

# ARTESYN AEE Series

50 Watts



The AEE 50W series is a high efficiency, highly compact and high density DCDC converter designed to be used in applications where a very wide input voltage range is required. The family covers an input voltage of 18Vdc to 75Vdc. The fully potted, metal cased construction also makes this family an ideal choice for harsh environments.

## SPECIAL FEATURES

- Encapsulated
- Wide 4:1 input range
- 1" x 2" DIP package
- 1500 Vdc I/O isolation
- Single output
- OCP, OVP, OTP PProtection
- Remote On/Off
- High efficiency OF 92%
- Operating temp. range
- -40 °C to +85 °C (with derating)

## SAFETY

- UL/cUL 60950-1 (CSA)
- IEC/EN 60950-1

## TYPICAL APPLICATION

- Industrial

## DATA SHEET

### Total Power:

50 Watts

### Input Voltage:

12 V, 24 V or 48 V

### # of Outputs:

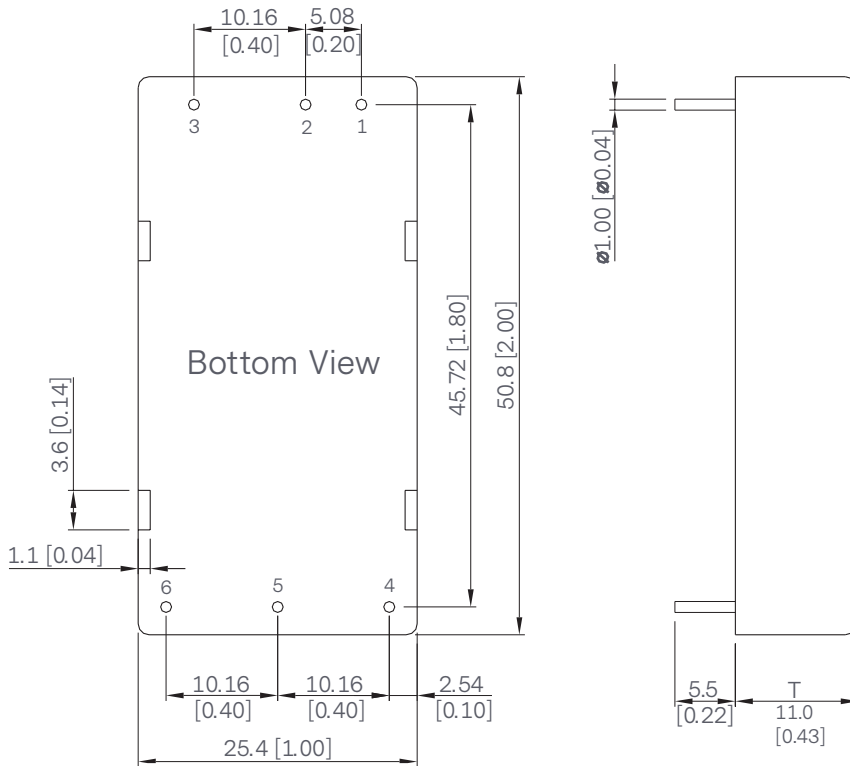
Single

**TECHNICAL DATA**

Electrical Specifications	
<b>Input</b>	
Input range	9 to 36 Vdc; 18 to 75 Vdc
Efficiency	92% @ 12 Vo
<b>Output</b>	
Voltage tolerance	±1.0%
Line regulation	±0.5%
Load regulation	Single output: ±0.5%
Noise/ripple	3.3 Vo, 5 Vo: 100 mV Others: 150 mV
OCP and S/C protection	Hiccup
Overvoltage protection	Latched
OTP protection	Latched
Switching frequency	285 KHz
Temperature coefficient	±0.02 /°C
<b>Isolation</b>	
I/O isolation	1500 Vdc min.
Insulation resistance	1000 Mohm
Insulation capacitance	2200 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)
Calculated MTBF	233 Khrs

MECHANICAL DRAWINGS



Mechanical Drawings	
Pin No.	Single Output
1	+Vin
2	-Vin
3	Remote On/Off
4	+Vout
5	-Vout
6	Trim

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)

