# ARTESYN AVO240 SERIES

240 Watts



Advanced Energy's Artesyn AVO240 series eighth-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). Rated at 240 watts, it can deliver up to 20 amps. The converter has a wide input range of 41 to 75 Vdc and is designed primarily for use with standard 48 V telecommunications equipment supplies.

DATA SHEET

**Total Power:**

240 Watts

**Input Voltage:**

41 - 75 V

**# of Outputs:**

Single

## SPECIAL FEATURES

- 2:1 wide input range
- Output voltage 12V
- Optimised for high density, small space applications
- Low ripple and noise
- Fixed switching frequency
- High efficiency
- High capacitive load capability
- Basic insulation system
- Open-frame structure

## SAFETY

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

RoHS 6/6 COMPLIANT

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## ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| **Input** | |
| Input range | 41 - 75 Vdc |
| Efficiency[2] | 94% @ 12 Vo |
| **Output** | |
| Voltage tolerance | 11.6 - 12.2 V |
| Line regulation | ± 0.3% |
| Load regulation | ± 0.5% |
| Noise/ripple | 70 mV |
| Overvoltage protection<br>Overtemperature protection | Auto-restart |
| Switching frequency | 150 kHz |
| Temperature co-efficient | ± 0.02/°C |
| **Isolation** | |
| I/O isolation | 1500 Vdc min. |

## ENVIRONMENTAL SPECIFICATIONS

| | |
|---|---|
| Operating ambient temperature | -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 | |

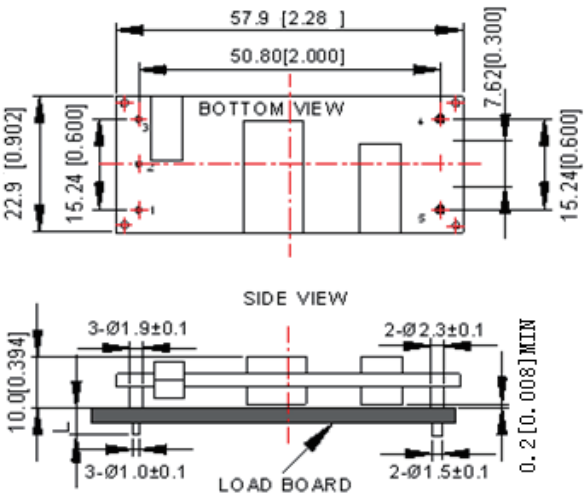
## ORDERING INFORMATION

| Model number | Input voltage | Output voltage | Power |
|---|---|---|---|
| AVO240-48S12-6L | 41 - 75 Vin | 12 V @ 20 A | 240 W |
| AVO240-48S12B-6L | 41 - 75 Vin | 12 V @ 20 A | 240 W |
| AVO240-48S12P-6L | 41 - 75 Vin | 12 V @ 20 A | 240 W |
| AVO240-48S12PB-6L | 41 - 75 Vin | 12 V @ 20 A | 240 W |

Standard version is negative enable
"-6" = 3.8 mm pin length
"-4" = 4.8 mm pin length
"-P" = Positive enable
"-B" = baseplate

## MECHANICAL DRAWINGS

AVO240-48S12-6L



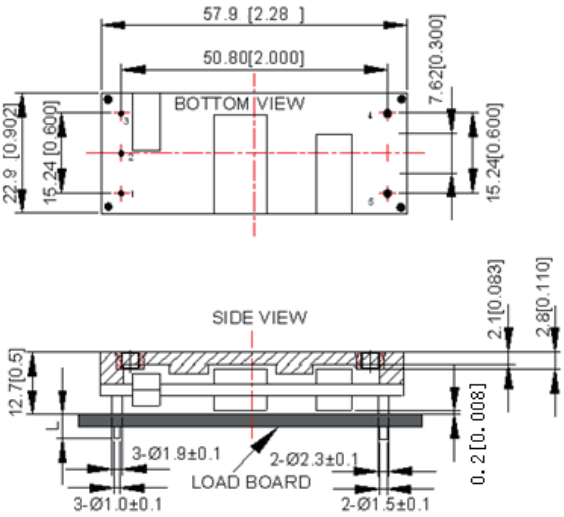

UNIT: mm[inch]

BOTTOM VIEW: pin on upside

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

## MECHANICAL DRAWINGS (CONTINUED)

AVO240-48S12B-6L




UNIT: mm[inch]

BOTTOM VIEW: pin on upside

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

## PIN LENGTH OPTIONS

| Device code suffix | L |
|---|---|
| -4 | 4.8 mm ±0.2 mm |
| -6 | 3.8 mm ±0.2 mm |
| -8 | 2.8 mm ±0.2 mm |
| None | 5.8 mm ±0.2 mm |

## PIN DESIGNATIONS

| Pin No. | Name | Function |
|---|---|---|
| 1 | $V_{in}$+ | Positive input voltage |
| 2 | Remote ON/OFF | Remote control |
| 3 | $V_{in}$- | Negative input voltage |
| 4 | $V_o$- | Negative output voltage |
| 5 | $V_o$+ | Positive output voltage |

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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