# 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.

DATA SHEET

**Total Power:**

396 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
- Output over current protection

## 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 | 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

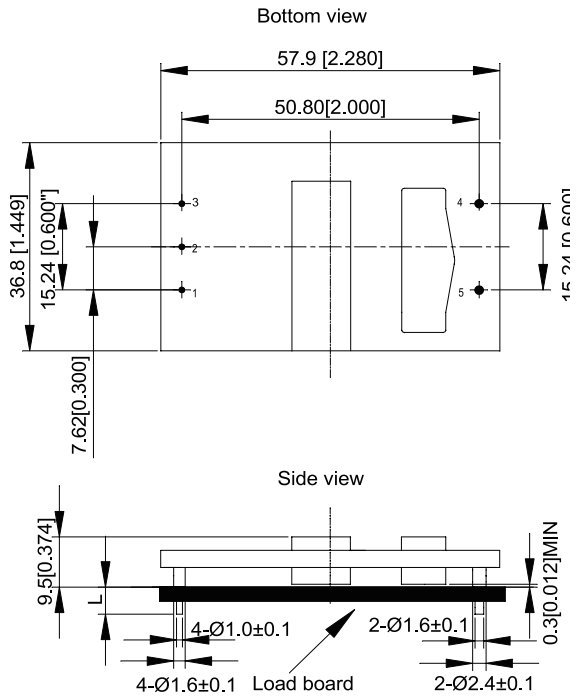
| | |
|---|---|
| Operating ambient temperature range | -40° C to +85° C |
| Storage temperature | -55 °C to +125 °C |
| Humidity | 5% to 95% (non-condensing) |
| MTBF | 1.5 Million hours |
| RoHS Compliant | |

## 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.

## 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

For international contact information,
visit advancedenergy.com.

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

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