POWER

AEE Series

50 Watts

Data Sheet

Total Power: 50 Watts
Input Voltage: 12 V, 24 V or 48 V
# of Outputs: Single

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 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

Electrical Specifications

Input	
Input range	9 to 36 Vdc; 18 to 75 Vdc
Efficiency	92% @ 12 Vo
Output	
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
Isolation	
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

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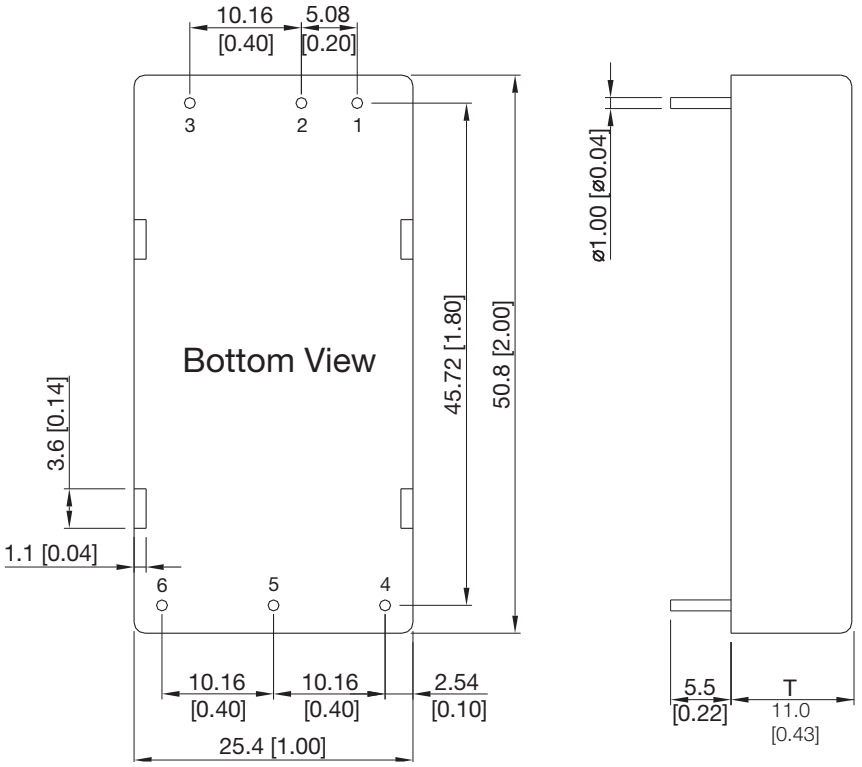
An Advanced Energy Company

Mechanical Drawings



Pin Connectors	
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 Ø 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

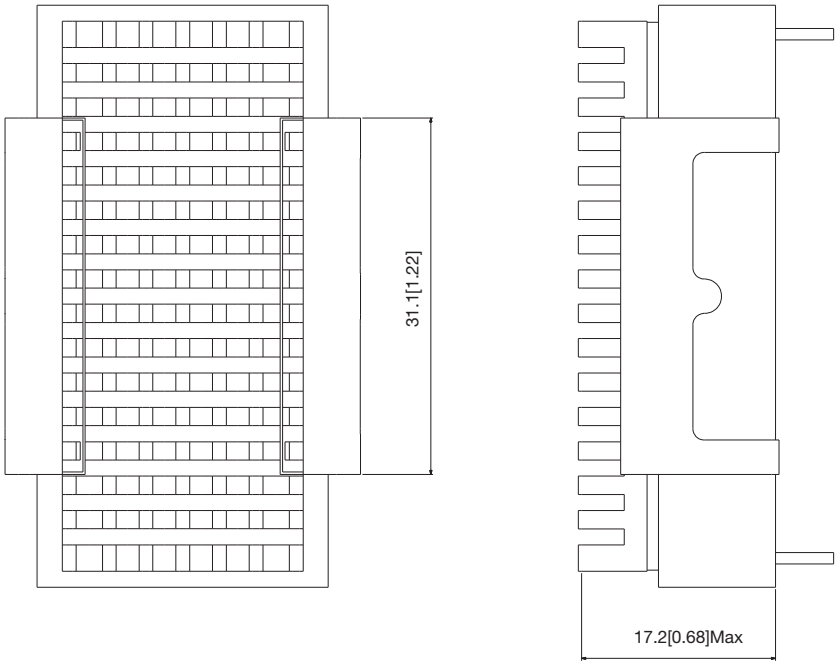
Ordering Information

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

To order the converter with heatsink, please add a suffix –HS (e.g., AEE10F18-LHS) to order code.

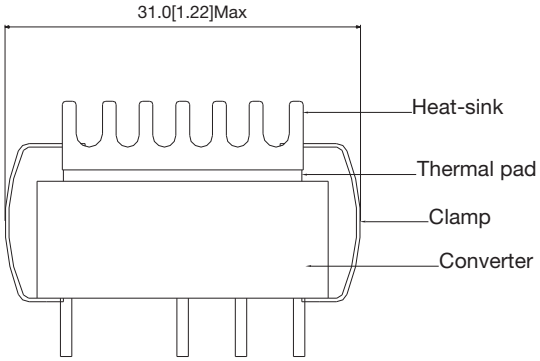
Mechanical Drawings

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.

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