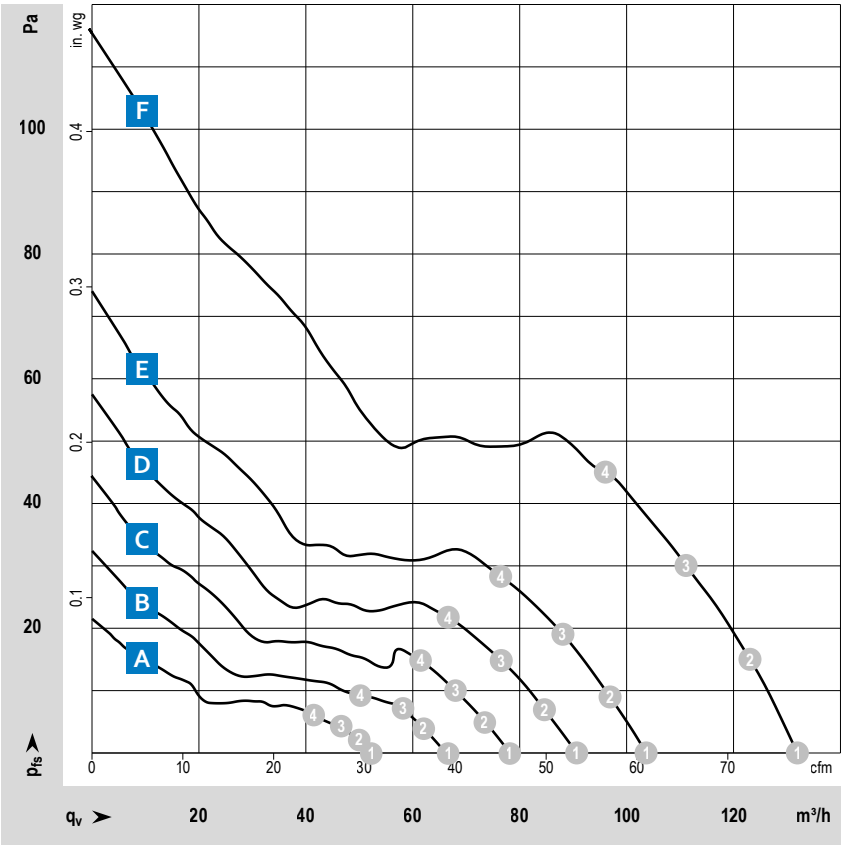


VWCE092P...

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



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_{ow}er 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

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

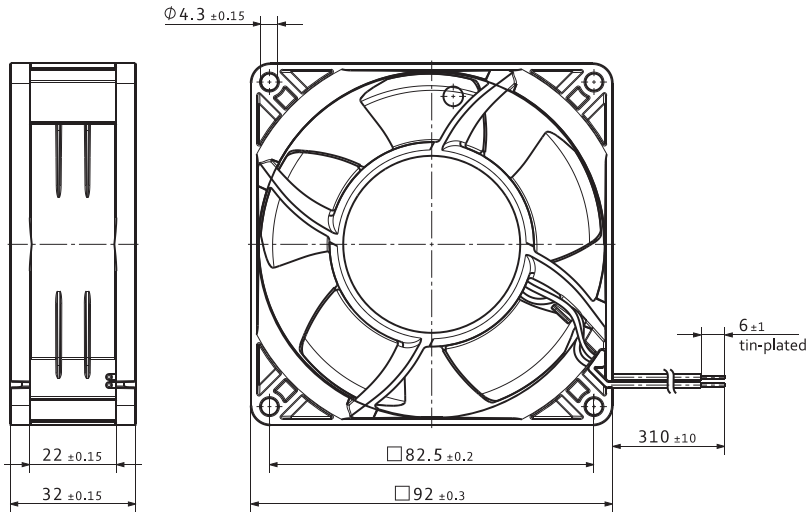
- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCE092PHGGS 3312 NL	**9293510119**	**12**	6...15	A	1	52.0	30.6	1 850	0.7	4.0	24	-20...+75	95 000	160 000
					2	49.5	29.1	1 840	0.8	4.0				
					3	45.7	26.9	1 840	0.8	4.0				
					4	41.0	24.1	1 840	0.8	4.0				
VWCE092PHGGS 3312 NM	**9293510118**	**12**	6...15	B	1	66.0	38.8	2 250	1.2	4.5	29	-20...+75	85 000	142 500
					2	62.0	36.5	2 240	1.3	4.4				
					3	58.0	34.1	2 230	1.3	4.4				
					4	49.8	29.3	2 250	1.3	4.3				
VWCE092PHGHS 3312 NN	**9293510100**	**12**	6...15	C	1	78.0	45.9	2 650	1.7	4.8	35	-20...+75	77 500	130 000
					2	74.0	43.6	2 640	1.7	4.6				
					3	68.0	40.0	2 630	1.7	4.6				
					4	62.0	36.5	2 630	1.8	4.5				
VWCE092PHGJS 3312 NH	**9293510114**	**12**	6...15	D	1	91.0	53.6	3 050	2.3	5.3	38	-20...+75	72 500	122 500
					2	85.0	50.0	3 030	2.4	5.2				
					3	77.0	45.3	3 000	2.4	5.2				
					4	67.0	39.4	3 000	2.4	5.1				
VWCE092PHGJS 3312 NHH	**9293510104**	**12**	6...15	E	1	104.0	61.2	3 450	3.1	5.7	42	-20...+75	67 500	115 000
					2	97.0	57.1	3 420	3.2	5.6				
					3	88.0	51.8	3 400	3.3	5.5				
					4	76.0	44.7	3 400	3.3	5.4				
VWCE092PHGKS 3312 NH3	**9293510101**	**12**	6...14	F	1	131.0	77.1	4 350	5.9	6.3	50	-20...+70	60 000	102 500
					2	122.0	71.8	4 330	6.0	6.3				
					3	110.0	64.7	4 290	6.1	6.2				
					4	96.0	56.5	4 290	6.2	6.1				
VWCE092PHGKS 3312 N/2 H3P	**9293510141**	**12**	7...13.2	F	1	132.0	77.7	4 350	5.4	6.4	50	-20...+75	67 500	115 000
					2	122.0	71.8	4 310	5.5	6.3				
					3	110.0	64.7	4 290	5.6	6.2				
					4	96.0	56.5	4 290	5.6	6.1				
VWCE092PJGGS 3314 NL	**9293510121**	**24**	12...28	A	1	53.0	31.2	1 850	0.7	4.0	24	-20...+75	95 000	160 000
					2	49.1	28.9	1 850	0.7	4.0				
					3	46.3	27.3	1 840	0.7	4.0				
					4	41.9	24.7	1 840	0.7	4.0				
VWCE092PJGGS 3314 NM	**9293510122**	**24**	12...28	B	1	66.0	38.8	2 250	1.1	4.4	29	-20...+75	85 000	142 500
					2	62.0	36.5	2 240	1.1	4.3				
					3	56.0	33.0	2 250	1.1	4.3				
					4	49.3	29.0	2 240	1.1	4.2				
VWCE092PJGHS 3314 NN	**9293510105**	**24**	12...28	C	1	78.0	45.9	2 650	1.7	4.8	35	-20...+75	77 500	130 000
					2	73.0	43.0	2 640	1.7	4.6				
					3	68.0	40.0	2 620	1.7	4.6				
					4	62.0	36.5	2 620	1.7	4.5				

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

Technical drawing

Dimensions in mm

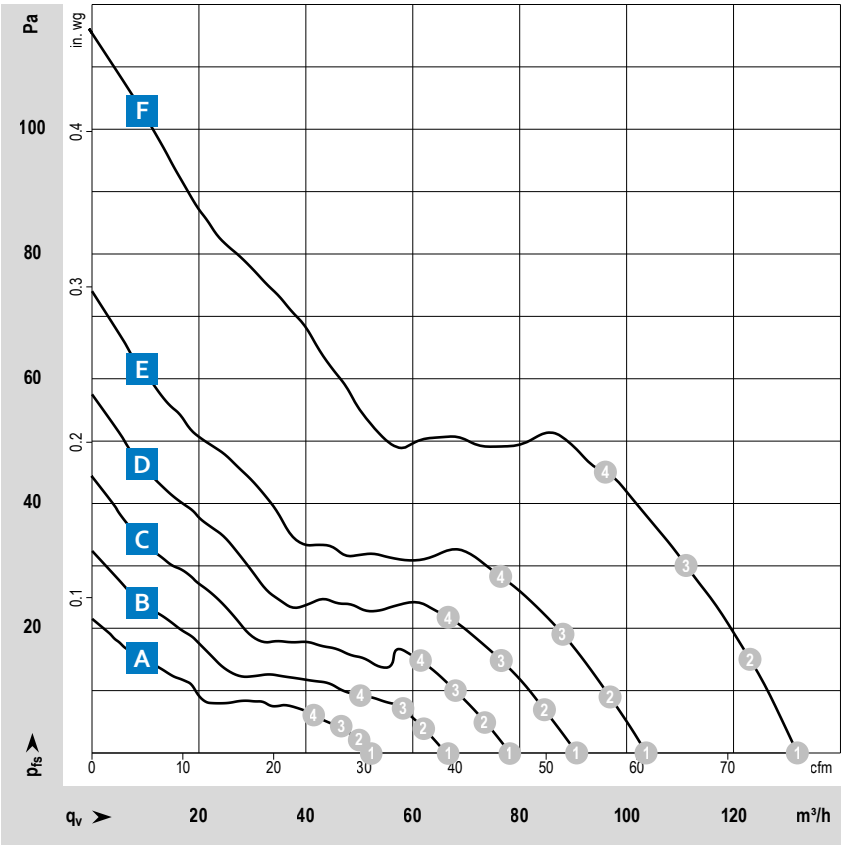


VWCE092P...

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



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



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

Measuring conditions

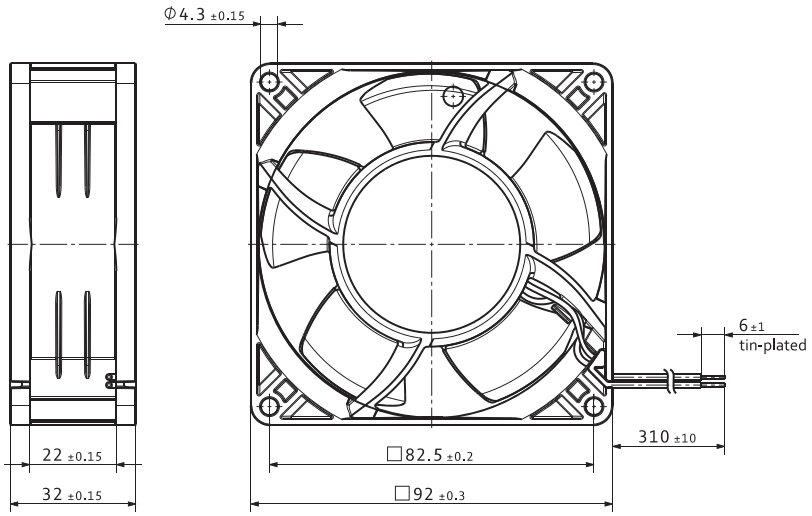
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

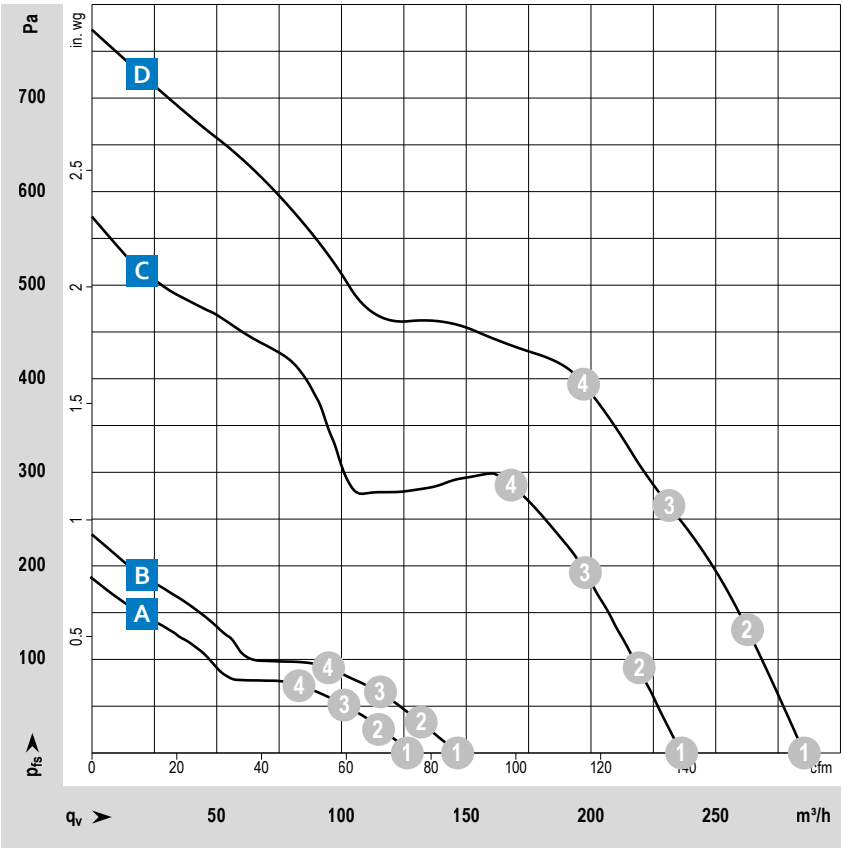


VWCF092J...

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



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 $p_A$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

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

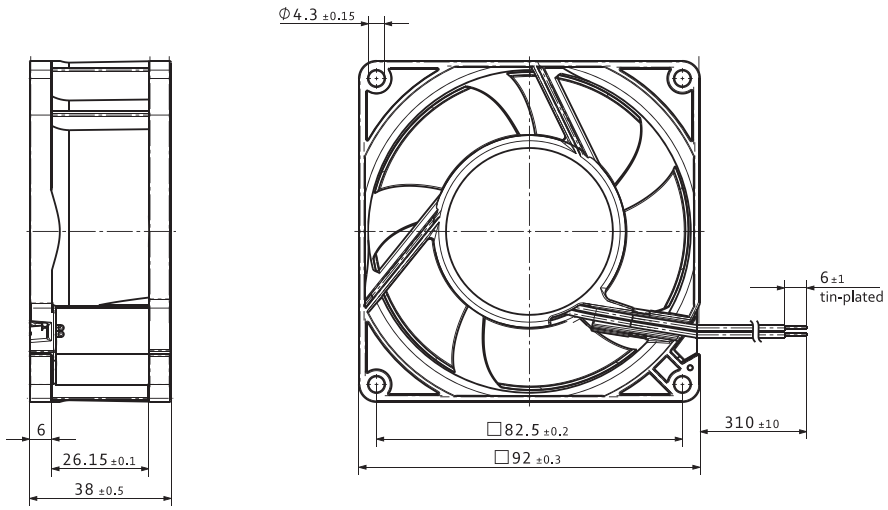
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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				
VWCF092JKGKS 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				
VWCF092JKGNS 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

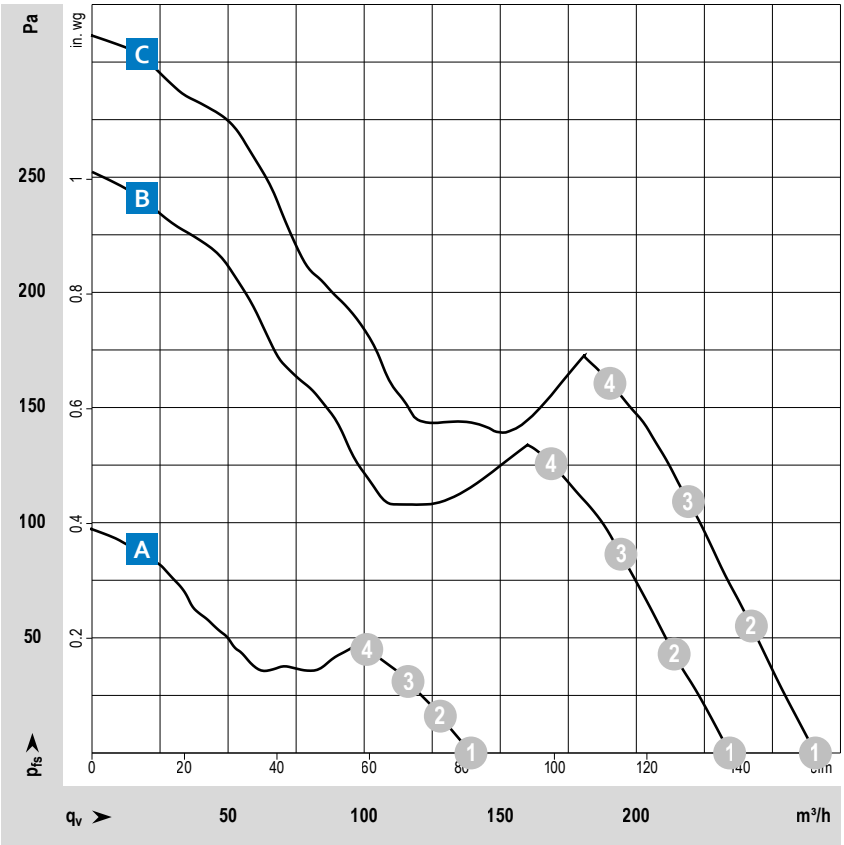


VWCF092P...

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



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 $p_A$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

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

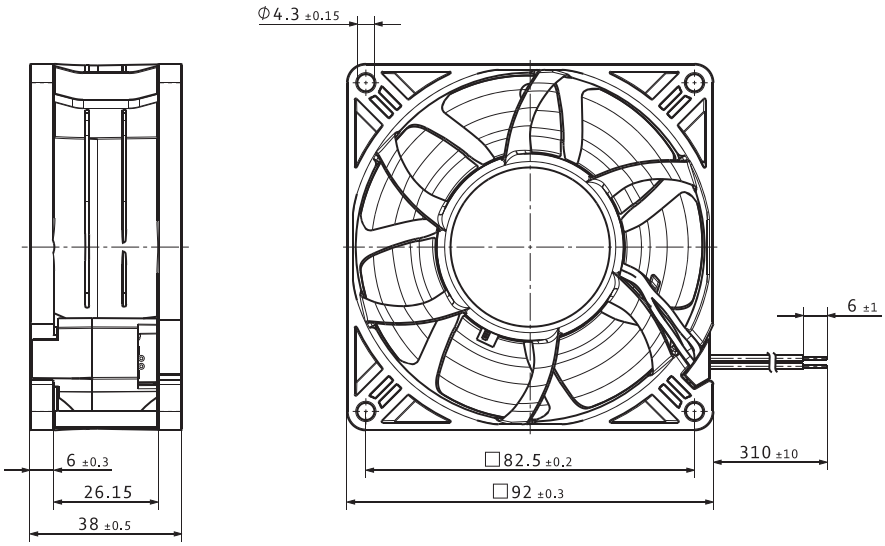
- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCF092PHGKS 3252 JH	**9293512008**	**12**	7...13.2	A	1 2 3 4	148 136 122 106	87 80 72 62	4 100 4 120 4 120 4 140	6.1 6.1 6.1 6.0	6.1 6.0 5.8 5.7	46	-20...+70	100 000	170 000
VWCF092PHGNS 3252 JH3	**9293512024**	**12**	7...13.2	C	1 2 3 4	266 242 219 190	157 142 129 112	7 450 7 420 7 430 7 500	32.6 32.9 32.9 32.2	7.8 7.7 7.5 7.4	64	-20...+70	85 000	142 500
VWCF092PJGKS 3254 JH	**9293512015**	**24**	14...26.4	A	1 2 3 4	139 128 116 101	82 75 68 59	4 100 4 090 4 090 4 100	5.9 5.9 5.9 5.8	6.1 6.0 5.8 5.7	46	-20...+70	100 000	170 000
VWCF092PJGNS 3254 J/2 H3P	**9293512002**	**24**	14...26.4	C	1 2 3 4	276 247 223 196	162 145 131 115	7 450 7 420 7 410 7 470	32.2 32.4 32.4 32.1	7.8 7.7 7.5 7.4	64	-20...+70	85 000	142 500
VWCF092PKGKS 3258 JH	**9293512009**	**48**	36...56	A	1 2 3 4	141 130 117 101	83 77 69 59	4 100 4 090 4 090 4 100	6.7 6.8 6.7 6.6	6.1 6.0 5.8 5.7	46	-20...+70	100 000	170 000
VWCF092PKGMS 3258 J/2 HHP	**9293512004**	**48**	36...56	B	1 2 3 4	234 214 194 169	138 126 114 99	6 650 6 600 6 600 6 670	22.2 22.3 22.4 22.0	7.5 7.4 7.2 7.1	64	-20...+70	90 000	152 500
VWCF092PKGNS 3258 J/2 H3P	**9293512001**	**48**	36...56	C	1 2 3 4	264 241 218 189	155 142 128 111	7 450 7 430 7 440 7 520	31.7 31.9 31.8 31.1	7.8 7.7 7.5 7.4	64	-20...+70	85 000	142 500

Subject to changes.

Technical drawing

Dimensions in mm

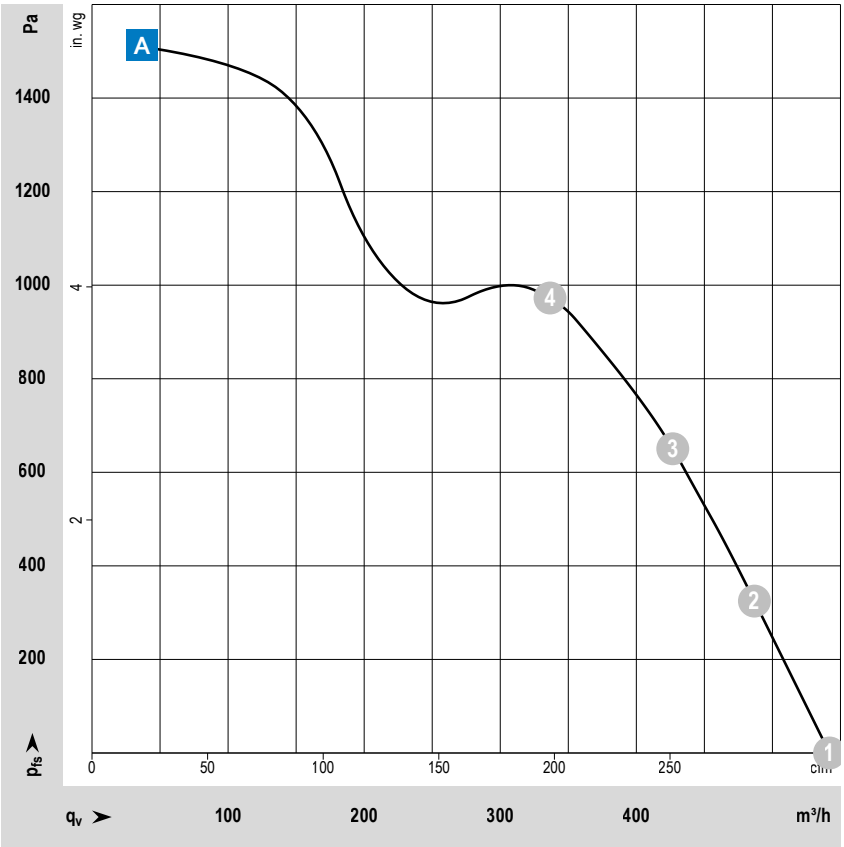


VWJK100TKGRS

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



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



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

Measuring conditions

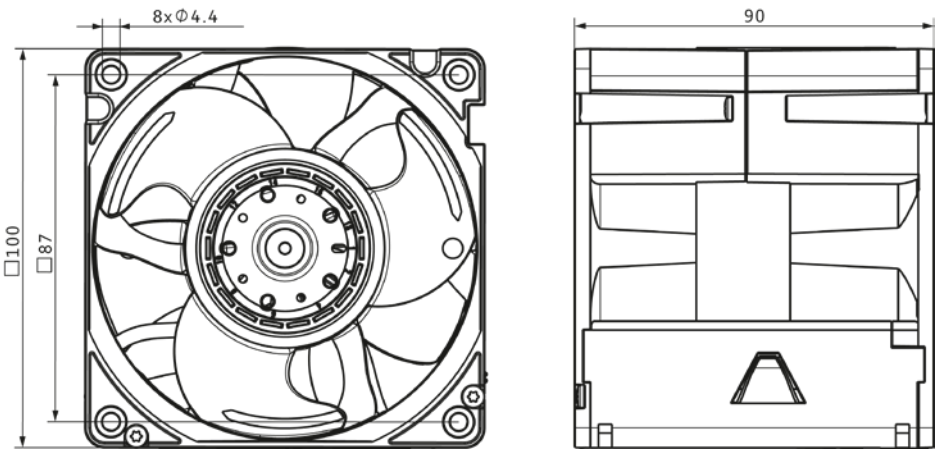
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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

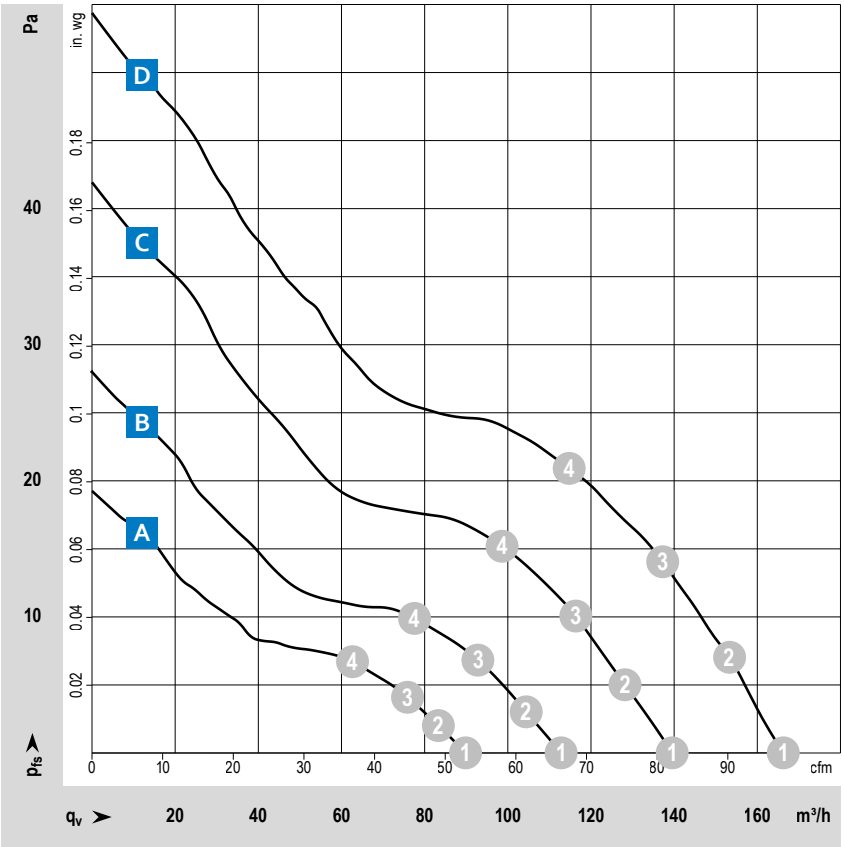


VWCD119F...

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



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 $p_s$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

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

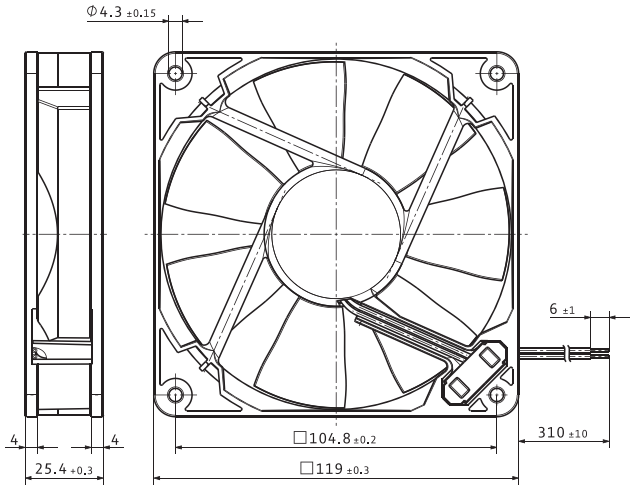
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

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_{10PC} (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 2 3 4	90 83 75 64	53 49 44 38	1 600 1 570 1 540 1 500	0.9 1.0 1.0 1.0	4.1 4.0 4.0 3.9	26	-20...+75	80 000	135 000
VWCD119FHGJS 4412 FGML	**9293505434**	**12**	7...12.6	B	1 2 3 4	113 104 94 78	67 61 55 46	1 950 1 920 1 880 1 840	1.7 1.8 1.8 1.9	4.6 4.6 4.5 4.4	32	-20...+75	75 000	127 500
VWCD119FHGJS 4412 FML	**9293505464**	**12**	7...12.6	B	1 2 3 4	105 97 88 75	62 57 52 44	1 950 1 910 1 880 1 840	1.7 1.7 1.7 1.8	4.6 4.6 4.5 4.4	32	-20...+75	75 000	127 500
VWCD119FHGKS 4412 FGM	**9293505435**	**12**	7...12.6	C	1 2 3 4	139 127 114 96	82 75 67 57	2 400 2 350 2 280 2 210	2.6 2.7 2.7 2.8	5.3 5.2 5.1 5.1	38	-20...+75	70 000	117 500
VWCD119FHGKS 4412 FM	**9293505409**	**12**	7...12.6	C	1 2 3 4	140 128 116 98	82 75 68 58	2 400 2 340 2 290 2 220	3.2 3.3 3.4 3.5	5.3 5.2 5.1 5.1	38	-20...+75	70 000	117 500
VWCD119FHGLS 4412 F	**9293505444**	**12**	8...12.6	D	1 2 3 4	159 147 132 111	94 87 78 65	2 900 2 830 2 760 2 690	4.9 5.0 5.1 5.2	5.6 5.5 5.5 5.5	43	-20...+60	60 000	102 500
VWCD119FJGJS 4414 FL	**9293505528**	**24**	18...28	A	1 2 3 4	90 83 76 64	53 49 45 38	1 600 1 570 1 540 1 500	1.1 1.1 1.1 1.2	4.1 4.0 4.0 3.9	26	-20...+75	80 000	135 000
VWCD119FJGKS 4414 FM	**9293505407**	**24**	12...28	C	1 2 3 4	131 122 110 93	77 72 65 55	2 400 2 340 2 290 2 250	2.5 2.6 2.7 2.7	5.3 5.2 5.1 5.1	38	-20...+75	70 000	117 500
VWCD119FJGLS 4414 F	**9293505405**	**24**	12...28	D	1 2 3 4	159 147 131 111	94 87 77 65	2 900 2 830 2 750 2 700	4.3 4.4 4.5 4.6	5.6 5.5 5.5 5.5	43	-20...+60	60 000	102 500
VWCD119FKGLS 4418 F	**9293505449**	**48**	28...53	D	1 2 3 4	159 147 132 111	94 87 78 65	2 900 2 840 2 760 2 700	4.6 4.7 4.9 5.0	5.6 5.5 5.5 5.5	43	-20...+60	60 000	102 500

Subject to changes.

Technical drawing

Dimensions in mm

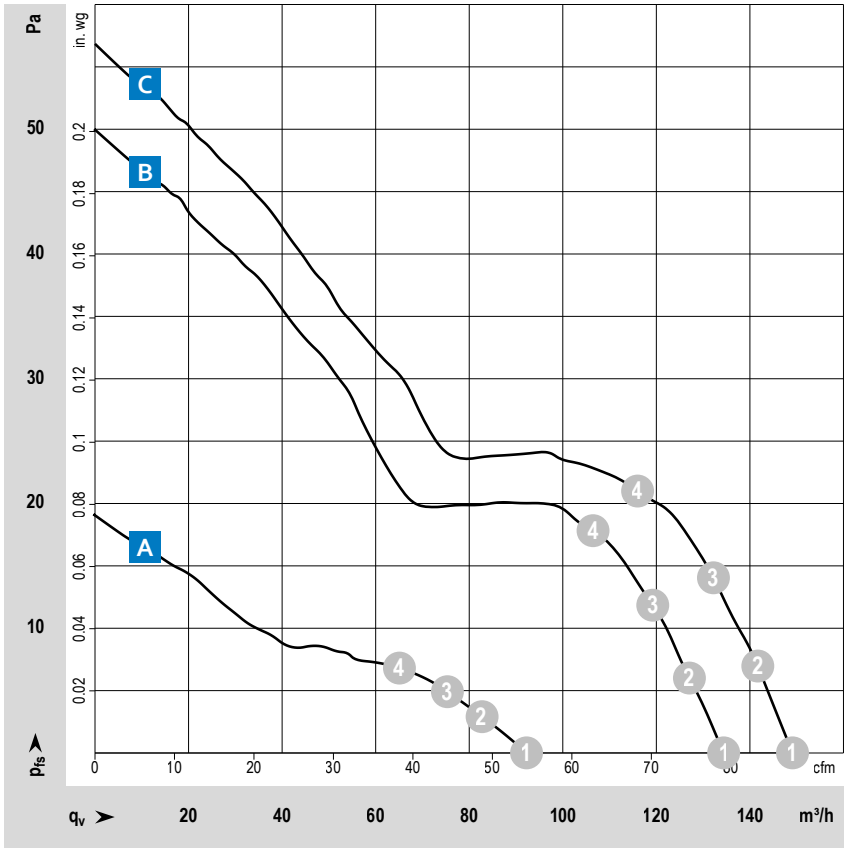


VWS0113F...

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



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 $p_s$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

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

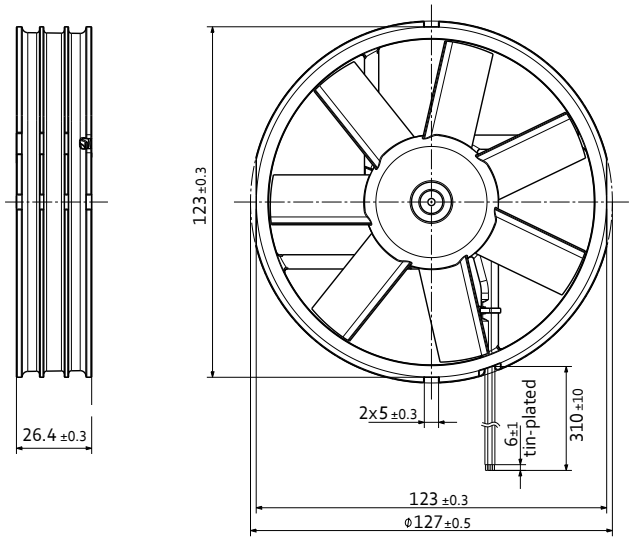
- Speed signal
- Go / NoGo alarm
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Direction of rotation reversible
- Symmetrical impeller

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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

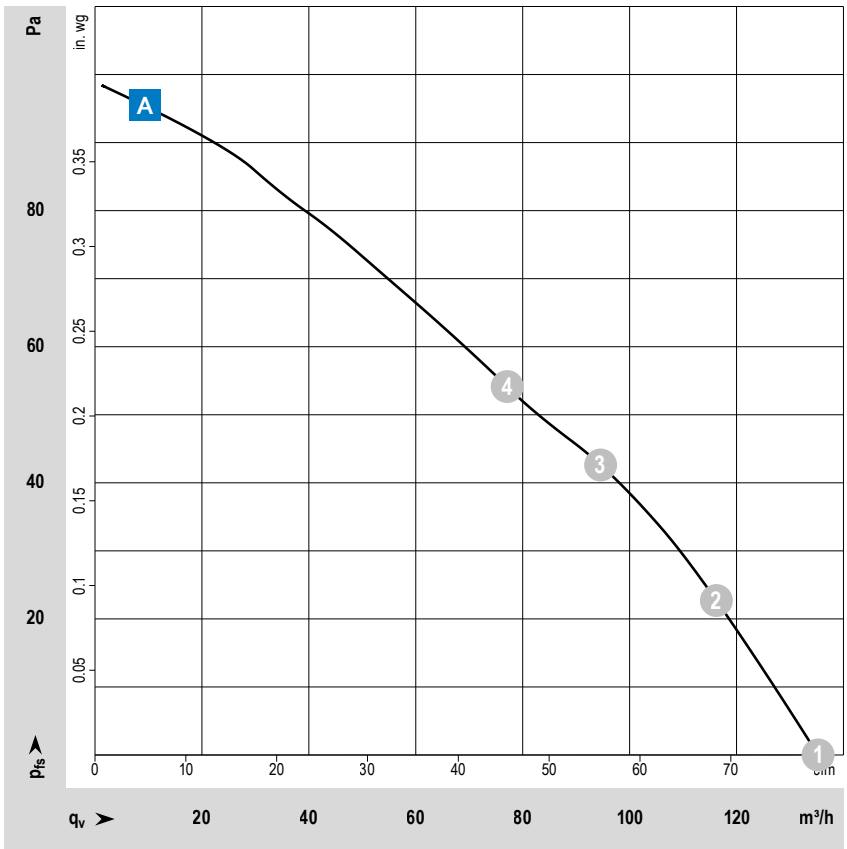


VWS0112EUGAS

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



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



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

Measuring conditions

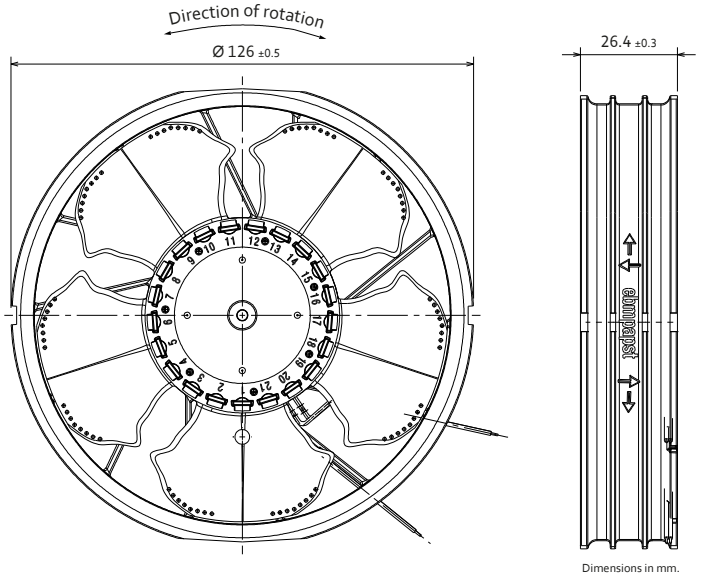
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWS0112EUGAS AxiRev 126	**8315100253**	**12**	10.8...13.2	A	1	135	79	4 200	2.5	6.4	52	-20...+60	on request	on request
					2	117	69	4 200	3.3	6.5				
					3	95	56	4 200	4.1	6.7				
					4	77	45	4 200	4.7	6.9				

Subject to changes.

Technical drawing

Dimensions in mm



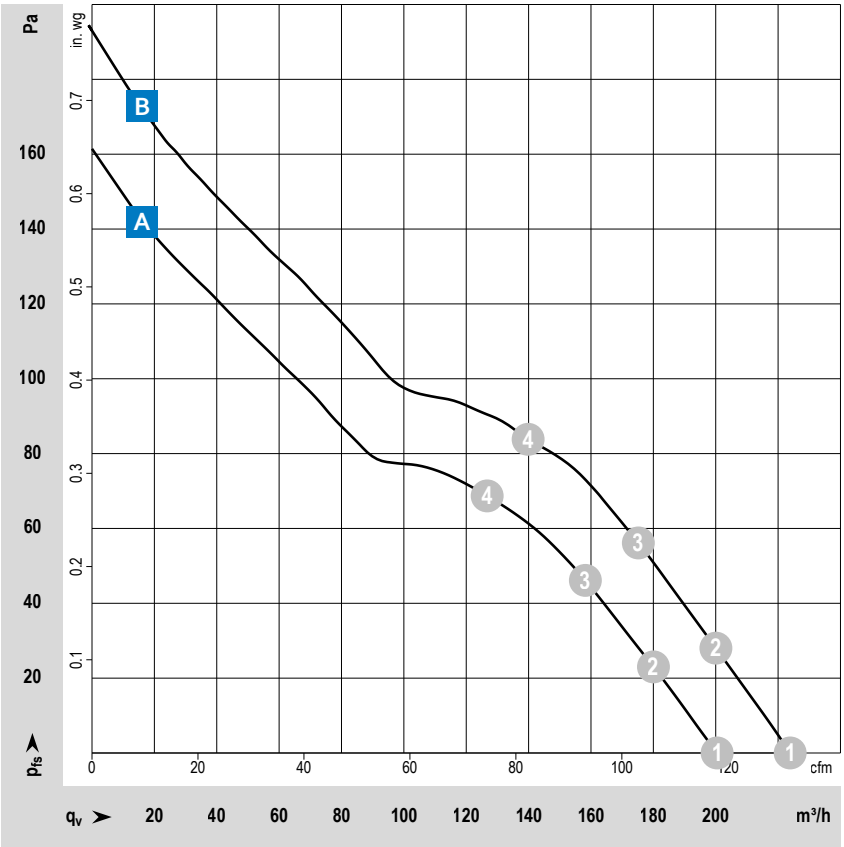
Dimensions in mm.

VWCD119F...

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



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



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

Measuring conditions

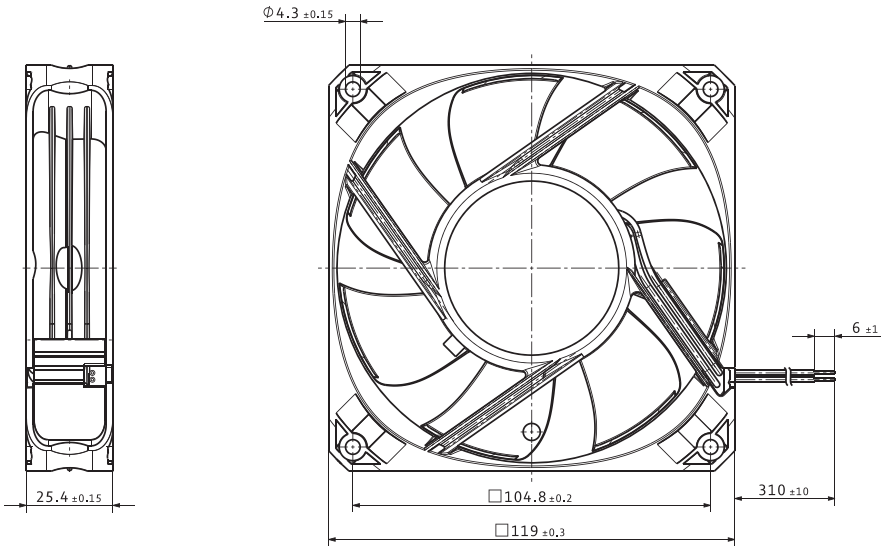
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD119FHJMS 4412 FNH	**9694390181**	**12**	9...13.2	**B**	1 2 3 4	224 200 175 140	132 118 103 82	5 400 5 210 5 070 4 960	12.8 13.7 14.6 15.2	6.8 6.6 6.4 6.4	55	-20...+70	60 000	102 500
VWCD119FJJMS 4414 FNN	**9294307002**	**24**	14...28	**A**	1 2 3 4	200 180 158 127	118 106 93 75	4 850 4 720 4 600 4 510	8.5 9.1 9.8 10.3	6.5 6.3 6.1 6.3	52	-20...+70	60 000	102 500
VWCD119FJJMS 4414 FNH	**9694390184**	**24**	18...26.4	**B**	1 2 3 4	225 201 175 139	132 118 103 82	5 400 5 230 5 080 4 970	11.7 12.6 13.4 13.9	6.8 6.6 6.4 6.4	55	-20...+70	60 000	102 500
VWCD119FKJMS 4418 FNH	**9694390182**	**48**	36...53	**B**	1 2 3 4	222 199 174 139	131 117 102 82	5 400 5 230 5 080 4 980	11.7 12.5 13.2 13.7	6.8 6.6 6.4 6.4	55	-20...+70	60 000	102 500

Subject to changes.

Technical drawing

Dimensions in mm

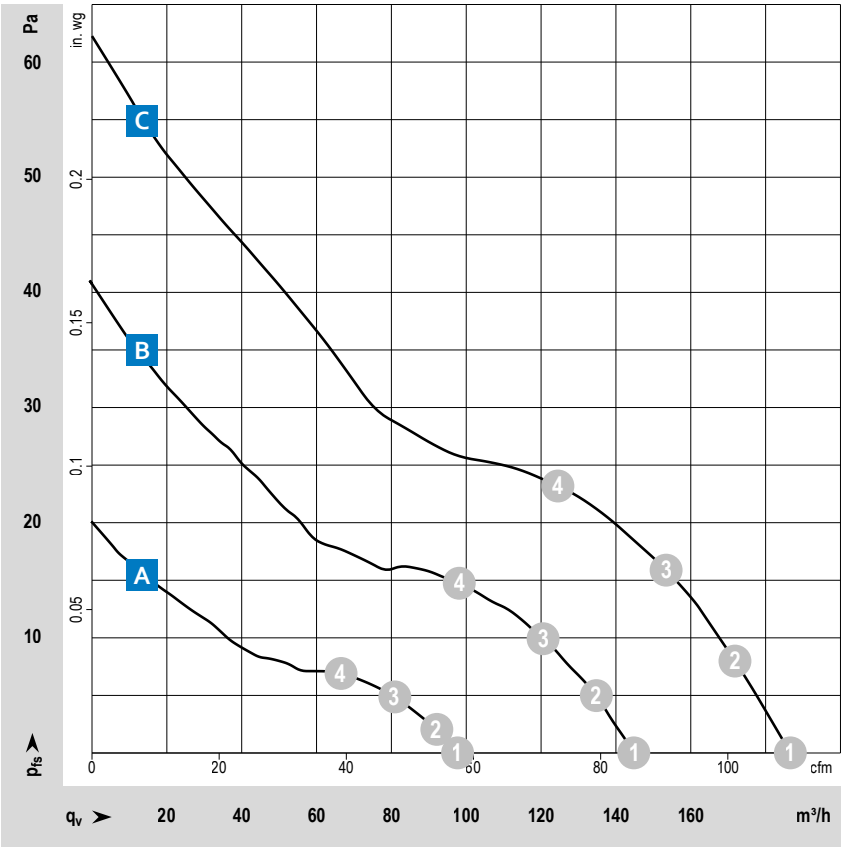


VWCE119P...

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



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 $p_A$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

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

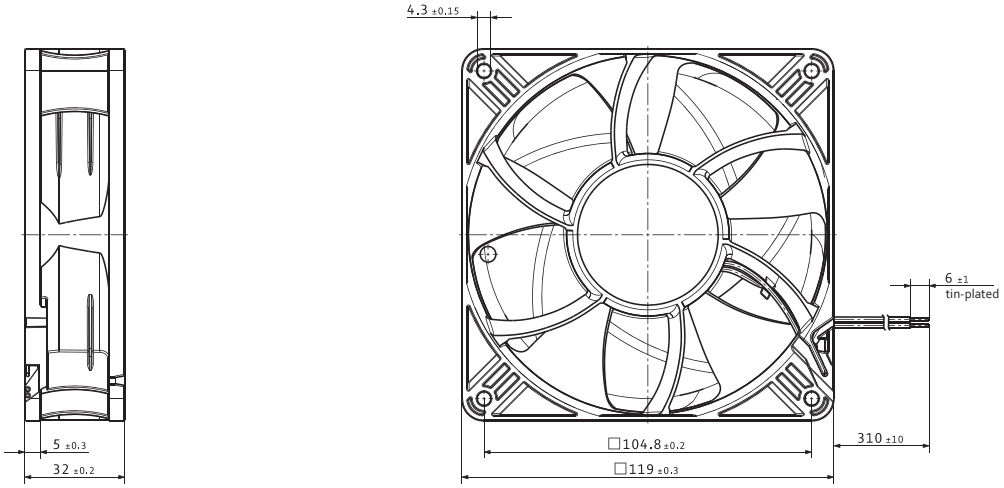
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

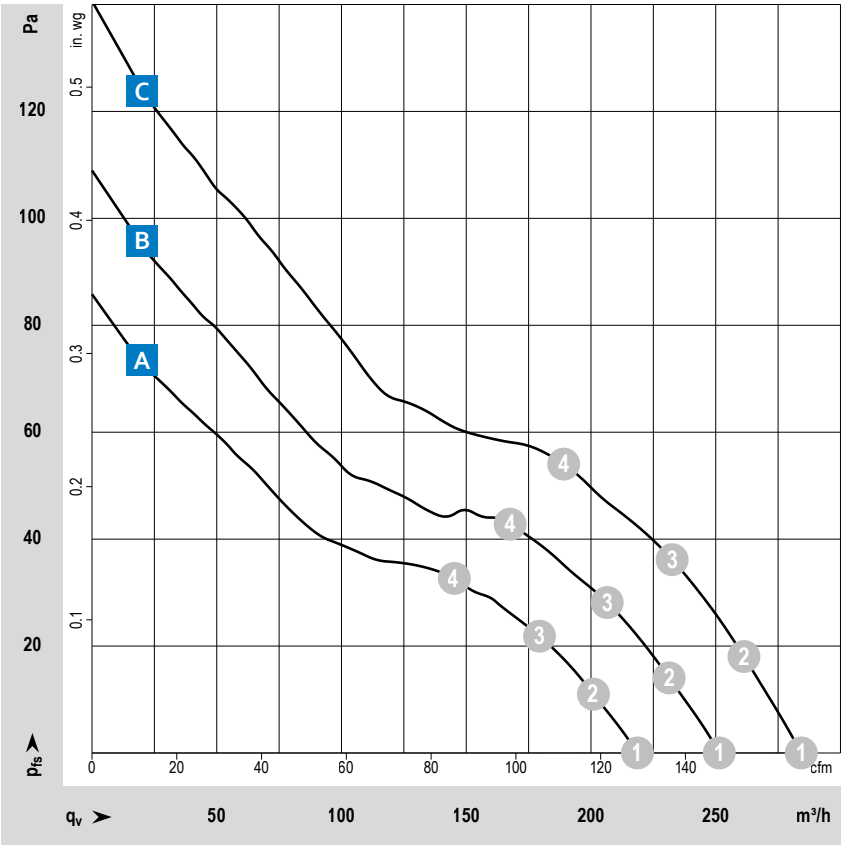


VWCE119P...

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



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_{ow}er 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

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

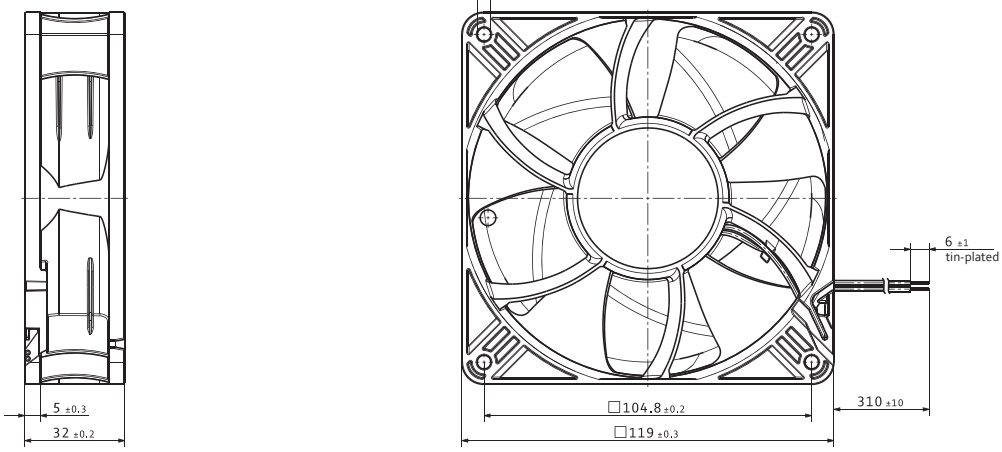
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/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.

Technical drawing

Dimensions in mm

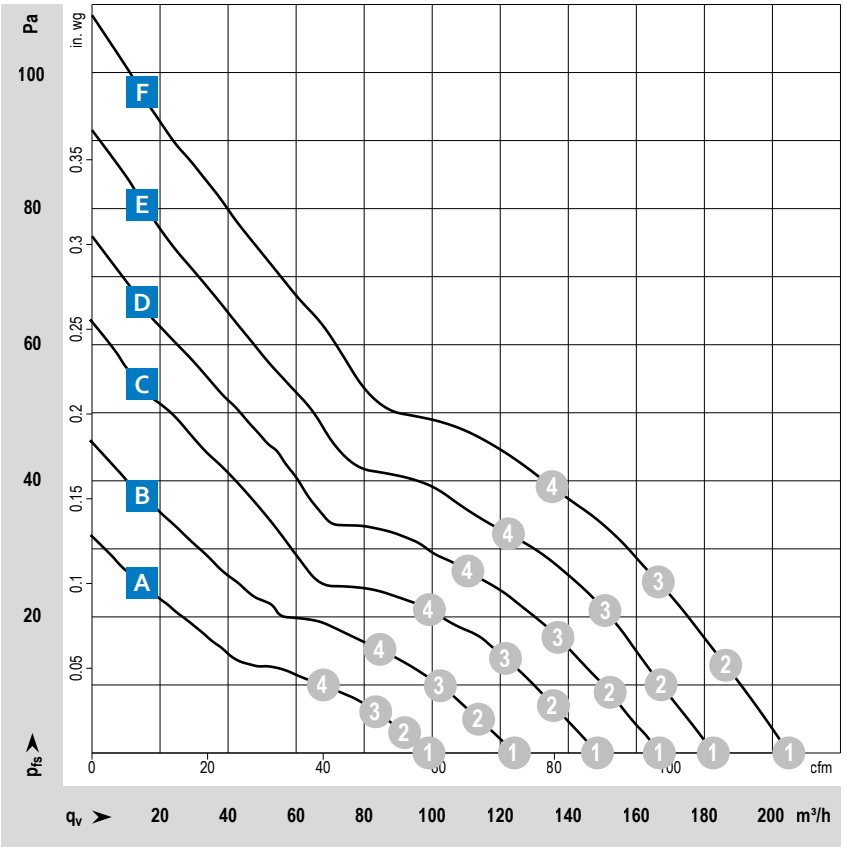


VWCF119A...

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



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 $p_A$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

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

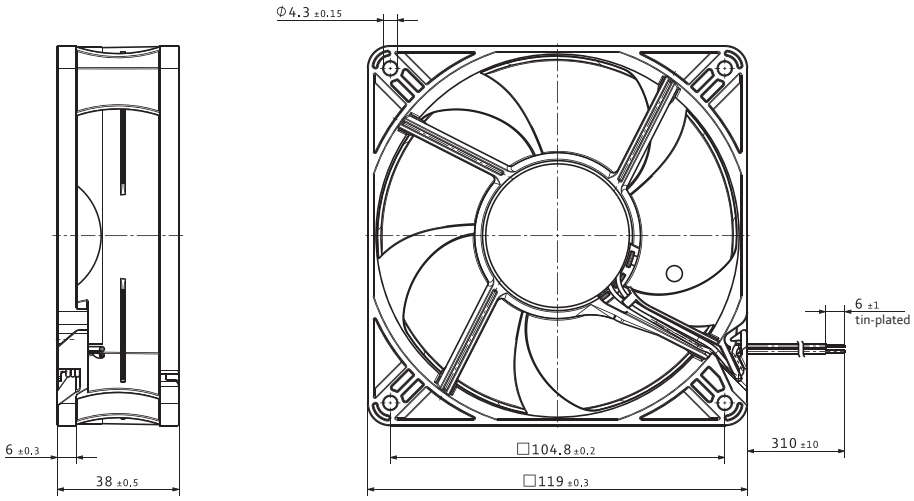
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP68

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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

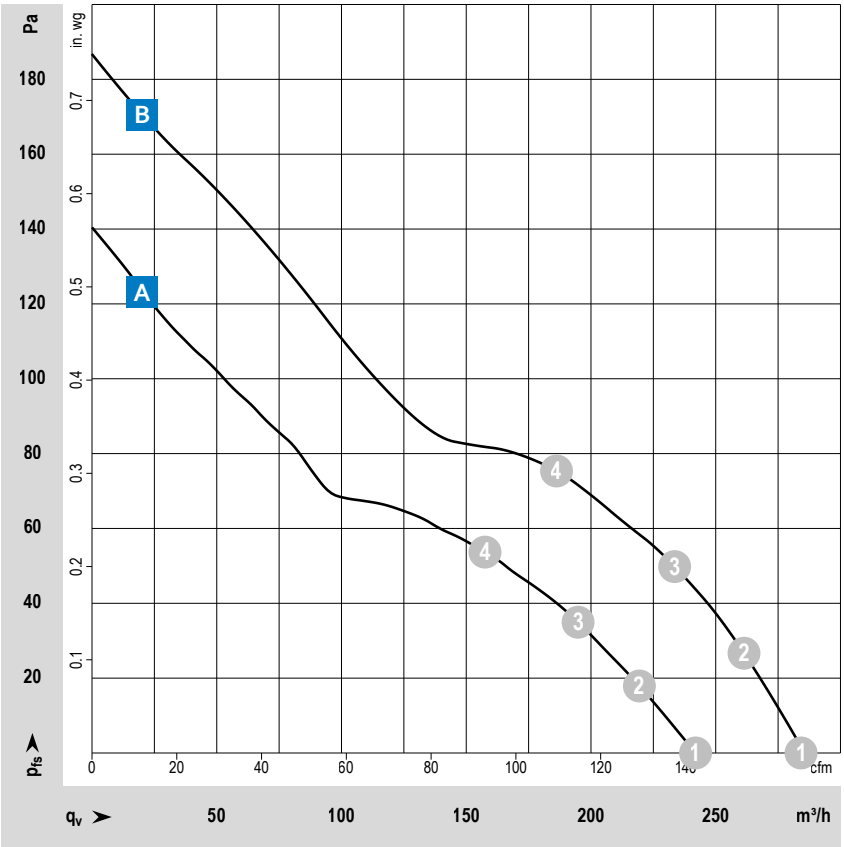


VWCF119A...

DC axial fan · max. 286 m³/h · ☐ 119 x 38 mm



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 $p_s$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

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

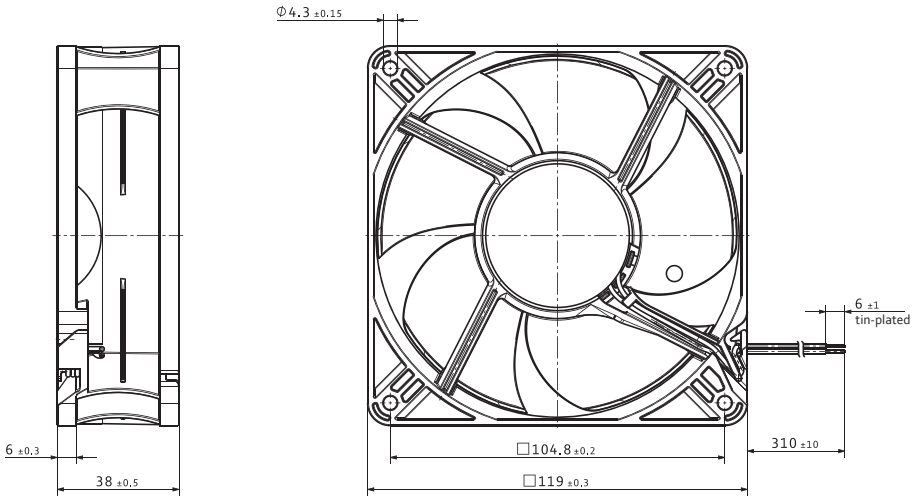
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Degree of protection: up to IP54

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCF119AHGMS 4412 H	**9293510500**	**12**	7...14	A	1 2 3 4	242 220 195 158	142 129 115 93	4 300 4 180 4 070 3 950	7.5 8.1 8.7 9.4	6.7 6.5 6.4 6.1	50	-20...+70	57 500	97 500
VWCF119AHGNS 4412/2 HHP	**9693530182**	**12**	7...14.5	B	1 2 3 4	272 254 233 189	160 149 137 111	5 000 5 000 5 000 4 890	10.8 12.7 14.5 15.8	6.8 6.7 6.6 6.6	55	-20...+70	50 000	85 000
VWCF119AJGMS 4414 H	**9293510502**	**24**	18...28	A	1 2 3 4	243 220 196 158	143 129 115 93	4 300 4 190 4 080 3 970	7.1 7.6 8.2 8.9	6.7 6.5 6.4 6.1	50	-20...+70	57 500	97 500
VWCF119AJGNS 4414 HH	**9293510524**	**24**	16...28	B	1 2 3 4	281 254 226 179	165 149 133 105	5 000 4 870 4 740 4 590	12.8 13.8 14.7 15.8	6.8 6.7 6.6 6.5	55	-20...+70	50 000	85 000
VWCF119AJGNS 4414/2 HHP	**9693530183**	**24**	18...28	B	1 2 3 4	286 263 234 187	168 155 138 110	5 000 4 950 4 840 4 690	11.3 12.7 13.7 14.5	6.8 6.7 6.6 6.6	55	-20...+70	50 000	85 000
VWCF119AKGMS 4418 H	**9293510504**	**48**	36...60	A	1 2 3 4	242 220 195 157	142 129 115 92	4 300 4 180 4 070 3 960	7.1 7.7 8.3 9.0	6.7 6.5 6.4 6.1	50	-20...+70	57 500	97 500
VWCF119AKGNS 4418/2 HHP	**9693530180**	**48**	36...60	B	1 2 3 4	279 259 232 189	164 152 137 111	5 000 4 990 4 880 4 740	10.9 12.4 13.2 14.3	6.8 6.7 6.6 6.6	55	-20...+70	50 000	85 000

Subject to changes.

Technical drawing

Dimensions in mm

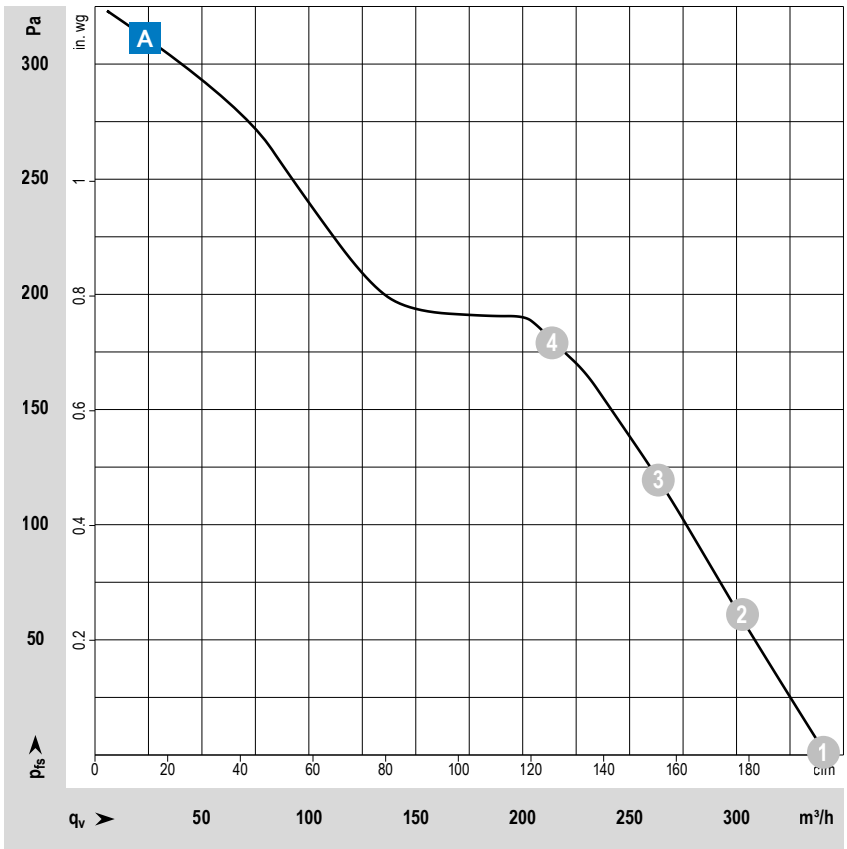


VWC0120KUJBS

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



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



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

Measuring conditions

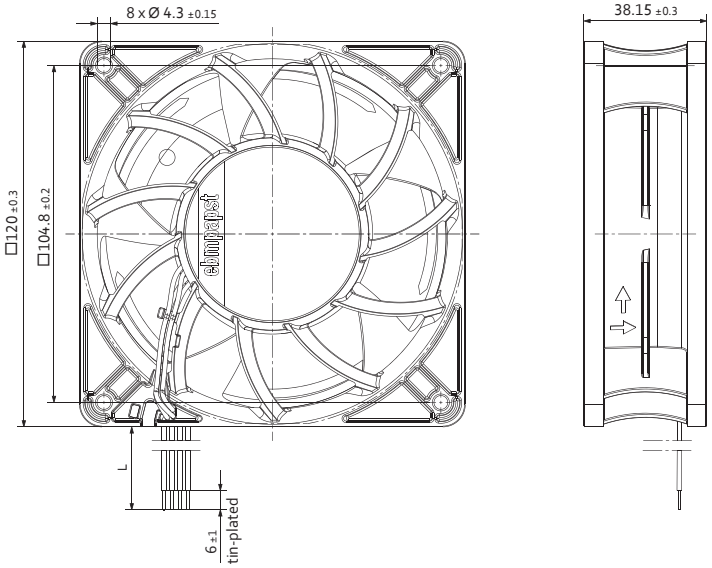
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{o}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWC0120KUJBS AxiForce 120	**8315100143**	**12**	10.8...13.2	A	1	341	201	6 500	29.9	7.2	59	-20...+70	45 000	75 000
					2	305	180	6 280	31.0	7.0				
					3	262	154	6 070	31.5	7.1				
					4	212	125	5 930	31.5	7.1				
VWC0120KUJBS AxiForce 120	**8315100142**	**24**	16...30	A	1	337	198	6 500	28.3	7.2	59	-20...+70	45 000	75 000
					2	303	178	6 280	29.1	7.0				
					3	263	155	6 100	29.9	7.1				
					4	212	125	6 000	30.4	7.1				
VWC0120KUJBS AxiForce 120	**8315100144**	**48**	36...60	A	1	342	201	6 500	28.6	7.2	59	-20...+70	45 000	75 000
					2	302	178	6 280	29.5	7.0				
					3	263	155	6 100	30.2	7.1				
					4	213	125	6 000	30.9	7.1				

Subject to changes.

Technical drawing

Dimensions in mm

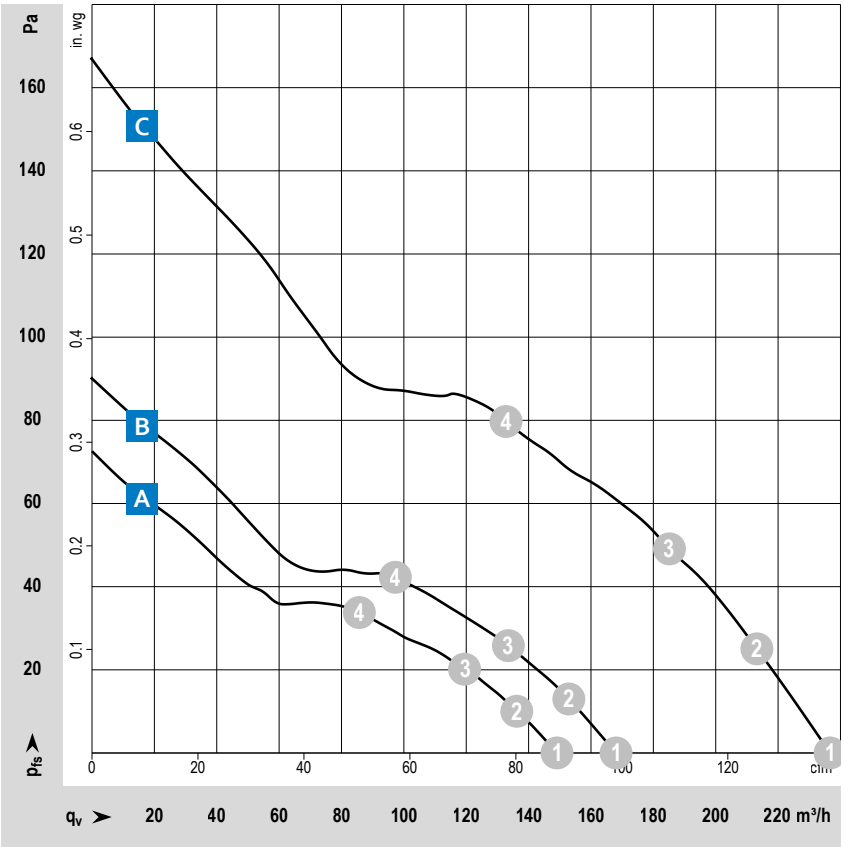


VUCF119Y...

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



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 $p_A$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

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

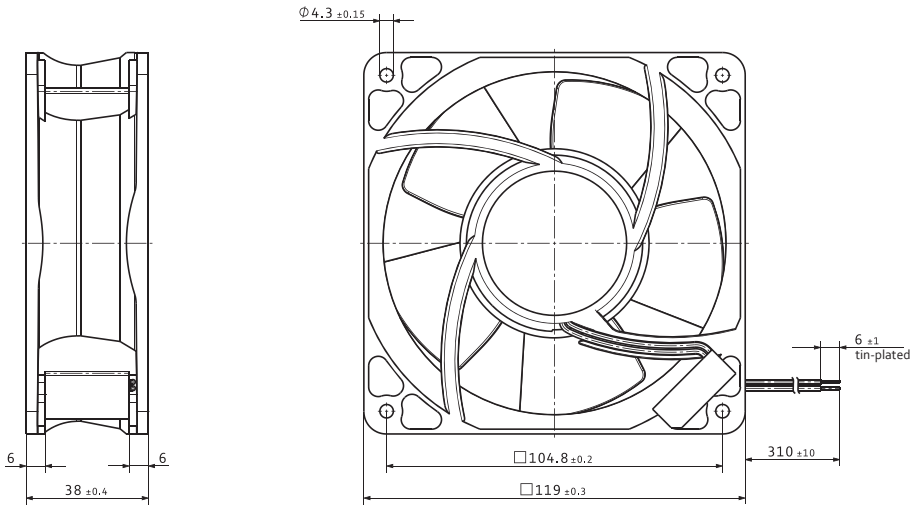
- Housing with grounding lug for screw M4 x 8 (Torx)

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) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VUCF119YHJKS 4182 NGX	**9294310105**	**12**	6...15	A	1 2 3 4	149 135 116 84	88 79 68 49	2 800 2 740 2 680 2 600	3.4 3.6 3.7 3.9	5.6 5.5 5.4 5.3	44	-20...+75	85 000	142 500
VUCF119YHJLS 4182 NX	**9294310107**	**12**	6...15	B	1 2 3 4	168 153 134 97	99 90 79 57	3 200 3 170 3 100 3 030	4.9 5.1 5.3 5.6	6.0 5.9 5.7 5.6	49	-30...+75	85 000	142 500
VUCF119YHJMS 4182 NXH	**9294310188**	**12**	7...14	C	1 2 3 4	237 213 185 133	139 125 109 78	4 400 4 290 4 190 4 070	9.9 10.4 11.0 11.7	6.8 6.7 6.5 6.4	57	-30...+55	70 000	117 500
VUCF119YJJKS 4184 NGX	**9294310104**	**24**	12...31.5	A	1 2 3 4	149 136 119 86	88 80 70 51	2 800 2 760 2 700 2 640	3.1 3.2 3.4 3.6	5.6 5.5 5.4 5.3	44	-20...+75	85 000	142 500
VUCF119YJJKS 4184 NXM	**9294310248**	**24**	12...31.5	A	1 2 3 4	149 136 119 86	88 80 70 51	2 800 2 760 2 720 2 660	3.1 3.3 3.5 3.7	5.6 5.5 5.4 5.3	44	-30...+75	85 000	142 500
VUCF119YJJLS 4184 NX	**9294310103**	**24**	12...31.5	B	1 2 3 4	169 153 133 96	99 90 78 57	3 200 3 120 3 050 2 970	4.4 4.6 4.9 5.1	6.0 5.9 5.7 5.6	49	-30...+70	85 000	142 500
VUCF119YJJMS 4184 NXH	**9294310138**	**24**	12...28	C	1 2 3 4	226 205 179 131	133 121 105 77	4 400 4 280 4 160 4 000	9.6 10.2 10.9 11.8	6.8 6.7 6.5 6.4	57	-30...+70	70 000	117 500
VUCF119YKJKS 4188 NGX	**9294310178**	**48**	36...60	A	1 2 3 4	148 135 118 85	87 79 69 50	2 800 2 750 2 690 2 630	3.0 3.2 3.4 3.6	5.6 5.5 5.4 5.3	44	-20...+75	85 000	142 500
VUCF119YKJKS 4188 NXM	**9294310106**	**48**	36...60	A	1 2 3 4	147 134 118 86	87 79 69 51	2 800 2 750 2 700 2 640	3.5 3.6 3.8 4.1	5.6 5.5 5.4 5.3	44	-30...+75	85 000	142 500

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

Technical drawing

Dimensions in mm

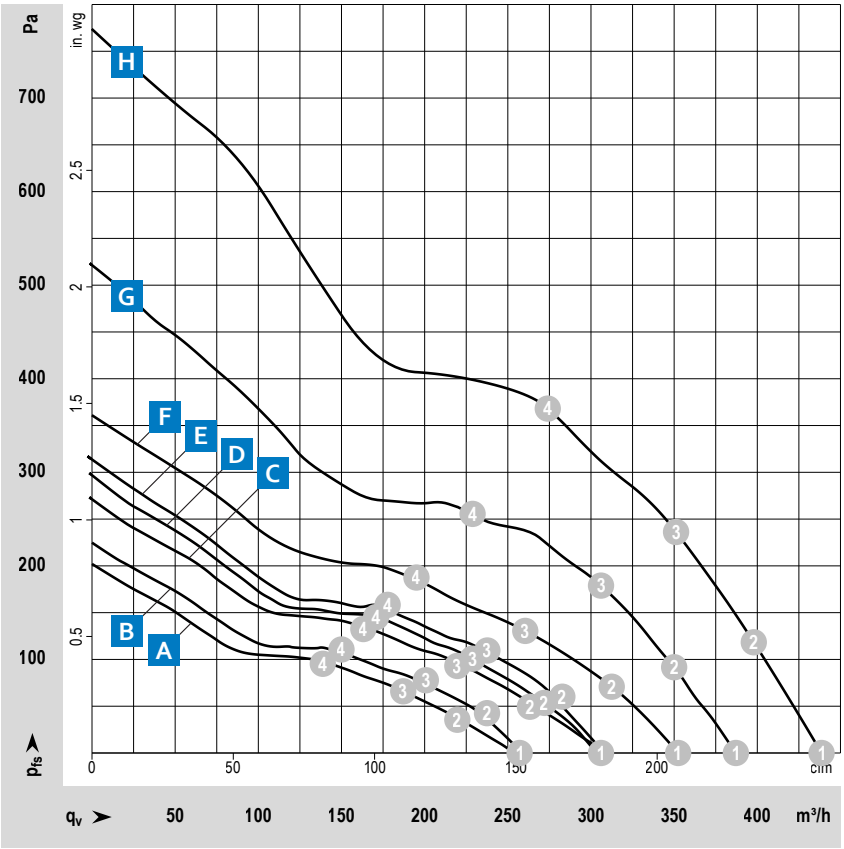


VUCF119Y...

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



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



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)

Measuring conditions

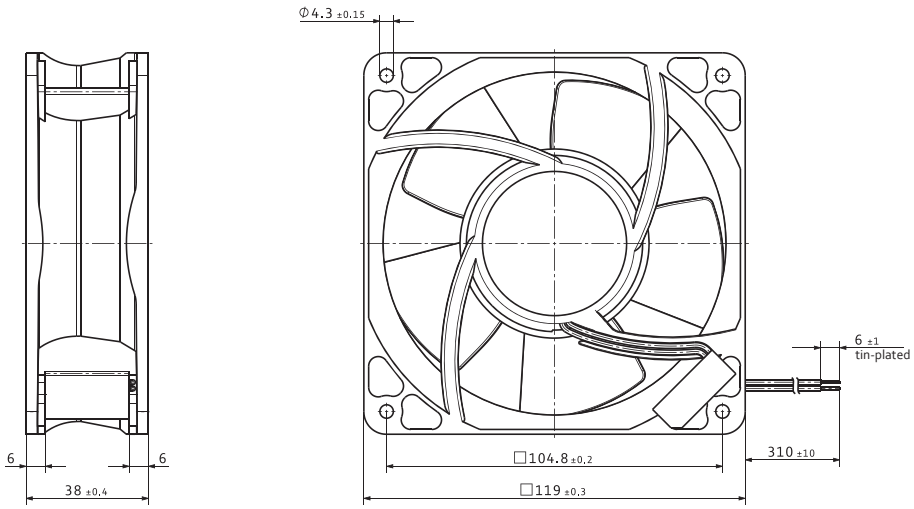
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VUCF119YHJNS 4112 NHH	**9694300225**	**12**	9...15	**B**	1 2 3 4	259 233 200 150	152 137 118 88	5 000 5 000 4 930 4 780	11.7 13.6 14.9 15.2	7.1 7.2 6.9 6.7	60	-20...+65	70 000	117 500
VUCF119YHJNS 4112 NH3	**9694300233**	**12**	9...15	**E**	1 2 3 4	308 279 238 177	181 164 140 104	6 000 6 000 5 840 5 650	18.9 22.6 24.6 25.1	7.5 7.4 7.2 7.2	65	-20...+65	65 000	110 000
VUCF119YHJPS 4112 NH4	**9694300260**	**v**	9...14	**F**	1 2 3 4	352 313 261 195	207 184 154 115	6 800 6 680 6 400 6 160	29.6 33.7 34.0 34.2	7.9 7.8 7.5 7.3	67	-20...+65	62 500	105 000
VUCF119YHJNS 4114 NHH	**9694300224**	**24**	12...30	**B**	1 2 3 4	259 235 199 149	152 138 117 88	5 000 5 000 4 860 4 700	11.4 13.6 14.3 14.6	7.1 7.0 6.9 6.7	60	-20...+65	70 000	117 500
VUCF119YJJNS 4114 NH3	**9694300234**	**24**	16...30	**D**	1 2 3 4	303 272 229 172	178 160 135 101	6 000 5 930 5 700 5 530	18.7 20.8 21.1 21.4	7.5 7.4 7.2 7.2	65	-20...+65	65 000	110 000
VUCF119YJJPS 4114 NH4	**9694300257**	**24**	16...30	**F**	1 2 3 4	348 309 260 195	205 182 153 115	6 800 6 760 6 460 6 280	31.3 37.2 38.5 39.2	7.9 7.8 7.5 7.3	67	-20...+65	62 500	105 000
VUCF119YJJPS 4114 NH5 S-Force	**9694300262**	**24**	16...30	**G**	1 2 3 4	387 351 306 229	228 207 180 135	7 500 7 490 7 490 7 280	42.8 48.1 52.3 50.5	8.1 8.1 7.9 7.8	70	-20...+65	62 500	105 000
VUCF119YJJQS 4114 NH6 S-Force	**9694300256**	**24**	16...30	**H**	1 2 3 4	439 399 351 274	258 235 207 161	8 400 8 380 8 380 8 380	69.9 78.7 88.0 96.0	8.6 8.5 8.3 8.3	73	-20...+65	60 000	102 500
VUCF119YKJNS 4118 NHH	**9694300226**	**48**	36...60	**A**	1 2 3 4	254 222 187 141	149 131 110 83	5 000 4 800 4 630 4 480	10.9 11.4 11.6 11.8	7.1 7.0 6.8 6.6	60	-20...+65	70 000	117 500
VUCF119YKJNS 4118 NH3	**9694300235**	**48**	36...60	**C**	1 2 3 4	309 266 222 166	182 157 131 98	6 000 5 690 5 440 5 250	19.1 19.0 19.0 19.0	7.5 7.4 7.1 6.9	65	-20...+65	65 000	110 000

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

Technical drawing

Dimensions in mm

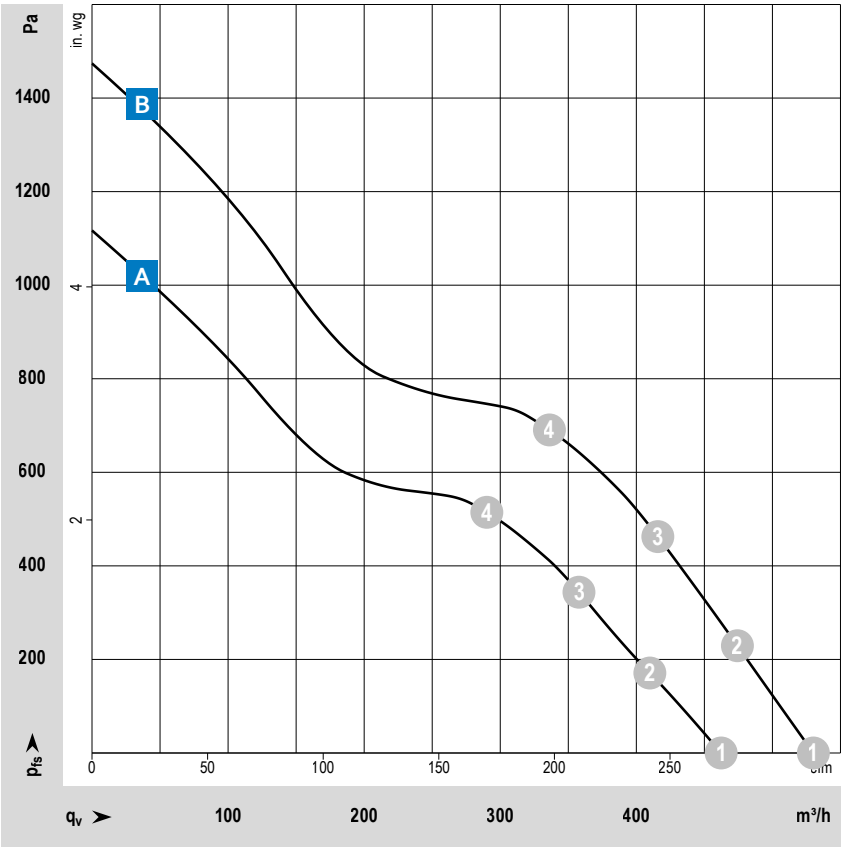


VUCF119Y...

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



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 $p_A$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

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)

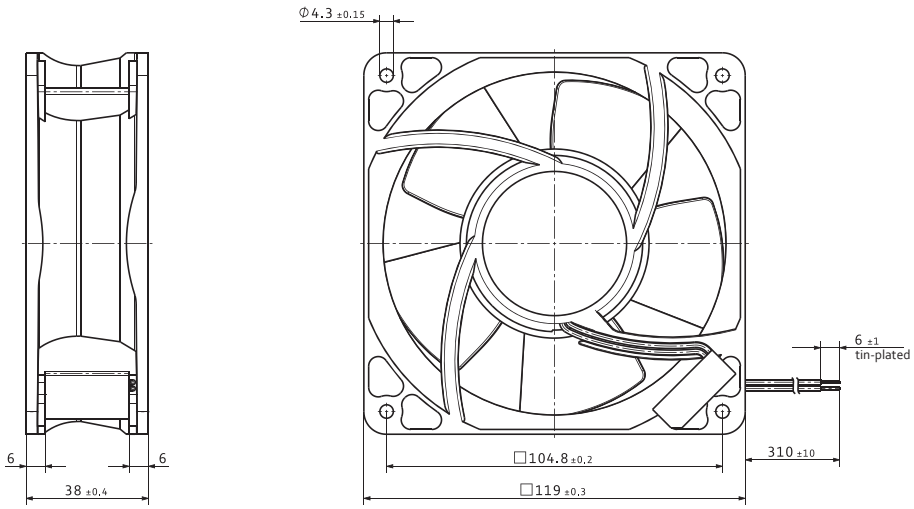
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VUCF119YJJQS 4154 N/2 H7P	**9694314033**	**24**	16...30	A	1 2 3 4	460 410 359 288	271 241 211 170	9 500 9 500 9 490 9 470	79.0 91.6 109.2 118.6	9.0 8.9 8.9 8.7	74	-20...+75	57 500	97 500
VUCF119YJJRS 4154 N/2 H8P	**9694314031**	**24**	16...30	B	1 2 3 4	530 474 416 336	312 279 245 198	11 000 11 040 11 050 11 050	122.6 145.1 175.9 194.3	9.2 9.2 9.2 9.0	81	-20...+75	55 000	92 500
VUCF119YKJQZ 4158 N/2 H7P	**9694314034**	**48**	36...60	A	1 2 3 4	462 410 358 290	272 241 211 171	9 500 9 500 9 500 9 500	79.5 92.4 111.9 122.1	9.0 8.9 8.9 8.7	74	-20...+75	57 500	97 500
VUCF119YKJRS 4158 N/2 H8P	**9694314028**	**48**	36...72	B	1 2 3 4	529 472 410 328	311 278 241 193	11 000 11 000 10 900 10 800	123.1 142.4 164.5 175.7	9.2 9.2 9.2 9.0	80	-20...+75	55 000	92 500

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

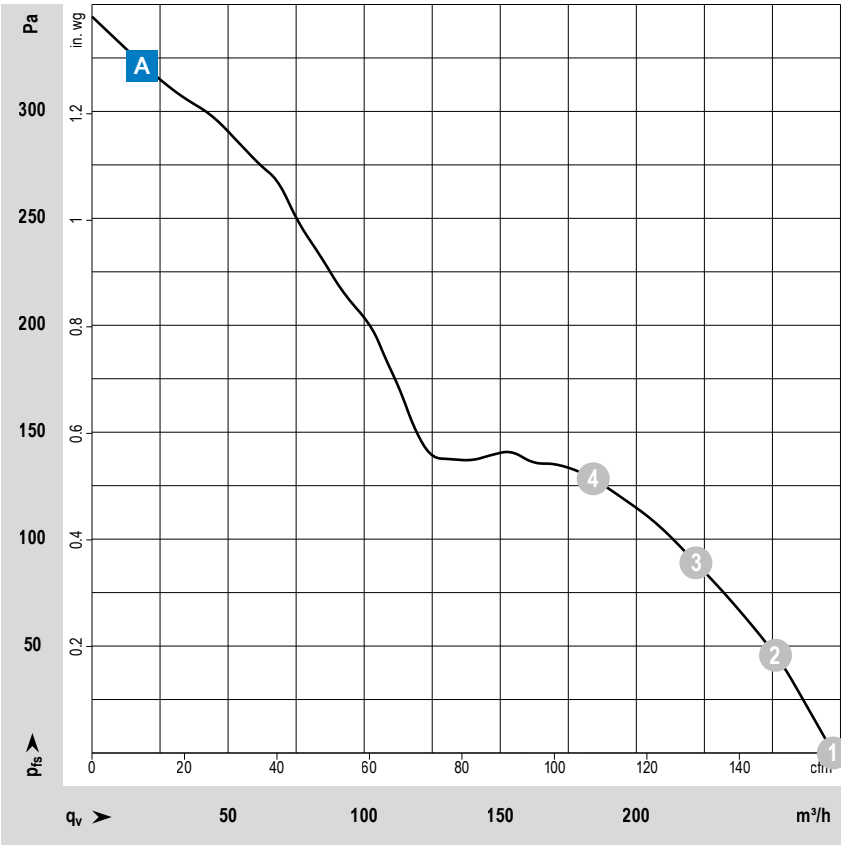


VKCF119A...

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



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_{ow}er 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

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

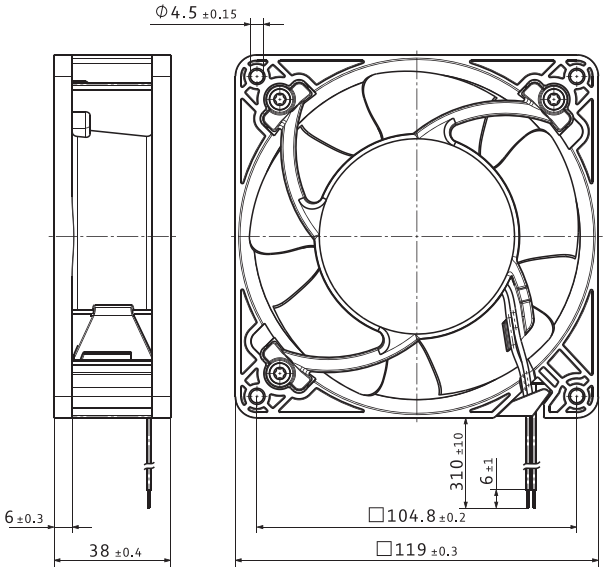
- Housing with grounding lug for screw M4 x 8 (Torx)

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	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

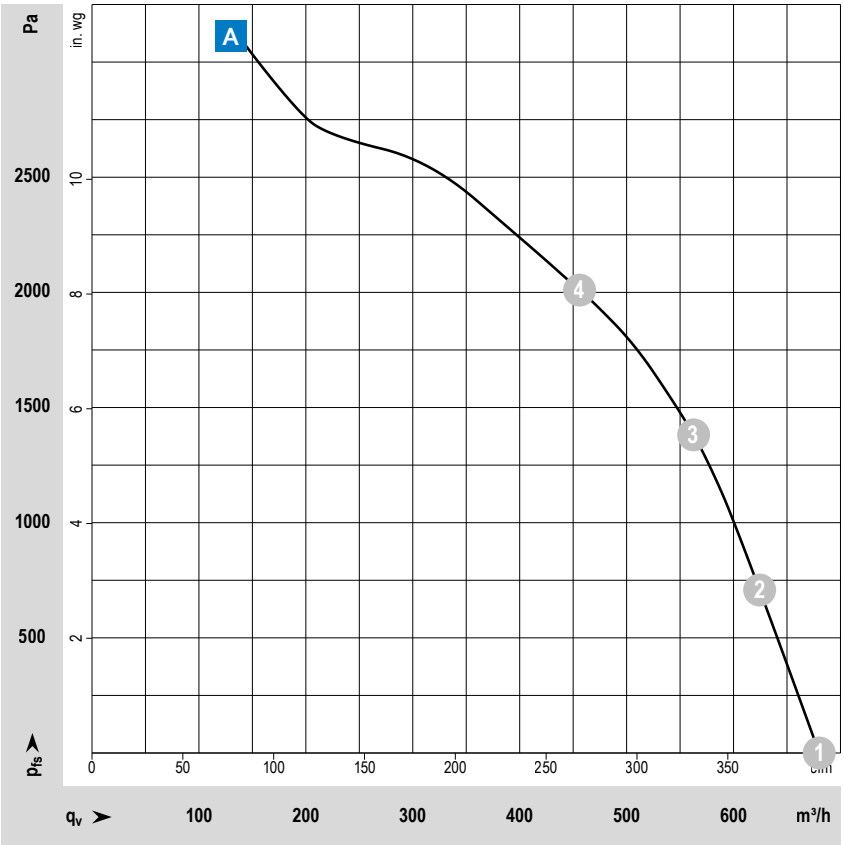


VKCK119DKLSS

DC axial fan · max. 680 m³/h · ☐ 119 x 86 mm



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 $p_A$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

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 aero-dynamic 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 Maintanance (FanCheck)
- Housing with grounding lug for screw M4 x 8 (Torx)

Special features

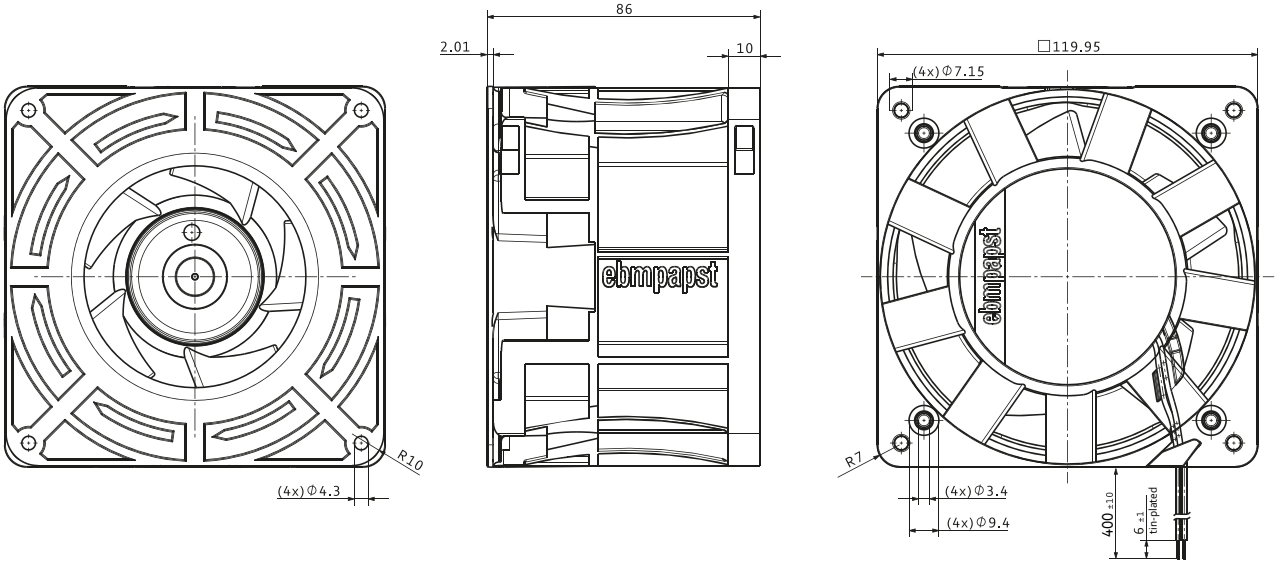
- Ready for Restart (R4R) enables safe startup with external drive

Typ	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_{10IPC} (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

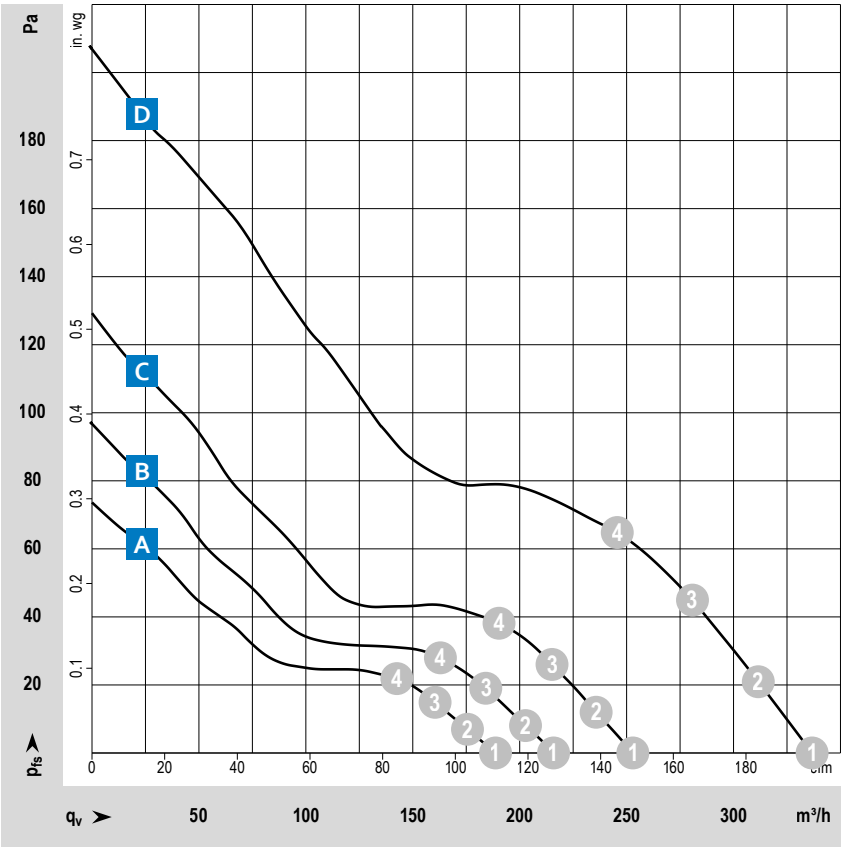


VWCF127Y...

