ARTESYN AEE10W-M SERIES

10 Watts



The AEE10W-M series of 10 watt isolated DC-DC converters are designed for demanding instrumentation applications that require supplementary or reinforced insulation to comply with stringent industrial or medical safety standards.

DATA SHEET

Total Power:

10 Watts

Input Voltage:

12 V, 24 V or 48 V

# of Outputs:

Single, Dual

RoHS 6/6 COMPLIANT

SPECIAL FEATURES

- 4200 VAC reinforced insulation
- Insulation rated for 300 Vac working voltage
- Medical safety to UL/CSA/EN/IEC 60601-1 3rd Edition
- 2 MOOP rated
- Wide 2:1 input voltage range
- Fully regulated output voltage
- Low leakage current
- Operating temp. range –40°C to +85 °C (with derating)
- Input filter meets EN 55022, class A and FCC, level A
- Overload protection
- 2”x 1” plastic package
- 3 years product warranty

SAFETY

- cUL/UL60950-1, CSA C22.2 No. 60950-1-03
- UL60601-1, CSA C22.2 No.601-1
- IEC/EN 60950-1, IEC/EN 60601-1 3rd Edition, 2 MOOP
- IEC60950-1 CB report, cUL/UL 60950-1 certificate
- UL60601-1 UL certificate
- Medical EMC Standard meets 4th Edition of EMI EN55011 and EMS EN60601-1-2

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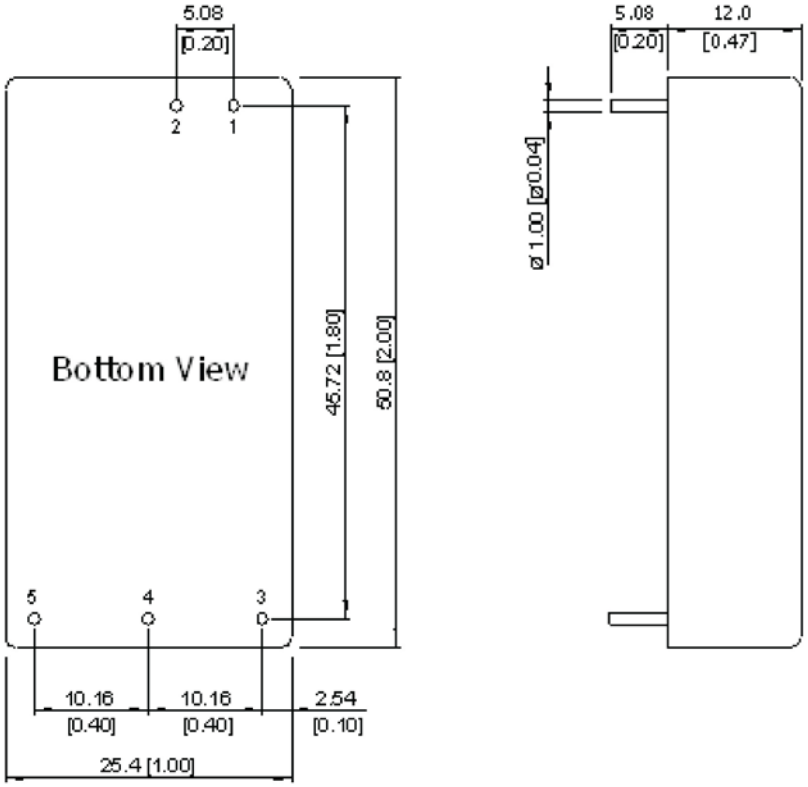
ELECTRICAL SPECIFICATIONS

Input	
Input range	9 - 18 Vdc; 18 - 36 Vdc; 36 - 75 Vdc
Efficiency	82%
Output	
Voltage tolerance	±1.0%
Line regulation	±0.5%
Load regulation	1.2%
Noise/ripple	100 mV
OCP and S/C protection	Hiccup
Over voltage protection	Latched
OTP protection	Latched
Switching frequency	150 KHz
Temperature coefficient	±0.02 /°C
Isolation	
I/O isolation	4200 Vrms 300 Vrms working voltage according to IEC/EN 60601-1 1000 Vrms working voltage according to IEC/EN 60950-1
Insulation resistance	10 Gohm
Insulation capacitance	80 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	1 MHrs

MECHANICAL DRAWINGS



Pin Connectors		
Pin No.	Single Output	Dual Output
1	+Vin	+Vin
2	-Vin	-Vin
3	+Vout	+Vout
4	No Pin	Common
5	-Vout	-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 dimension tolerance: ±0.05 (±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

Artesyn Part number	Input Voltage	Output 1 Voltage	Output 2 Voltage	Maximum Power
AEE01A12-M	9 - 18 V	5 V @ 1.6 A		8 W
AEE00B12-M	9 - 18 V	12 V @ 0.835 A		10 W
AEE00BB12-M	9 - 18 V	12 V @ 0.417 A	-12 V @ 0.417 A	10 W
AEE00CC12-M	9 - 18 V	15 V @ 0.333 A	-15 V @ 0.333 A	10 W
AEE02A24-M	18 - 36 V	5 V @ 2 A		10 W
AEE00B24-M	18 - 36 V	12 V @ 0.835 A		10 W
AEE00BB24-M	18 - 36 V	12 V @ 0.417 A	-12 V @ 0.417 A	10 W
AEE00CC24-M	18 - 36 V	15 V @ 0.333 A	-15 V @ 0.333 A	10 W
AEE02A48-M	36 - 75 V	5 V @ 2 A		10 W
AEE00B48-M	36 - 75 V	12 V @ 0.835 A		10 W
AEE00BB48-M	36 - 75 V	12 V @ 0.417 A	-12 V @ 0.417 A	10 W
AEE00CC48-M	36 - 75V	15 V @ 0.333 A	-15 V @ 0.333 A	10 W

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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