



**THE DATASHEET OF
AXA00BB18-L**



ARTESYN AXA SERIES

20 Watts



Advanced Energy's Artesyn AXA series of low-input isolated DC-DC converters features an ultra wide 4:1 input voltage range of 9–36 Vdc and is designed primarily for use with nominal 12 V or 24 V supplies. There is a choice of five single output models, offering voltages of 3.3 V, 5 V, 12 V, 15 V or 24 V, and two dual output models offering +12/-12 V or +15/-15 V. The converters are fully encapsulated in a compact 1 x 1 inch (25.4 x 25.4 mm) metal case incorporating an isolated baseplate and have a height of just 0.4 inch (10.2 mm). An optional clip-on heatsink is available for convection cooling. Standard features include 1,500 Vdc input/output isolation, remote On/Off and hiccup mode short-circuit protection

DATA SHEET

Total Power:

20 W

Input Voltage:

24 or 48 V

of Outputs:

Single and Dual



SPECIAL FEATURES

- Package size 1.0" x 1.0" x 0.4"
- Ultra-wide 4:1 input range:
9 - 36 Vin, 18 - 75 Vin
- Very high efficiency up to 90%
- Operating temperature range:
-40 °C to +85 °C
- Output voltage adjustable
- I/O isolation voltage 1500 VDC
- Remote ON/OFF control
- Metal case with isolated baseplate
- CSA/UL/IEC/EN 60950-1
Safety Approval

SAFETY

- UL/cUL/IEC/EN 62368-1 (60950-1)
Safety Approval & CE Marking

ELECTRICAL SPECIFICATIONS

Input	
Input range	9 - 36 Vdc, 18 - 75 Vdc
Efficiency	89% @ 12 Vo
Output	
Voltage tolerance	±1.0%
Line regulation	±0.2% for single output, ±0.5% for dual output
Load regulation	±0.2% for 12 V, 15 V and 24 V, ±0.5% for 3.3 V and 5 V. ±1.0% for dual output
Noise/ripple	3.3 V and 5 V Models: 75 mV; 12 V and 15 V Models: 100 mV; 24 V Models: 150 mV; Dual Output Models: 100 mV
Overload protection	150% typ of Io max, hiccup
Short circuit protection	Hiccup mode
Switching frequency	330 KHz
Isolation	
I/O isolation	I/O: 1500 Vdc
Insulation resistance	1000 Mohm
Insulation capacitance	1500 pF

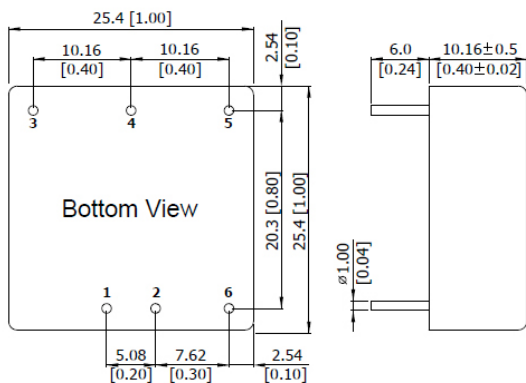
ENVIRONMENTAL SPECIFICATIONS

Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-50 °C to +125 °C
Humidity	5% to 95% non-condensing
MTBF	346 Khrs calculated

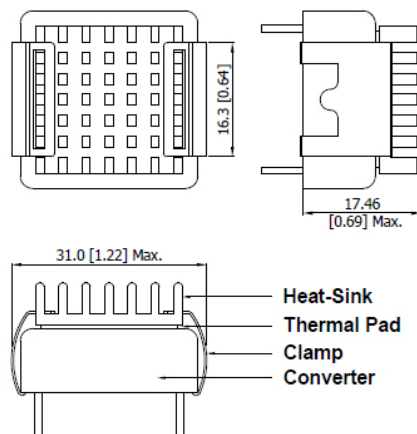
ORDERING INFORMATION

Part Number	Input Voltage	Output Voltage	Output Current	Efficiency	Power
AXA04F18-L	9 - 36 Vdc	3.3 V	4.5 A	87%	15 W
AXA04A18-L	9 - 36 Vdc	5 V	4 A	89%	20 W
AXA01B18-L	9 - 36 Vdc	12 V	1.67 A	89%	20 W
AXA01C18-L	9 - 36 Vdc	15 V	1.33 A	89%	20 W
AXA00H18-L	9 - 36 Vdc	24 V	0.835 A	88%	20 W
AXA00BB18-L	9 - 36 Vdc	±12 V	±0.835 A	89%	20 W
AXA00CC18-L	9 - 36 Vdc	±15 V	±0.67 A	89%	20 W
AXA04F36-L	18 - 75 Vdc	3.3 V	4.5 A	88%	15 W
AXA04A36-L	18 - 75 Vdc	5 V	4 A	89%	20 W
AXA01B36-L	18 - 75 Vdc	12 V	1.67 A	89%	20 W
AXA01C36-L	18 - 75 Vdc	15 V	1.33 A	89%	20 W
AXA00H36-L	18 - 75 Vdc	24 V	0.835 A	88%	20 W
AXA00BB36-L	18 - 75 Vdc	±12 V	±0.835 A	89%	20 W
AXA00CC36-L	18 - 75 Vdc	±15 V	±0.67 A	89%	20 W

MECHANICAL DIMENSIONS



Heatsink (Option -HS)



- All dimensions in mm (inches)
- Tolerance: X.X±0.25 (X.XX±0.01)
X.XX±0.13 (X.XXX±0.005)
- Pin diameter \varnothing 1.0 ±0.05 (0.04±0.002)

Pin Connections		
Pin	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	Trim	Common
5	-Vout	-Vout
6	Remote On/Off	Remote On/Off



For international contact information,
visit advancedenergy.com.

powersales@aei.com (Sales Support)
productsupport.ep@aei.com (Technical Support)
+1 888 412 7832

ABOUT ADVANCED ENERGY

Advanced Energy (AE) has devoted more than three decades to perfecting power for its global customers. AE designs and manufactures highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes.

Our products enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing, and medical. With deep applications know-how and responsive service and support across the globe, we build collaborative partnerships to meet rapid technological developments, propel growth for our customers, and innovate the future of power.

PRECISION | POWER | PERFORMANCE

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