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



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 $p_A$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

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

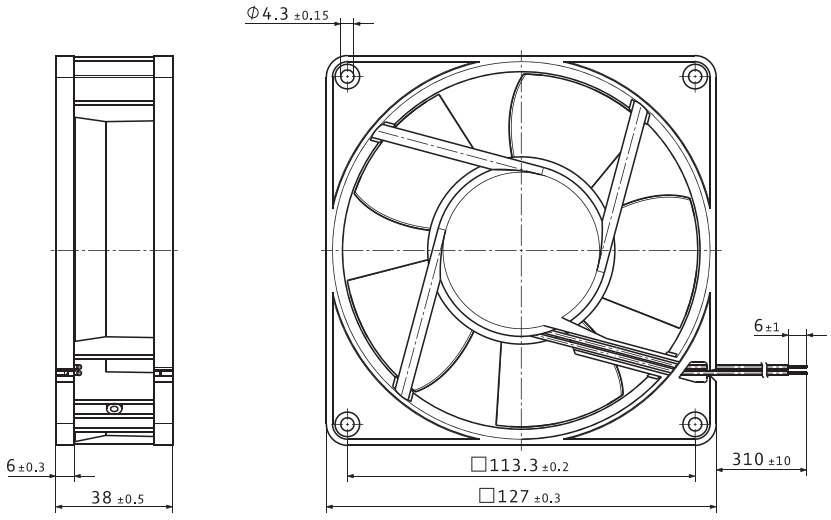
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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				
VWCF127YJJLS 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				
VWCF127YJJMS 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				
VWCF127YJJMS 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				
VWCF127YJJPS 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				

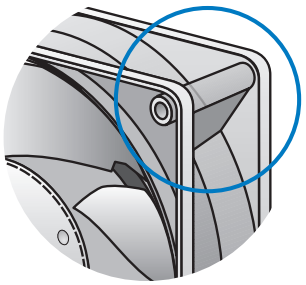
Subject to changes.

Technical drawing

Dimensions in mm



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

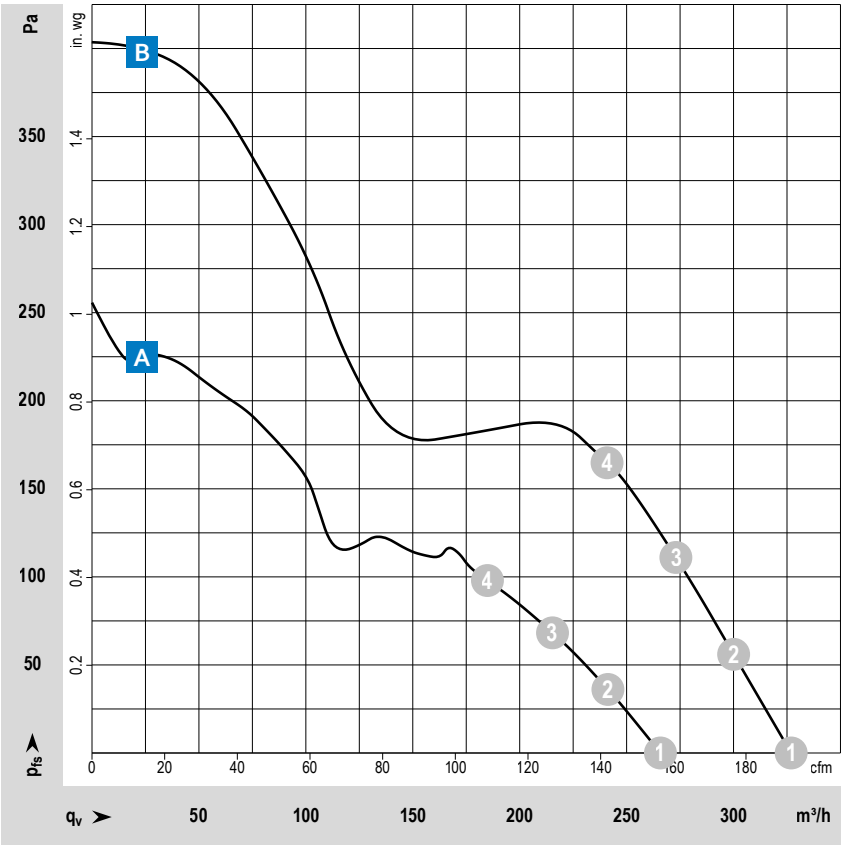


VKCF127A...

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



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



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)

Measuring conditions

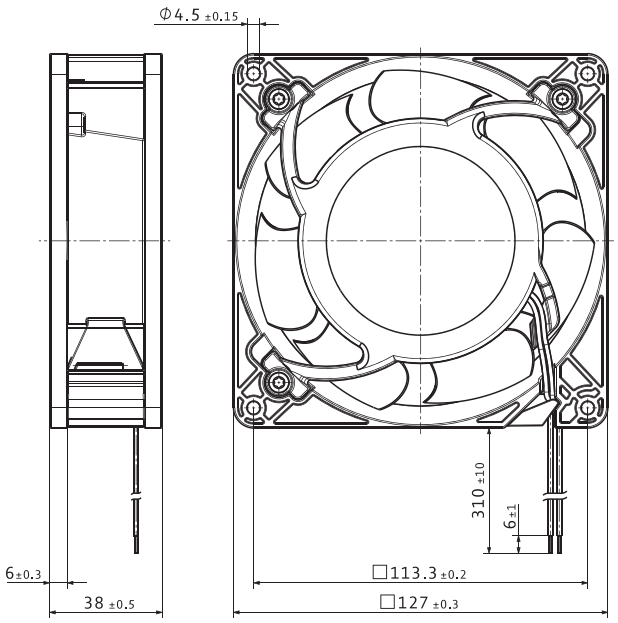
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VKCF127AHJNS DV 5212 N	**9694340031**	**12**	9...15	A	1 2 3 4	266 241 215 185	157 142 127 109	5 000 4 860 4 740 4 680	19.4 19.7 19.9 20.1	6.9 6.9 6.8 6.7	56	-20...+65	70 000	117 500
VKCF127AJJNS DV 5214 N	**9694340091**	**24**	16...30	A	1 2 3 4	265 247 219 188	156 145 129 111	5 000 4 990 4 890 4 840	18.1 20.2 20.4 20.5	6.9 6.9 6.8 6.7	56	-20...+65	70 000	117 500
VKCF127AKJNS DV 5218 N	**9694340151**	**48**	36...60	A	1 2 3 4	266 238 213 184	157 140 125 108	5 000 4 870 4 770 4 710	18.5 18.6 18.7 18.7	6.9 6.9 6.8 6.7	56	-20...+65	70 000	117 500
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 2 3 4	327 300 273 241	192 177 161 142	6 000 6 000 6 000 6 000	34.2 38.6 43.1 45.8	7.4 7.3 7.3 7.2	62	-20...+65	62 500	105 000

Subject to changes.

Technical drawing

Dimensions in mm

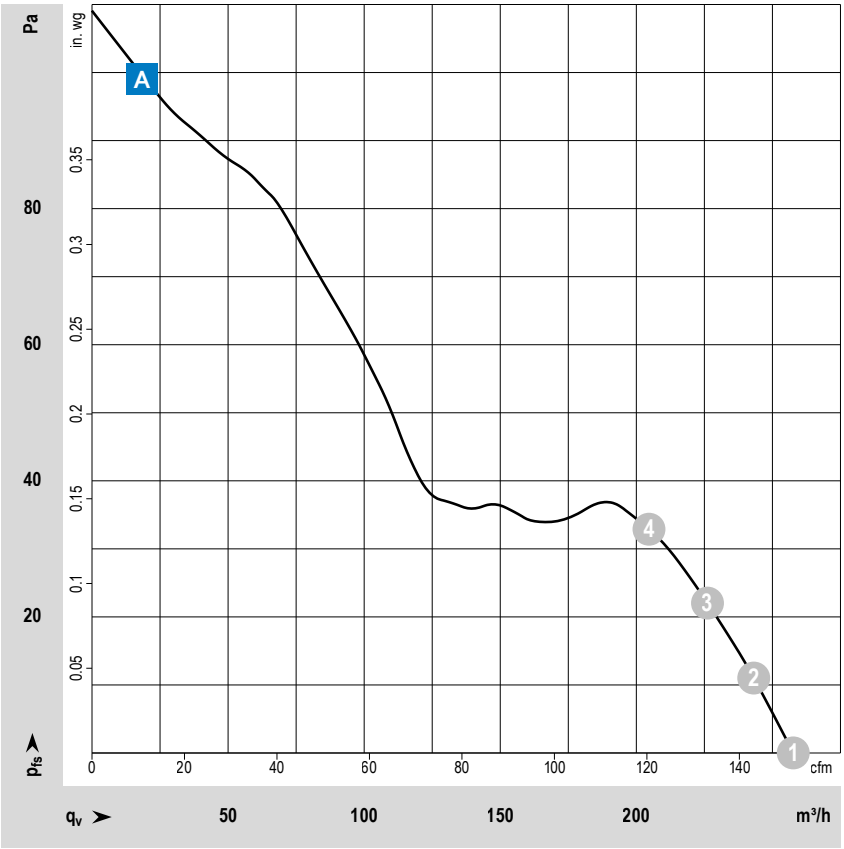


VWCF135Y...

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



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



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

Measuring conditions

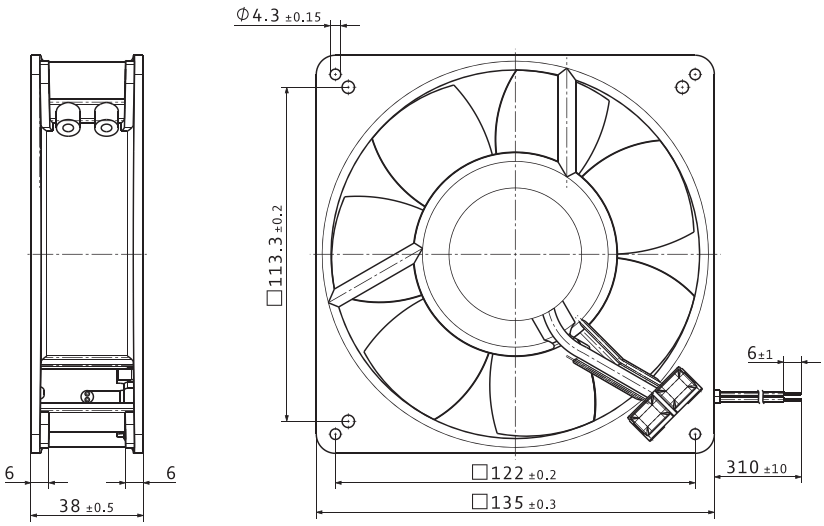
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCF135YHLNS 5112 N	**9295410020**	**12**	6...15	A	1	254	149	2 900	9.1	6.2	48	-25...+72	80 000	135 000
					2	239	141	2 870	9.4	6.1				
					3	222	131	2 850	9.6	6.1				
					4	201	118	2 840	9.7	6.1				
VWCF135YJLNS 5114 N	**9295410021**	**24**	12...30	A	1	255	150	2 900	9.3	6.2	48	-25...+75	80 000	135 000
					2	241	142	2 880	9.5	6.1				
					3	224	132	2 860	9.7	6.1				
					4	203	119	2 850	9.8	6.1				
VWCF135YKLNS 5118 N	**9295410061**	**48**	24...60	A	1	258	152	2 900	9.4	6.2	48	-25...+75	80 000	135 000
					2	243	143	2 880	9.6	6.1				
					3	226	133	2 870	9.8	6.1				
					4	205	121	2 860	10.0	6.1				

Subject to changes.

Technical drawing

Dimensions in mm

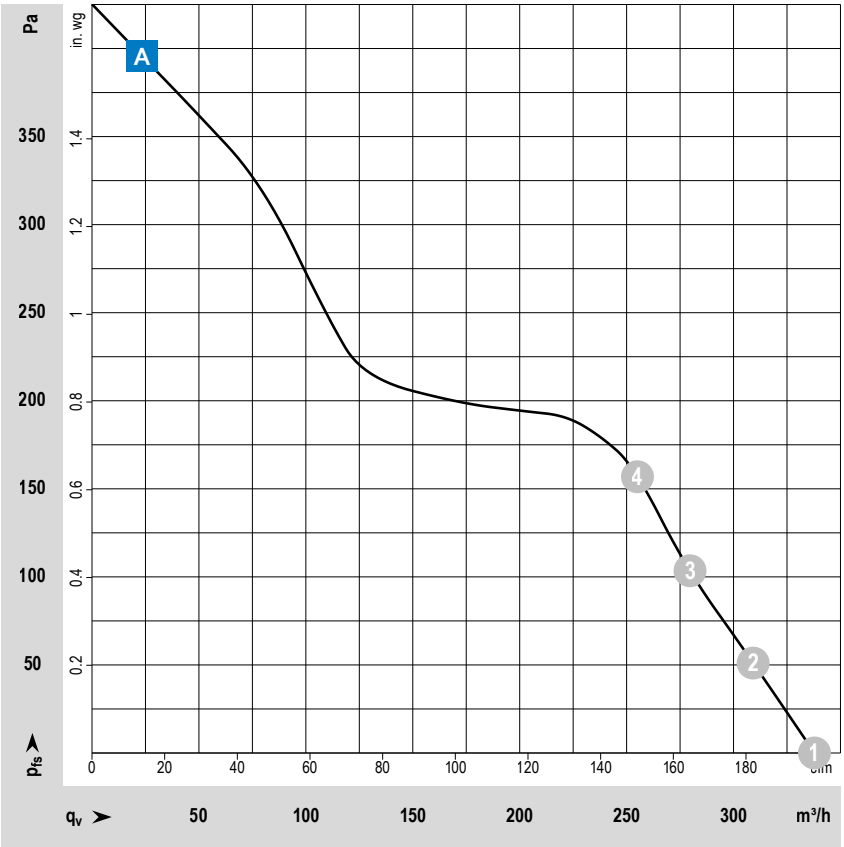


VUCG140A...

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



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



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)

Measuring conditions

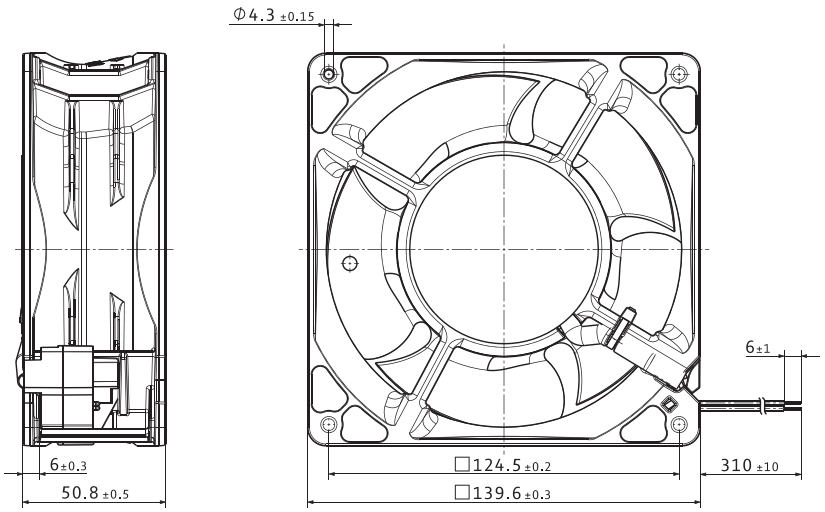
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/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

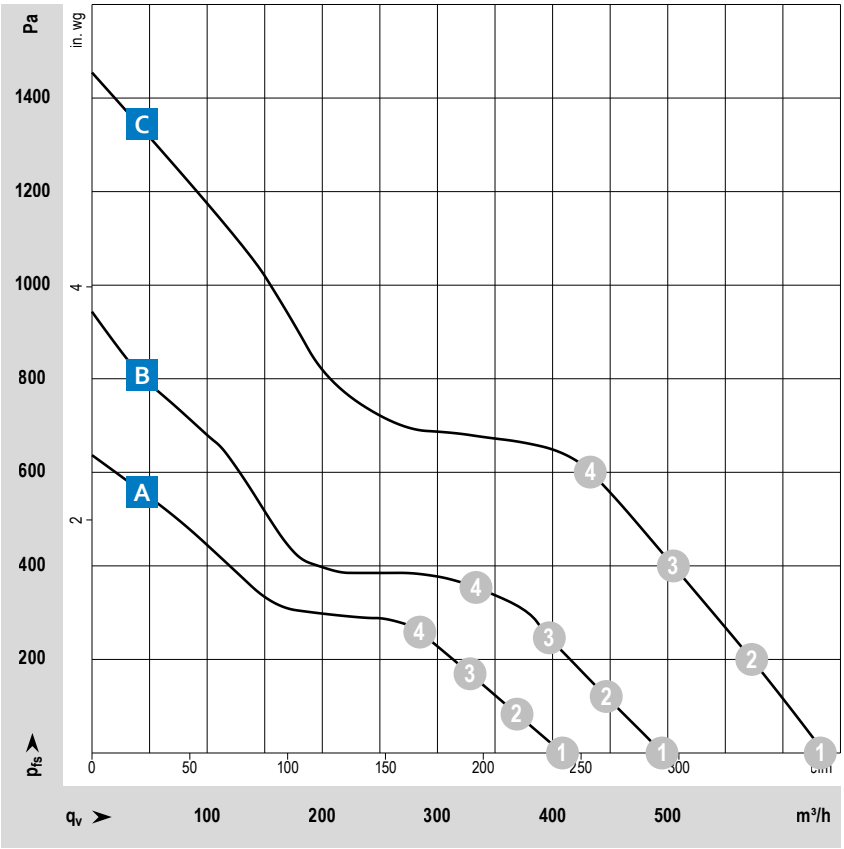


VUCG140A...

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



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



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)

Measuring conditions

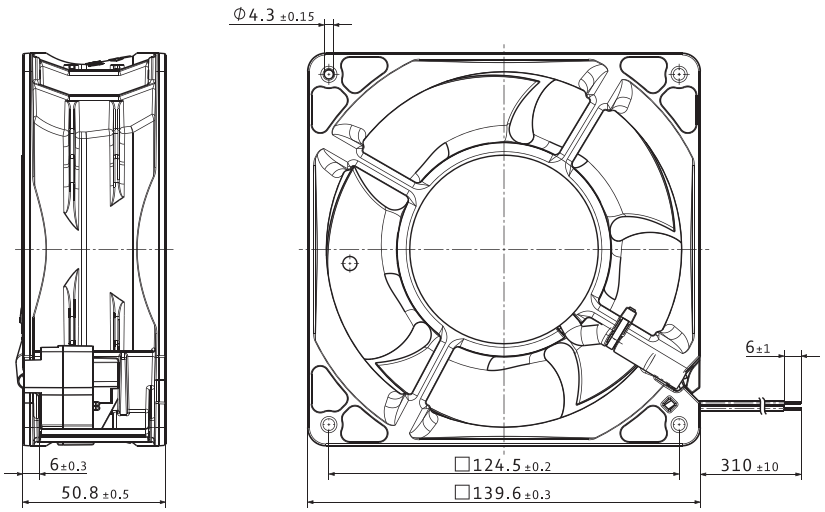
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VUCG140AHLQS 5312/2 TDHP	**9295420501**	**12**	8...16	A	1 2 3 4	406 367 327 285	239 216 192 168	6 000 6 000 6 000 6 000	44.7 51.7 55.5 59.9	8.4 8.3 8.3 8.1	70	-20...+70	70 000	117 500
VUCG140AJLQS 5314/2 TDHP	**9295420502**	**24**	16...36	A	1 2 3 4	409 369 328 285	241 217 193 168	6 000 6 000 6 000 6 000	43.9 50.3 54.0 59.4	8.4 8.3 8.3 8.1	70	-20...+70	70 000	117 500
VUCG140AJLQS 5314/2 TDHHP	**9295420504**	**24**	16...36	B	1 2 3 4	495 447 397 334	291 263 234 197	7 000 7 000 7 000 7 000	66.4 77.5 86.3 94.6	8.5 8.5 8.5 8.4	75	-20...+70	62 500	105 000
VUCG140AKLQS 5318/2 TDHP	**9295420503**	**48**	36...72	A	1 2 3 4	407 370 333 287	240 218 196 169	6 000 6 000 6 000 5 980	43.5 50.0 54.7 58.9	8.4 8.3 8.3 8.1	70	-20...+70	70 000	117 500
VUCG140AKLQS 5318/2 TDHHP	**9295420505**	**48**	36...72	B	1 2 3 4	477 437 390 337	281 257 230 198	7 000 7 000 7 000 7 000	65.5 76.8 85.0 92.4	8.5 8.5 8.5 8.4	75	-20...+70	62 500	105 000
VUCG140AKLSS 5318/2 TDH4P	**9295420500**	**48**	36...72	C	1 2 3 4	636 573 505 434	374 337 297 255	9 200 9 200 9 200 9 170	158.8 181.2 199.0 215.8	9.4 9.4 9.4 9.3	79	-20...+65	57 500	97 500

Subject to changes.

Technical drawing

Dimensions in mm

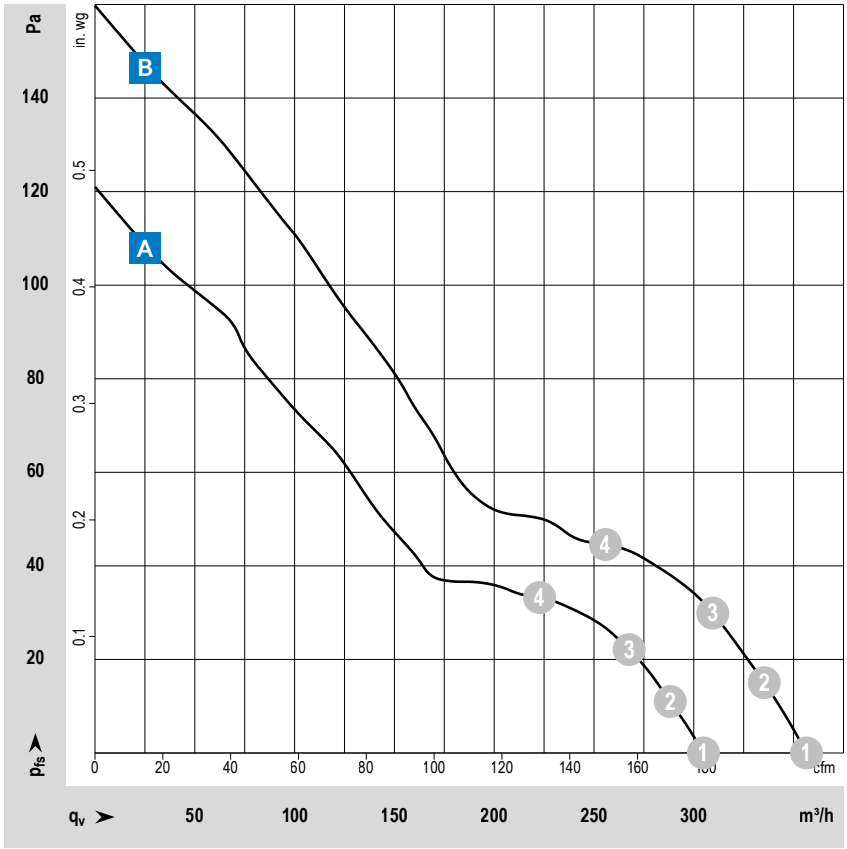


VWEF150X...

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



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



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)

Measuring conditions

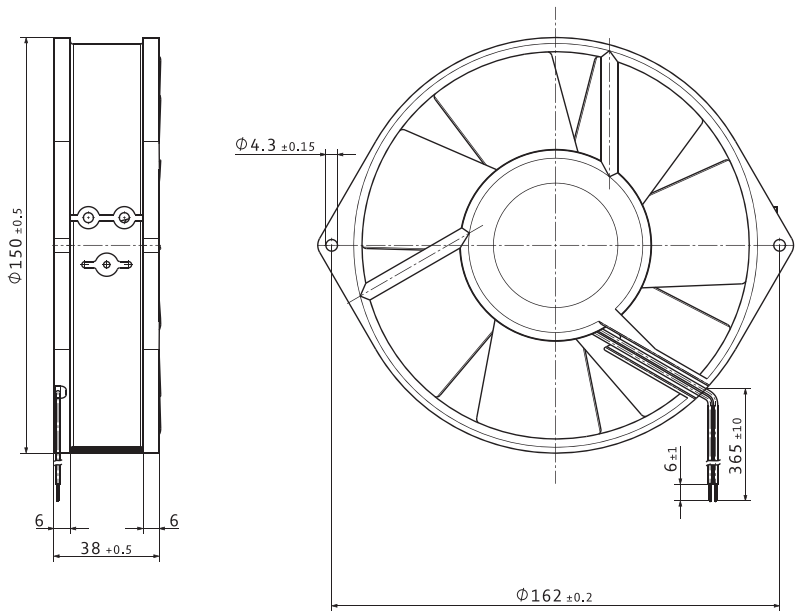
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{o}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/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

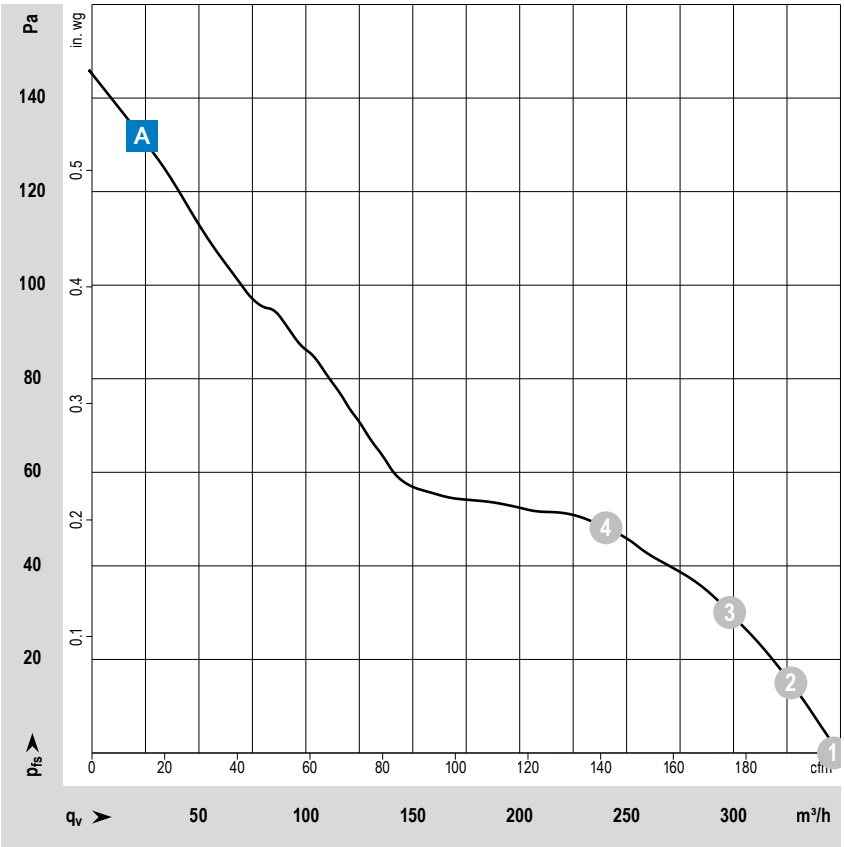


VWEH150X...

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



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



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)

Measuring conditions

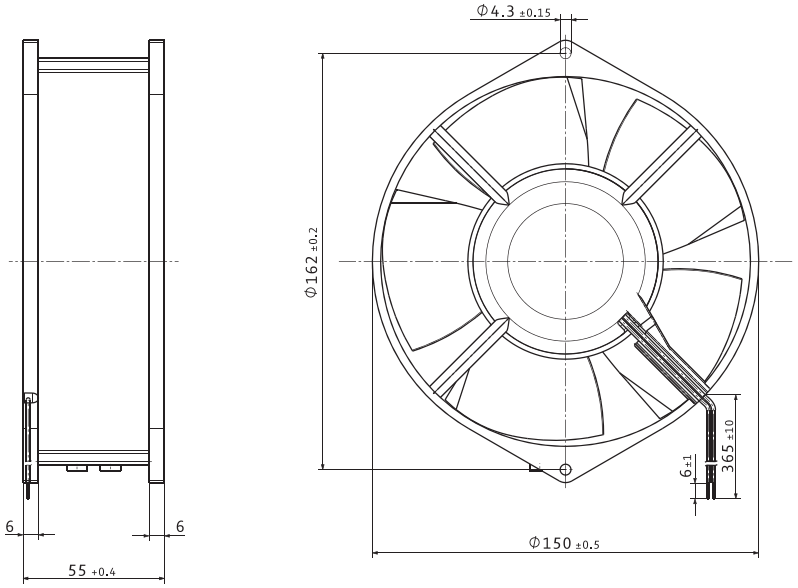
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{o}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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

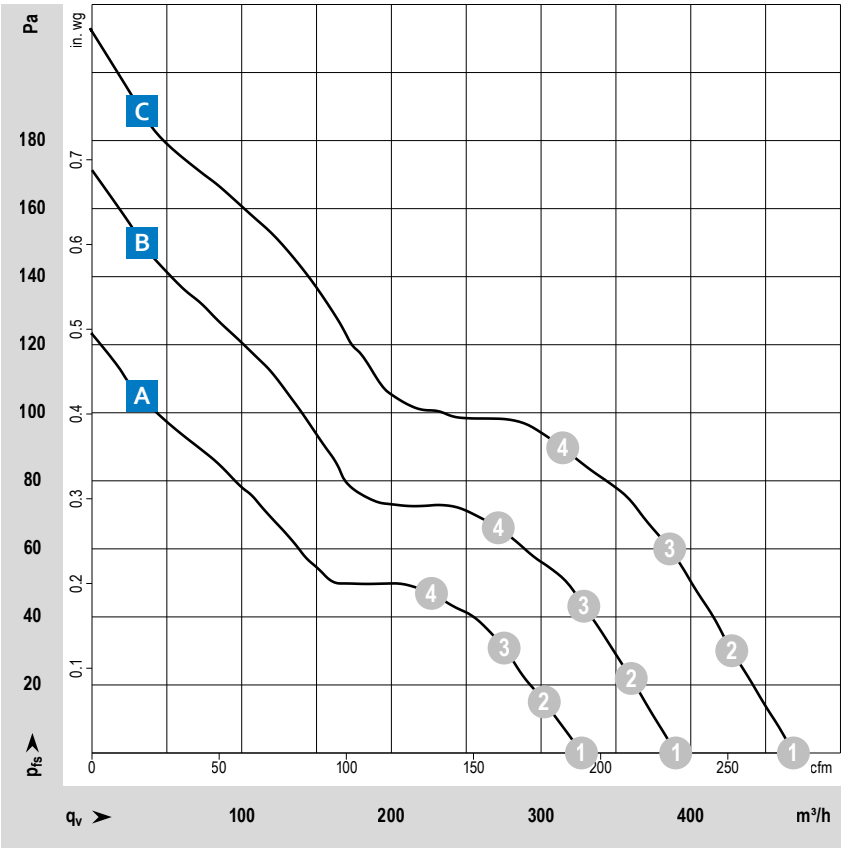


VWLG150X...

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



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



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)

Measuring conditions

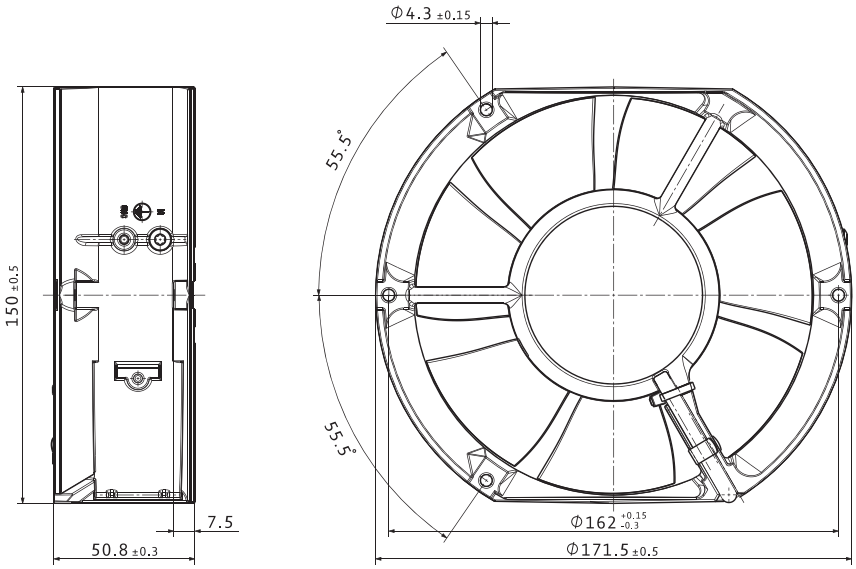
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWLG150XHLPS 6412 M	**9295414359**	**12**	8...15	A	1 2 3 4	327 302 276 227	192 178 162 134	2 850 2 800 2 780 2 740	10.4 11.0 11.6 12.0	6.4 6.3 6.2 6.1	52	-20...+72	80 000	135 000
VWLG150XJLPS 6424 M	**9295414304**	**24**	12...32	A	1 2 3 4	325 303 276 228	191 178 162 134	2 850 2 810 2 770 2 750	10.3 10.8 11.4 11.8	6.4 6.3 6.2 6.1	52	-20...+72	80 000	135 000
VWLG150XJLPS 6424	**9295414301**	**24**	12...28	B	1 2 3 4	390 361 328 271	230 212 193 160	3 400 3 330 3 280 3 230	16.2 17.0 17.8 18.5	6.8 6.7 6.6 6.5	57	-20...+72	75 000	127 500
VWLG150XJLQS 6424 H	**9295414327**	**24**	12...28	C	1 2 3 4	464 425 383 313	273 250 225 184	4 000 3 880 3 770 3 680	22.8 23.4 23.9 24.6	7.3 7.2 7.0 6.9	63	-20...+55	70 000	117 500
VWLG150XKLPS 6448	**9295414300**	**48**	28...60	B	1 2 3 4	389 358 324 267	229 211 191 157	3 400 3 330 3 260 3 200	14.1 14.7 15.0 15.2	6.8 6.7 6.6 6.5	57	-20...+72	75 000	127 500
VWLG150XKLQS 6448 H	**9295414379**	**48**	28...60	C	1 2 3 4	469 427 386 315	276 251 227 185	4 000 3 900 3 800 3 730	22.8 23.6 24.4 25.2	7.3 7.2 7.0 6.9	63	-20...+55	70 000	117 500

Subject to changes.

Technical drawing

Dimensions in mm

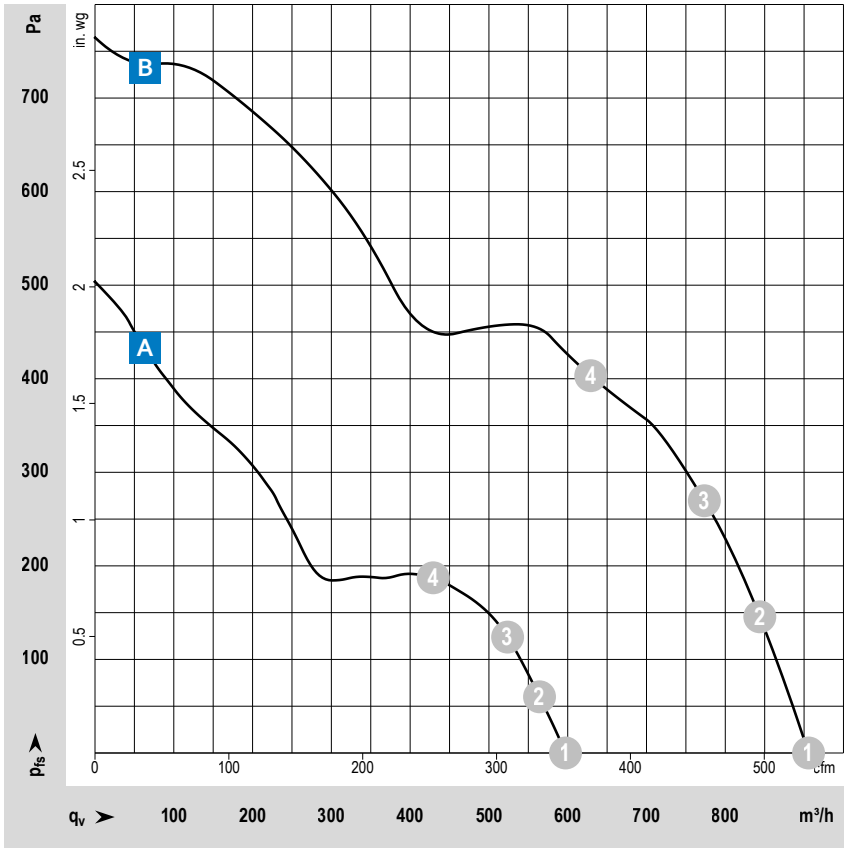


VWLG150X...

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



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



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)

Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{o}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

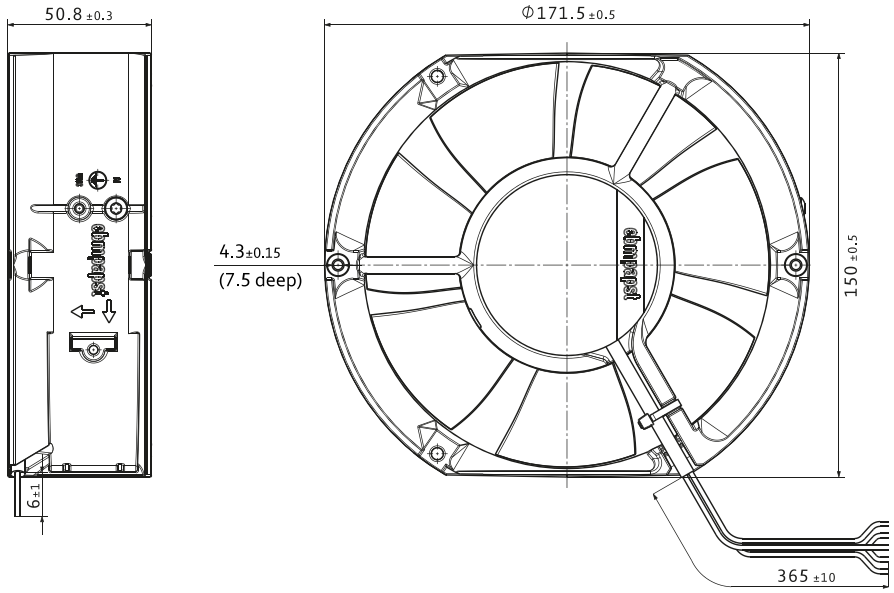
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (freiblasend)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWLG150XKLSZ 6448/2TDP-378	**9295414378**	**48**	36...72	A	1 2 3 4	597 564 524 429	351 332 308 252	5 100 5 100 5 100 5 100	50.4 57.5 64.7 69.1	8.0 7.9 7.9 7.8	65	-20...+60	70 000	117 500
VWLG150XKLUS 6448/2TDHHP	**9295414391**	**48**	36...72	B	1 2 3 4	906 848 774 629	533 499 456 370	7 500 7 500 7 380 7 230	160.1 183.3 195.0 200.0	9.2 9.1 8.8 8.6	80	-20...+60	70 000	117 500

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

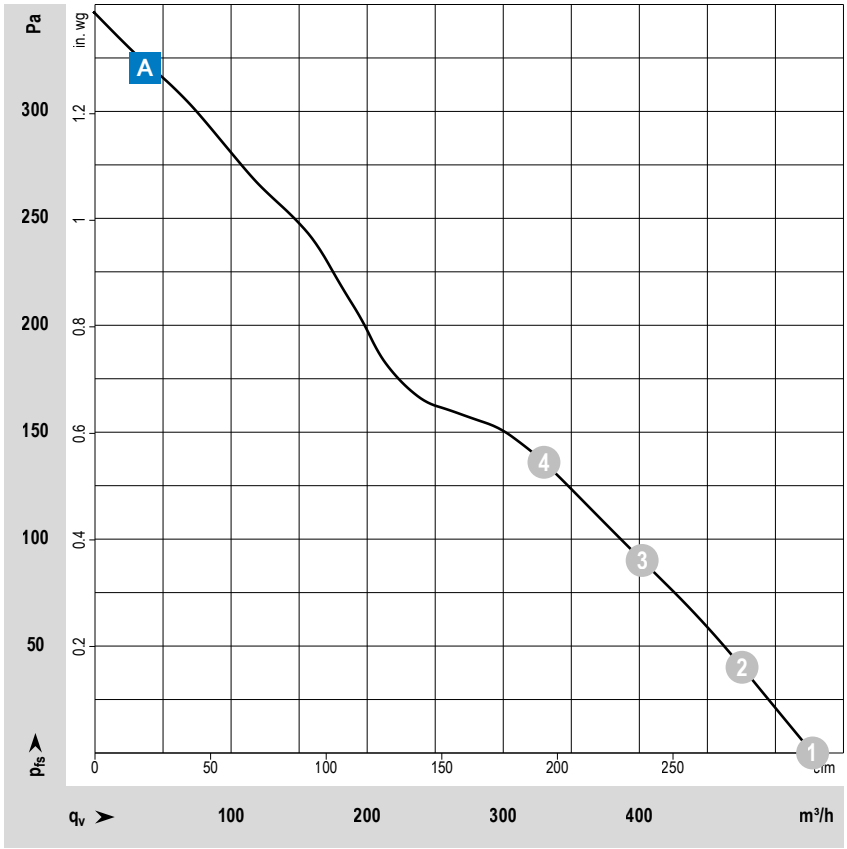


VKLG160X...

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



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



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)

Measuring conditions

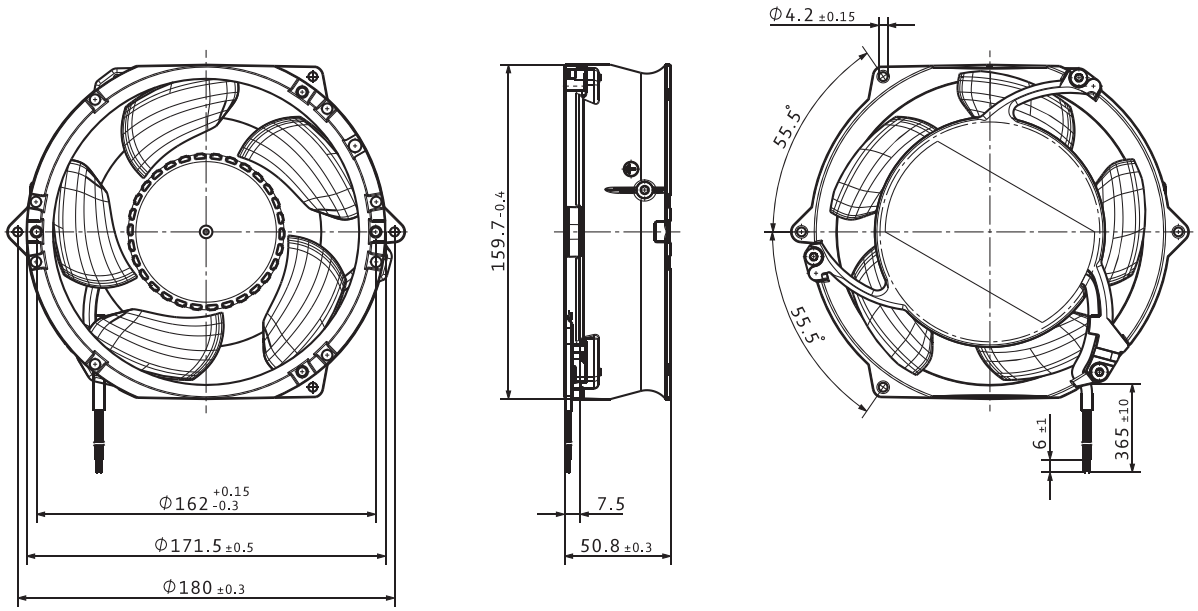
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VKLG160XJLRS DV 6424	**9295414549**	**24**	16...28	A	1 2 3 4	516 469 397 326	304 276 234 192	4 300 4 180 4 050 4 040	38.6 39.4 40.1 40.1	7.5 7.4 7.3 7.2	65	-20...+75	90 000	152 500
VKLG160XKLRS DV 6448/12	**9295414538**	**48**	28...60	A	1 2 3 4	527 475 402 330	310 280 237 194	4 300 4 160 4 000 3 950	38.9 39.1 39.0 38.9	7.5 7.4 7.3 7.2	65	-20...+75	90 000	152 500

Subject to changes.

Technical drawing

Dimensions in mm

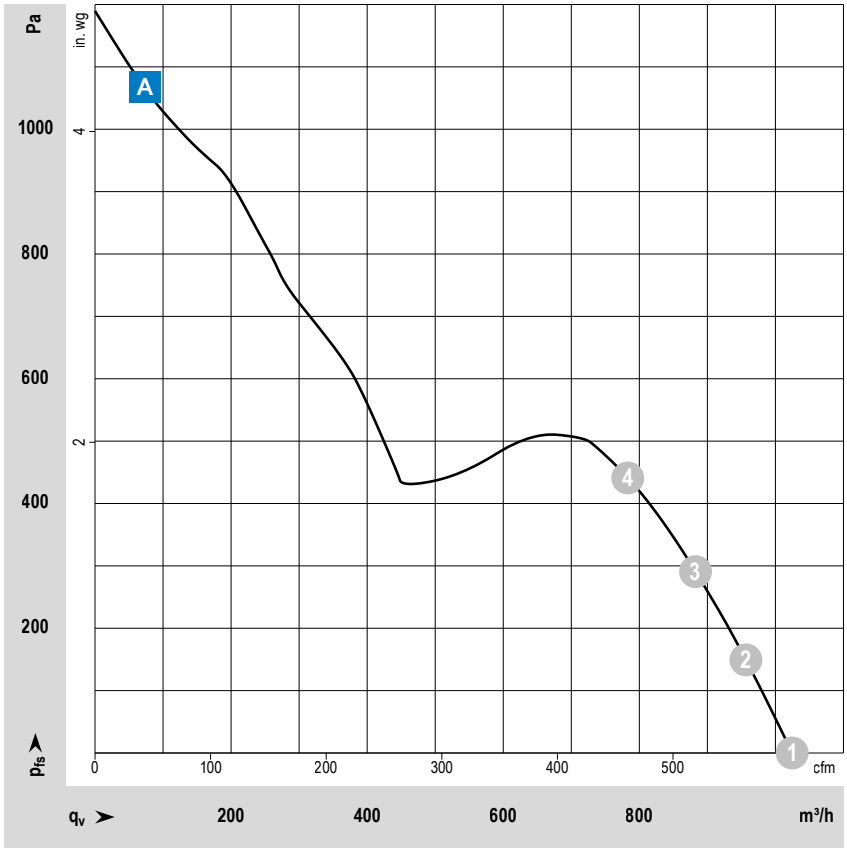


VWEG172PKLUS

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



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



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)

Measuring conditions

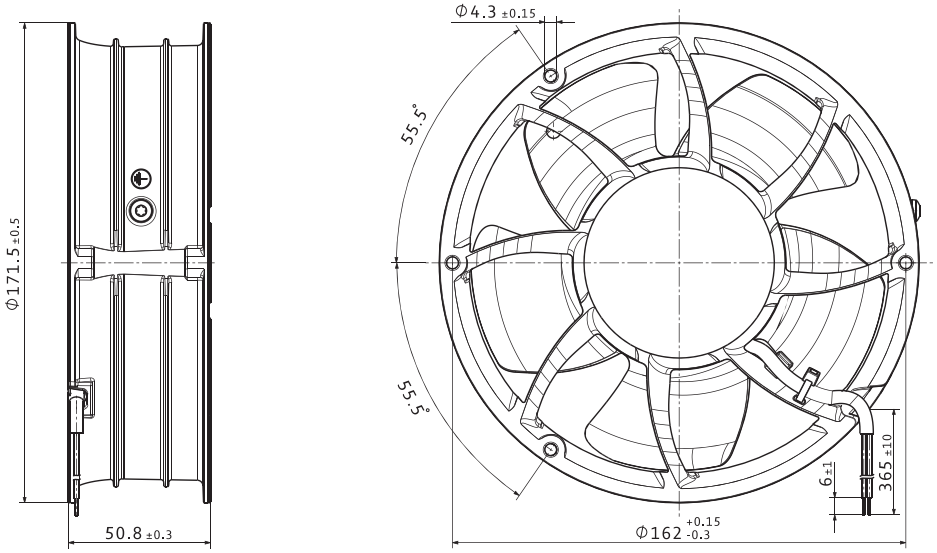
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWEG172PKLUS 6318 N/2 TDH3P-303	**9295420303**	**48**	36...72	A	1 2 3 4	1 025 959 883 783	603 564 520 461	7 500 7 500 7 500 7 500	171.2 193.9 214.2 229.8	8.7 8.6 8.6 8.5	76	-20...+70	60 000	102 500

Subject to changes.

Technical drawing

Dimensions in mm

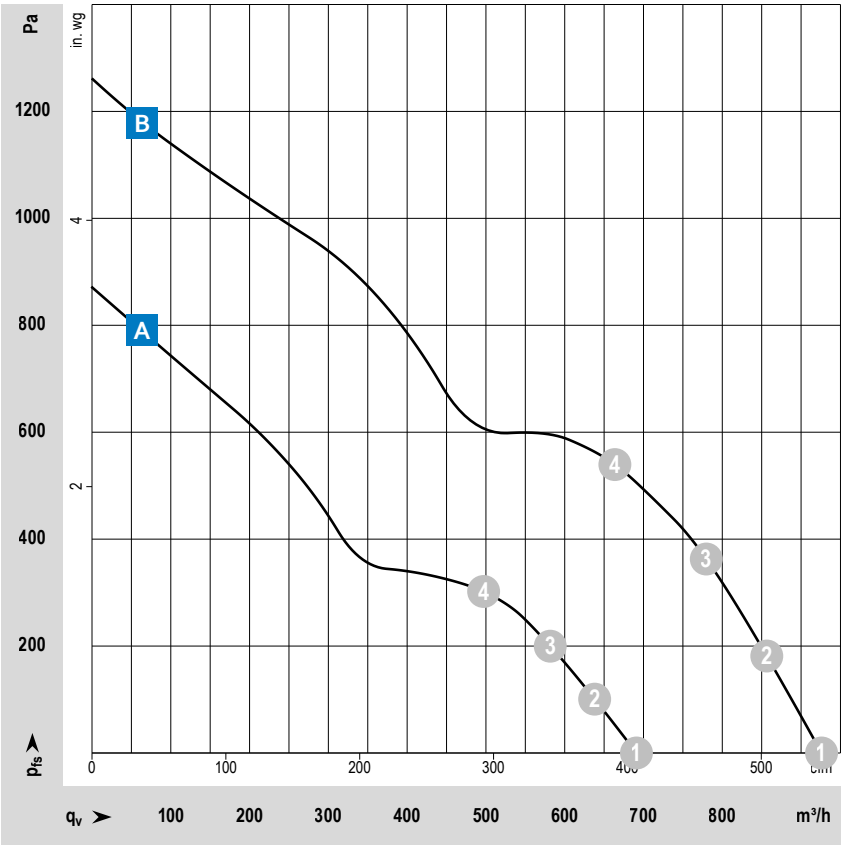


VWEG172X...

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



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 $p_A$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

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

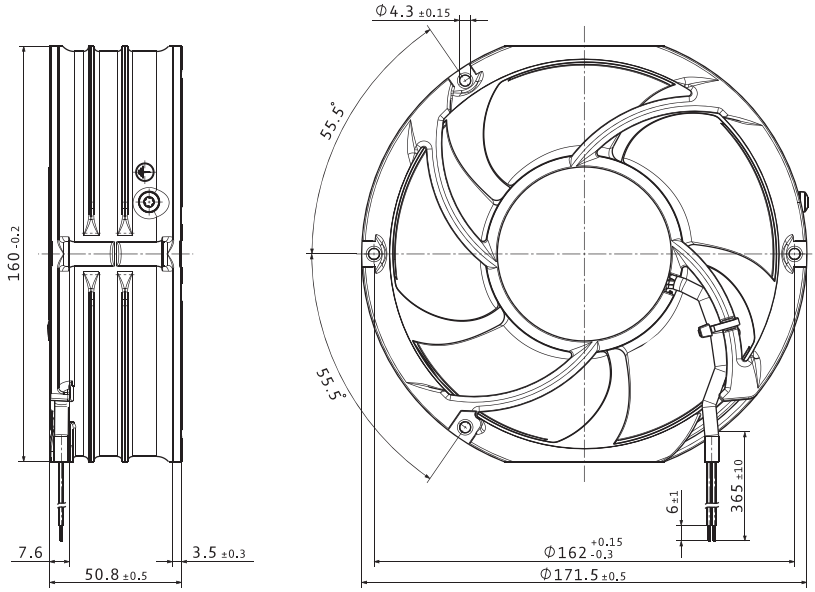
- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWEG172XJLSS 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

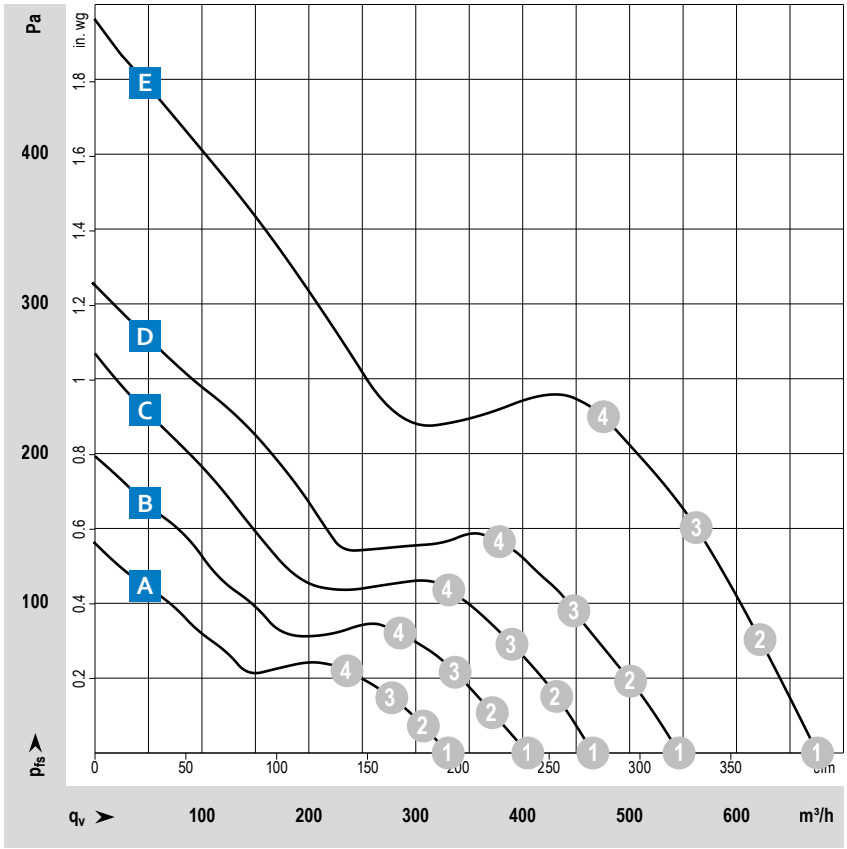


VWEG172P...

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



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



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)

Measuring conditions

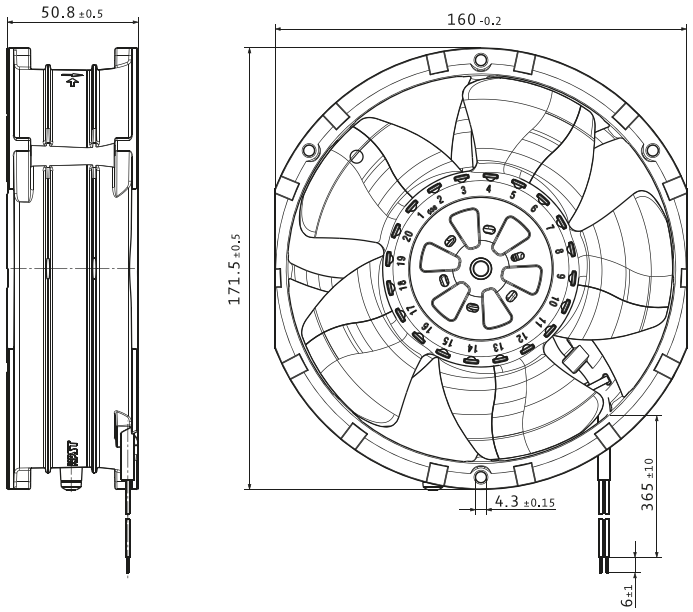
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

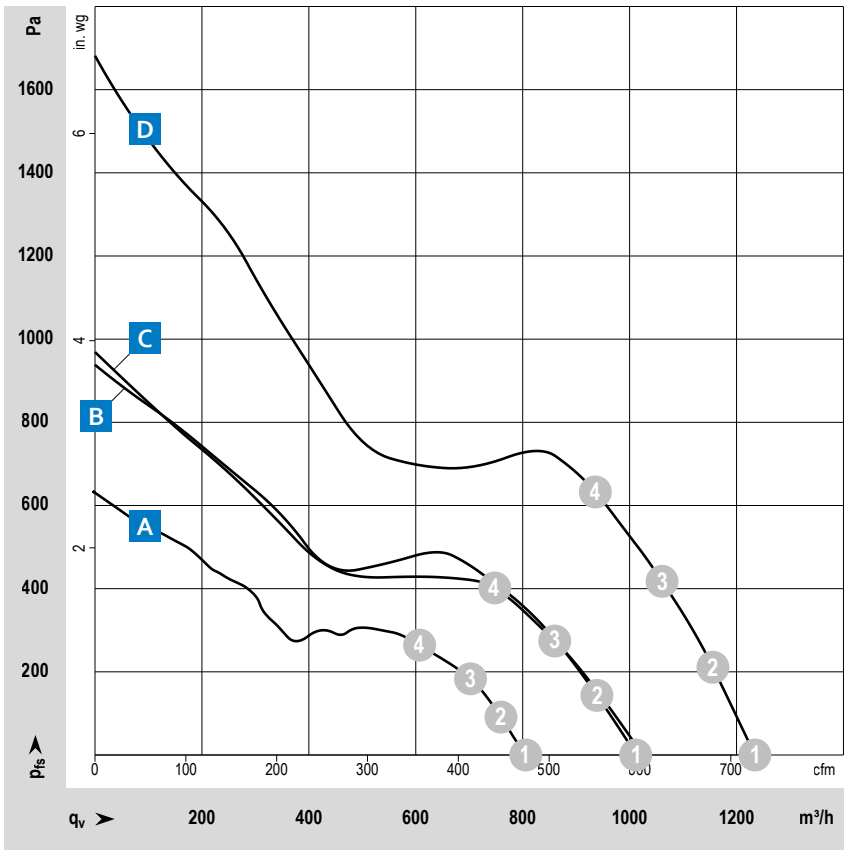


VWEG172P...

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



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



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)

Measuring conditions

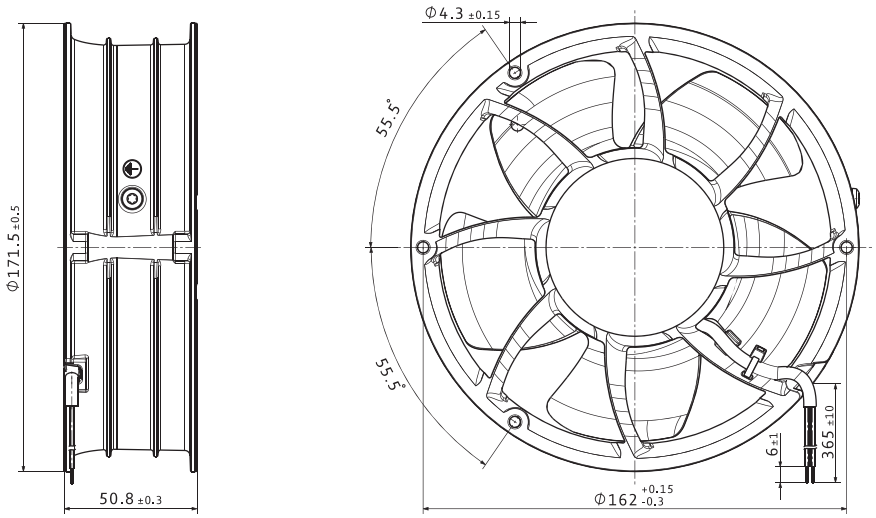
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWEG172PJLUS 6314 N/2 TDHHP	**9295420300**	**24**	16...36	B	1 2 3 4	1 013 941 862 753	596 554 507 443	7 200 7 200 7 180 7 130	154.0 172.6 190.6 200.0	8.6 8.5 8.4 8.3	75	-20...+70	62 500	105 000
VWEG172PKLTS 6318 N/2 TDHP	**9295416300**	**48**	36...60	A	1 2 3 4	806 759 702 607	474 447 413 357	6 000 6 000 6 000 5 850	91.5 101.9 114.2 115.0	8.1 8.0 7.9 7.9	71	-20...+70	75 000	127 500
VWEG172PKLUS 6318 N/2 TDH3P	**9295420302**	**48**	36...72	C	1 2 3 4	1 025 946 860 748	603 557 506 440	7 500 7 450 7 400 7 360	150.3 168.4 181.3 189.5	8.7 8.6 8.6 8.5	76	-20...+70	60 000	102 500
VWEG172PKLVS 6318 N/2 TDH4P	**9295420305**	**48**	36...72	D	1 2 3 4	1 234 1 156 1 061 937	726 680 624 551	9 000 9 000 9 000 9 000	286.0 328.4 364.6 391.9	9.3 9.1 9.0 9.0	80	-20...+65	45 000	75 000

Subject to changes.

Technical drawing

Dimensions in mm

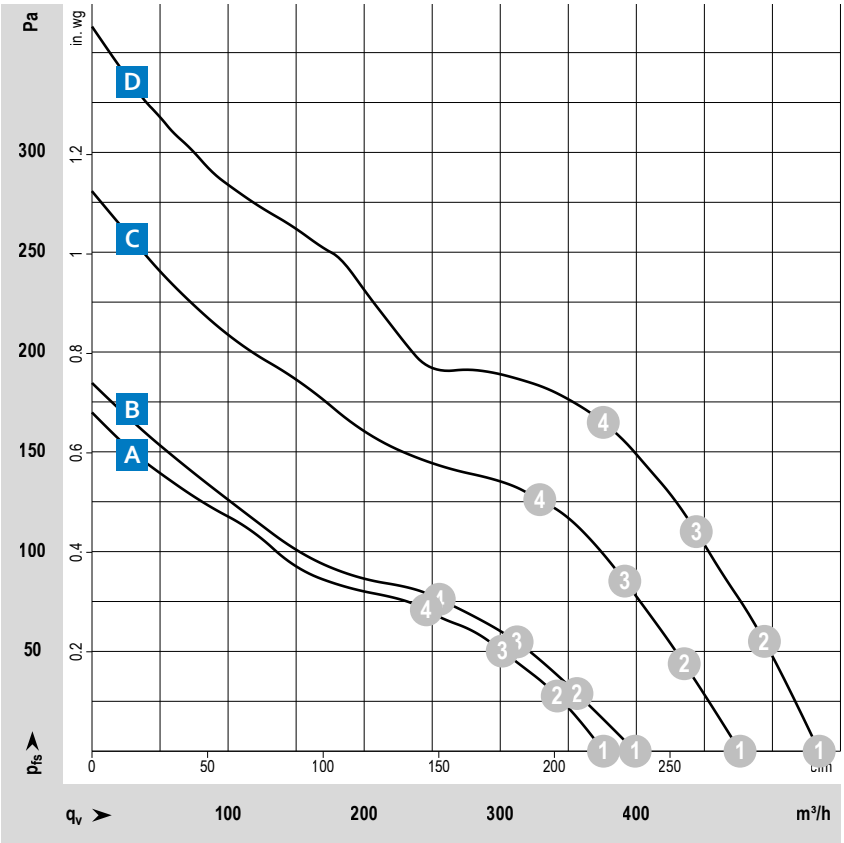


VWEG172X...

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



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



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

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

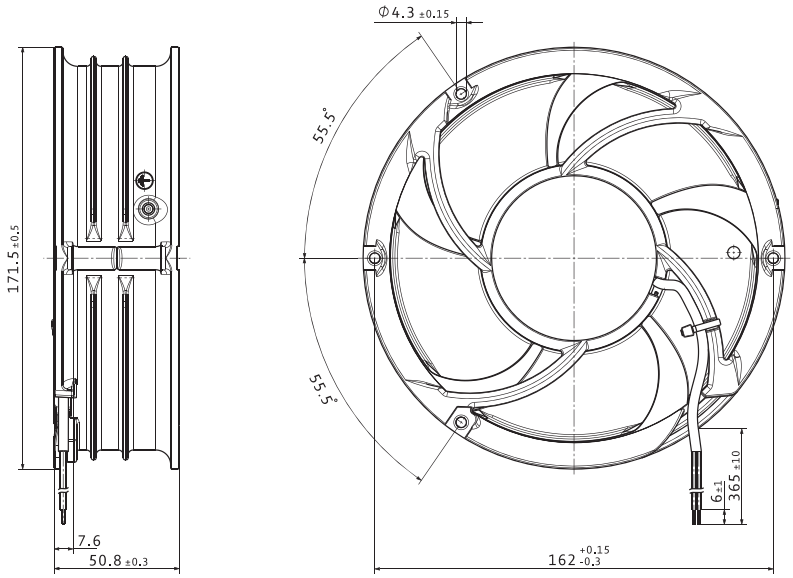
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{o}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWEG172XHLPS 6312/2 MP-204	**9695480204**	**12**	8...16	A	1 2 3 4	376 344 301 246	221 202 177 145	3 500 3 500 3 400 3 300	12.7 15.0 15.9 17.5	6.1 6.0 5.9 6.0	49	-20...+65	82 500	140 000
VWEG172XJLPS 6314/2 MP	**9695480211**	**24**	16...30	B	1 2 3 4	399 357 313 255	235 210 184 150	3 700 3 600 3 500 3 400	12.9 14.2 15.2 16.0	6.2 6.0 5.9 6.0	51	-20...+75	82 500	140 000
VWEG172XJLQS 6314/2 NP	**9695480210**	**24**	16...30	C	1 2 3 4	476 436 391 329	280 257 230 194	4 400 4 390 4 390 4 360	20.8 24.9 28.6 31.7	6.9 6.8 6.6 6.7	56	-20...+70	80 000	135 000
VWEG172XJLRS 6314/2 HP	**9695480191**	**24**	16...30	D	1 2 3 4	535 494 443 373	315 291 261 220	5 000 4 980 4 980 4 940	28.0 34.2 40.0 45.3	7.1 7.0 6.9 6.9	58	-20...+65	77 500	130 000
VWEG172XKLRS 6318/2 HP	**9695480196**	**48**	36...72	D	1 2 3 4	534 494 444 376	314 291 261 221	5 000 4 990 4 980 4 970	28.2 33.4 39.6 45.2	7.1 7.0 6.9 6.9	58	-20...+65	77 500	130 000

Subject to changes.

Technical drawing

Dimensions in mm

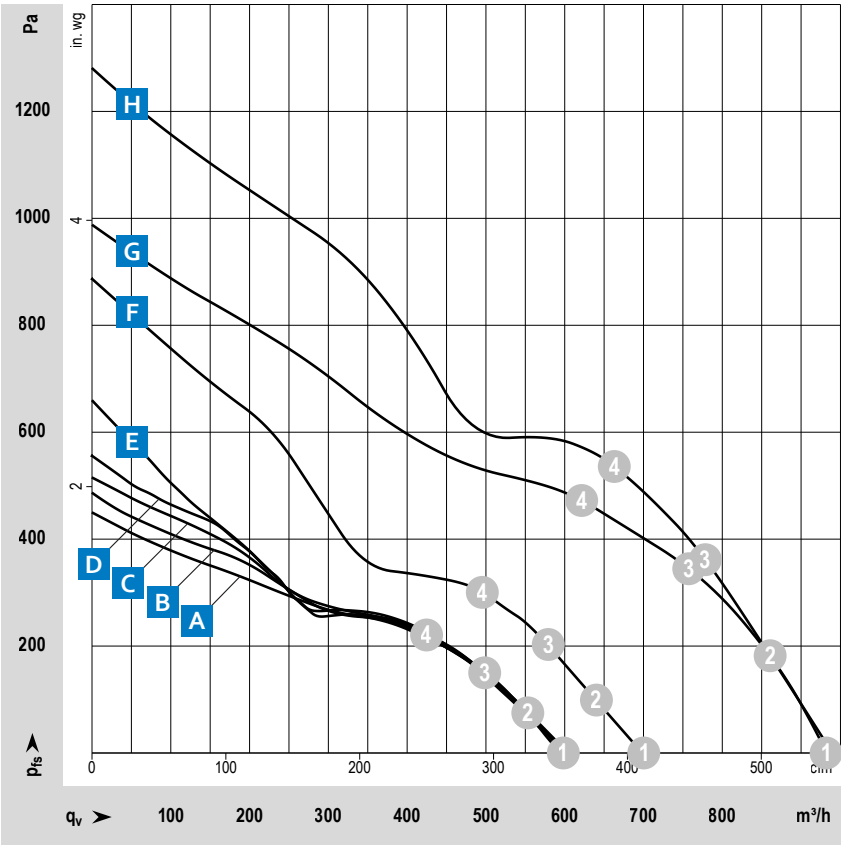


VWEG172X...

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



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



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)

Measuring conditions

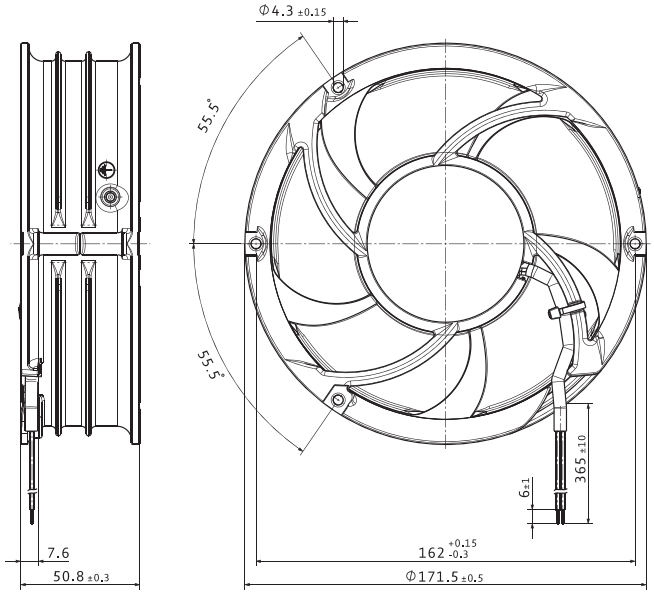
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWEG172XHLPS 6312/2 TDHP	**9295420022**	**12**	8...16	**C**	1 2 3 4	604 554 500 423	356 326 294 249	5 500 5 472 5 463 5 461	41.1 49.8 58.8 68.4	7.8 7.7 7.6 7.7	60	-20...+70	75 000	127 500
VWEG172XJLPS 6314/2 TDHP-298	**9295414298**	**24**	16...30	**B**	1 2 3 4	603 553 501 425	355 325 295 250	5 500 5 494 5 501 5 503	43.0 52.9 62.9 72.9	7.8 7.7 7.6 7.6	60	-20...+65	75 000	127 500
VWEG172XJLQS 6314/2 TDHP	**9295420004**	**24**	16...36	**D**	1 2 3 4	599 552 500 428	353 325 294 252	5 500 5 501 5 487 5 495	39.3 48.3 56.4 65.5	7.5 7.4 7.4 7.3	60	-20...+75	75 000	127 500
VWEG172XJLRS 6314/2 TDHHP	**9295420026**	**24**	16...36	**F**	1 2 3 4	699 640 581 497	411 377 342 293	7 000 6 985 6 982 6 991	66.9 81.0 95.2 110.5	8.1 8.2 8.3 8.4	69	-20...+75	62 500	105 000
VWEG172XKLRS 6314/2 TDH4P	**9295420011**	**24**	16...36	**G**	1 2 3 4	932 861 760 622	549 507 447 366	9 221 9 190 9 036 8 658	152.0 193.7 215.0 215.0	8.8 9.0 9.0 9.0	75	-20...+75	52 500	87 500
VWEG172XJLPS 6318/2 TDHP-299	**9295414299**	**48**	36...60	**A**	1 2 3 4	602 550 498 422	354 324 293 248	5 499 5 487 5 475 5 465	43.5 53.3 62.0 73.0	7.8 7.7 7.6 7.6	60	-20...+65	75 000	127 500
VWEG172XJLQS 6318/2 TDHP	**9295420005**	**48**	36...72	**E**	1 2 3 4	595 551 498 425	350 324 293 250	5 501 5 506 5 493 5 495	40.2 47.8 56.0 64.8	7.5 7.4 7.4 7.3	60	-20...+75	75 000	127 500
VWEG172XJLRS 6318/2 TDHHP	**9295420003**	**48**	36...72	**F**	1 2 3 4	691 639 582 501	407 376 343 295	7 000 7 001 7 000 7 012	68.5 82.9 96.8 112.1	8.0 8.1 8.2 8.3	69	-20...+75	62 500	105 000
VWEG172XKLRS 6318/2 TDH4P	**9295420021**	**48**	36...72	**H**	1 2 3 4	940 861 780 663	553 507 459 390	9 200 9 150 9 154 9 158	148.2 181.2 213.4 249.0	8.8 8.9 9.0 9.2	75	-20...+75	52 500	87 500

Subject to changes.

Technical drawing

Dimensions in mm

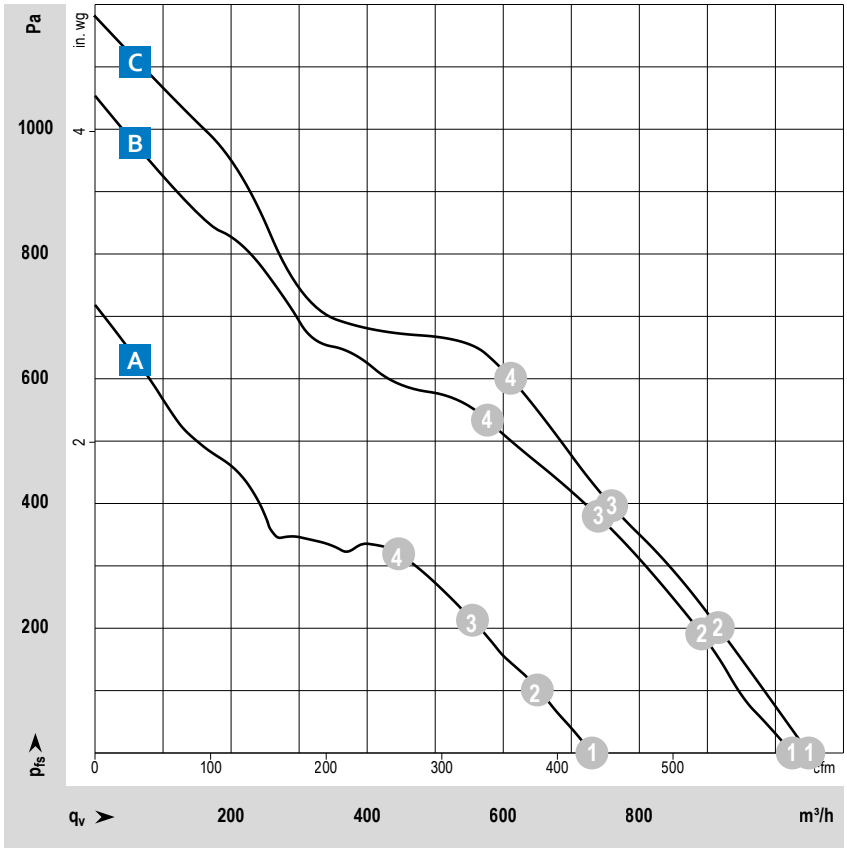


VKEG178X...

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



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



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)

Measuring conditions

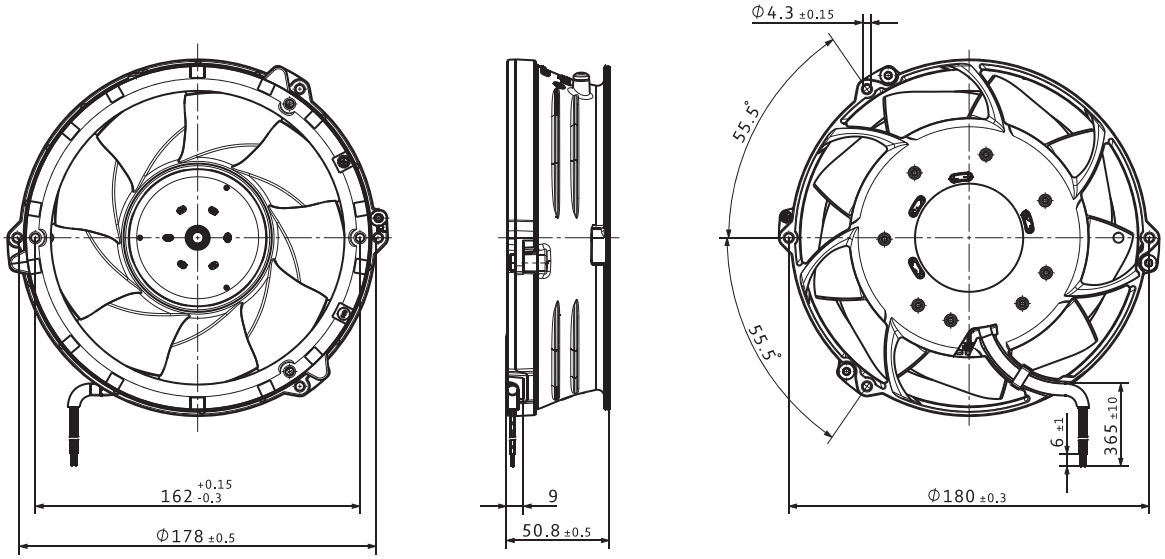
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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

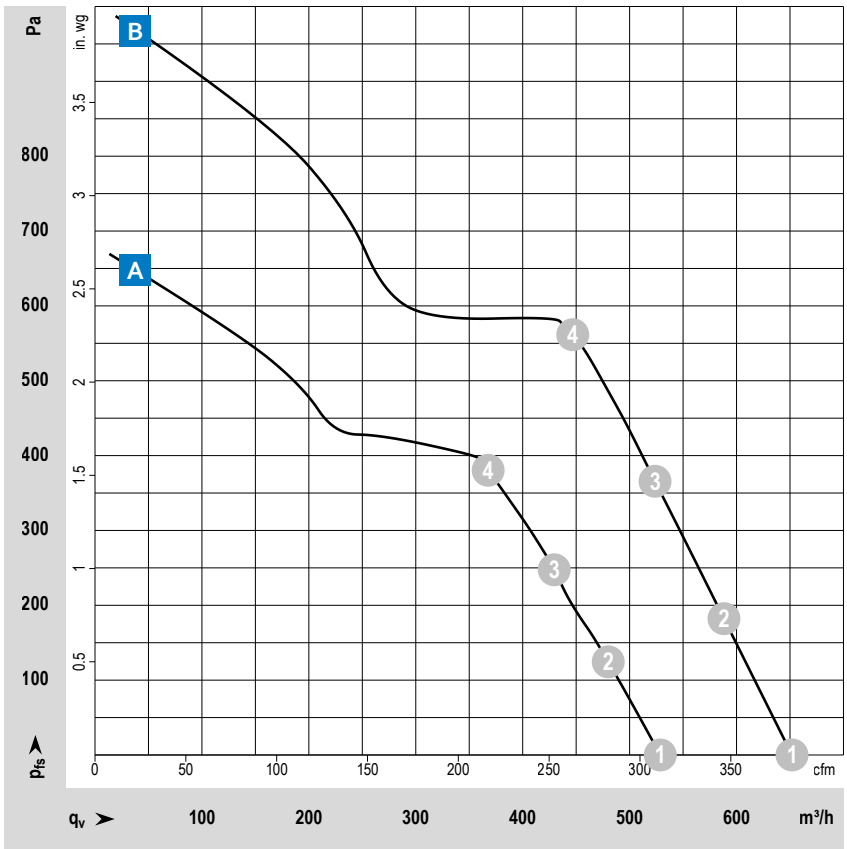


VWLG150K...

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



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 $p_A$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

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

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

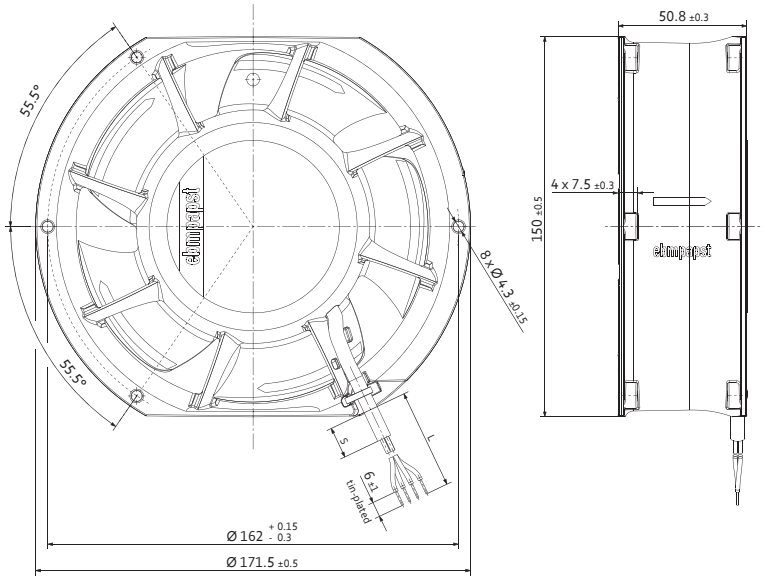
- Output signals: Speed signal, Alarm
- Input signals: PWM, Analog, O, Temperature sensor
- Extended protection against environmental conditions: up to IP68

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWLG150KJLRS 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				
VWLG150KKLSS 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

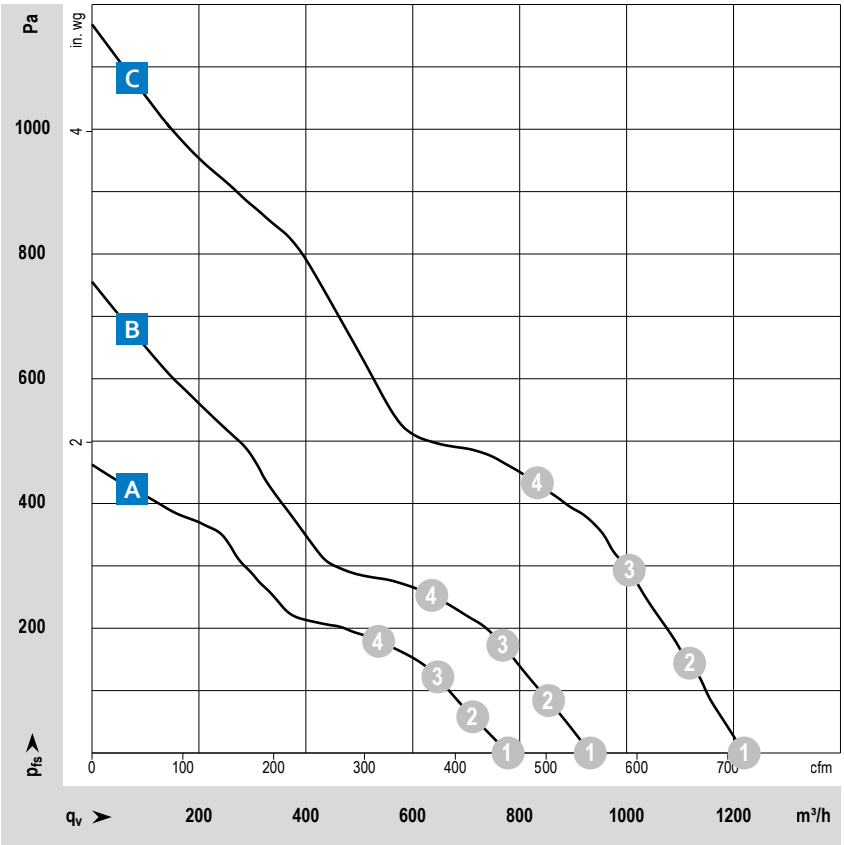


VWLG200F...

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



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 $p_A$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

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

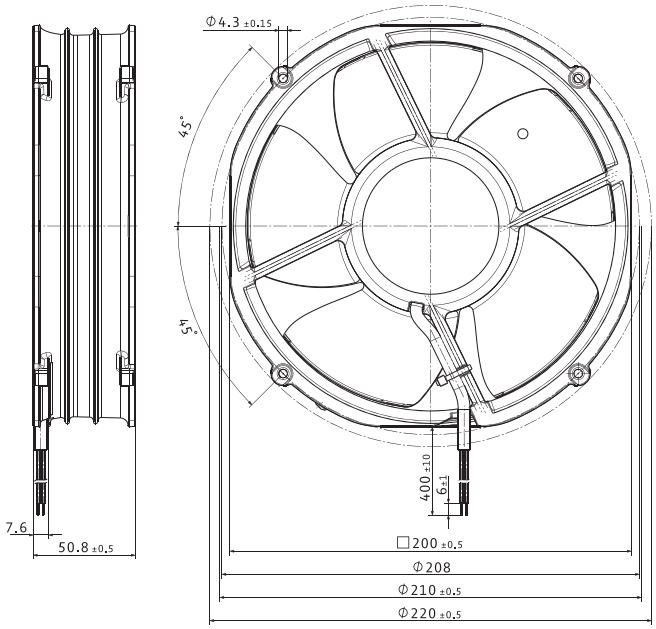
- Highly efficient and smoothly operating 3-phase fan drive
- Housing with grounding lug for screw M4 x 8 (Torx)

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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				
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				
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				
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				
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				

Subject to changes.

Technical drawing

Dimensions in mm

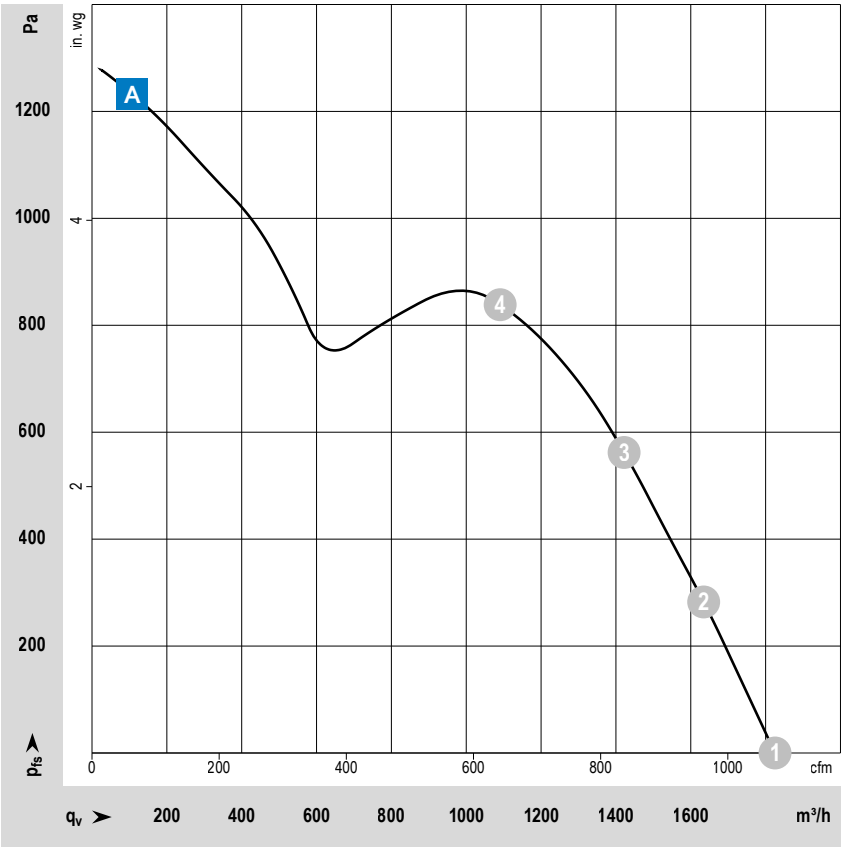


VWLH200CKLXS

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



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 $p_A$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

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 Maintanance (FanCheck)

Special features

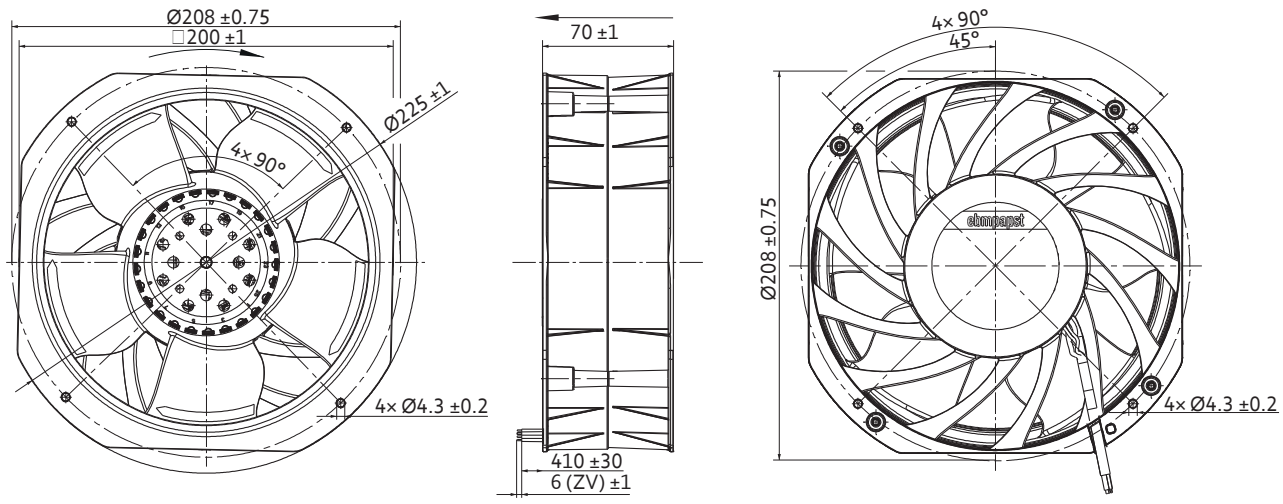
- Ready for Restart (R4R) enables safe startup with external drive
- with moisture protection (see page 266)
- with grounding screw M4x8 (Torx)

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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWLH200CKLXS AxiEco 200	**8317081096**	**48**	36...60	A	1	1 820	1 071	7 000	356.1	9.3	80.2	-20...+60	90 000	152 500
					2	1 636	963	7 000	407.5	9.1				
					3	1 423	838	7 000	457.1	9.0				
					4	1 091	642	6 970	499.3	9.0				

Subject to changes.

