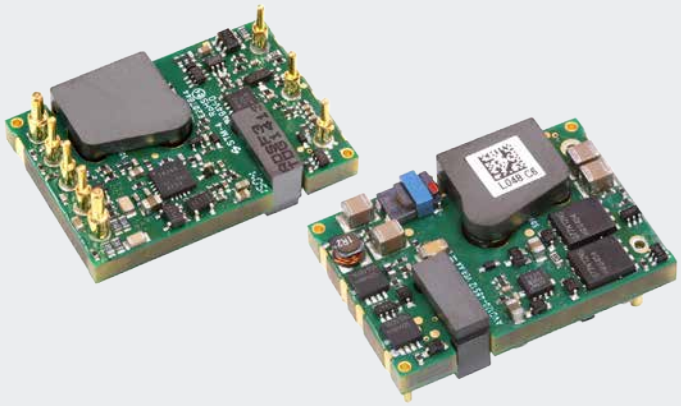
ARTESYN AVD100 SERIES

100 - 120 Watts



Advanced Energy's Artesyn AVD100 series of sixteenth-brick isolated DC-DC converters comprises two single output models offering fully regulated voltages of 5.0 V or 12 V, rated at 20 amps, 10 amps respectively. Both of the converters have a wide 2:1 input range of 36 to 75 Vdc and are designed primarily for use with standard 48 V telecommunications equipment supplies. Rated at 100 watts, they employ an open-frame construction, offer up to 91% full load efficiency and accommodate an ambient operating temperature range of -40 to 85˚C. A baseplate option is available for enhanced thermal performance. The converters use 250 kHz fixed frequency switching to minimize the need for external EMI filtering.

DATA SHEET

Total Power:

100 - 120 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 with Baseplate option
- Output over current protection

SAFETY

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

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ELECTRICAL SPECIFICATIONS

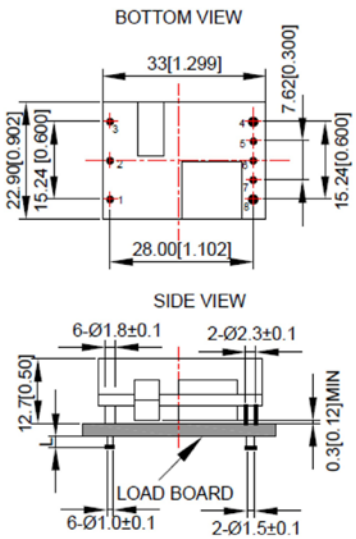
Input	
Input range	36 - 75 Vdc
Efficiency	5 V: 92.5% @ full load; 93.5% @ half load
Output	
Voltage tolerance	+1.5%
Line regulation	0.2%
Load regulation	Single output: 0.5%
Noise/ripple	120 mV
Overvoltage protection Overtemperature protection	Auto-restart
Switching frequency	250 KHz
Temperature co-efficient	±0.02 /°C
Isolation	
I/O isolation	1500 Vdc min.

SPECIFICATIONS

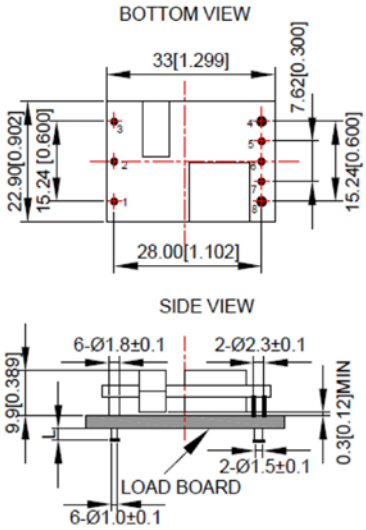
Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% (non-condensing)
MTBF	2 Million hours
RoHS compliant	

MECHANICAL DRAWINGS

Baseplate option



Open frame option

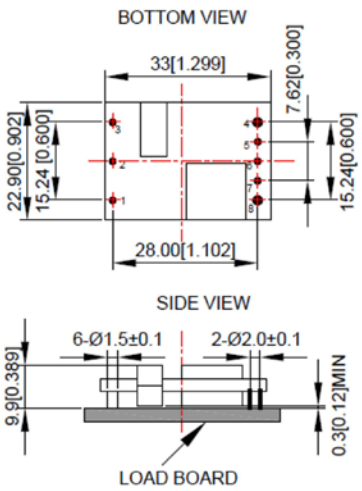


UNIT: mm[inch] BOTTOM VIEW: pin on upside

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

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.

SMT option



PIN LENGTH OPTIONS

Device code suffix	L
-4	4.6 mm ± 0.25 mm
-6	3.8 mm ± 0.25 mm
-8	2.8 mm ± 0.25 mm
None	5.8 mm ± 0.25 mm

PIN DESIGNATIONS

Pin #	Function
1	+V in
2	Remote On/Off
3	-V in
4	-V out
5	- Sense
6	Trim
7	+Sense
8	+V out

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVD100-48S05-6L	36 - 75 Vin	5 V @ 20 A	100 W
AVD100-48S05B-6L	36 - 75 Vin	5 V @ 20 A	100 W
AVD100-48S05TL	36 - 75 Vin	5 V @ 20 A	100 W
AVD120-48S12-6L	36 - 75 Vin	12 V @ 10 A	120 W
AVD120-48S12B-6L	36 - 75 Vin	12 V @ 10 A	120 W
AVD120-48S12TL	36 - 75 Vin	12 V @ 10 A	120 W

Notes:
Standard version is negative enable
“-6” = 3.8 mm pin length
“B” = Baseplate version
“T” = Surface mount, reel tape package
“L” = RoHS 10 compliance
“P” = Positive enable

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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