ARTESYN AEE SERIES

40 Watts

Standard features include 1,500 Vdc input/output isolation, comprehensive protection against overvoltage, overcurrent and overtemperature conditions, and remote On/Off. These converters have an operating temperature range of -40 to 80˚C without derating and a typical efficiency of 90%; an optional clip-on heatsink is available. They are ideal for ruggedized applications involving harsh environments. Typical areas of use include industrial automation, instrumentation, test and measurement, and telecommunications.

DATA SHEET

Total Power:

40 Watts

Input Voltage:

12 V, 24 V or 48 V

# of Outputs:

Single, Dual

RoHS

SPECIAL FEATURES

- Encapsulated
- Wide 4:1 input range
- 1” x 2” DIP package
- 1500 Vdc I/O isolation
- Single and Dual output
- OCP, OVP, OTP protection
- Remote On/Off
- High efficiency - 91%
- Operating temp. range –40°C to +85 °C (with derating)

SAFETY

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

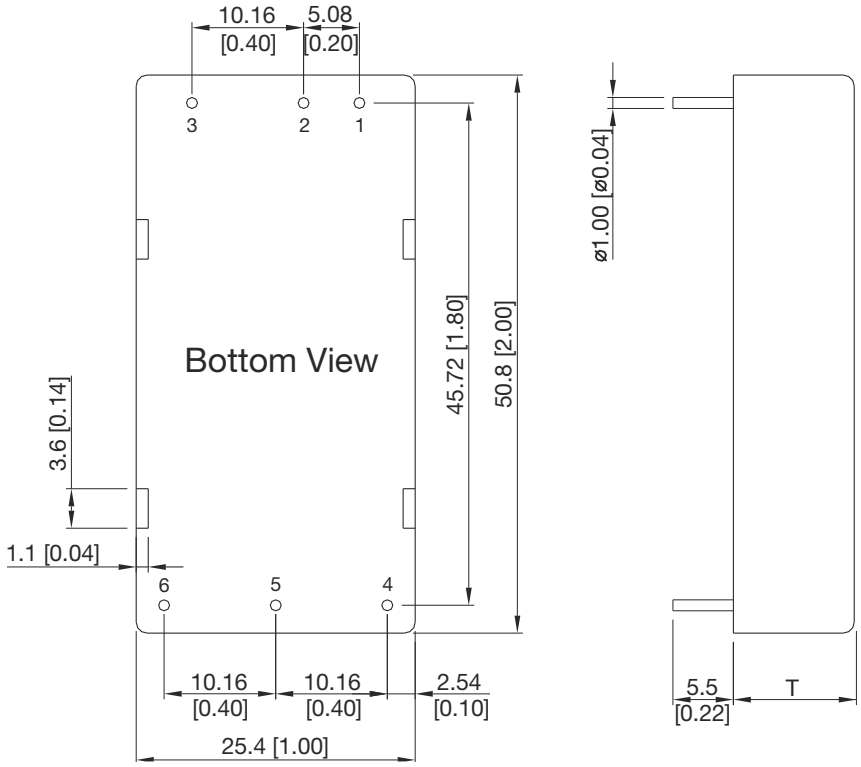
ELECTRICAL SPECIFICATIONS

Input	
Input range	9 to 36 Vdc; 18 to 75 Vdc
Efficiency2	90% @ 5 Vo
Output	
Voltage tolerance	±1.0%
Line regulation	±0.5%
Load regulation	Single output: ±0.5% Dual output: ±1.0%
Noise/ripple	3.3 Vo, 5 Vo: 100 mV Others: 150 mV
OCP and S/C protection	Hiccup
Over voltage protection	Latched
OTP protection	Latched
Switching frequency	24 Vdc: 286 KHz Others: 320 KHz
Temperature coefficient	±0.02 /°C
Isolation	
I/O isolation	1500 Vdc min.
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)
Calculated MTBF	328 Khrs

MECHANICAL DRAWINGS



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

T: 11.0 mm (0.43 inch) for 24 V Output Models
T: 10.2 mm (0.40 inch) for Other Output Models
· All dimensions in mm (inches)
· Tolerance: X.X±0.25 (X.XX±0.01)
X.XX±0.13 (X.XXX±0.005)
· Pin diameter Ø 1.0 ±0.05 (0.04±0.002)

