ARTESYN AVQ300 SERIES

300 Watts



Advanced Energy's Artesyn AVQ300 series quarter-brick isolated DC-DC converter is designed specifically to provide a regulated low noise 12 Vdc output for feeding downstream non-isolated point-of-load (POL) converters in systems with distributed power architectures (DPA). The converter 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 300 watts, it can deliver up to 25 amps and accommodates a wide ambient operating temperature range of -40 to 85˚C.

DATA SHEET

Total Power:

300 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
- Basic insulation system
- Openframe structure with baseplate option

SAFETY

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

RoHS 6/6 COMPLIANT

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ELECTRICAL SPECIFICATIONS

Input	
Input range	36 - 75 VDC
Efficiency[2]	95% @ 12V o
Output	
Voltage tolerance	+/-1.6%
Line regulation	24 mV
Load regulation	24 mV
Noise/ripple	3.3 Vo: 150 mV
Overvoltage protection	Hiccup
Overtemperature protection	Auto-restart
Switching frequency	145 KHz
Temperature co-efficient	±0.02/°C
Isolation	
I/O isolation	1500 VDC min.

ENVIRONMENTAL SPECIFICATIONS

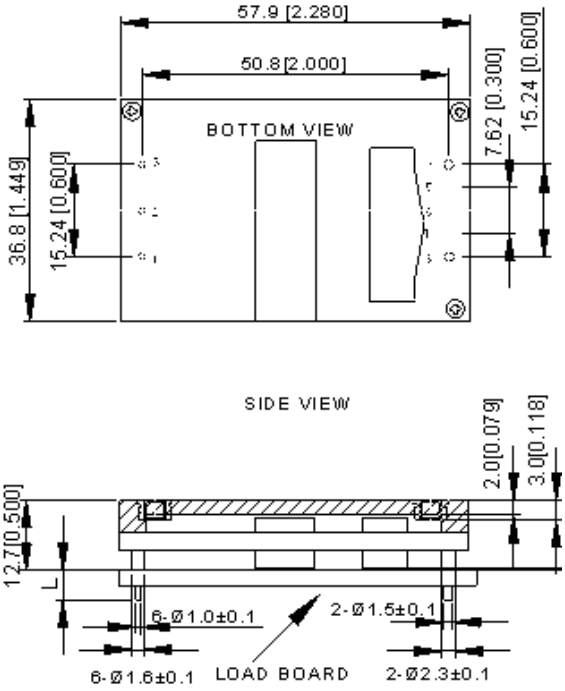
Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% (non-condensing)
MTBF	1.5 Million hours
RoHS Compliant	

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVQ300-48S12-6L	36 - 75 Vin	12 V @ 25 A	300 W
AVQ300-48S12B-6L	36 - 75 Vin	12 V @ 25 A	300 W

- Standard version is negative enable
- "-6" = 3.8mm pin length
- "-L" = RoHS 6 compliance
- "B" = Baseplate

MECHANICAL DRAWINGS



PIN ASSIGNMENTS

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

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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