ARTESYN AVO100 SERIES

100 Watts



Advanced Energy's Artesyn AVO100 series of eighth-brick isolated DC-DC converters comprises six single output models offering fully regulated voltages of 1.2 V, 1.5 V, 1.8 V, 2.5 V, 3.3 V or 5.0 V. These converters can deliver up to 50 amps and up to 100 watts of output power, depending on the particular model. They have a wide 2:1 input range of 36 to 75 Vdc and are designed primarily for use with standard 48 V telecommunications equipment supplies.

DATA SHEET

Total Power:

100 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
- Pre-bias start-up capability
- Open-frame structure
- Output overcurrent 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[2]	92.8% @ 5 V
Output	
Voltage tolerance	+/-1.5%
Line regulation	3.3 V: 0.3%; Others: 0.1%
Load regulation	3.3 V: 0.6%; 5 V: 0.2%; Others: 0.1%
Noise/ripple	3.3 Vo: 3.3V: 60 mV; 5V: 90 mV; 5.0 Vo: Others: 75 mV
Overvoltage protection Overtemperature protection	Auto-restart
Switching frequency	3.3 V, 5 V: 310 KHz; Others: 210 KHz
Temperature co-efficient	±0.02/°C
Isolation	
I/O isolation	5 V: 2250 VDC; Others: 1500V DC

ENVIRONMENTAL SPECIFICATIONS

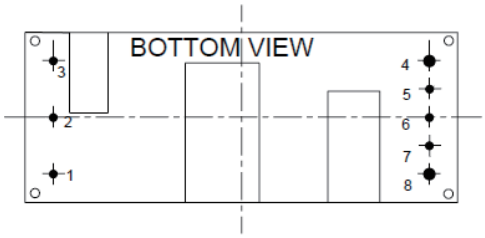
Operating ambient temperature range	-40 °C to +85 °C
Storage temperature	-55 °C to +125 °C
Humidity	5% to 95% (non-condensing)
MTBF	2.5 Million hours
RoHS Compliant	

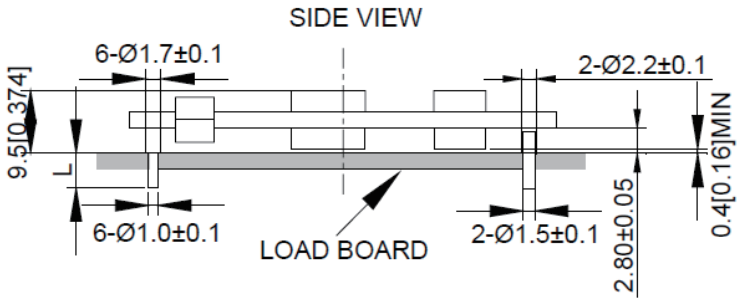
ORDERING INFORMATION

Model number	Input voltage	Output voltage	Power
AVO100-48S1V2-6L	36 - 75 Vin	1.2 V @ 50 A	60 W
AVO100-48S1V2B-6L	36 - 75 Vin	1.2 V @ 50 A	60 W
AVO100B-48S1V5-6L	36 - 75 Vin	1.5 V @ 40 A	60 W
AVO100B-48S1V5B-6L	36 - 75 Vin	1.5 V @ 40 A	60 W
AVO100B-48S1V5P-6L	36 - 75 Vin	1.5 V @ 40 A	60 W
AVO100B-48S1V5PB-6L	36 - 75 Vin	1.5 V @ 40 A	60 W
AVO100-48S1V8-6L	36 - 75 Vin	1.8 V @ 40 A	72 W
AVO100-48S1V8B-6L	36 - 75 Vin	1.8 V @ 40 A	72 W
AVO100-48S1V8P-6L	36 - 75 Vin	1.8 V @ 40 A	72 W
AVO100-48S1V8PB-6L	36 - 75 Vin	1.8 V @ 40 A	72 W
AVO100-48S2V5-6L	36 - 75 Vin	2.5 V @ 35 A	87.5 W
AVO100-48S2V5B-6L	36 - 75 Vin	2.5 V @ 35 A	87.5 W
AVO100-48S2V5P-6L	36 - 75 Vin	2.5 V @ 35 A	87.5 W
AVO100-48S2V5PB-6L	36 - 75 Vin	2.5 V @ 35 A	87.5 W
AVO100B-48S3V3-6L	36 - 75 Vin	3.3 V @ 30 A	99 W
AVO100B-48S3V3SL	36 - 75 Vin	3.3 V @ 30 A	99 W
AVO100C-48S3V3B-4L	36 - 75 Vin	3.3 V @ 30 A	99 W
AVO100C-48S3V3PB-4L	36 - 75 Vin	3.3 V @ 30 A	99 W
AVO100-48S05-6L	36 - 75 Vin	5 V @ 20 A	100 W
AVO100-48S05B-6L	36 - 75 Vin	5 V @ 20 A	100 W
AVO100-48S05P-6L	36 - 75 Vin	5 V @ 20 A	100 W
AVO100-48S05PB-6L	36 - 75 Vin	5 V @ 20 A	100 W
AVO100-48S05SL	36 - 75 Vin	5 V @ 20 A	100 W

- Standard version is negative enable
- “-6” = 3.8 mm pin length
- “-4” = 4.8 mm pin length
- “-P” = Positive enable
- “-S” = Surface mount, tray package
- “-L” = RoHS 6 compliance
- “-B” = Baseplate

MECHANICAL DRAWINGS





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 DESIGNATIONS

Pin #	Function
1	+V in
2	Enable
3	-V in
4	-V out
5	-Sense
6	Trim
7	+Sense
8	+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.

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ENG-AVO100-235-01 12.16