Technical drawing

Dimensions in mm

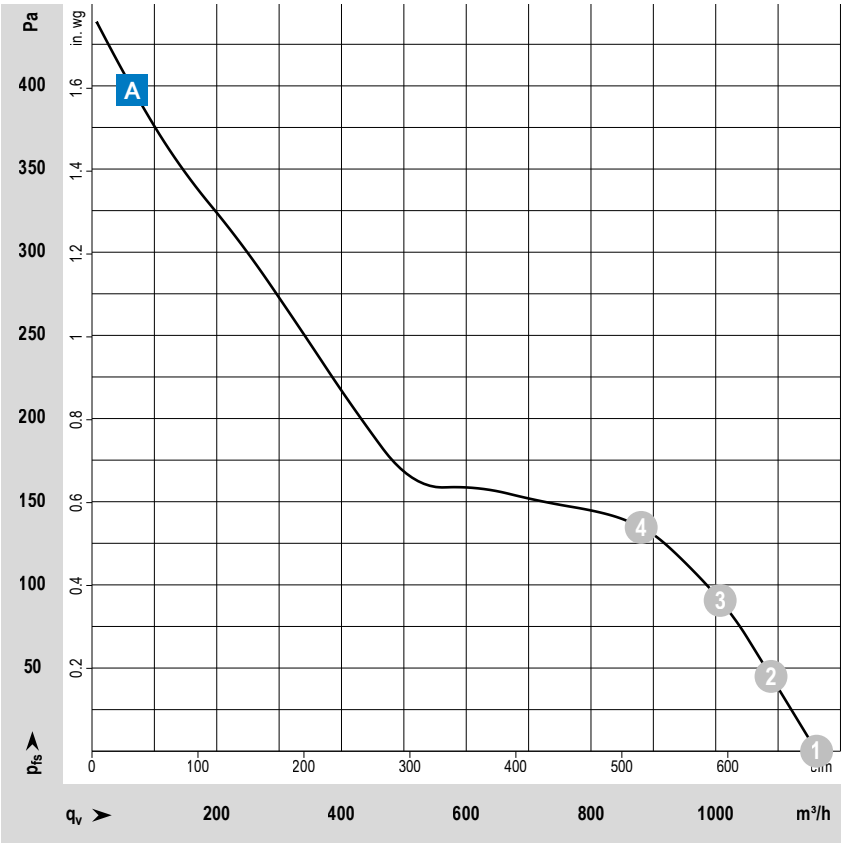


VWLJ200XJLVZ

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



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



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

Measuring conditions

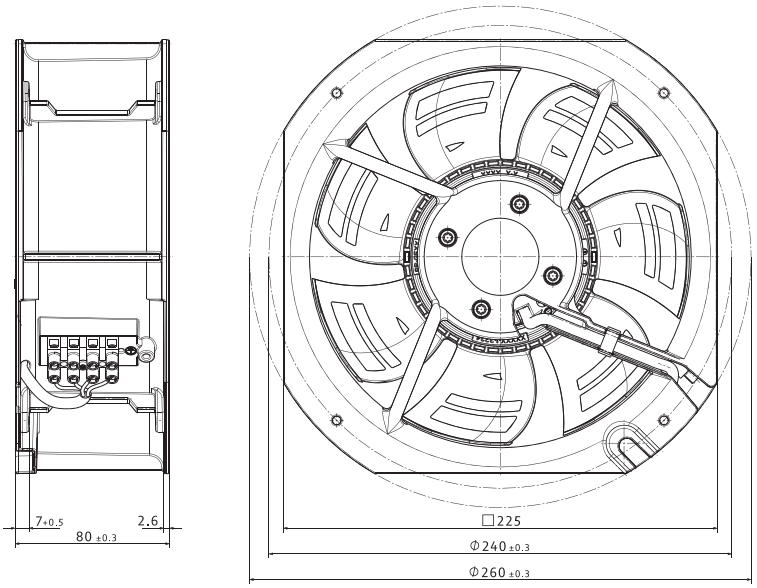
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWLJ200XJLVZ 2214 TDHO	**8315100070**	**24**	16...36	A	1 2 3 4	1 162 1 089 1 009 882	684 641 594 519	3 500 3 460 3 470 3 460	70.9 79.1 89.7 99.9	7.4 7.3 7.5 7.6	63	-20...+65	80 000	135 000

Subject to changes.

Technical drawing

Dimensions in mm



VJH0200XUNCS

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



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

Material/Surface

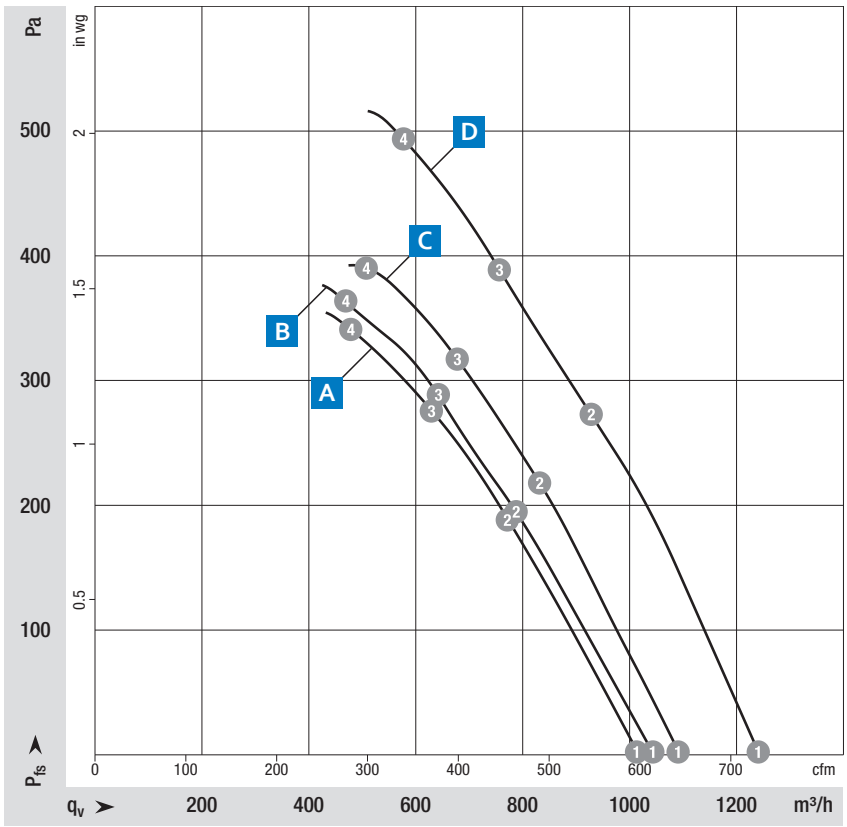
- Housing and support bracket: Plastic
- Impeller: Plastic

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

Approvals

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



Measuring conditions

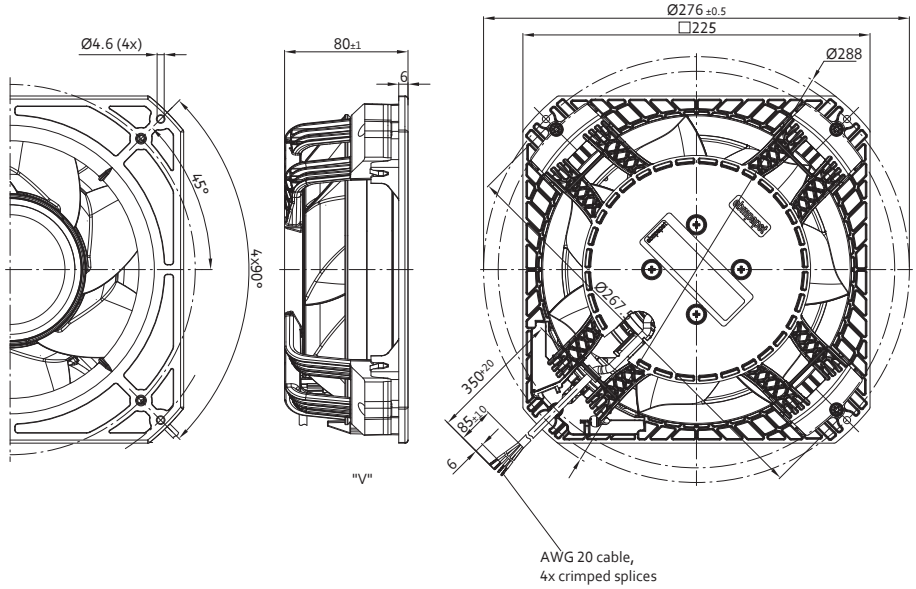
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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	587	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

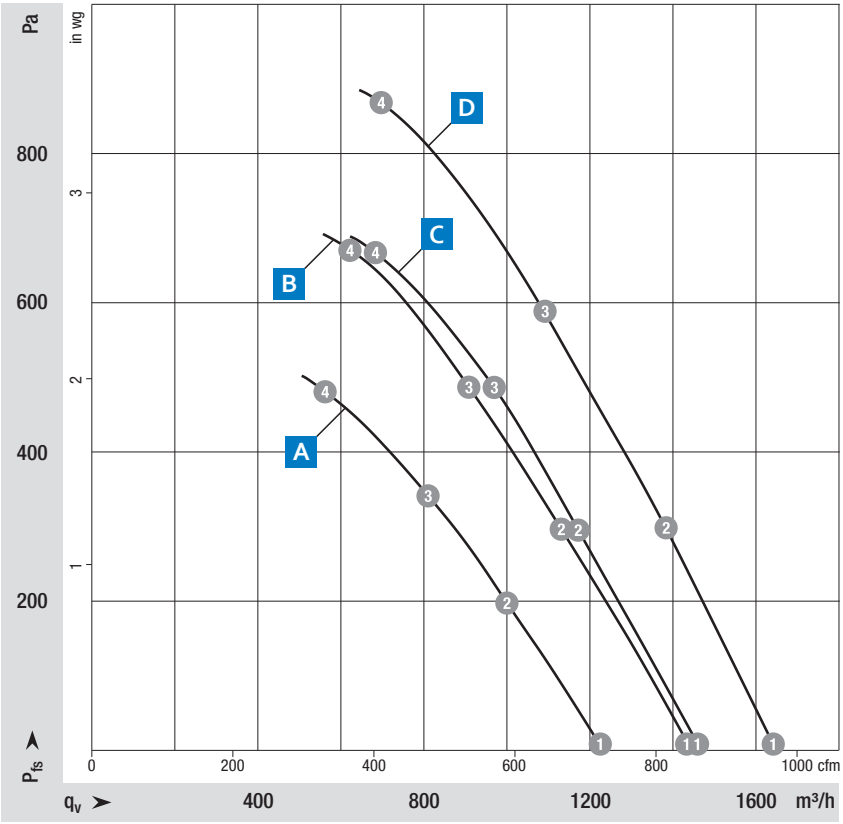


VJH0200XUNES

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



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



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

Approvals

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

Measuring conditions

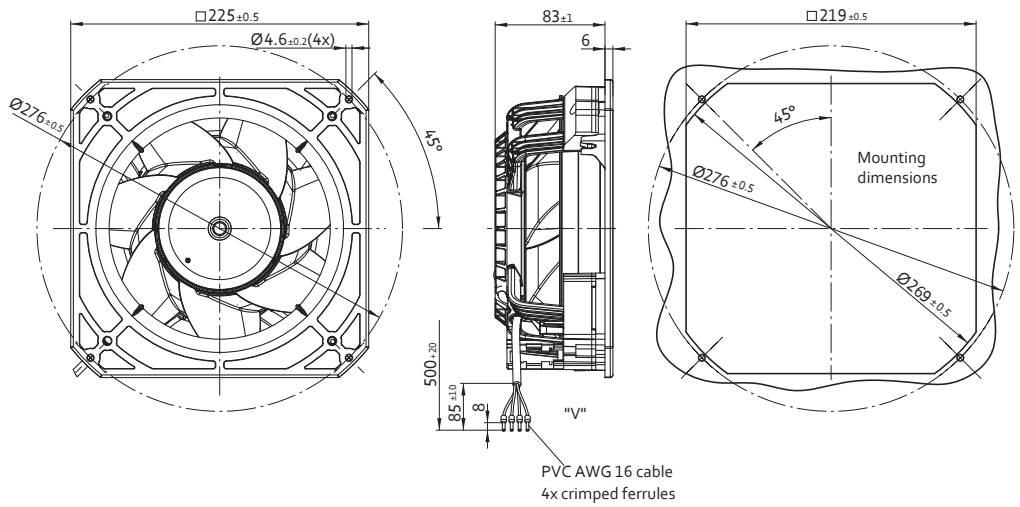
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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

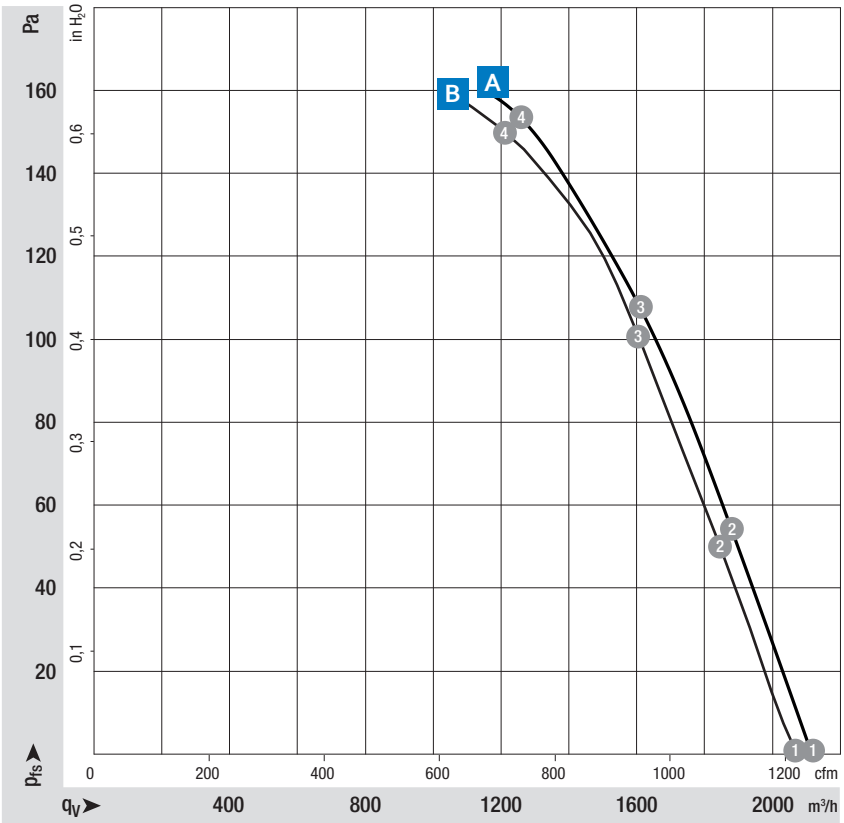


VWLK280X..., VWLK280H...

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



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



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

Measuring conditions

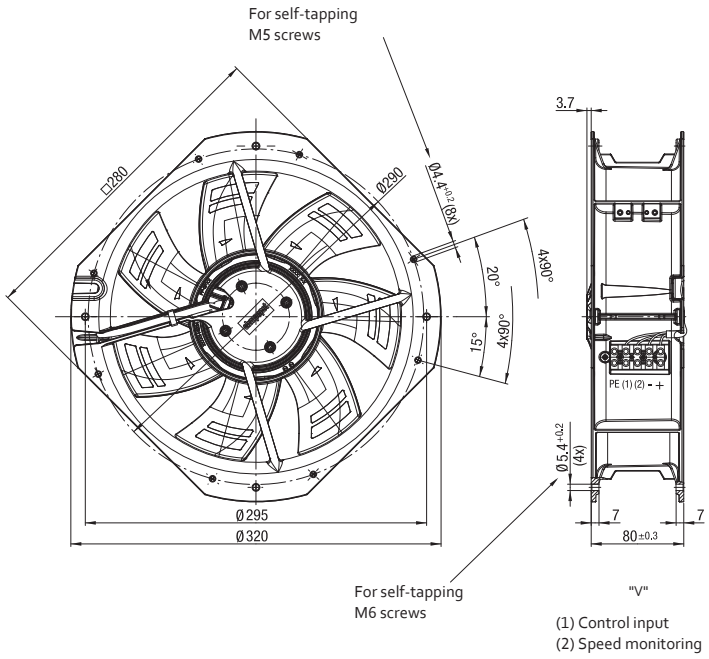
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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	rpm	W	A	Bel(A)	Pa	°C
VWLK280XJNXS	W1G250HJ1402	24	16...28	A	1	2 115	1 245	3 135	135	5.93	–	140	-25...+60
					2	1 880	1 105	2 975	139	6.21			
					3	1 605	945	2 840	143	6.50			
					4	1 255	740	2 760	148	6.77			
VWLK280HKNXS	W1G250HJ2002	48	36...57	B	1	1 995	1 175	3 000	121	2.50	7.3	140	-25...+60
					2	1 760	1 035	2 825	124	2.60	7.2		
					3	1 500	885	2 695	128	2.70	7.1		
					4	1 165	685	2 620	130	2.70	7.4		

Subject to changes. * Current measured at nominal voltage.

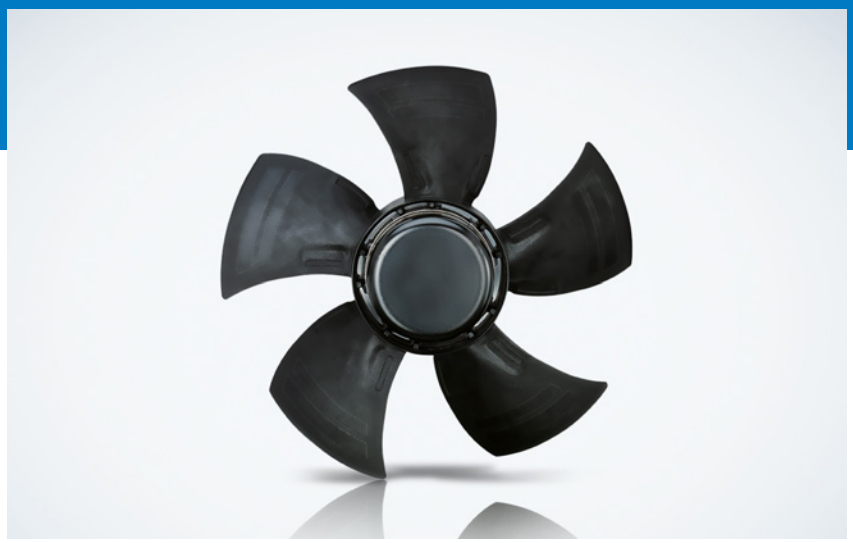
Technical drawing

Dimensions in mm

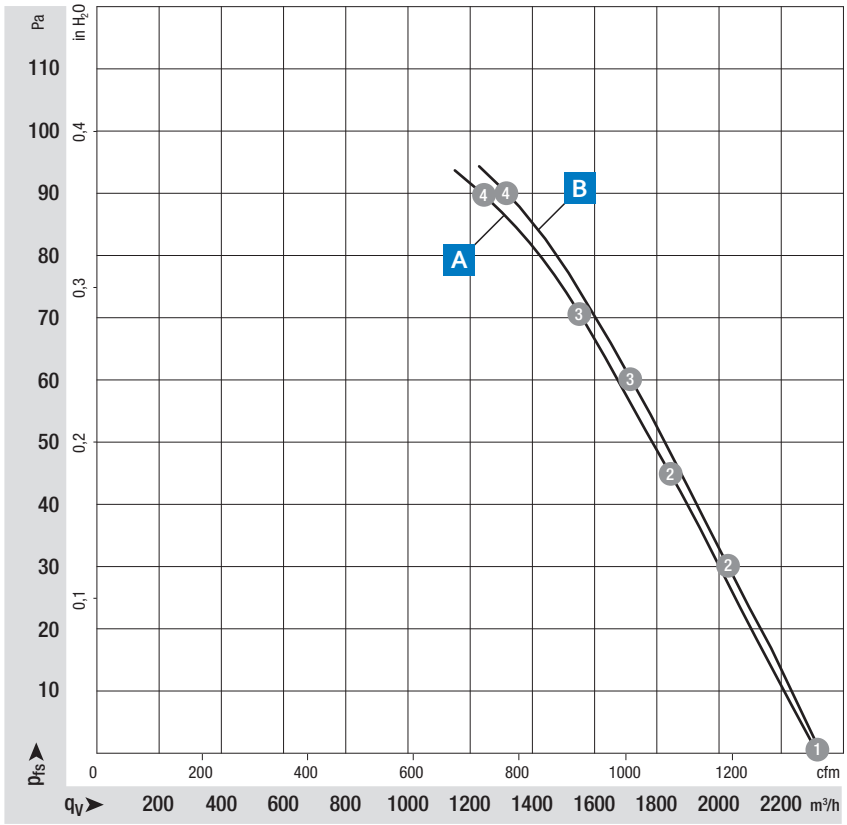


VVY0300H..., VWR0300X..., VMA0300X...

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



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



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)

Measuring conditions

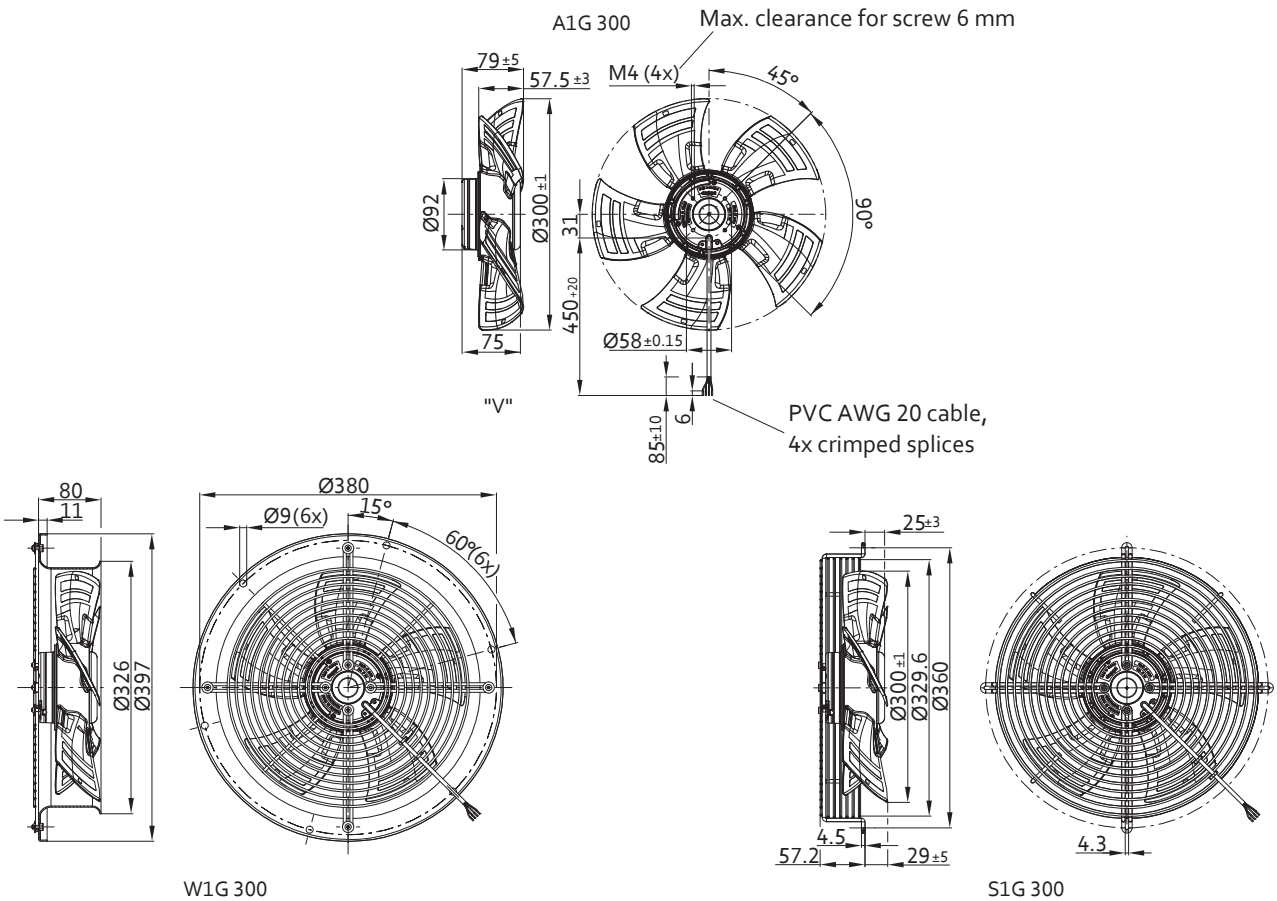
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Speed	Power consumption	Input current	Sound power level	Max. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	rpm	W	A	Bel(A)	Pa	°C
VVY0300HUNES	A1G300AC1954	without attachments												
VWR0300XUNES	W1G300DC1954	with full round nozzle		**24**	16...28	**A**	1 2 3 4	2 505 1 975 1 660 1 330	1 965 1 855 1 805 1 745	102 105 107 109	4.11 4.31 4.42 4.56	6.7 6.7 6.6 7.0	103	-25..+60
VMA0300XUNES	S1G300AC1954	with finger guard for short nozzle												
VVY0300HUNES	A1G300AC3354	without attachments												
VWR0300XUNES	W1G300DC3354	with full round nozzle		**48**	36...57	**B**	1 2 3 4	2565 2050 1695 1080	1985 1875 1820 1720	103 105 107 111	2.05 2.14 2.20 2.32	6.9 6.9 6.8 7.4	115	-25..+60
VMA0300XUNES	S1G300AC3354	with finger guard for short nozzle												

Subject to changes.

Technical drawing

Dimensions in mm



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	

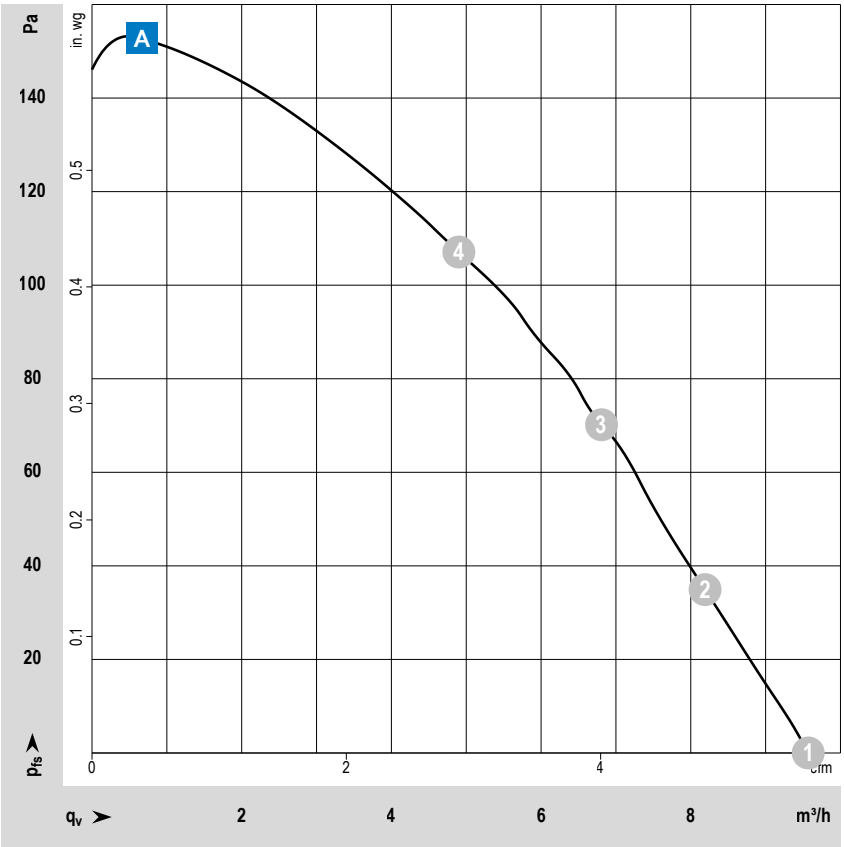
Dimensions in mm	Type	Type (old)	Page
□ 51 x 15	**VHS0035XUDAS**	RLF 35	150
□ 65 x 66	**VCS0045X...**	RVE 45	152
□ 76 x 27	**VHS0048X...**	RL 48	154
97 x 93,5 x 33	**VHS0065X...**	RL 65	156
□ 121 x 37	**VHS0090XUJBS**	RL 90 N	158
□ 127 x 25	**VCS0100XUGBS**	RLF 100	160
□ 135 x 38	**VHS0090XUJBS**	RG 90 N	162
□ 135 x 38	**VCS0125XUJBS**	RG 125 N	164
□ 165 x 70	**VCS0133RUJCS**	RG 133 TD	166
□ 180 x 40	**VCS0140XUJCZ**	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
Ø 85 x 68	**VFS0085XUJCS**	RET 85	180
Ø 97 x 41	**VFS0097XUJCS**	RET 97 TD	182
Ø 104 x 25	**VBS0100XUGBS**	REF 100	184
Ø 101 x 52	**VBS0101XUGDS**	RER 101 N	186
Ø 120 x 54	**VBS0120XUJCS**	RER 120 TD	188
Ø 138 x 35	**VBS0125XUJBS**	RER 125 N	190
Ø 133 x 91	**VBS0133X...**	RER 133 TD	192
Ø 140 x 36	**VBS0140XUJCS**	RER 140 TD	194
Ø 165 x 51	**VBS0160XULCS**	RER 160 N	196
Ø 165 x 51	**VBS0160XULCS**	RER 160 NTD	198
Ø 175 x 55	**VBS0175XULDS**	REF 175 TD	200
Ø 175 x 69	**VBS0175X...**	RER 175 TD	202
Ø 190 x 69	**VBS0190R...**	RER 190 TD	204
Ø 190	**VBS0190RUNCS**	R1G 190	206
Ø 190	**VBS0190R...**	R3G 190	208
Ø 220	**VBS0220RUNCS**	R1G 220	210
Ø 220	**VBS0220RUNES**	R3G 220	212
Ø 220 x 71	**VBS0220RULDS**	RER 220 TD	214
Ø 225 x 99	**VBS0225...**	RER 225 TD	216
Ø 225	**VBS0225RUNCS**	R1G 225	218
Ø 225	**VBS0225RUNES**	R3G 225	220
Ø 250	**VBS0250RUNES**	R1G 250	222
Ø 250	**VBS0250RUNES**	R3G 250	224
Ø 280	**VBS0280RUNES**	R1G 280	226
Ø 280	**VBS0280RUNES**	R3G 280	228
Ø 310	**VBS0310RUNES**	R3G 310	230
201...413 x 50 x 48	**VTS0030X...**	QG 030	232
Ø 108	**VFS0108XULCS**	*1G 108	234
Ø 120	**VFS0120XULCS**	*1G 120	236
Ø 133	**VFS0133XULCS**	*1G 133	238
Ø 140	**VFS0140XULES**	*1G 140	240
Ø 146	**VFS0146XUNCS**	*1G 146	242
Ø 160	**VFS0160XUNCS**	*1G 160	244
Ø 133	**VHD0133XUNCS**	D1G 133	246
Ø 133	**VHD0133XUNES**	D1G 133	248
Ø 146	**VHD0146XUNES**	D1G 146	250

VHS0035XUDAS

DC centrifugal fans · max. 9.6 m³/h · ☐ 51 x 15 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 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

Measuring conditions

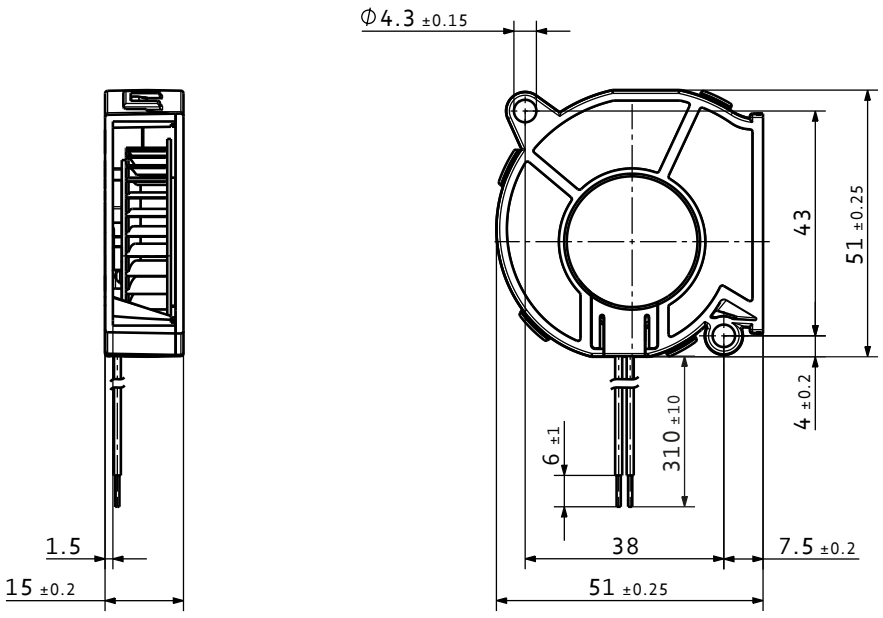
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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 $L_{10^{IPC}}$ (40 °C) s. S. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	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
					2	8.2	4.8	7 300	3.8	5.4			
					3	6.8	4.0	7 940	3.7	5.5			
					4	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
					2	8.0	4.7	7 270	3.1	5.4			
					3	6.6	3.9	7 850	3.0	5.5			
					4	4.8	2.8	8 690	2.8	5.6			

Subject to changes.

Technical drawing

Dimensions in mm

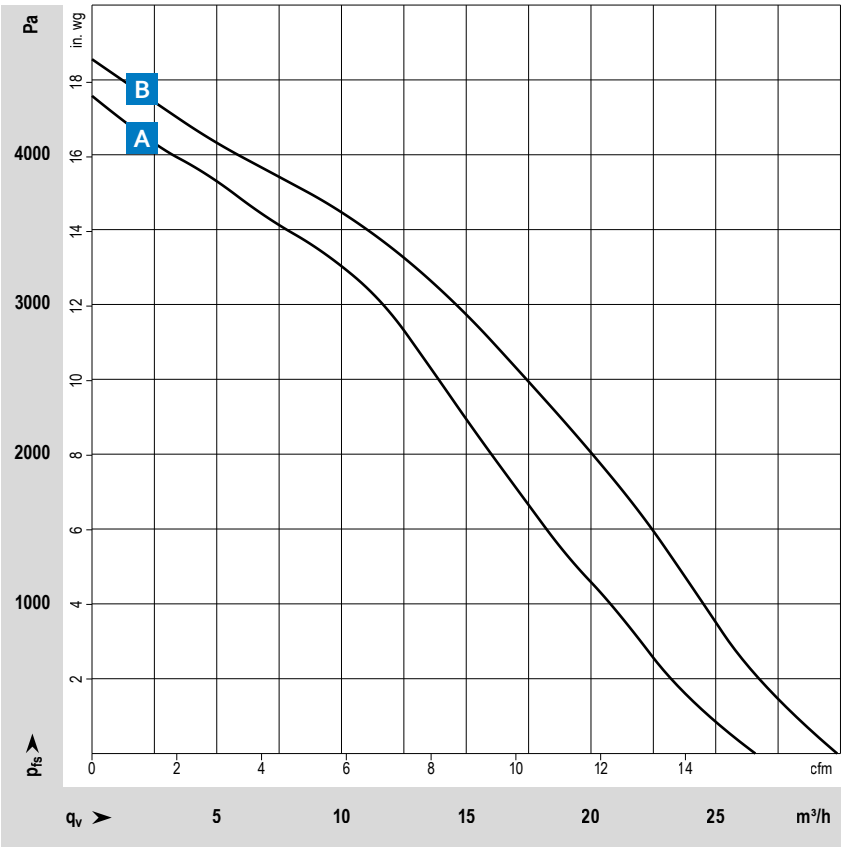


VCS0045X...

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



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



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

Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er 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

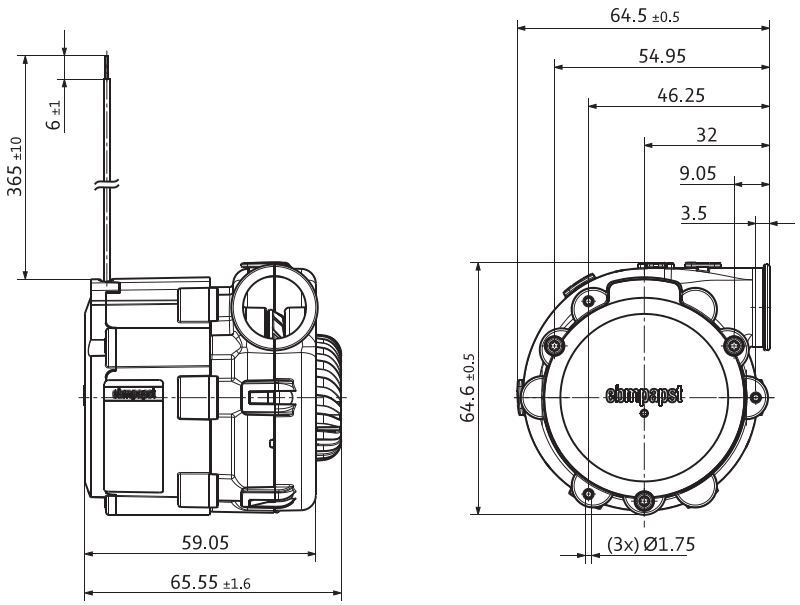
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Air flow	Air flow	Speed	Power consumption	Sound pressure (free air flow)	Perm. ambient temperature	Lebensdauer L_{10} (25 °C) ebm-papst Standard	Lebensdauer-erwartung L_{10PC} (25 °C) s. S. 11
		VDC	VDC		m³/h	cfm	rpm	W	dB(A)	°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

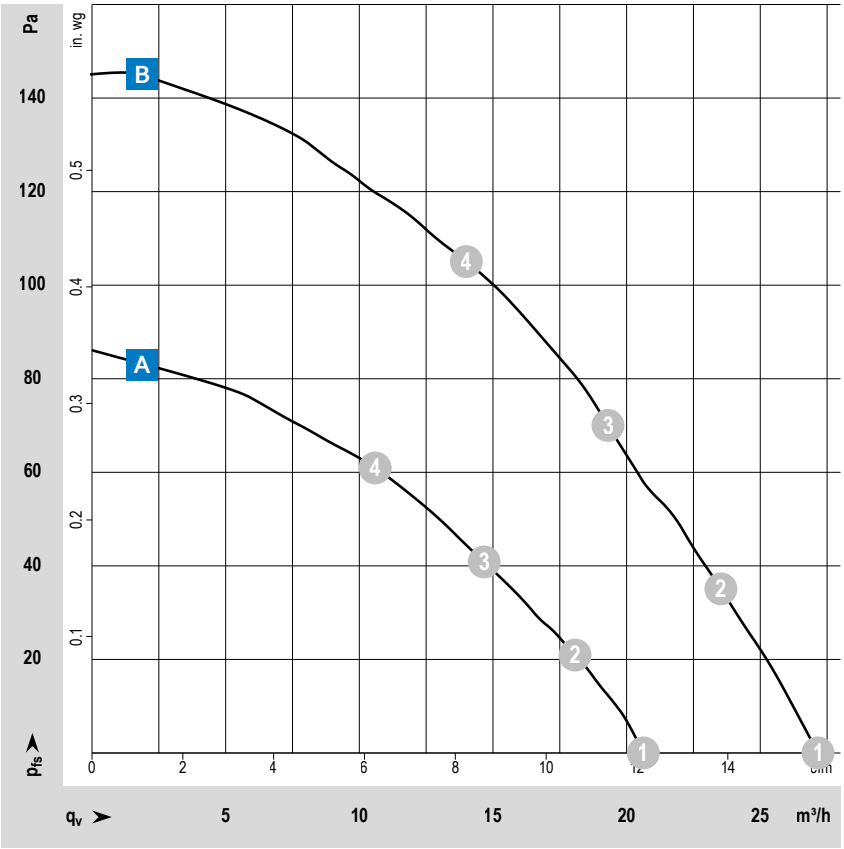


VHS0048X...

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



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 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

Measuring conditions

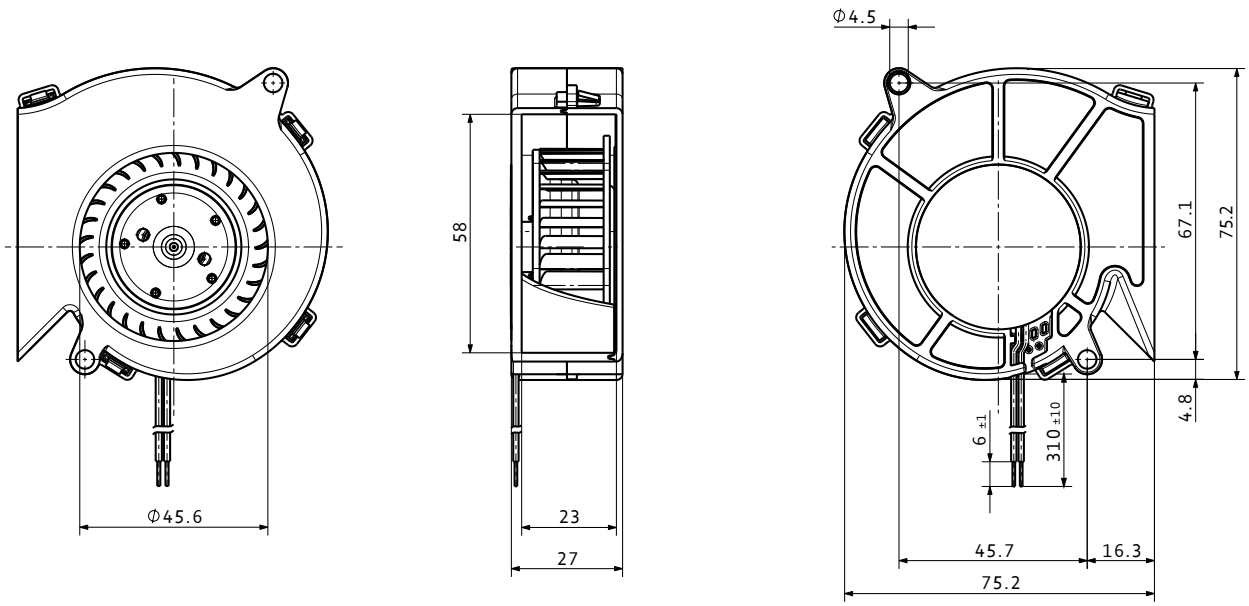
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VHS0048XUEBS RL 48-19/12 ML	**9592207003**	**12**	8...15	A	1 2 3 4	20.6 18.1 14.7 10.6	12.1 10.7 8.7 6.2	3 500 3 770 4 070 4 490	2.3 2.1 2.0 1.7	5.4 5.2 5.2 5.2	-20...+70	70 000	117 500
VHS0048XUEBS RL 48-19/12	**9592207001**	**12**	8...13.5	B	1 2 3 4	27.2 23.5 19.3 14.0	16.0 13.8 11.4 8.2	4 400 4 790 5 190 5 750	4.5 4.2 3.7 3.3	5.9 5.7 5.7 5.8	-20...+70	60 000	102 500
VHS0048XUEBS RL 48-19/14 ML	**9592207004**	**24**	18...28	A	1 2 3 4	19.8 17.6 14.4 10.4	11.7 10.4 8.5 6.1	3 500 3 730 4 030 4 400	2.2 2.1 2.0 1.7	5.4 5.2 5.2 5.2	-20...+70	70 000	117 500
VHS0048XUEBS RL 48-19/14	**9592207002**	**24**	18...26.4	B	1 2 3 4	26.3 22.7 18.6 13.6	15.5 13.4 10.9 8.0	4 400 4 720 5 100 5 630	4.4 4.0 3.7 3.2	5.9 5.7 5.7 5.8	-20...+70	60 000	102 500
VHS0048XUEBZ RL 48-19/18 R-016	**9592207016**	**48**	36...56	B	1 2 3 4	26.1 22.8 19.2 14.2	15.4 13.4 11.3 8.4	4 400 4 740 5 220 5 820	5.6 5.3 4.8 4.4	5.9 5.7 5.7 5.8	-32...+70	60 000	102 500

Subject to changes.

Technical drawing

Dimensions in mm

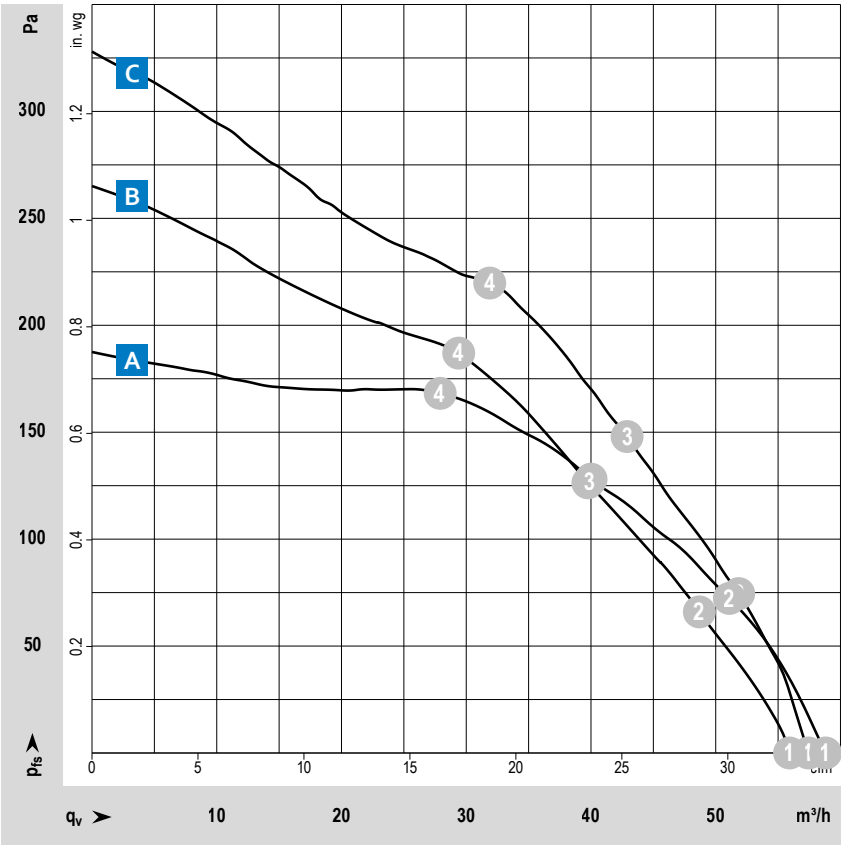


VHS0065X...

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



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_{A}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

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

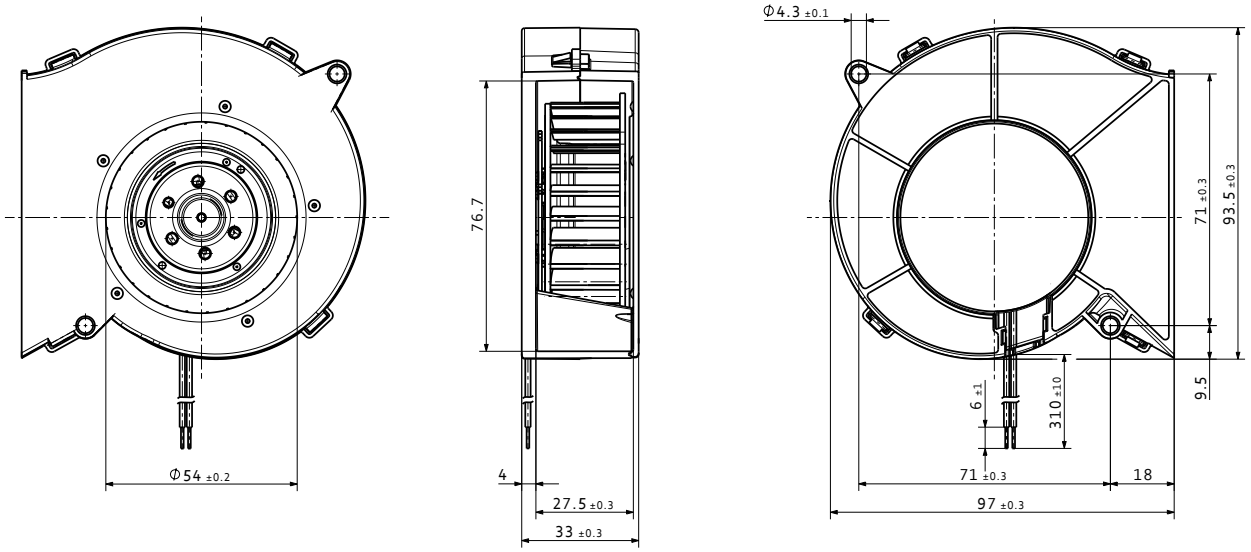
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection

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) ebmpapst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VHS0065XUFBS RL 65-21/12	**9592910001**	**12**	6.8...13.8	B	1	55.0	32.4	4 500	14.7	6.9	-20...+70	60 000	102 500
					2	48.7	28.7	4 750	13.4	6.9			
					3	39.6	23.3	5 060	11.8	6.8			
					4	29.3	17.2	5 480	10.0	6.6			
VHS0065XUFBS RL 65-21/12 H	**9592910004**	**12**	6.8...13.2	C	1	57.0	33.5	4 900	18.9	7.2	-20...+55	55 000	92 500
					2	52.0	30.6	5 100	17.6	7.1			
					3	42.9	25.2	5 440	15.6	7.2			
					4	31.9	18.8	5 880	13.2	6.9			
VHS0065XUFBS RL 65-21/14	**9592910003**	**24**	12...26.4	B	1	56.0	33.0	4 500	13.6	6.9	-20...+70	60 000	102 500
					2	48.7	28.7	4 760	12.4	6.9			
					3	39.7	23.4	5 080	10.9	6.8			
					4	29.4	17.3	5 460	9.2	6.6			
VHS0065XUFBS RL 65-21/14 H	**9592910005**	**24**	12...26.4	C	1	57.0	33.5	4 900	17.8	7.2	-20...+60	55 000	92 500
					2	52.0	30.6	5 120	16.6	7.1			
					3	43.2	25.4	5 500	14.7	7.2			
					4	32.3	19.0	5 960	12.5	6.9			
VHS0065XUFBZ RL 65-21/18/2 HPR-180	**9792900180**	**48**	36...60	A	1	59.0	34.7	4 900	20.5	7.2	-20...+70	55 000	92 500
					2	51.0	30.0	4 910	17.2	7.0			
					3	40.0	23.5	4 920	12.5	6.8			
					4	27.9	16.4	4 910	8.4	6.5			

Subject to changes.

Technical drawing

Dimensions in mm

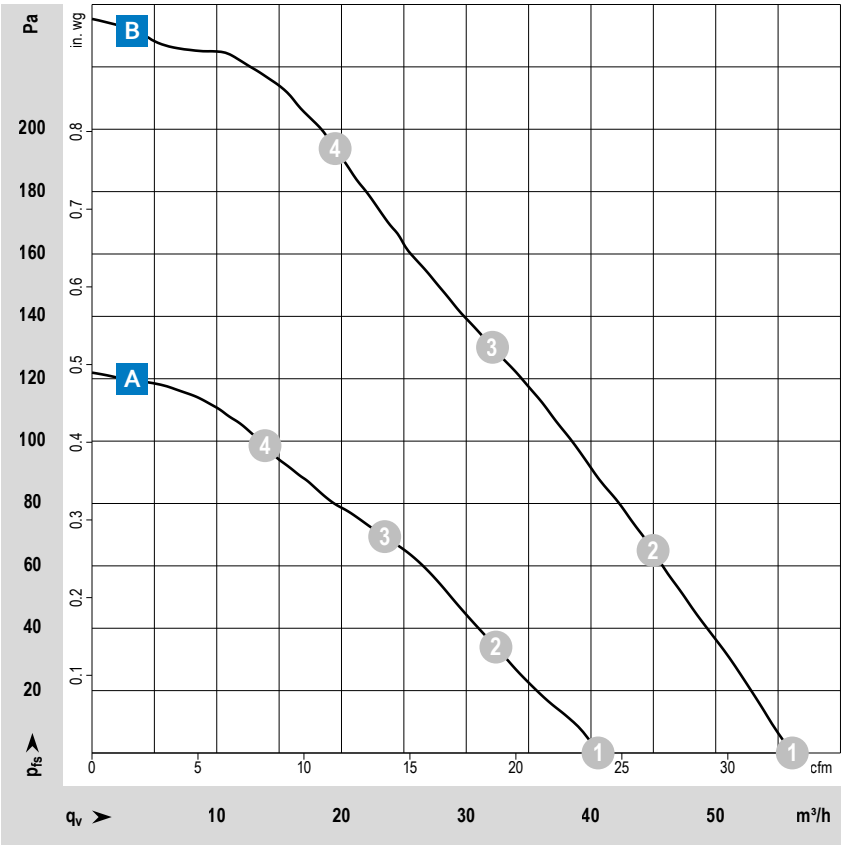


VHS0090XUJBS

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



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



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

Measuring conditions

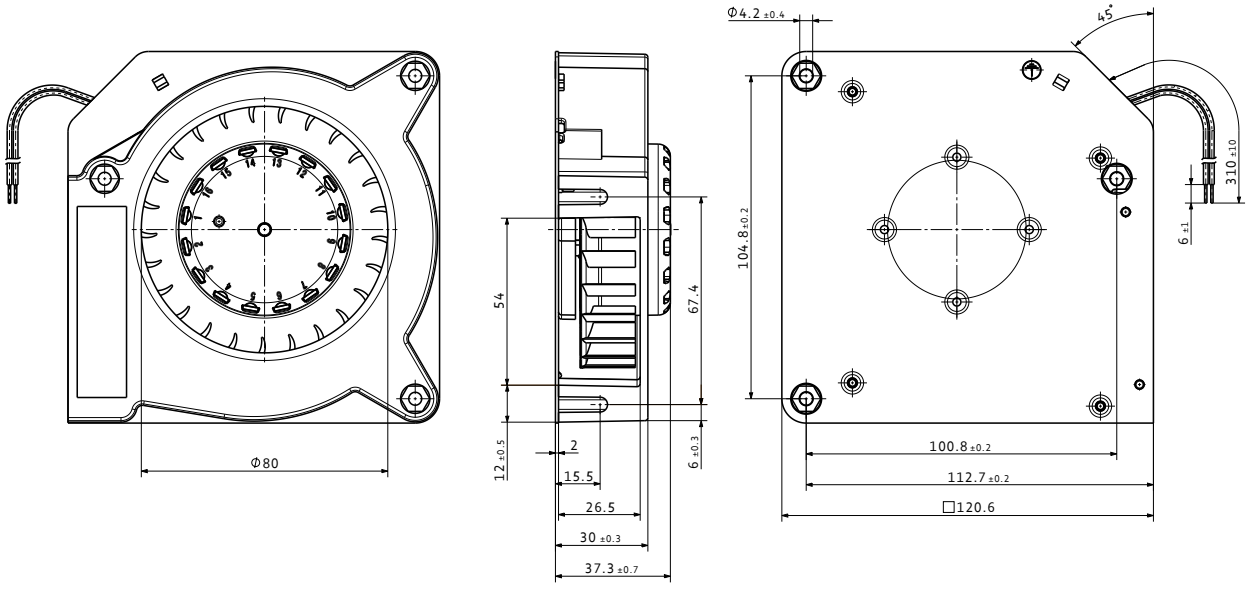
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		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
					2	31.5	18.5	2 670	5.0	6.0			
					3	23.0	13.5	2 870	4.3	5.9			
					4	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
					2	30.7	18.1	2 640	4.5	6.0			
					3	22.2	13.1	2 820	3.8	5.9			
					4	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
					2	32.4	19.1	2 690	5.4	6.0			
					3	23.4	13.8	2 920	4.5	5.9			
					4	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
					2	45.0	26.5	3 750	12.6	6.8			
					3	32.1	18.9	4 090	10.3	6.8			
					4	19.5	11.5	4 470	8.1	6.8			

Subject to changes.

Technical drawing

Dimensions in mm

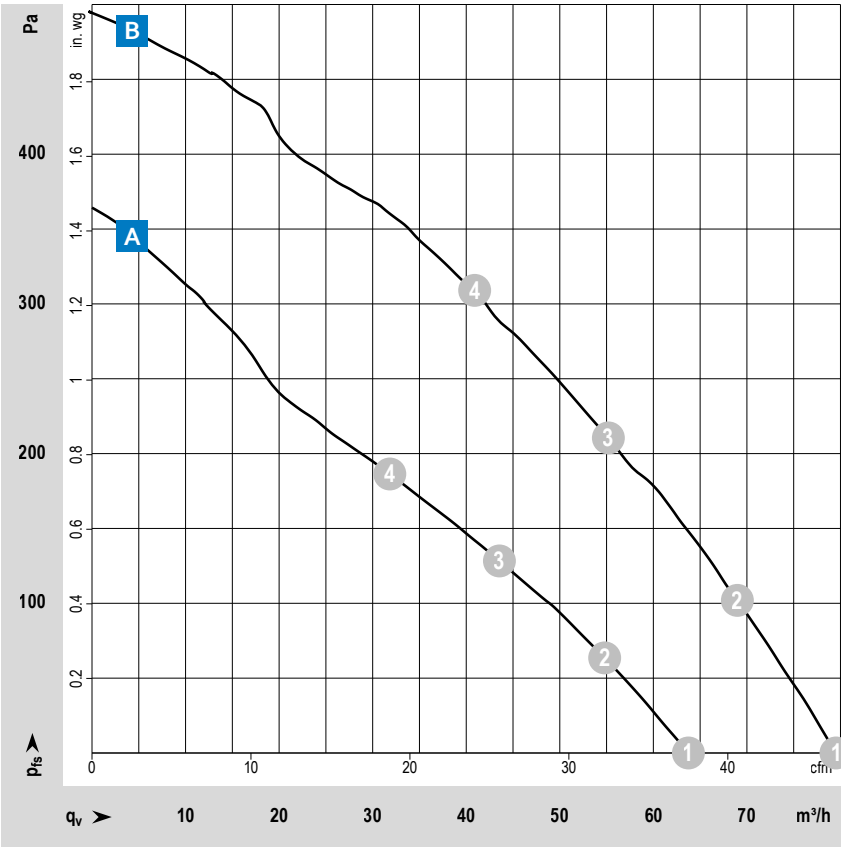


VCS0100XUGBS

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



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



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

Measuring conditions

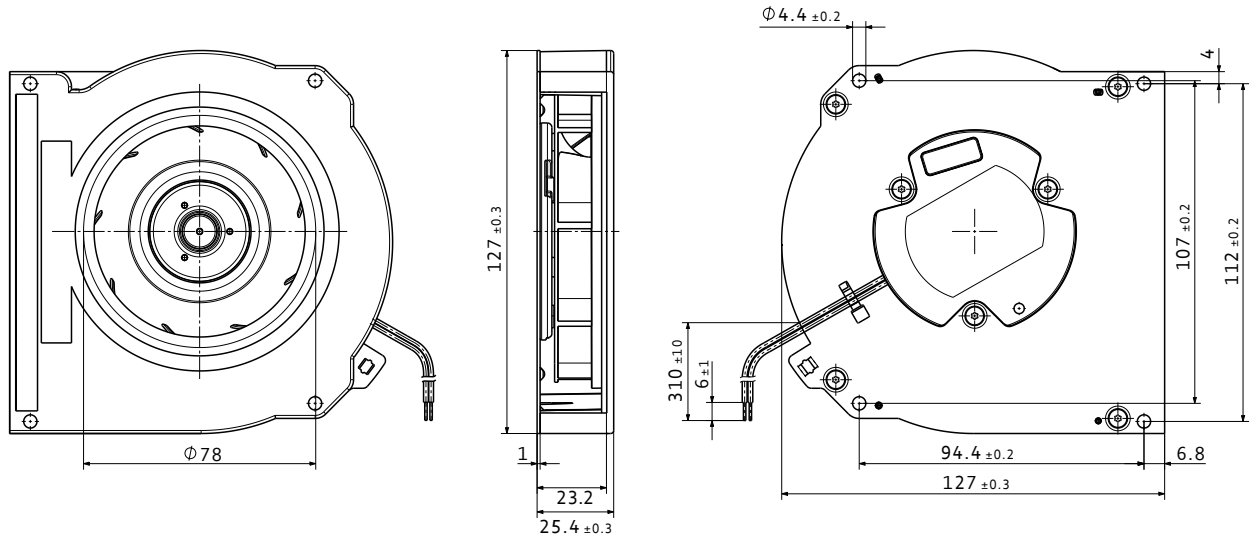
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VCS0100XUGBS RLF 100-11/12	**9593507051**	**12**	8...15	A	1	63.0	37.1	5 100	7.3	6.7	-20...+75	80 000	135 000
					2	54.0	31.8	5 040	7.4	6.5			
					3	42.9	25.2	5 020	7.5	6.4			
					4	31.2	18.4	5 070	7.4	6.4			
VCS0100XUGBS RLF 100-11/14	**9593507052**	**24**	16...30	A	1	64.0	37.7	5 100	7.5	6.7	-20...+75	80 000	135 000
					2	55.0	32.4	5 040	7.7	6.5			
					3	43.5	25.6	5 020	7.8	6.4			
					4	31.8	18.7	5 090	7.5	6.4			
VCS0100XUGBS RLF 100-11/18	**9593507056**	**48**	36...60	A	1	64.0	37.7	5 100	8.2	6.7	-20...+75	80 000	135 000
					2	54.0	31.8	5 040	8.4	6.5			
					3	43.5	25.6	5 000	8.5	6.4			
					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	80.0	47.1	6 400	18.8	7.2	-20...+60	72 500	122 500
					2	69.0	40.6	6 400	19.6	7.1			
					3	56.0	33.0	6 400	20.2	7.0			
					4	41.0	24.1	6 400	19.7	7.1			
VCS0100XUGBS RLF100-11/18/2HP	**9793510182**	**48**	43...53	B	1	80.0	47.1	6 400	15.5	7.2	-20...+70	72 500	122 500
					2	69.0	40.6	6 340	16.1	7.1			
					3	55.0	32.4	6 320	16.6	7.0			
					4	41.0	24.1	6 360	16.1	7.1			

Subject to changes.

Technical drawing

Dimensions in mm

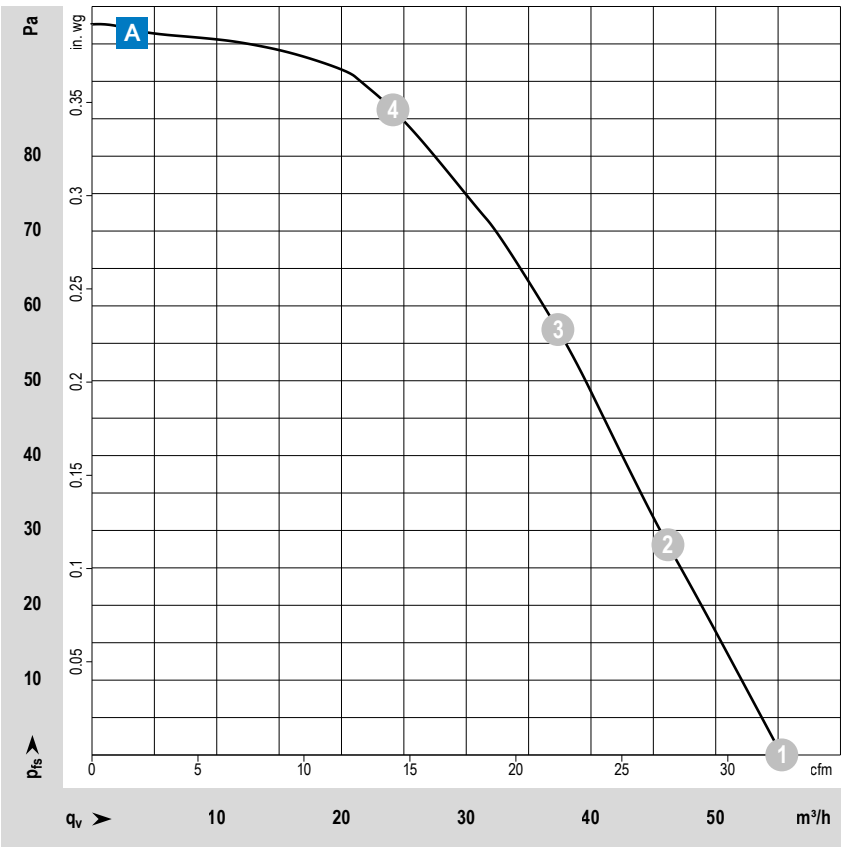


VHS0090XUJBS

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



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



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; 48 V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 440 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

Measuring conditions

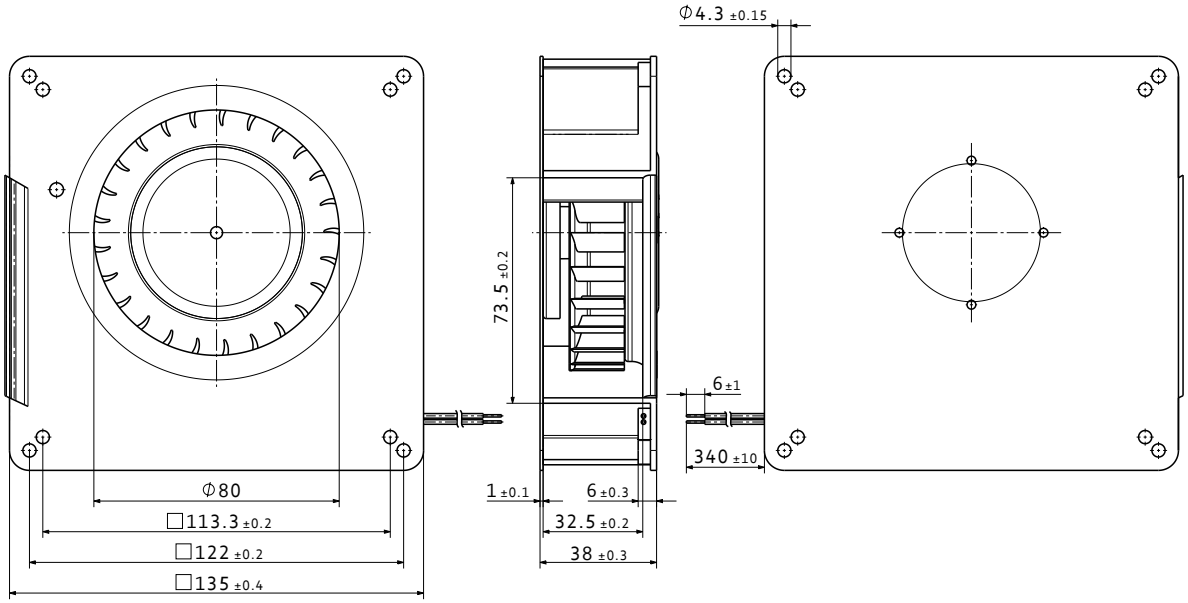
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{e}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	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
					2	47.4	27.9	2 350	6.2	6.0			
					3	38.5	22.7	2 530	5.5	5.8			
					4	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
					2	46.1	27.1	2 350	5.4	6.0			
					3	37.4	22.0	2 480	4.8	5.7			
					4	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
					2	46.5	27.4	2 340	5.3	6.0			
					3	37.2	21.9	2 490	4.7	5.7			
					4	24.0	14.1	2 740	3.8	5.6			

Subject to changes.

Technical drawing

Dimensions in mm

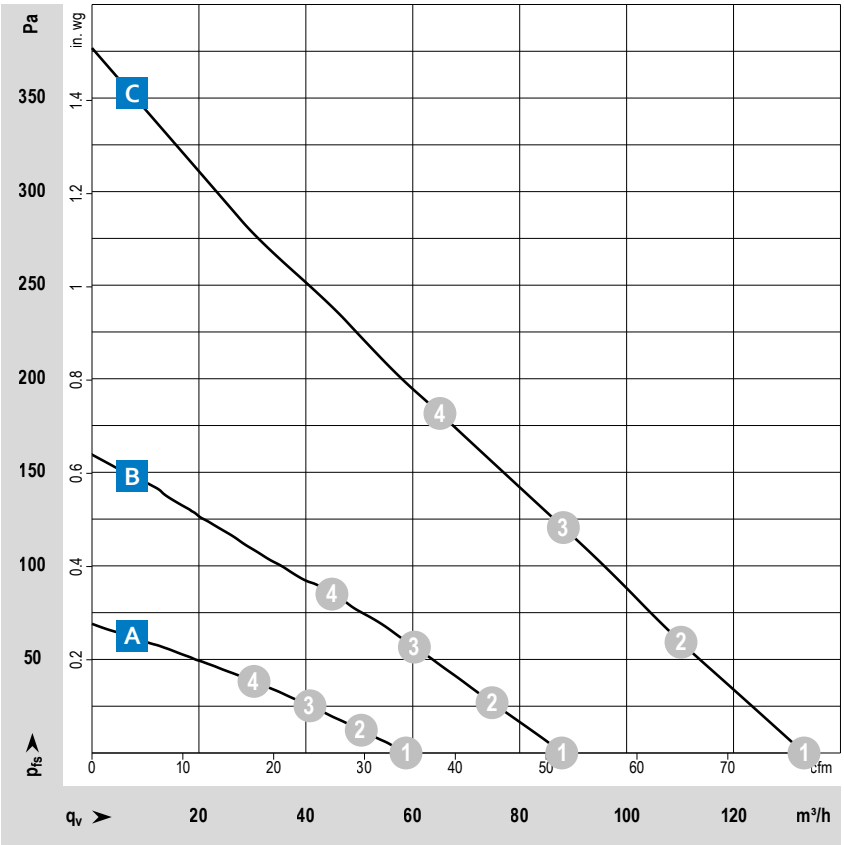


VCS0125XUJBS

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



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



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; 48 V type: Flat plug; 6,3 x 0,8 mm for ground conductor
- Electrical protection class: III
- Weight: 730 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

Measuring conditions

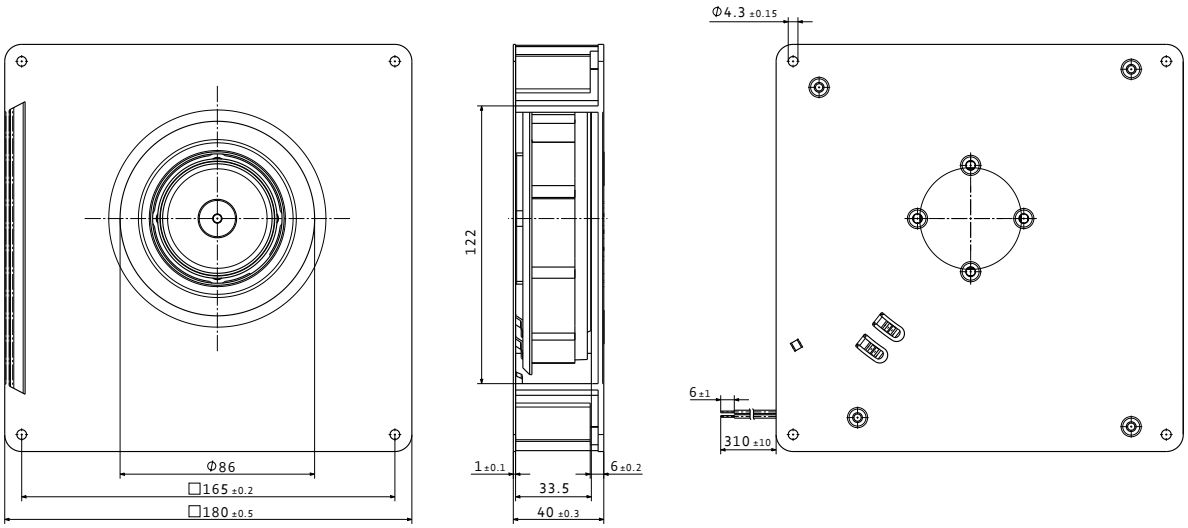
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VCS0125XUJBS RG 125-19/12 NM	**9594310123**	**12**	7...15	A	1	56.0	33.0	1 750	1.8	5.1	-30...+75	70 000	117 500
					2	48.9	28.8	1 730	1.8	5.1			
					3	39.9	23.5	1 730	1.8	5.0			
					4	29.9	17.6	1 750	1.8	4.9			
VCS0125XUJBS RG 125-19/12 N	**9594310122**	**12**	7...15	B	1	84.0	49.4	2 550	5.1	6.1	-30...+75	62 500	105 000
					2	72.0	42.4	2 490	5.2	6.0			
					3	59.0	34.7	2 500	5.2	5.9			
					4	44.1	26.0	2 540	5.0	5.8			
VCS0125XUJBS RG 125-19/14 NM	**9594310121**	**24**	12...28	A	1	59.0	34.7	1 750	1.9	5.1	-30...+75	70 000	117 500
					2	50.0	29.4	1 700	2.0	5.1			
					3	40.6	23.9	1 700	2.0	5.0			
					4	30.2	17.8	1 730	1.9	4.9			
VCS0125XUJBS RG 125-19/14 N	**9594310120**	**24**	12...28	B	1	86.0	50.6	2 550	4.6	6.1	-30...+75	62 500	105 000
					2	73.0	43.0	2 500	4.8	6.0			
					3	59.0	34.7	2 520	4.8	5.9			
					4	44.2	26.0	2 560	4.6	5.8			
VCS0125XUJBS RG 125-19/18 N	**9594310125**	**48**	36...56	B	1	88.0	51.8	2 550	4.7	6.1	-30...+75	62 500	105 000
					2	75.0	44.1	2 510	4.8	6.0			
					3	60.0	35.3	2 520	4.8	5.9			
					4	44.9	26.4	2 560	4.7	5.8			
VCS0125XUJBS RG 125-19/18 NH	**9594310149**	**48**	36...56	C	1	133.0	78.3	4 000	17.0	7.3	-20...+70	55 000	92 500
					2	110.0	64.7	3 940	17.5	7.3			
					3	88.0	51.8	3 950	17.3	7.3			
					4	65.0	38.3	3 990	17.0	7.2			

Subject to changes.

Technical drawing

Dimensions in mm

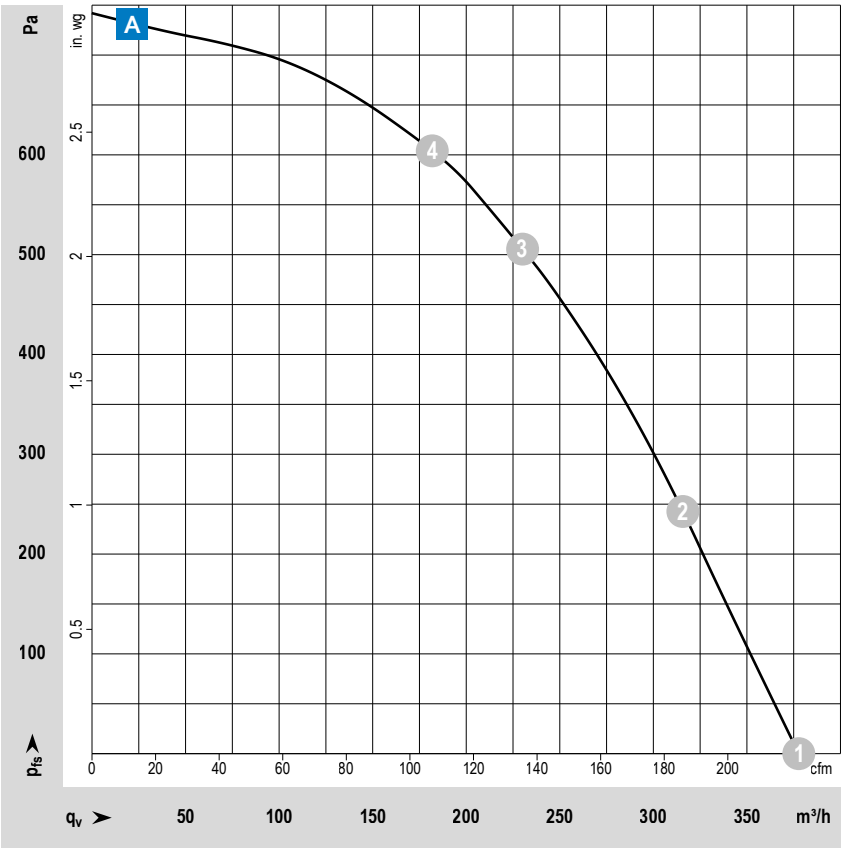


VCS0133RUJCS

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



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



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; 48 V 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

Measuring conditions

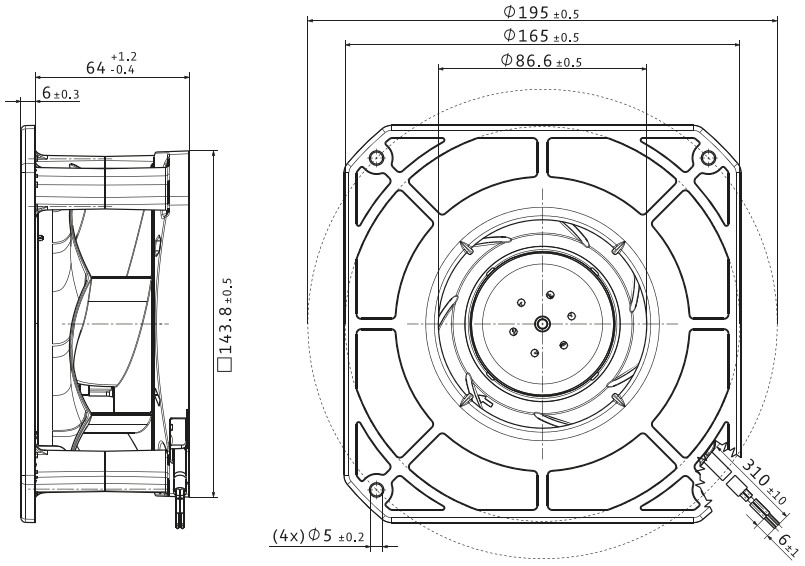
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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.

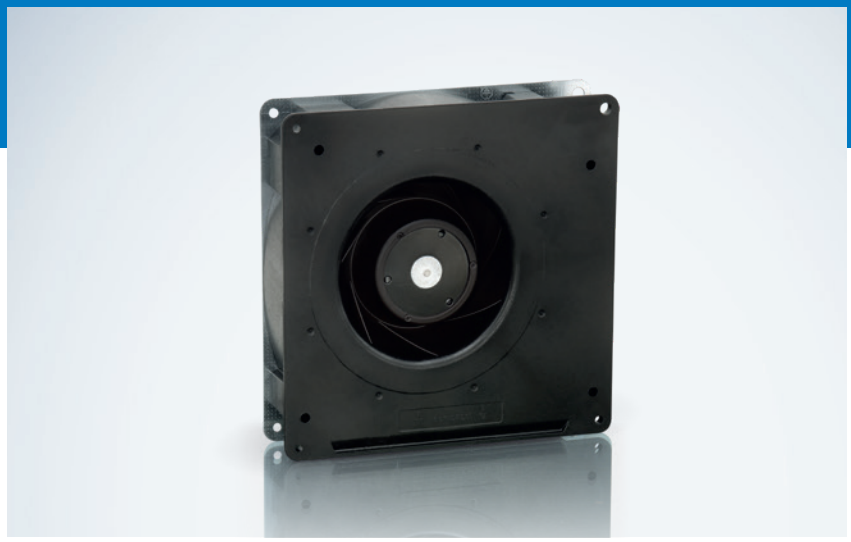
Technical drawing

Dimensions in mm

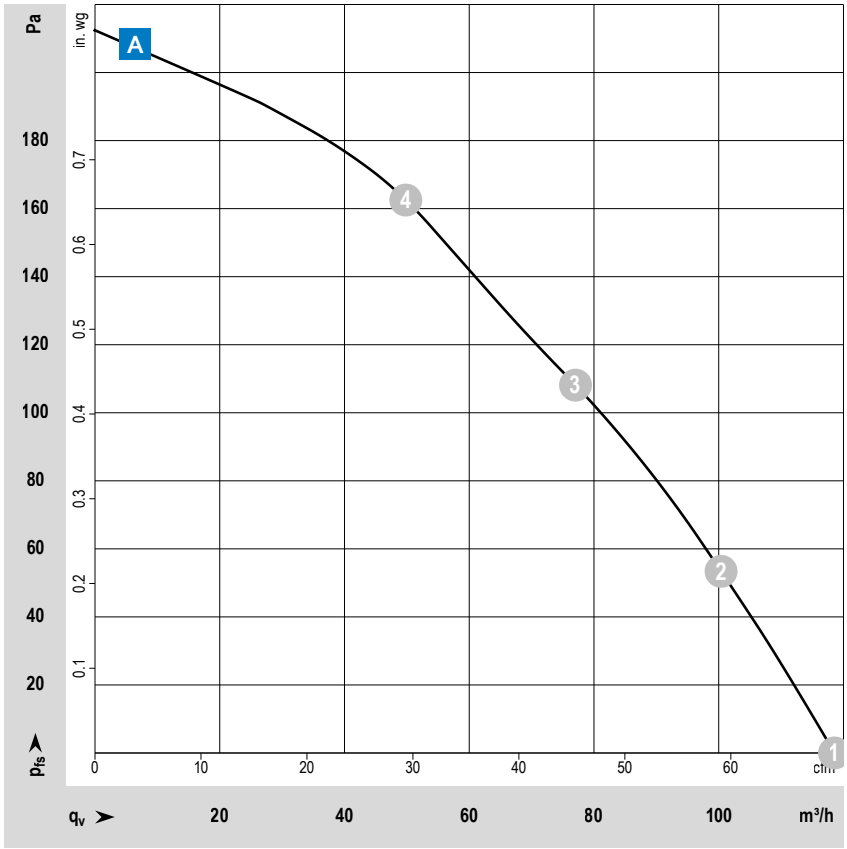


VCS0140XUJCZ

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



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 $p_A$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

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

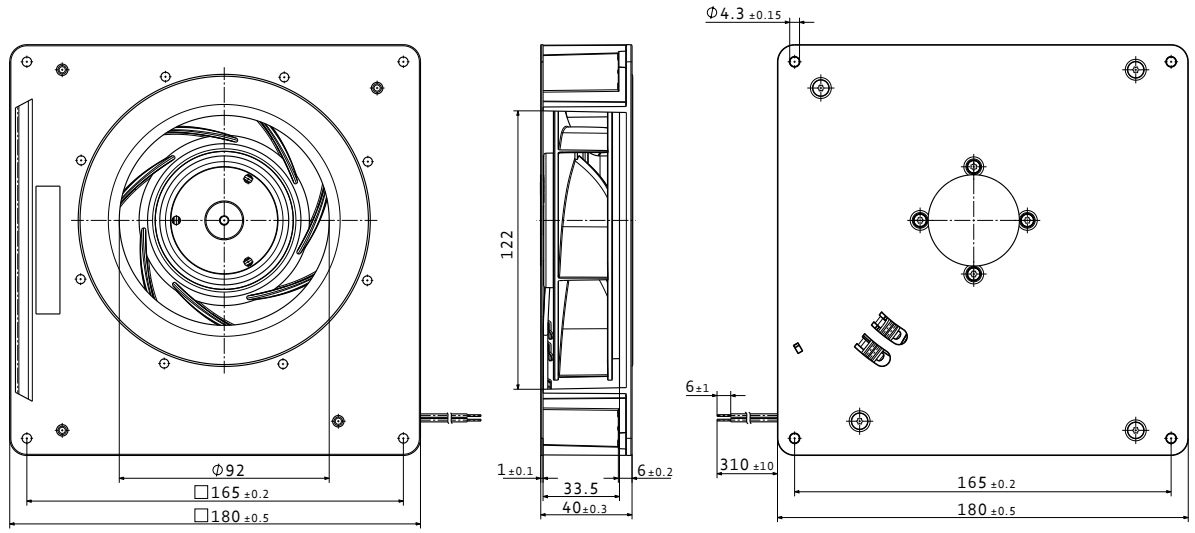
- Speed signal
- Go / No Go Alarm
- Alarm with speed limit
- External temperature sensor
- PWM control input
- Analog control input
- Multi-options control input
- Moisture protection
- Salt spray protection
- Degree of protection: IP 54

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) ebmpapst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/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 2 3 4	121.0 102.0 78.0 49.8	71.2 60.0 45.9 29.3	2 500 2 500 2 500 2 500	10.3 10.2 9.3 7.6	6.6 6.4 6.1 6.1	-20...+70	62 500	105 000
VCS0140XUJCZ RG 140-22/14 N/2 TDPU	**9794300504**	**24**	20.4...27.6	A	1 2 3 4	119.0 100.0 77.0 49.9	70.0 58.9 45.3 29.4	2 500 2 500 2 500 2 500	9.4 9.3 8.8 7.5	6.6 6.4 6.1 6.1	-20...+70	62 500	105 000

Subject to changes.

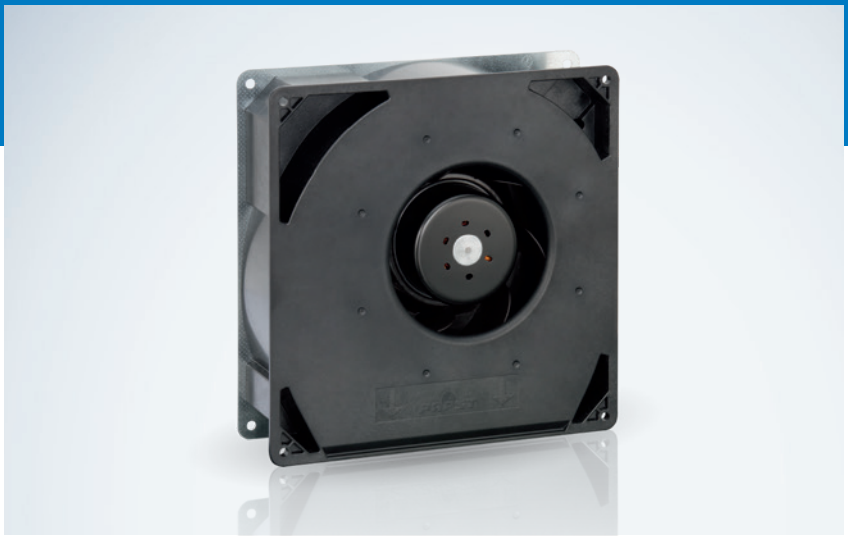
Technical drawing

Dimensions in mm

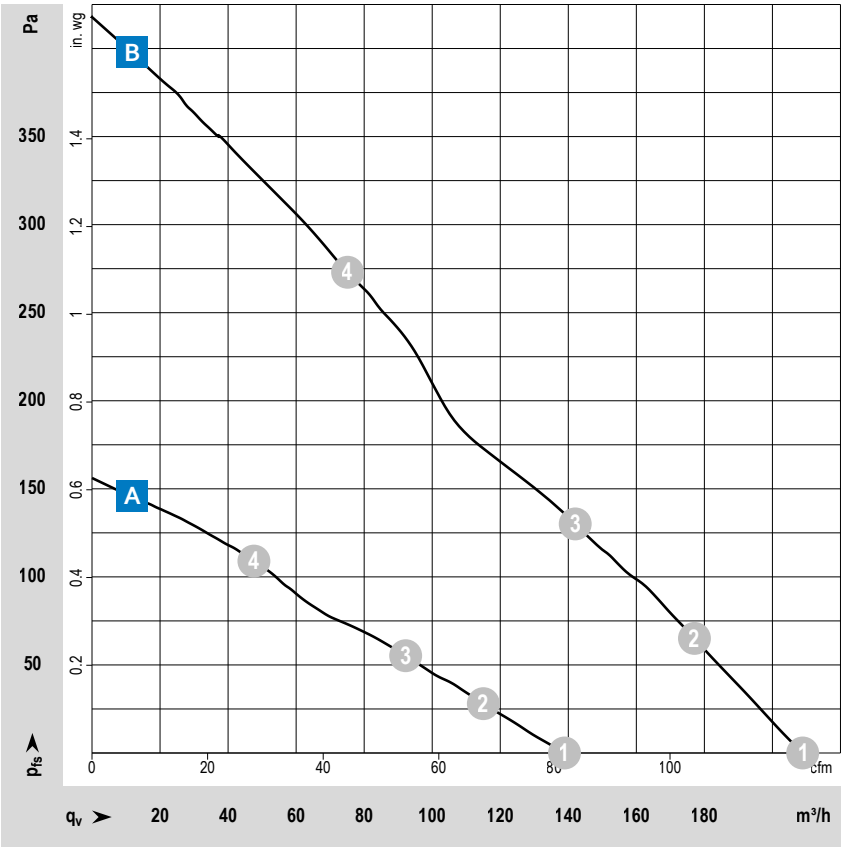


VCS0160XULCS

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



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



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; 48 V 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

Measuring conditions

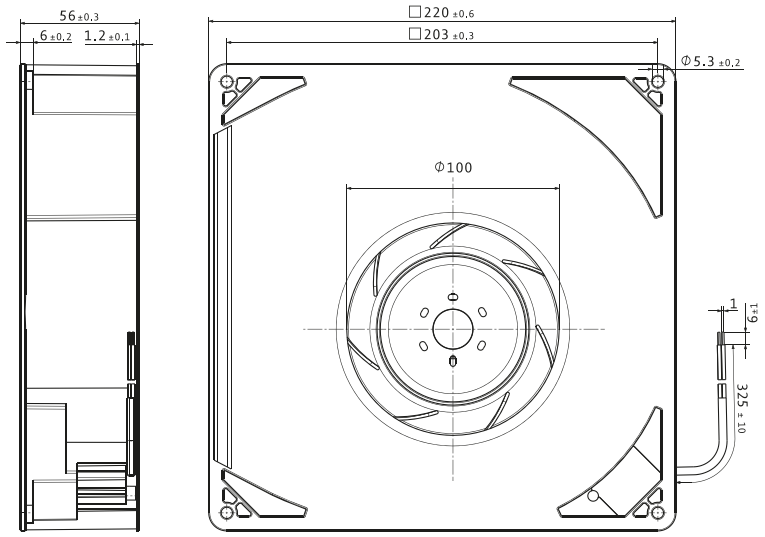
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
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.

