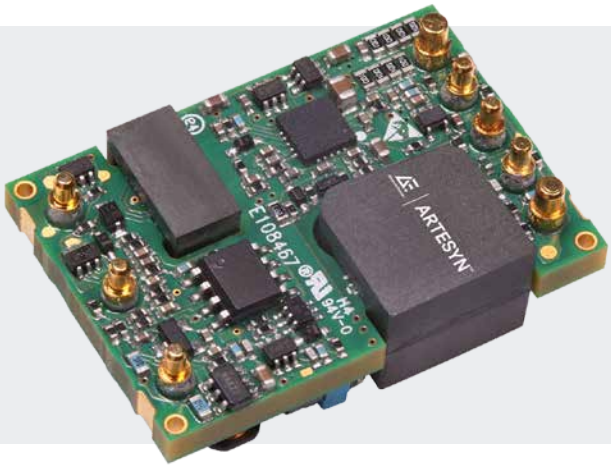
ARTESYN AVD75 SERIES

75 Watts



Advanced Energy's Artesyn AVD75 series of sixteenth-brick isolated DC-DC converters comprises two single output models offering fully regulated voltages of 1.2 V or 3.3 V, rated at 25 amps and 20 amps respectively. Both 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 75 watts, they employ an open-frame construction, offer up to 91% 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 fixed frequency switching to minimize the need for external EMI filtering.

DATA SHEET

Total Power:

75 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
- 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	92% @ 3.3 V; 84% @ 1.2 V
Output	
Voltage tolerance	+/-1.5%
Line regulation	0.2%
Load regulation	Single output: 0.5% @ 3.3 V; 0.25% @ 1.2 V
Noise/ripple	3.3 Vo: 70 mV 1.2Vo: 45 mV
Over voltage protection Over temperature protection	Auto-restart
Switching frequency	1.2V: 270 KHz, 3.3V: 250 KHz
Temperature coefficien	±0.02 /°C
Isolation	
I/O isolation:	1500 Vdc min.

ENVIRONMENTAL SPECIFICATIONS

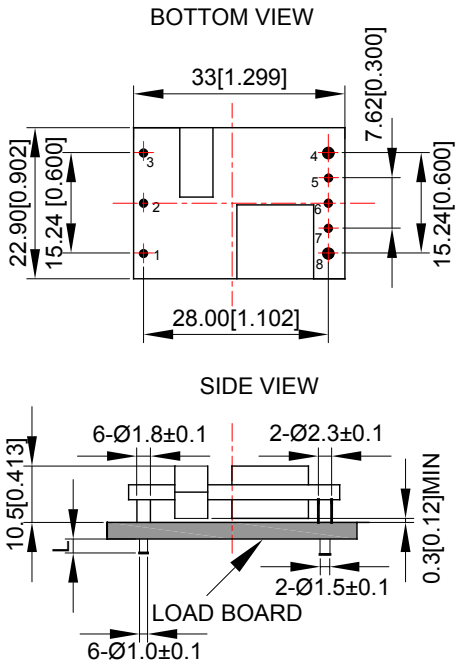
Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% (non-condensing)
MTBF	2 Million hours
RoHS Compliant	

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVD75-48S3V3-6L	36 - 75 Vin	3.3 V @ 20 A	66 W
AVD75-48S3V3P-6L	36 - 75 Vin	3.3 V @ 20 A	66 W
AVD75-48S3V3B-6L	36 - 75 Vin	3.3 V @ 20 A	66 W
AVD75-48S3V3PB-6L	36 - 75 Vin	3.3 V @ 20 A	66 W
AVD75-48S1V2TL	36 - 75 Vin	1.2 V @ 25 A	30 W
AVD75-48S1V2-6L	36 - 75 Vin	1.2 V @ 25 A	30 W
AVD75-48S1V2B-6L	36 - 75 Vin	1.2 V @ 25 A	30 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 compliance
-P = Positive enable

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.

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 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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