

ARTESYN AVQ400 SERIES

396 Watts



Advanced Energy's Artesyn AVQ400 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 396 watts, it can deliver up to 33 amps and accommodates a wide ambient operating temperature range of -40 to 85°C.

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
- Output over current protection

SAFETY

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

DATA SHEET

Total Power:

396 Watts

Input Voltage:

36 - 75 V

of Outputs:

Single



ELECTRICAL SPECIFICATIONS

Input	
Input range	36 - 75 VDC
Efficiency	95% @ 12 Vo
Output	
Voltage tolerance	+/-1.6%
Line regulation	24 mV
Load regulation	60 mV
Noise/ripple	3.3 Vo: 150 mV
Overvoltage protection	Hiccup
Overtemperature protection	Auto-restart
Switching frequency	140 KHz
Temperature co-efficient	±0.02/°C
Isolation	
I/O isolation	1500 VDC (2121 VDC for AVQ400-48S12B-6LN)

ENVIRONMENTAL SPECIFICATIONS

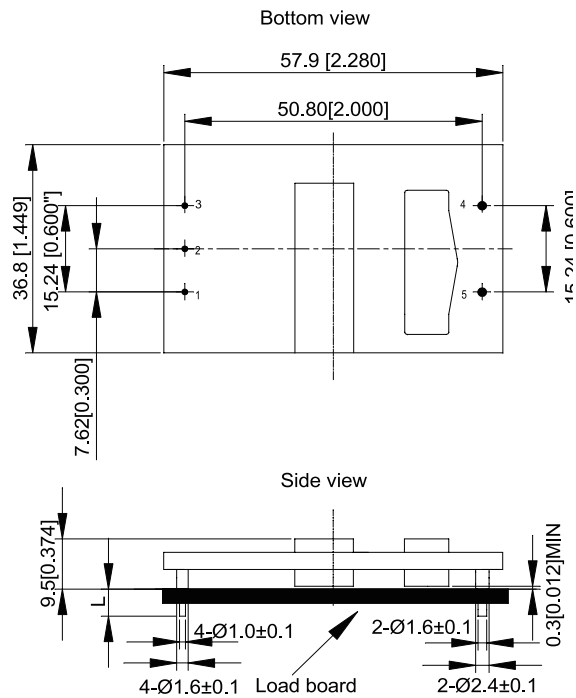
Operating ambient temperature range	-40° C to +85° C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% (non-condensing)
MTBF	1.5 Million hours
RoHS Compliant	

ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVQ400-48S12B-4L	36 - 75 Vin	12 V @ 33 A	396 W
AVQ400-48S12B-6L	36 - 75 Vin	12 V @ 33 A	396 W
AVQ400-48S12PB-4L	36 - 75 Vin	12 V @ 33 A	396 W
AVQ400-48S12PB-6L	36 - 75 Vin	12 V @ 33 A	396 W
AVQ400-48S12B-6LN	36 - 75 Vin	12 V @ 33 A	396 W

- Standard version is negative enable
- "-6" = 3.8 mm pin length
- "-4" = 4.8 mm pin length
- "-L" = RoHS 6 compliance
- "-P" = Positive enable
- "B" = Baseplate

MECHANICAL DRAWINGS



Unit: mm[inch] Bottom view: pin on upsi
 Tolerance: X.Xmm±0.5mm[X.X in.±0.02in.]
 X.XXmm±0.25mm[X.XX in.±0.01in.]

PIN ASSIGNMENTS

Pin #	Function
1	+V in
2	Enable
3	-V in
4	-V out
5	+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.



For international contact information,
visit advancedenergy.com.

powersales@aei.com (Sales Support)
productsupport.ep@aei.com (Technical Support)
+1 888 412 7832

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

Specifications are subject to change without notice. Not responsible for errors or omissions. ©2020 Advanced Energy Industries, Inc. All rights reserved. Advanced Energy®, AE® and Artesyn™ are U.S. trademarks of Advanced Energy Industries, Inc.