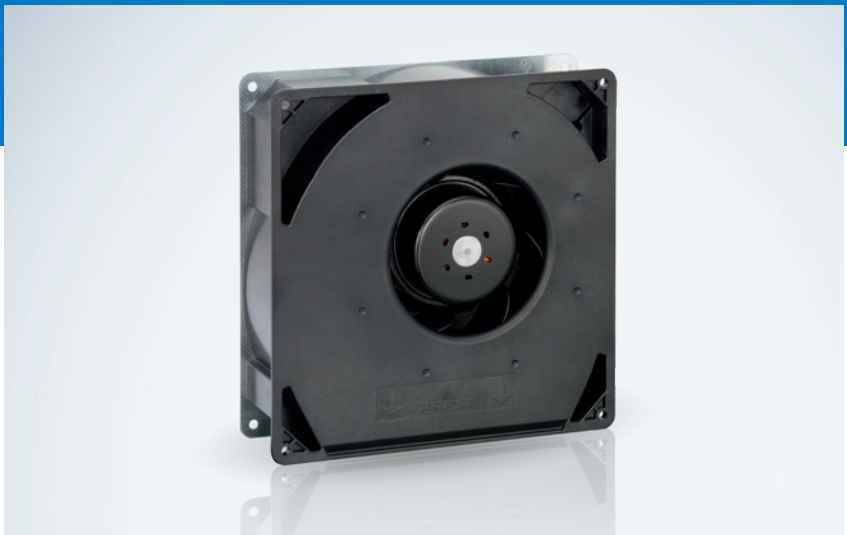
Technical drawing

Dimensions in mm

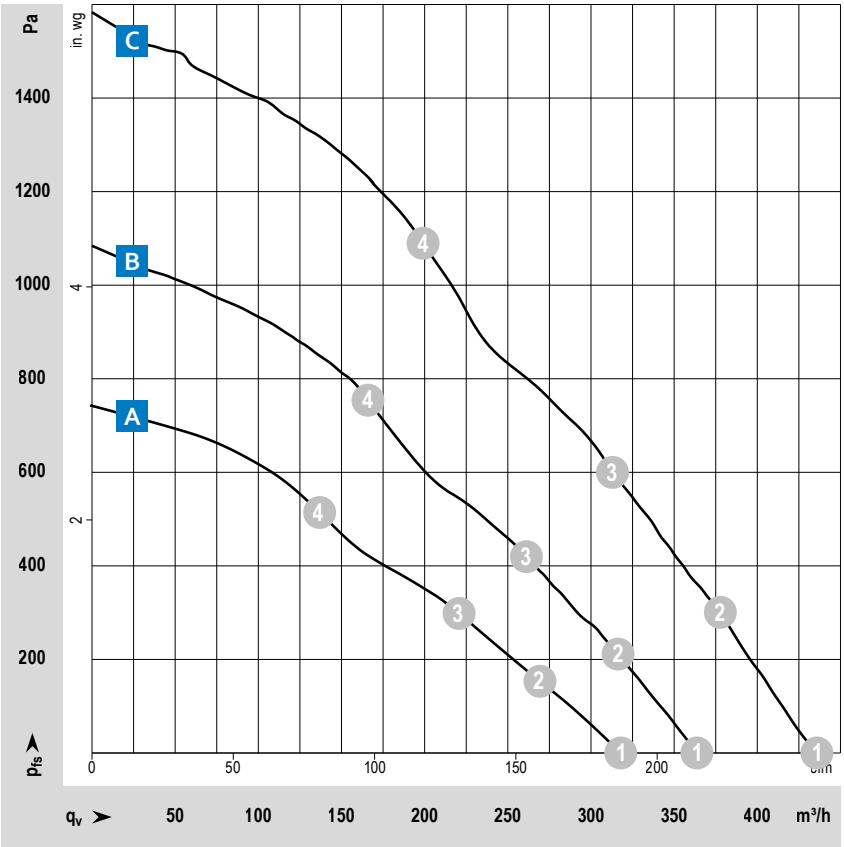


VCS0160XULCS

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



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



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; 48 V 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

Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$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

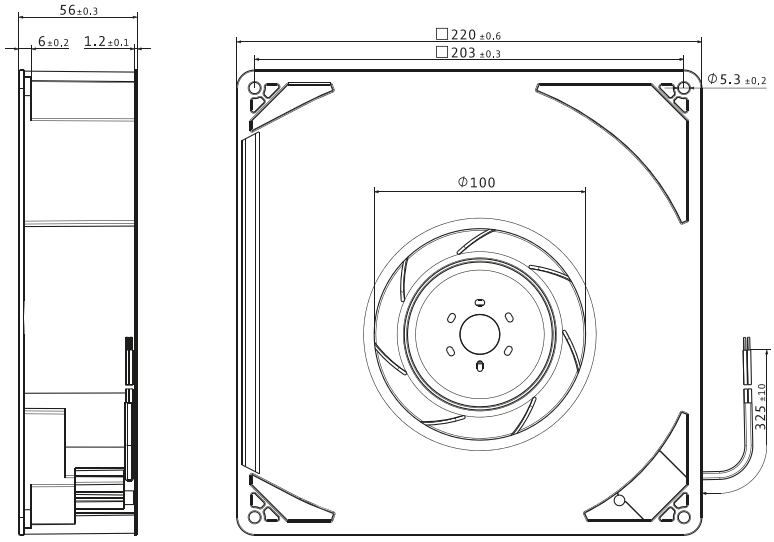
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
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
					2	271	160	4 200	69.9	8.0			
					3	222	131	4 200	70.0	7.8			
					4	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
					2	316	186	5 000	113.0	8.2			
					3	261	154	5 000	114.1	8.0			
					4	166	98	5 000	102.1	8.2			
VCS0160XULCS RG 160-28/18 N/2 TDHHP*	**9595414377**	**48**	36...60	C	1	436	257	6 000	177.8	8.8	-20...+65	40 000	67 500
					2	378	222	6 000	191.6	8.6			
					3	313	184	6 000	193.2	8.5			
					4	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.

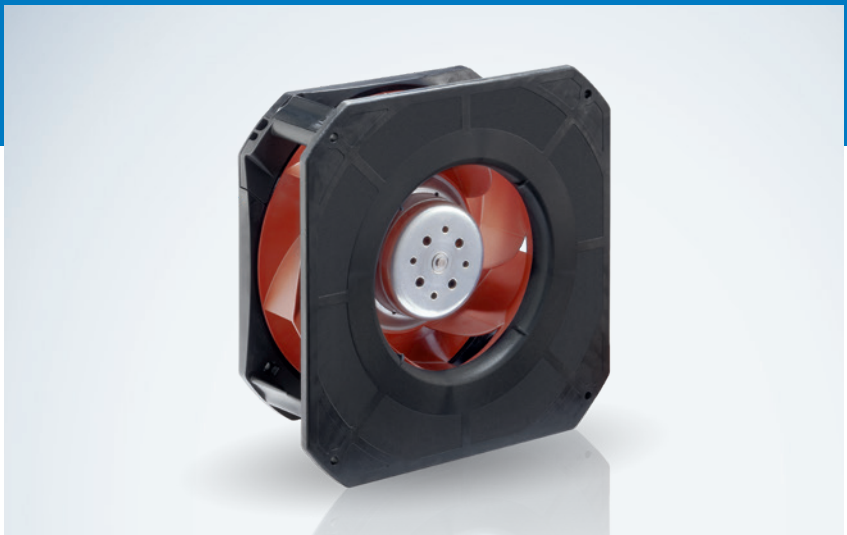
Technical drawing

Dimensions in mm

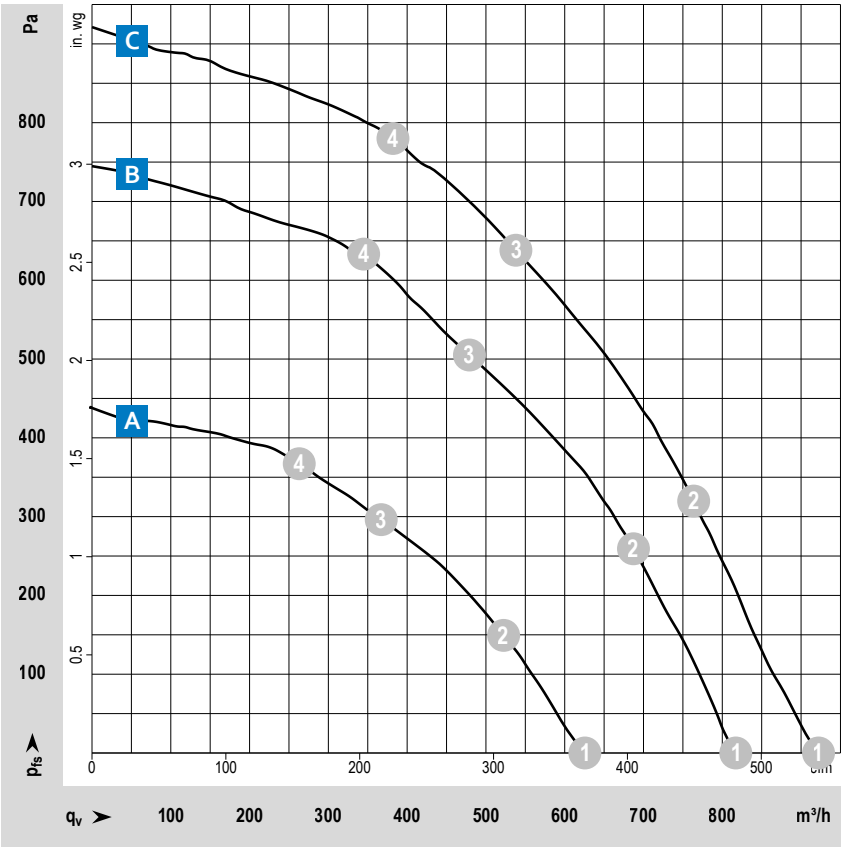


VCS0190RULDS

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



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: 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

Measuring conditions

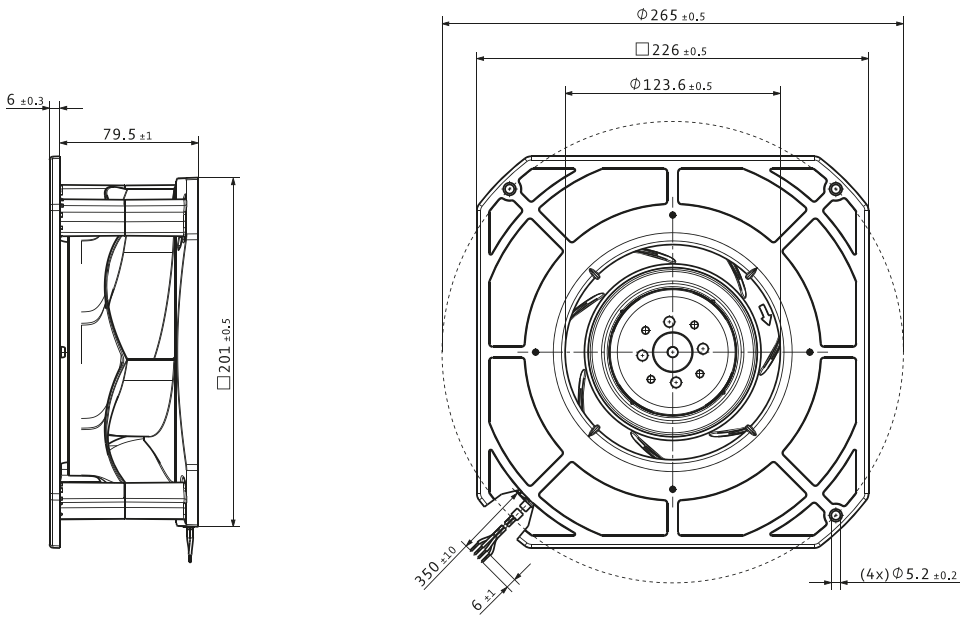
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VCS0160XULCS RG 190-39/14/2 TDMLO	**9595414741**	**24**	16...30	A	1	623	367	3 000	53.0	7.5	-20...+60	55 000	92 500
					2	521	307	2 990	68.0	7.3			
					3	367	216	2 980	75.9	7.3			
					4	263	155	3 040	73.2	7.4			
VCS0160XULCS RG 190-39/14/2 TDMO	**9595420221**	**24**	16...36	B	1	817	481	3 900	107.3	8.3	-20...+65	52 500	87 500
					2	687	404	3 890	137.1	8.0			
					3	479	282	3 860	150.0	8.0			
					4	345	203	3 960	148.2	8.0			
VCS0160XULCS RG 190-39/18/2 TDMLO	**9595414743**	**48**	36...57	A	1	626	368	3 000	53.4	7.5	-20...+60	55 000	92 500
					2	522	307	2 970	67.5	7.3			
					3	367	216	2 970	75.2	7.3			
					4	263	155	3 020	72.4	7.4			
VCS0160XULCS RG 190-39/18/2 TDMO	**9595420223**	**48**	36...72	B	1	822	484	3 900	101.6	8.3	-20...+65	52 500	87 500
					2	683	402	3 880	129.3	8.0			
					3	482	284	3 870	145.2	8.0			
					4	342	201	3 930	138.6	8.0			
VCS0160XULCS RG 190-39/18/2 TDO	**9595420220**	**48**	36...72	C	1	922	543	4 400	141.4	8.6	-20...+65	40 000	67 500
					2	764	450	4 340	179.6	8.3			
					3	538	317	4 340	201.8	8.1			
					4	382	225	4 400	192.8	8.1			

Subject to changes.

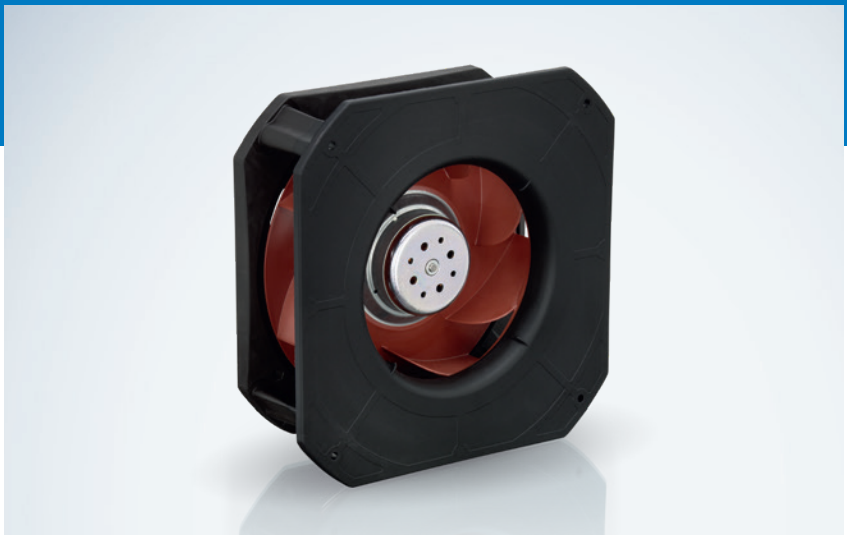
Technical drawing

Dimensions in mm

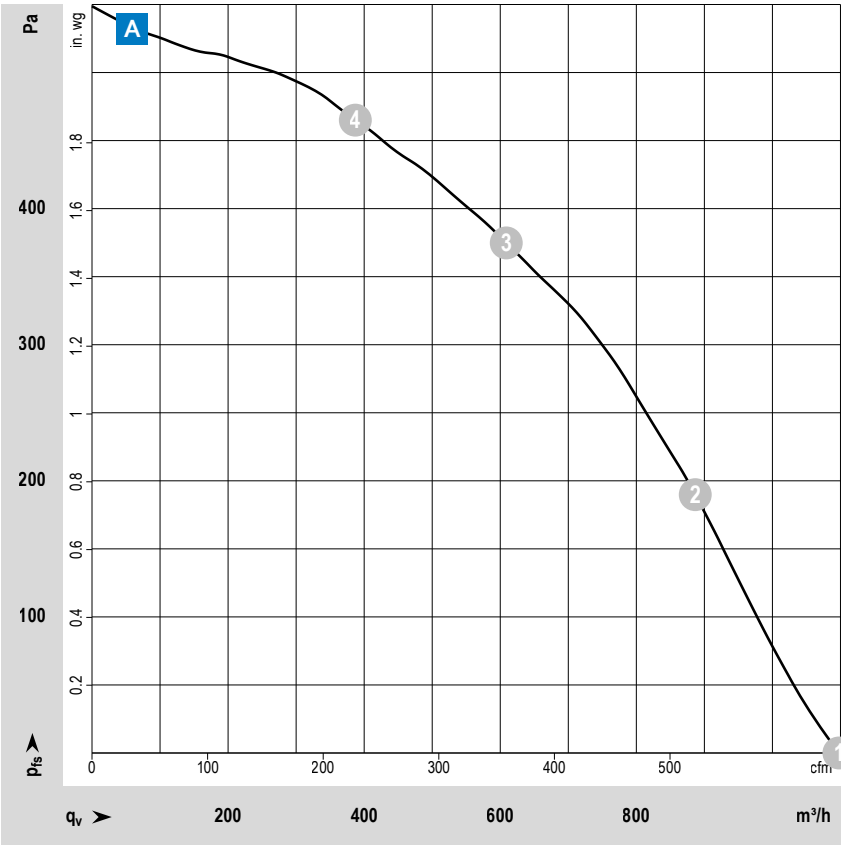


VCS0220RULDS

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



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: 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

Measuring conditions

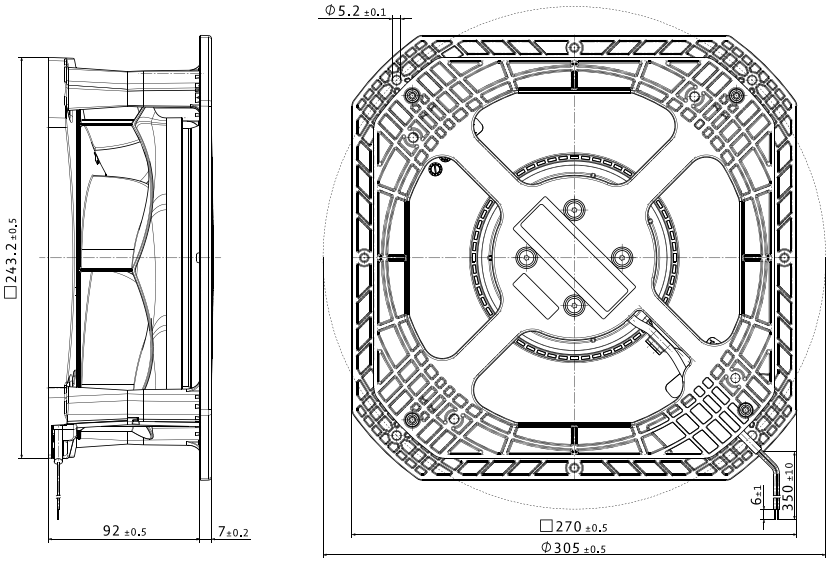
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VCS0220RULDS RG 220-43/14/2 TDMO	**9595420305**	**24**	16...36	A	1 2 3 4	1 098 887 609 387	646 522 358 228	3 000 2 950 2 940 3 000	96.0 121.2 143.7 135.6	7.8 7.5 7.6 7.7	-20...+55	55 000	92 500

Subject to changes.

Technical drawing

Dimensions in mm

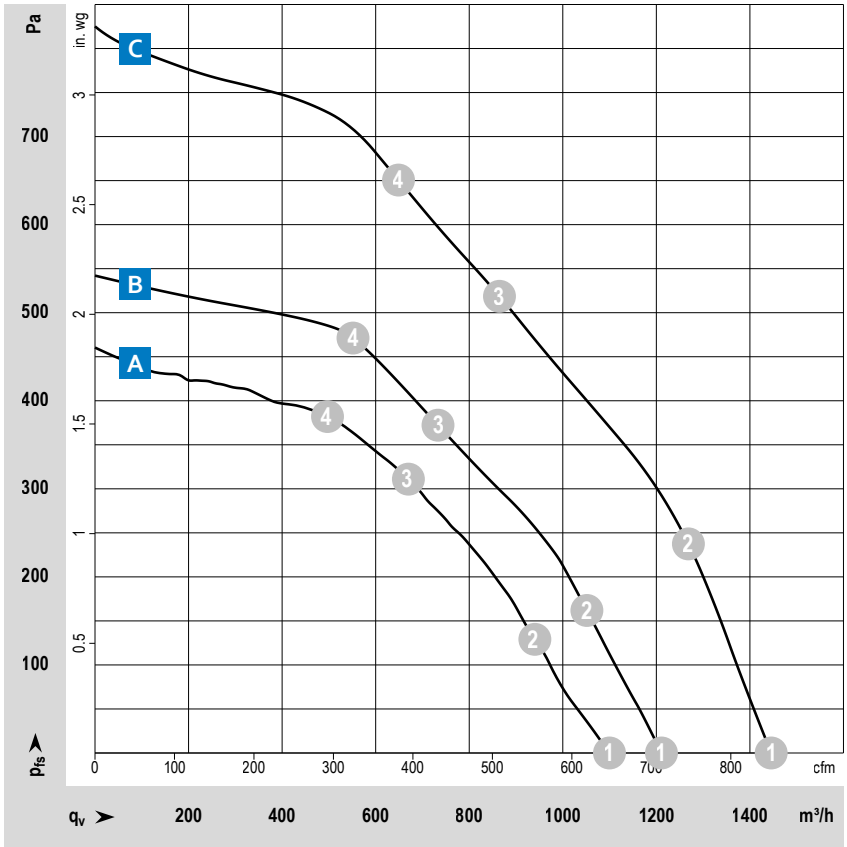


VCS0225RULDS

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 $p_s$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

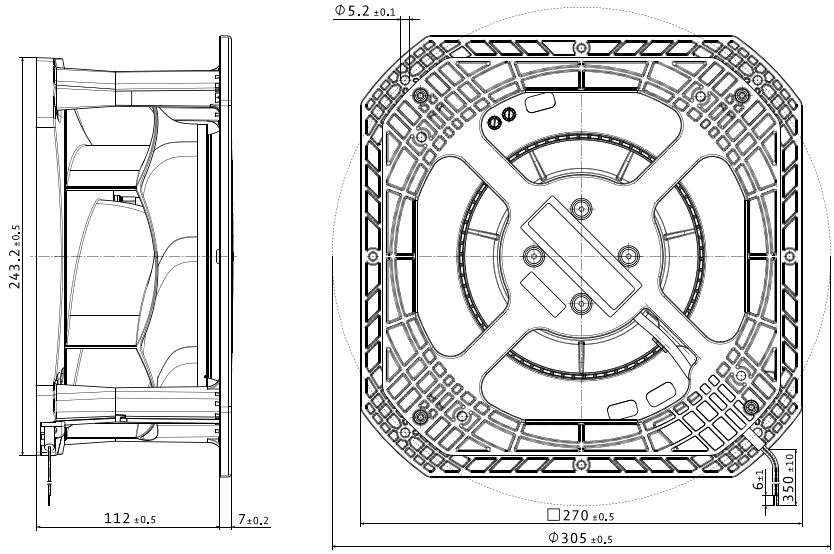
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
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

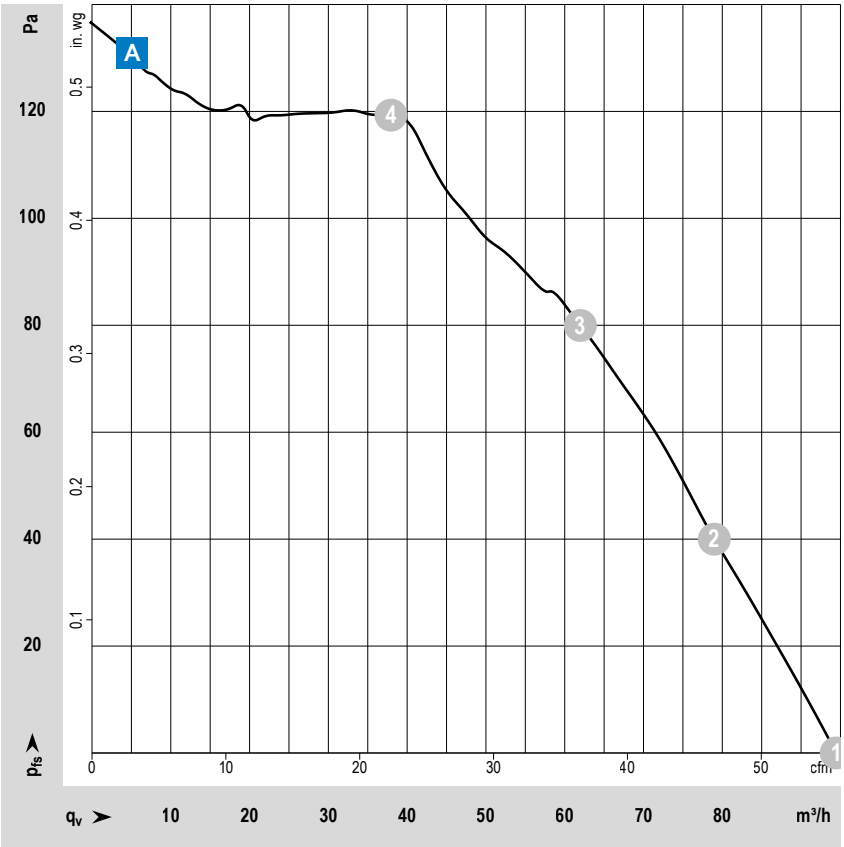


VFS0085XUJCS

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



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



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

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 $p_s$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

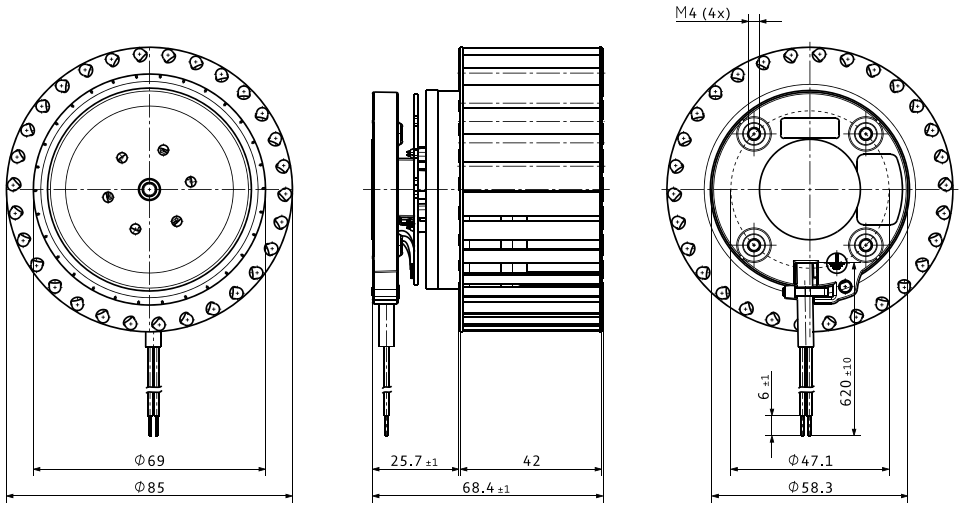
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VFS0085XUJCS RET 85-42/14/2 TDLOR-402	**9594314402**	**24**	20...28	A	1 2 3 4	94 79 62 38	55 46 36 22	2 850 2 850 2 850 2 850	13.0 10.8 8.6 5.9	6.9 6.7 6.7 6.6	-20...+60	62 500	105 000

Subject to changes.

All nominal data were measured in the scroll housing.

Technical drawing

Dimensions in mm

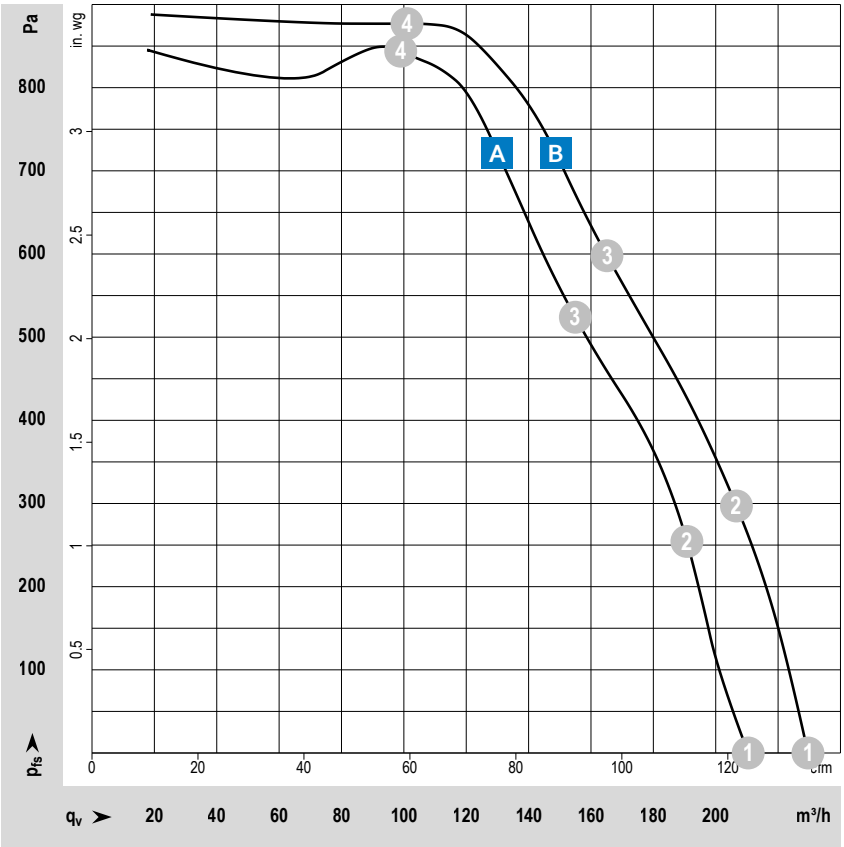


VFS0097XUJCS

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 $p_o$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

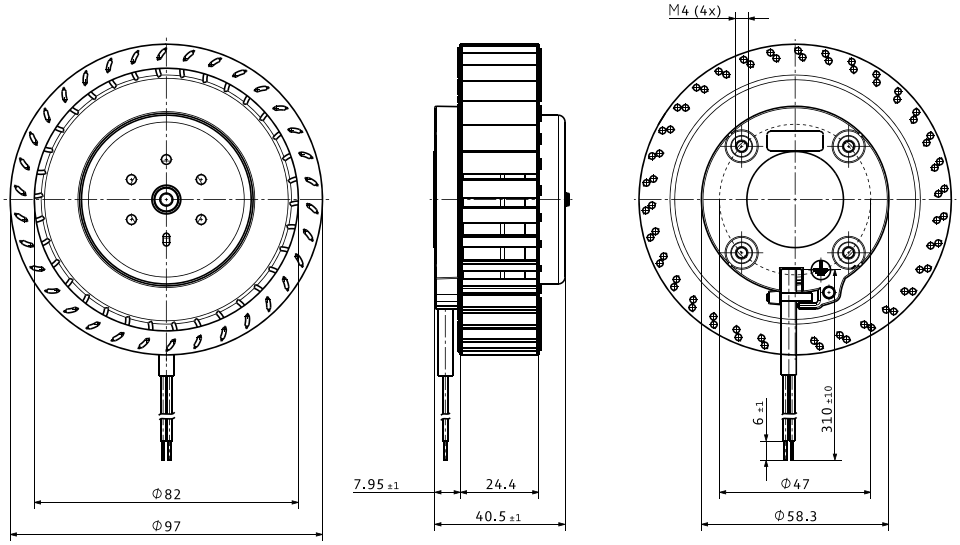
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°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	8.4			
					3	155	91	6 030	109.6	8.4			
					4	99	58	6 050	62.1	7.9			
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	8.6			
					3	165	97	6 210	111.2	8.5			
					4	101	59	6 270	64.4	8.0			

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. All nominal data were measured in the scroll housing.

Technical drawing

Dimensions in mm

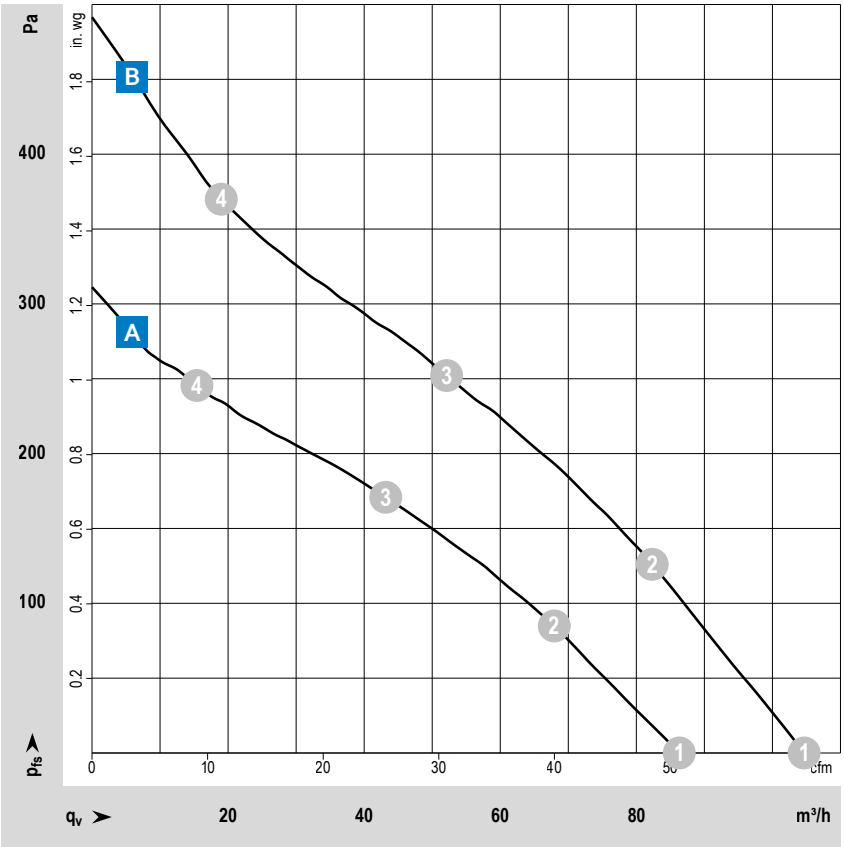


VBS0100XUGBS

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



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



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

Measuring conditions

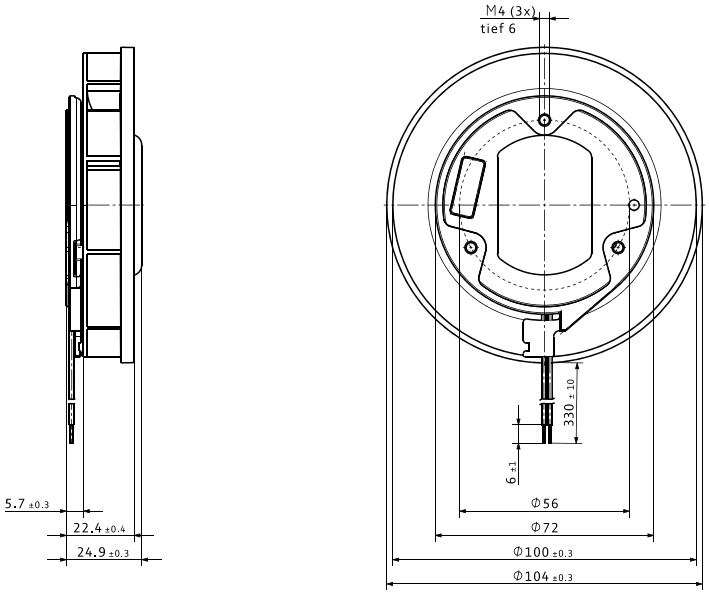
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		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 68.0 43.2 15.4	50.6 40.0 25.4 9.1	5 400 5 170 5 000 5 400	6.7 7.3 8.0 6.7	7.0 6.6 6.4 6.8	-20...+75	80 000	135 000
VBS0100XUGBS REF 100-11/14	**9593507003**	**24**	16...30	A	1 2 3 4	85.0 67.0 43.1 15.3	50.0 39.4 25.4 9.0	5 400 5 230 5 070 5 400	6.6 7.2 7.8 6.7	7.0 6.6 6.4 6.8	-20...+75	80 000	135 000
VBS0100XUGBS REF 100-11/18/2	**9593507008**	**48**	36...60	A	1 2 3 4	83.0 66.0 42.3 15.2	48.9 38.8 24.9 8.9	5 400 5 220 5 050 5 400	7.3 7.9 8.4 7.3	7.0 6.6 6.4 6.8	-20...+75	80 000	135 000
VBS0100XUGBS REF 100-11/18 H	**9593507005**	**48**	36...56	B	1 2 3 4	105.0 82.0 52.0 19.0	61.8 48.3 30.6 11.2	6 700 6 430 6 200 6 690	13.2 14.4 15.6 13.3	7.3 7.0 6.8 7.3	-20...+70	67 500	115 000

Subject to changes.

Technical drawing

Dimensions in mm

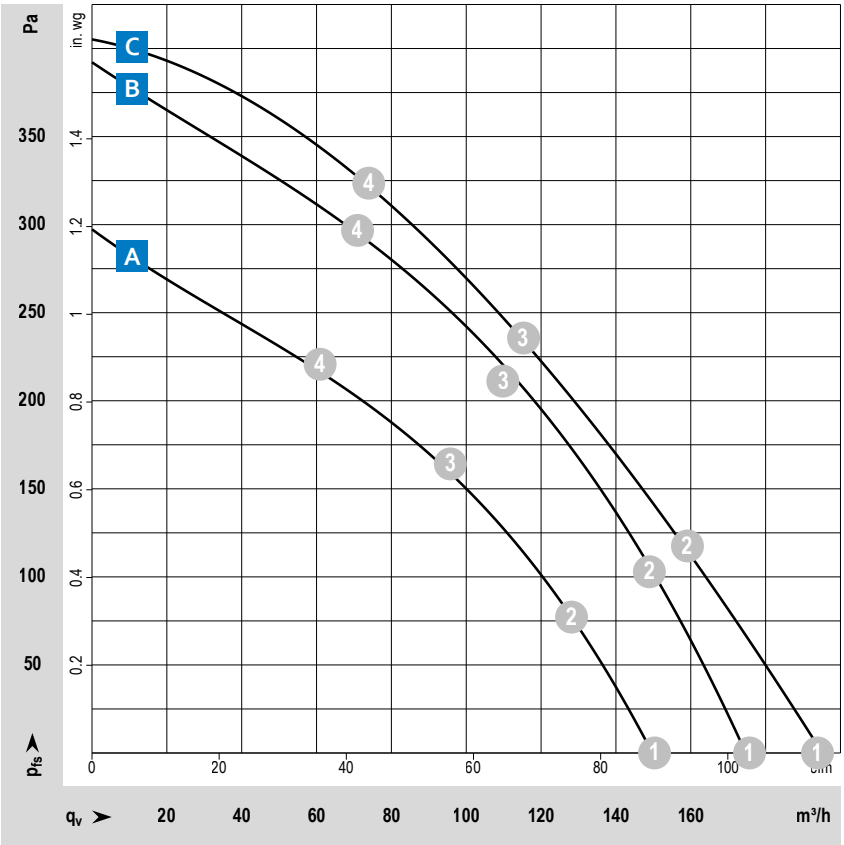


VBS0101XUGDS

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



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



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

Measuring conditions

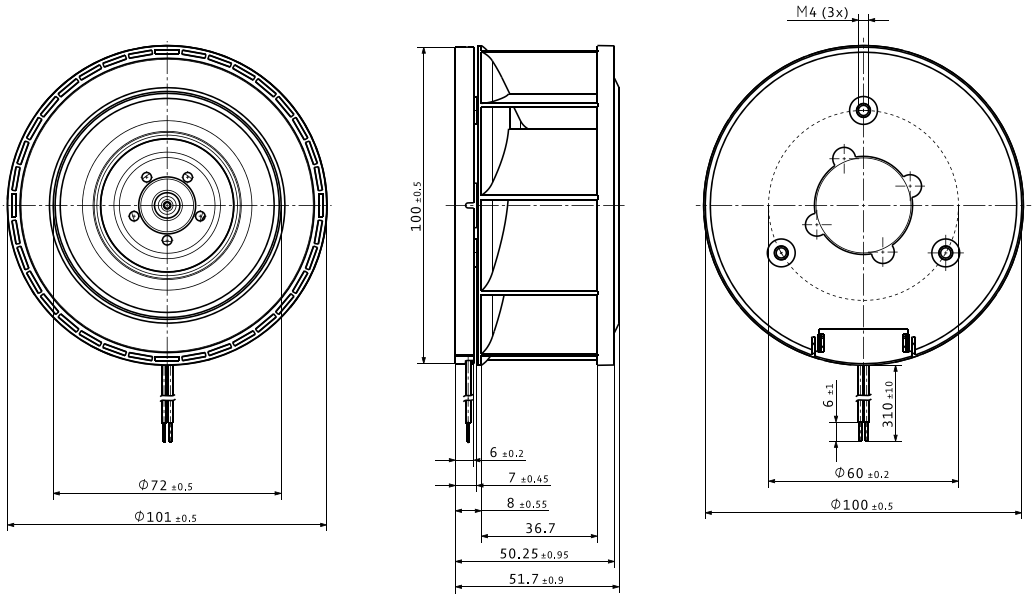
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_a$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		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

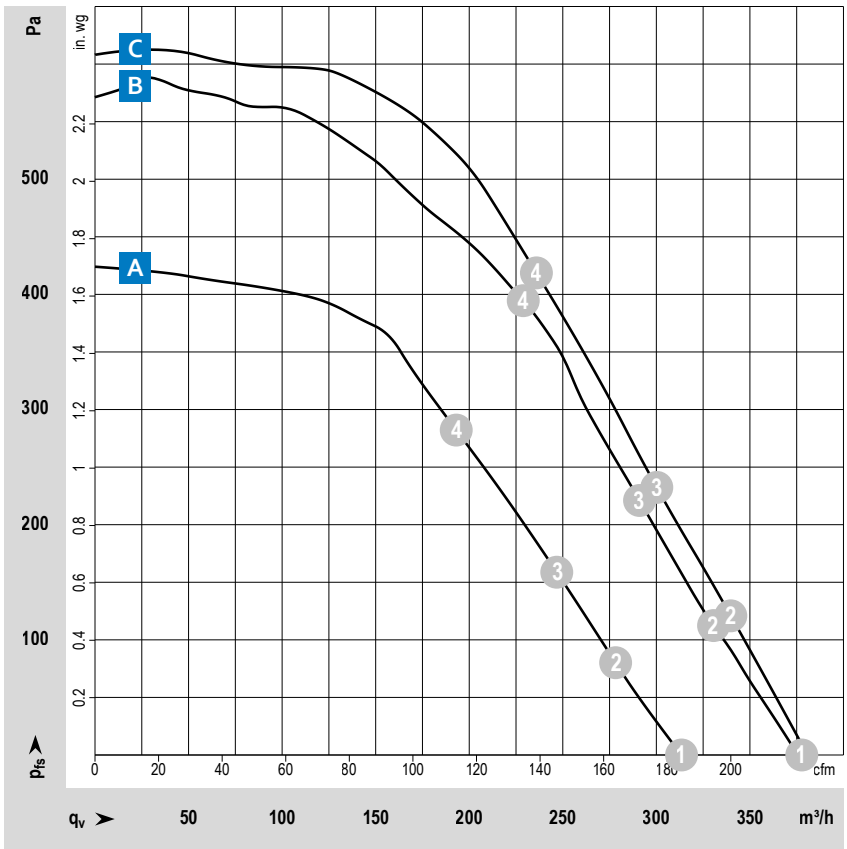


VBS0120XUJCS

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



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 $p_A$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

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

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

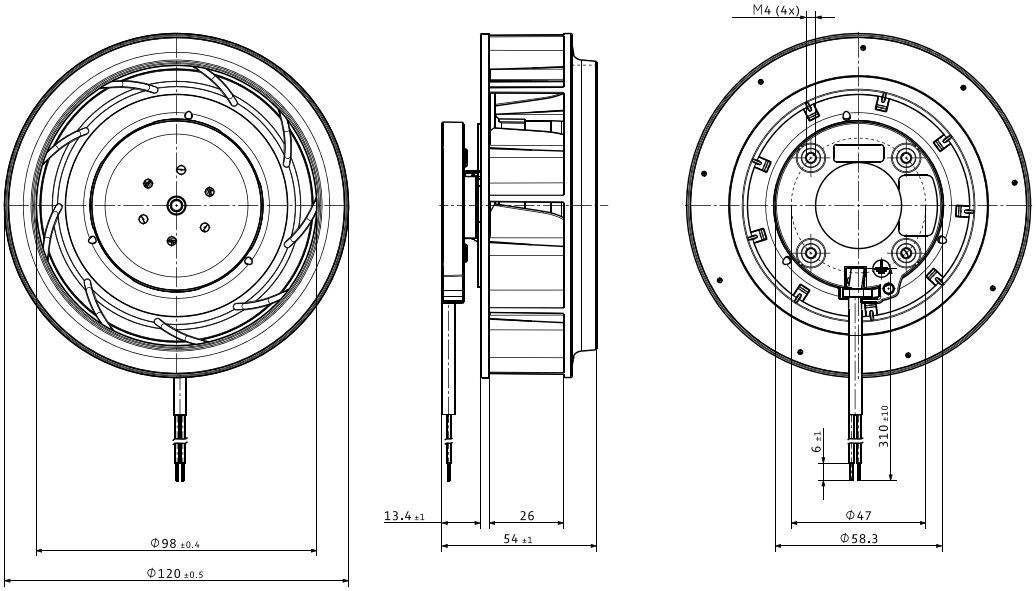
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VBS0120XUJCS RER 120-26/14/2 TDP	**9594314001**	**24**	16...32	B	1	376	221	6 100	96.1	8.4	-20...+60	55 000	92 500
					2	330	194	6 130	98.1	8.4			
					3	291	171	6 140	98.4	8.4			
					4	229	135	6 200	93.9	8.4			
VBS0120XUJCS RER 120-26/18/2 TDMP	**9594314005**	**48**	36...60	A	1	313	184	5 200	53.4	8.1	-20...+60	57 500	97 500
					2	278	164	5 200	54.1	8.1			
					3	247	145	5 200	54.7	8.1			
					4	193	114	5 200	53.7	8.1			
VBS0120XUJCS RER 120-26/18/2 TDP	**9594314000**	**48**	36...60	C	1	381	224	6 300	100.8	8.5	-20...+60	50 000	85 000
					2	340	200	6 300	103.4	8.5			
					3	300	177	6 300	103.9	8.5			
					4	236	139	6 360	100.3	8.5			

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

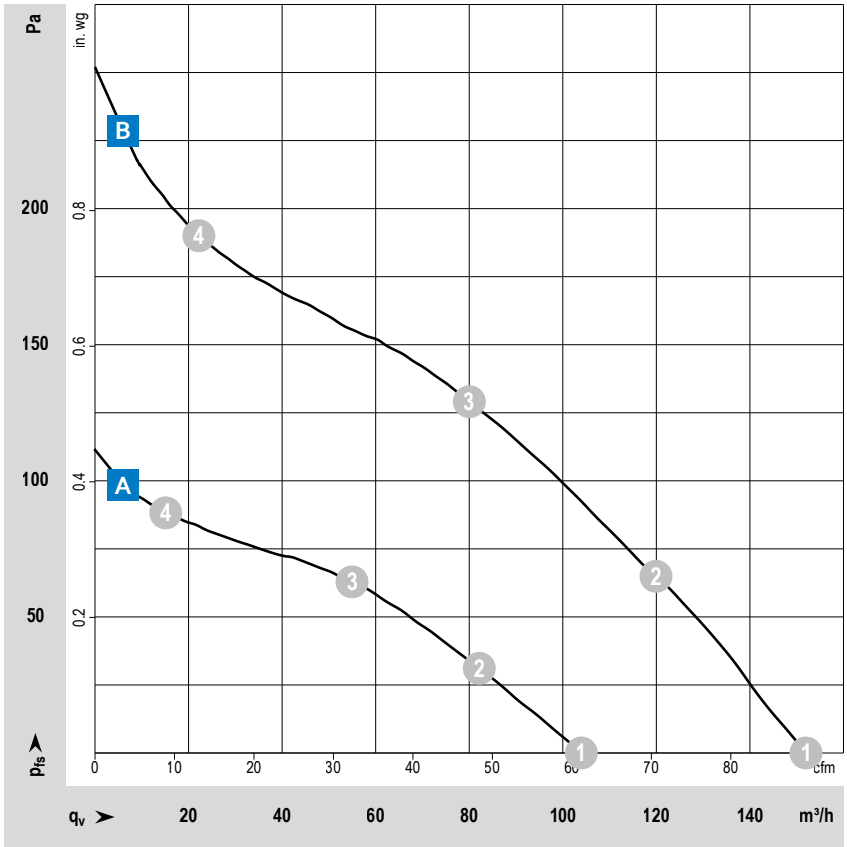


VBS0125XUJBS

DC centrifugal fans · max. 152 m³/h · Ø 138 x 35 mm



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



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

Measuring conditions

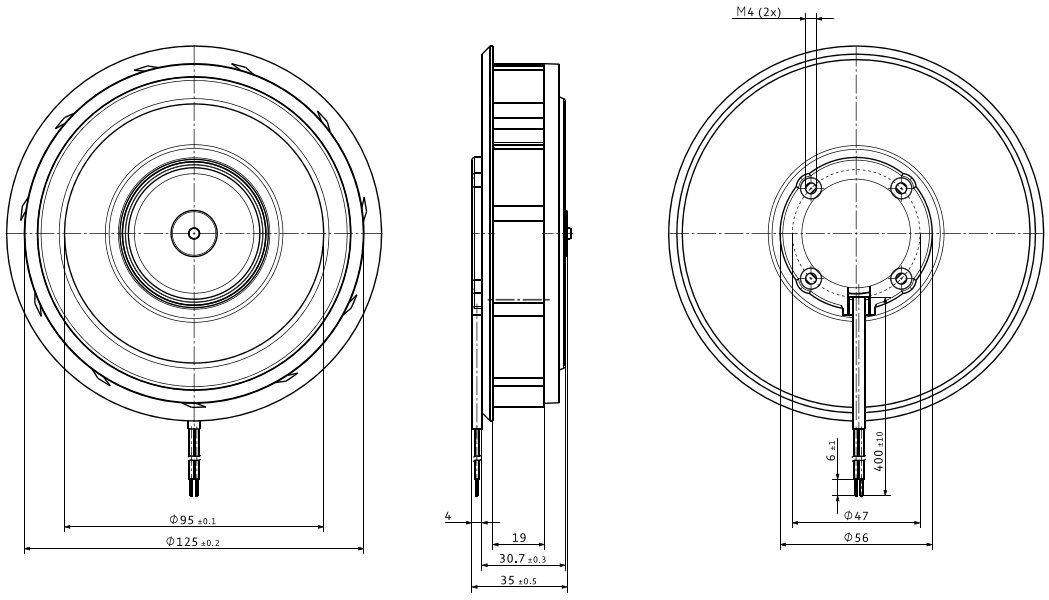
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VBS0120XUJCS RER 125-19/12 N	**9594310157**	**12**	7...15	A	1	100.0	58.9	2 650	3.8	6.0	-30...+75	62 500	105 000
					2	80.0	47.1	2 560	4.2	5.9			
					3	54.0	31.8	2 490	4.4	5.8			
					4	15.0	8.8	2 620	4.0	5.8			
VBS0120XUJCS RER 125-19/14 N	**9594310155**	**24**	12...28	A	1	104.0	61.2	2 650	4.1	6.0	-30...+75	62 500	105 000
					2	82.0	48.3	2 560	4.4	5.9			
					3	55.0	32.4	2 490	4.7	5.8			
					4	15.1	8.9	2 620	4.2	5.8			
VBS0120XUJCS RER 125-19/14 NH-172	**9594310172**	**24**	12...28	B	1	152.0	89.5	4 000	10.2	6.9	-20...+70	55 000	92 500
					2	120.0	70.6	3 840	11.0	6.8			
					3	80.0	47.1	3 720	11.6	6.9			
					4	22.2	13.1	3 920	10.6	6.9			
VBS0120XUJCS RER 125-19/18 N	**9594310170**	**48**	36...56	A	1	101.0	59.4	2 650	3.7	6.0	-30...+75	62 500	105 000
					2	81.0	47.7	2 560	4.0	5.9			
					3	54.0	31.8	2 500	4.2	5.8			
					4	15.1	8.9	2 620	3.8	5.8			

Subject to changes.

Technical drawing

Dimensions in mm

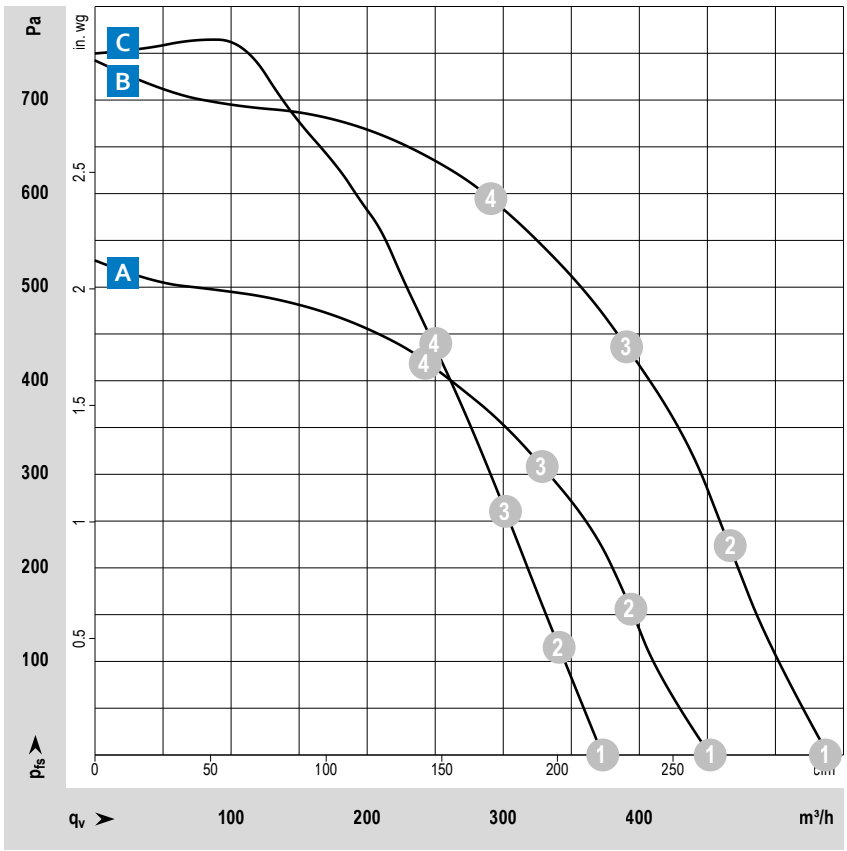


VBS0133X...

DC centrifugal fans · max. 539 m³/h · Ø 133 x 91 mm



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: 890 g; 460 g RadiCal

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_{ow}er 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

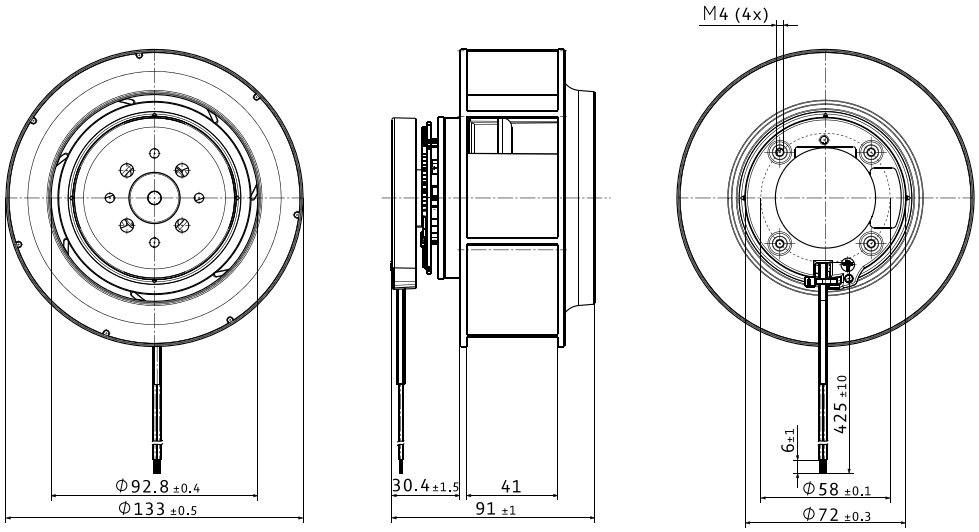
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VBS0133XULCS RER 133-41/14/2 TDMP	**9595414520**	**24**	16...30	A	1 2 3 4	452 394 329 244	266 232 194 144	5 000 4 990 4 980 5 040	58.5 71.0 80.1 75.9	8.3 8.1 7.9 7.9	-20...+65	72 500	122 500
VBS0133XULDS RER 133-41/14/2 TDP	**9595420062**	**24**	16...36	B	1 2 3 4	539 468 391 291	317 275 230 171	6 000 5 960 5 960 6 020	90.8 111.6 127.7 121.1	8.6 8.4 8.3 8.2	-20...+65	70 000	117 500
VBS0133XULDS RER 133-41/18/2 TDP	**9595420050**	**48**	36...72	B	1 2 3 4	537 468 382 286	316 275 225 168	6 000 6 000 5 840 5 940	93.2 114.7 120.0 120.0	8.6 8.4 8.3 8.2	-20...+65	70 000	117 500
VBS0133RUJCS* RER 133-33/18/2 TDMO RadiCal	**9594314204**	**48**	36...60	C	1 2 3 4	373 341 302 249	220 201 178 147	5 600 5 580 5 530 5 530	58.9 62.9 67.6 73.5	8.7 8.6 8.4 7.9	-20...+65	55 000	92 500

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.

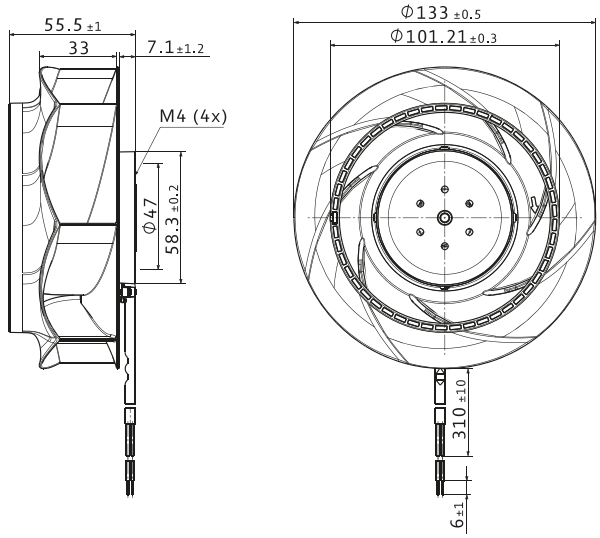
Technical drawing VBS0133XULCS + VBS0133XULDS RER 133 TD

Dimensions in mm



Technical drawing VBS0133RUJCS RER 133-33/18/2 TDMO RadiCal

Dimensions in mm

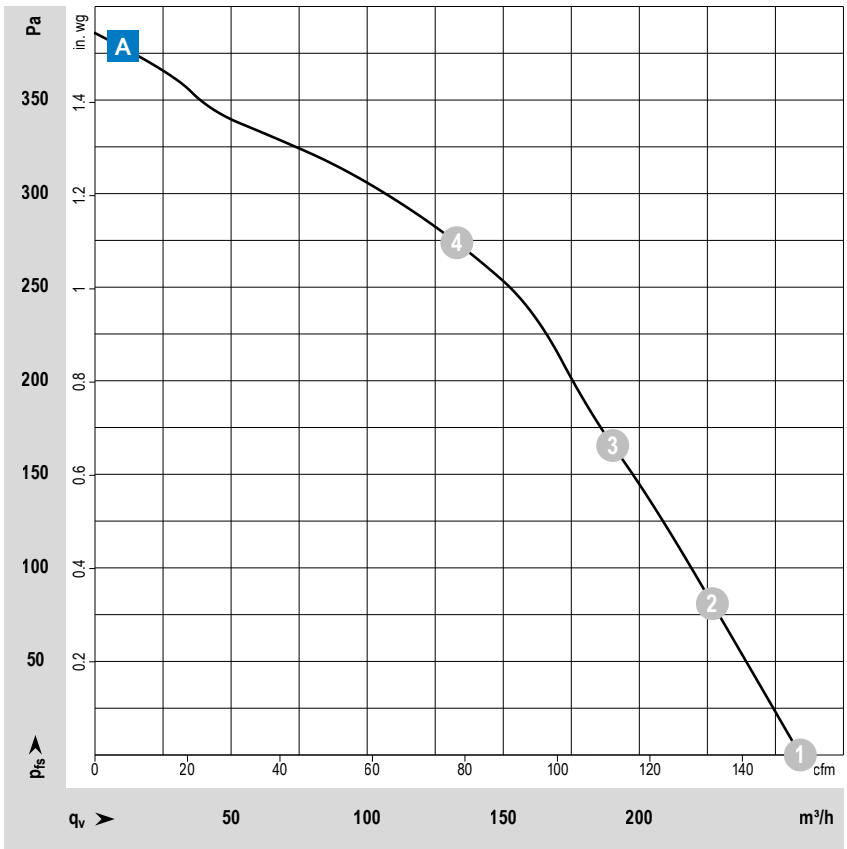


VBS0140XUJCS

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

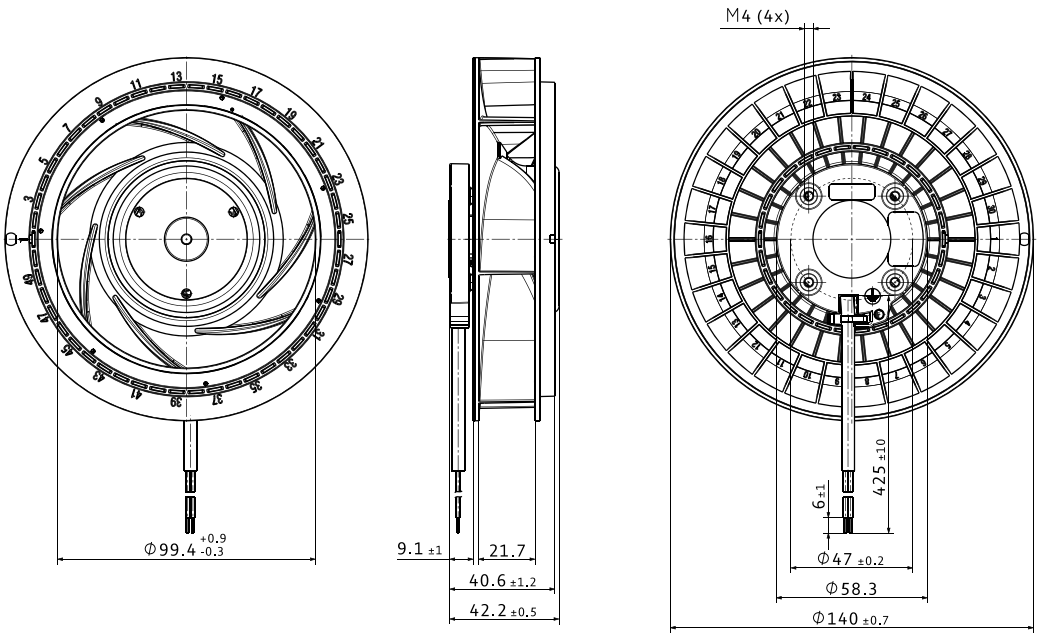
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
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

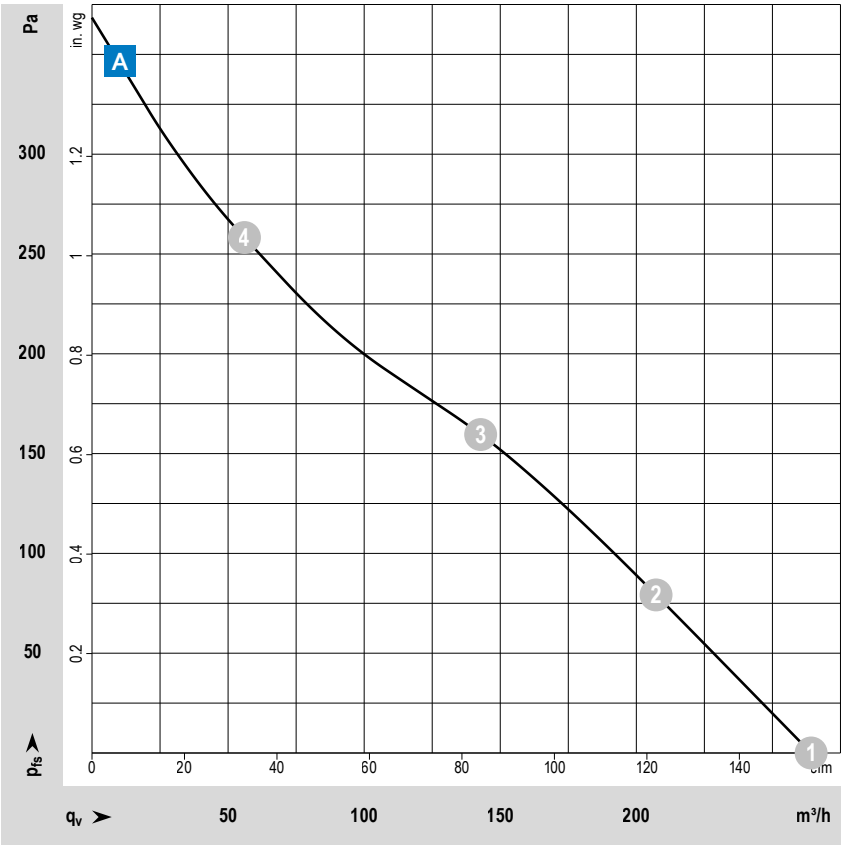


VBS0160XULCS

DC centrifugal fans · max. 265 m³/h · Ø 165 x 51 mm



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



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

Measuring conditions

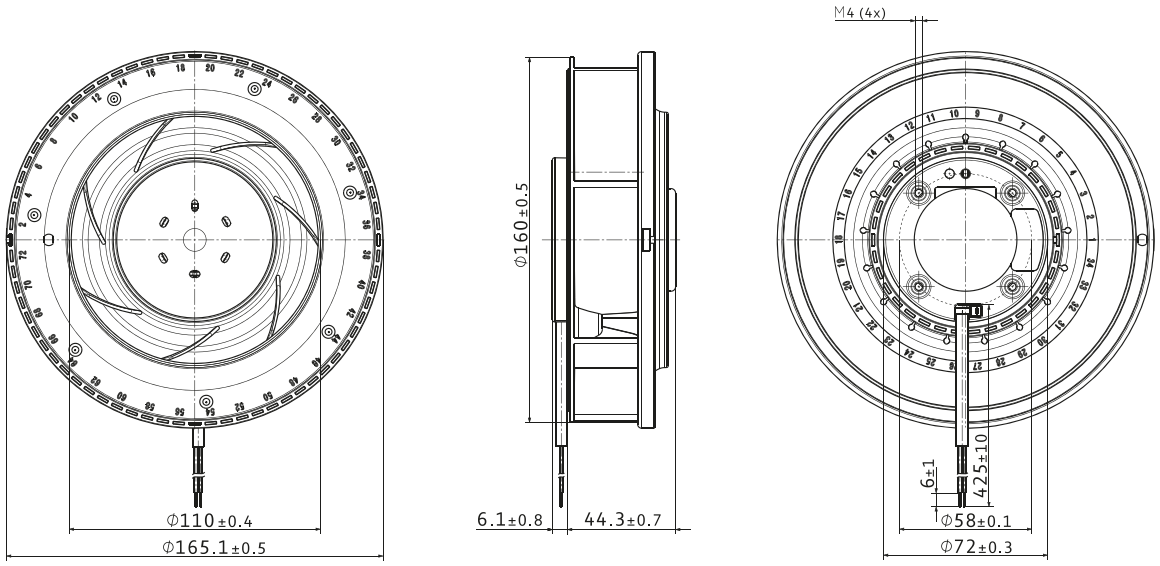
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	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
					2	209	123	2 870	18.9	7.0			
					3	144	85	2 830	19.3	6.7			
					4	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
					2	207	122	2 860	17.5	7.0			
					3	143	84	2 810	17.8	6.7			
					4	56	33	3 030	17.0	7.1			

Subject to changes.

Technical drawing

Dimensions in mm

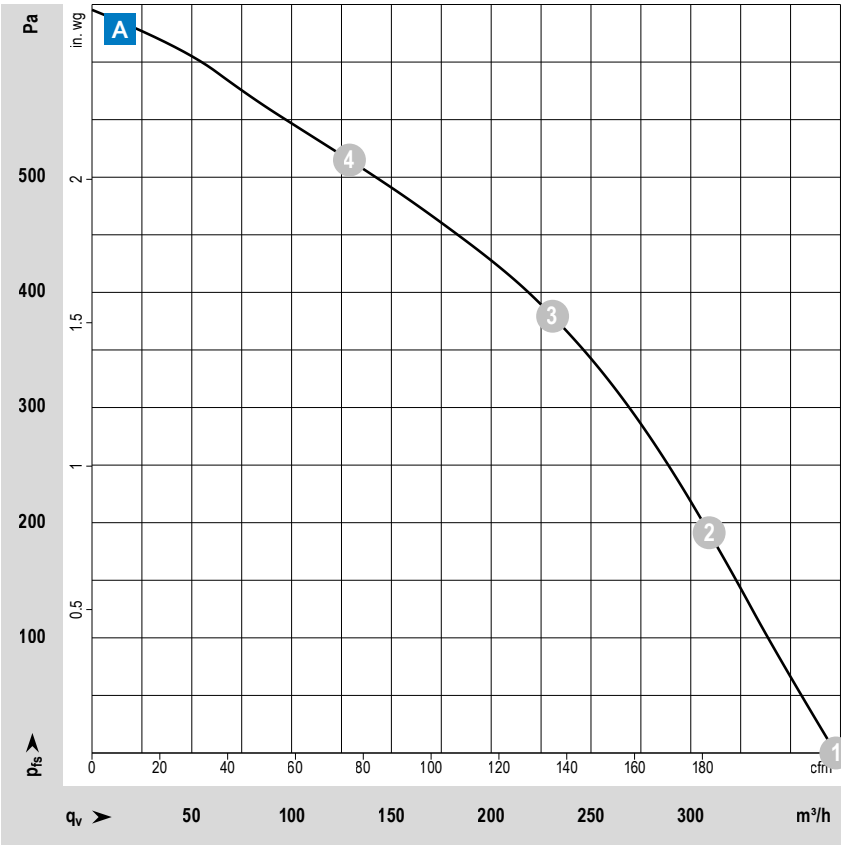


VBS0160XULCS

DC centrifugal fans · max. 373 m³/h · Ø 165 x 51 mm



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 $p_s$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

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

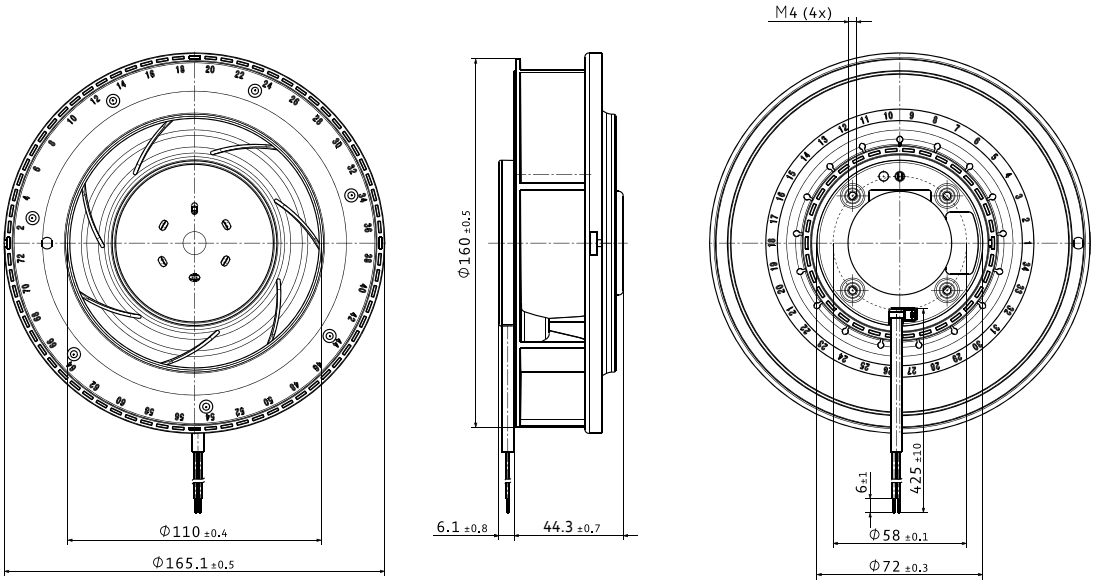
- Speed signal
- Go / NoGo alarm
- Alarm with speed limit
- External temperature sensor
- Internal temperature sensor
- PWM control input
- Analog control input
- Moisture protection
- Salt spray protection
- Degree of protection: up to IP68

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) ebmpapst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
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

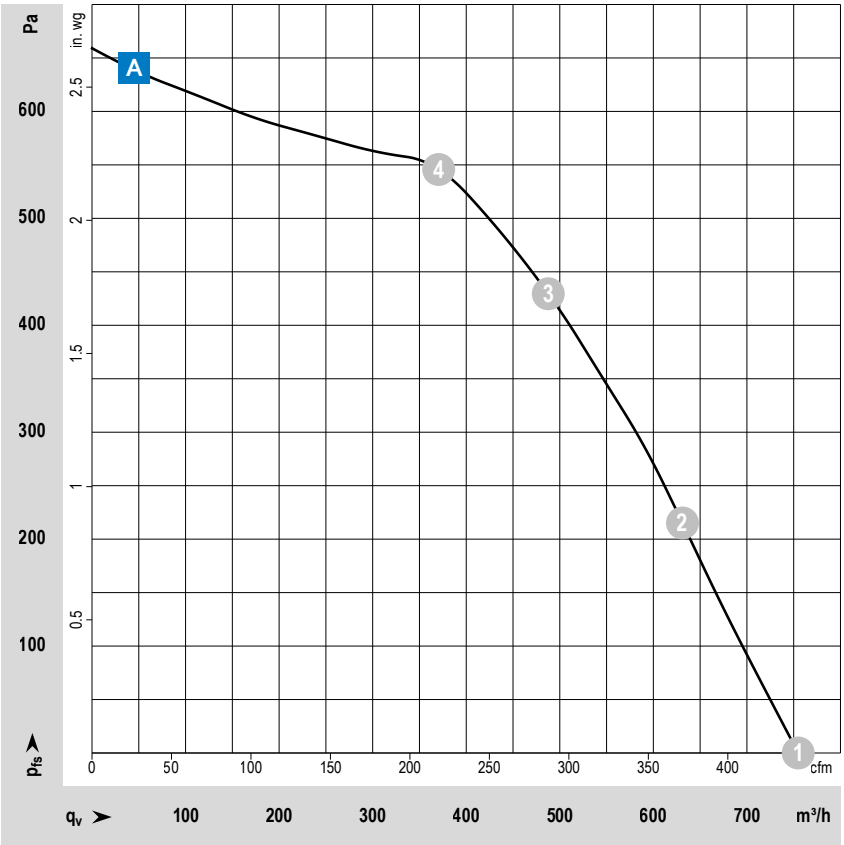


VBS0175XULDS

DC centrifugal fans · max. 755 m³/h · Ø 175 x 55 mm



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



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

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

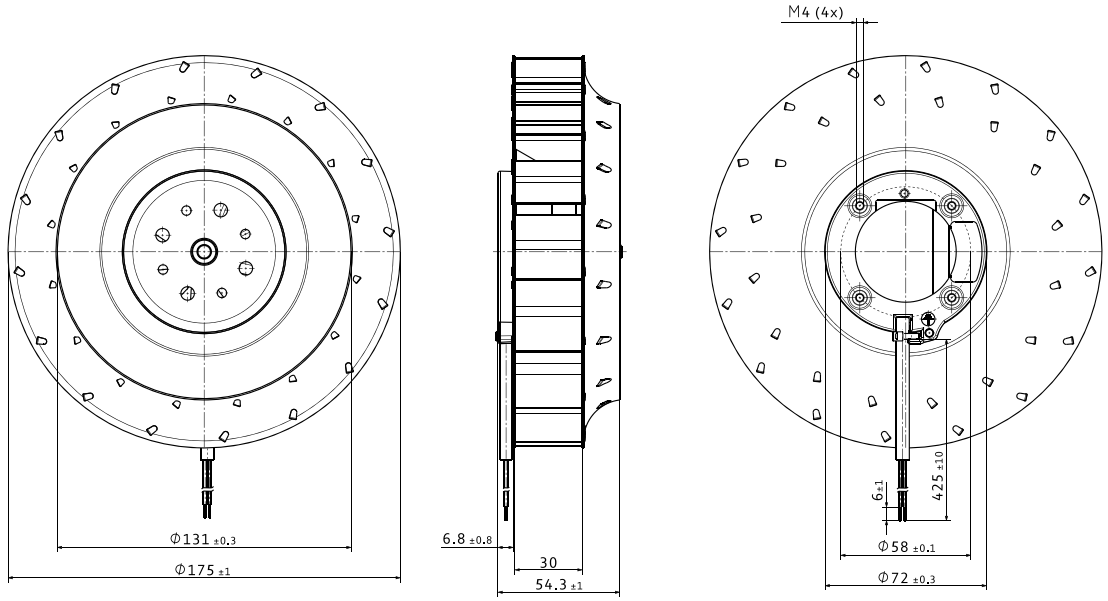
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VBS0175XULDS REF 175-30/18/2 TDP	**9595420160**	**48**	36...72	A	1 2 3 4	755 631 488 372	444 371 287 219	4 400 4 380 4 310 4 340	139.2 154.2 160.0 160.0	9.0 8.8 8.6 8.6	-20...+60	65 000	110 000

Subject to changes.

Technical drawing

Dimensions in mm

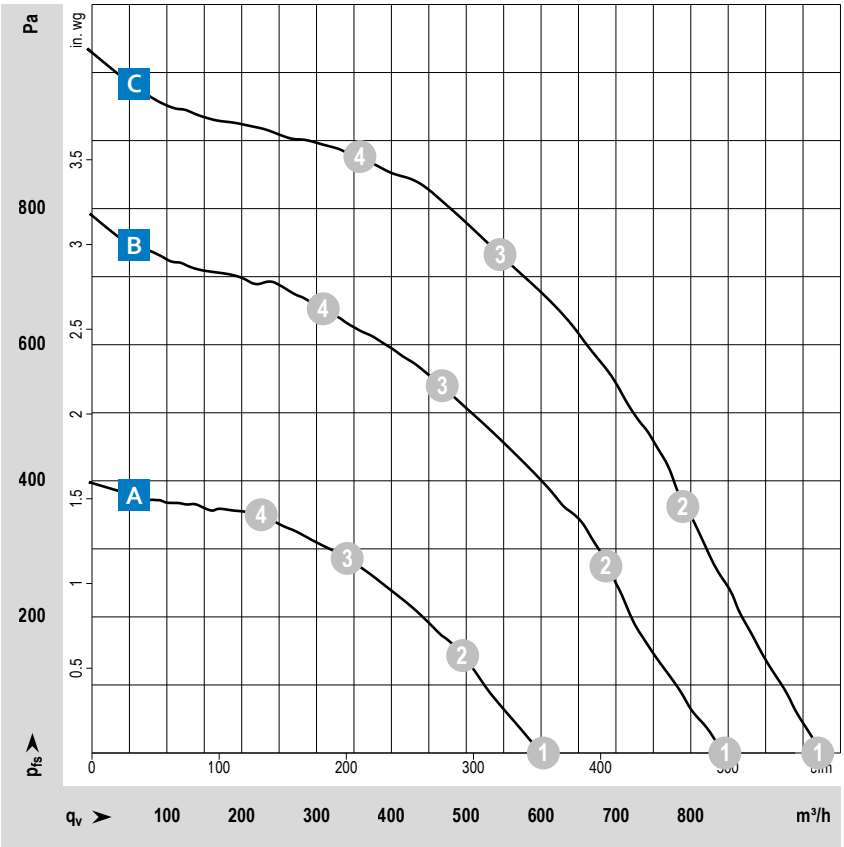


VBS0175X...

DC centrifugal fans · max. 975 m³/h · Ø 175 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/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

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

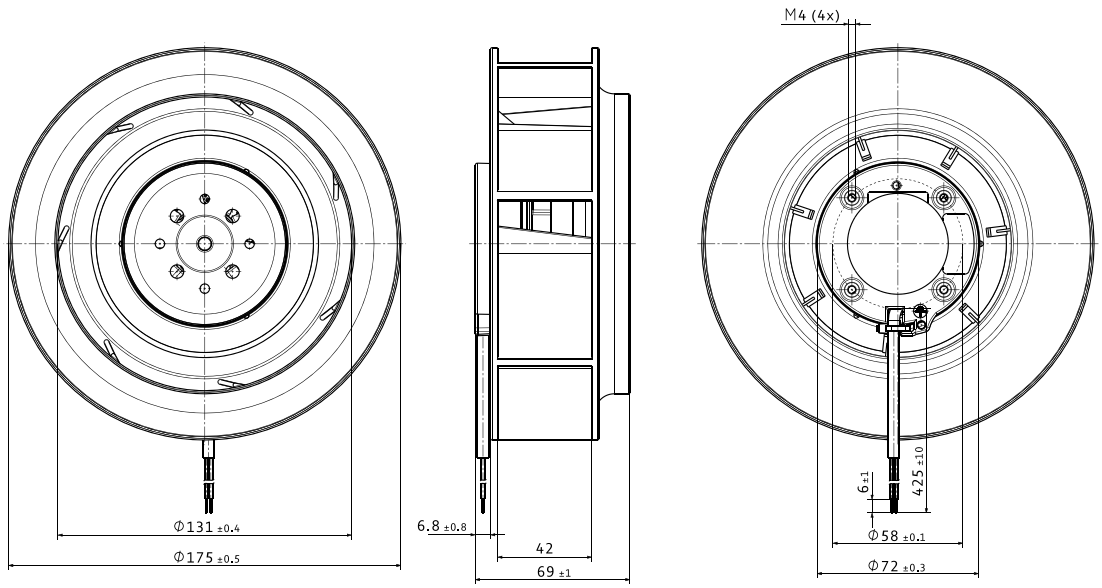
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
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
					2	488	287	3 350	65.3	7.5			
					3	336	198	3 350	78.3	7.4			
					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
					2	687	404	4 700	150.0	8.3			
					3	447	263	4 380	150.0	8.1			
					4	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
					2	495	291	3 370	67.0	7.5			
					3	341	201	3 370	79.9	7.4			
					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
					2	689	406	4 750	148.7	8.3			
					3	468	275	4 660	170.0	8.2			
					4	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
					2	792	466	5 400	234.8	8.5			
					3	545	321	5 360	280.0	8.6			
					4	358	211	5 450	259.4	8.6			

Subject to changes.

Technical drawing

Dimensions in mm

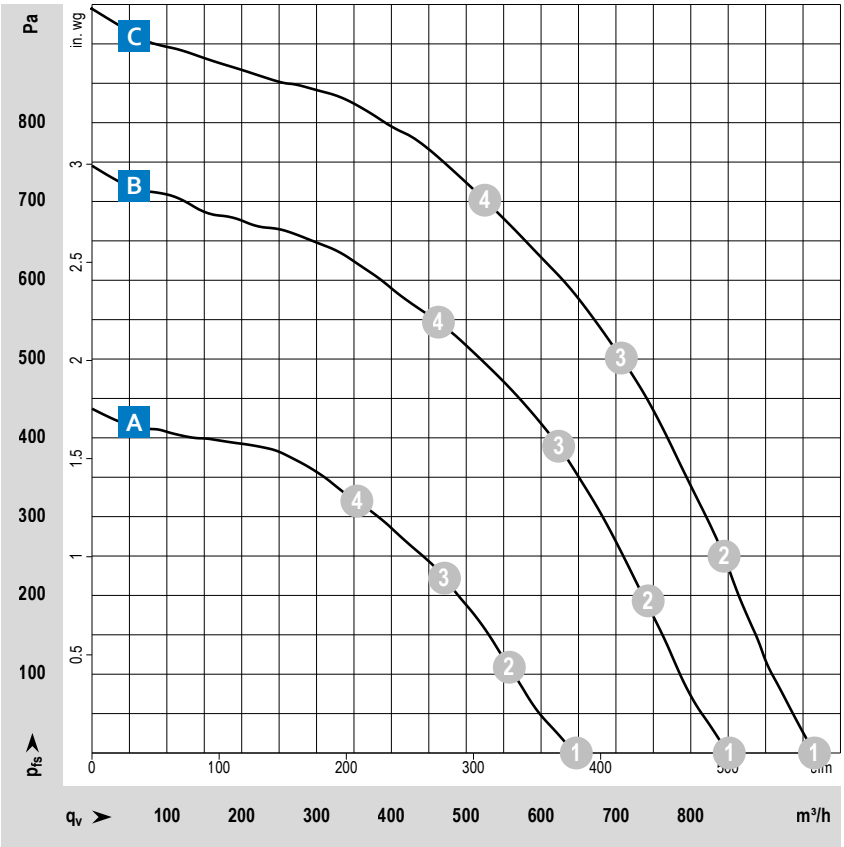


VBS0190R...

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 $p_o$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

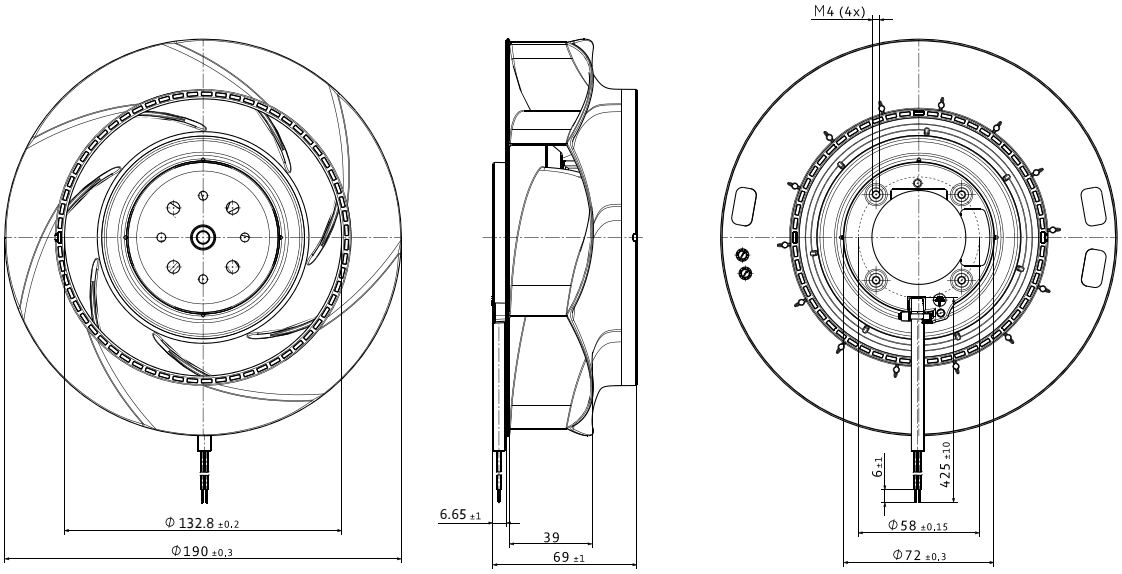
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VBS0190RULCS RER 190-39/14/2 TDMLO	**9595414720**	**24**	16...30	A	1 2 3 4	654 565 477 354	385 333 281 208	3 000 2 940 2 940 2 980	58.4 67.2 77.6 76.0	7.7 7.4 7.2 7.1	-20...+60	55 000	92 500
VBS0190RULDS RER 190-39/14/2 TDMO	**9595420202**	**24**	16...36	B	1 2 3 4	850 740 624 463	500 436 367 273	3 900 3 850 3 850 3 880	110.9 130.9 150.0 147.4	8.2 8.1 7.8 7.7	-20...+65	52 500	87 500
VBS0190RULCS RER 190-39/18/2 TDMLO	**9595414724**	**48**	36...57	A	1 2 3 4	647 558 471 354	381 328 277 208	3 000 2 940 2 940 2 960	58.0 66.9 77.2 78.5	7.7 7.4 7.2 7.1	-20...+65	55 000	92 500
VBS0190RULDS RER 190-39/18/2 TDO	**9595420304**	**48**	36...72	C	1 2 3 4	965 845 707 525	568 497 416 309	4 400 4 350 4 340 4 360	160.6 189.1 213.6 210.0	8.5 8.4 8.1 8.0	-20...+65	40 000	67 500

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



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

Material/Surface

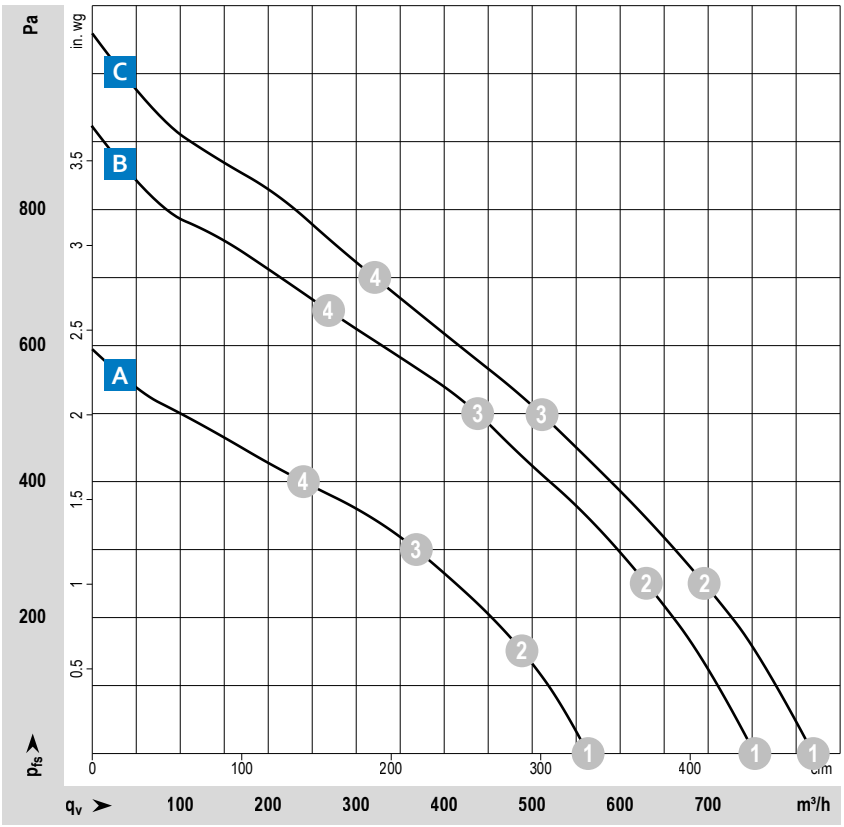
- Impeller: PA plastic
- Rotor: Galvanized

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)



Measuring conditions

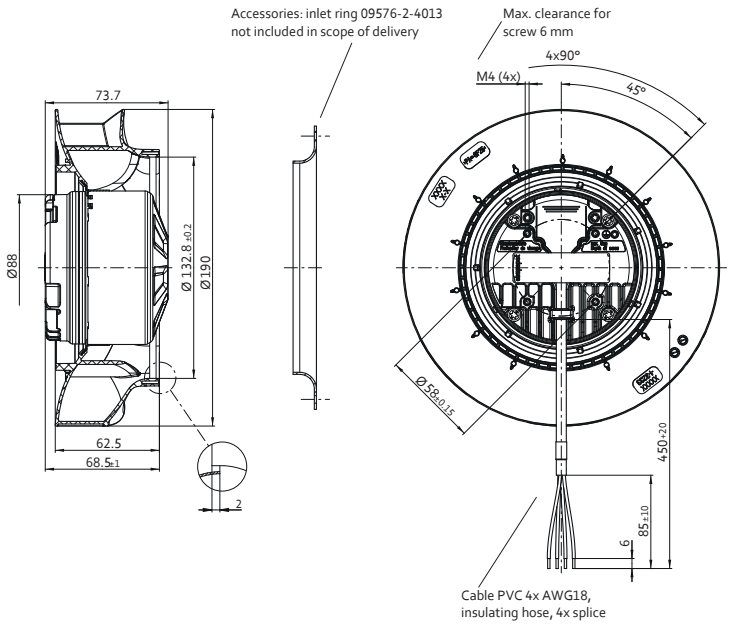
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current*	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	°C
VBS0190RUNCS	R1G190RD6102	centrifugal fan		12	8...16	A	1	620	365	3 565	89	5.72	-25...+70
							2	535	315	3 505	95	6.15	
							3	405	240	3 470	102	6.67	
							4	260	155	3 535	97	6.28	
VBS0190RUNCS	R1G190RD7902	centrifugal fan		24	16...28	B	1	795	465	4 395	155	5.51	-25...+60
							2	655	385	4 235	160	5.68	
							3	450	265	4 115	162	5.78	
							4	280	165	4 285	158	5.63	
VBS0190RUNCS	R1G190RD1602	centrifugal fan		48	36...57	C	1	820	480	4 500	165	3.40*	-25...+70
							2	695	410	4 380	165	3.40*	
							3	510	300	4 215	167	3.50*	
							4	320	190	4 345	165	3.40*	
	09576-2-4013	Inlet ring											

Subject to changes. * Current measured at nominal voltage

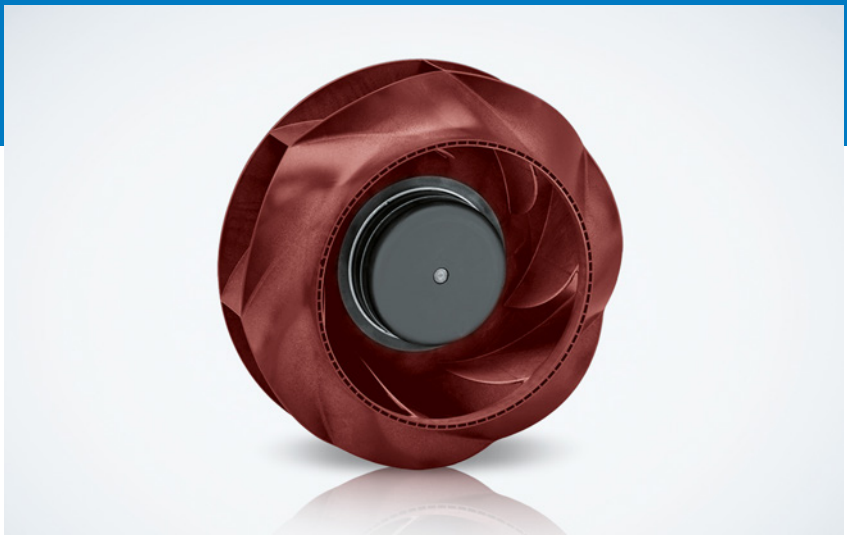
Technical drawing

Dimensions in mm

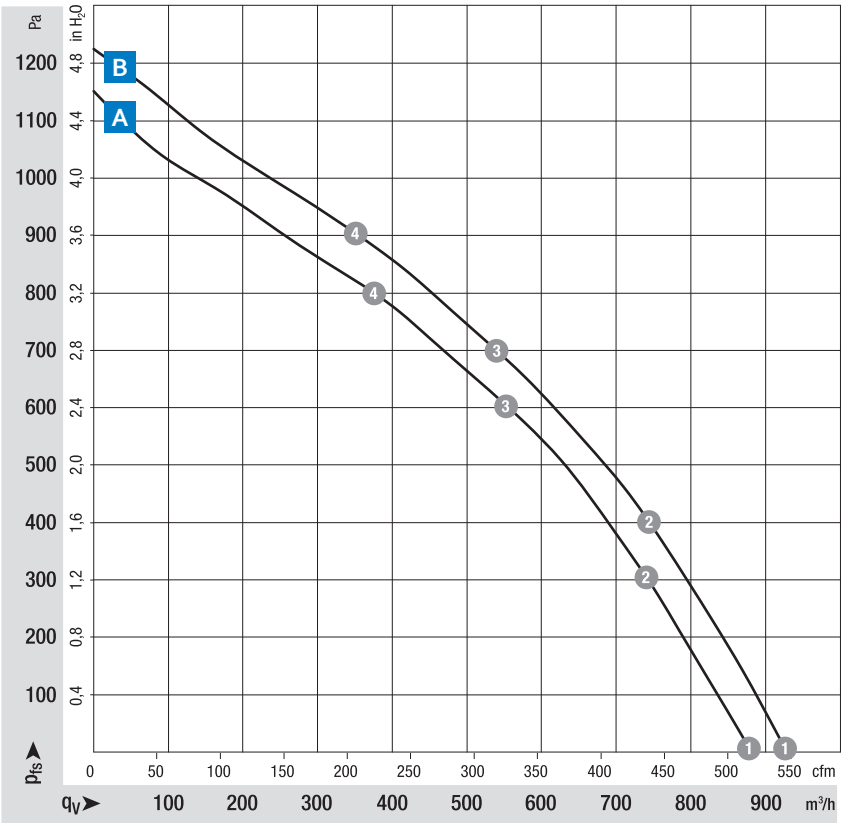


VBS0190R...

