

AEE Series

40 Watts

Data Sheet

Total Power: 40 Watts
Input Voltage: 12 V, 24 V or 48 V
of Outputs: Single, Dual

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



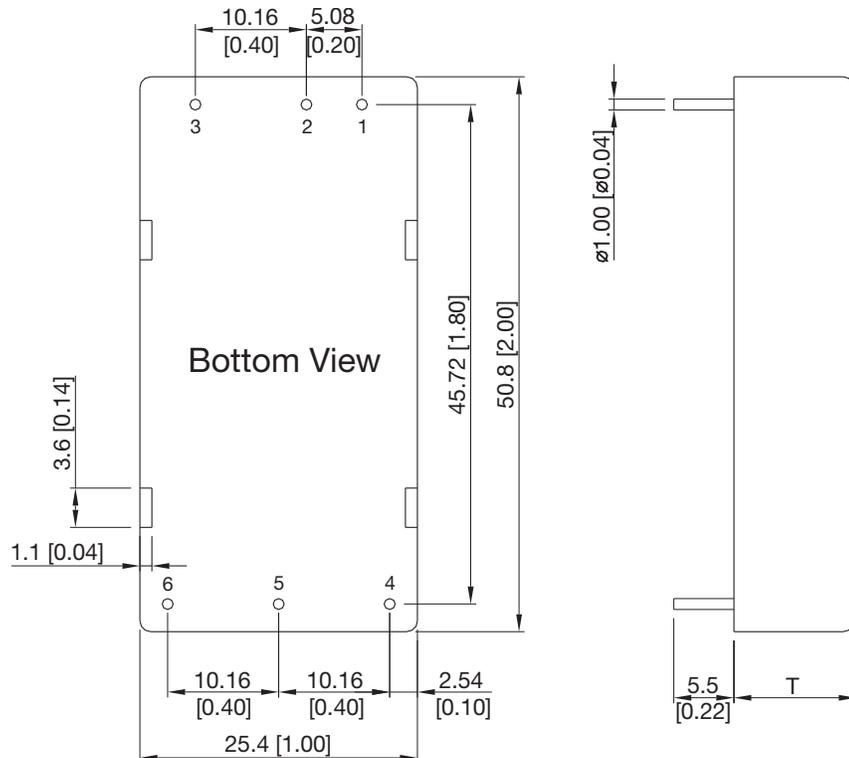
Electrical Specifications

| Input | |
|-------------------------|--|
| Input range | 9 to 36 Vdc; 18 to 75 Vdc |
| Efficiency ² | 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 $\varnothing 1.00 \pm 0.05$ (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 |

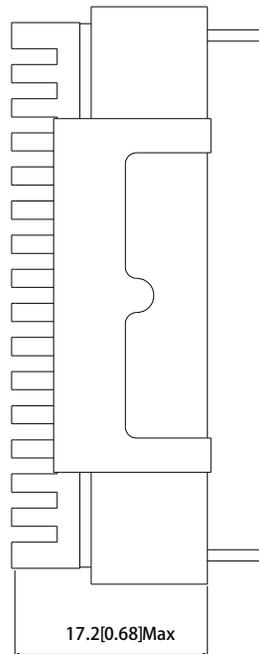
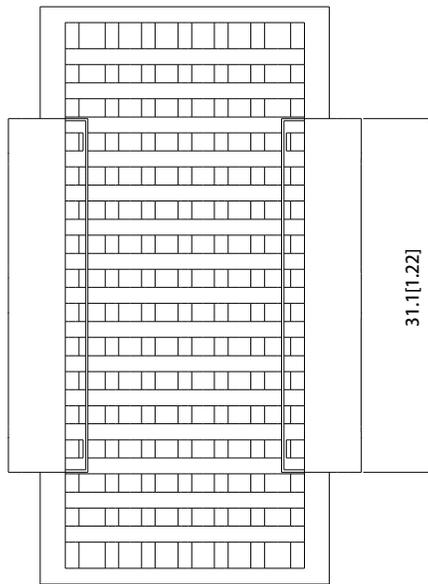
Ordering Information

| 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.

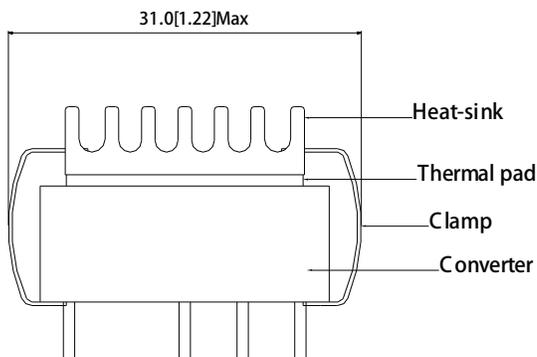
Mechanical Drawings

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.

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