

ARTESYN AVO250-48S28B-6L

1/8th brick DC/DC converter



Advanced Energy's Artesyn AVO250 series eighth-brick isolated DC-DC converter provides a single regulated low noise 28 Vdc output. 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 250 watts, it can deliver up to 9 amps and accommodates an ambient operating temperature range of -40 to 85°C.

DATA SHEET

Total Power:

250 Watts

Input Voltage:

36 - 75V

Single Outputs:

28V

RoHS 6/6

SPECIAL FEATURES

- Wide input range
- Optimised for contact cooling
- Low ripple and noise
- Fixed switching frequency
- High capacitive load capability
- Pre-bias start-up capability
- Basic insulation system
- Output voltage remote sense

SAFETY

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

ELECTRICAL SPECIFICATIONS

| Input specification | | |
|-------------------------------|--|--|
| Input range | 36 Vdc to 75 Vdc | |
| Input surge | 100 V for 100 mSec | |
| Efficiency | 93% | |
| Control specification | | |
| Enable | TTL compatible positive or negative enable | |
| Output specification | | |
| Output voltage | 28 Vdc | |
| Trim range | -64% - +116% of Vout nominal | |
| Output current | 9 A | |
| Ripple and noise | 30 mV pk-pk nom 200 mV max. pk-pk | |
| Regulation (total error band) | 27.2 V to 28.8 V over line, load, life, temperature | |
| Over current protection | 18 A max. Typ | |
| Over voltage protection | 130% Vout nominal | |
| Over temp protection | 120 deg °C | |
| Switching frequency | Fixed to 150 KHz | |
| Isolation voltage | 1500 Vdc | |
| Transient response | 75 mV deviation, 10 mSec recovery, 25%-50%-25% load 0.1 A/uSec | |
| UVLO Turn-on UVLO Turn-off | 34 Vdc Typical 32 Vdc Typical | |

ENVIRONMENTAL SPECIFICATIONS

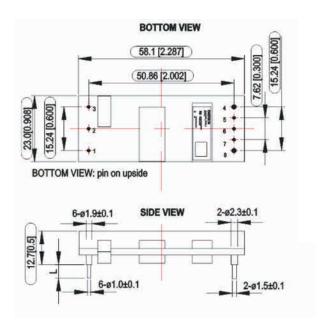
| Storage temperature | -40 0C to +105 deg °C |
|------------------------|-----------------------|
| Ambient operating temp | -40 0C to +85 deg °C |
| MTBF | 1.5 Million hours |
| RoHS Compliant | RoHS6 Compliant |

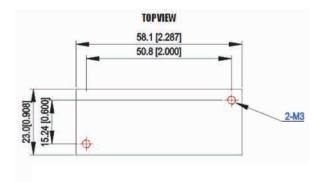


ORDERING INFORMATION

| Model number | Description | |
|-------------------|---|--|
| AVO250-48S28PB-6L | 3.8 mm pin length; positive on/off logic; with base plate; R6 compliant | |
| AVO250-48S28B-6L | 3.8 mm pin length; negative on/off logic; with base plate; R6 compliant | |

MECHANICAL DRAWINGS





PIN LENGTH OPTIONS

| Device code suffix | L |
|--------------------|------------------|
| -4 | 4.8 mm ± 0.25 mm |
| -6 | 3.8 mm ± 0.25 mm |
| -8 | 2.8 mm ± 0.25 mm |
| None | 5.8 mm ± 0.25 mm |

PIN DESIGNATIONS (AVO250-48S28B-6L)

| Pin No. | Name | Function |
|---------|-------------------|--------------------------|
| 1 | V _{in} + | Positive input terminal |
| 2 | Remote ON/OFF | ON/OFF control terminal |
| 3 | V _{in} - | Negative intput terminal |
| 4 | V _o - | Negative output terminal |
| 5 | S- | Negative remote sense |
| 6 | Trim | Output voltage trim |
| 7 | S+ | Positive remote sense |
| 8 | V _o + | Positive output terminal |

- 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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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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