DC centrifugal fans · max. 930 m³/h · Ø 190 mm



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 $p_A$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

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

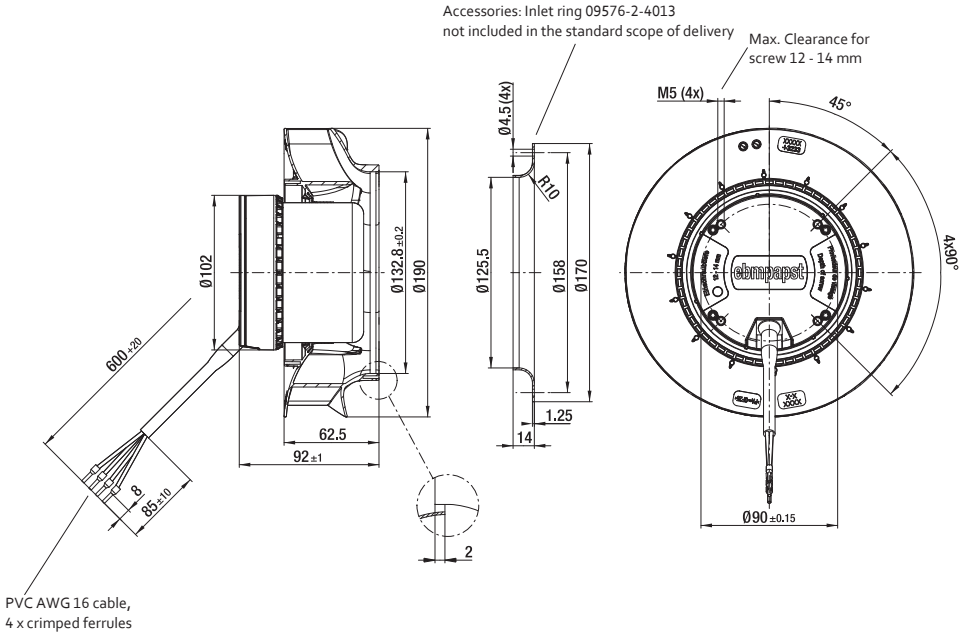
- EN 62368-1;
  A+B: CE, EAC;
  B: CCC

Type	Part number	Fan type		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			m³/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
							2	740	435	4 525	188	7.83*	7.9	
							3	550	325	4 435	199	8.34*	7.7	
							4	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
							2	745	440	4 690	212	4.41	8.0	
							3	540	320	4 640	221	4.60	7.9	
							4	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



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

Material/Surface

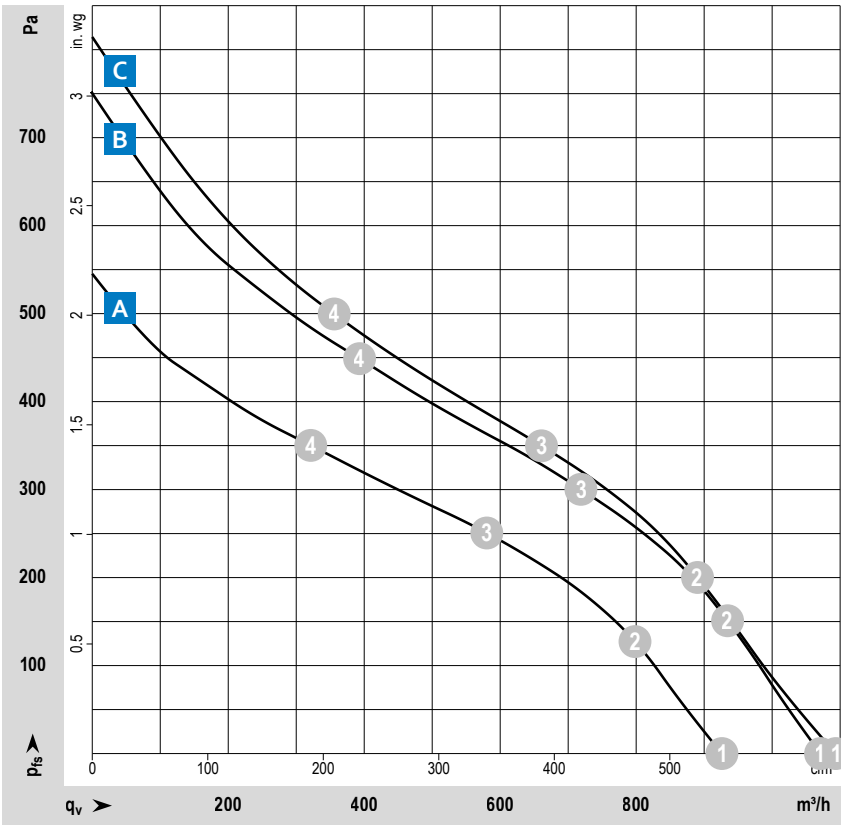
- Impeller: PA plastic
- Rotor: Galvanized

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)



Measuring conditions

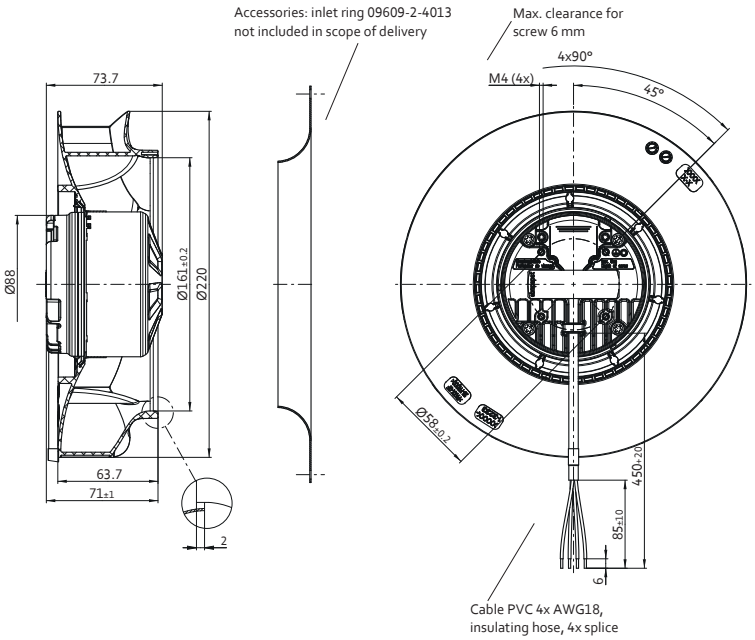
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Air flow	Speed	Power consumption	Input current	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	°C
VBS0220RUNCS	R1G220RD6102	centrifugal fan		12	8...16	A	1	990	585	2 905	110	8.77	-25...+70
							2	855	505	2 855	112	9.01	
							3	620	365	2 790	117	9.43	
							4	345	205	2 890	113	9.01	
VBS0220RUNCS	R1G220RD1002	centrifugal fan		24	16...28	B	1	1 125	660	3 310	144	5.12	-25...+60
							2	980	575	3 220	146	5.19	
							3	750	440	3 085	149	5.29	
							4	410	240	3 185	146	5.19	
VBS0220RUNCS	R1G220RD0202	centrifugal fan		48	36...57	C	1	1 095	645	3 240	136	2.80*	-25...+70
							2	890	525	3 100	139	2.90*	
							3	660	390	3 010	141	2.90*	
							4	355	210	3 140	138	2.90*	
	09609-2-4013	Inlet ring											

Subject to changes. * Current measured at nominal voltage

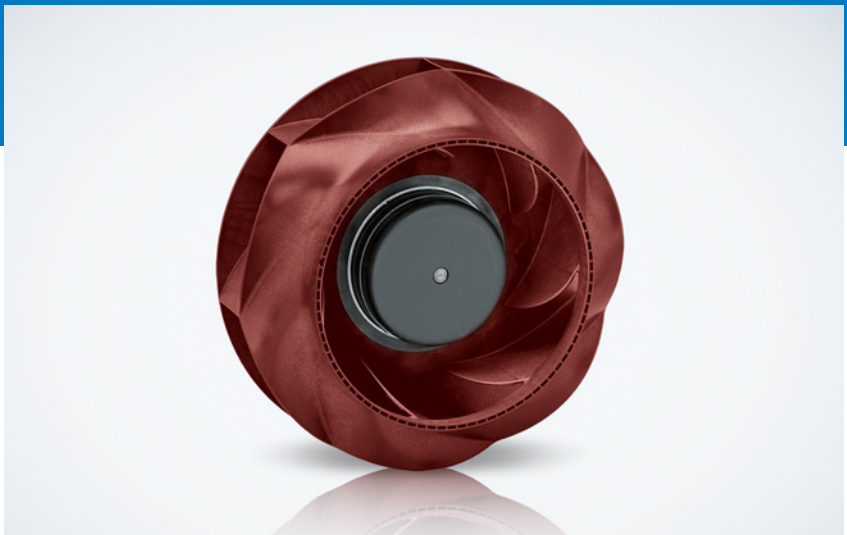
Technical drawing

Dimensions in mm



VBS0220RUNES

DC centrifugal fans · max. 1 210 m³/h · Ø 220 mm



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

Material/Surface

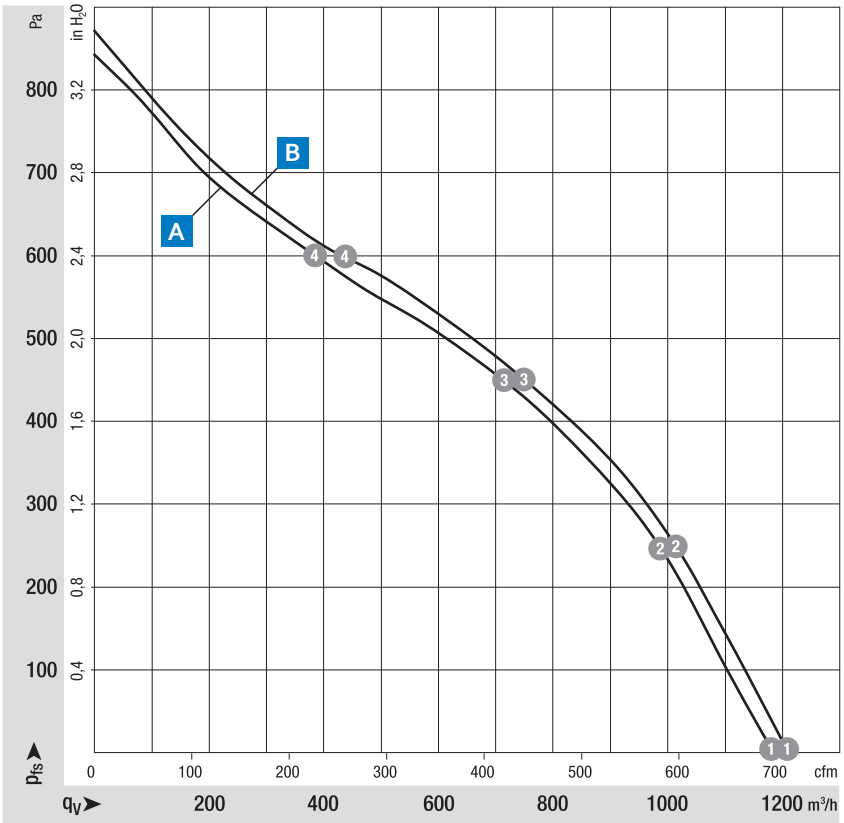
- Impeller: PA plastic
- Rotor: Painted black

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)



Measuring conditions

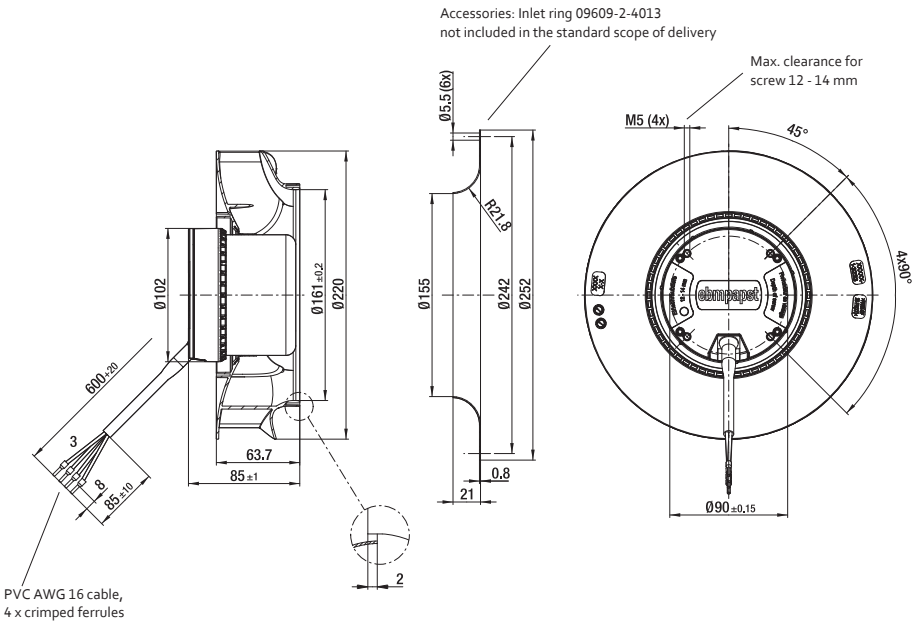
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Sound power level	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Bel(A)	°C
VBS0220RUNES	R3G220RN1201	centrifugal fan		24	16...28	A	1 2 3 4	1 185 990 715 385	695 580 420 225	3 460 3 420 3 360 3 455	157 171 182 168	6.50* 7.11* 7.59* 6.97*	8.1 7.7 7.4 7.9	-25...+60
VBS0220RUNES	R3G220RNB602	centrifugal fan		48	36...57	B	1 2 3 4	1 210 1 015 750 440	715 595 440 260	3 510 3 450 3 385 3 460	160 168 178 167	3.40 3.50 3.71 3.47	8.1 7.7 7.4 7.9	-25...+60
	09609-2-4013	Inlet ring												

Subject to changes. * Current measured at nominal voltage

Technical drawing

Dimensions in mm

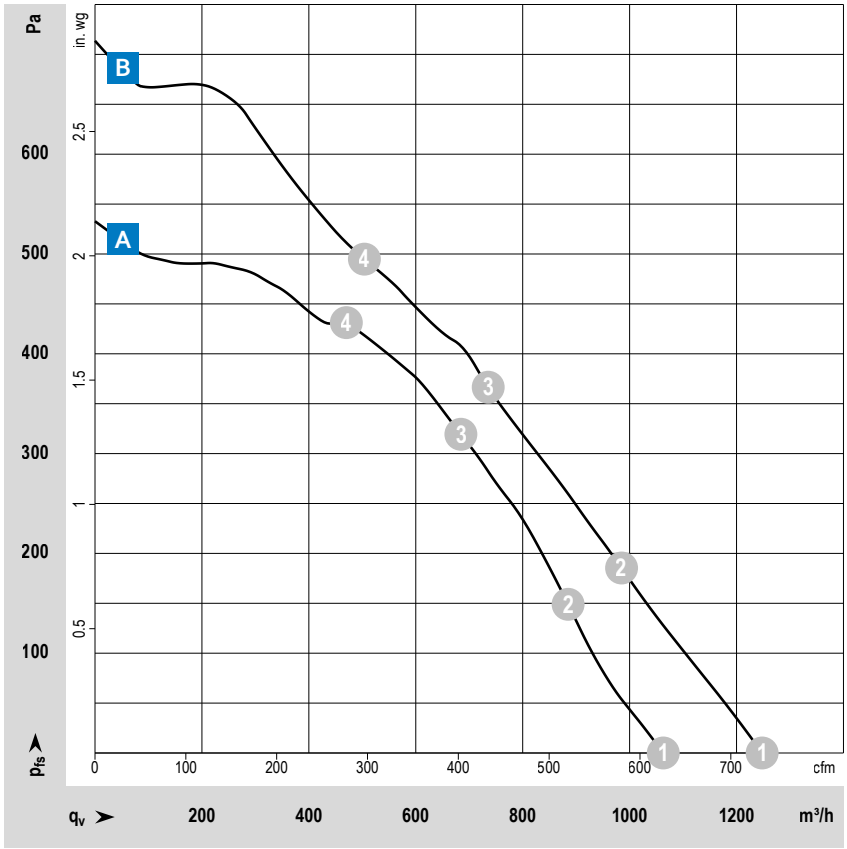


VBS0220RULDS

DC centrifugal fans · max. 1 248 m³/h · Ø 220 x 71 mm



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/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

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 $p_A$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

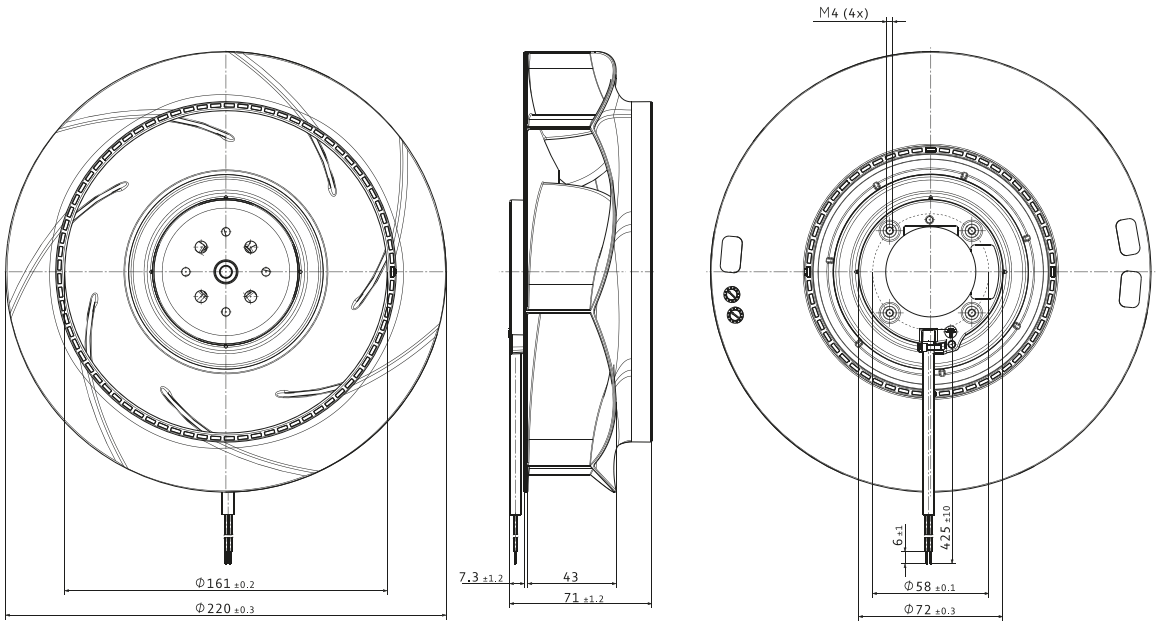
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°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
					2	885	521	2 960	126.6	8.0			
					3	684	403	2 950	145.0	7.9			
					4	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
					2	984	579	3 270	170.0	8.0			
					3	735	433	3 150	170.0	7.8			
					4	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

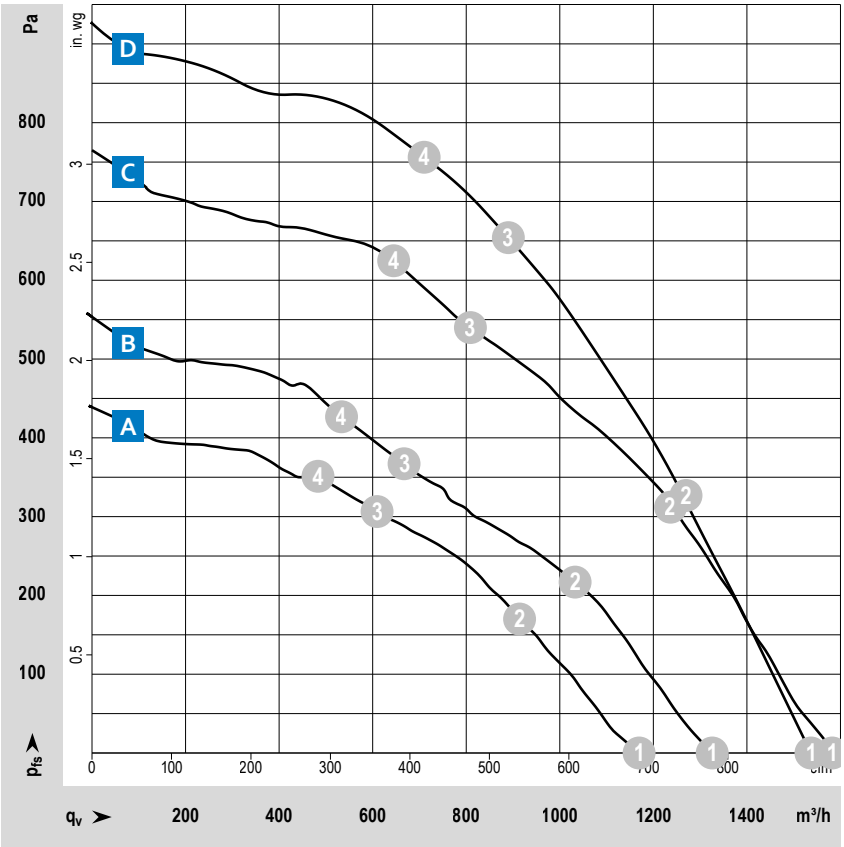


VBS0225...

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 $p_A$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

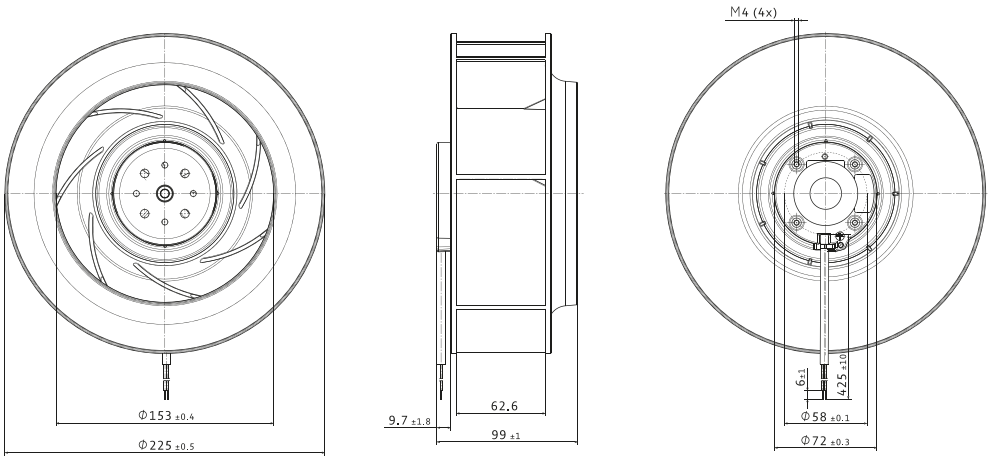
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/h	cfm	rpm	W	Bel(A)	°C	Hours	Hours
VBS0225XULDS RER 225-63/18/2 TDMLO	**9595420413**	**48**	36...72	**A**	1 2 3 4	1 170 914 609 483	689 538 358 284	2 500 2 460 2 480 2 520	82.5 117.7 128.3 124.4	7.7 7.5 7.3 7.4	-20...+55	55 000	92 500
VBS0225XULDS RER 225-63/18/2 TDMO	**9595420411**	**48**	36...72	**B**	1 2 3 4	1 326 1 033 667 533	780 608 393 314	2 800 2 720 2 650 2 740	111.2 159.8 160.0 160.0	8.0 7.8 7.6 7.7	-20...+55	55 000	92 500
VBS0225XULDS RER 225-63/18/2 TDO	**9595420402**	**48**	36...72	**C**	1 2 3 4	1 588 1 241 809 645	935 730 476 380	3 300 3 250 3 220 3 300	177.0 249.8 255.0 255.0	8.4 8.3 8.1 8.3	-20...+55	52 500	87 500
VBS0225RULFS RER 225-55/18/2 TDO RadiCal	**9595430400**	**48**	36...72	**D**	1 2 3 4	1 537 1 265 890 710	905 745 524 418	3 500 3 460 3 460 3 490	216.9 271.2 301.1 293.7	8.6 8.3 8.0 8.1	-20...+55	50 000	85 000

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.

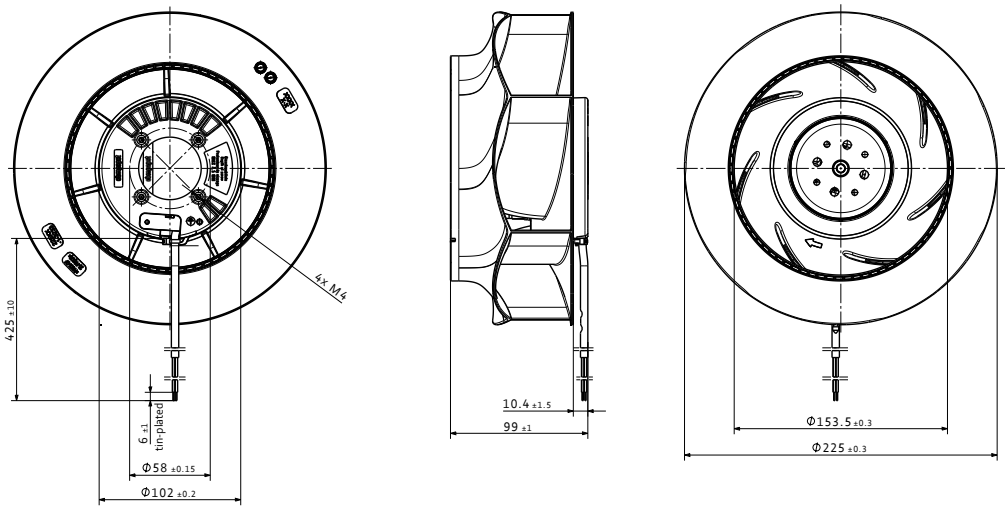
Technical drawing

Dimensions in mm



Technical drawing RadiCal

Dimensions in mm



VBS0225RUNCS

DC centrifugal fans · max. 1 165 m³/h · Ø 225 mm



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

Material/Surface

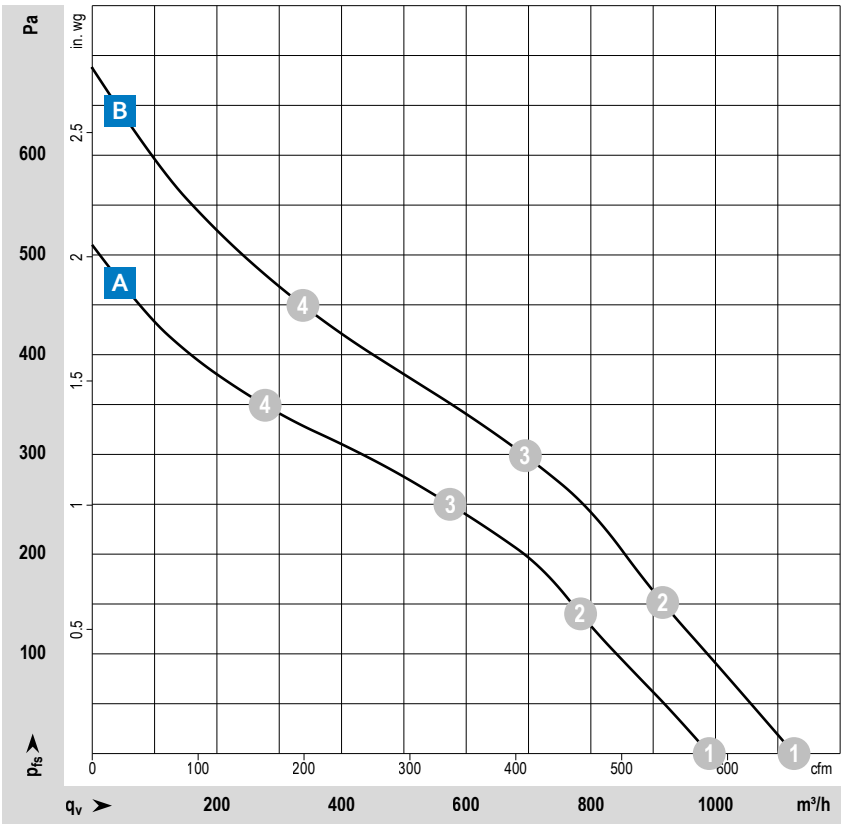
- Impeller: PA plastic
- Rotor: Galvanized

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



Measuring conditions

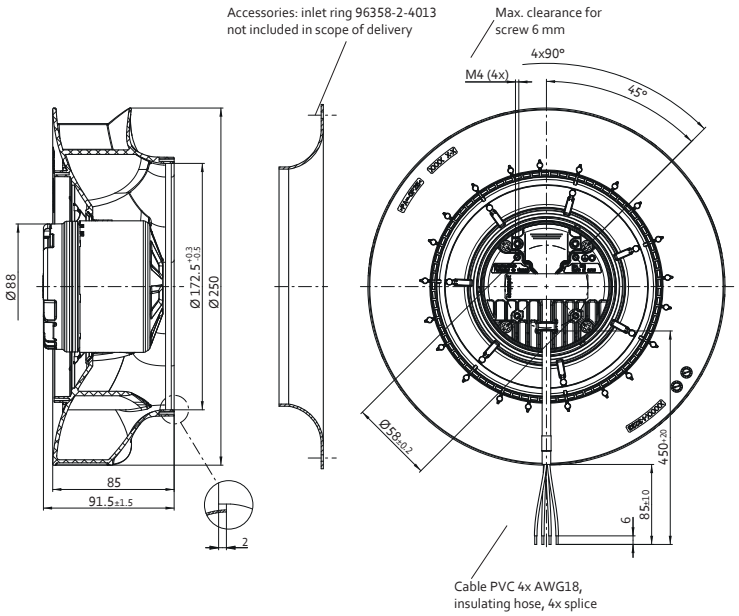
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Air flow	Speed	Power consumption	Input current	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	°C
VBS0225RUNCS	R1G225RD5902	centrifugal fan		12	8...16	A	1 2 3 4	1 045 840 615 295	615 495 365 175	2 490 2 410 2 405 2 530	100 105 108 98	7.89 8.37 8.57 7.69	-25...+70
VBS0225RUNCS	R1G225RD1402	centrifugal fan		24	16...28	B	1 2 3 4	1 165 960 715 350	685 565 420 205	2 775 2 645 2 600 2 790	130 134 135 129	4.63 4.77 4.82 4.60	-25...+70
	96358-2-4013	Inlet ring											

Subject to changes.

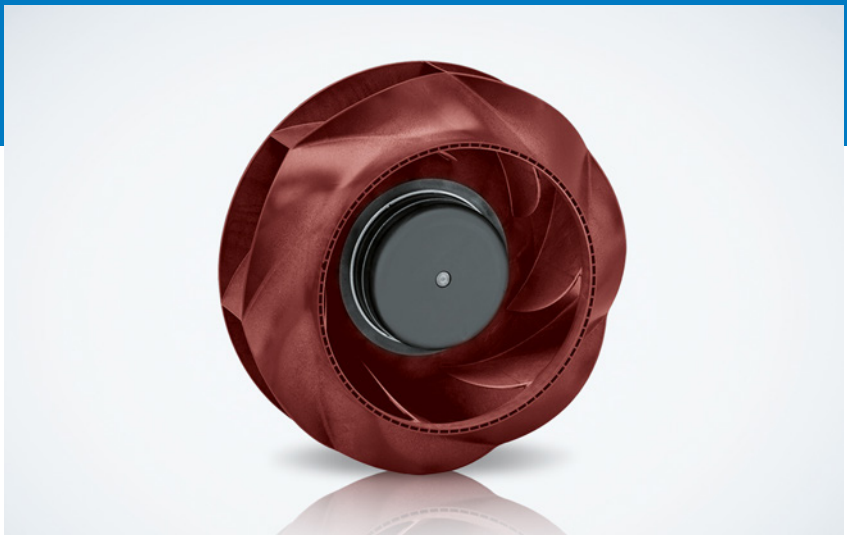
Technical drawing

Dimensions in mm



VBS0225RUNES

DC centrifugal fans · max. 1 335 m³/h · Ø 225 mm



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

Material/Surface

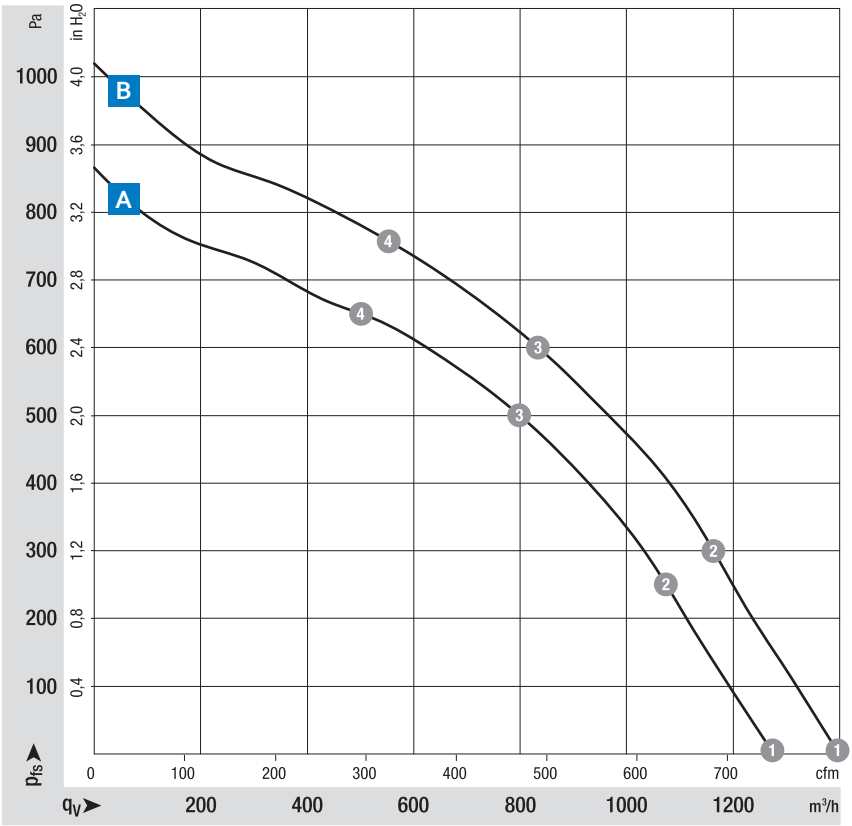
- Impeller: PA plastic
- Rotor: Painted black

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)



Measuring conditions

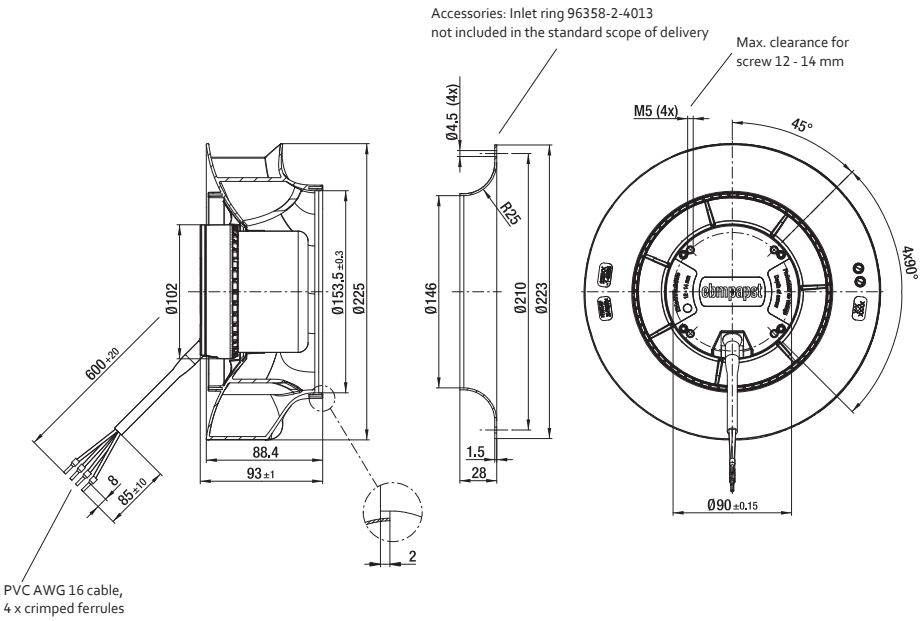
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Sound power level	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Bel(A)	°C
VBS0225RUNES	R3G225RN2801	centrifugal fan		24	16...28	A	1	1 275	750	3 270	205	8.50*	8.1	-25...+60
							2	1 070	630	3 200	208	8.66*	7.8	
							3	775	455	3 185	213	8.88*	7.4	
							4	425	250	3 275	182	7.76*	7.7	
VBS0225RUNES	R3G225RN1802	centrifugal fan		48	36...57	B	1	1 335	785	3 400	230	4.80*	8.4	-25...+60
							2	1 095	645	3 375	236	4.90*	8.0	
							3	785	460	3 355	244	5.10*	7.6	
							4	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



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

Material/Surface

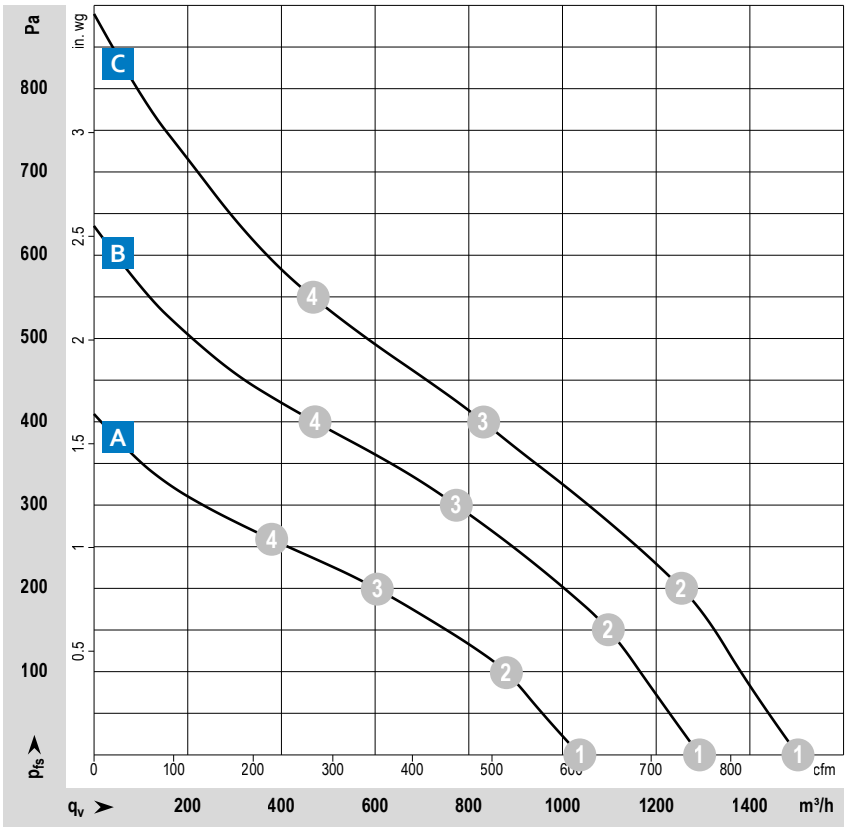
- Impeller: PA plastic
- Rotor: Galvanized

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)



Measuring conditions

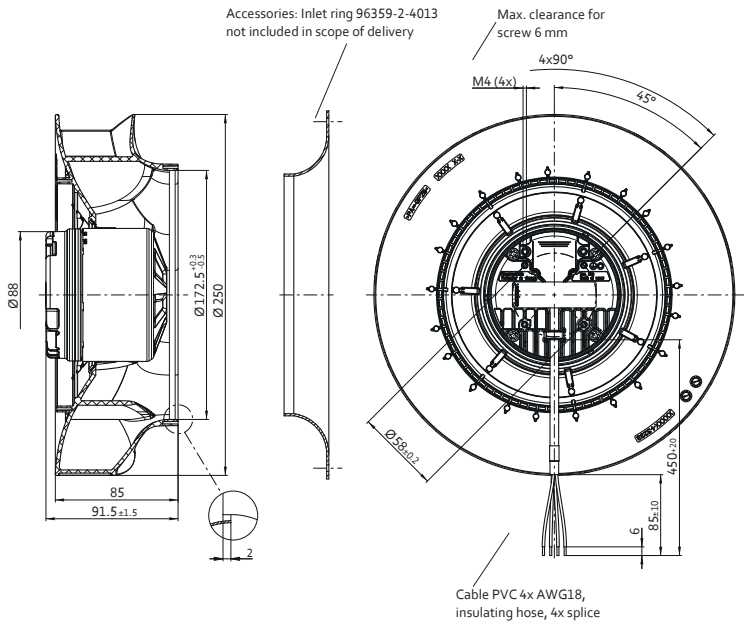
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	°C
VBS0250RUNES	R1G250RC7702	centrifugal fan		12	8...16	A	1 2 3 4	1 095 935 645 405	645 550 380 240	2 110 2 065 2 020 2 070	75 80 86 82	4.67 4.96 5.36 5.08	-25..+70
VBS0250RUNES	R1G250RC8702	centrifugal fan		24	16...28	B	1 2 3 4	1 375 1 170 815 500	810 690 480 295	2 645 2 565 2455 2 550	144 149 153 150	5.11 5.32 5.46 5.34	-25..+60
VBS0250RUNES	R1G250RC8902	centrifugal fan		48	36...57	C	1 2 3 4	1 505 1 255 830 470	885 740 490 275	2 850 2 755 2 650 2 795	175 179 182 177	3.70* 3.70* 3.80* 3.70*	-25..+60
	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



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

Material/Surface

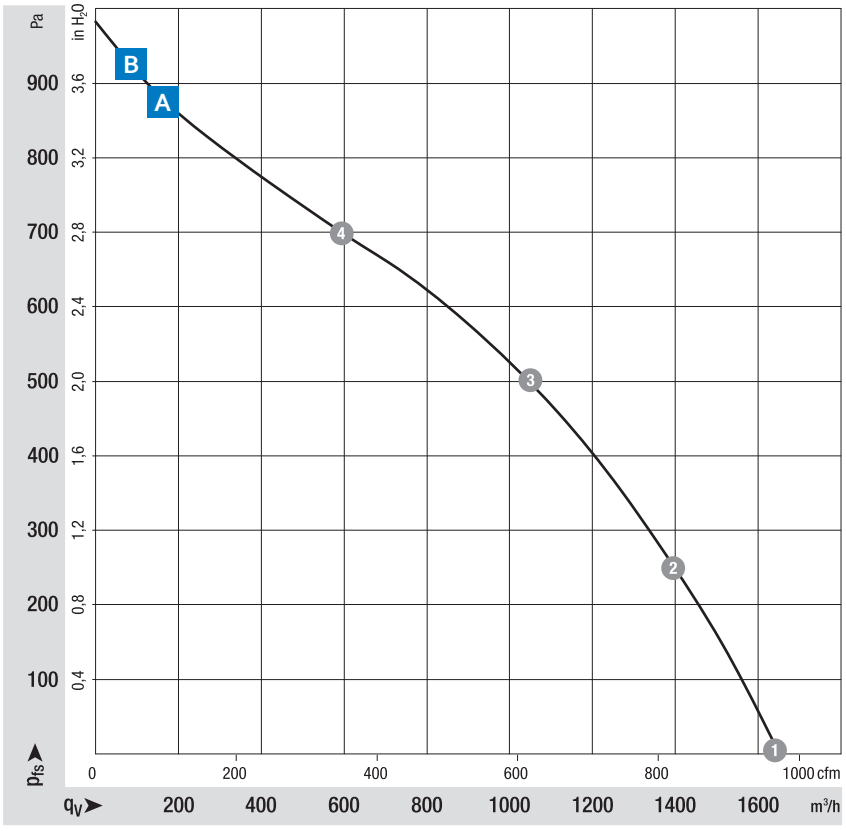
- Impeller: PA plastic
- Rotor: Painted black

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)



Measuring conditions

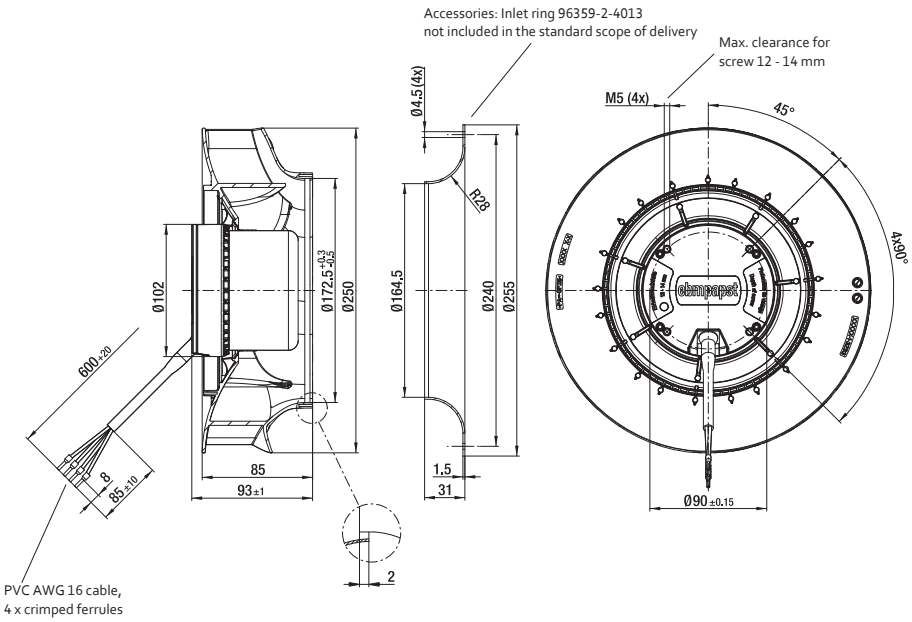
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Sound power level	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Bel(A)	°C
VBS0250RUNES	R3G250RN4601	centrifugal fan		24	16...28	A	1 2 3 4	1 505 1 225 880 580	885 720 515 340	2 850 2 820 2 795 2 840	175 195 210 197	7.20* 8.10* 8.70* 8.20*	8.1 7.7 7.1 7.4	-25...+60
VBS0250RUNES	R3G250RNB502	centrifugal fan		48	36...57	B	1 2 3 4	1 640 1 375 1 010 475	965 810 595 280	3 100 3 065 3 025 3 115	230 250 266 236	4.80* 5.20* 5.60* 4.90*	–	-25...+60
	96359-2-4013	Inlet ring												

Subject to changes.

Technical drawing

Dimensions in mm



VBS0280RUNES

DC centrifugal fans · max. 2 120 m³/h · Ø 280 mm



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

Material/Surface

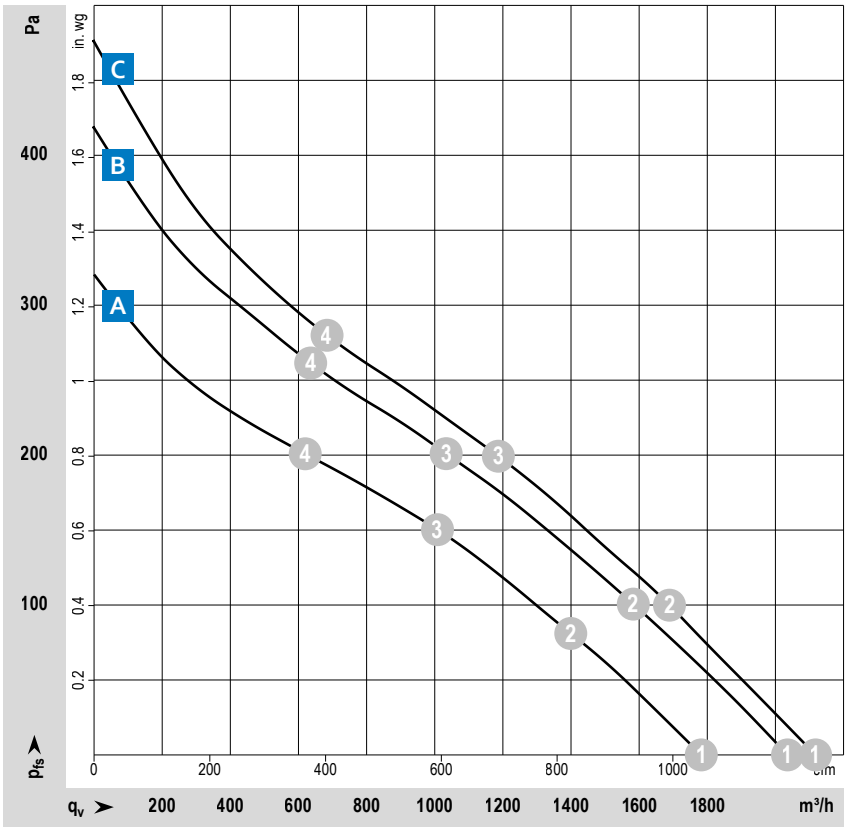
- Impeller: PA plastic
- Rotor: Galvanized

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)



Measuring conditions

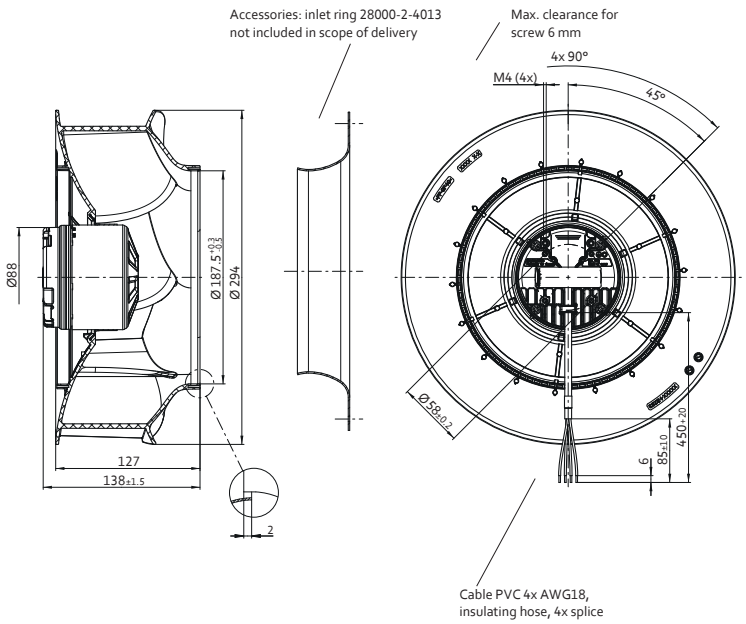
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	°C
VBS0280RUNES	R1G280RC7502	centrifugal fan		12	8...16	A	1 2 3 4	1 880 1 490 1 065 655	1 105 880 625 385	1 585 1 495 1 470 1 520	88 97 100 95	7.16 7.98 8.25 7.78	-25...+70
VBS0280RUNES	R1G280RC7102	centrifugal fan		24	16...28	B	1 2 3 4	2 100 1 640 1 070 660	1 235 965 630 385	1 765 1 635 1 600 1 685	117 123 126 121	4.18 4.41 4.49 4.31	-25...+60
VBS0280RUNES	R1G280RC9302	centrifugal fan		48	36...57	C	1 2 3 4	2 120 1 690 1 190 685	1245 995 700 405	1 800 1 655 1 610 1 690	115 121 123 119	2.40* 2.50* 2.60* 2.50*	-25...+60
	98000-2-4013	Inlet ring											

Subject to changes. * Current measured at nominal voltage

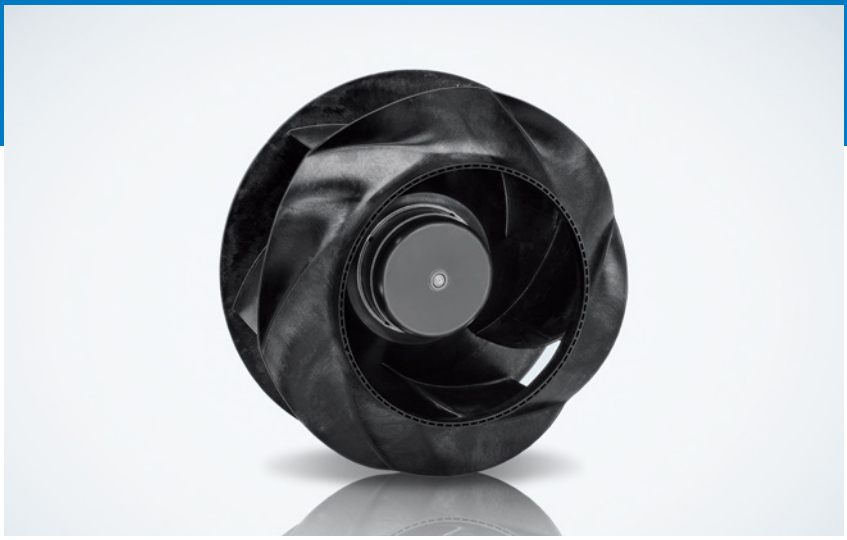
Technical drawing

Dimensions in mm



VBS0280RUNES

DC centrifugal fans · max. 2 210 m³/h · Ø 280 mm



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

Material/Surface

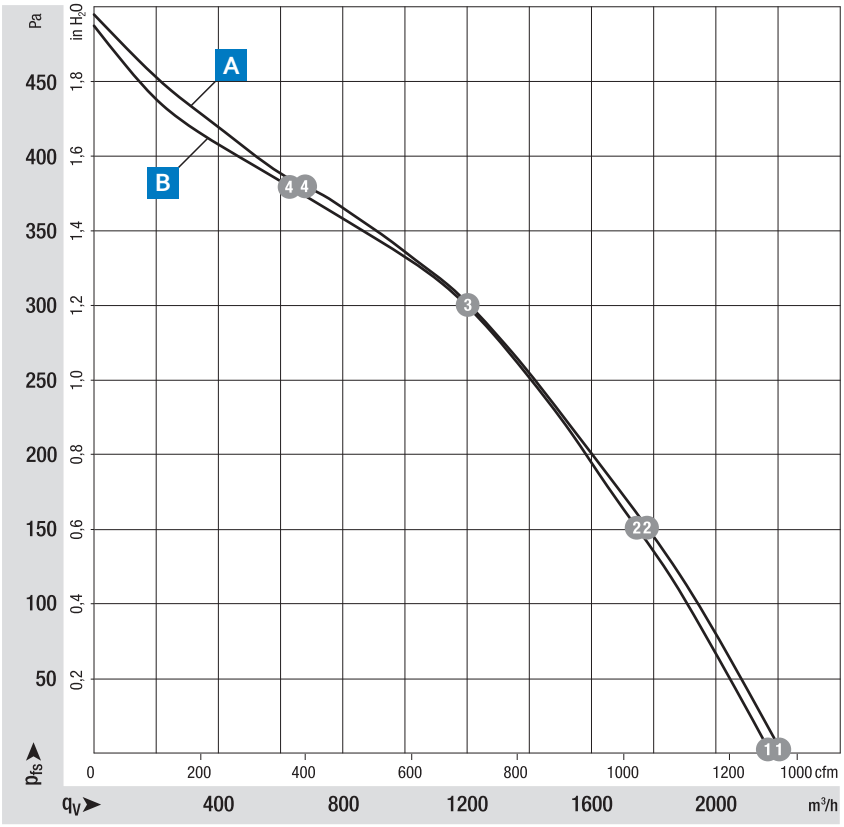
- Impeller: PA plastic
- Rotor: Painted black

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)



Measuring conditions

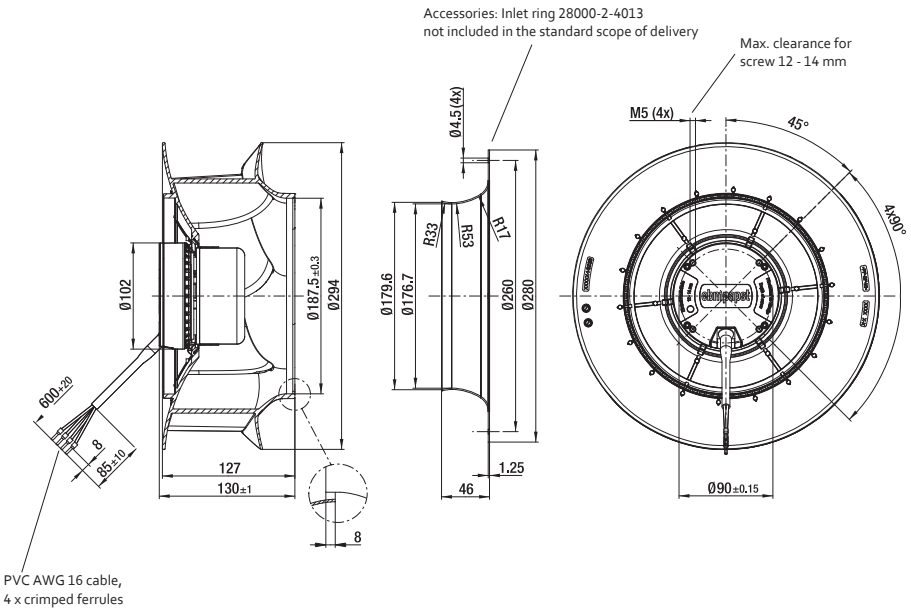
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Sound power level	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Bel(A)	°C
VBS0280RUNES	R3G280RN3001	centrifugal fan		24	16...28	A	1 2 3 4	2 210 1 775 1 205 675	1 300 1 045 710 400	1 900 1 870 1 840 1 905	142 162 173 153	5.90 6.76 7.21 6.36	7.4 6.7 6.4 6.8	-25...+60
VBS0280RUNES	R3G280RNB102	centrifugal fan		48	36...57	B	1 2 3 4	2 175 1 745 1 200 630	1 280 1 030 705 370	1 910 1 845 1 830 1 900	140 158 163 141	2.90* 3.30* 3.40* 2.93*	7.4 6.7 6.4 6.8	-25...+60
	28000-2-4013	Inlet ring												

Subject to changes. * Current measured at nominal voltage

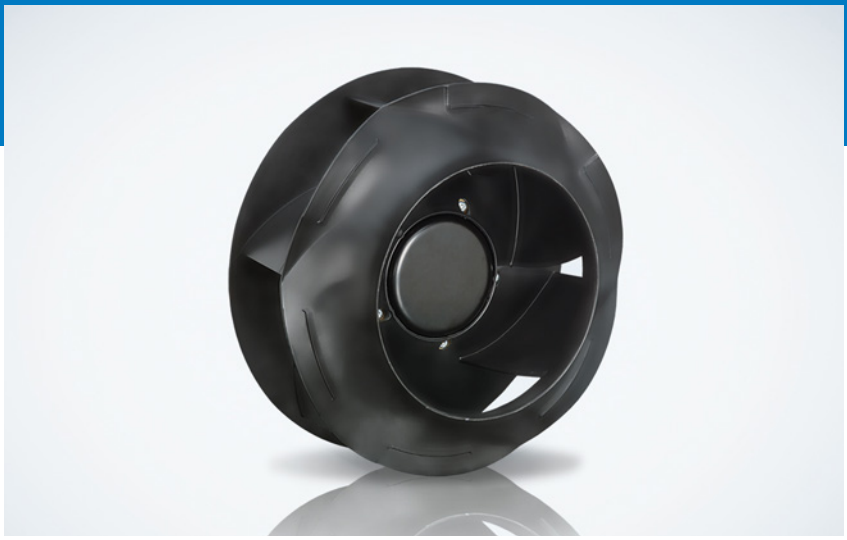
Technical drawing

Dimensions in mm



VBS0310RUNES

DC centrifugal fans · max. 2 375 m³/h · Ø 310 mm



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

Material/Surface

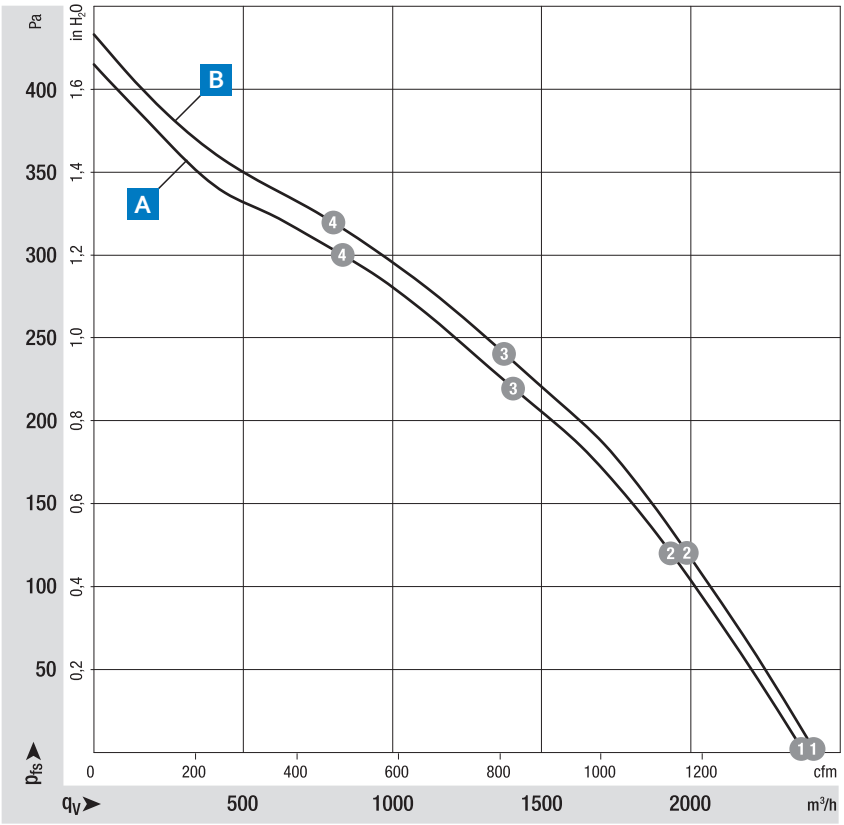
- Impeller: PA plastic
- Rotor: Painted black

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)



Measuring conditions

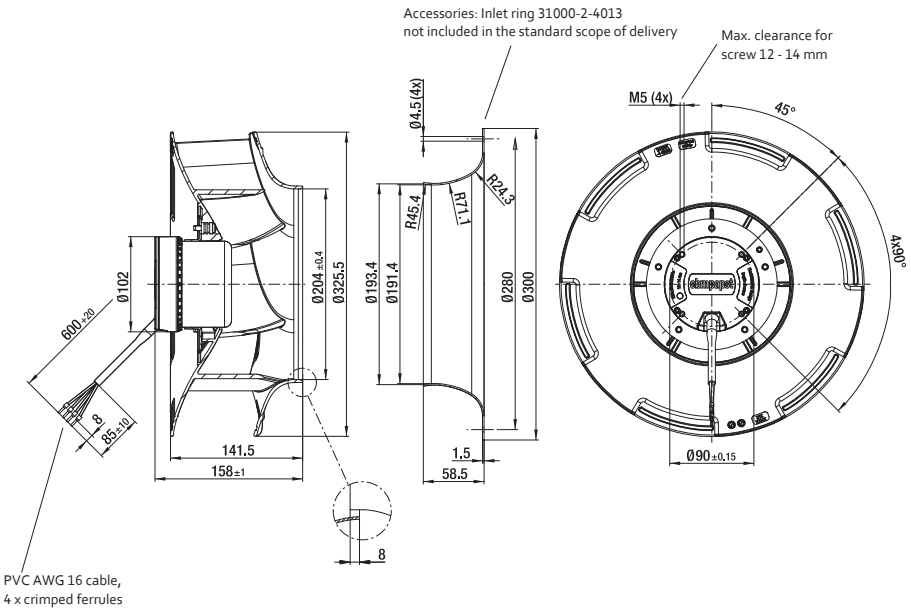
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_a$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Sound power level	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Bel(A)	°C
VBS0310RUNES	R3G310RN9901	centrifugal fan		24	16...28	A	1 2 3 4	2 310 1 865 1 335 855	1 360 1 095 785 505	1 580 1 510 1 485 1 510	108 132 138 131	4.50* 5.50* 5.80* 5.50*	–	-25...+60
VBS0310RUNES	R3G310RN9802	centrifugal fan		48	36...57	B	1 2 3 4	2 375 1 960 1 330 705	1 400 1 155 780 415	1 620 1 555 1 535 1 580	123 144 152 137	2.60 3.00 3.20 2.80	7.0 6.6 6.2 6.5	-25...+60
	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



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

Material/Surface

- Housing: Aluminum
- Housing side parts: Plastic
- Impeller: Aluminum

Characteristics

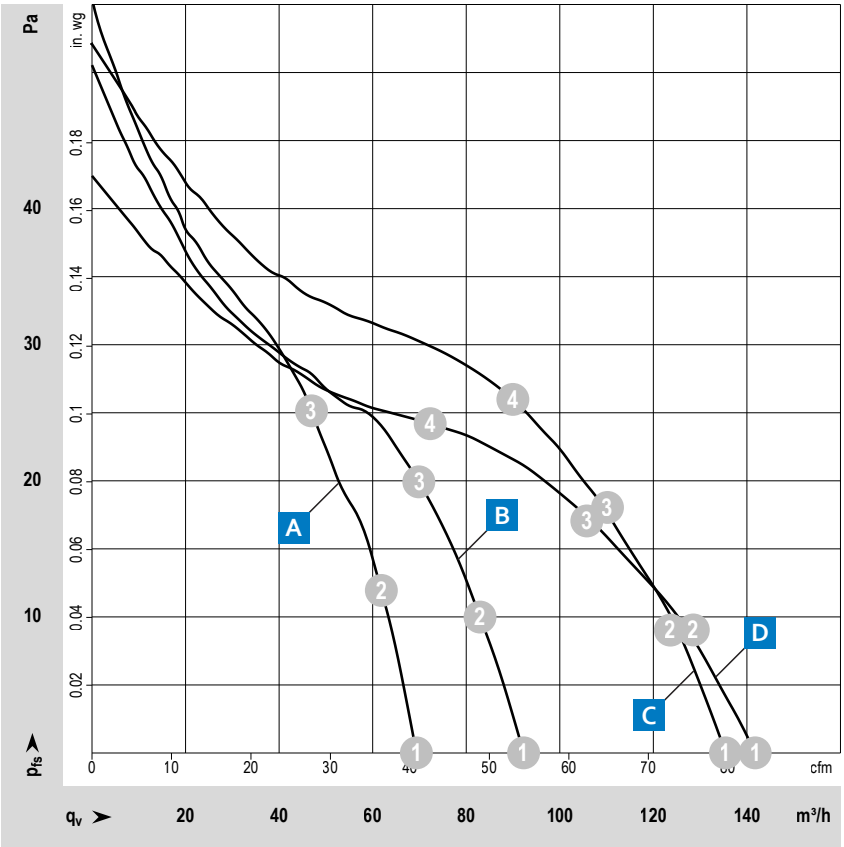
- Version: Tangential blower in 12 VDC and 24 VDC. Uniform laminar air flow over the entire length
- Bearing: Ball bearings/Sleeve bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: single wires AWG 24
- Electrical protection class: III
- Weight: 235 / 290 / 380 / 415 g

Approvals

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

Options

- Speed signal
- Moisture protection



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$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

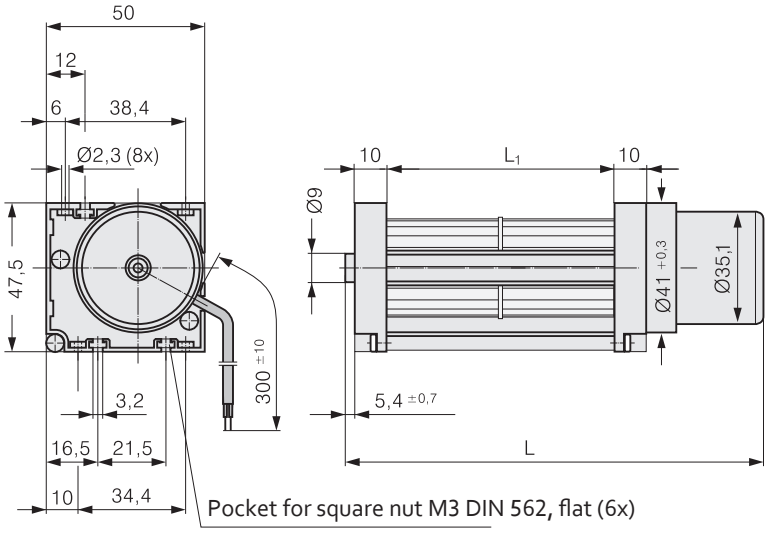
Type / Type old	Part number	Nominal voltage	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VDC	VDC			m³/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 62.0 46.8	40.6 36.5 27.5	4 450 4 750 5 220	4.9 4.3 3.5	5.9 5.8 5.5	49	-20...+60	30 000	50 000
VTS0030XUFCS QG 030-198/12	**9392715011**	**12**	8...14	B	1 2 3	90.0 81.0 68.0	53.0 47.7 40.0	4 300 4 490 4 740	5.7 5.1 4.5	6.0 5.8 5.6	51	-20...+60	30 000	50 000
VTS0030XUFCS QG 030-303/12	**9392715001**	**12**	8...14	C	1 2 3 4	128.0 118.0 104.0 85.0	75.3 69.5 61.2 50.0	3 950 4 150 4 420 4 720	7.3 6.7 5.9 4.9	6.2 6.0 5.8 5.5	51	-20...+60	30 000	50 000
VTS0030XUFCS QG 030-353/12	**9392715015**	**12**	8...14	D	1 2 3 4	139.0 127.0 108.0 75.0	81.8 74.7 63.6 44.1	3 700 3 950 4 350 4 820	8.2 7.3 6.1 4.6	6.1 6.1 6.0 5.9	51	-20...+60	30 000	50 000
VTS0030XUFBS QG 030-148/14	**9392708002**	**24**	16...28	A	1 2 3	66.0 59.0 44.0	38.8 34.7 25.9	4 450 4 700 5 080	4.7 4.2 3.5	5.9 5.8 5.5	49	-20...+60	30 000	50 000
VTS0030XUFCS QG 030-198/14	**9392715013**	**24**	16...28	B	1 2 3	92.0 83.0 70.0	54.1 48.9 41.2	4 400 4 580 4 830	6.3 5.7 4.9	6.0 5.8 5.6	51	-20...+60	30 000	50 000
VTS0030XUFCS QG 030-303/14	**9392715002**	**24**	16...28	C	1 2 3 4	135.0 125.0 110.0 90.0	79.5 73.6 64.7 53.0	4 080 4 290 4 600 4 950	8.3 7.6 6.7 5.6	6.2 6.0 5.8 5.6	51	-20...+60	30 000	50 000
VTS0030XUFCS QG 030-353/14	**9392715008**	**24**	16...28	D	1 2 3 4	142.0 127.0 106.0 72.0	83.6 74.7 62.4 42.4	3 800 4 040 4 360 4 790	7.6 6.8 5.8 4.5	6.1 6.1 6.0 5.9	51	-20...+60	30 000	50 000

Subject to changes.

The values for service life were recorded with the fan installed horizontally.

Technical drawing

Dimensions in mm



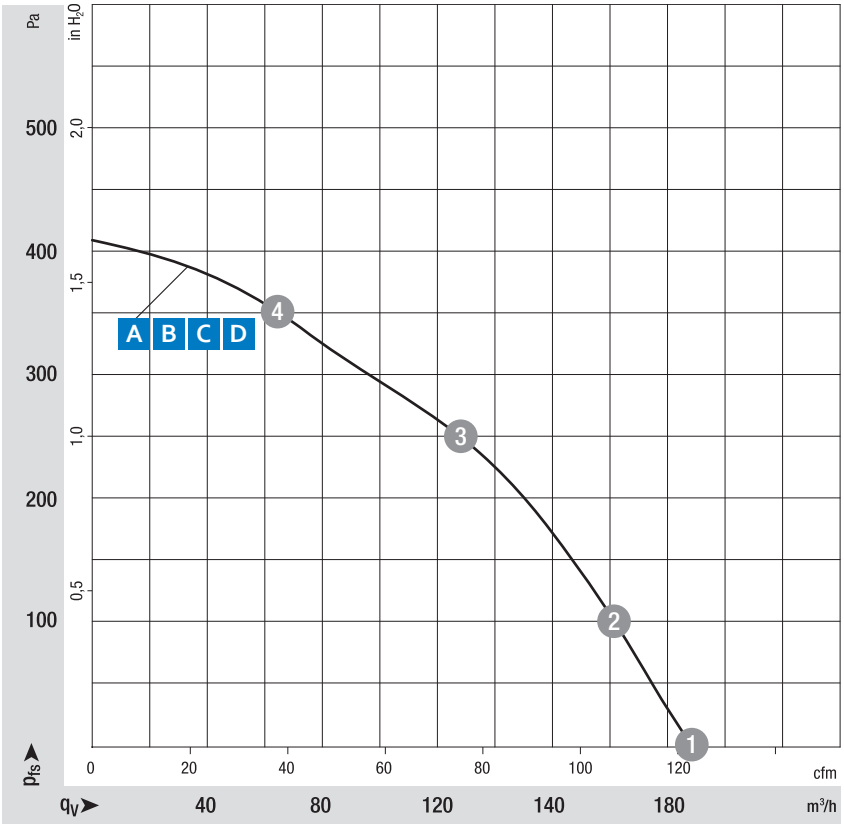
Type	L	L1	Mass
VTS0030XUFBS QG 030-148/..	203.4 +1.5	148	235 g
VTS0030XUFCS QG 030-198/..	260.4 +1.5	198	290 g
VTS0030XUFCS QG 030-303/..	365.4 +1.5	303	380 g
VTS0030XUFCS QG 030-353/..	415.4 +1.5	353	415 g

VFS0108XULCS

DC centrifugal fans and blowers · max. 225 m³/h · Ø 108 mm



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



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)

Measuring conditions

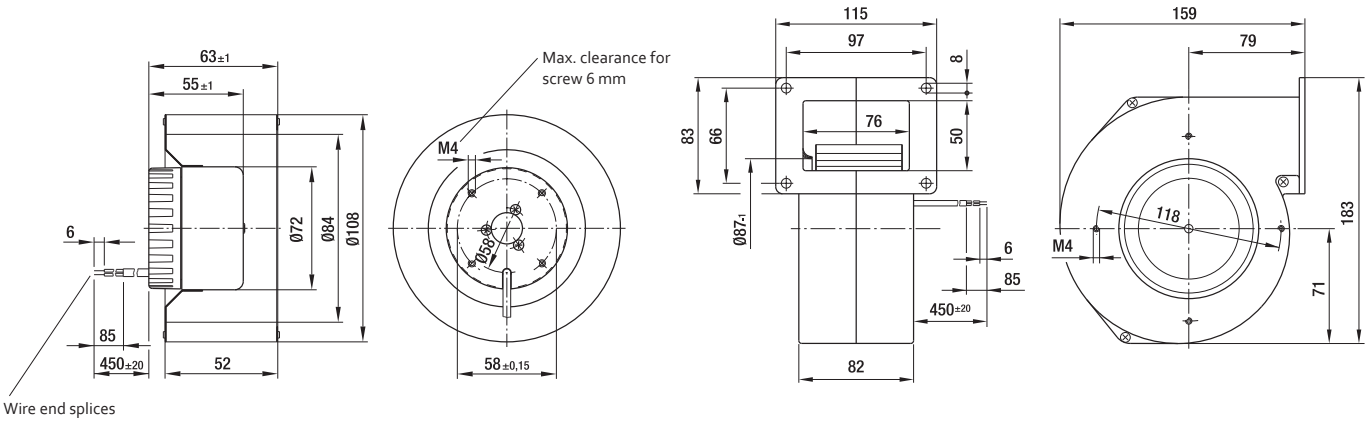
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VFS0108XULCS	R1G108AB1702	centrifugal fan		24	16...28	A	1	225	130	3 235	55	2.26	0	-25...+60
							2	190	115	3 480	51	2.06	149	
							3	140	85	3 800	44	1.76	313	
							4	90	55	4 055	38	1.49	414	
VHS0108XULCS	G1G108AB1702	centrifugal blower with flange		24	16...28	B								
VFS0108XULCS	R1G108AB4102	centrifugal fan		48	36...57	C	1	220	130	3 200	52	1.04	0	-25...+60
							2	175	105	3 520	47	0.92	174	
							3	115	65	3 875	40	0.76	327	
							4	65	40	4 100	34	0.66	415	
VHS0108XULCS	G1G108AB4102	centrifugal blower with flange		48	36...57	D								

Subject to changes.

Technical drawing

Dimensions in mm



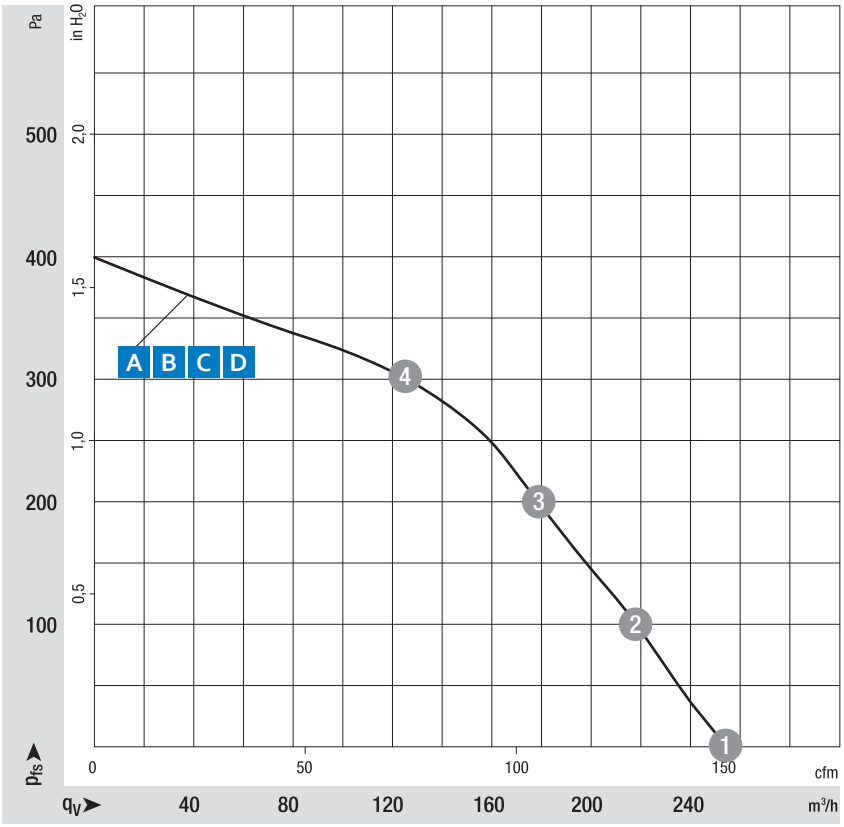
Wire end splices

VFS0120XULCS

DC centrifugal fans and blowers · max. 275 m³/h · Ø 120 mm



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



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)

Measuring conditions

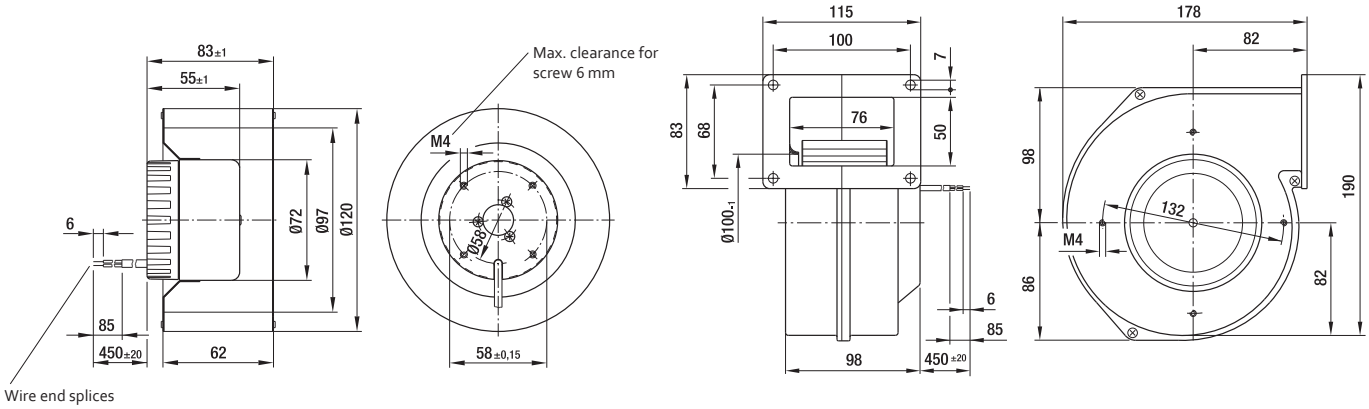
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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 VDC	Voltage range VDC	Characteristic curve	Operating point	Air flow m³/h	Air flow cfm	Speed rpm	Power consumption W	Input current A	Min. back-pressure Pa	Perm. ambient temperature °C
VFS0120XULCS	R1G120AB6702	centrifugal fan		24	16...28	A	1	270	160	2380	49	2.09	0	-25...+60
							2	215	125	2685	45	1.81	165	
							3	150	90	3055	38	1.51	351	
							4	90	55	3295	32	1.25	403	
VHS0120XULCS	G1G120AB6702	centrifugal blower with flange		24	16...28	B								
VFS0120XULCS	R1G120AB7102	centrifugal fan		48	36...57	C	1	275	160	2420	51	1.05	0	-25...+60
							2	240	140	2615	48	0.95	119	
							3	200	115	2855	45	0.87	246	
							4	140	85	3155	38	0.74	382	
VHS0120XULCS	G1G120AB7102	centrifugal blower with flange		48	36...57	D								

Subject to changes.

Technical drawing

Dimensions in mm

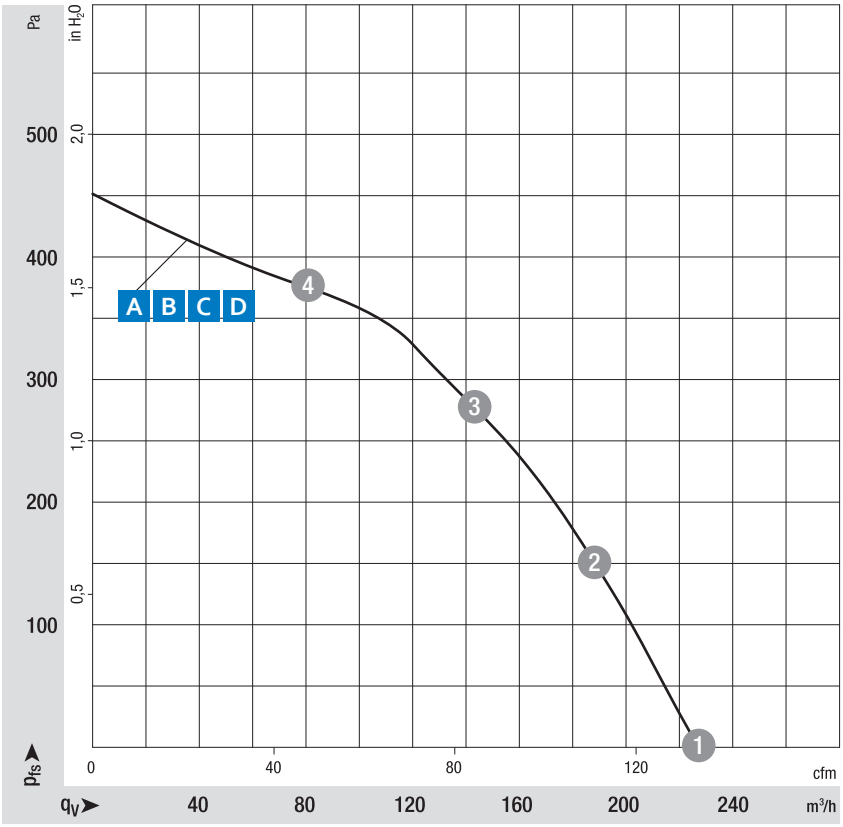


VFS0133XULCS

DC centrifugal fans and blowers · max. 245 m³/h · Ø 133 mm



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



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)

Measuring conditions

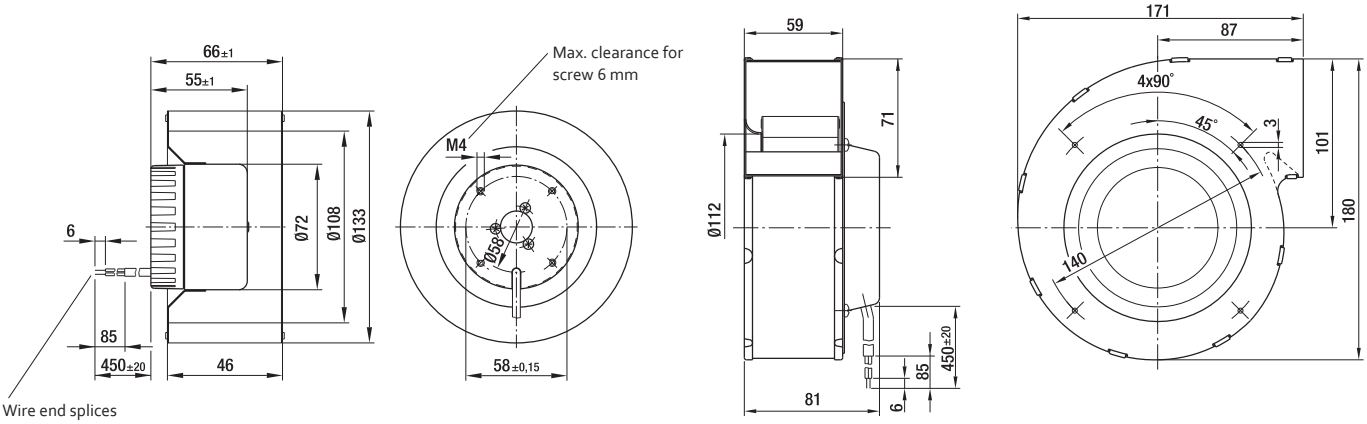
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VFS0133XULCS	R1G133AE1902	centrifugal fan		24	16...28	A	1	240	140	2 155	50	2.13	0	-25...+60
							2	200	120	2 385	45	1.87	164	
							3	150	90	2 725	40	1.59	319	
							4	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	1	245	145	2 175	58	1.26	0	-25...+60
							2	200	120	2 415	51	1.07	173	
							3	165	100	2 670	46	0.94	294	
							4	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

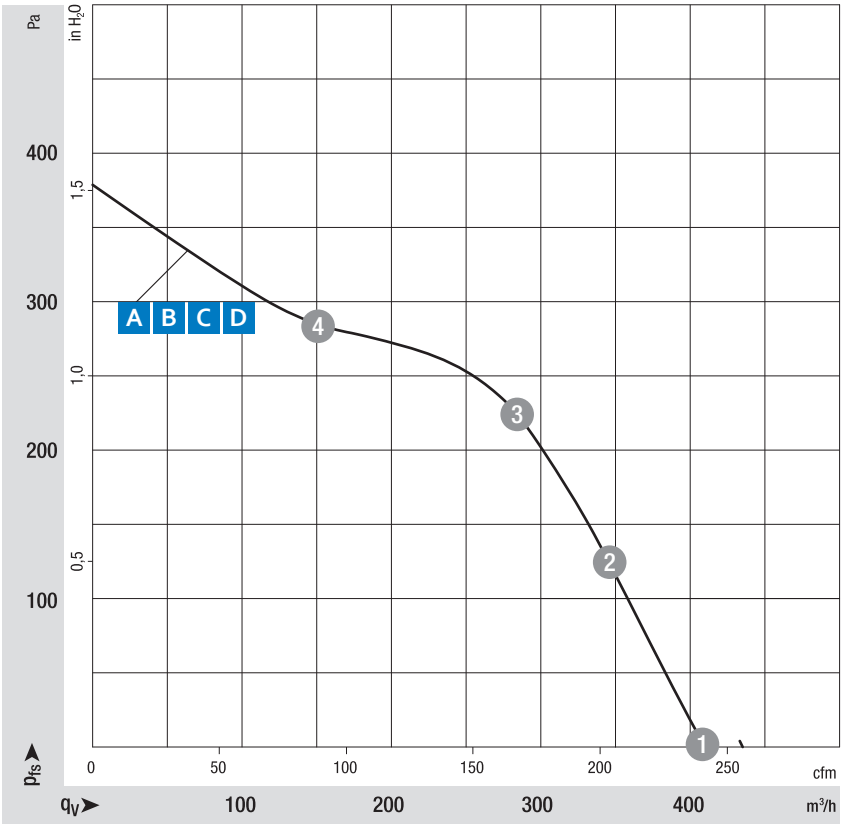


VFS0140XULES

DC centrifugal fans and blowers · max. 435 m³/h · Ø 140 mm



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



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)

Measuring conditions

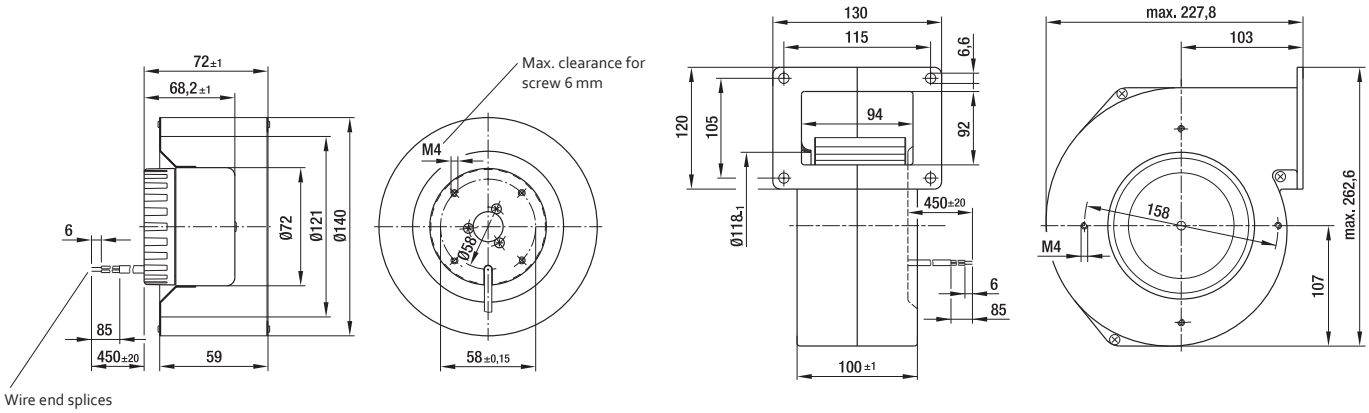
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VFS0140XULES	R1G140AV1702	centrifugal fan		24	16...28	A	1	435	255	1 875	67	2.80	0	-25...+60
							2	370	220	2 025	63	2.57	138	
							3	275	160	2 285	57	2.25	288	
							4	150	90	2 590	44	1.75	346	
VHS0140XULES	G1G140AV1702	centrifugal blower with flange		24	16...28	B								
VFS0140XULES	R1G140AV2102	centrifugal fan		48	36...57	C	1	435	255	1 855	66	1.40	0	-25...+60
							2	355	210	2 050	61	1.25	160	
							3	265	155	2 305	55	1.10	302	
							4	150	90	2 560	43	0.86	338	
VHS0140XULES	G1G140AV2102	centrifugal blower with flange		48	36...57	D								

Subject to changes.

