ARTESYN AVD50 SERIES

50 Watts



Advanced Energy's Artesyn AVD50 series sixteenth-brick isolated DC-DC converter provides a fully regulated 5 V output that is capable of delivering up to 10 amps. 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. Rated at 50 watts, the converter employs an open-frame construction, offers up to 91% efficiency and accommodates an ambient operating temperature range of -40 to 85˚C. A baseplate option is available for enhanced thermal performance. The converter uses fixed frequency switching to minimize the need for external EMI filtering.

DATA SHEET

Total Power:

50 Watts

Input Voltage:

36 - 75 V

# of Outputs:

Single

SPECIAL FEATURES

- 2:1 wide input range
- Optimised for high density, small space applications
- Low ripple and noise
- Fixed switching frequency
- High efficiency
- High capacitive load capability
- Pre-bias start-up capability
- Basic insulation system
- Through-hole or SMT termination
- Openframe structure
- Two year warranty

SAFETY

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

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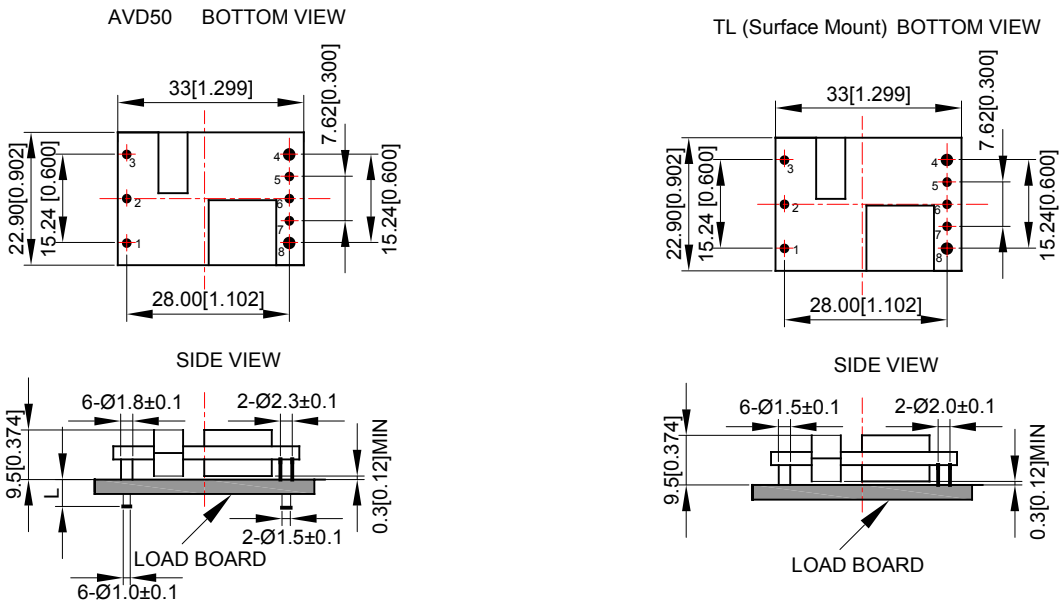
ELECTRICAL SPECIFICATIONS

Input	
Input range	36 - 75 Vdc
Efficiency	90.5%
Output	
Maximum power	±2.0%
Line regulation	0.5%
Load regulation	Single output: 0.5%
Noise/ripple	5.0 Vo: 50 mV
Overvoltage protection Overtemperature protection	Auto-restart
Switching frequency	250 KHz
Temperature co-efficient	±0.02 /°C
Isolation	
I/O isolation	1500 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	2 Million hours
RoHS Compliant	6/6

MECHANICAL DRAWINGS



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

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVD50-48S05-6L	36 - 75 Vin	5 V @ 10 A	50 W
AVD50-48S05P-6L	36 - 75 Vin	5 V @ 10 A	50 W
AVD50-48S05SL	36 - 75 Vin	5 V @ 10 A	50 W

Notes:
Standard version is negative enable
-6 = 3.8 mm pin length
-T = Surface mount, reel tape package
-S = Surface mount, tray package
-L = RoHS 6/6 compliance
-P = Positive enable

PIN ASSIGNMENTS

Pin #	Function
1	+V in
2	Enable
3	-V in
4	-V out
5	- Sense
6	Trim
7	+Sense
8	+V out

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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