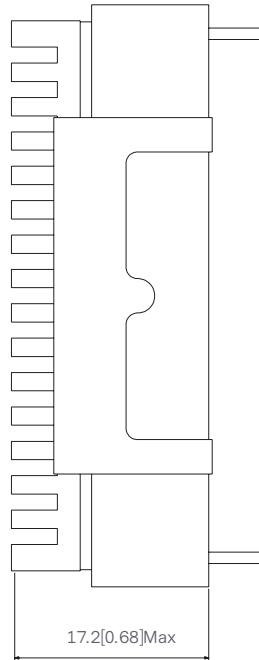
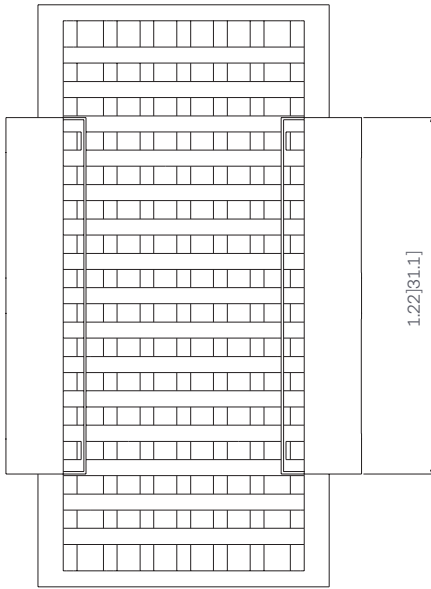
Physical Characteristics

Case Size	50.8 x 25.4 x 11 mm (2.0 x 1.0 x 0.43 inches)
Case Material	Aluminium Alloy, Black Anodized Coating
Base Material	FR4 PCB (flammability to UL 94V-0 rated)
Pin Material	Copper Alloy with Gold Plate Over Nickel Subplate
Weight	30 g

Ordering Information

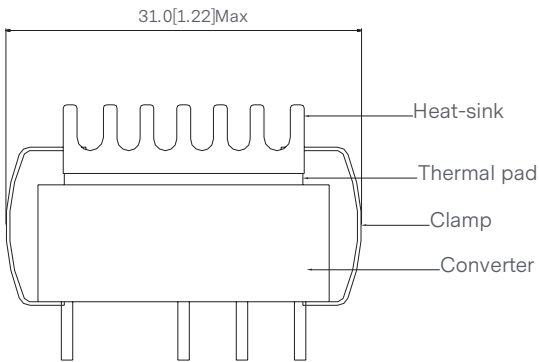
Model Number	Input Voltage	Output 1 Voltage	Maximum Power
AEE10F18-L	9 - 36 V	3.3 V @ 10 A	33 W
AEE10A18-L	9 - 36 V	5 V @ 10 A	50 W
AEE04B18-L	9 - 36 V	12 V @ 4.17 A	50 W
AEE03C18-L	9 - 36 V	15 V @ 3.33 A	50 W
AEE02H18-L	9 - 36 V	24 V @ 2.08 A	50 W
AEE10F36-L	18 - 75 V	3.3 V @ 10 A	33 W
AEE10A36-L	18 - 75 V	5 V @ 10 A	50 W
AEE04B36-L	18 - 75 V	12 V @ 4.17 A	50 W
AEE03C36-L	18 - 75 V	15 V @ 3.33 A	50 W
AEE02H36-L	18 - 75 V	24 V @ 2.08 A	50 W

MECHANICAL DRAWINGS (CONTINUED)



The advantages of adding a heatsink are:

1. To help heat dissipation and increase the stability and reliability of DC/DC converters at high operating temperature atmosphere.
2. To upgrade the operating temperature of DC/DC converters, please refer to Derating Curve.



**Physical Characteristics**

Heatsink Material	Aluminum
Finish	Black Anodized Coating
Weight	9 g

Note1 All specifications are subject to change without notice. Mechanical drawings are for reference only.

Note2 Warranty: 3 yr

Note3 Label and logo appearance may vary from what is shown on mechanical drawings.



For international contact information,  
visit [advancedenergy.com](http://advancedenergy.com).

[powersales@aei.com](mailto:powersales@aei.com) (Sales Support)  
[productsupport.ep@aei.com](mailto: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

---

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2020 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy®, AE® and Artesyn™ are U.S. trademarks of Advanced Energy Industries, Inc.