Technical drawing

Dimensions in mm



VFS0146XUNCS

DC centrifugal fans and blowers · max. 500 m³/h · Ø 146 mm



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

Material/Surface

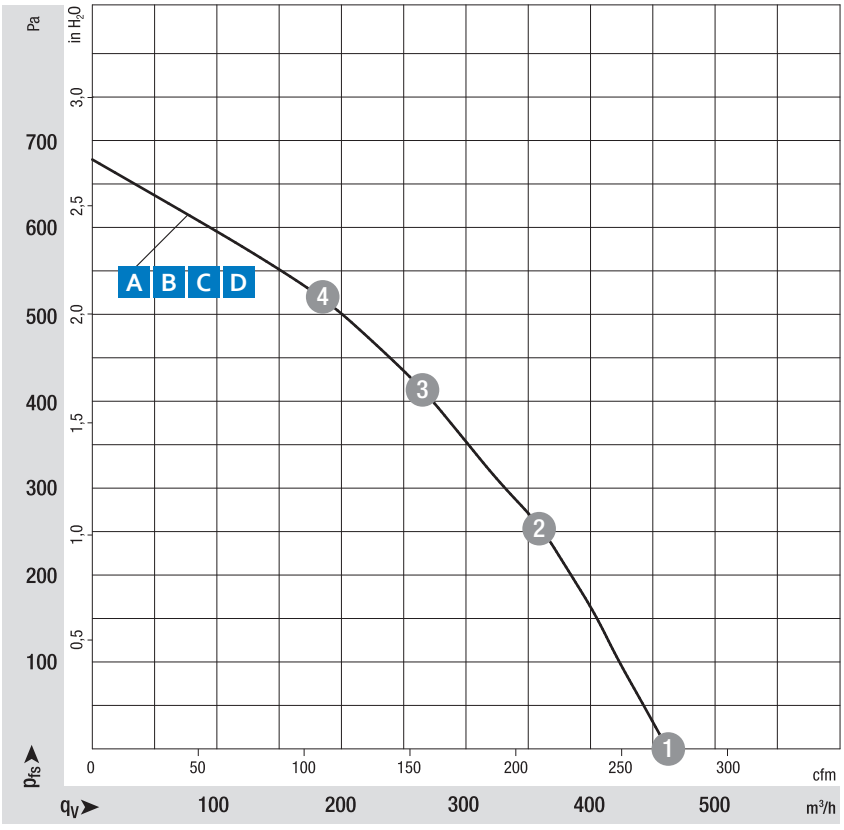
- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Painted black

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)



Measuring conditions

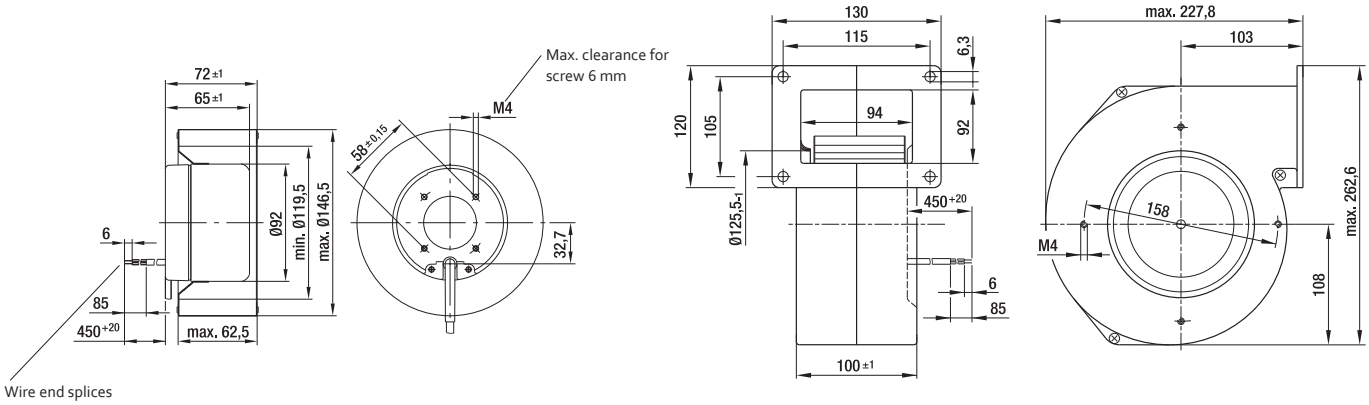
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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 VDC	Voltage range VDC	Characteristic curve	Operating point	Air flow m³/h	Air flow cfm	Speed rpm	Power consumption W	Input current A	Min. back-pressure Pa	Perm. ambient temperature °C
VFS0146XUNCS	R1G146AA0752	centrifugal fan		24	16...28	A	1	500	295	2 350	124	5.54	0	-25...+60
							2	415	245	2 600	117	5.00	224	
							3	290	170	3 010	109	4.42	466	
							4	185	110	3 370	96	3.80	605	
VHS0146XUNCS	G1G146BA0752	centrifugal blower with flange		24	16...28	B								
VFS0146XUNCS	R1G146AA1152	centrifugal fan		48	36...57	C	1	495	290	2 295	120	2.84	0	-25...+60
							2	415	245	2 535	113	2.54	226	
							3	300	175	2 910	105	2.21	451	
							4	205	120	3 270	99	2.00	598	
VHS0146XUNCS	G1G146BA1152	centrifugal blower with flange		48	36...57	D								

Subject to changes.

Technical drawing

Dimensions in mm



VFS0160XUNCS

DC centrifugal fans and blowers · max. 545 m³/h · Ø 160 mm



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

Material/Surface

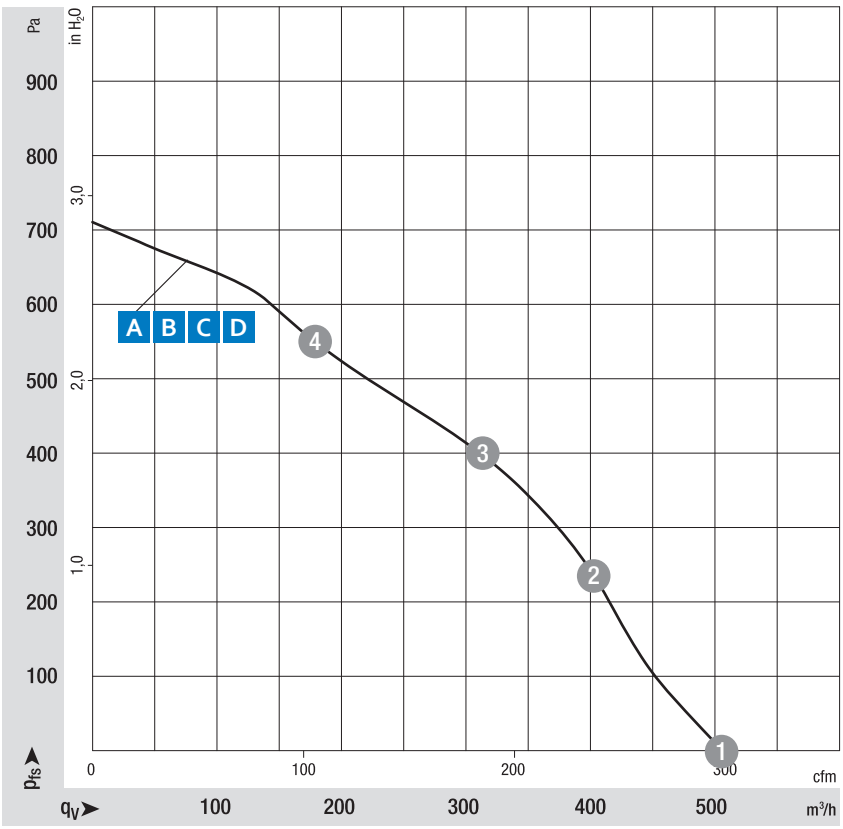
- Housing: Die-cast aluminum
- Impeller: Hot-dip galvanized sheet steel
- Rotor: Painted black

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)



Measuring conditions

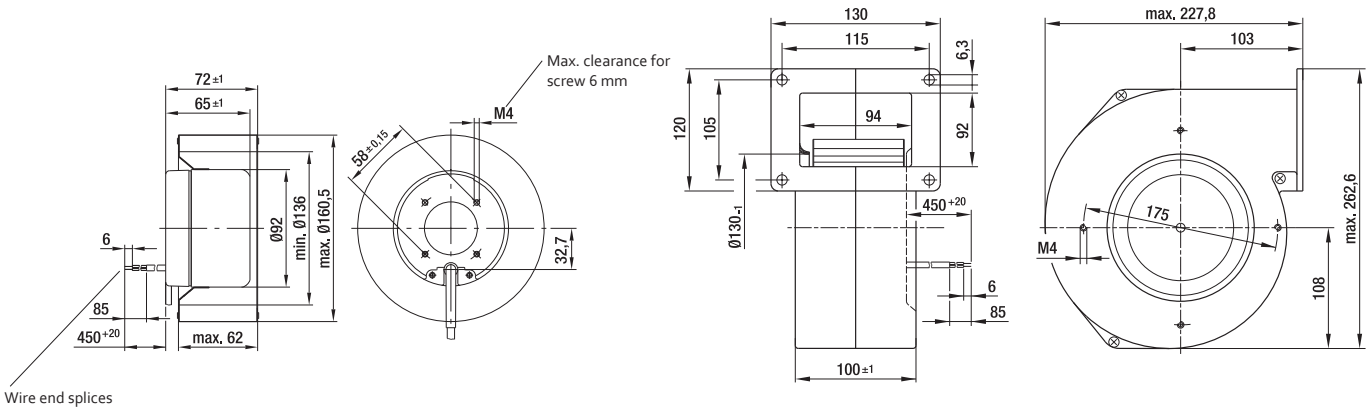
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_a$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VFS0160XUNCS	R1G160AH2952	centrifugal fan		24	16...28	A	1	540	320	1 870	134	6.43	0	-25...+60
							2	450	256	2 115	121	5.54	229	
							3	340	200	2 420	110	4.82	456	
							4	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	1	545	320	1 890	134	3.27	0	-25...+60
							2	450	265	2 145	120	2.78	235	
							3	340	200	2 470	111	2.40	468	
							4	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



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

Material/Surface

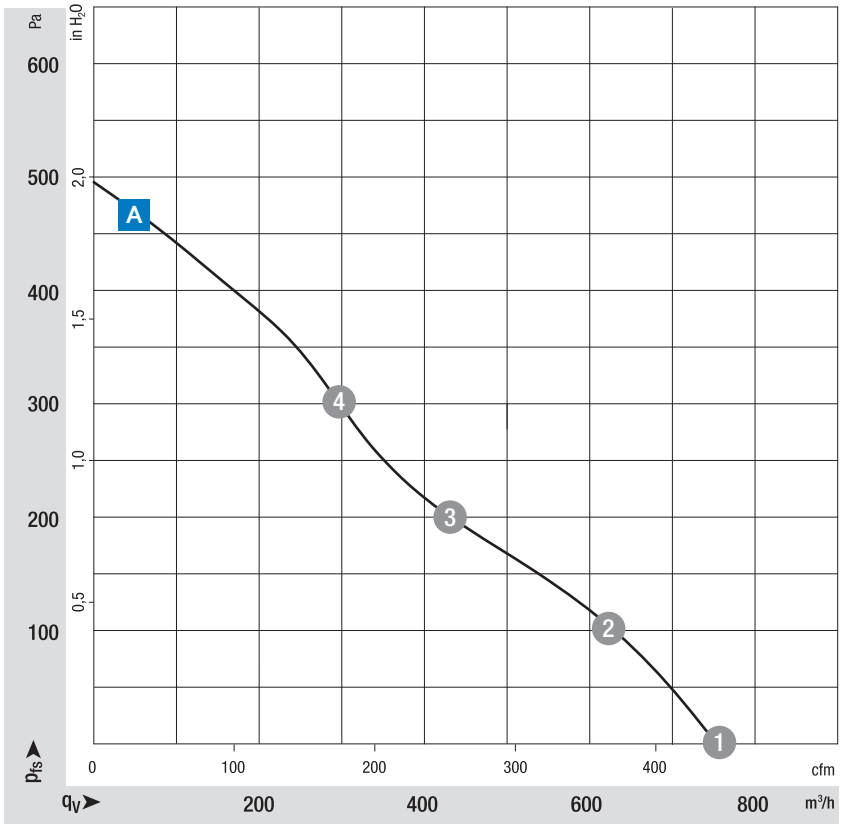
- Housing: Galvanized Sheet steel
- Impeller: Galvanized Sheet steel
- Rotor: Painted black

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)



Measuring conditions

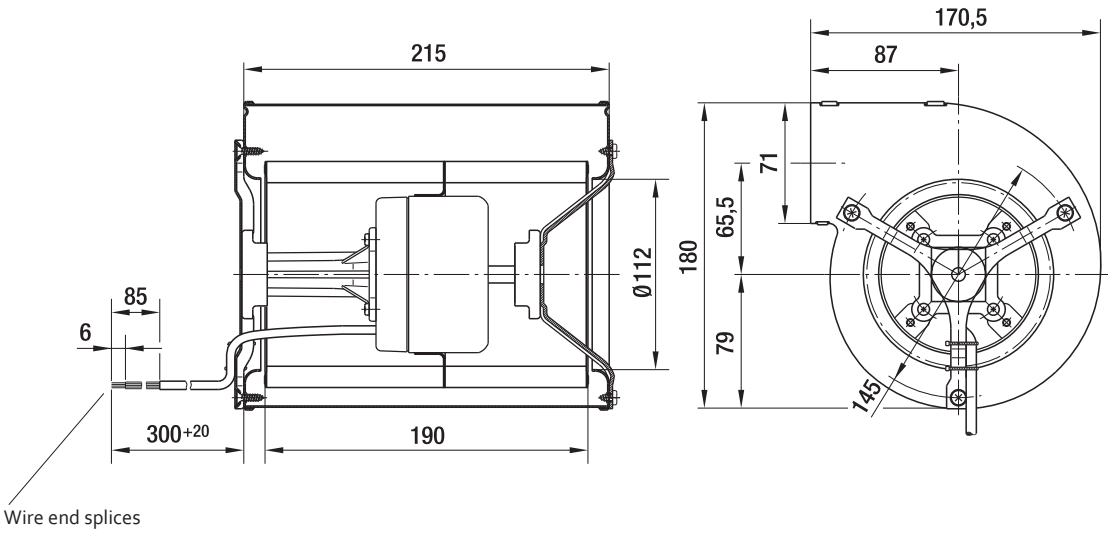
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VHD0133XUNCS	D1G133AB2952	centrifugal blower with flange		24	16...28	A	1	745	435	1 900	135	6.23	55	-25...+60
							2	535	315	2 300	116	5.04	185	
							3	375	220	2 655	107	4.41	278	
							4	250	145	3 050	97	3.87	417	
VHD0133XUNCS	D1G133AB3952	centrifugal blower with flange		48	36...57	A	1	745	440	1 890	130	3.24	58	-25...+60
							2	575	340	2 230	114	2.64	174	
							3	375	220	2 640	104	2.21	290	
							4	265	155	3 005	98	1.98	412	

Subject to changes.

Technical drawing

Dimensions in mm



VHD0133XUNES

DC centrifugal blower · max. 1 105 m³/h · Ø 133 mm



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

Material/Surface

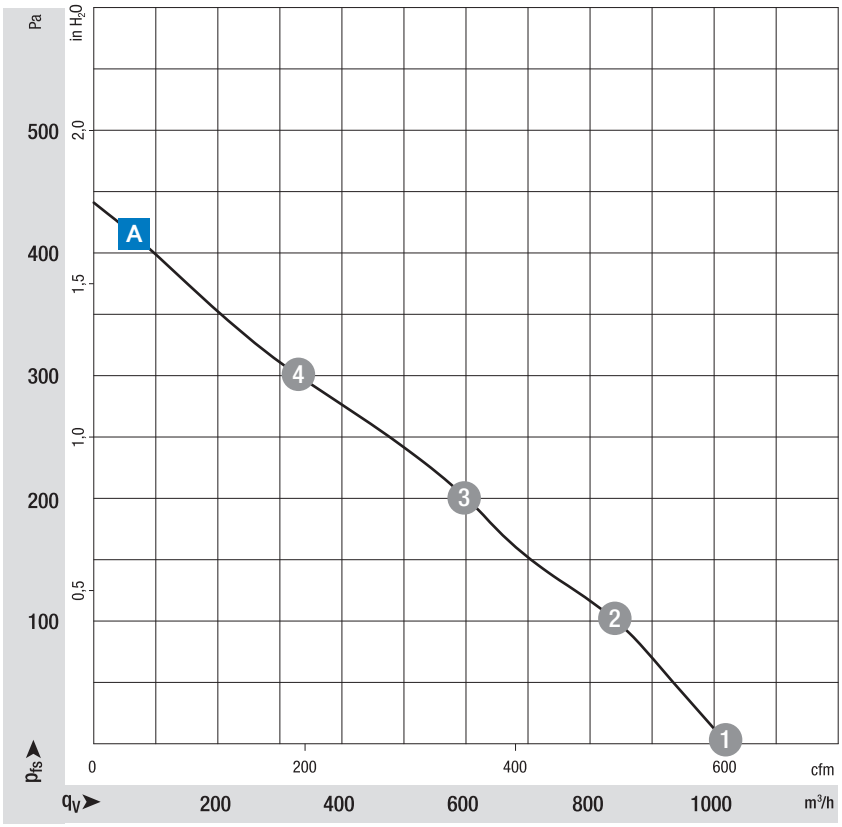
- Housing: Galvanized Sheet steel
- Impeller: Galvanized Sheet steel
- Rotor: Painted black

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



Measuring conditions

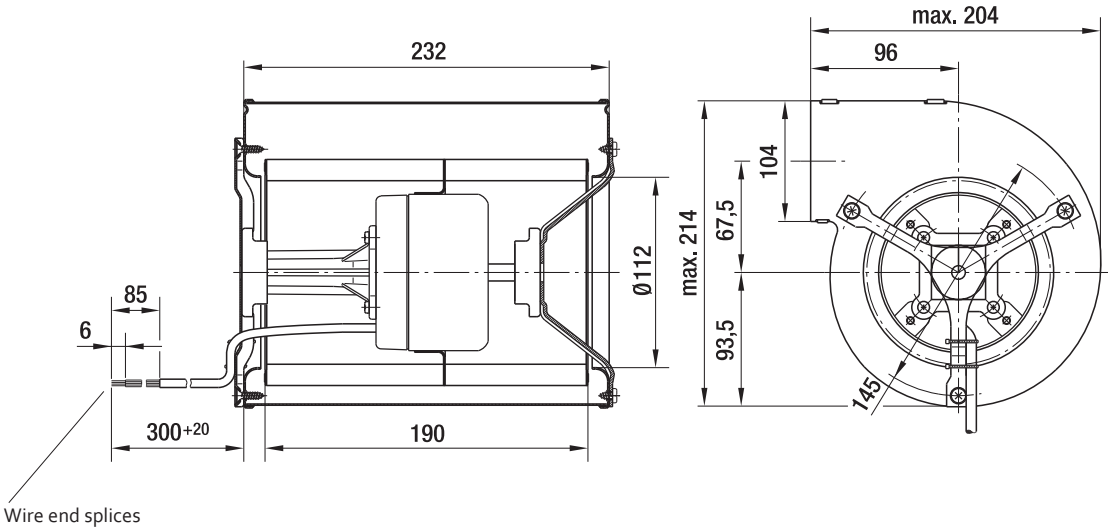
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_a$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VHD0133XUNES	D1G133DC1352	centrifugal blower with flange		24	16...28	A	1	1 095	645	1 675	147	6.46	0	-25...+60
							2	770	450	2 095	127	5.18	155	
							3	465	275	2 530	108	4.27	318	
							4	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
							2	905	530	1 925	134	2.94	117	
							3	705	415	2 200	125	2.63	210	
							4	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



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

Material/Surface

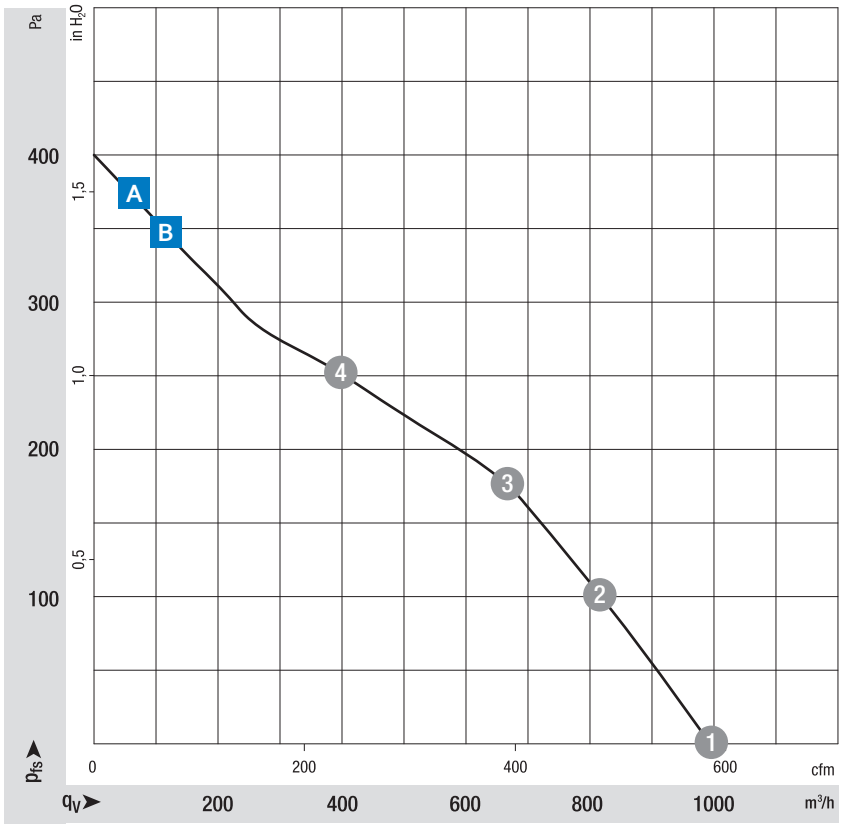
- Housing: Galvanized Sheet steel
- Impeller: Galvanized Sheet steel
- Rotor: Painted black

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



Measuring conditions

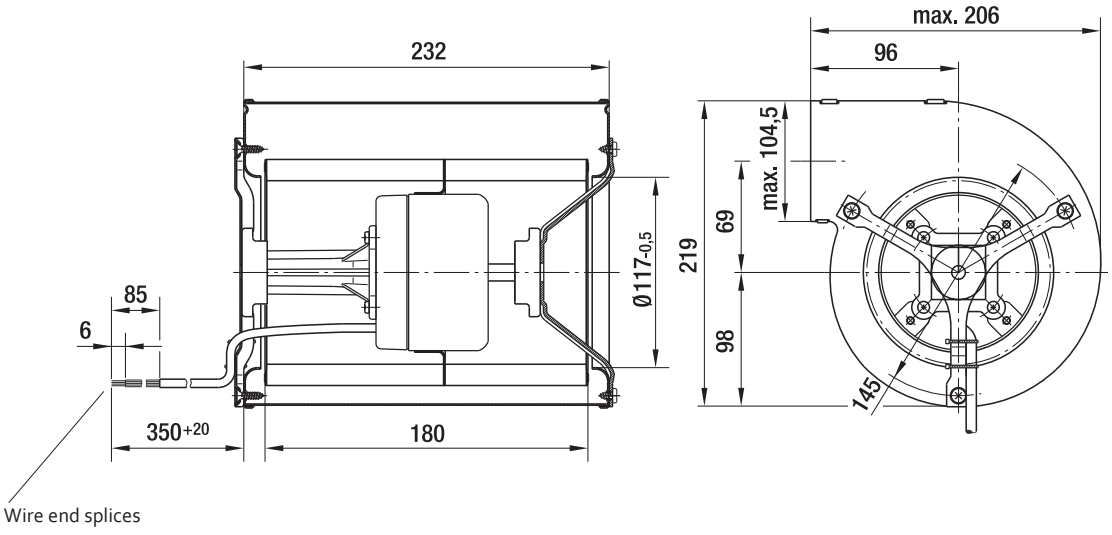
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_a$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Voltage range	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Min. back-pressure	Perm. ambient temperature
				VDC	VDC			m³/h	cfm	rpm	W	A	Pa	°C
VHD0146XUNES	D1G146AA1952	centrifugal blower with flange		24	16...28	A	1	1 085	640	1 445	130	5.56	0	-25...+60
							2	915	535	1 630	120	4.94	92	
							3	735	430	1 840	111	4.45	190	
							4	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
							2	925	545	1 640	121	2.58	91	
							3	755	445	1 840	114	2.35	187	
							4	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

Technical information

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:

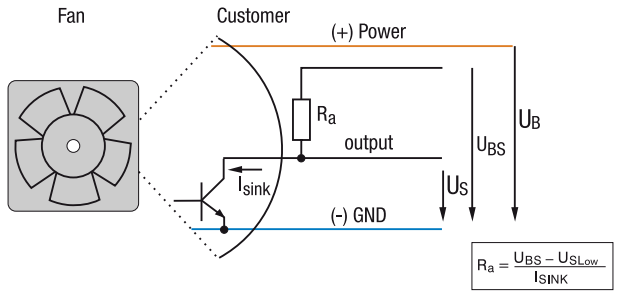
- Shock and vibration test
- Corrosion test
- Highly accelerated life test (HALT)
- Temperature change rain test
- EMC test

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

Type	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*
	VDC	mA	VDC	VDC	mA	
12 / 24 V	≤ 0,4	2	≤ 30	30	4	2
48 V	≤ 0,4	2	≤ 60	60	4	2

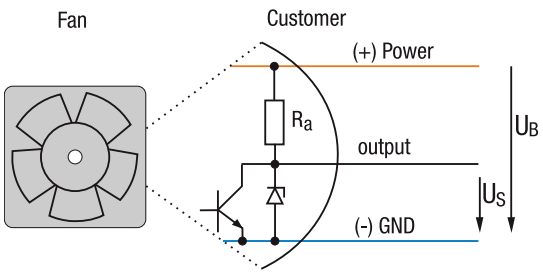
Subject to changes.

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

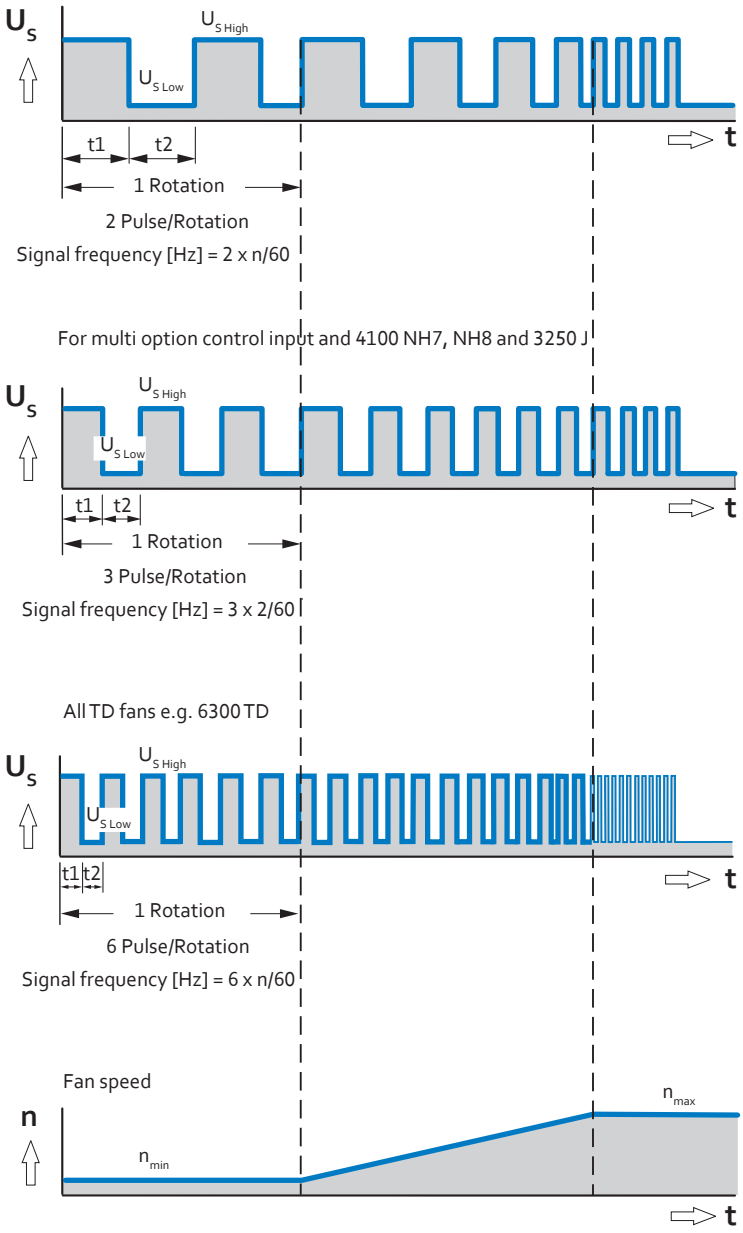
Type	Speed signal $U_{S\,Low}$	Condition I_{sink}	Speed signal $U_{S\,High}$	Condition I_{source}	Admissible sink current $I_{sink\,max.}$	Pulses per revolution*
	VDC	mA	VDC	mA	mA	
12 / 24 / 48 V	≤ 0,4	1	2,5–5,5	1	1	2

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 (exeptions 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

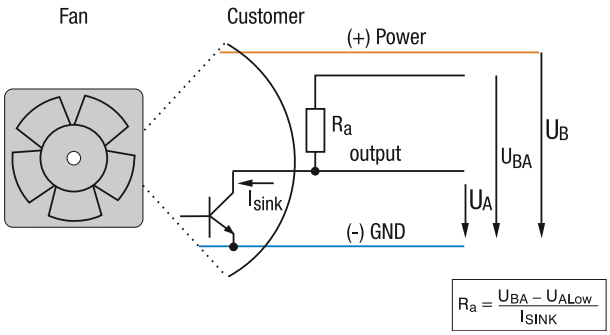
Alarm signal /17 *speed limit*

- 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.

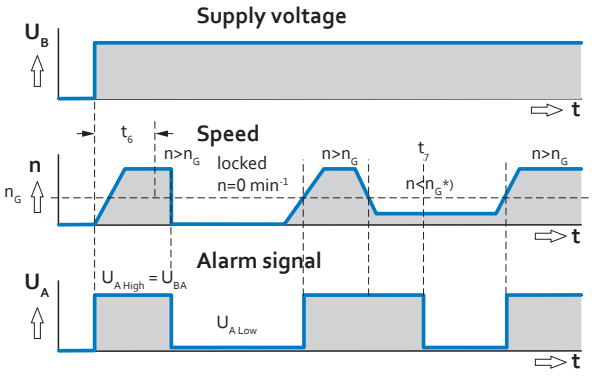
Available on request

- 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.

Electrical hookup



All voltages measured to ground. External load resistor R_a from U_A to U_{BA} required.



t6 = Alarm signal suppression during startup; t7 = Alarm delay time during run-up
* n < speed limit n_G by braking or locking

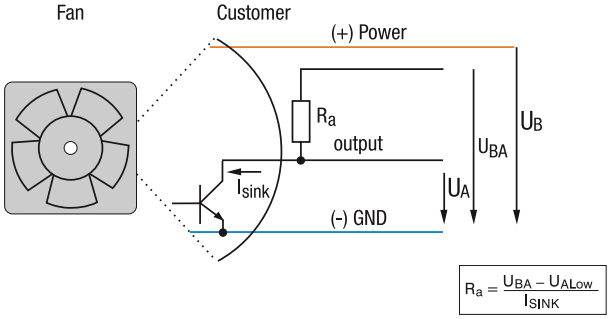
Alarm signal /19 *speed limit*

- 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.

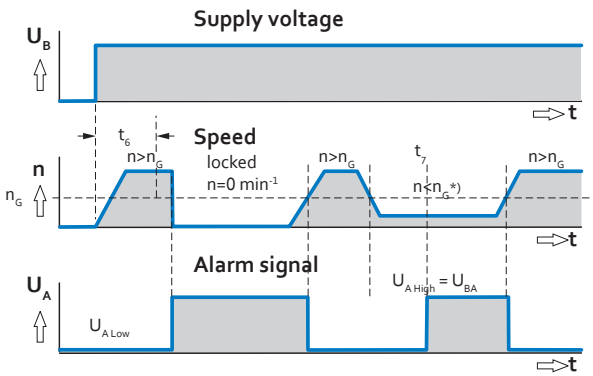
Available on request

- 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.

Electrical hookup



All voltages measured to ground. External load resistor R_a from U_A to U_{BA} required.



t6 = Alarm signal suppression during startup; t7 = Alarm delay time during run-up
* n < speed limit n_G by braking or locking

Alarm signal data

	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
Type								
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

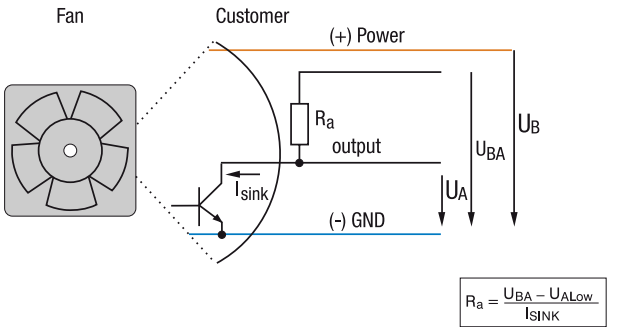
Fans that come with these fan specials could have variations with respect to the temperature range, voltage range, and power consumption compared to standard fans without specials.

Alarm signals

Alarm signal /37 *Go / NoGo alarm*

- 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.

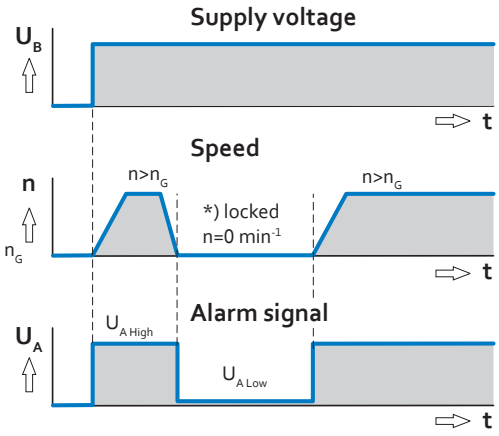
Electrical hookup



All voltages measured to ground. External load resistor R_a from U_A to U_{BA} required.

Available on request

- Alarm circuit TTL compatible

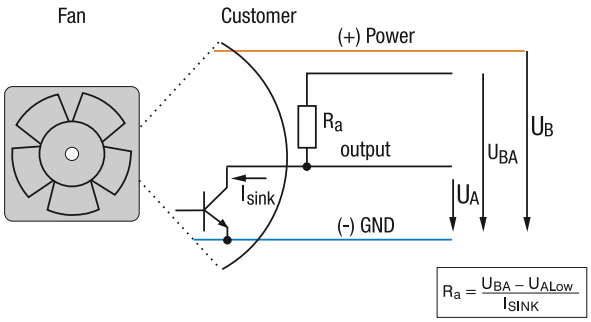


* Speed limit n_G = 0 rpm

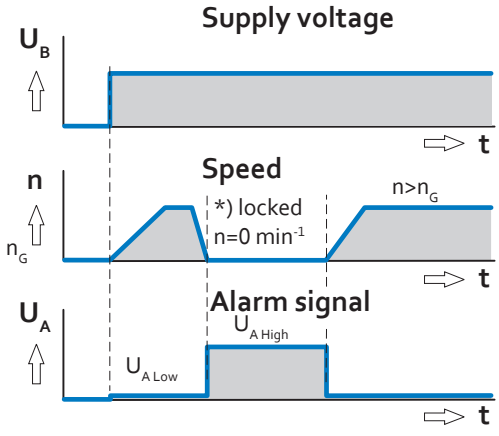
Alarm signal /39 *Go / NoGo alarm*

- 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.



* Speed limit n_G = 0 rpm

Alarm signal data

	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
Type								
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

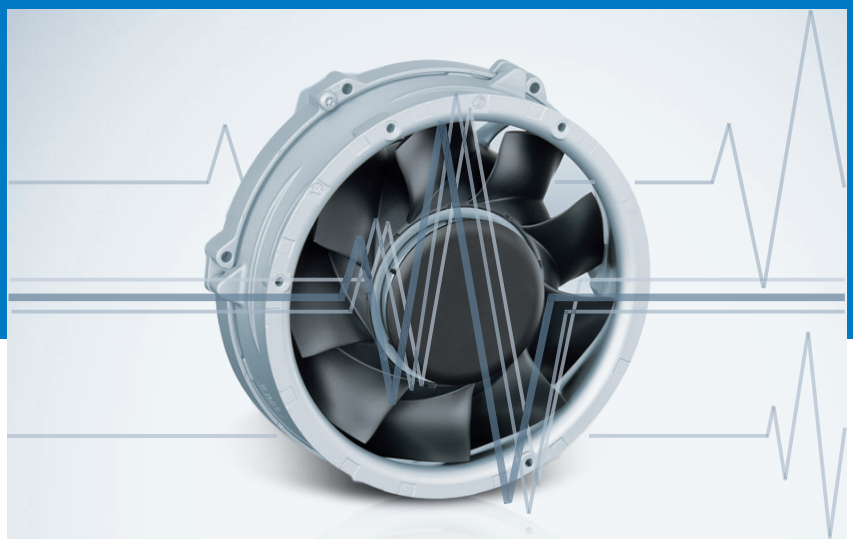
Subject to changes.

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.



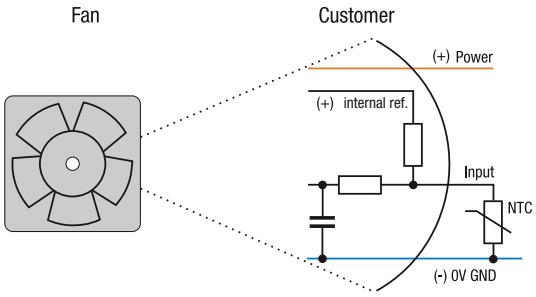
Speed setting

via temperature sensor

The control variable is a temperature sensor that is either integrated in the fan or connected to an additional control cable.

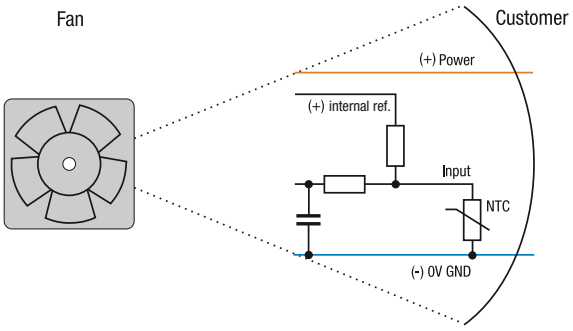
External temperature sensor type T

Ext. NTC resistor type LZ370 (p. 366) is required (not included in the standard scope of delivery)

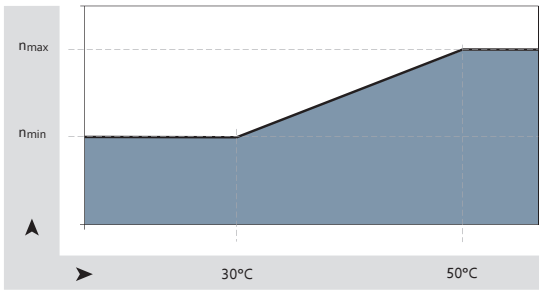


Internal temperature sensor type I

NTC integrated in the fan hub

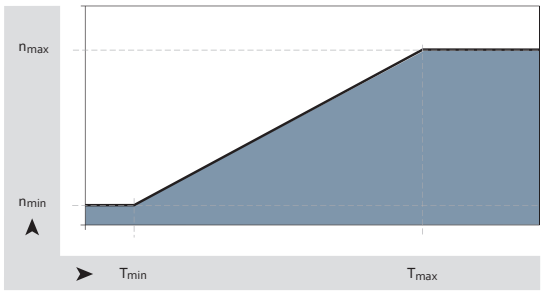


Standard speed/temperature curve for type T and type I

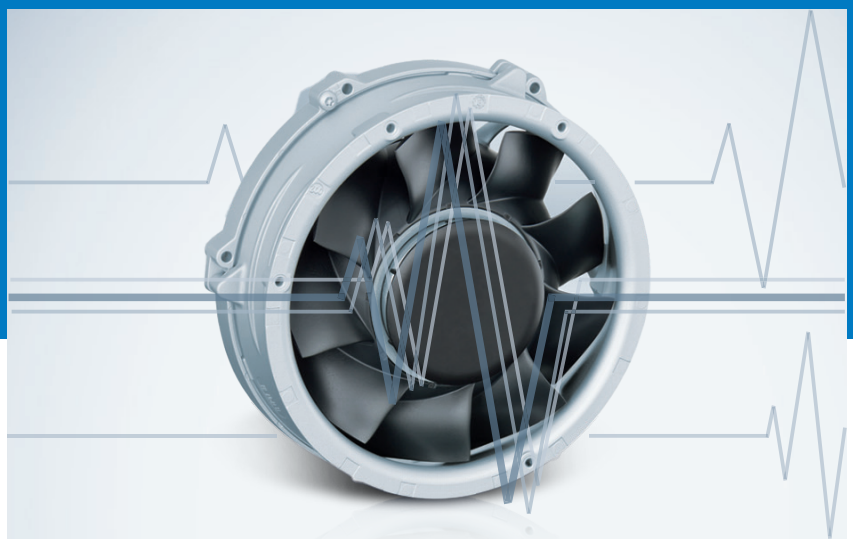


$n_{min} \approx ½\ n_{max}$
$T_{min} \approx 30$ °C; $T_{max} = 50$ °C

Optionally available with selectable temperature/speed curve



$n_{min} \approx 800$ 1/min n_{max} based on model
$T_{min} \approx 5$ °C $T_{max} \leq 85$ °C, based on model



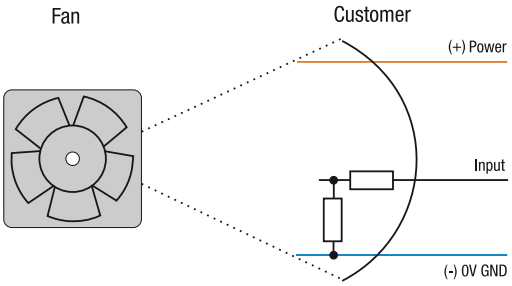
Speed setting

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

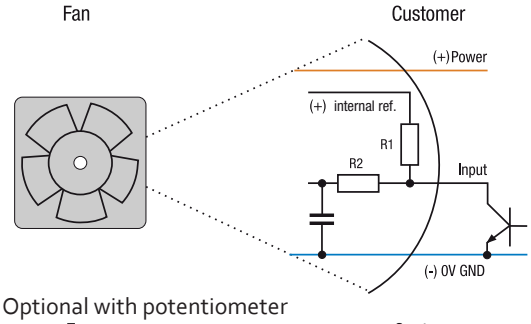
Standard control range 0...10 V



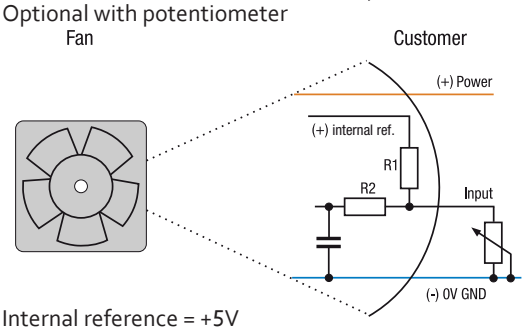
Typical input resistance > 10 kΩ

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

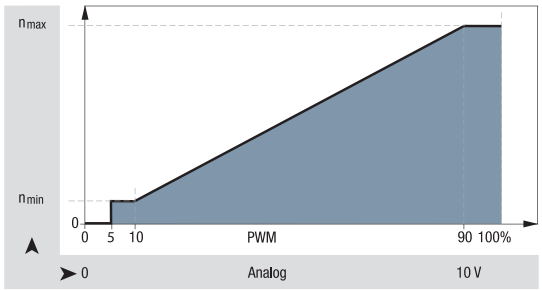


Optional with potentiometer

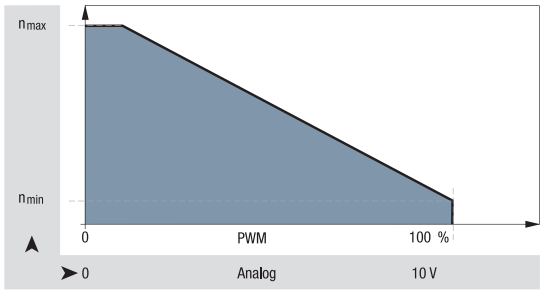


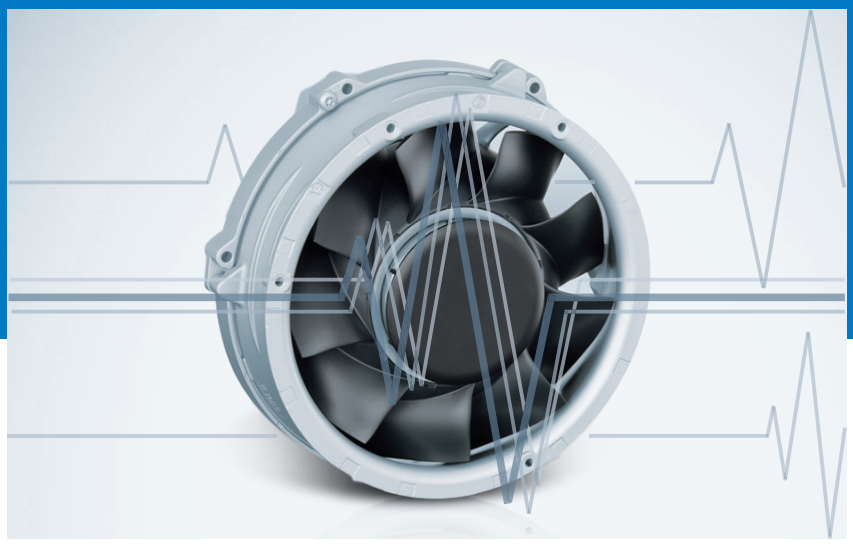
Internal reference = +5V
R1 typical 4.7...10 kΩ
R2 typical 100 kΩ

Standard P / A curve



Optionally available with selectable P / A speed curve



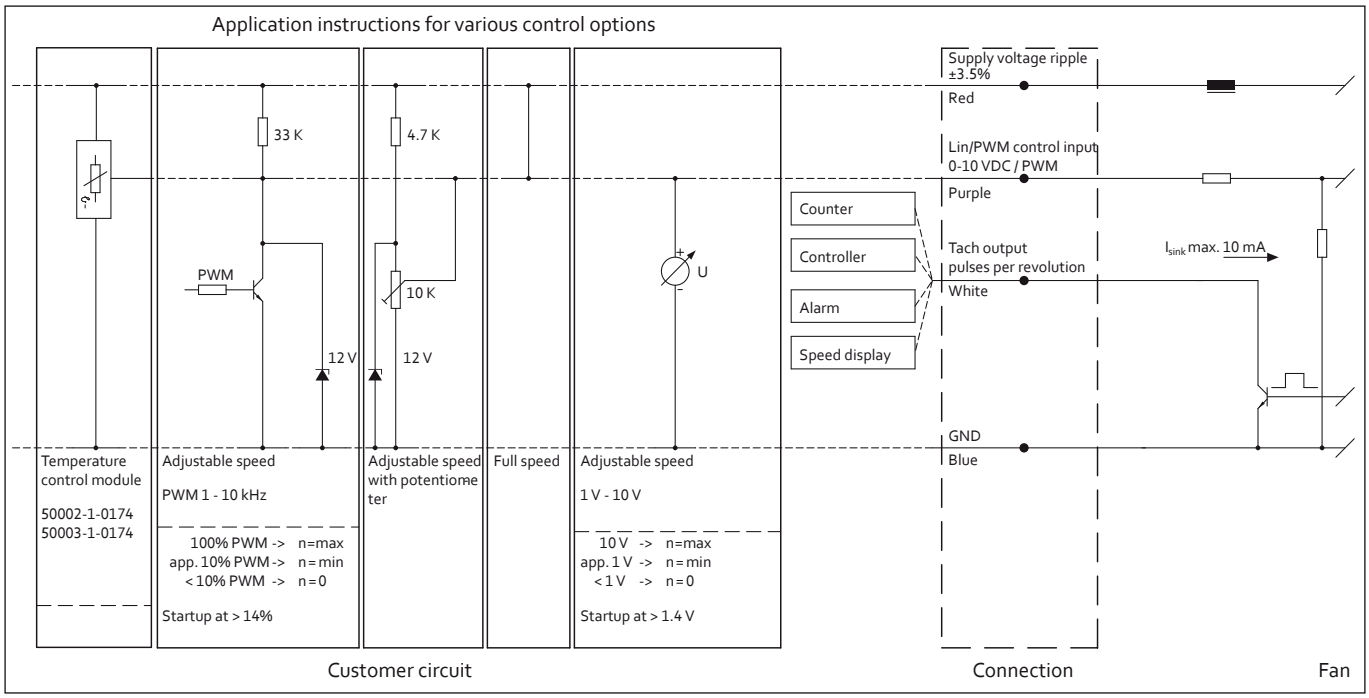


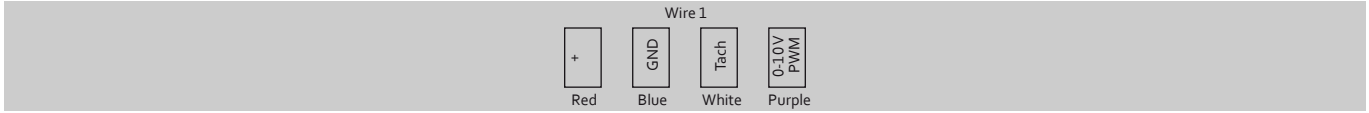
Speed setting

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





Wire	Connection	Color	Assignment/function
1	+	red	Supply voltage ripple ± 3,5 %
	GND	blue	GND

Wire	Connection	Color	Assignment/function
1	Tach	white	Tach output: 3 Impulse / revolution
	0-10 V / PWM	purple	Control input (Impedance 100 kΩ)

FanCheck

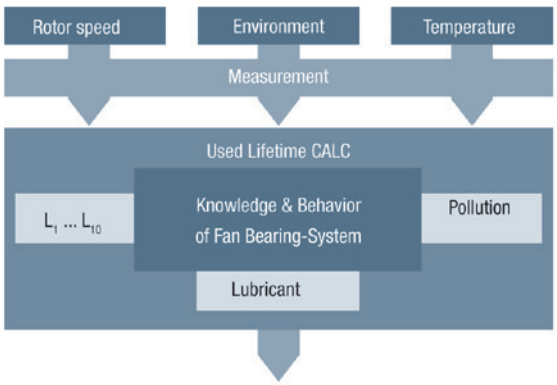
FanCheck is a diagnostic tool integrated into the fan electronics for determining the remaining service life of the fan, dependant, upon temperature, speed, and preset environmental parameters.

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



End of Life Indication
Output via alarm, PWM, analog or digital signal

R4R *Ready for Restart*



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	Oerall length	Size [mm]	Brand name	Motor	Motor size / Diameter	Air flow level	Standard

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
Ø 172 x 51	**VWEK172XSLPS**	AC 6200 N	284
Ø 130	**VWEH151X...**	W1G 130	286
Ø 200	**VWLJ225X...**	W3G 200	288
Ø 250	**VWLK280X...**	W3G 250	290
Ø 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.

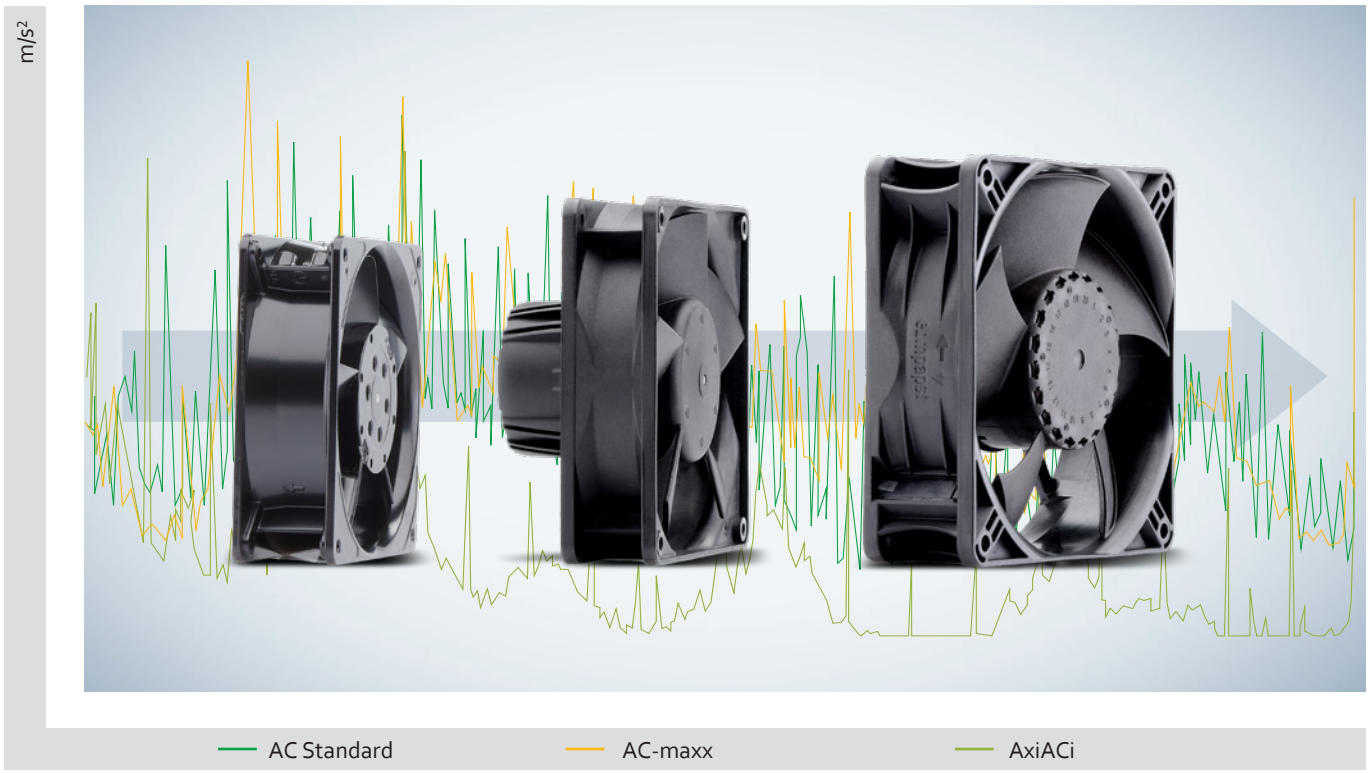
Many years of experience, quality and continuous product improvement

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 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.



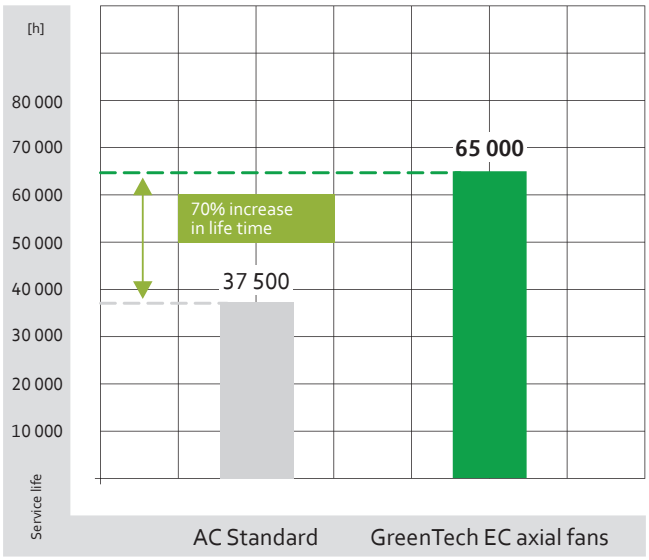
Progress made by ebm-papst
That means for you:

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.

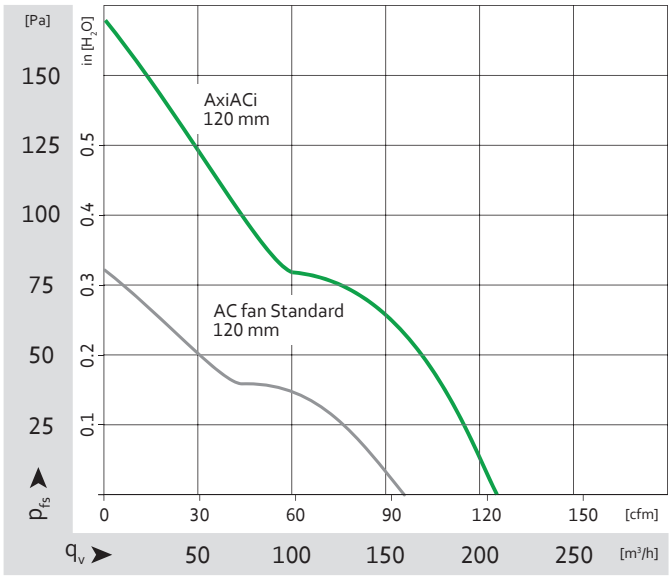
- **Reduction in logistics costs as independent from line frequency and line voltage**
  The GreenTech EC axial compact fans are prepared for direct connection to all AC voltages and frequencies thanks to the "wide voltage capability" of the fan. A certain speed version can be operated worldwide, regardless 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

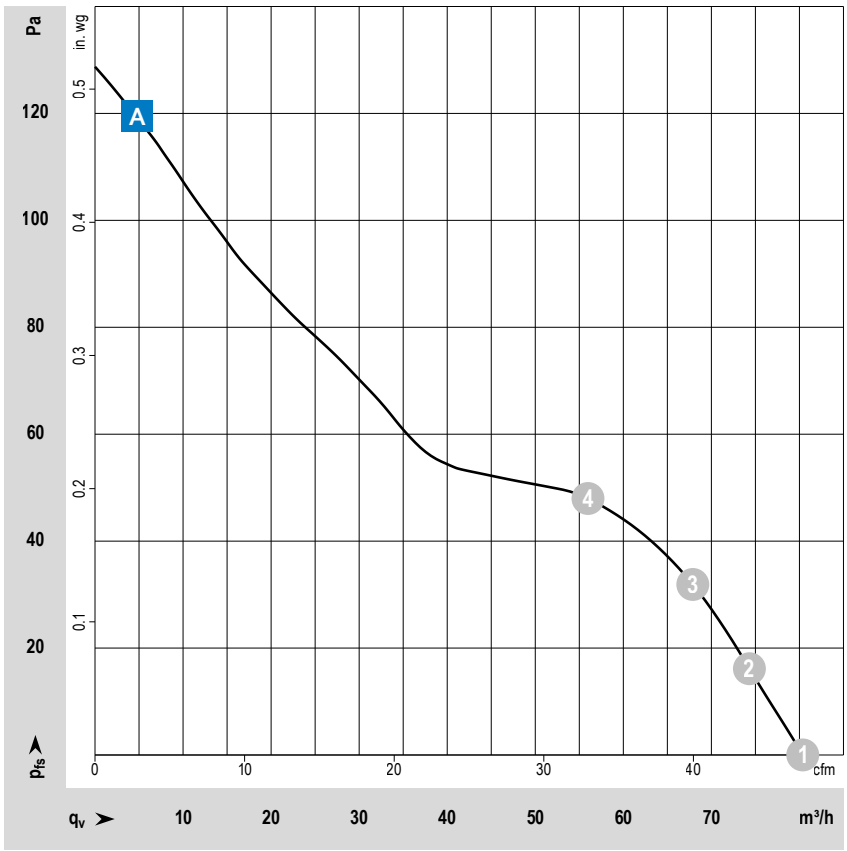
- IP65 provides protection against harmful environmental influences and harsh operating conditions
- Natural refrigerant? No problem!
  Safety approvals according to DIN EN 60335-2-89, 60335-2-24, DIN EN 60079-7 enable use with natural, explosive refrigerants
- Everything is possible, from standby mode, 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 world-wide 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

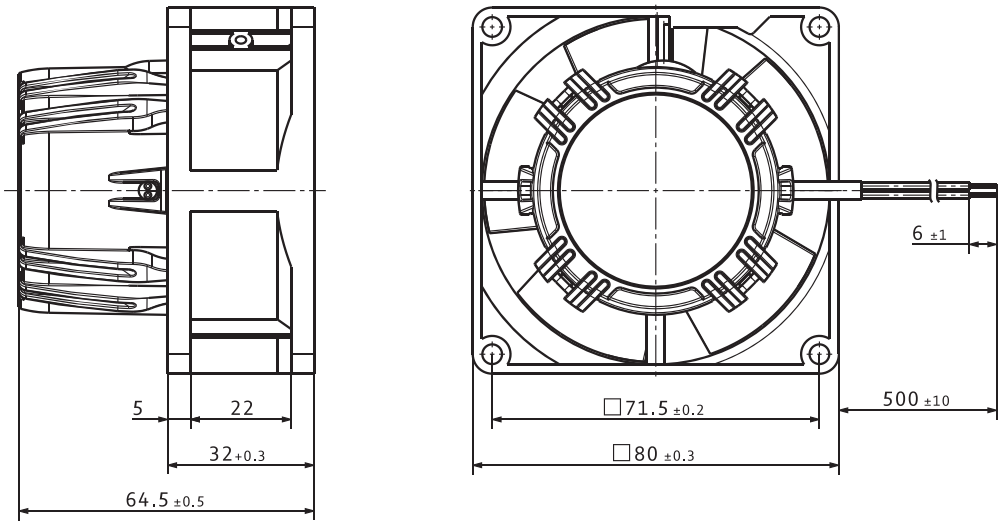
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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) ebmpapst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/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 2 3 4	80 74 68 56	47 44 40 33	5 000 5 000 5 020 5 060	8.2 8.3 8.4 8.2	6.6 6.5 6.4 6.3	48	-20…+75	55 000	92 500

Subject to changes. Speed variants available on request.

Technical drawing

Dimensions in mm

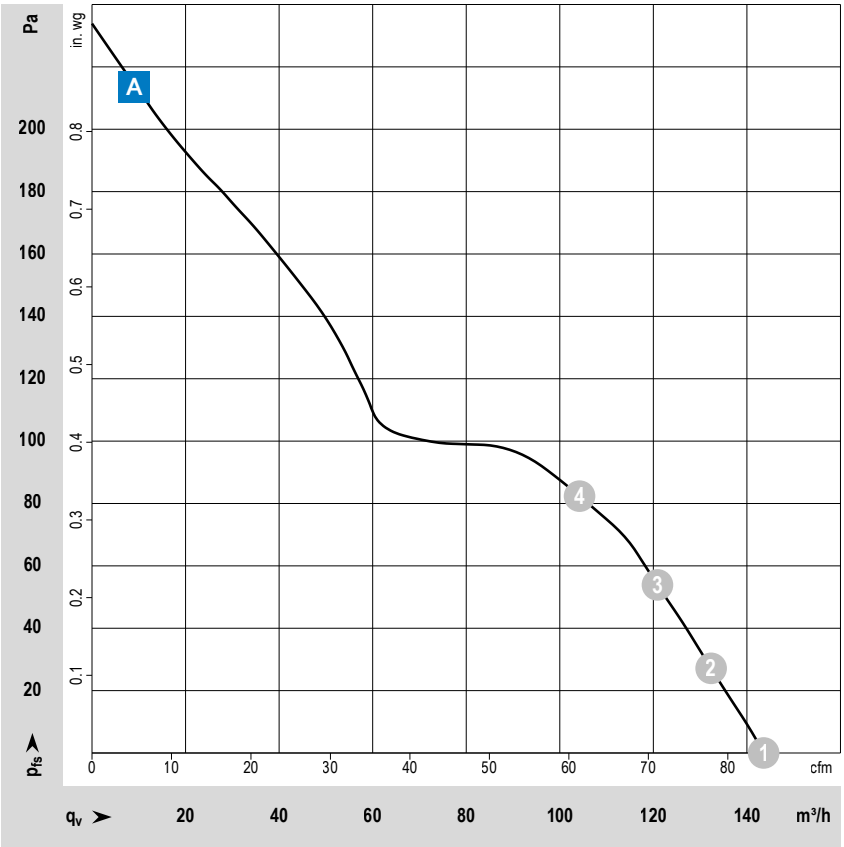


VWCJ092JSGKS

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 world-wide 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

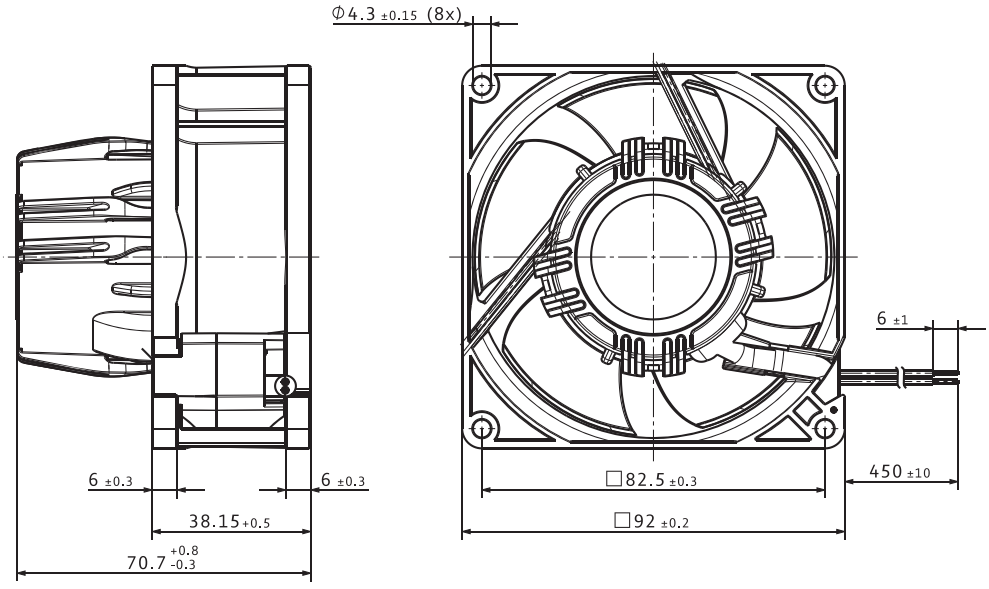
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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) ebmpapst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
Voltage range 85…265 VAC		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

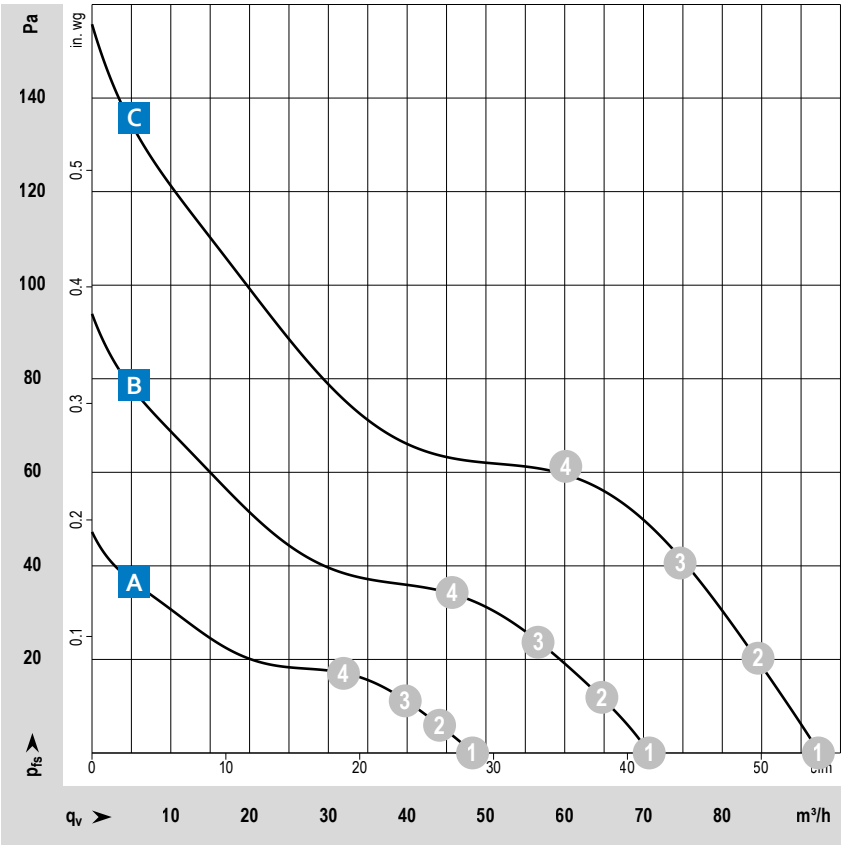


VWCF092D...

GreenTech EC axial fans · max. 92 m³/h · ☐ 92 x 38 mm



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



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

Measuring conditions

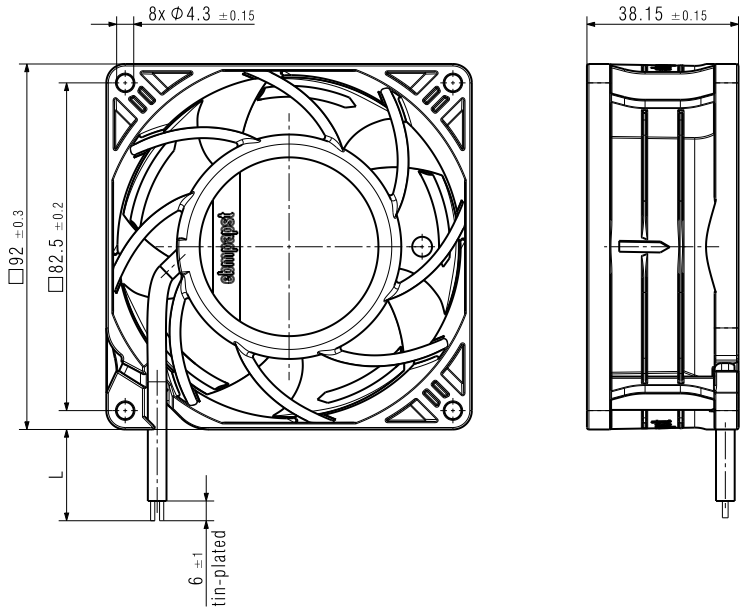
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
Voltage range 90...264 VAC		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

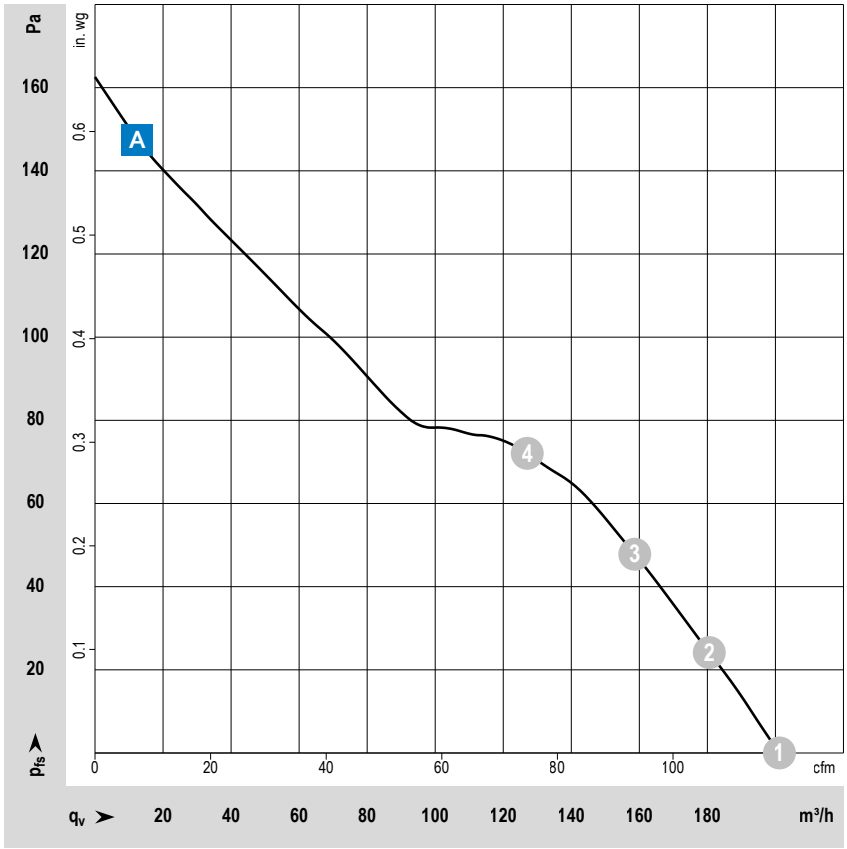


VWCH119FSJMS

GreenTech EC axial fans · max. 201 m³/h · ☐ 119 x 25 mm



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 world-wide 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

Measuring conditions

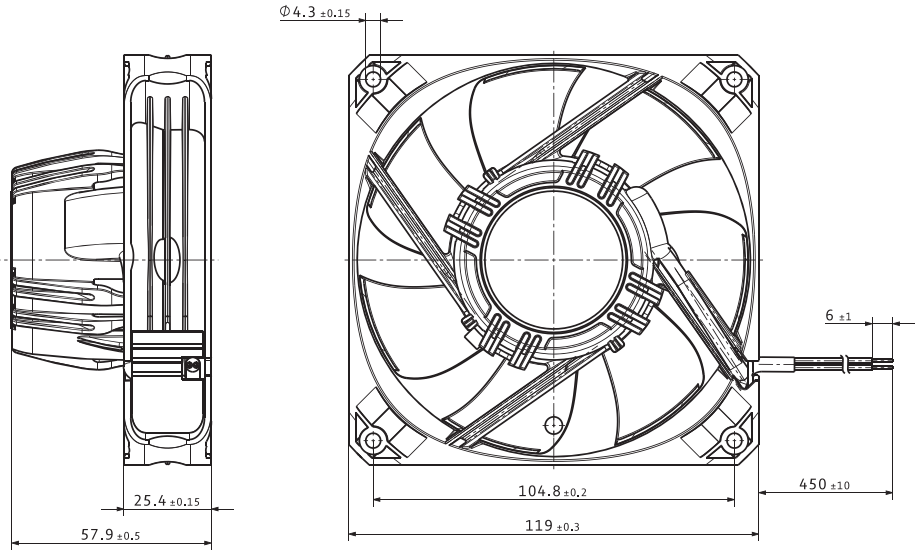
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_s$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
Voltage range 90…264 VAC		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCH119FSJMS AC 4400 FNN	**9204307001**	**100…240**	50/60	A	1	201	118	4 850	11.4	6.6	53	-20…+70	60 000	102 500
					2	180	106	4 730	12.3	6.5				
					3	159	94	4 610	13.0	6.3				
					4	127	75	4 530	13.4	6.2				

Subject to changes. Speed variants available on request.

Technical drawing

Dimensions in mm

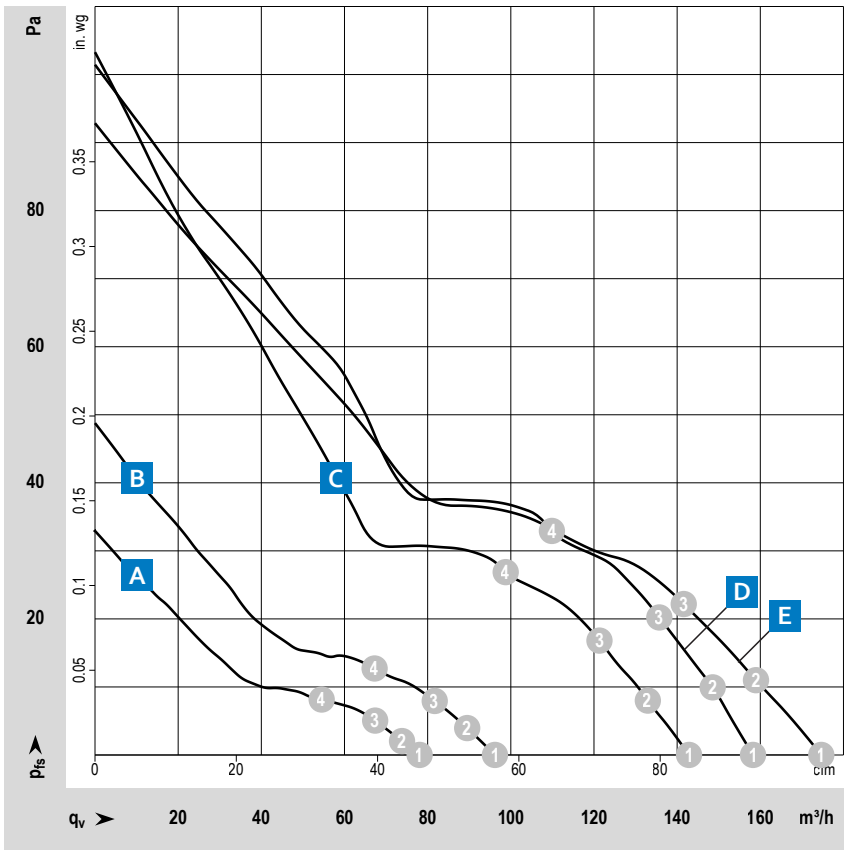


VWCF119D...

GreenTech EC axial fans · max. 175 m³/h · ☐ 119 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 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

- Salt spray protection
- Degree of protection: IP65

Measuring conditions

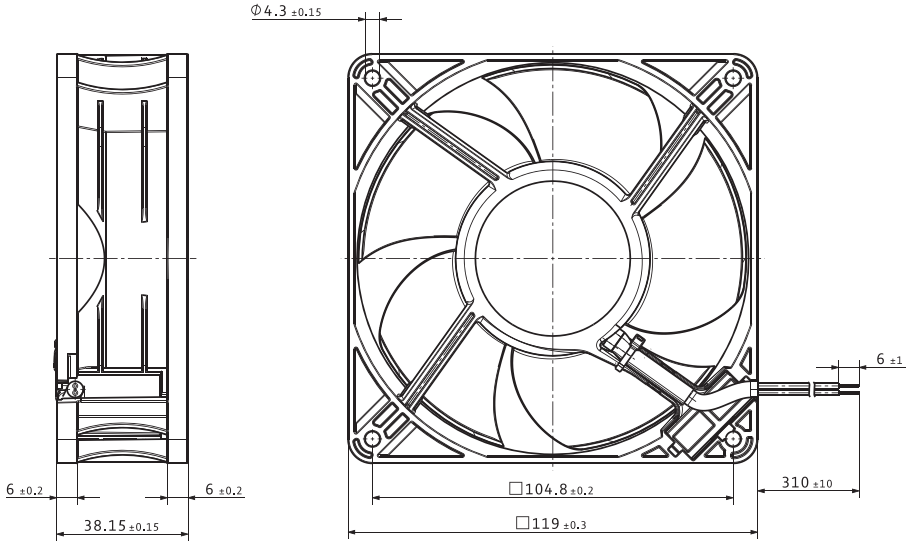
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{a}wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10IPC} (40 °C) s. p. 11
Voltage range 90...264 VAC		VAC	Hz			m³/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

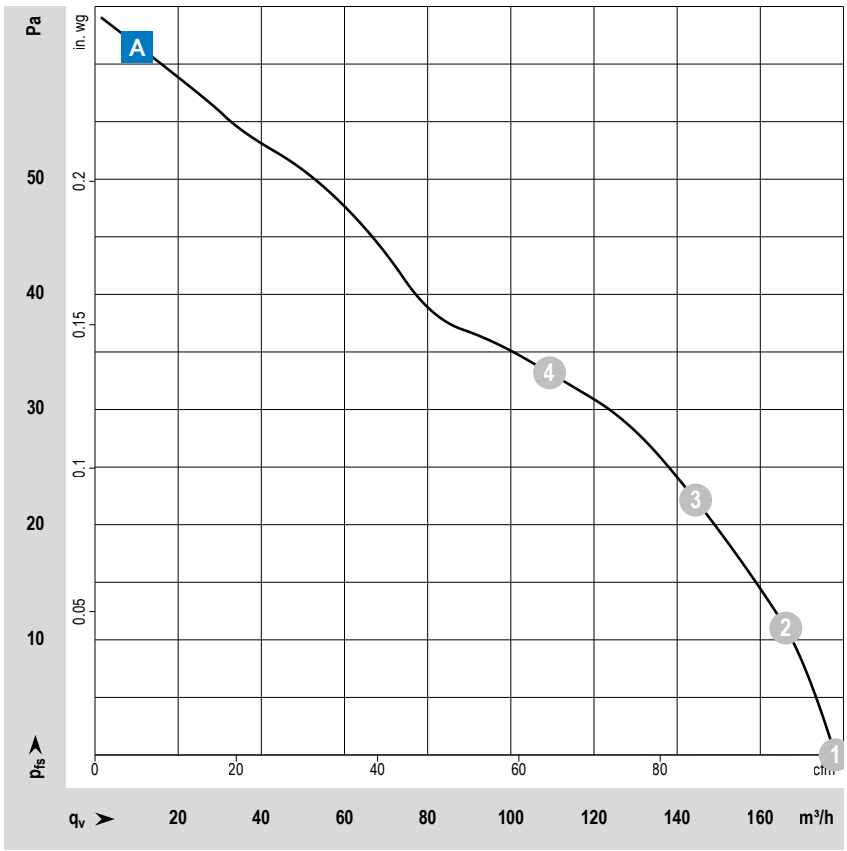


VWCF119YSGLS

GreenTech EC axial fans · max. 178 m³/h · ☐ 119 x 38 mm



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



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

Measuring conditions

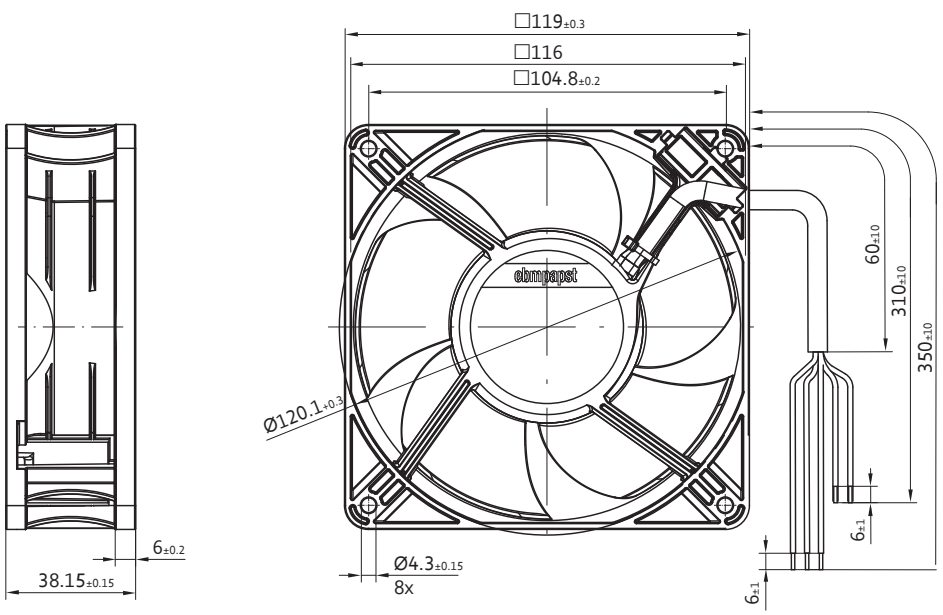
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
Voltage range 90…264 VAC		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

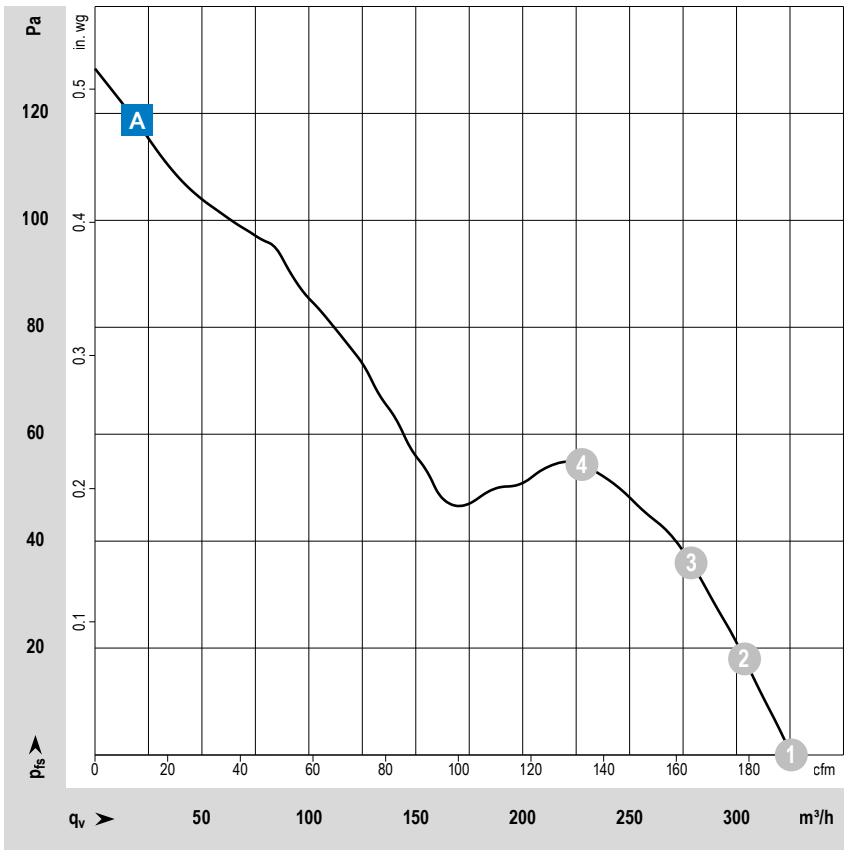


VWEK172XSLPS

GreenTech EC axial fans · max. 326 m³/h · Ø 172 x 51 mm



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



Material/Surface

- Housing: Metal
- Impeller: Plastic

Characteristics

- Version: Efficient AC fan, suitable for use world-wide 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

Measuring conditions

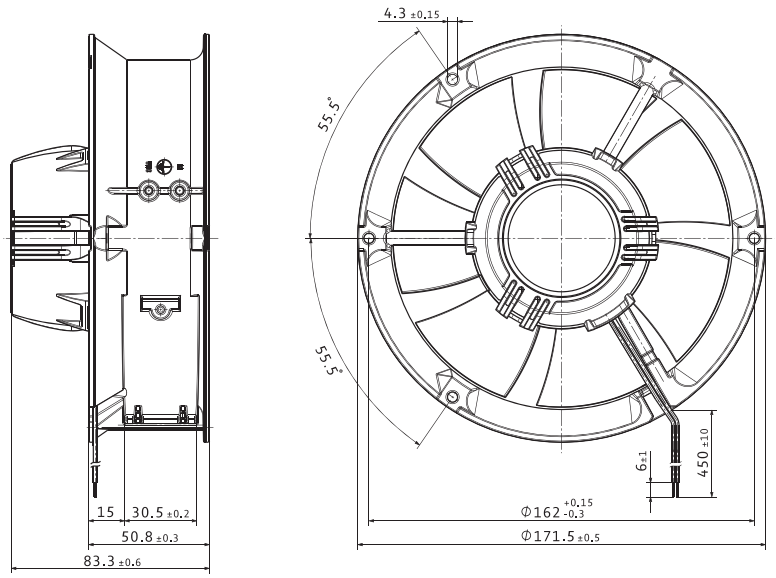
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
Voltage range 90…264 VAC		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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



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

Material/Surface

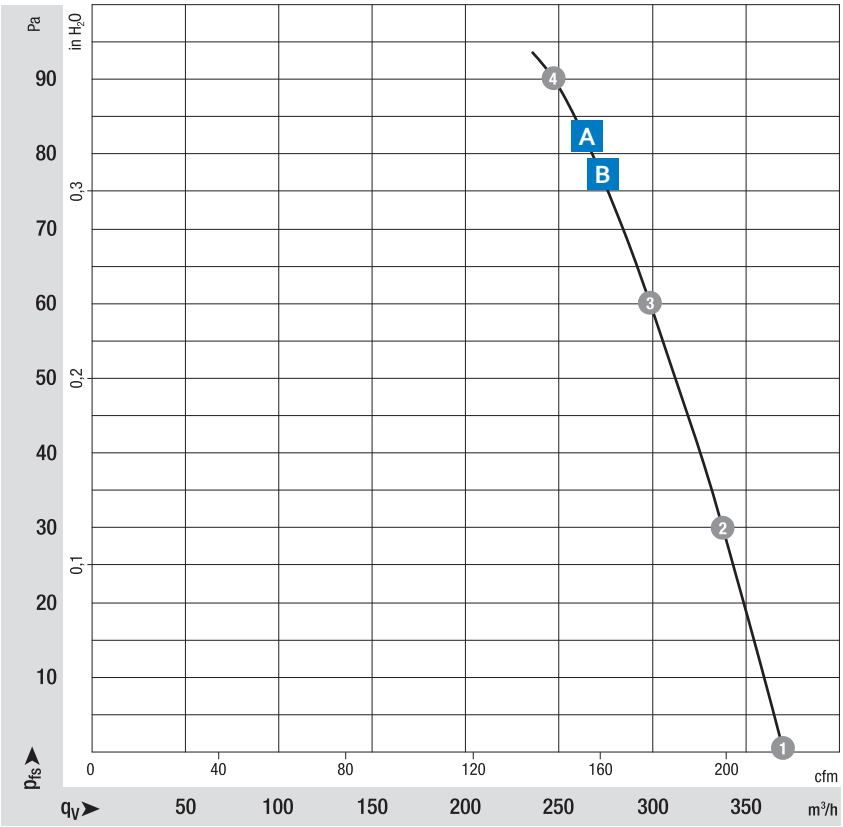
- Fan housing: Plastic
- Blades: Plastic

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



Measuring conditions

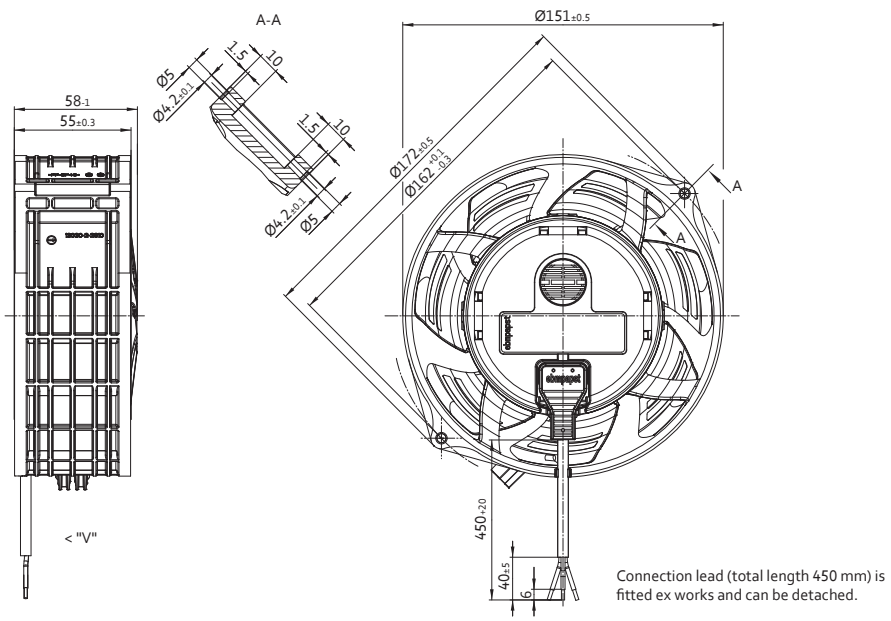
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_a$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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
					2	330	195	3 200	23	0.35	6.3			
					3	285	170	3 200	24	0.37	6.1			
					4	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
					2	335	200	3 200	24	0.19	6.1			
					3	295	175	3 200	24	0.19	6.0			
					4	240	140	3 200	24	0.19	6.3			

Subject to changes.

Technical drawing

Dimensions in mm



Connection lead (total length 450 mm) is fitted ex works and can be detached.

VWLJ225X...

