ARTESYN AVE450/500 SERIES

50 Volts; 450/500 Watts



Advanced Energy's Artesyn AVE450/500 series half-brick isolated DC-DC converter provides a single regulated low noise output, 28 Vdc that can deliver up to 16 amps (AVE450B-48S28) or 50V that can deliver up to 10 amps (AVE500-48S50). It has a wide 2:1 input range of 36 to 75 Vdc and is designed primarily for use with standard 48 V telecommunications equipment supplies. The converter's main application area is in low power and remote radio head (RRH) telecommunications applications.

DATA SHEET

Total Power:

450/500 Watts

Input Voltage:

36 - 75 V

# of Outputs:

Single

RoHS 6/6 COMPLIANT

SPECIAL FEATURES

- 2:1 Wide input range
- Extra wide trim range 25 - 57 V for 50 Vo
- Optimised for high power density, small space applications
- Low ripple and noise
- Fixed switching frequency
- Super high efficiency
- High capacitive load capability
- Basic insulation system
- Aluminium substrate design

SAFETY

- TUV/CE 62368-1
- UL/cUL 60950-1

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ELECTRICAL SPECIFICATIONS

Input	
Input range	36 - 75 Vdc
Efficiency	95%
Output	
Voltage	50 V ± 1%
Current	9 A (AVE450) 10 A (AVE500)
Line regulation	± 0.5%
Load regulation	± 0.5%
Noise/ripple	120 mV
Overvoltage protection	Hiccup
Overtemperature protection	Auto-restart
Switching frequency	280 kHz
Temperature co-efficient	± 0.02/°C
Isolation	
I/O isolation	2250 Vdc min.

ENVIRONMENTAL SPECIFICATIONS

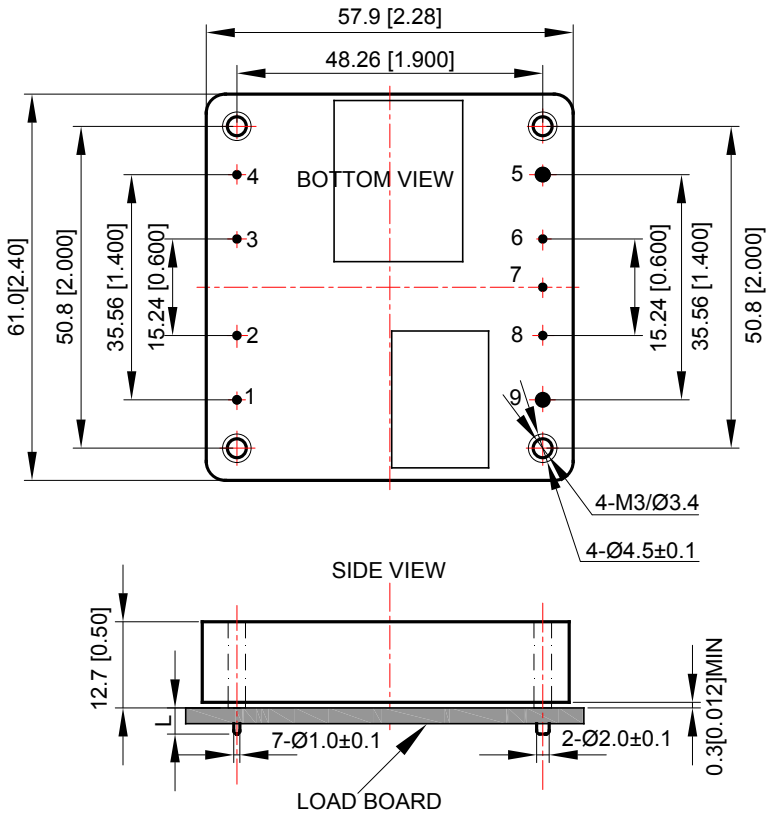
Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% (non-condensing)
MTBF	1.5 Million hours
RoHS compliant	6/6

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVE450-48S50-6L	36 - 75 Vin	50 V @ 9 A	450 W
AVE450-48S50P-6L	36 - 75 Vin	50 V @ 9 A	450 W
AVE500-48S50-6L	36 - 75 Vin	50 V @ 10 A	500 W
AVE500-48S50P-6L	36 - 75 Vin	50 V @ 10 A	500 W

Standard version is negative enable
-6 = 3.8 mm pin length
-L = RoHS 6/6 compliance
-M = Thread hole fixture
-P = Positive remote control

MECHANICAL DRAWINGS



UNIT: mm[inch]

BOTTOM VIEW: pin on upside

TOLERANCE: X.Xmm±0.5mm[X.XX in.±0.02in.]
X.XXmm±0.25mm[X.XXX in.±0.01in.]

PIN LENGTH OPTION

Device code suffix	L
-4	4.8mm ± 0.5mm
-6	3.8mm ±0.5mm
-8	2.8mm ± 0.5mm
None	5.8mm ± 0.5mm

PIN DESIGNATIONS

Pin No.	Name	Function
1	V_{in}+	Positive input voltage
2	CNT	Remote ON/OFF control
3	Case	Case
4	V_{in}-	Negative input voltage
5	V_o-	Negative output voltage
6	S-	Negative remote sense
7	Trim	Output voltage trim
8	S+	Positive remote sense
9	V_o+	Positive output voltage

Notes:
1. All specifications are subject to change without notice. Mechanical drawings are for reference only.
2. Warranty: 2 years
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.

PRECISION | POWER | PERFORMANCE

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