ARTESYN AVO200 SERIES

200 Watt 1/8th Brick DC/DC Converter



Advanced Energy's Artesyn AVO200 series of eighth-brick isolated DC-DC converters comprises two single output models offering fully regulated voltages of 5.0 V or 12 V. These converters are rated at 200 watts continuous power; the 5.0 V model can deliver up to 40 amps, while the 12 V model can deliver up to 16.7 amps. They have a wide 2:1 input range of 36 to 75 Vdc and are primarily designed for use with standard 48 V telecommunications equipment supplies. Typical applications include wireless, optical or access networks, as well as server and computing infrastructures.

DATA SHEET

Total Power:

200 W
(12 V @ 16.7 A)
(5 V @ 40 A)

Input voltage:

36 - 75 Vdc

Single output:

12 V, 5 V

SPECIAL FEATURES

- 200 W continuous power
- Ultra high efficiency up to 94.5%
- Telecom DC input range
- Base-plate optimised for contact cooling
- Open frame optimised for air-cooling
- Low ripple and noise
- Fixed switching frequency
- High capacitive load capability
- Pre-bias start-up capability
- Through hole and surface mount termination option
- High reliability
- RoHS-6 compliant
- UL94 V-0 materials

SAFETY

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

WARRANTY

- 2 Years (Consult factory for extended Terms)

RoHS 6/6 COMPLIANT

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ELECTRICAL SPECIFICATIONS

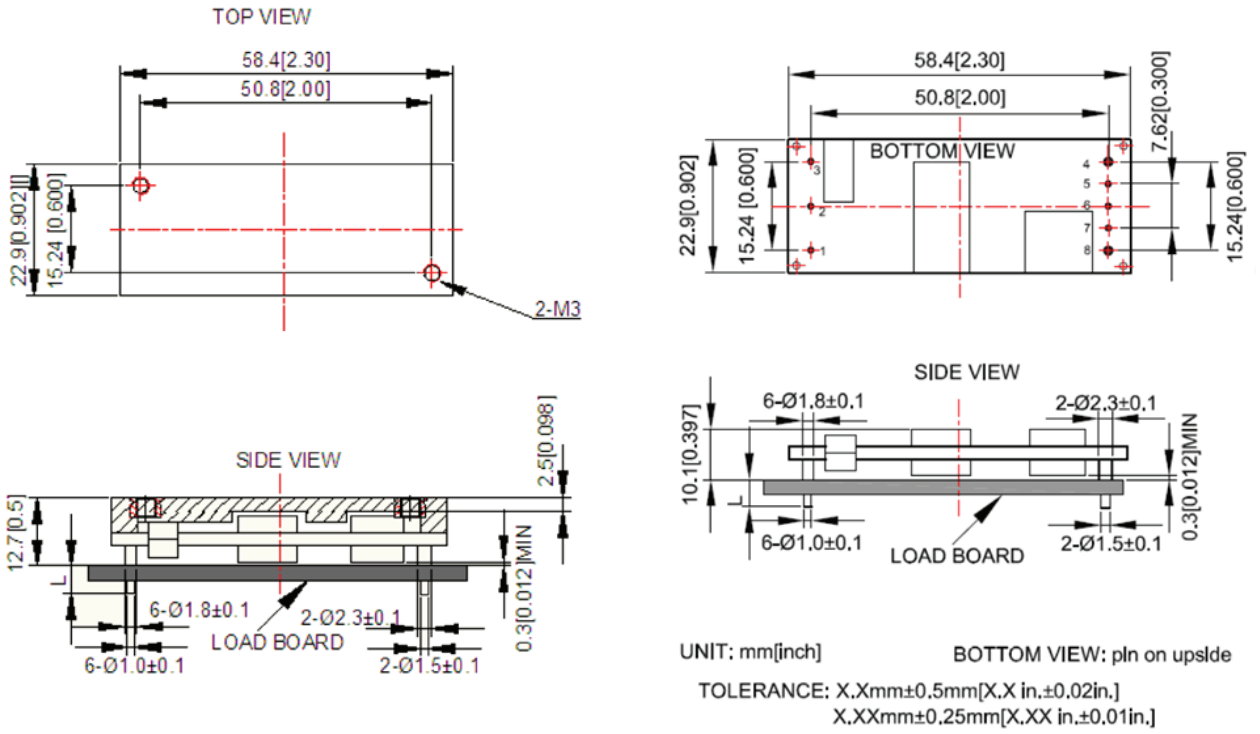
Input	
Input voltage	36 - 75 Vdc
Input Surge	100 V / 100 mSec
Efficiency	12 V at 100% load is 94% 5 V at 100% load is 94.5%
I/O insulation I/O isolation	Basic insulation 2250 Vdc
Output	
Output Voltage	12 V nominal 5 V nominal
Output current maximum	16.7 A for 12 V version 40 A for 5 V version
Noise & ripple	12 V is 70 mV pk-pk max 5 V is 120 mV pk-pk max
Over Temperature protection -Baseplate -Open frame	 110 °C baseplate 120 °C hot-spot
Over voltage protection Method / OVP operation	Auto restart /130% Vout
Over current protection Method / OCP operation	Hiccup / 150% Iout
Control	
Enable	TTL compatible (negative logic)
Trim function	80% to 110% Vout
Remote sense	Sense connections proivided
Switching Frequency	150 Khz

ORDERING INFORMATION

Model number	Input voltage	Output voltage set point	Output current	Efficiency
AVO200-48S05B-6L	36-75 Vdc	5 V / 40 A	40 A	94.5%
AVO200-48S05-6L	36-75 Vdc	5 V / 40 A	40 A	94.5%
AVO200-48S05PB-6L	36-75 Vdc	5 V / 40 A	40 A	94.5%
AVO200-48S12B-4L	36-75 Vdc	12 V / 17 A	16.7 A	94.0%
AVO200-48S12B-6L	36-75 Vdc	12 V / 17 A	16.7 A	94.0%
AVO200-48S12-6L	36-75 Vdc	12 V / 17 A	16.7 A	94.0%

Default = Negative remote control
P = Positive remote control
B = Baseplate
-6 = 3.8 mm pin length
-4 = 4.8 mm pin length

MECHANICAL DRAWINGS



Notes:
Dimensions within the box are critical dimensions.
AVO200 5 V and 12 V products have slight difference in the mechnical drawing. Please check the specified product's Technical Reference Note for more details.
All specifications are subject to change without notice. Mechanical drawings are for reference only.

PIN LENGTH OPTIONS

Device code suffix	Pin Length
-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 (AVO200)

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	S-	Negative remote sense
6	Trim	Output voltage trim
7	S+	Positive remote sense
8	V_o+	Positive output voltage

Environmental Specifications

Operating temperature	-40 to +85 °C
Storage temperature	-55 to +125 °C
MTBF	1.5 million hours

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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