GreenTech EC axial fans · max. 1 060 m³/h · Ø 200 mm



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

Material/Surface

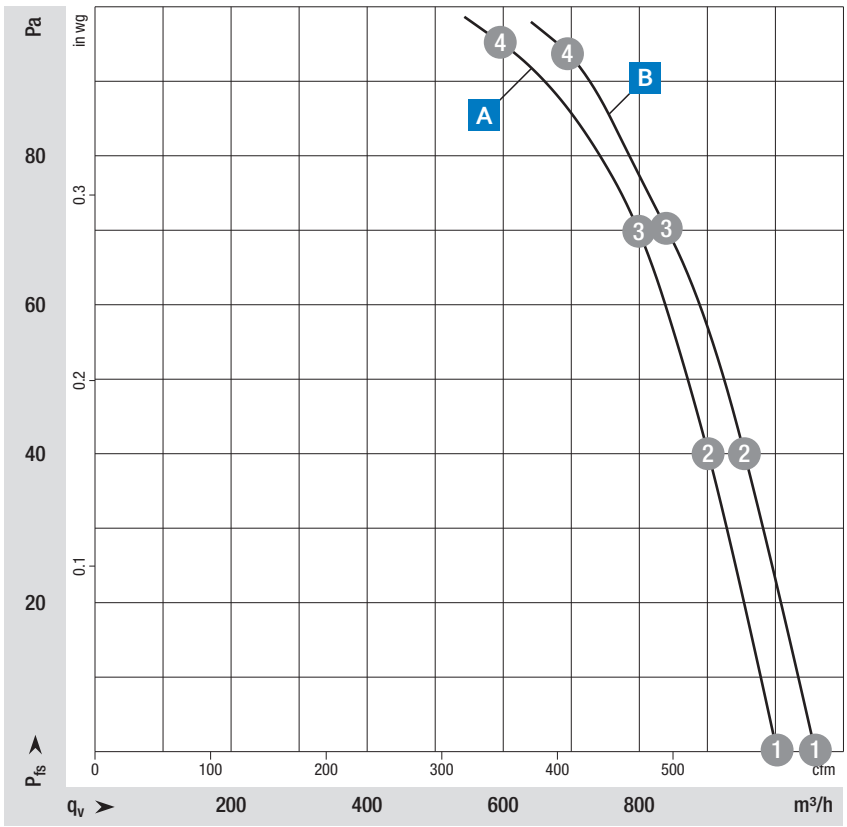
- Fan housing: Metal
- Blades: Plastic
- Rotor: Thick-film passivated

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



Measuring conditions

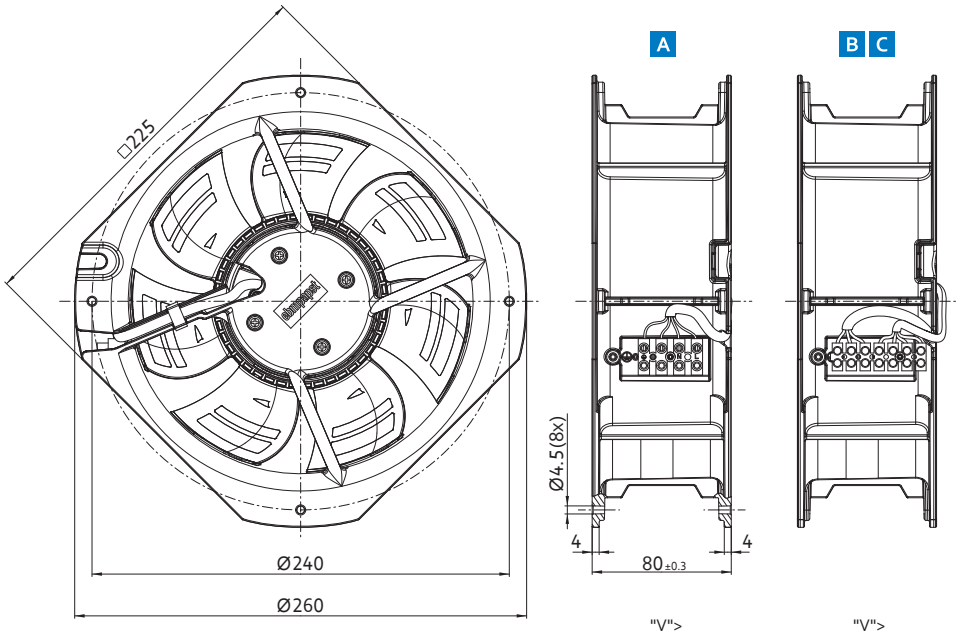
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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
					2	900	530	2 885	55	0.53	6.4			
					3	800	470	2 825	58	0.56	6.5			
					4	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
					2	955	560	3 050	65	1.00	6.6			
					3	840	495	2 930	65	1.00	7.2			
					4	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



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

Material/Surface

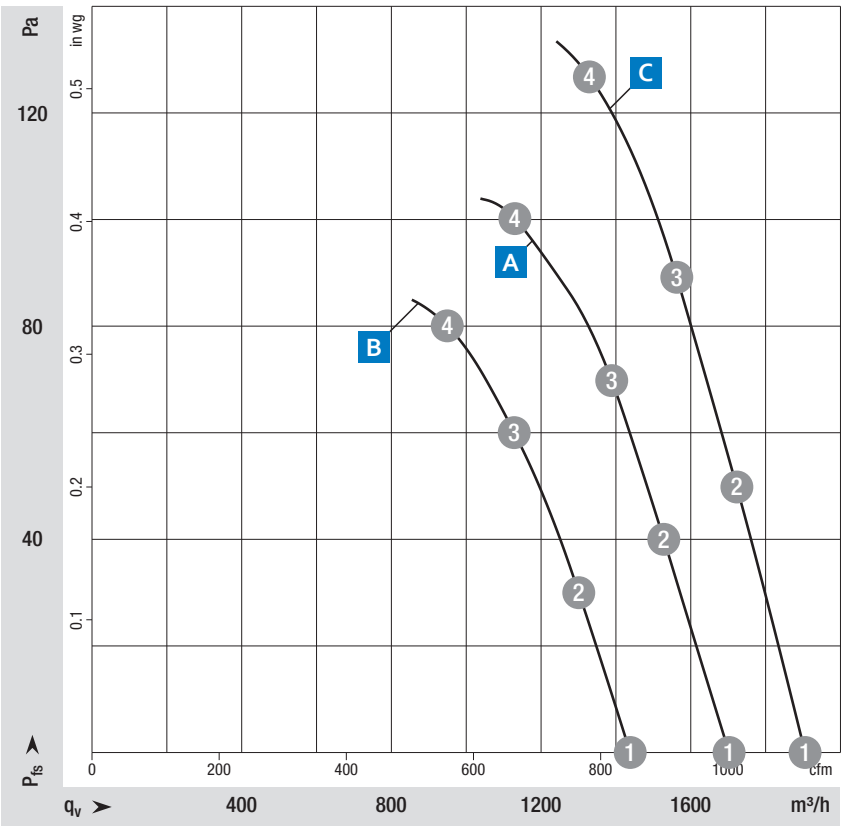
- Fan housing: Metal
- Blades: Plastic
- Rotor: Thick-film passivated

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



Measuring conditions

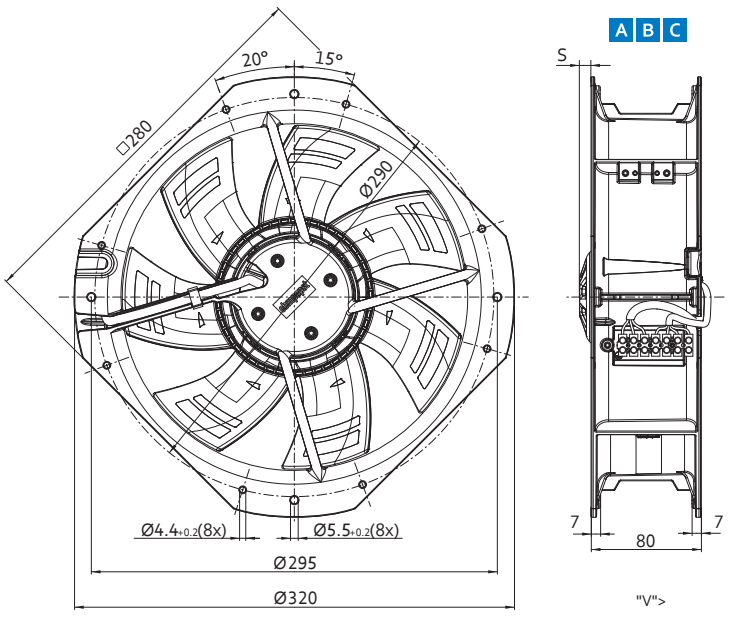
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/h	cfm	rpm	W	A	Bel(A)	dB(A)	Pa	°C
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

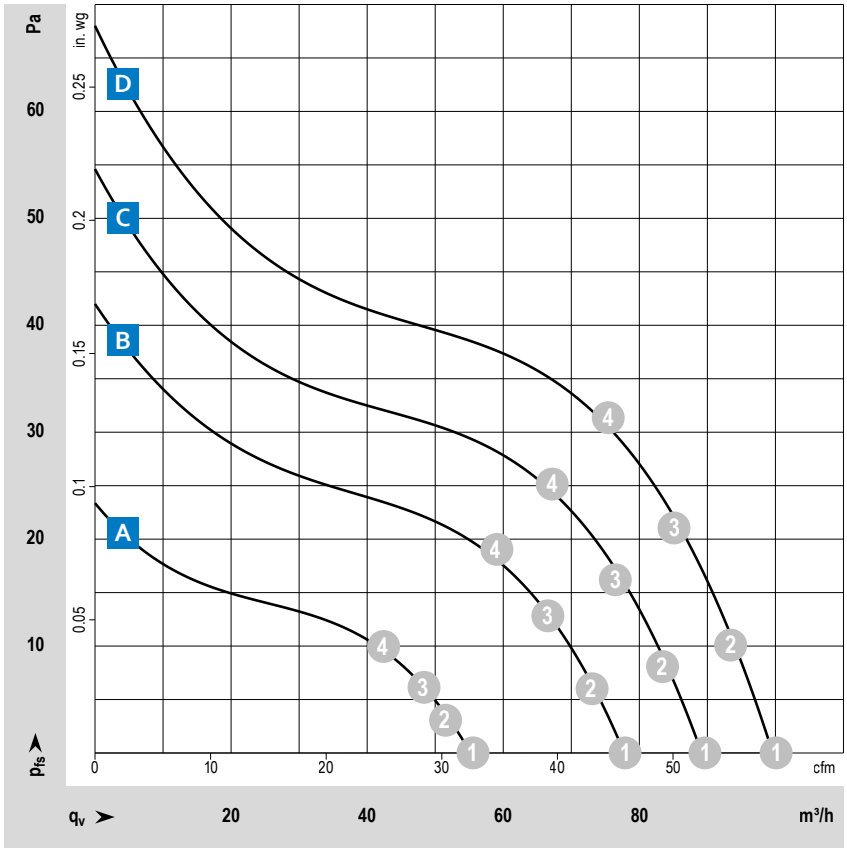


VUS0092XSGBS

GreenTech EC in-line duct fan · max. 100 m³/h · Ø 98.5 x 130 mm



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



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

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 $p_A$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

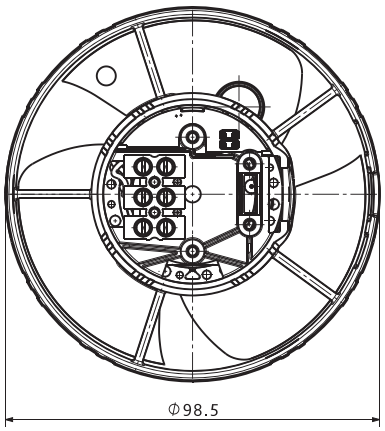
			Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
Voltage range 90…264 VAC			VAC	Hz			m³/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				

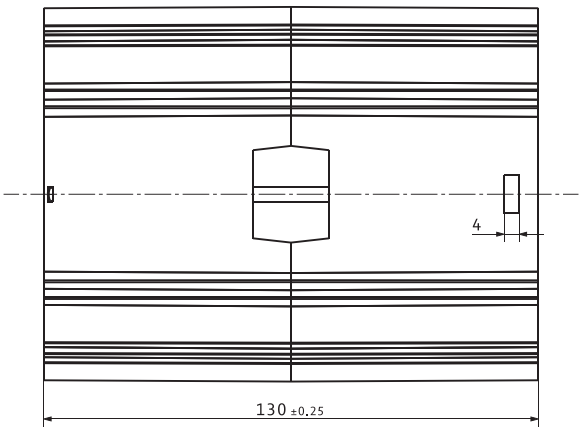
Subject to changes. *On request

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



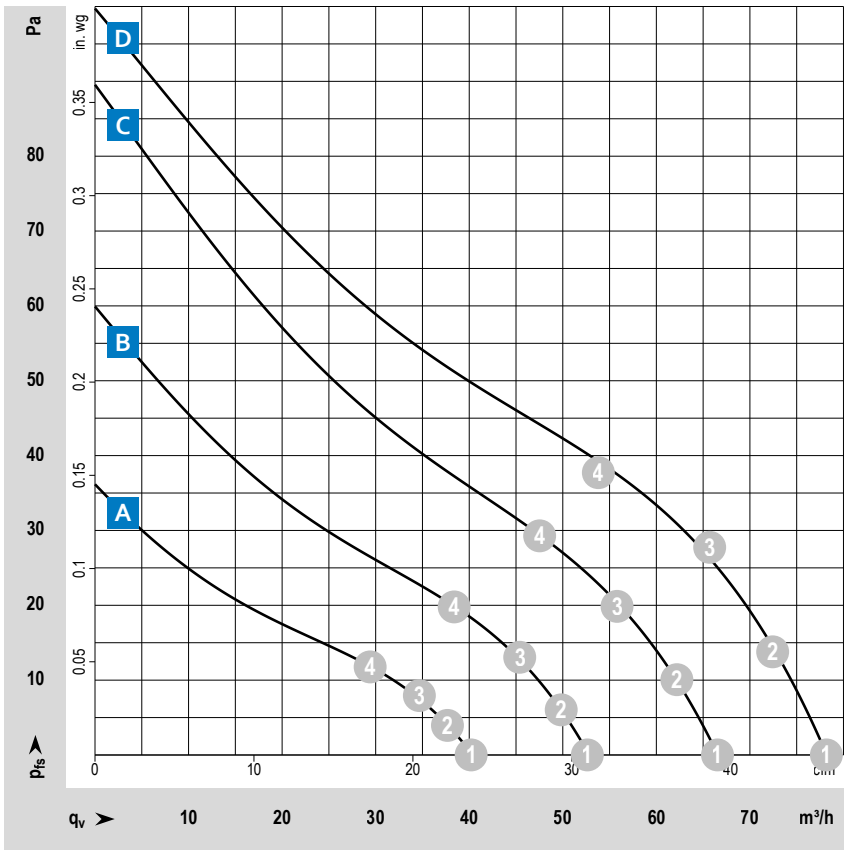


VUS0092XSGBS

GreenTech EC in-line duct fan · max. 78 m³/h · Ø 98.5 x 130 mm



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 $p_A$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

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

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

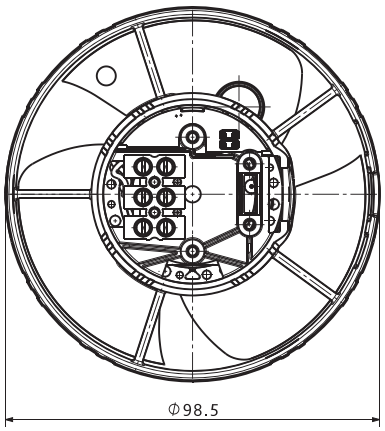
			Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy $L_{10^{IPC}}$ (40 °C) s. p. 11
Voltage range 90…264 VAC			VAC	Hz			m³/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				

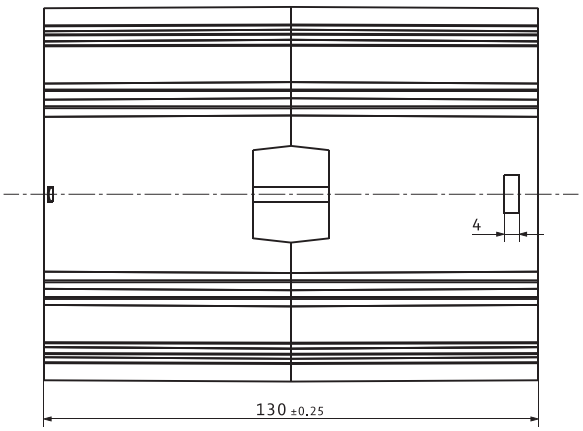
Subject to changes.

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

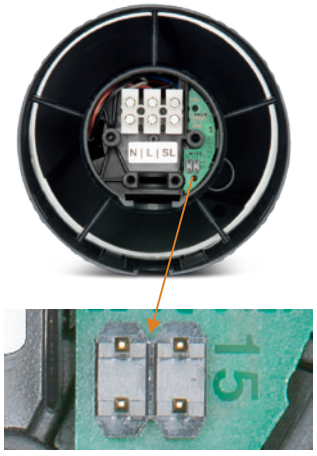
- Reduced transmission of vibrations from motor to housing

Intelligence

- Can be expanded to include set value requirement and signal outputs as an option

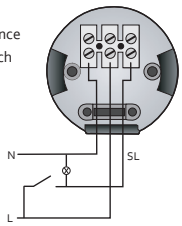
from page 14	Definitions
from page 350	Accessories
more at	www.ebmpapst.com

Examples of connections

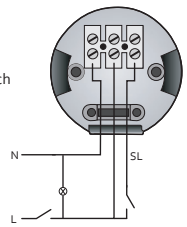


Jumper Low Jumper High

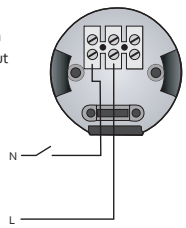
Example 1:
Nom speed endurance
Boost via light switch



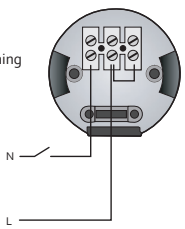
Example 2:
Nom speed via light switch
Separate boost switch



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 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 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 / Diameter		Air flow level	Standard

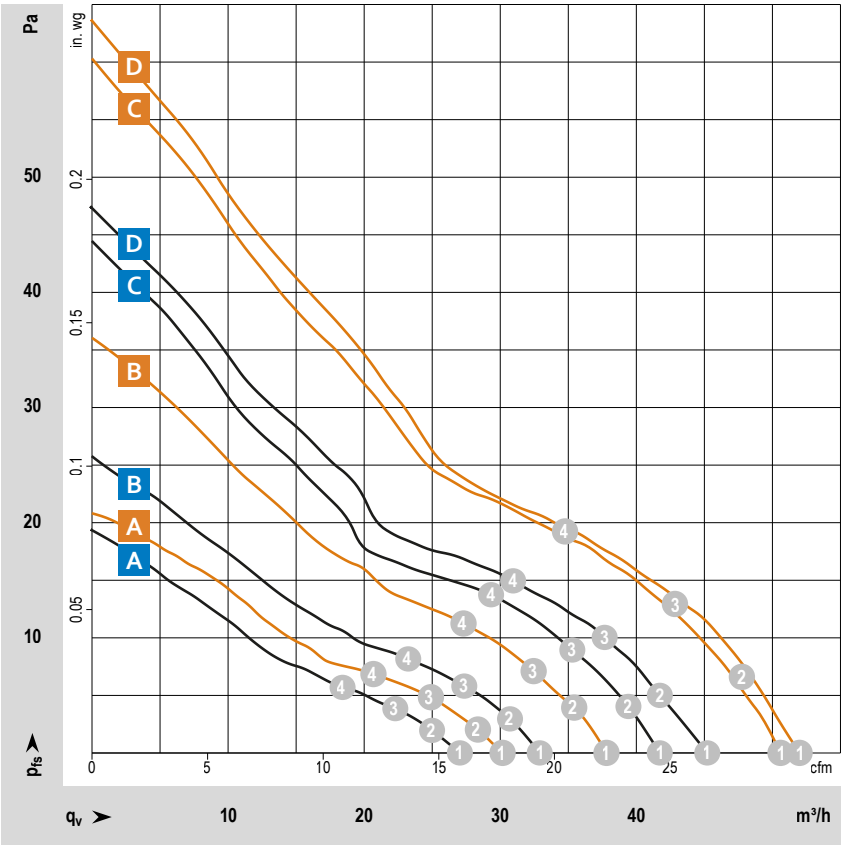
Dimension in mm	Type	Type (old)	Page
☐ 80 x 38	**VWCF080A...**	8000 N	300
Ø 76 x 37	**VVY0076XQHCS**	8000 TV	302
☐ 92 x 25	**VWCD092A...**	3900	304
☐ 92 x 38	**VWCF092A...**	3000	306
☐ 119 x 25	**VWCD119A...**	9900	308
☐ 119 x 38	**VWCF119X..., VUCF119Y...**	4000 N	310
☐ 119 x 38	**VWCF119A..., VWCF119X...**	4000 Z	312
Ø 108 x 37	**VVY0108XQHCS**	4600 TZ	314
☐ 135 x 38	**VWCF135AQKMS**	5600	316
150 x 172 x 38	**VWLF150X2LPS**	W2E 142	318
Ø 150 x 55	**VWEH150X...**	W2S 130 AA	320
Ø 150 x 55	**VUEH150XQLPS**	W2S 130 BM	322
Ø 172 x 51	**VWEG172X...**	W2E 143	324
☐ 225 x 80	**VWLJ225X...**	W2E 200	326
☐ 280 x 80	**VWLJ280H...**	W2E 250	328
Ø 200	**VJH0200X2MES**	K2E 200	330
Ø 200	**VJH0200X3MES**	K2D 200	334

VWCF080A...

AC axial fans · max. 52 m³/h · ☐ 80 x 38 mm



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 $p_A$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

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

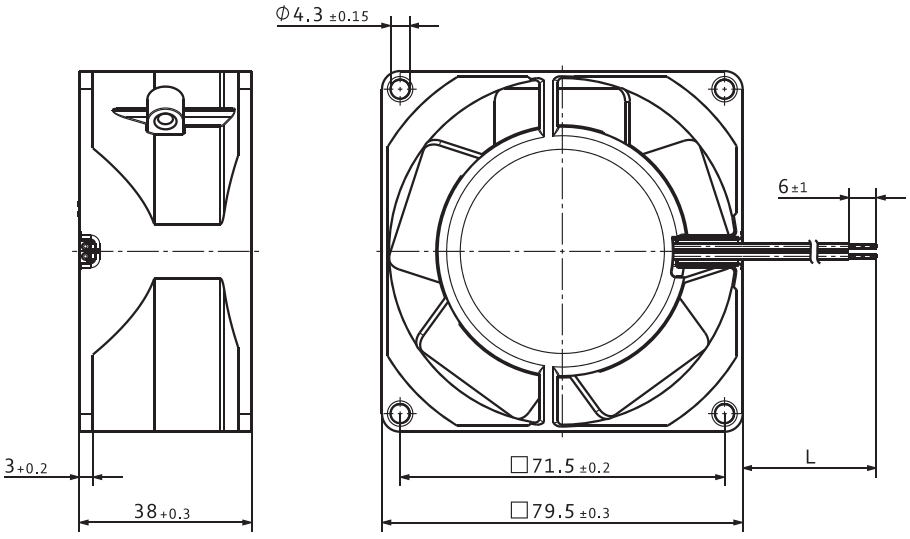
- Please note our series AC 8300. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 273

Type / Type old	Part number	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_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCF080AQHDS 8880 N	**9244014343**	**230**	50	A	1	27.0	15.9	1 750	7.0	3.6	18	-10...+80	60 000	102 500
					2	25.2	14.8	1 750	7.0	3.6				
					3	22.7	13.4	1 740	7.0	3.6				
					4	18.9	11.1	1 790	6.9	3.7				
VWCF080AQHES 8850 N	**9274014213**	**230**	50	B	1	32.9	19.4	2 150	11.3	4.0	24	-10...+70	52 500	87 500
					2	30.9	18.2	2 140	11.3	4.0				
					3	27.8	16.4	2 140	11.3	3.9				
					4	23.0	13.5	2 140	11.3	3.9				
VWCF080AQHFS 8550 N	**9274014208**	**230**	50	C	1	41.7	24.5	2 700	10.7	4.6	30	-10...+70	52 500	87 500
					2	39.2	23.1	2 700	10.7	4.6				
					3	35.4	20.8	2 700	10.7	4.5				
					4	29.6	17.4	2 700	10.7	4.5				
VWCF080AQHFZ 8556 N	**9274014210**	**230**	50	D	1	45.2	26.6	2 800	11.2	4.6	31	-40...+90	52 500	87 500
					2	41.7	24.5	2 790	11.2	4.6				
					3	37.6	22.1	2 790	11.2	4.5				
					4	31.0	18.2	2 790	11.1	4.6				
VWCF080AQHDS 8830 N	**9244014342**	**115**	60	A	1	30.2	17.8	1 950	4.3	3.7	21	-10...+80	62 500	105 000
					2	28.1	16.5	1 940	4.4	3.7				
					3	25.3	14.9	1 920	4.4	3.7				
					4	20.9	12.3	1 920	4.4	3.7				
VWCF080AQHES 8800 N	**9244014212**	**115**	60	B	1	37.8	22.2	2 500	11.6	4.2	28	-10...+70	55 000	92 500
					2	35.7	21.0	2 480	11.6	4.2				
					3	32.2	19.0	2 470	11.6	4.1				
					4	27.0	15.9	2 480	11.6	4.2				
VWCF080AQHFZ 8500 N	**9274014207**	**115**	60	C	1	51.0	30.0	3 200	9.3	4.9	34	-10...+75	55 000	92 500
					2	47.2	27.8	3 200	9.3	4.9				
					3	42.3	24.9	3 190	9.4	4.9				
					4	34.7	20.4	3 190	9.4	5.0				
VWCF080AQHFZ 8506 N	**9274014209**	**115**	60	D	1	52.0	30.6	3 300	9.4	5.0	35	-40...+95	55 000	92 500
					2	48.4	28.5	3 330	9.4	5.0				
					3	43.2	25.4	3 320	9.4	5.0				
					4	35.2	20.7	3 320	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

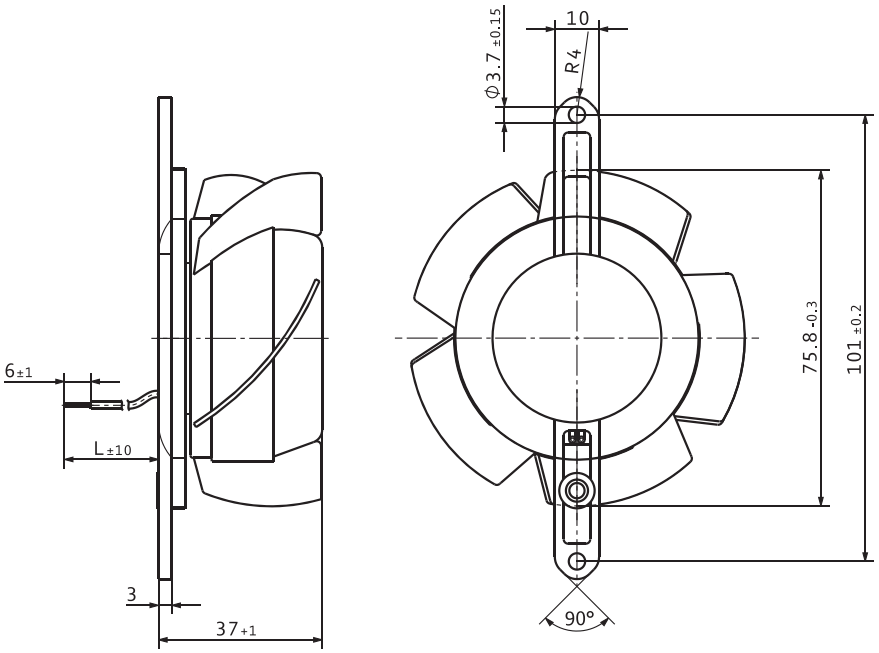
Type / Type old	Part number	Nominal voltage	Frequency	Air flow	Air flow	Speed	Power consumption	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VAC	Hz	m³/h	cfm	rpm	W	dB(A)	°C	Hours	Hours
VVY0076XQHCS 8880 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	1850	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



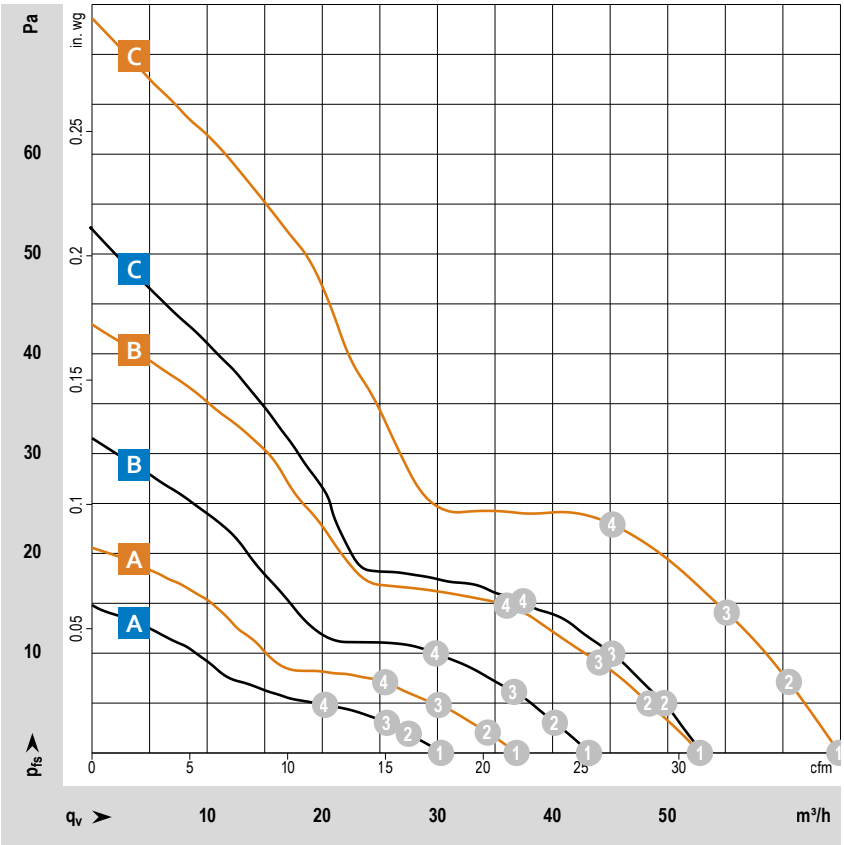
Type / Type old	L in mm	Connection wires
VVY0076XQHCS 8880 TV	325	AWG 18, TR 64
VVY0076XQHCS 8850 TV	325	AWG 18, TR 64
VVY0076XQHCS 8830 TV	325	AWG 18, TR 64
VVY0076XQHCS 8800 TV	325	AWG 18, TR 64
VVY0076XQHCS 8550 TV	325	AWG 18, TR 64
VVY0076XQHCS 8500 TV	325	AWG 18, TR 64
VVY0076XQHCS 8556 TV	325	AWG 18, TR 64
VVY0076XQHCS 8506 TV	325	AWG 18

VWCD092A...

AC axial fans · max. 65 m³/h · ☐ 92 x 25 mm



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



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

Measuring conditions

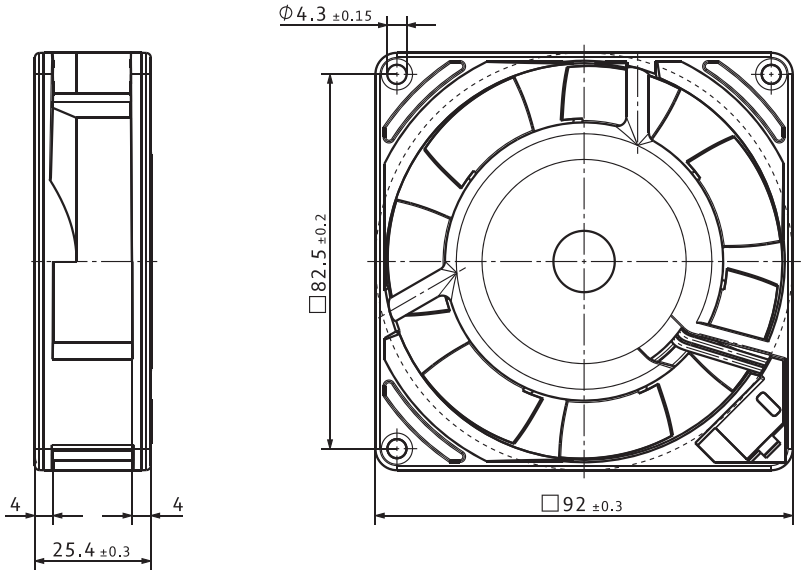
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound p_{ow}er level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD092AQFES 3950 L	9282708115	230	50	A	1	30.2	17.8	1 550	9.0	3.5	24	-10...+80	70 000	117 500
					2	28.0	16.5	1 530	9.1	3.4				
					3	25.5	15.0	1 510	9.0	3.3				
					4	21.2	12.5	1 500	9.0	3.4				
VWCD092AQFES 3956 L	9282708102	230	50	A	1	30.3	17.8	1 550	6.3	3.5	24	-40...+80	70 000	117 500
					2	28.0	16.5	1 530	6.3	3.4				
					3	25.5	15.0	1 510	6.3	3.3				
					4	20.6	12.1	1 500	6.2	3.4				
VWCD092AQFFS 3950 M	9282708113	230	50	B	1	42.7	25.1	2 150	7.6	4.4	29	-10...+80	70 000	117 500
					2	39.3	23.1	2 140	7.6	4.2				
					3	36.2	21.3	2 100	7.6	4.1				
					4	30.0	17.7	2 090	7.6	4.0				
VWCD092AQFFS 3956 M	9282708104	230	50	B	1	43.2	25.4	2 150	8.5	4.4	29	-40...+80	70 000	117 500
					2	40.0	23.5	2 130	8.5	4.2				
					3	36.3	21.4	2 100	8.4	4.1				
					4	29.9	17.6	2 090	8.4	4.0				
VWCD092AQFGS 3950	9282708114	230	50	C	1	53.0	31.2	2 650	11.3	5.0	35	-20...+80	55 000	92 500
					2	49.8	29.3	2 640	11.3	4.9				
					3	45.6	26.8	2 620	11.3	4.8				
					4	37.0	21.8	2 610	11.3	4.7				
VWCD092AQFGS 3956	9282708100	230	50	C	1	53.0	31.2	2 650	10.7	5.0	35	-40...+80	55 000	92 500
					2	49.7	29.3	2 660	10.7	4.9				
					3	45.3	26.7	2 636	10.7	4.8				
					4	37.2	21.9	2 630	10.7	4.7				
VWCD092AQFES 3900 L	9282708122	115	60	A	1	35.8	21.1	1 850	5.4	4.2	27	-10...+80	70 000	117 500
					2	33.2	19.5	1 820	5.4	4.1				
					3	30.1	17.7	1 790	5.4	3.9				
					4	24.9	14.7	1 760	5.4	3.7				
VWCD092AQFFS 3906 M	9282708105	115	60	B	1	53.0	31.2	2 600	6.5	4.9	34	-40...+80	70 000	117 500
					2	48.6	28.6	2 560	6.5	4.7				
					3	43.9	25.8	2 520	6.5	4.5				
					4	36.3	21.4	2 490	6.5	4.3				
VWCD092AQFGS 3900	9282708116	115	60	C	1	64.0	37.7	3 150	7.8	5.4	40	-20...+80	60 000	102 500
					2	59.0	34.7	3 130	7.9	5.3				
					3	53.0	31.2	3 110	7.9	5.2				
					4	43.4	25.5	3 090	7.9	5.0				
VWCD092AQFGS 3906	9282708101	115	60	C	1	65.0	38.3	3 150	8.1	5.4	40	-40...+80	60 000	102 500
					2	60.0	35.3	3 150	8.2	5.3				
					3	55.0	32.4	3 120	8.2	5.2				
					4	45.3	26.7	3 110	8.3	5.0				

Subject to changes.

Technical drawing

Dimensions in mm

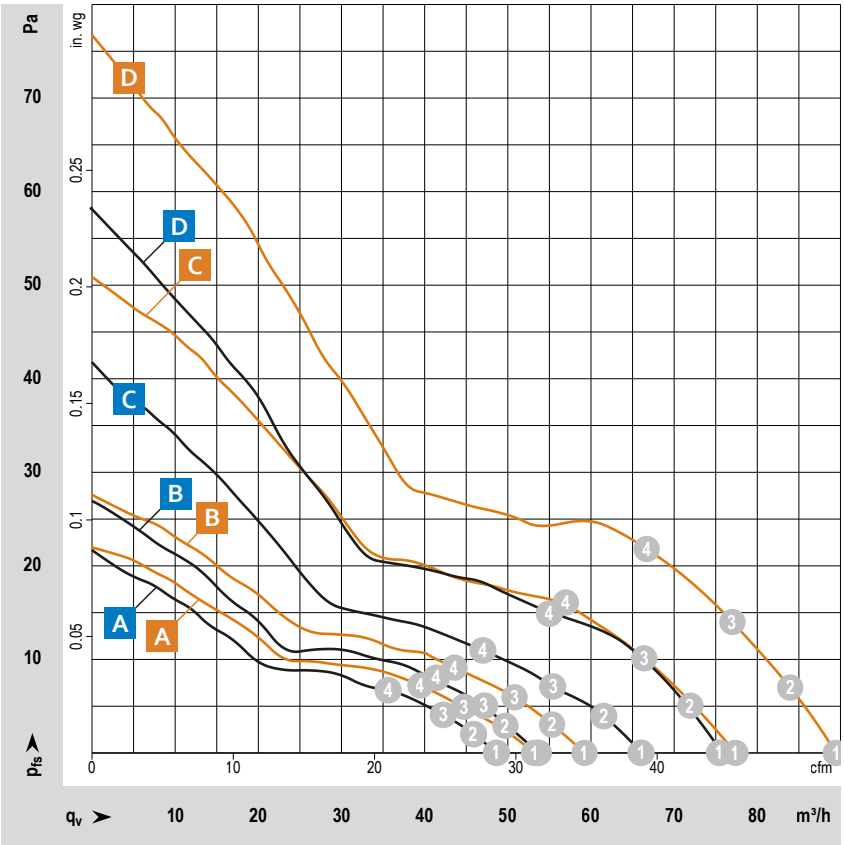


VWCF092A...

AC axial fans · max. 89 m³/h · ☐ 92 x 38 mm



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 $p_A$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

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

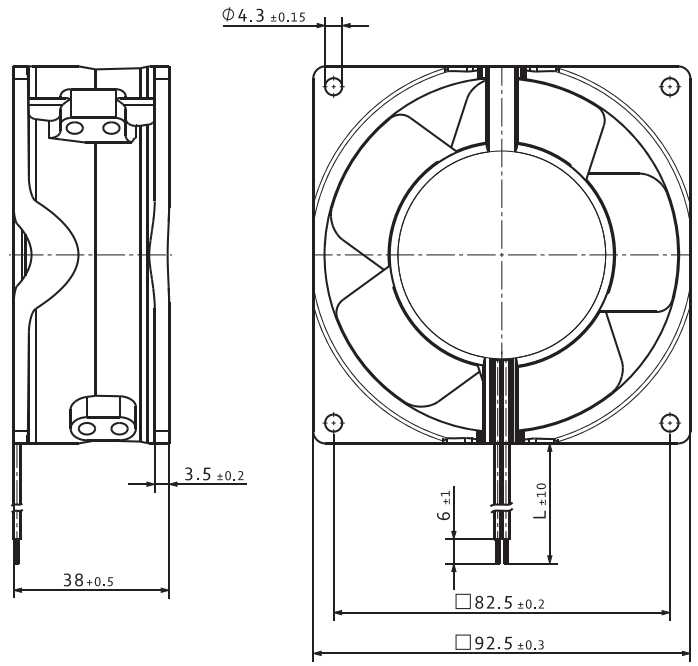
- Please note our series AxiACi 92. With identical mounting dimensions and voltages, this series achieves greater energy efficiency. See page 276

Type / Type old	Part number	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_{10IPC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCF092AQHGS 3856	9244014723	230	50	B	1	54	32	1 950	9.7	4.2	26	-40...+90	60 000	102 500
					2	50	29	1 930	9.8	4.1				
					3	47	28	1 920	9.8	4.0				
					4	41	24	1 900	9.8	4.0				
VWCF092AQHGS 3550	9244014721	230	50	C	1	36	36.5	2 300	8.1	4.7	32	-10...+80	60 000	102 500
					2	35	34.7	2 260	8.2	4.5				
					3	32	32.4	2 250	8.2	4.3				
					4	28	27.9	2 240	8.2	4.4				
VWCF092AQHGS 3556	9244014710	230	50	C	1	68	40	2 400	9.9	4.8	33	-40...+90	60 000	102 500
					2	64	38	2 390	9.9	4.8				
					3	58	34	2 370	10.0	4.7				
					4	51	30	2 360	10.0	4.6				
VWCF092AQHHS 3650	9244014701	230	50	D	1	76	45	2 650	12.1	5.1	36	-10...+55	52 500	87 500
					2	72	42	2 680	12.1	5.0				
					3	66	39	2 680	12.1	4.9				
					4	55	32	2 700	11.8	4.8				
VWCF092AQHHS 3656	9244014700	230	50	D	1	75	44	2 700	11.4	5.1	37	-40...+75	52 500	87 500
					2	71	42	2 700	11.5	5.1				
					3	66	39	2 710	11.5	5.0				
					4	55	32	2 730	11.3	4.9				
VWCF092AQHFS 3800	9244014722	115	60	A	1	51	30	1 900	6.1	4.0	26	-10...+80	62 500	105 000
					2	47	28	1 880	6.1	4.1				
					3	43	25	1 850	6.1	3.9				
					4	37	22	1 850	6.1	3.9				
VWCF092AQHGS 3806	9244014709	115	60	B	1	57	34	2 150	7.1	4.3	29	-40...+95	62 500	105 000
					2	52	31	2 080	7.1	4.3				
					3	48	28	2 060	7.1	4.1				
					4	42	25	2 040	7.2	4.0				
VWCF092AQHGS 3500	9244014712	115	60	C	1	77	45	2 790	6.3	5.0	35	-10...+80	62 500	105 000
					2	72	42	2 770	6.4	5.0				
					3	66	39	2 750	6.5	4.9				
					4	57	34	2 730	6.5	5.0				
VWCF092AQHHS 3600	9244014706	115	60	D	1	88	52	3 100	10.3	5.4	41	-10...+65	55 000	92 500
					2	82	48	3 100	10.3	5.4				
					3	75	44	3 100	10.3	5.3				
					4	65	38	3 090	10.4	5.2				
VWCF092AQHHS 3606	9244014705	115	60	D	1	89	52	3 200	10.1	5.5	42	-40...+75	55 000	92 500
					2	84	49	3 170	10.1	5.4				
					3	77	45	3 160	10.2	5.4				
					4	67	39	3 150	10.2	5.3				

Subject to changes.

Technical drawing

Dimensions in mm



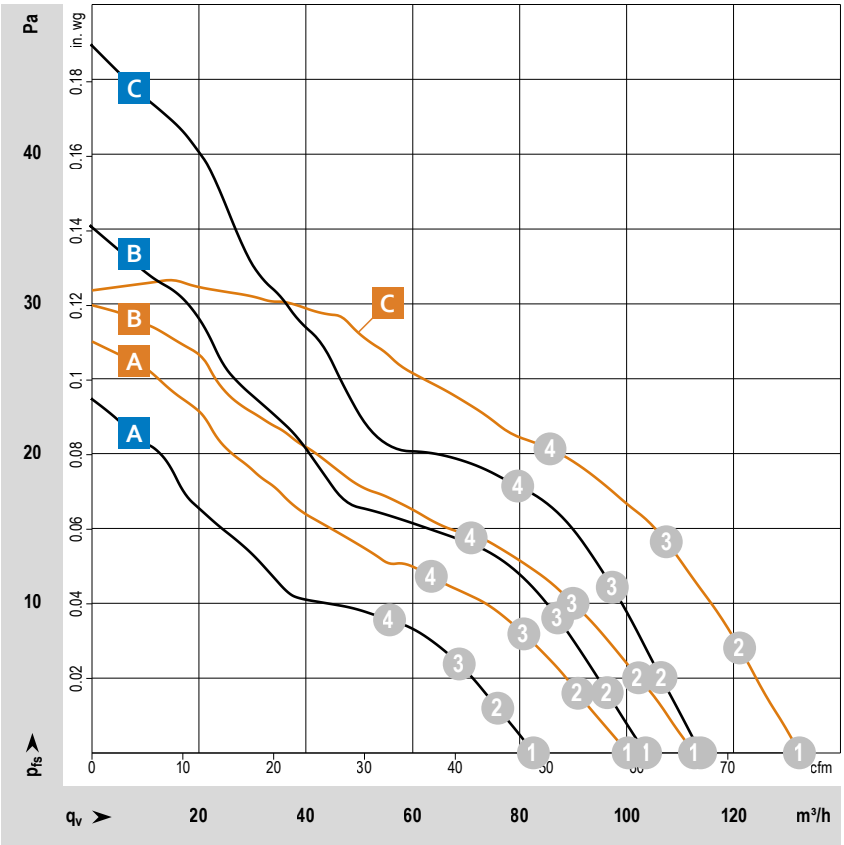
Version	L in mm	Type / Type old
Sleeve bearings	310	AWG 18, TR 64
Ball bearings	310	AWG 18

VWCD119A...

AC axial fans · max. 132 m³/h · ☐ 119 x 25 mm



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



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

Measuring conditions

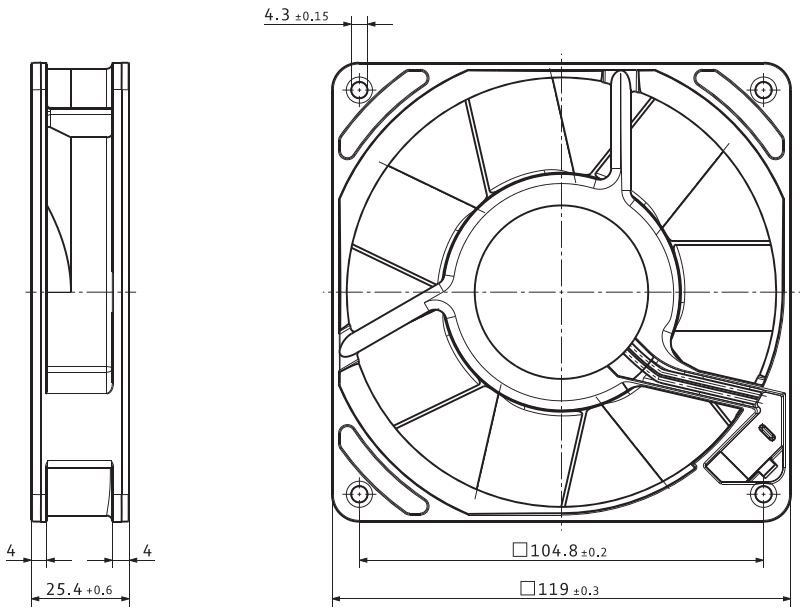
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWCD119AQFHS 9956 L	**9282708003**	**230**	50	A	1	83	49	1 850	9.3	4.4	29	-40...+80	57 500	97 500
					2	76	45	1 800	9.3	4.2				
					3	69	41	1 760	9.3	4.2				
					4	56	33	1 710	9.3	4.3				
VWCD119AQFJS 9956 M	**9282708005**	**230**	50	B	1	104	61	2 250	9.7	4.9	35	-40...+80	57 500	97 500
					2	96	57	2 200	9.8	4.8				
					3	87	51	2 140	9.8	4.8				
					4	71	42	2 080	9.8	5.0				
VWCD119AQFJS 9950	**9282708012**	**230**	50	C	1	110	65	2 450	13.3	5.2	37	-20...+70	47 500	80 000
					2	103	61	2 420	13.2	5.1				
					3	94	55	2 380	13.2	5.0				
					4	77	45	2 340	13.2	5.1				
VWCD119AQFJS 9956	**9282708001**	**230**	50	C	1	114	67	2 450	14.1	5.2	37	-40...+70	47 500	80 000
					2	106	62	2 440	14.1	5.1				
					3	97	57	2 400	14.1	5.0				
					4	80	47	2 340	14.1	5.1				
VWCD119AQFHS 9906 L	**9282708004**	**115**	60	A	1	100	59	2 150	8.1	5.0	34	-40...+80	62 500	105 000
					2	91	54	2 090	8.1	4.8				
					3	81	48	2 000	8.2	4.7				
					4	64	38	1 900	8.3	4.8				
VWCD119AQFJS 9906 M	**9282708006**	**115**	60	B	1	113	67	2 450	7.8	5.3	37	-40...+80	62 500	105 000
					2	102	60	2 350	7.9	5.1				
					3	90	53	2 240	8.0	5.0				
					4	72	42	2 110	8.2	4.9				
VWCD119AQFJS 9900	**9282708015**	**115**	60	C	1	132	78	2 850	11.4	5.8	42	-20...+70	52 500	87 500
					2	121	71	2 750	11.6	5.7				
					3	107	63	2 640	11.9	5.5				
					4	85	50	2 480	12.2	5.4				
VWCD119AQFJS 9906	**9282708002**	**115**	60	C	1	132	78	2 850	11.6	5.8	42	-40...+70	52 500	87 500
					2	121	71	2 740	11.8	5.7				
					3	107	63	2 640	12.0	5.5				
					4	85	50	2 500	12.3	5.4				

Subject to changes.

Technical drawing

Dimensions in mm

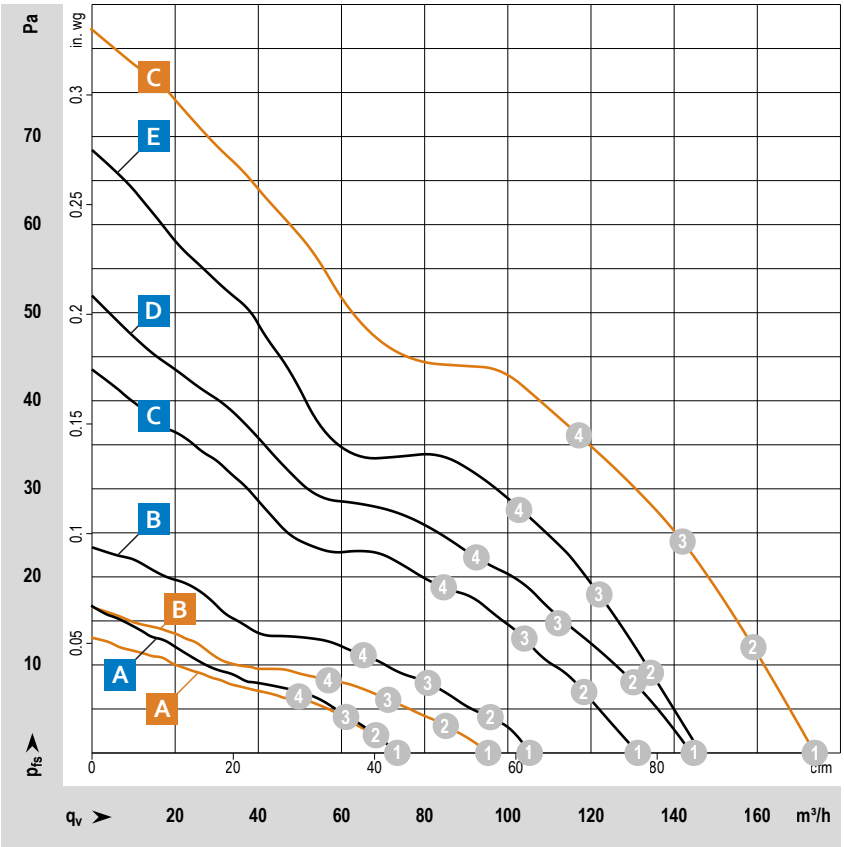


VWCF119X..., VUCF119Y...

AC axial fans · max. 174 m³/h · ☐ 119 x 38 mm



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



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

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

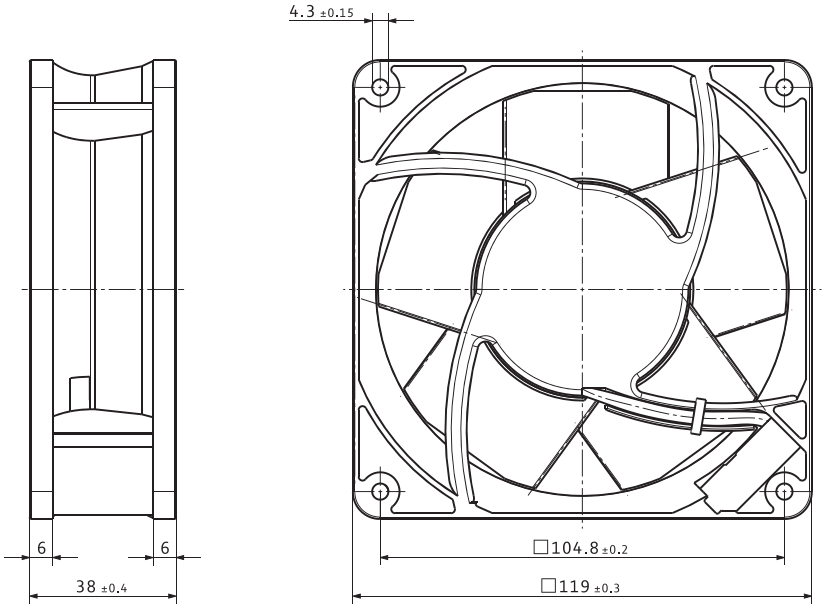
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10IPC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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				
VUCF119XQHJS 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

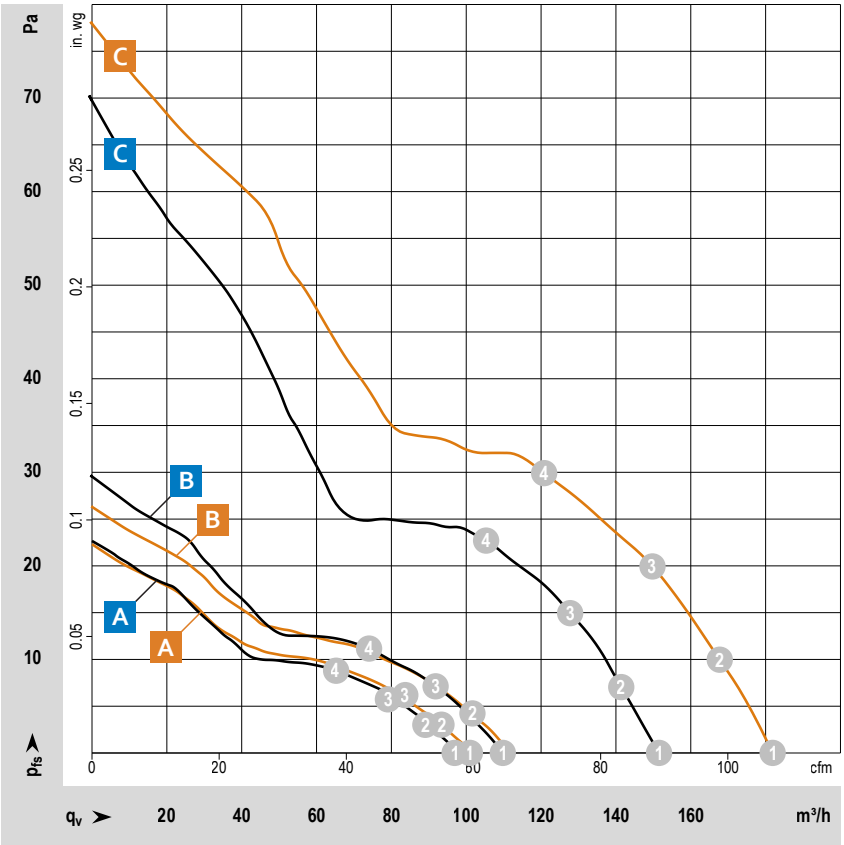


VWCF119A..., VWCF119X...

AC axial fans · max. 182 m³/h · ☐ 119 x 38 mm



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



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

Measuring conditions

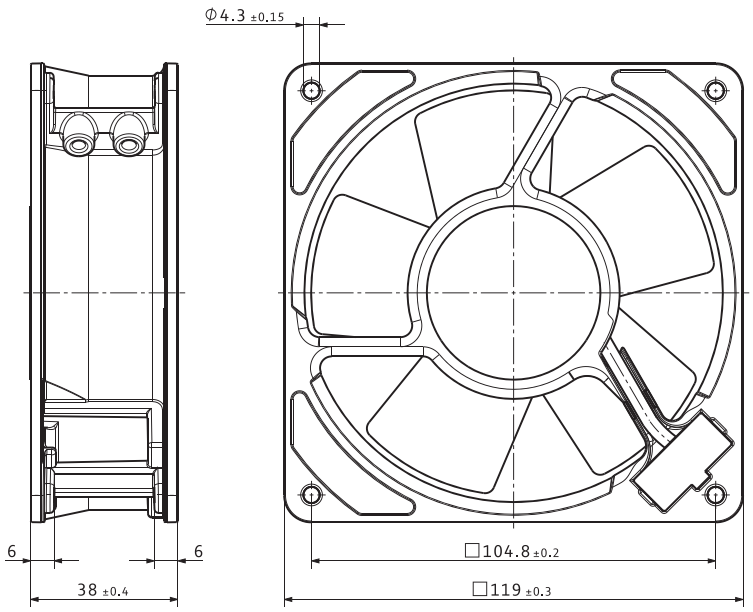
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

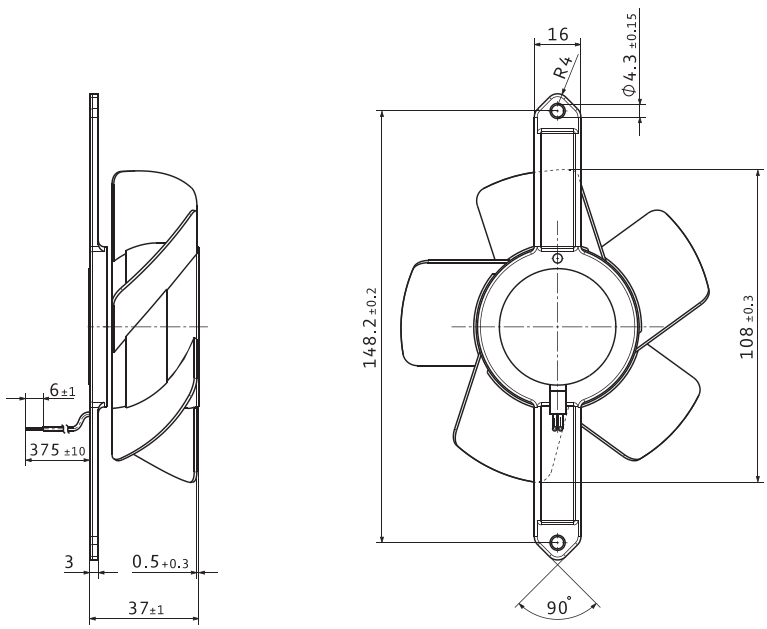
Type / Type old	Part number	Nominal voltage	Frequency	Air flow	Air flow	Speed	Power consumption	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VAC	Hz	m³/h	cfm	rpm	W	dB(A)	°C	Hours	Hours
VVY0108XQHCS 4650 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 Ø 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



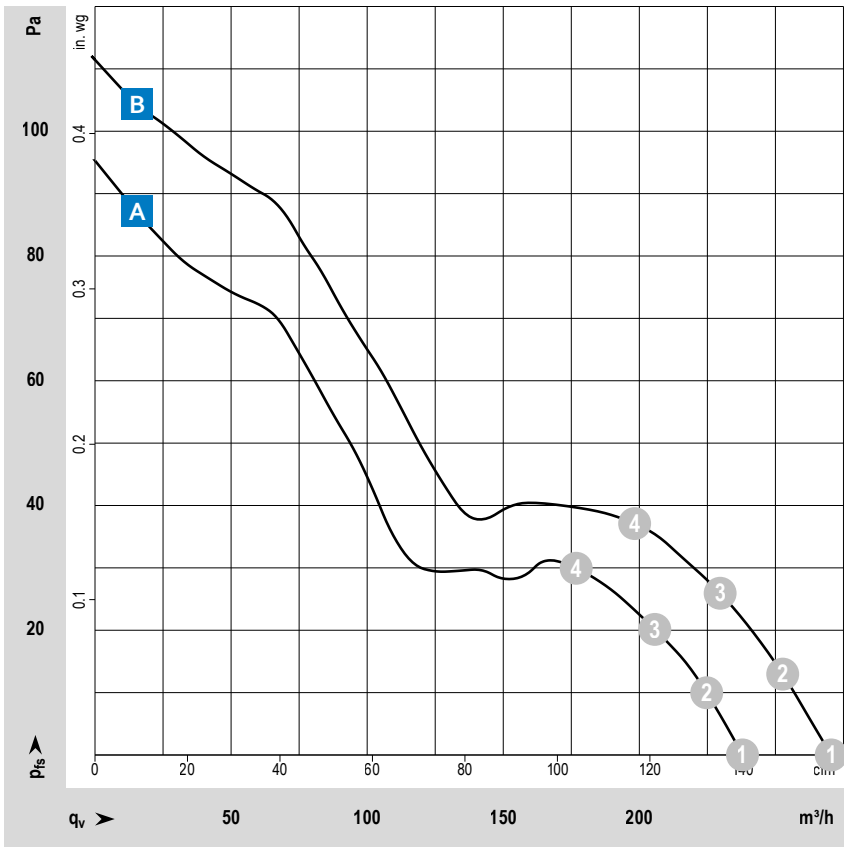
Type / Type old	Type / Type old
VVY0108XQHCS 4650 TZ	AWG 22, TR 32
VVY0108XQHCS 4600 TZ	AWG 22, TR 32
VVY0108XQHCS 4656 TZ	AWG 18
VVY0108XQHCS 4606 TZ	AWG 18

VWCF135AQKMS

AC axial fans · max. 271 m³/h · ☐ 135 x 38 mm



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



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

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

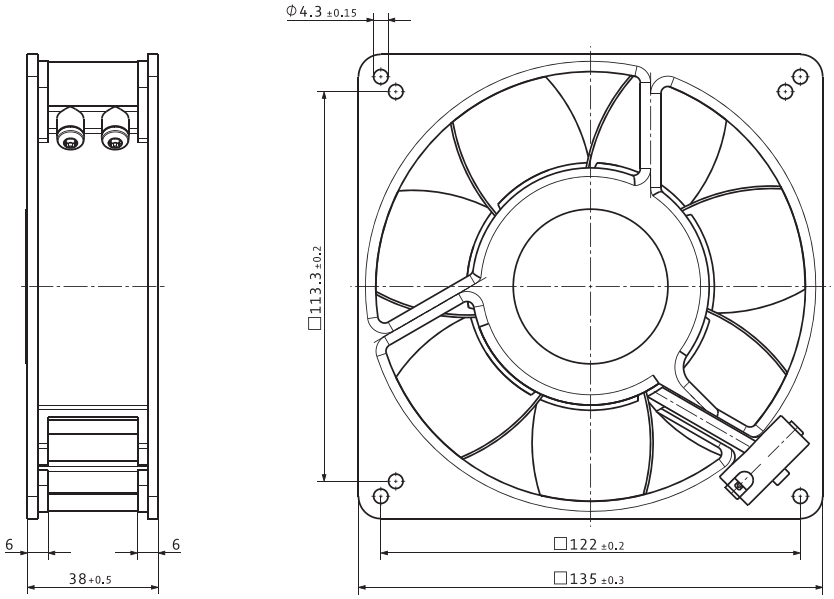
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/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



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

Material/Surface

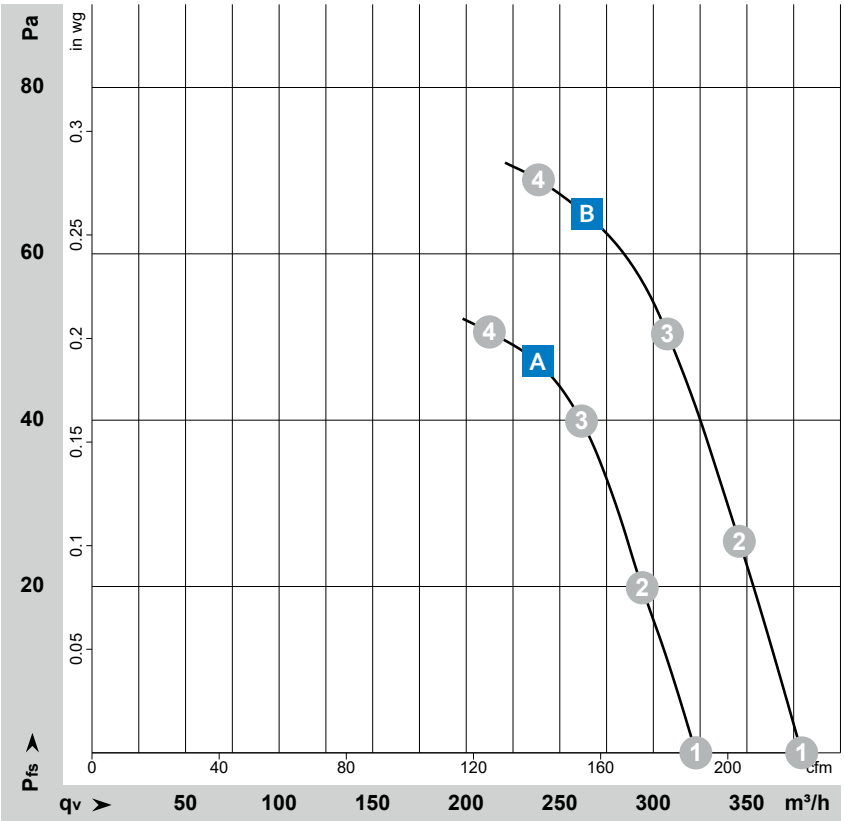
- Housing: Metal
- Impeller: Metal

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



Measuring conditions

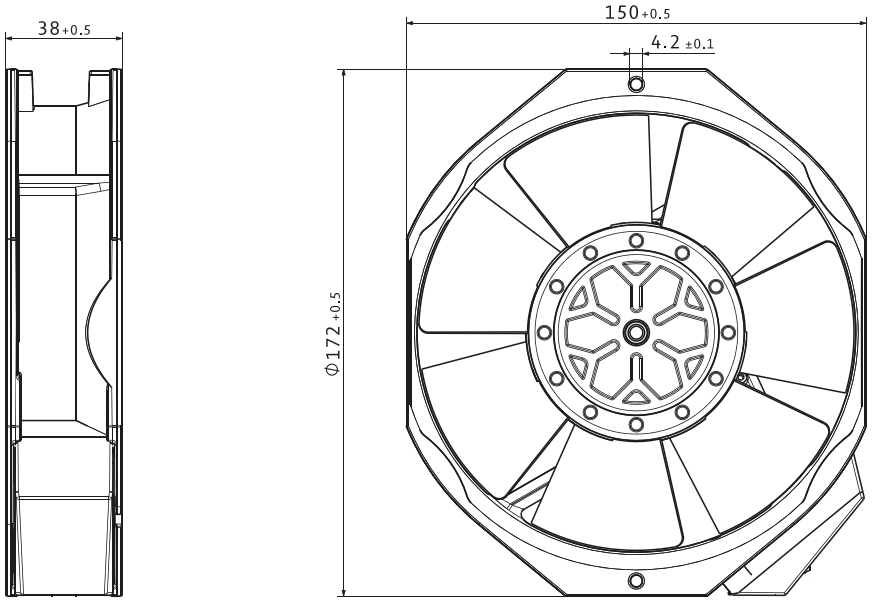
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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

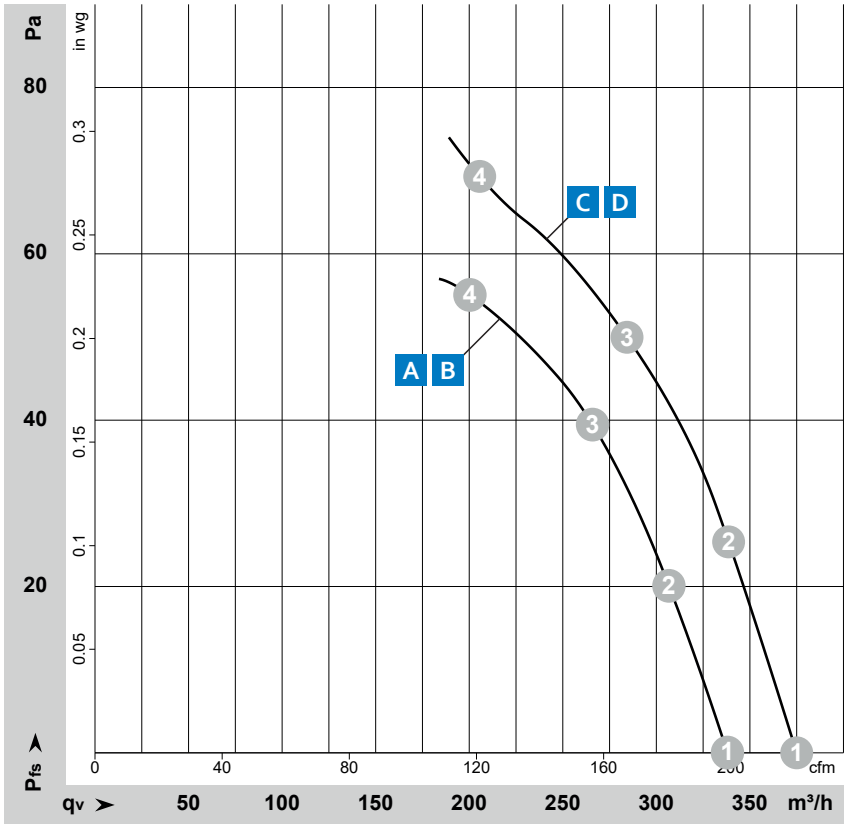


VWEH150X...

AC axial fans · max. 375 m³/h · Ø 150 x 55 mm



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



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

Measuring conditions

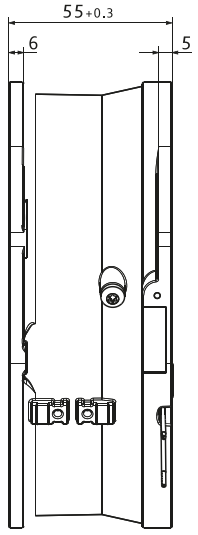
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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

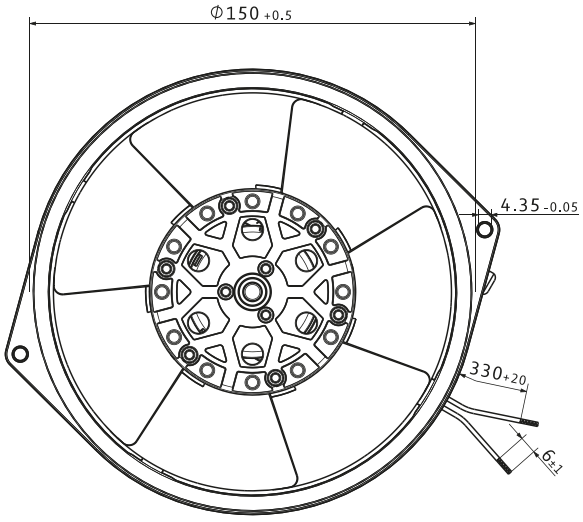
Type	Part number	Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10PC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
VWEH150XQLPS 7855 ES	W2S130AA0301	**230**	50	A	1 2 3 4	340 305 265 200	200 180 155 120	2 800 2 795 2 780 2 780	45 45 46 46	6.0	49	-25...+50	60 000	102 500
VWEH150XQLPZ 7856 ES	W2S130AA0397	**230**	50	B	1 2 3 4	340 305 265 200	200 180 155 120	2 800 2 795 2 780 2 780	45 45 46 46	6.0	49	-25...+70	60 000	102 500
VWEH150XQLNS 7805 ES	W2S130AA2501	**115**	60	C	1 2 3 4	375 340 285 205	220 200 165 120	3 250 3 210 3 180 3 185	38 40 41 41	6.4	53	-25...+70	60 000	102 500
VWEH150XQLNZ 7806 ES	W2S130AA2597	**115**	60	D	1 2 3 4	375 340 285 205	220 200 165 120	3 250 3 210 3 180 3 185	38 40 41 41	6.4	53	-25...+90	60 000	102 500

Subject to changes.

Technical drawing

Dimensions in mm





VUEH150XQLPS

AC axial fans · max. 435 m³/h · Ø 150 x 55 mm



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

Material/Surface

- Housing: Metal
- Impeller: Metal

Characteristics

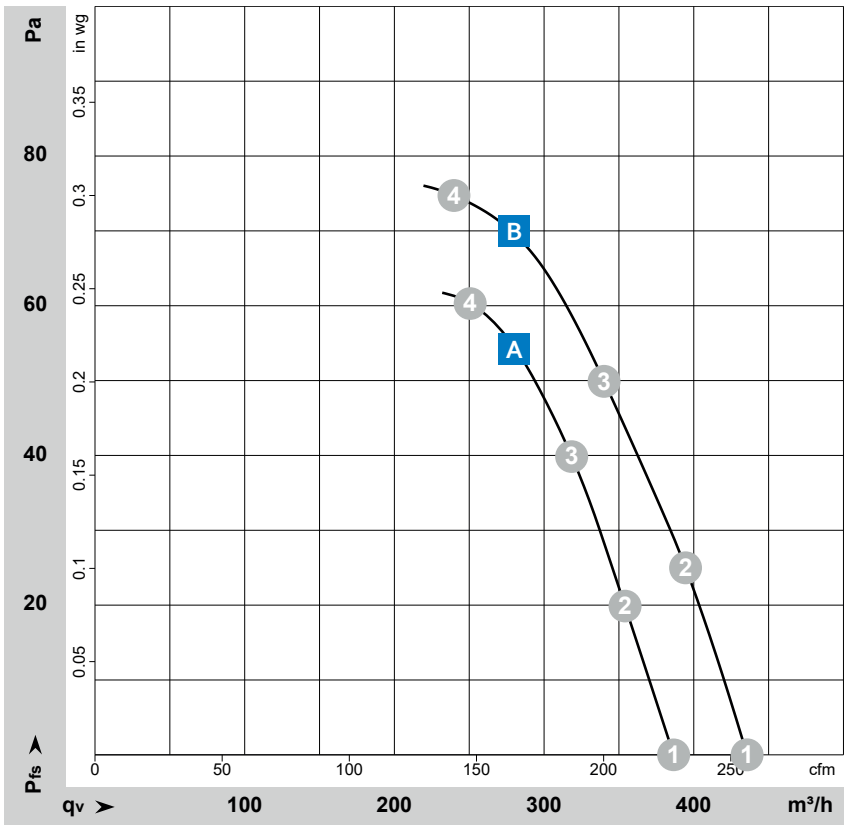
- Version: Classic AC fan; compact and robust
- Direction of air flow: intake over struts
- Direction of rotation: counterclockwise, looking towards rotor
- Installation position: any
- Bearing: Ball bearings
- Operating mode: Continuous operation (S1)
- IP protection class: IP20
- Electrical hookup: 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



Measuring conditions

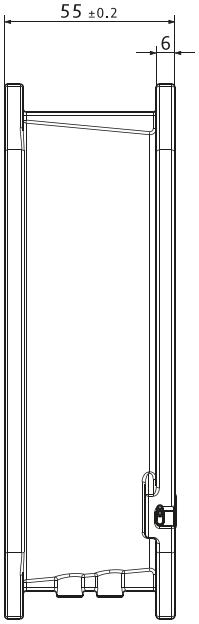
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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

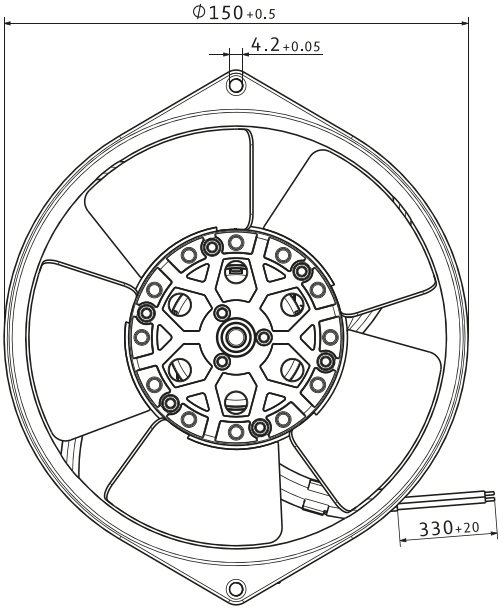
Type	Part number	Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Sound pressure (free air flow)	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard	Life expectancy L_{10IPC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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



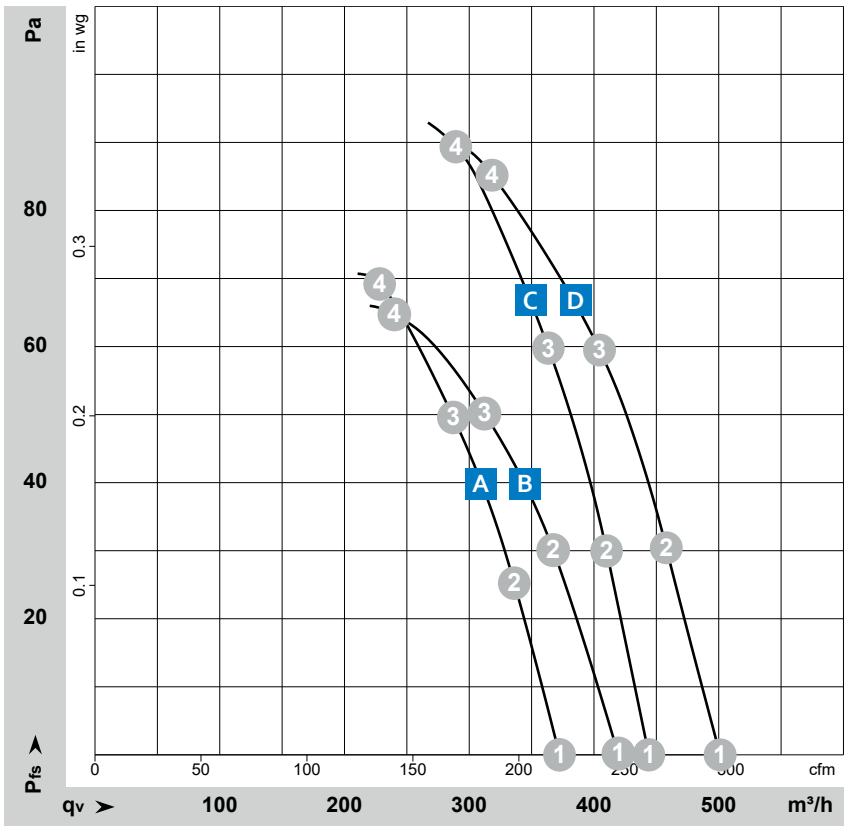


VWEG172X...

AC axial fans · max. 500 m³/h · Ø 172 x 51 mm



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



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

Measuring conditions

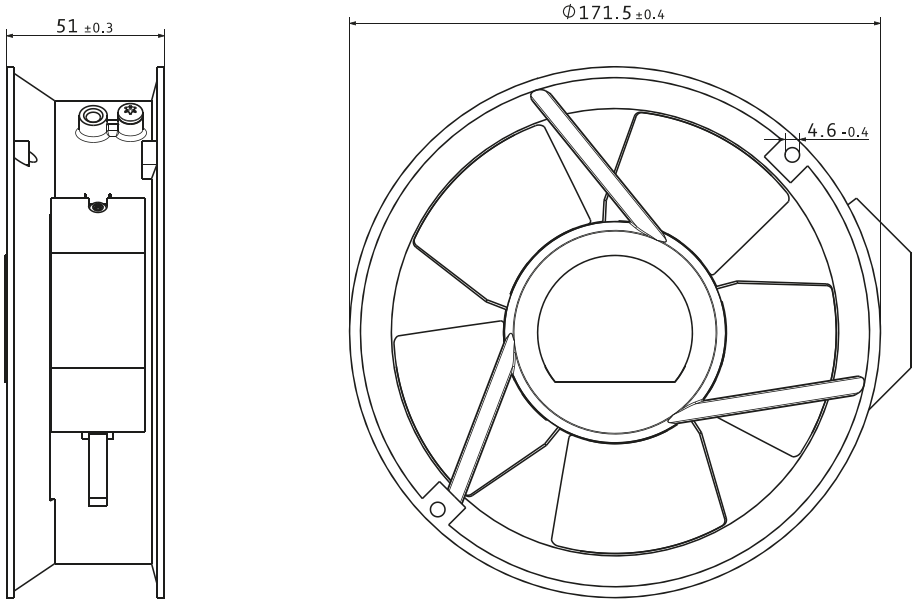
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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_{10IPC} (40 °C) s. p. 11
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	dB(A)	°C	Hours	Hours
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



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

Material/Surface

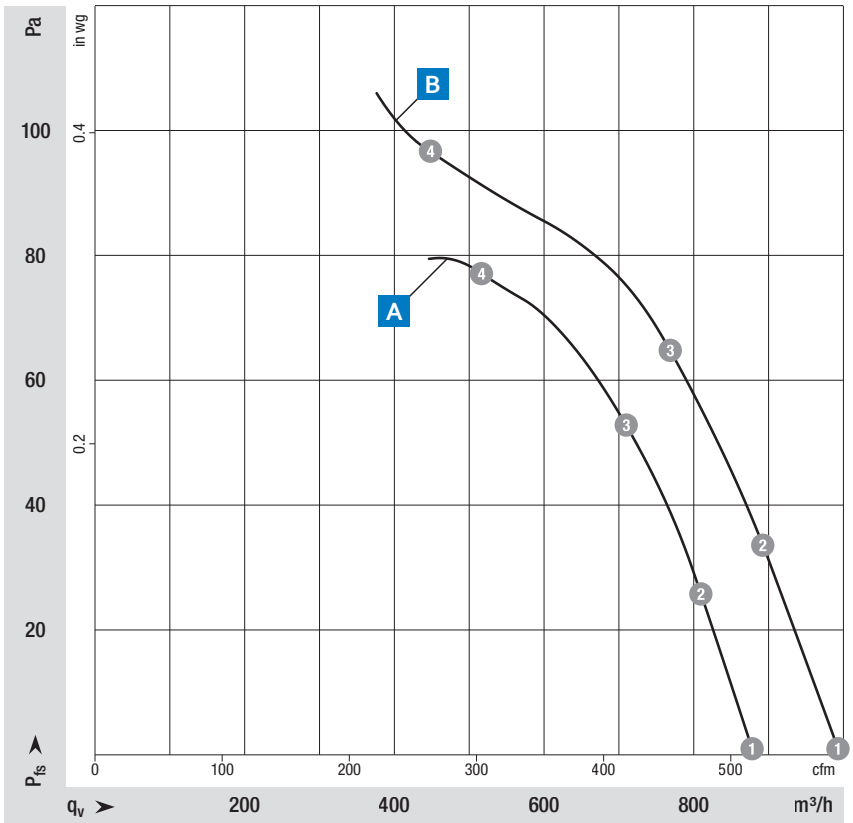
- Fan housing: Metal
- Impeller: Metal

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



Measuring conditions

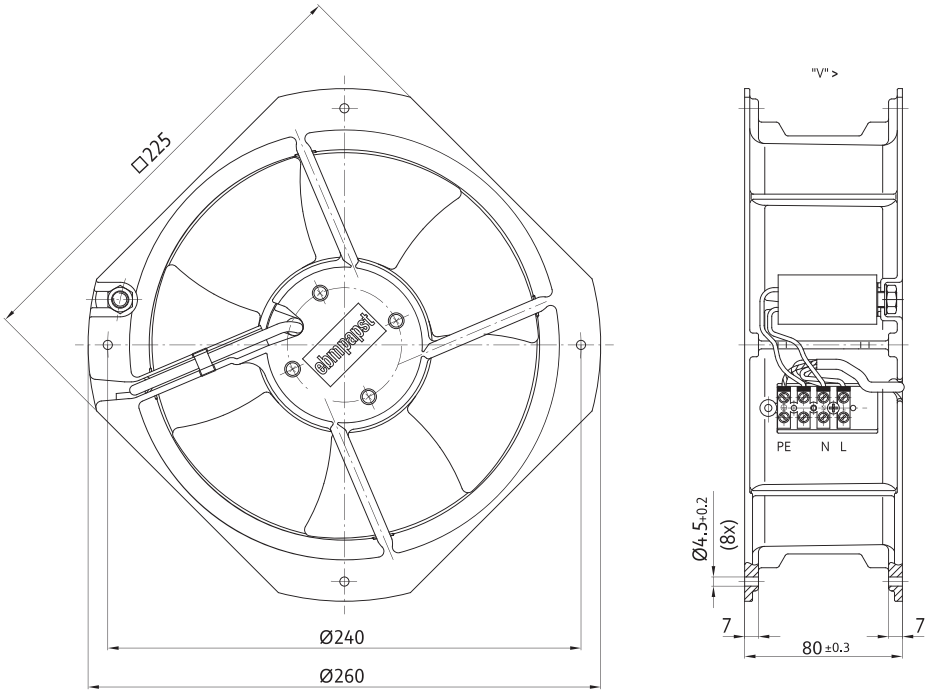
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Speed	Power consumption	Input current	Capacitor	Max. back-pressure	Perm. ambient temperature
		VAC	Hz			m³/h	rpm	W	A	µF/VDB	Pa	°C
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			
		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			
		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



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

Material/Surface

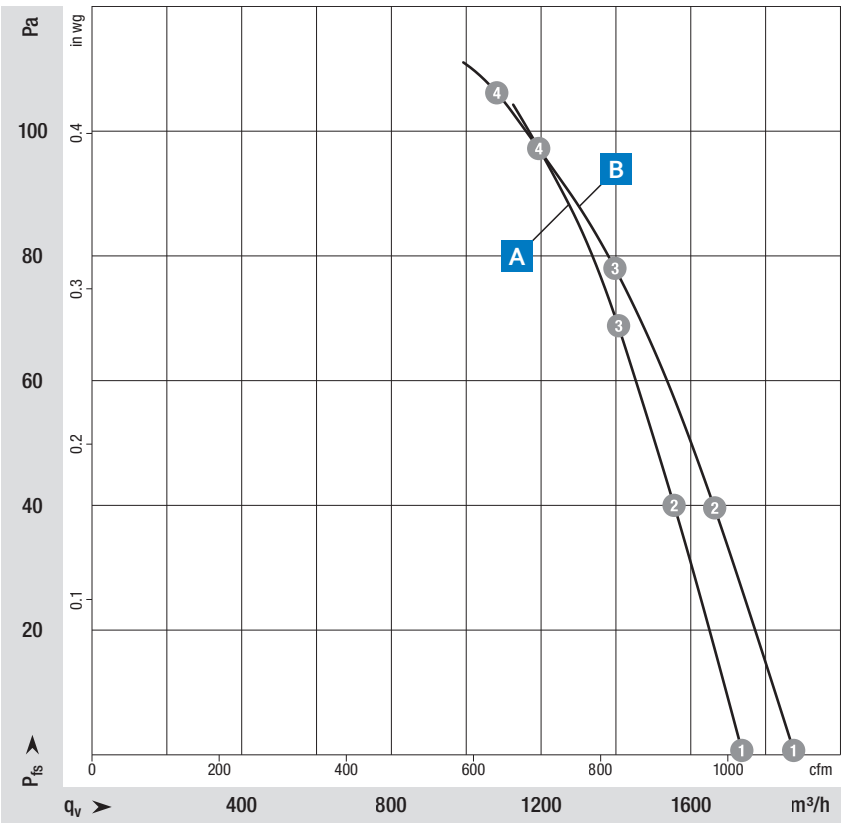
- Fan housing: Metal
- Impeller: Plastic

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



Measuring conditions

Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$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

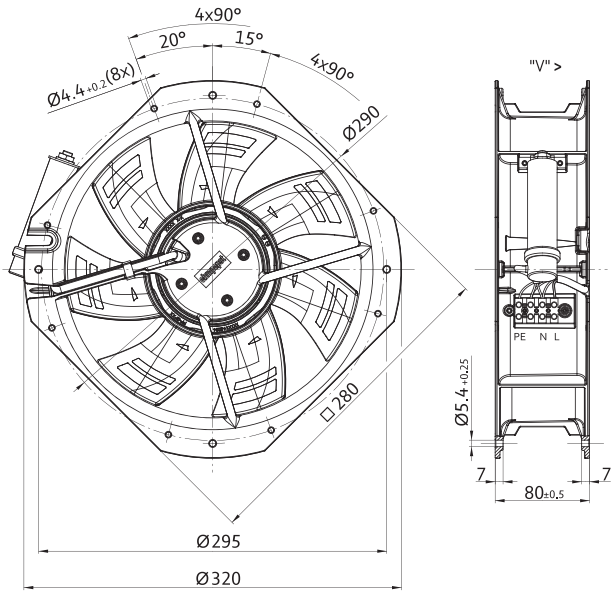
Type	Part number	Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Input current	Sound power level	Sound pressure	Max. back-pressure	Perm. ambient temperature
		VAC	Hz			m³/h	cfm	rpm	W	A	Bel(A)	dB(A)	Pa	°C
VWLJ280H2MWS	W2E250HP0801	**1~115**	50	A	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	61		
					3	1 365	805	2 390	117	1.04	6.7	60		
					4	1 100	650	2 300	124	1.10	7.0	62		
		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	62		
					3	1 380	810	2 395	152	1.32	6.8	61		
					4	1 005	590	2 250	160	1.40	7.0	62		
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	62		
					3	1 360	800	2 405	115	0.50	6.8	61		
					4	1 120	660	2 320	125	0.55	6.9	62		
		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	63		
					3	1 320	780	2 400	153	0.66	6.8	62		
					4	920	545	2 300	160	0.71	7.4	66		

Subject to changes.

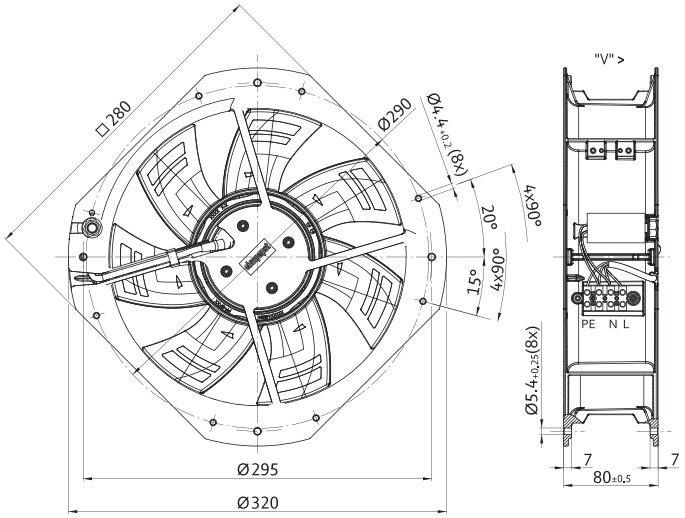
Technical drawing

Dimensions in mm

VWLJ280H2MWS W2E250HP0801



VWLJ280H2MWZ W2E250HP0601



VJH0200X2MES

AC diagonal module · max. 840 m³/h · Ø 200 mm



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

Material/Surface

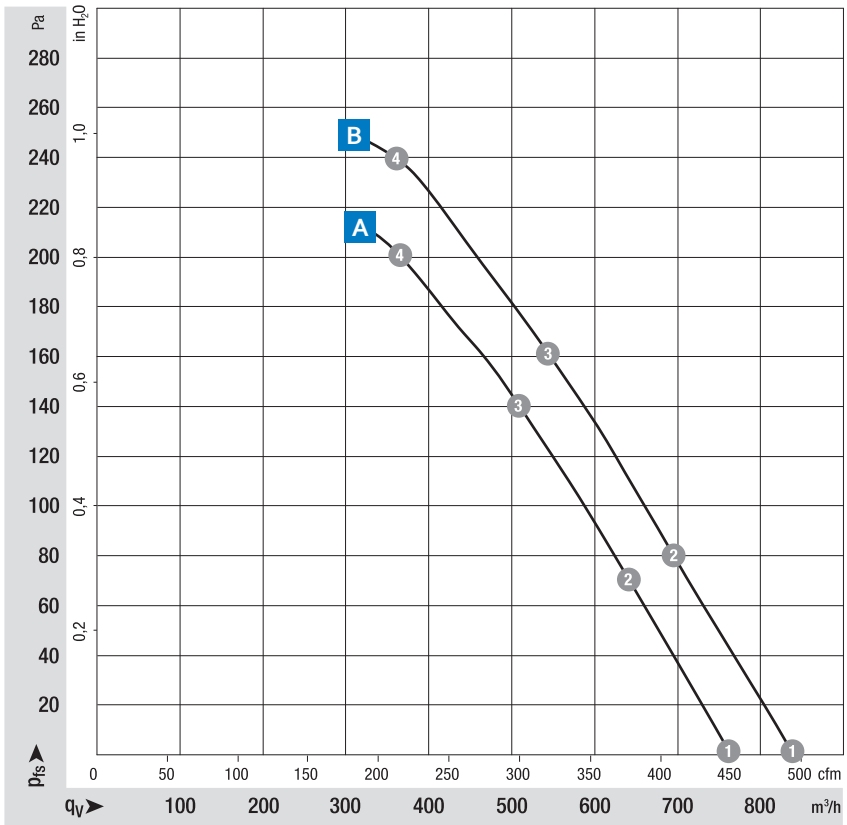
- Housing: Plastic
- Support bracket: Plastic
- Impeller: Plastic

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



Measuring conditions

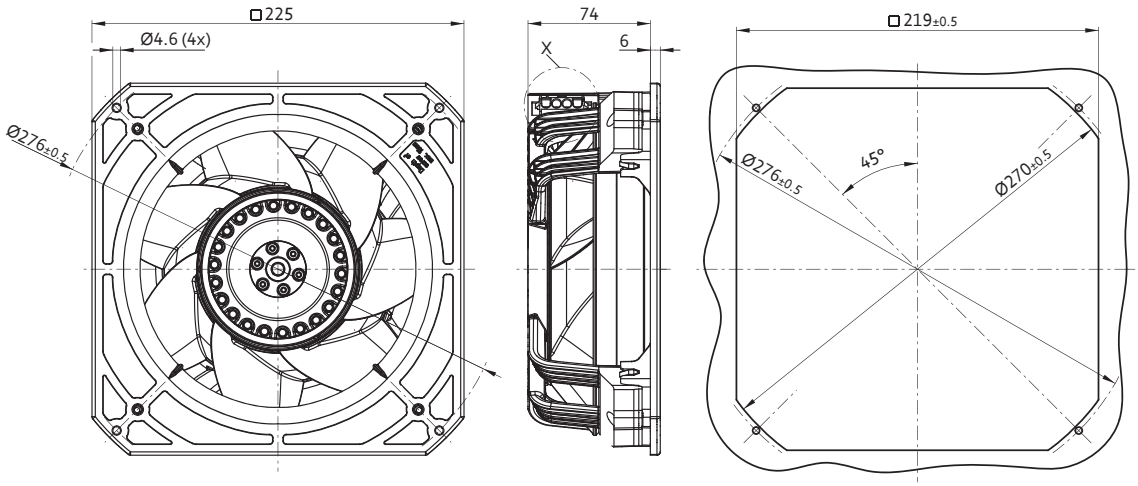
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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		

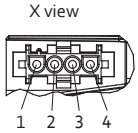
Subject to changes.