PHYSICAL CHARACTERISTICS

Case Size (24 V Output)	50.8 x 25.4 x 11 mm (2.0 x 1.0 x 0.43 inches)
Case Size (Other Output)	50.8 x 25.4 x 10.2 mm (2.0 x 1.0 x 0.40 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

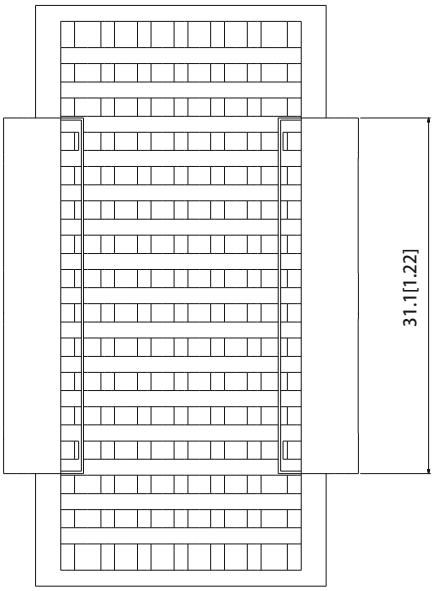
ORDERING INFORMATION

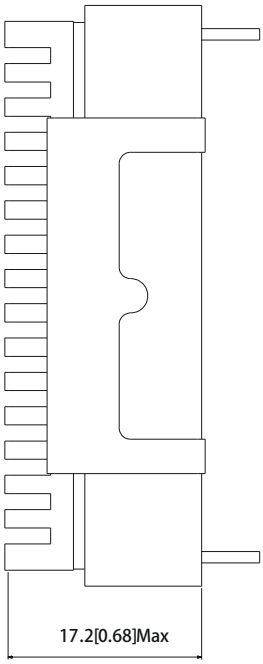
Model Number	Input Voltage	Output 1 Voltage	Output 2 Voltage	Maximum Power
AEE08F18-L	9 - 36 V	3.3 V @ 8 A		26.4 W
AEE08A18-L	9 - 36 V	5 V @ 8 A		40 W
AEE03B18-L	9 - 36 V	12 V @ 3.33 A		40 W
AEE02C18-L	9 - 36 V	15 V @ 2.67 A		40 W
AEE01H18-L	9 - 36 V	24 V @ 1.67 A		40 W
AEE01BB18-L	9 - 36 V	12 V @ 1.67 A	-12 V @ 1.67 A	40 W
AEE01CC18-L	9 - 36 V	15 V @ 1.33 A	-15 V @ 1.33 A	40 W
AEE08F36-L	18 - 75 V	3.3 V @ 8 A		26.4 W
AEE08A36-L	18 - 75 V	5 V @ 8 A		40 W
AEE03B36-L	18 - 75 V	12 V @ 3.33 A		40 W
AEE02C36-L	18 - 75 V	15 V @ 2.67 A		40 W
AEE01H36-L	18 - 75 V	24 V @ 1.67 A		40 W
AEE01BB36-L	18 - 75 V	12 V @ 1.67 A	-12 V @ 1.67 A	40 W
AEE01CC36-L	18 - 75 V	15 V @ 1.33 A	-15 V @ 1.33 A	40 W

To order the converter with heatsink, please add a suffix –HS (e.g. AEE08F18-LHS) to order code.

MECHANICAL DRAWINGS

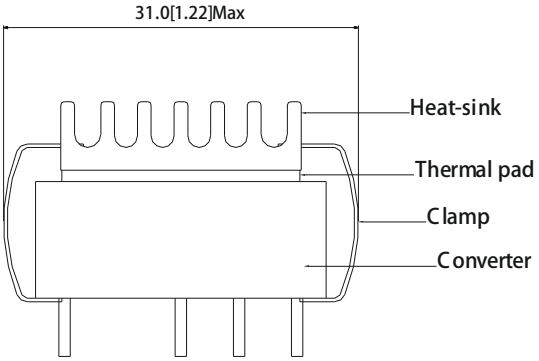
Heatsink (Option –HS)





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

Notes:
1. All specifications are subject to change without notice. Mechanical drawings are for reference only.
2. Warranty: 3 yr
3. Label and logo appearance may vary from what is shown on mechanical drawings.

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.

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