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 COMPLIANT

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

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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

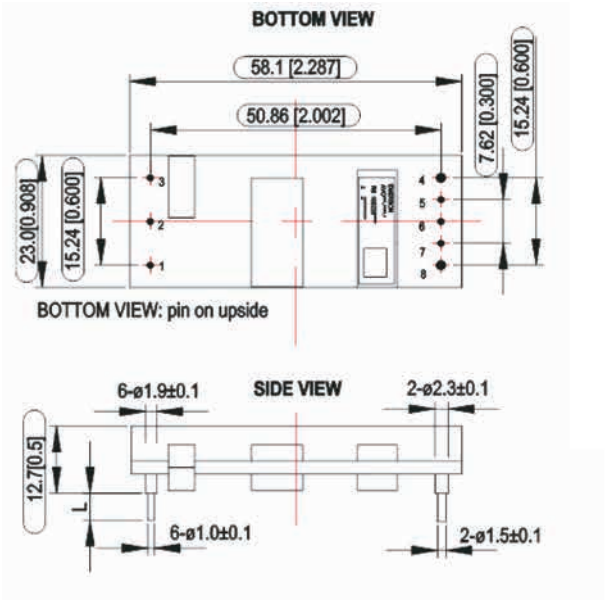
ENVIRONMENTAL SPECIFICATIONS

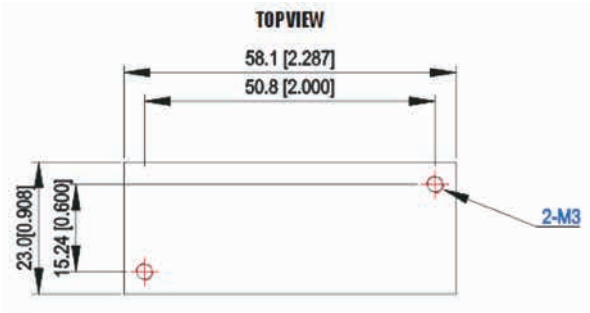
Storage temperature	-40 0C to +105 deg °C
Ambient operating temp	-40 0C to +85 deg °C
MTBF	1.5 Million hours
RoHS Compliant	RoHS6 Compliant

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.

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