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



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

Material/Surface

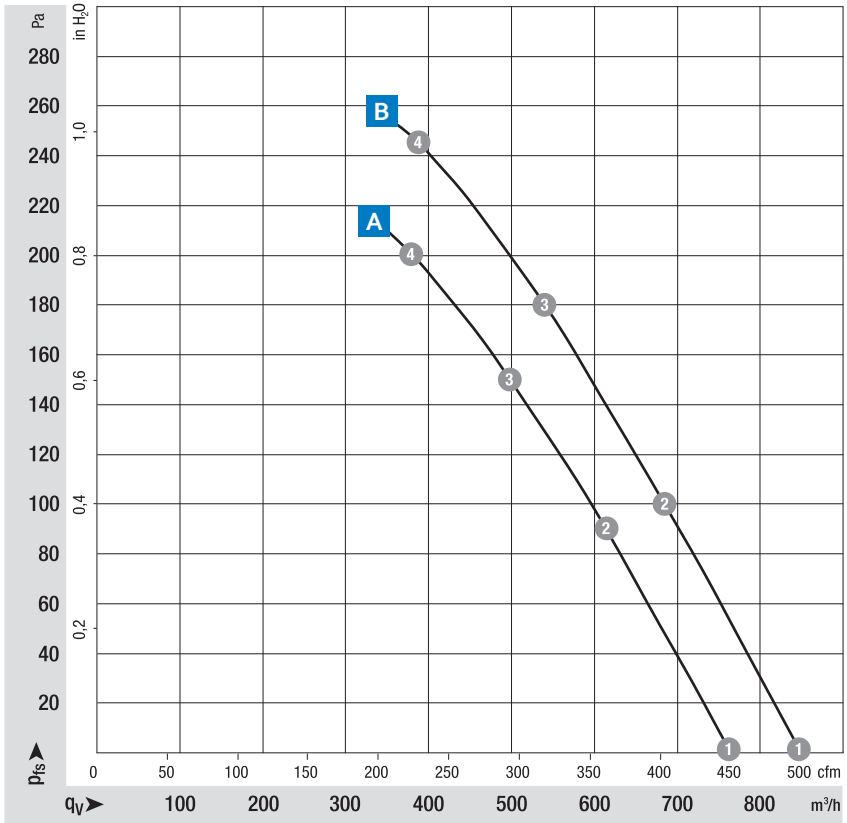
- Housing: Plastic
- Support bracket: Plastic
- Impeller: Plastic

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



Measuring conditions

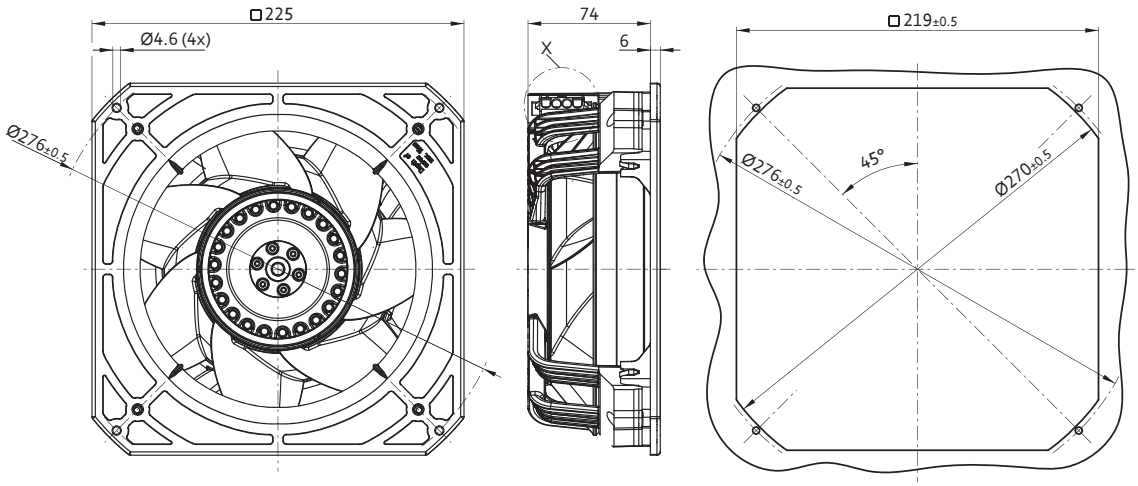
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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		

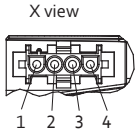
Subject to changes.

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



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

Material/Surface

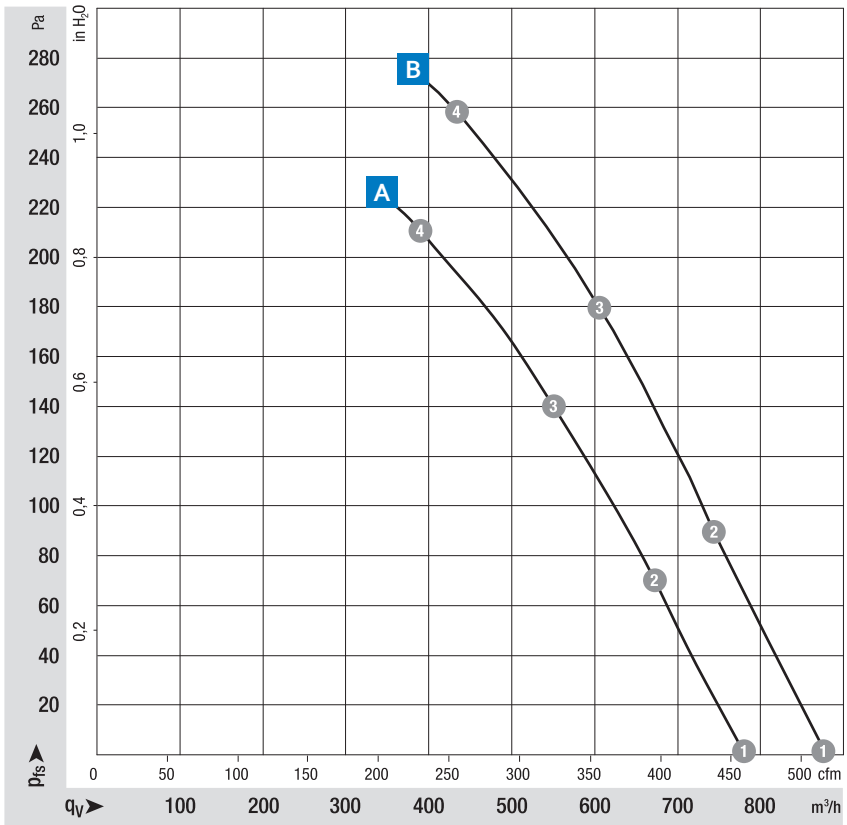
- Housing: Plastic
- Support bracket: Plastic
- Impeller: Plastic

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



Measuring conditions

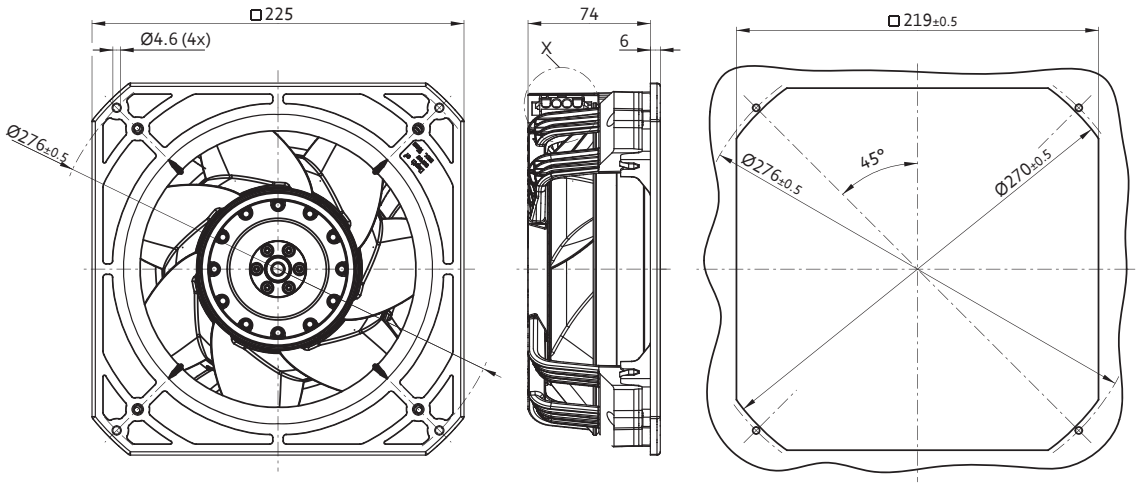
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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			m³/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	61		
					3	540	315	2 675	72	0.16	6.8	60		
					4	365	215	2 685	70	0.16	7.0	62		
		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	63		
					3	590	345	2 970	98	0.17	7.0	63		
					4	405	240	2 980	96	0.17	7.2	64		

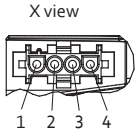
Subject to changes.

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



1 = L3
2 = L1
3 = L2
4 = PE

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.

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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	

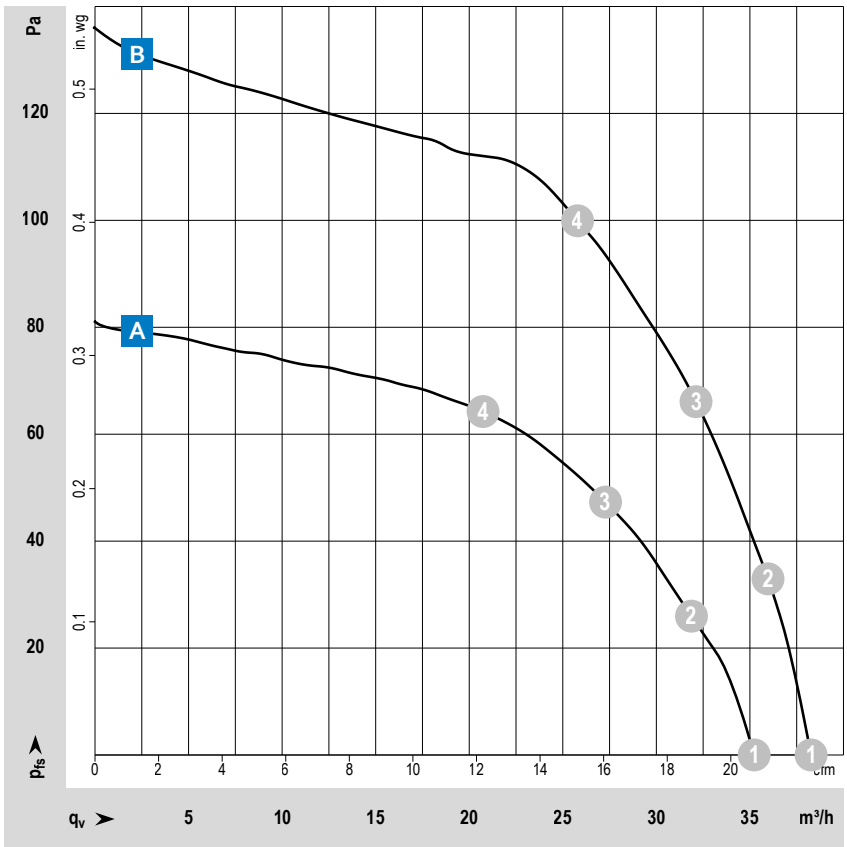
Dimension in mm	Type	Type (old)	Page
☐ 121 x 37	**VHS0090XQHCS**	RL 90	338
☐ 135 x 38	**VHS0090XQHCS**	RG 90	340
☐ 180 x 40	**VCS0125XQHCS**	RG 125	342
☐ 220 x 56	**VCS0160XQKDS**	RG 160	344
Ø 138 x 40	**VBS0125XQHCS**	RER 125	346
Ø 176 x 54	**VBS0160XQKDS**	RER 160	348

VHS0090XQHCS

AC centrifugal fans · max. 38.3 m³/h · ☐ 121 x 37 mm



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



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

Measuring conditions

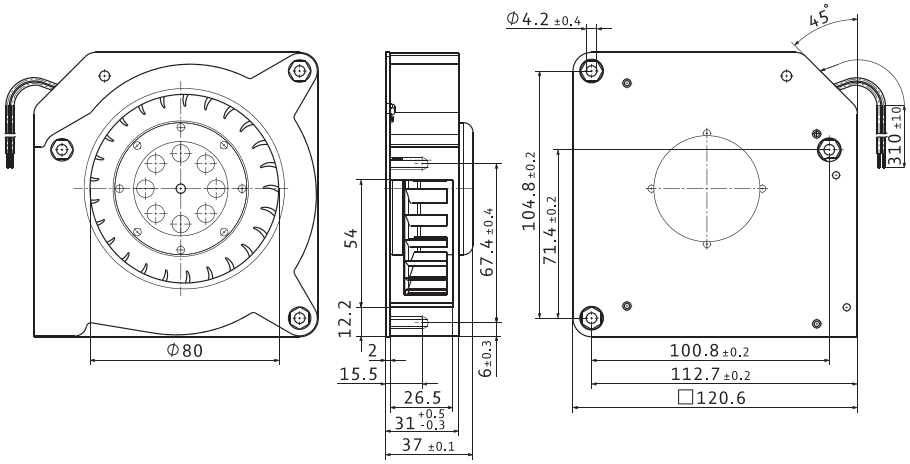
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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	rpm	W	Bel(A)	°C	Hours
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



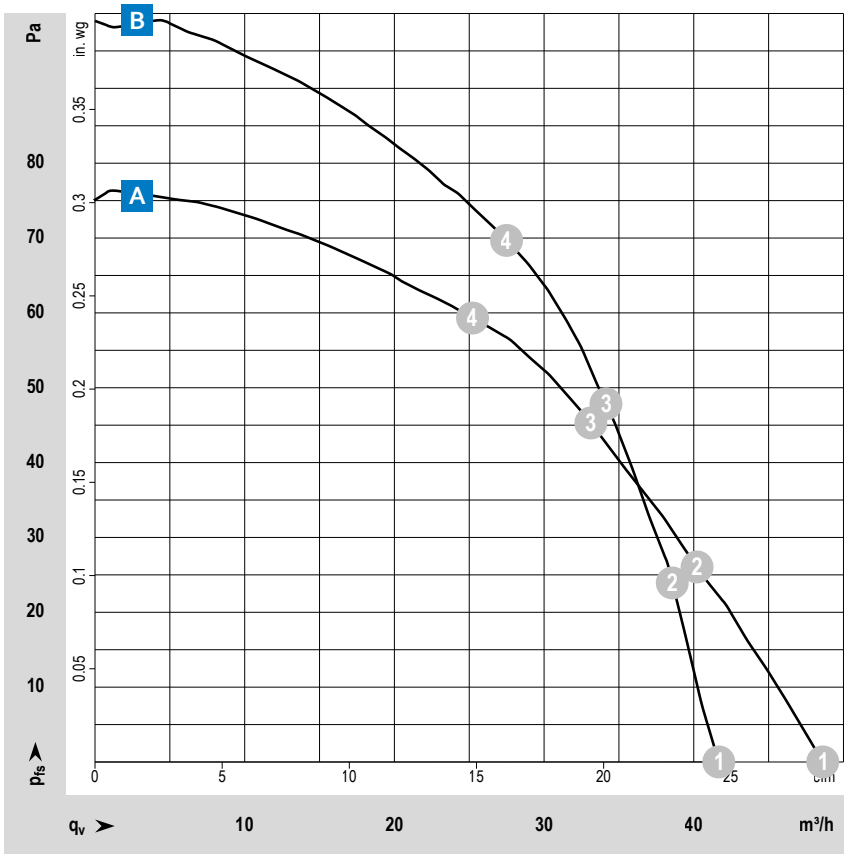
Type / Type old	Connection wires
VHS0090XQHCS RL 90-18/50	AWG 18, TR 32
VHS0090XQHCS RL 90-18/00	AWG 18, TR 32
VHS0090XQHCS RL 90-18/56	AWG 22
VHS0090XQHCS RL 90-18/06	AWG 22

VHS0090XQHCS

AC centrifugal fans · max. 50 m³/h · ☐ 135 x 38 mm



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



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

Measuring conditions

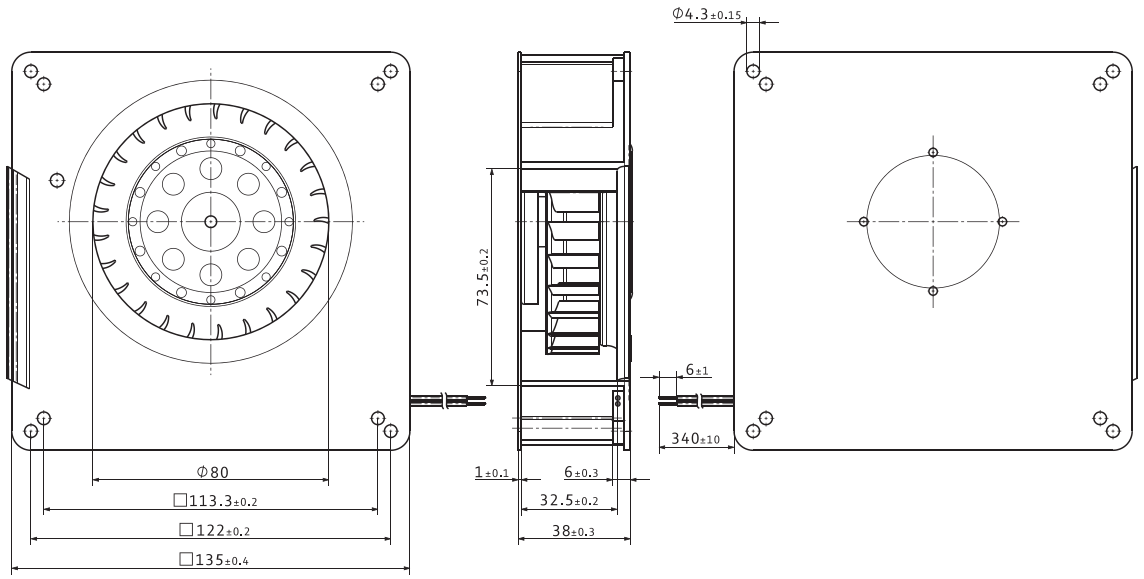
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_o$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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	rpm	W	Bel(A)	°C	Hours
VHS0090XQHCS RG 90-18/50	**9544014005**	**230**	50	B	1	49	29	2 200	20.6	6.1	-30...+60	35 000
					2	40	24	2 330	19.6	5.9		
					3	33	19	2 420	18.9	5.7		
					4	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
					2	41	24	2 340	19.0	5.9		
					3	34	20	2 440	18.2	5.7		
					4	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
					2	40	23	2 270	16.0	5.9		
					3	35	20	2 530	15.0	5.8		
					4	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
					2	38	22	2 200	12.4	5.9		
					3	33	19	2 400	11.7	5.8		
					4	26	15	2 570	10.9	5.9		

Subject to changes.

Technical drawing

Dimensions in mm

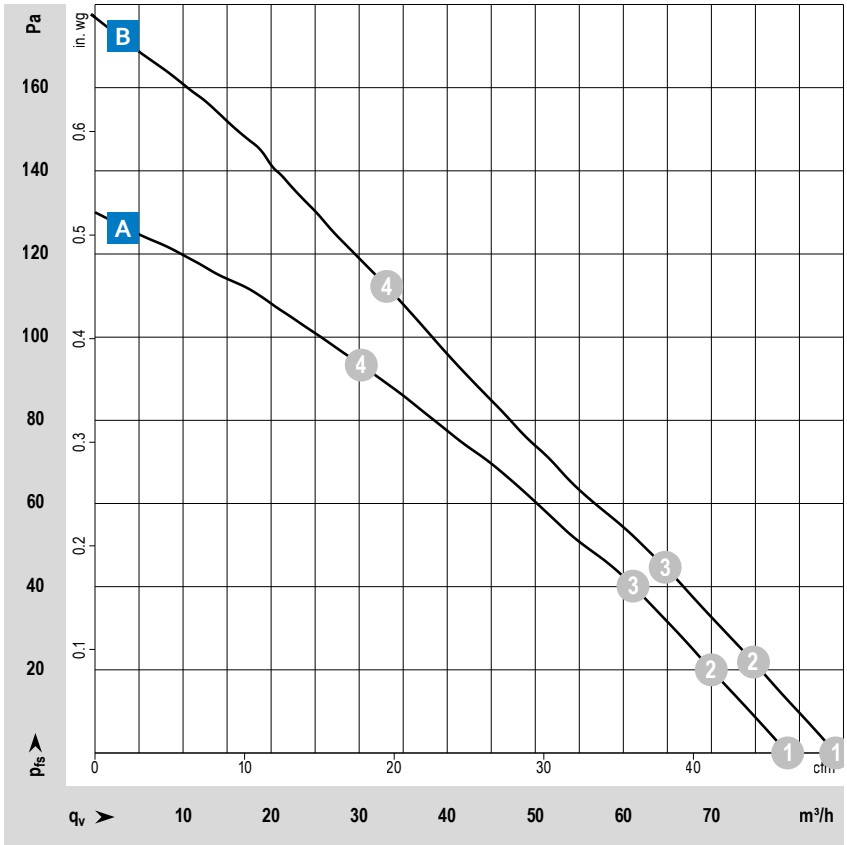


VCS0125XQHCS

AC centrifugal fans · max. 84 m³/h · ☐ 180 x 40 mm



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



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

Measuring conditions

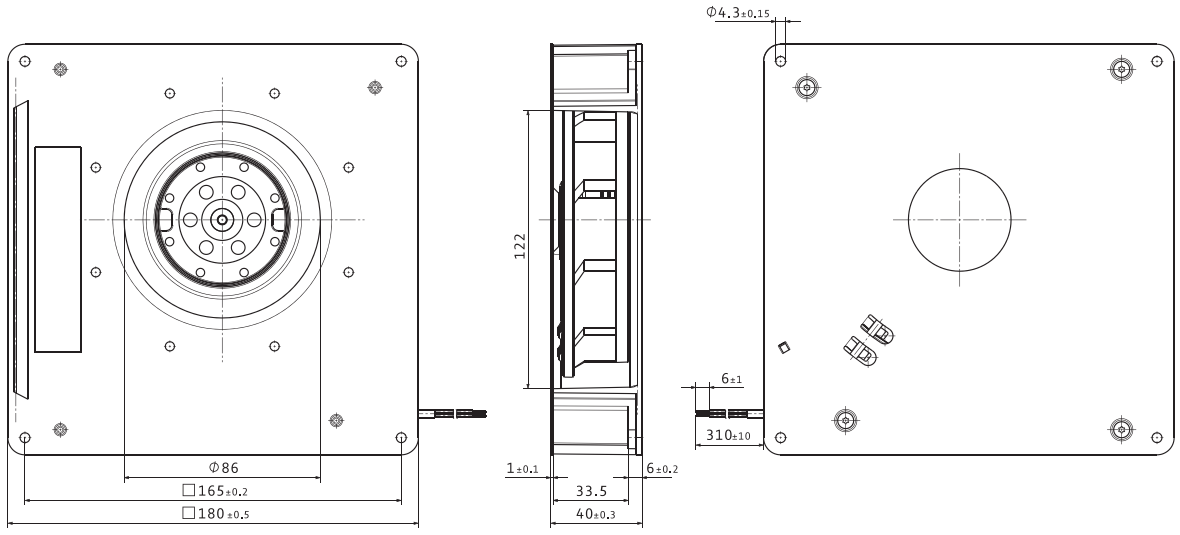
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_e$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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	rpm	W	Bel(A)	°C	Hours
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

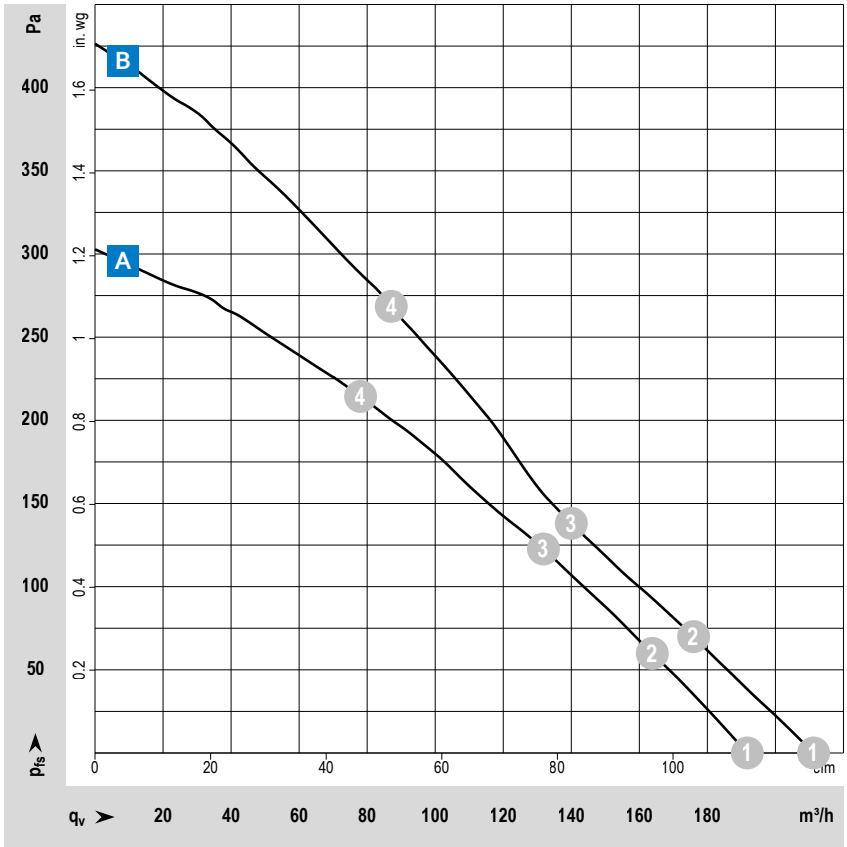


VCS0160XQKDS

AC centrifugal fans · max. 211 m³/h · ☐ 220 x 56 mm



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



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

Measuring conditions

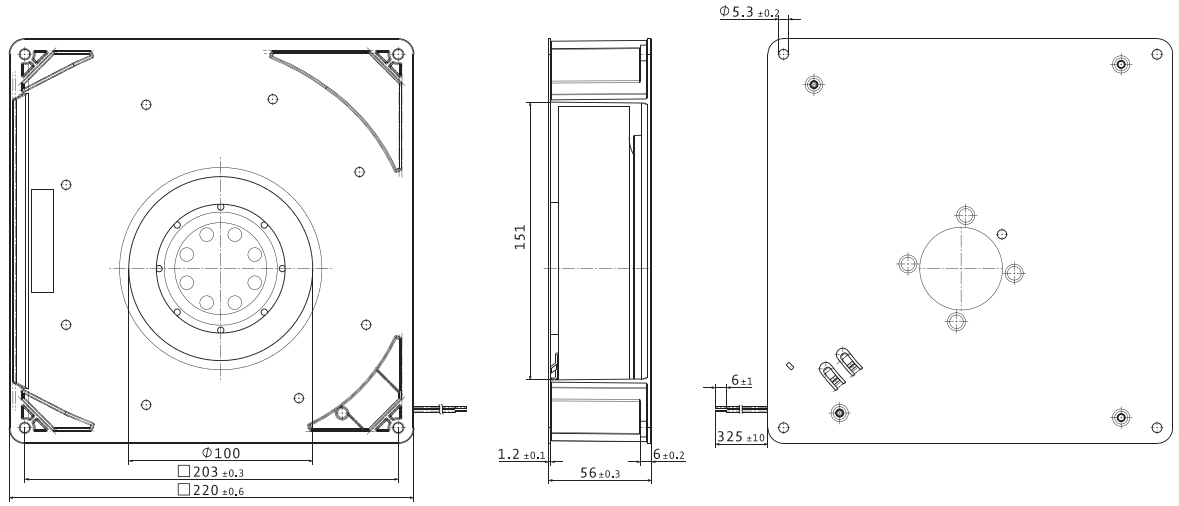
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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	rpm	W	Bel(A)	°C	Hours
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

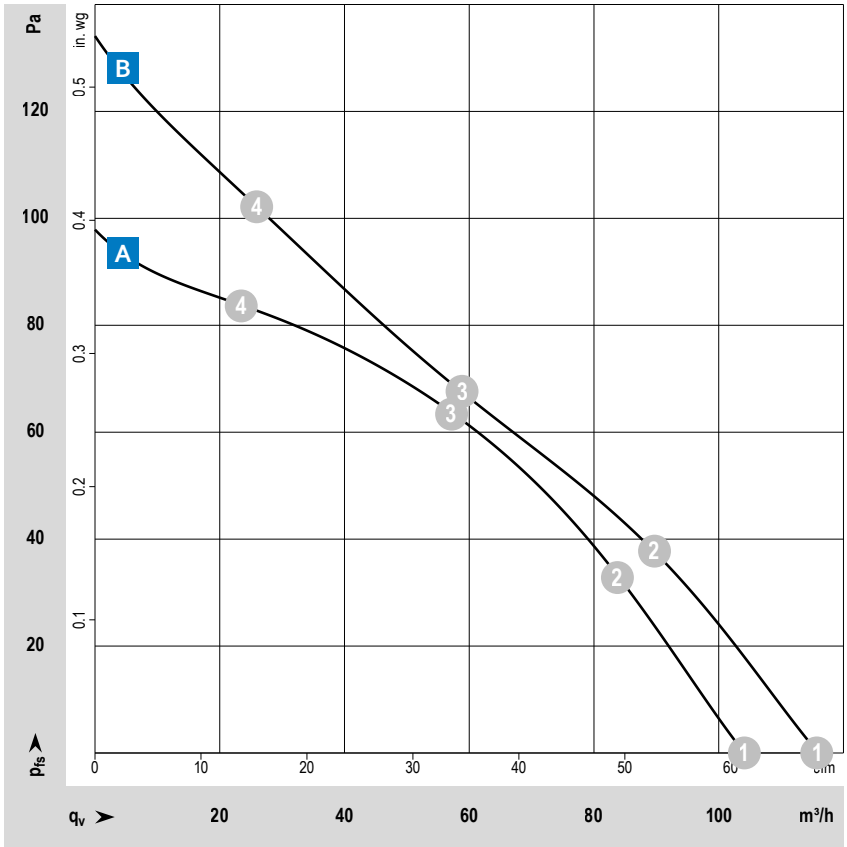


VBS0125XQHCS

AC centrifugal fans · max. 108 m³/h · Ø 138 x 40 mm



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



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

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

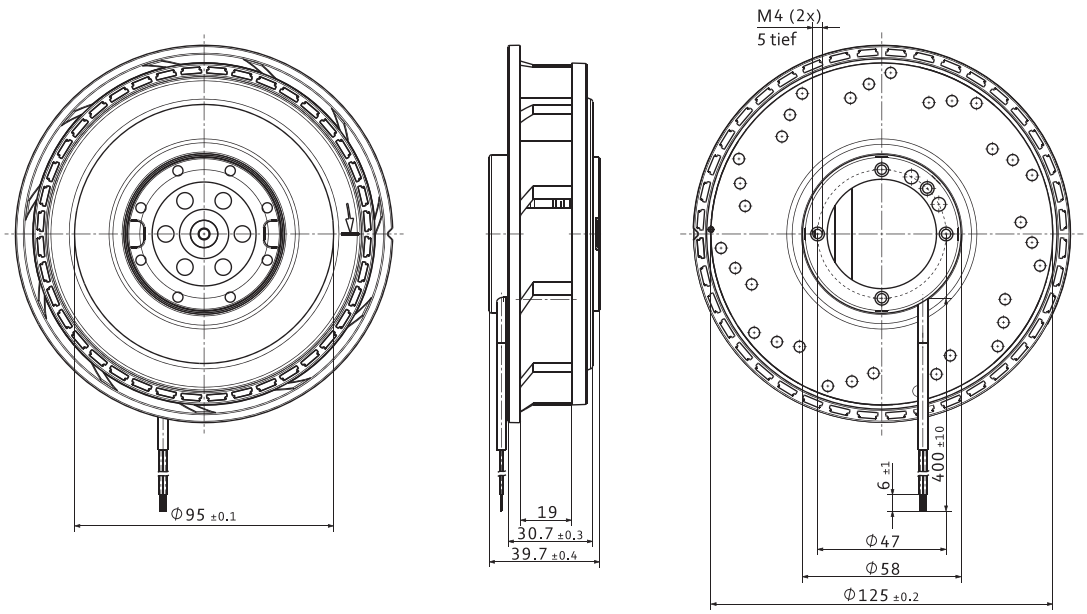
Air performance measured according to: ISO 5801. Installation category A, without contact protection.
Noise: Total sound $p_A$wer level LWA ISO 10302 measured on a hemisphere with a radius of 2 m. Sound pressure level LpA measured at 1 m distance from fan axis. The values given are applicable only under 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	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	rpm	W	Bel(A)	°C	Hours
VBS0125XQHCS RER 125-19/56	**9544014151**	**230**	50	A	1 2 3 4	104.0 84.0 57.0 23.5	61.2 49.4 33.5 13.8	2 600 2 550 2 520 2 620	19.2 19.7 19.9 19.0	6.4 6.2 6.0 5.9	-30...+60	37 500
VBS0125XQHCS RER 125-19/06	**9544014152**	**115**	60	B	1 2 3 4	108.0 86.0 59.0 25.0	63.6 50.6 34.7 14.7	2 900 2 750 2 630 2 800	15.3 16.1 16.7 15.8	6.6 6.4 6.2 6.2	-30...+70	40 000

Subject to changes.

Technical drawing

Dimensions in mm

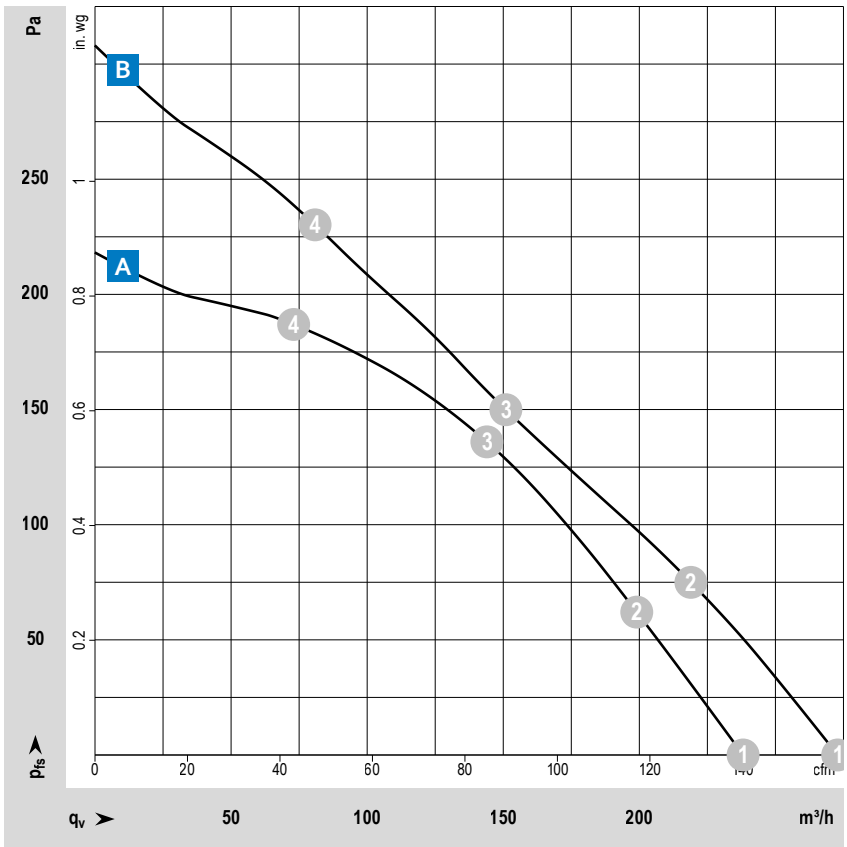


VBS0160XQKDS

AC centrifugal fans · max. 273 m³/h · Ø 176 x 54 mm



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



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

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 p_{o}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

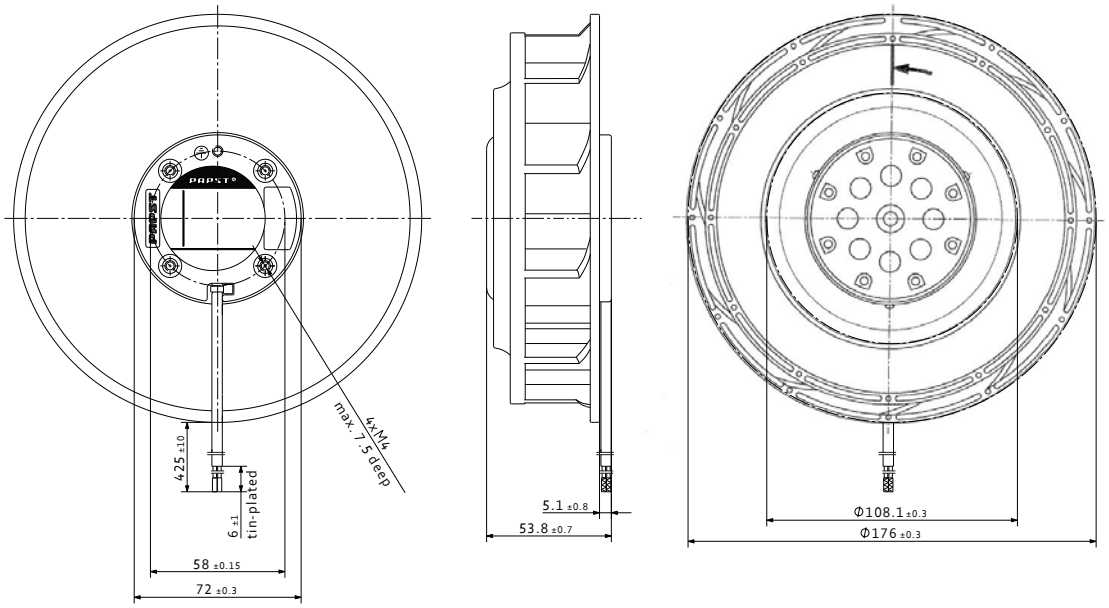
Type / Type old	Part number	Nominal voltage	Frequency	Characteristic curve	Operating point	Air flow	Air flow	Speed	Power consumption	Sound power level	Perm. ambient temperature	Service life L_{10} (40 °C) ebm-papst standard
		VAC	Hz			m³/h	cfm	rpm	W	Bel(A)	°C	Hours
VBS0160XQKDS RER 160-28/56S	**9545020051**	**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 Lufteinlassöffnung 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

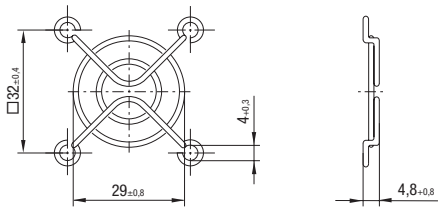
- Finger guard according to DIN EN ISO 13857 (previously EN 294).
- Additional finger guards that do not satisfy DIN EN ISO 13857 available on request.
- Our finger guards are designed specifically to be uses with ebm-papst fans. They combine the highest degree of safety with minimum effect on the operating 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

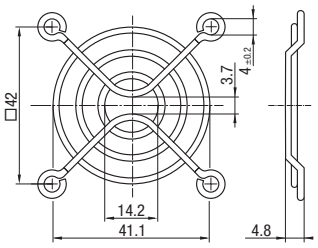
Fan size	Fan type	Type	Part number	Side	Drawing see page
40 x 40	VWCA040F..., VWCC040Y..., VWCE040J...	LZ29-1	**9920029001**	Intake/Outlet	353
50 x 50	VWCB050F...	LZ31	**9920031000**	Intake/Outlet	353
60 x 60	VWCB060F..., VWCD060A..., VWCD060X..., VWCD060Y..., VWCE060J...	LZ28	**9920028000**	Intake/Outlet	353
		LZ28-1	**9920028001**		
80 x 80	VWCD080A..., VWCD080Y..., VWCE080P..., VWCF080J..., VVY0076X...	LZ22-2	**9920022002**	Intake/Outlet	353
		LZ32-4	**9920032004**		
		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**		354
		LZ30-4	**9920030004**		
	VKCF119A...	LZ30-4	**9920030004**	Intake/Outlet	354
127 x 127	VKCF127A...	LZ35	**9920035000**	Intake/Outlet	354
	VWCF127Y...	LZ35	**9920035000**	Intake/Outlet	354
		LZ35-2	**9920035002**		
135 x 135	VWCF135Y..., VWCF135A...	LZ25	**9920025000**	Intake/Outlet	354
140 x 140	VUCG140A...	LZ53	**9920053000**	Intake/Outlet	354
Ø 150	VWEF150X..., VWEH150X...	LZ24	**9920024000**	Intake/Outlet	354
		LZ27	**9920027000**	Intake/Outlet	355
		LZ36	**9920036000**		
Ø 172	VWEG172P..., VWEG172X...	LZ26	**9920026000**	Intake/Outlet	355
		LZ37	**9920037000**		
		LZ37-10	**9920145004**		
		LZ38	**9920038000**		
	VKEG178X...	LZ39	**9920039000**	Outlet side	355
		LZ52	**9920052000**	Intake side	
172 x 150	VWLG150X...	LZ38	**9920038000**	Intake/Outlet	355
172 x 160	VKLG160X..., VKS0154X...	LZ38	**9920038000**	Intake side	355
220 x 200	VWLG200F..., VWS0184F...	LZ22	**9920022000**	Intake/Outlet	355

Subject to changes. Dimensions in mm.

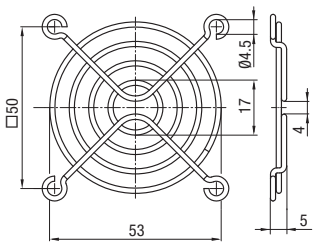
LZ29-1 Fan size 40 x 40



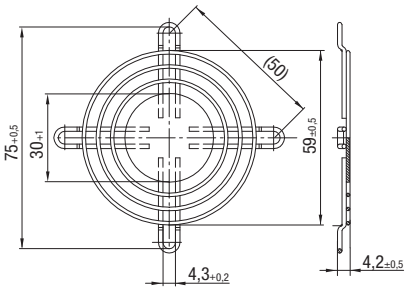
LZ31 Fan size 50 x 50



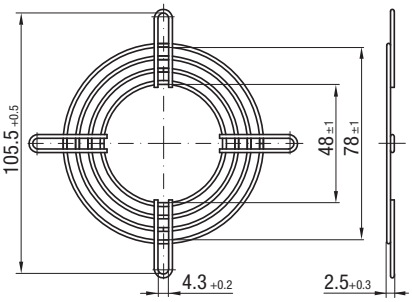
LZ28 Fan size 60 x 60



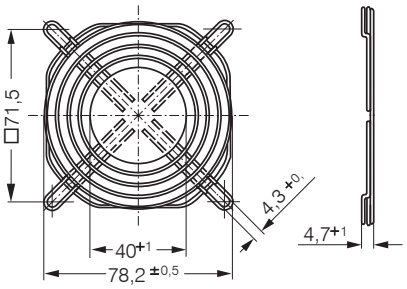
LZ28-1 Fan size 60 x 60



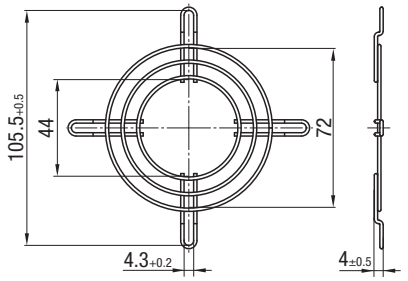
LZ22-2 Fan size 80 x 80



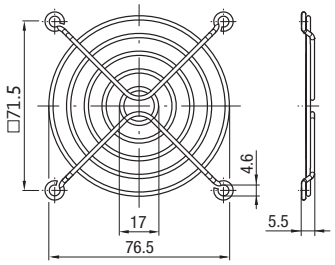
LZ32-4 Fan size 80 x 80



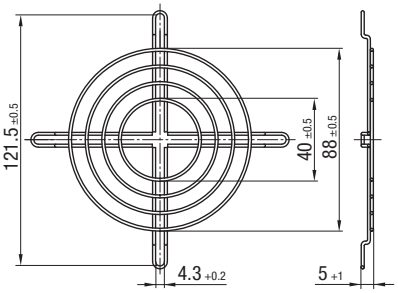
LZ22-N Fan size 80 x 80



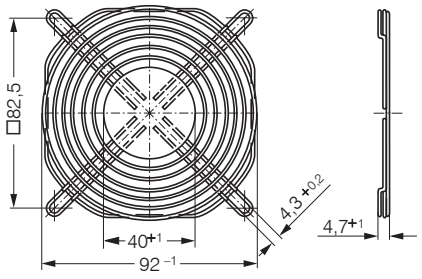
LZ32-14 Fan size 80 x 80



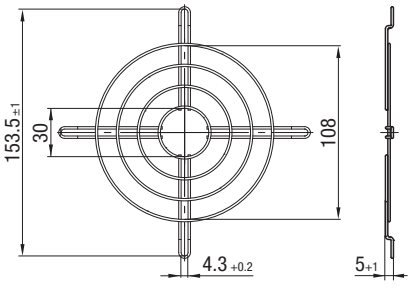
LZ23 Fan size 92 x 92



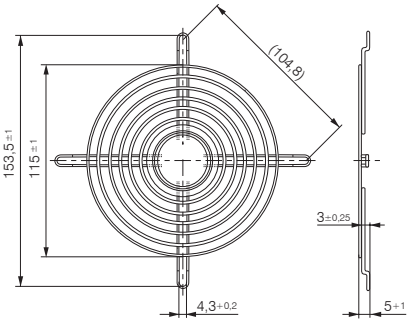
LZ23-1 Fan size 92 x 92



LZ20 Fan size 119 x 119

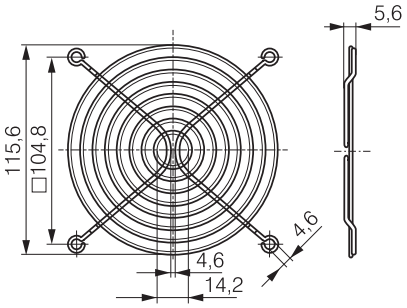


LZ30 Fan size 119 x 119

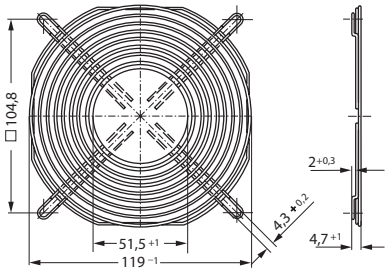


Finger guards

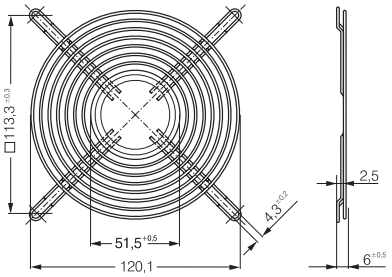
LZ30-3 — Fan size 119 x 119



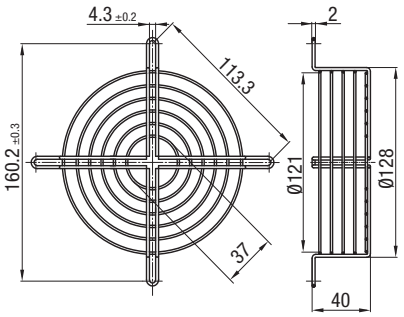
LZ30-4 — Fan size 119 x 119



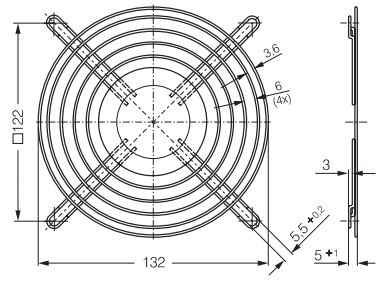
LZ35 — Fan size 127 x 127



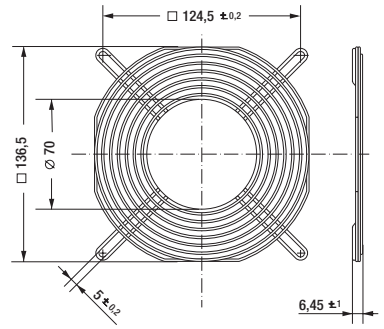
LZ35-2 — Fan size 127 x 127



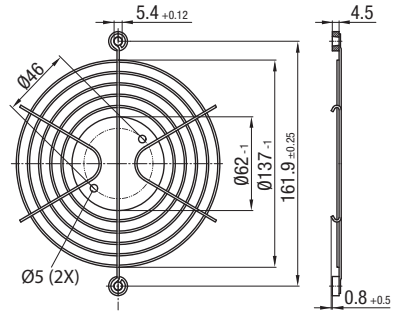
LZ25 — Fan size 135 x 135



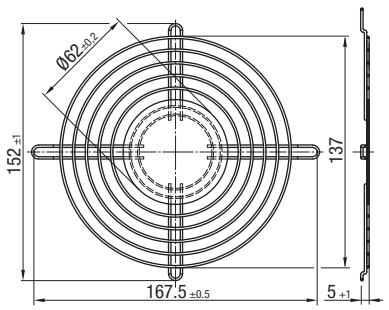
LZ53 — Fan size 140 x 140



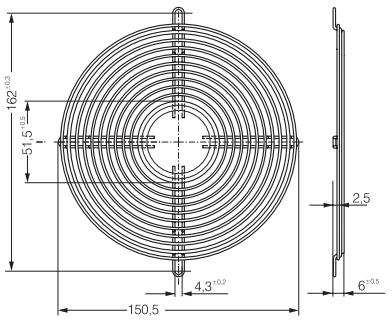
LZ24 — Fan size Ø 150



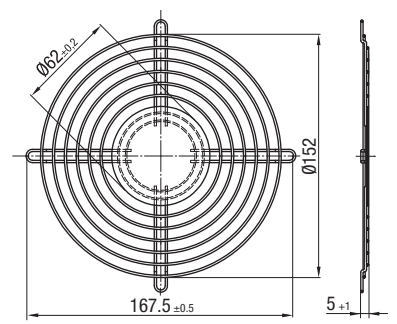
LZ27 — Fan size Ø 150



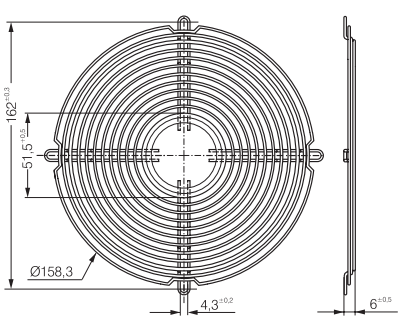
LZ36 — Fan size Ø 150



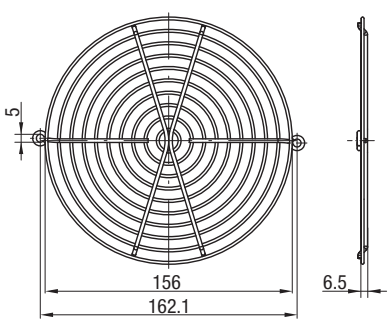
LZ26 — Fan size Ø 172



LZ37 — Fan size Ø 172

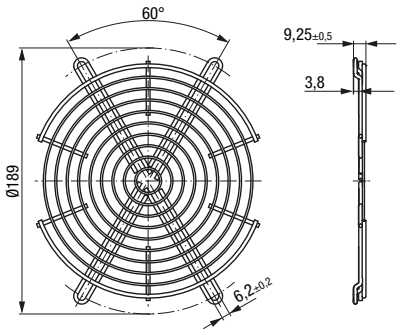


LZ37-10 — Fan size Ø 172

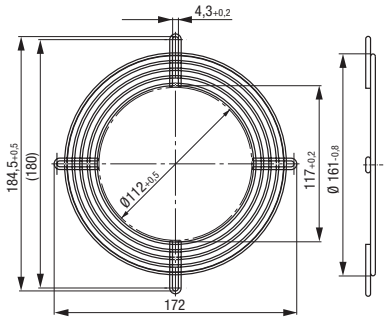


Accessories

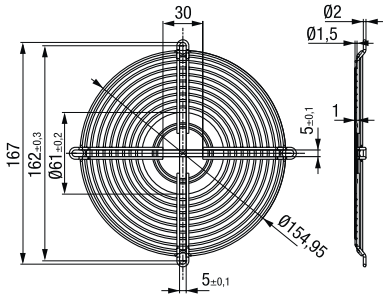
LZ38-1 Lüftereinheit



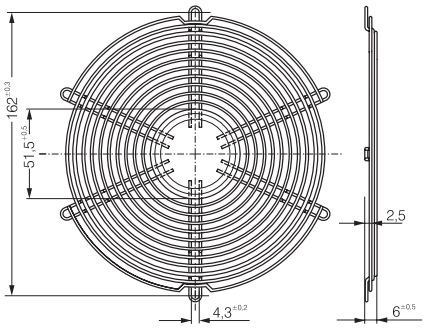
LZ39 Fan size Ø 172



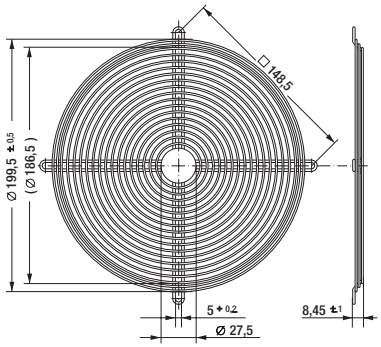
LZ52 Fan size Ø 172



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**		354
		LZ30-4	**9920030004**		
	VWCH119FSJMS	LZ30-9	**9920030009**	Outlet side	357
Ø 172	VWEK172XSLPS	LZ26	**9920026000**	Intake side	354
		LZ37	**9920037000**		355
		LZ37-10	**9920145004**		
		LZ52	**9920052000**		
		LZ37-2	**9920037002**	Outlet side	357

Finger guards made of plastic

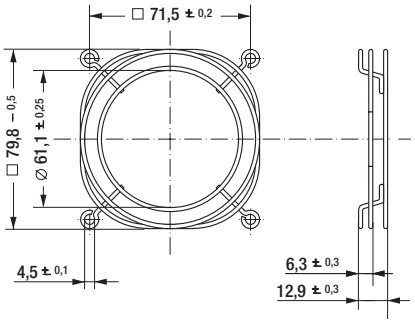
Fan size	Fan type	Type	Part number	Side	Drawing see page
119 x 119	VWCH119FSJMS, VWCF119Y...	LZ30-5	**9920030005**	Intake side	361
		LZ30-6	**9920030006**		
Ø 172	VWCF119Y...	LZ30-P	**9920030001**	Intake/Outlet	361

Filter fan guards

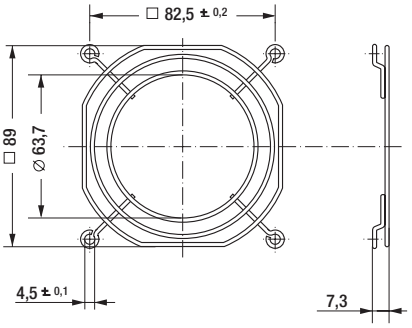
Fan size	Fan type	Type	Part number	Side	Drawing see page
80 x 80	VWCE080ASJHS	FF80	**9920034002**	Intake side	363
92 x 92	VWCJ092JSGKS	FF92	**9920034003**	Intake side	363
119 x 119	VWCH119FSJMS	FF119	**9920034004**	Intake side	363
Ø 172	VWEK172XSLPS	FF172	**9920034005**	Intake side	363

Subject to changes. Dimensions in mm.

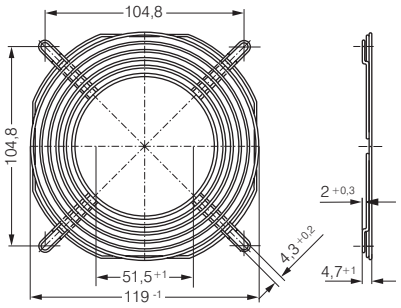
LZ32-7 Fan size 80 x 80



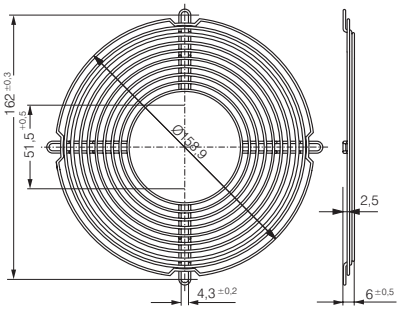
LZ23-6 Fan size 92 x 92



LZ30-9 Fan size 119 X 119



LZ37-2 Fan size Ø 172



Finger guards



Material

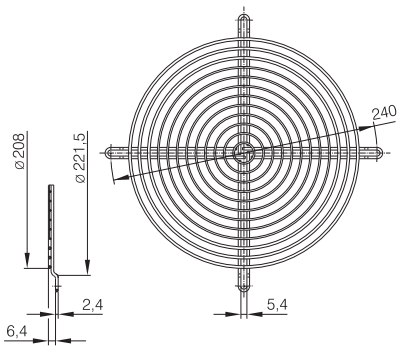
- Steel wire, plastic-coated, with silver-metallic gloss

More at www.ebmpapst.com

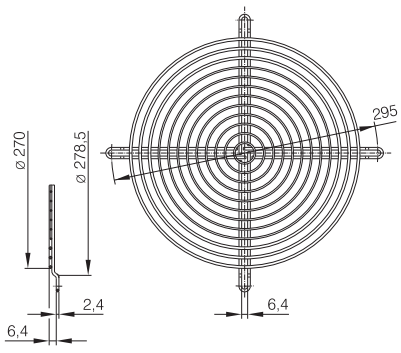
Fan size	Fan type	Part number	Side
Ø 200	VWLJ225X...	**78128-2-4039**	Intake/Outlet
Ø 250	VWLK280X...	**09418-2-4039** **72880-2-4039**	Intake/Outlet

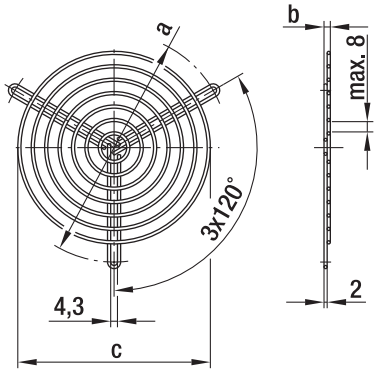
Subject to changes. Dimensions in mm.

78128-2-4039 Fan size Ø 200



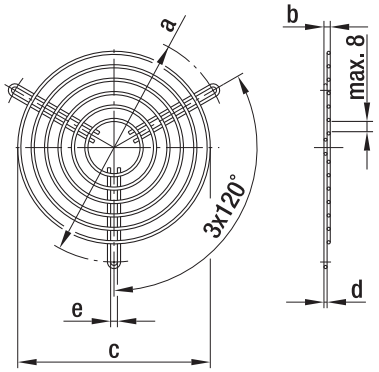
09418-2-4039 Fan size Ø 250





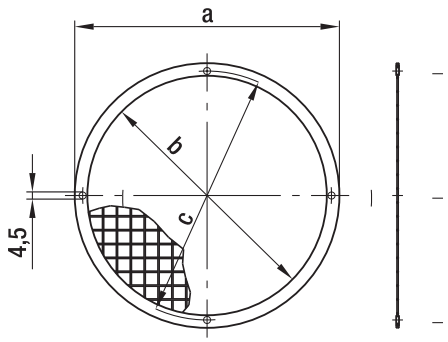
Finger guards for centrifugal blowers with dual inlet Material: Steel wire						
Fan size	Part number	a	b	c	Coating	Highlights
097	**83319-2-4039**	96.0	3.5	71.0	Phosphated, plastic-coated in RAL no. 9005	for D2E097-CH
	09485-2-4039	114.0	3.5	88.0	Phosphated, plastic-coated in RAL no. 9005	for D2E097-B
133/146	**09500-2-4039**	145.0	4.0	122.0	Phosphated, plastic-coated in RAL no. 9005	

Subject to changes. Dimensions in mm.

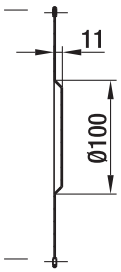


Finger guards for centrifugal blowers with dual inlet (versions with EW motor) Material: Phosphated steel wire, plasticcoated, silver-metallic gloss						
Fan size	Part number	a	b	c	d	e
160	**35000-2-4039**	182.0	12.0	144.0	2.4	4.5

Subject to changes. Dimensions in mm.

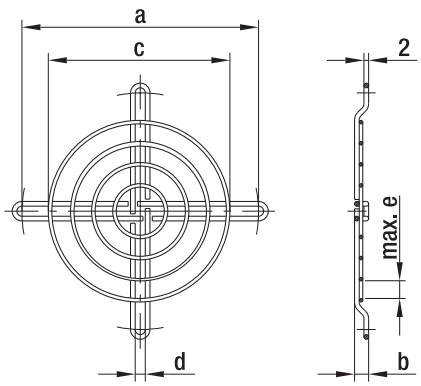


Fan size 160



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, chromatized in blue
160	**17729-2-4039**	175.0	3.5	139.0	4.6	7.0	Galvanized, chromatized in blue

Subject to changes. Dimensions in mm.

Finger guards



Material

- Fiberglass-reinforced plastic

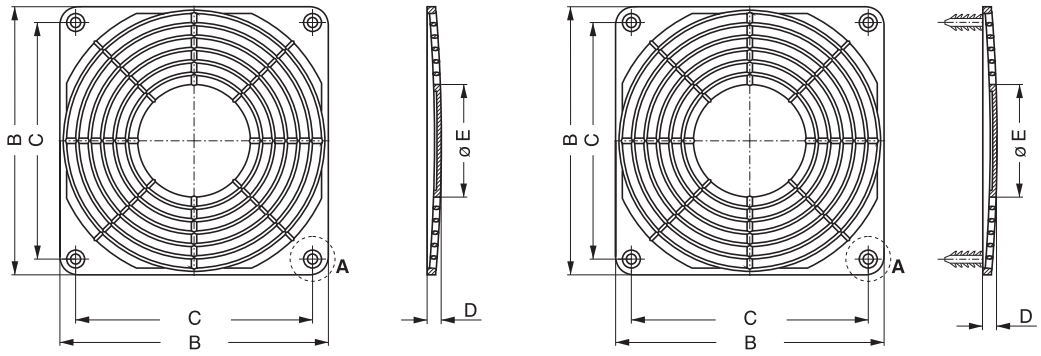
Note

- 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

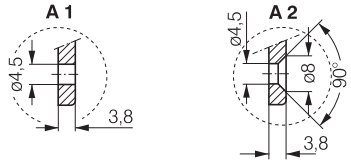
More at www.ebmpapst.com

Fan size	Fan type	Type	Part number	B	C	D	E	Mounting
60 x 60	VWCB060F..., VWCD060A..., VWCD060X..., VWCD060Y..., VWCE060J...	LZ28-3	**9920028003**	60-0.5	50.0±0.2	3.0	24	A3
80 x 80	VWCD080A..., VWCD080Y..., VWCE080P..., VWCF080J..., VWCF080A...	LZ32-2	**9920032002**	80-0.5	71.5±0.2	7.0	34	A1
		LZ32-P	**9920032001**					A2
		LZ32-3	**9920032003**					A3
92 x 92	VWCD092Y..., VWCE092P..., VWCF092J..., VWCF092P..., VWCD092A..., VWCF092A...	LZ23-2	**9920023002**	92-0.5	82.5±0.2	6.5	46	A1
		LZ23-3	**9920023003**					A3
119 x 119	VWCD119F..., VWCE119P..., VWCF119A..., VUCF119Y..., VWCF119X,... VWCD119A..., VKCF119A...	LZ30-5	**9920030005**	119-0.5	105±0.2	6.5	50	A2
		LZ30-6	**9920030006**					A4
127 x 127	VWCF127Y..., VKCF127A...,	LZ30-P	**9920030001**	127-0.5	113±0.2	6.5	50	A2
		LZ33-1	**9920033001**					A2
		LZ33-2	**9920033002**					A4

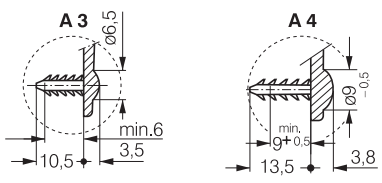
Subject to changes. Dimensions in mm.



Screw connection



Barbed inserts



Only suitable for bore hole diameter 4.3 - 4.7.

Filter fan guards

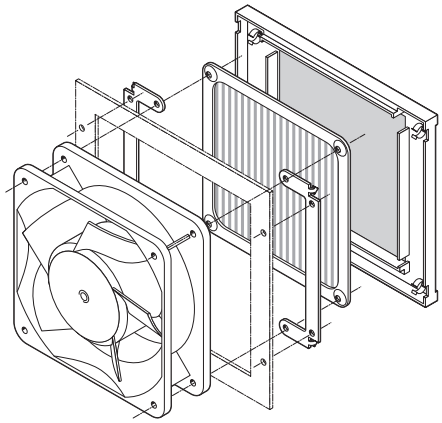
119 x 119



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

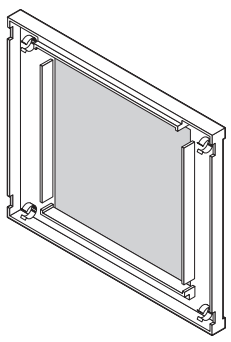
More at www.ebmpapst.com



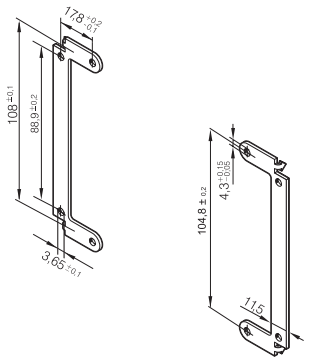
Fan type DC
VWCD119F..., VWCE119P..., VWCF119A..., VUCF119Y..., VKCF119A...
Fan type AC
VWCD119A..., VWCF119X..., VWCF119A..., VWCH119FSJMS
Fan type ACi
VWCF119Y...

Subject to changes. Dimensions in mm.

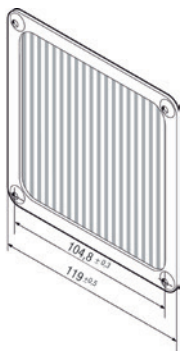
LZ40N Filter guard



LZ40-1 Mounting lug



LZ60 Coarse filter



Filter fan guards



More at www.ebmpapst.com

Material

- Guard cover: Injection-molded polycarbonate (PC) with mat surface.
- Mounting plate: wire mesh with black powder coating
- Filter pad: white, synthetically bonded fibers

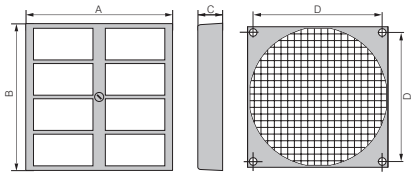
Note

- Filter fan guards suitable for fitting on axial fan series in sizes: 60 mm, 80 mm, 92 mm, 119 mm, ø 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.

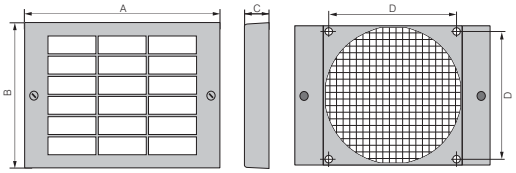
Fan size	Fan type	Type	Part number	A	B	C	D	Repl. filter*
60 x 60	VWCB060F..., VWCD060A..., VWCD060X..., VWCD060Y..., VWCE060J...	FF60	**9920340001**	65	65	13.5	50.0	RF 60
80 x 80	VWCD080A..., VWCD080Y..., VWCE080P..., VWCF080J..., VWCF080A...	FF80	**9920340002**	85	85	14.0	71.5	RF 80
92 x 92	VWCD092Y..., 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
Ø 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

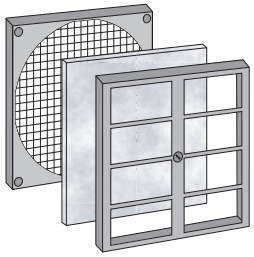


FF92 / FF 119 — Fan size: 92 x 92 mm / 119 x 119 mm

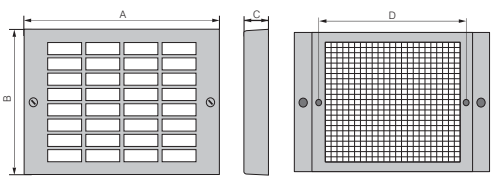


Filter performance

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.

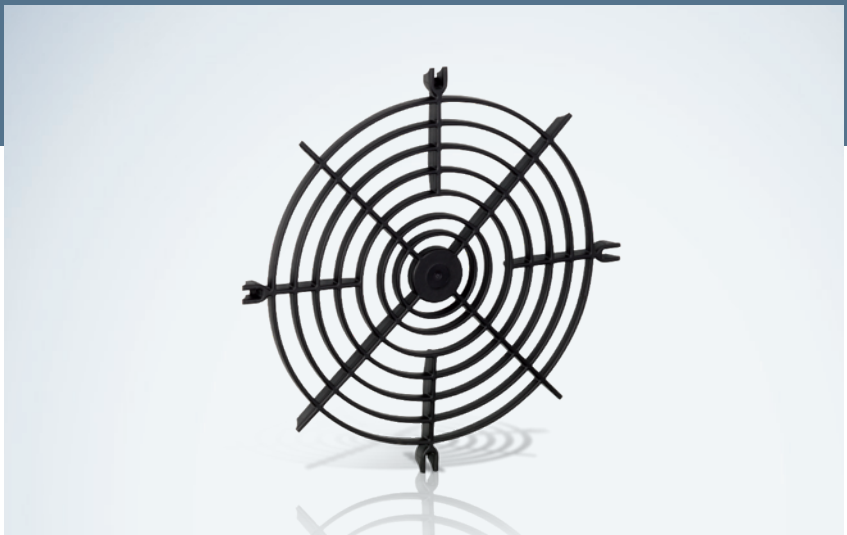


FF 172 — Fan size: Ø 172 mm



Finger guards

For compact centrifugal modules



Material

- PA plastic, fiberglass-reinforced

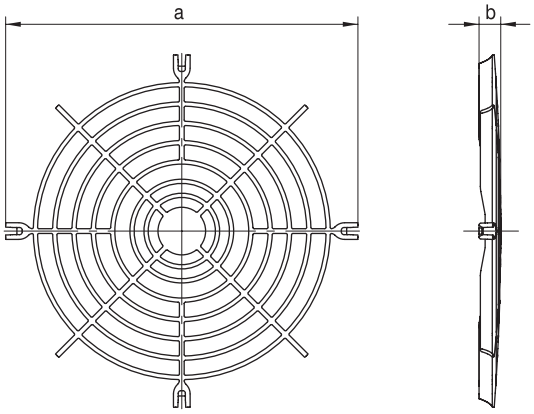
Highlights

- Flame protection class in line with UL 94V-0

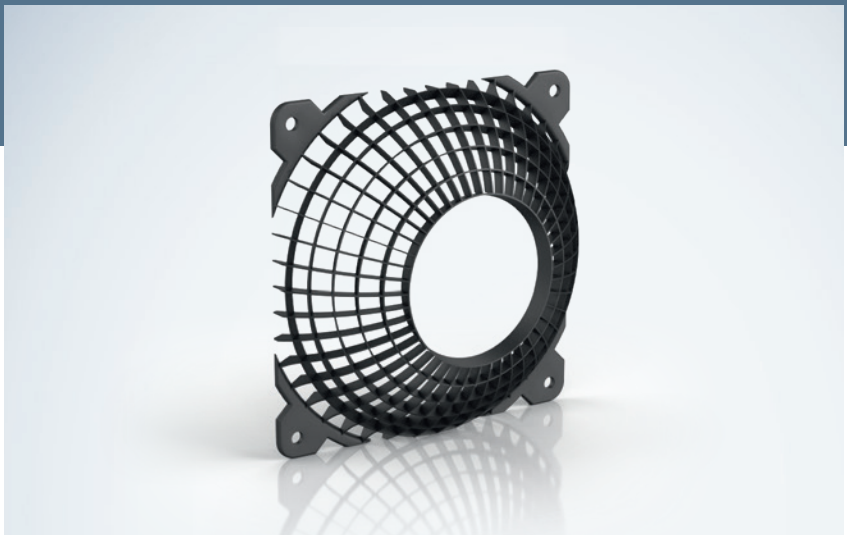
More at www.ebmpapst.com

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

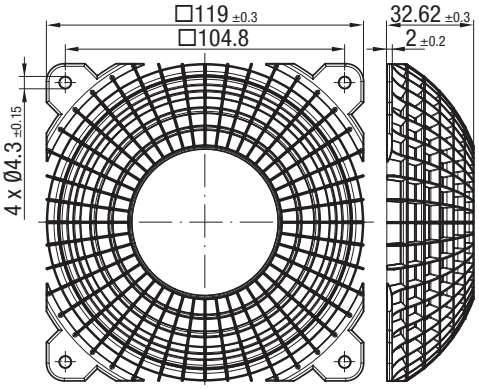
Highlights

- 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.

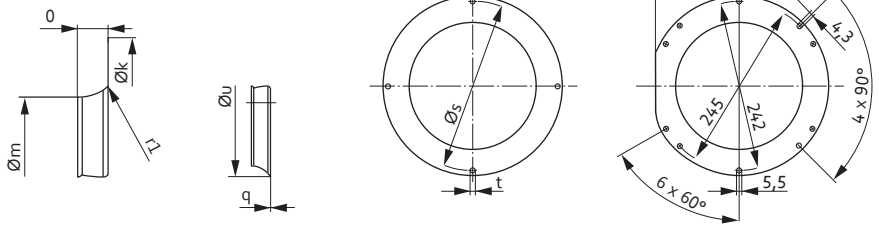


Inlet rings

For centrifugal fans

Material

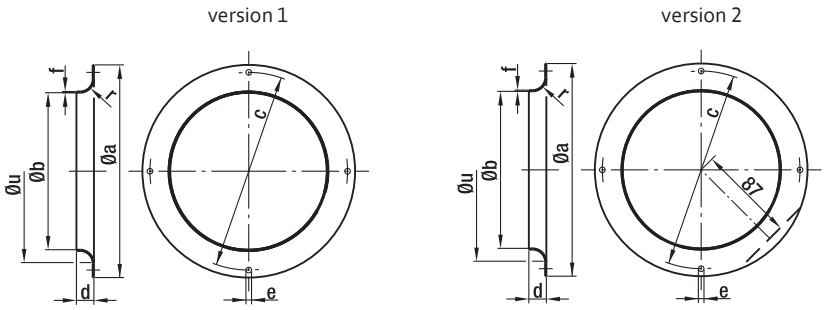
- Galvanized sheet steel



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	–	

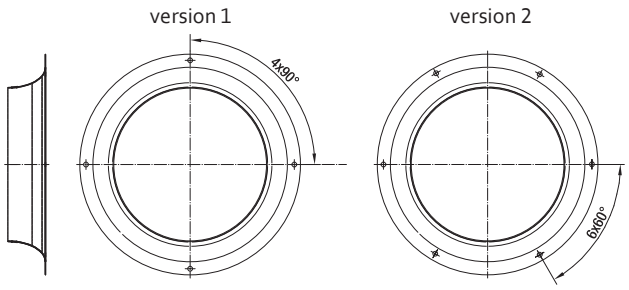
Subject to changes. Dimensions in mm.

Inlet ringn / Luftfilter

für Centrifugallüfter

Material

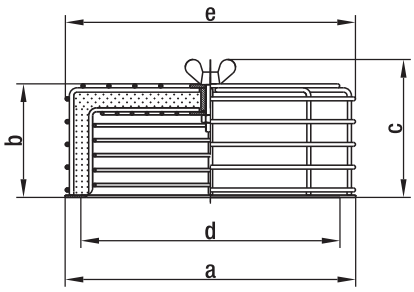
- Galvanized sheet steel



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

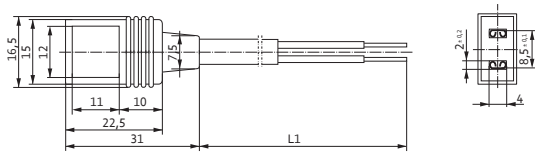
- Cable with molded plug connection in varying lengths.
- Wire end with wire end ferrules, crimped ferrules, or tin-plated.
- Straight or angled plug.
- For all fan types with flat plug 2.8 / 3.0 x 0.5.

More at www.ebmpapst.com

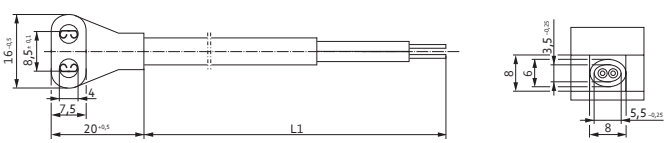
Part number	Type	L1	Wires	Plug	Wire end	Flat push-on receptacle	Application
9920120000	LZ120	610	0.5 mm²	G	C	2.8 x 0.5	AC
9920120004	LZ120-4	2 000	0.5 mm²	G	A	2.8 x 0.5	AC
9920120005	LZ120-5	380	0.5 mm²	W	B	2.8 x 0.5	DC
9920120006	LZ120-6	610	0.5 mm²	W	B	2.8 x 0.5	DC
9920120010	LZ120-10	2 500	0.5 mm²	G	B	2.8 x 0.5	AC
9920120011	LZ120-11	2 000	0.5 mm²	G	A	2.8 x 0.5	DC
9920120013	LZ120-13	5 000	0.5 mm²	G	B	2.8 x 0.5	AC
9920120016	LZ120-16	800	0.5 mm²	G	B	2.8 x 0.5	AC
9920120017	LZ120-17	3 000	0.5 mm²	G	A	2.8 x 0.5	AC
9920120018	LZ120-18	4 000	0.5 mm²	G	A	2.8 x 0.5	AC
9920126000	LZ126	1 000	0.5 mm²	G	C	2.8 x 0.5	AC
9920127000	LZ127	1 600	0.5 mm²	G	B	2.8 x 0.5	AC
9920130001	LZ130-1	610	0.82 mm²	G	C	2.8 x 0.5	AC*
9920140000	LZ140	610	0.73 mm²	G	B	2.8 x 0.8	AC

Subject to changes. Dimensions in mm.
* UL-approved

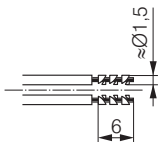
Cable — Straight plug (G)



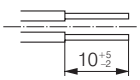
Cable — Angled plug (W)



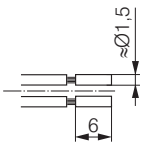
Wire end ferrules — Wire end A



Tin-plated — Wire end B

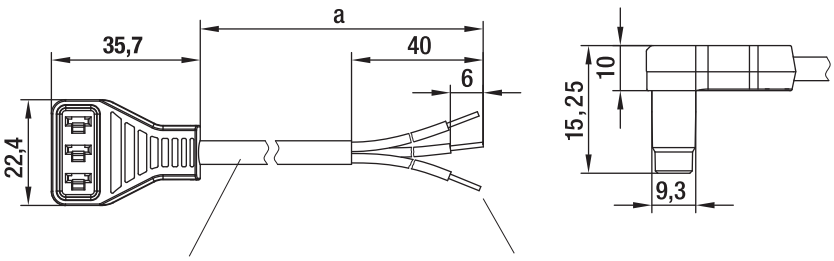


Wire end ferrules — Wire end C



Accessories

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

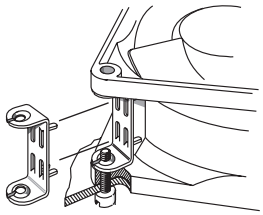
In addition to the accessories and installation parts listed here, ebm-papst also supplies a number of additional, sometimes very special parts for fans.

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...,	LZ210	**9920210000**
VWEK172X..., VWEG172X..., VWEG172P..., VWLG150X..., VWEF150X..., VWEH150X...	LZ215	**9920215000**
For all temperature-controlled fans	LZ370	**4871104201**
For all fans with mounting holes of 4.3 mm	LZ550	**6030020000**
	LZ551	**6030053002**

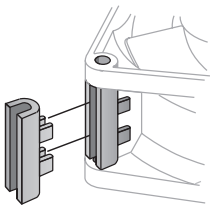
Subject to changes. Dimensions in mm.

LZ212



Screw clip of rustproof spring steel.
For mounting fans with threaded pin 3.5 DIN EN ISO 1478 (7970).

LZ261



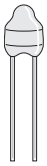
Spacer of fiberglass-reinforced plastic.
For mounting with screws through both fan mounting flanges.

LZ210



Screw clip of hardened steel.
For mounting fans with threaded pin 6-32 UNC or 3.5 DIN 7970.

LZ370

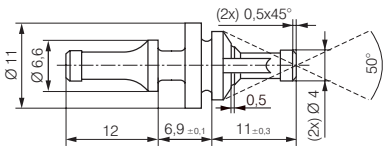


Required performance data

R_{25}	= 100 KΩ ±5% @25°C
B-value	= 4190 ±2%
P_{max}	= 0.25 W

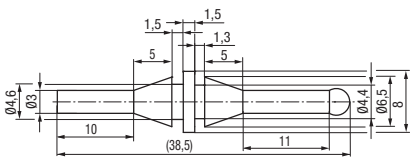
Temperature sensor for speed-controlled fan operation.
Temperature range 30...50 °C.

LZ550



Rubber anti-vibration mounts for fans with a hole diameter of 4.3 ±0.2 mm and flange thickness of 3 to 5.5 mm. For a carrier plate with a hole diameter of 6.5 ±0.15 mm and plate thickness of 1 to 2 mm.

LZ551

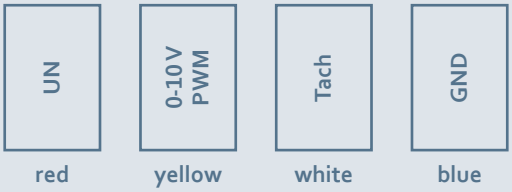


Rubber anti-vibration mounts for fans with a hole diameter of 4.3 ±0.2 mm and flange thickness of 2 to 4 mm. For a carrier plate with a hole diameter of 4.4 ±0.15 mm and plate thickness of 1 to 2 mm.

Connection diagrams EC E)

Technical features (nominal voltage 24 / 48 VDC):

- Tach output
- Motor current limitation
- Soft start
- Control input 0-10 VDC / PWM
- Overvoltage detection
- Thermal overload protection for electronics
- Reverse polarity protection

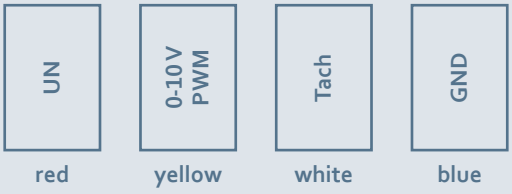


Wire	Designation	Color	Assignment/function
1	UN +24 VDC	red	Power supply 24 VDC, supply voltage ripple ± 3.5 %
	0-10V /PWM	yellow	Control input Re > 40 K
	Tach	white	Tach output, 3 pulses per revolution, Isink max. = 10 mA
	GND	blue	Reference ground

Connection diagrams EC G)

Technical features (nominal voltage 24 / 48 VDC):

- Tach output
- Soft start
- Control input 0-10 VDC / PWM

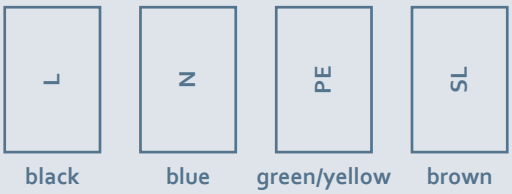


Wire	Designation	Color	Assignment/function
1	UN +24 VDC	red	Power supply 24/48 VDC, supply voltage ripple ± 3.5 %
	1-10V /PWM	yellow	Control input Re > 100 K
	Tach	white	Tach output: 2 pulses / revolution (M1G045/M1G055) 3 pulses / revolution (M1G074/M1G084)
	GND	blue	Reference ground

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

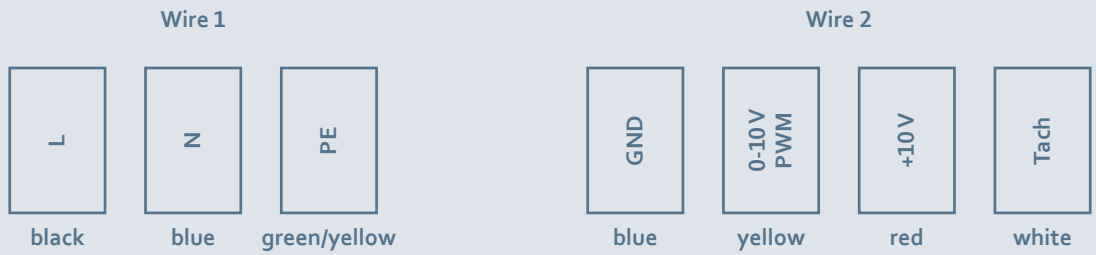


Wire	Designation	Color	Assignment/function
1	L	black	Power supply 230 VAC, 50 - 60 Hz, see type plate for voltage range
	N	blue	Neutral conductor
	PE	green/yellow	Ground conductor
	SL	brown	Speed selection: switch open = speed 1; switch closed = speed 2

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

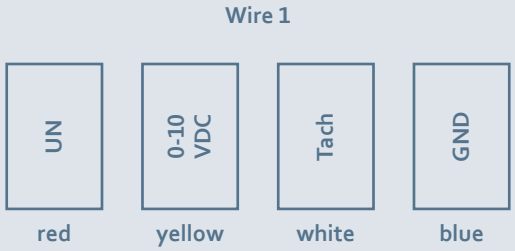


Wire	Designation	Color	Assignment/function
1	L	black	Power supply 115/230 VAC, 50 - 60 Hz, see type plate for voltage range
	N	blue	Neutral conductor
	PE	green/yellow	Ground conductor
2	GND	blue	GND - Connection for control interface
	0-10 V PWM	yellow	Control input 0-10 V or PWM, electrically isolated
	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 0-10 VDC / PWM
- Output 10 VDC 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

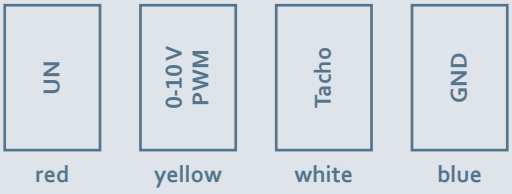


Wire	Designation	Color	Assignment/function
1	UN +24/48 VDC	red	Power supply 24/48 VDC, supply voltage ripple ± 3.5 %
	0-10 VDC	yellow	Control input Re >100 K
	Tach	white	Tach output, 3 pulses per revolution, Isink max. = 10 mA
	GND	blue	Reference ground

Connection diagrams EC Q)

Technical features:

- Tach output
- Motor current limitation
- Soft start
- Control input 0-10 VDC / PWM
- Overvoltage detection
- Thermal overload protection for electronics
- Reverse polarity protection

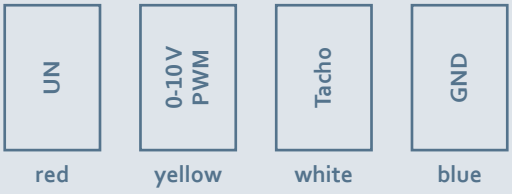


Wire	Designation	Color	Assignment/function
1	UN +12/24 VDC	red	Power supply 12/24 VDC, supply voltage ripple ± 3.5 %
	PWM/LIN	yellow	Control input Re > 40 K
	Tach	white	Tach output, 3 pulses per revolution, Isink max. = 10 mA
	GND	blue	Reference ground

Connection diagrams EC R)

Technical features:

- Tach output
- Motor current limitation
- Soft start
- Control input 0-10 VDC / PWM
- Overvoltage detection
- Thermal overload protection for electronics
- Reverse polarity protection

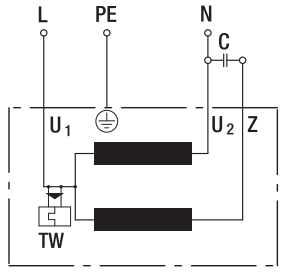


Wire	Designation	Color	Assignment/function
1	UN +48 VDC	red	Power supply 48 VDC, supply voltage ripple ± 3.5 %
	0-10V /PWM	yellow	Control input Re > 100 K
	Tacho	white	Tach output, 3 pulses per revolution, Isink max. = 10 mA
	GND	blue	Reference ground

Connection diagrams AC A1) / A3) / C2)

A1) Single-phase capacitor motor (1~ 115/230 VAC power line)

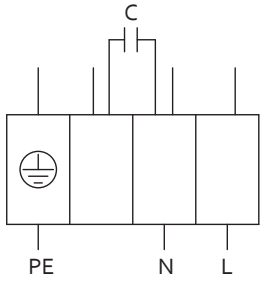
with thermal overload protector wired internally



U_1 = blue
U_2 = black
Z = brown
⏚ = green/yellow

A3) Single-phase capacitor motor (1~ 115/230 VAC power line)

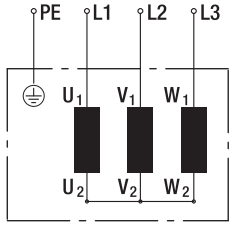
with thermal overload protector wired internally



L = blue
N = black
⏚ = green/yellow

C2) Star connection (3~ 400 VAC power line)

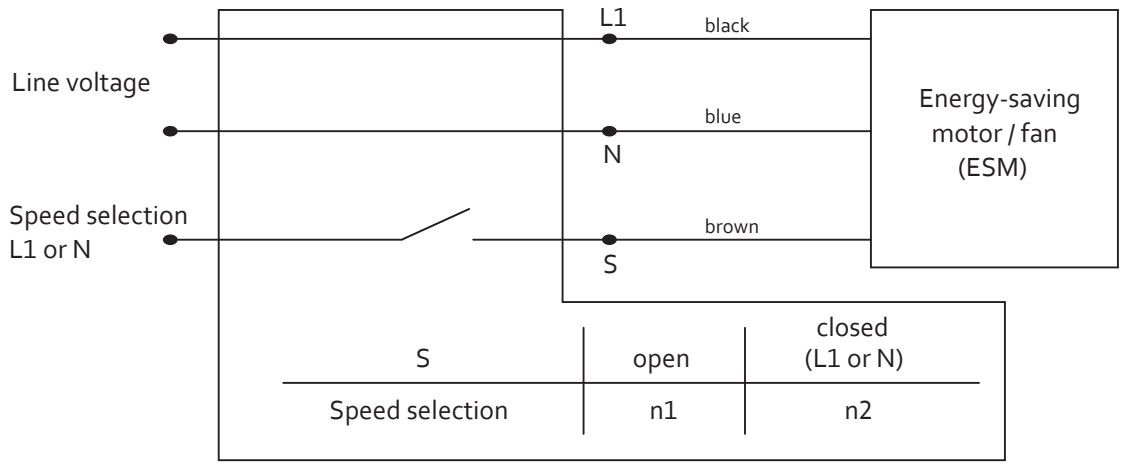
without thermal overload protector



U_1 = black
U_2 = green
V_1 = blue
V_2 = white
W_1 = brown
W_2 = yellow
⏚ = green/yellow

Connection diagrams AC
J7)

J7) Energy-saving motor (ESM) (1~ 115/230 VAC power line)



Notes

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