ARTESYN AVE700-48S28 SERIES

700 Watt Half-Brick DC-DC Converter



Advanced Energy's Artesyn AVE700-48S28PB-6L is a single output DC/DC converter with standard half-brick outline and pin configuration. It delivers up to 25A output current with 28V output. Ultra-high 95.5% efficiency and excellent thermal performance makes it an ideal choice for use in computing and telecommunication applications and can operate over an ambient temperature range of -40 °C ~ +85 °C. without air cooling, and baseplate operating temperature up to 100 °C.

DATA SHEET

Total Power:

700 Watts
(28 V @ 25 A)

Input Voltage:

36 - 75 Vdc

Single Output:

28 V Nom

RoHS 6/6 COMPLIANT

SPECIAL FEATURES

- Delivering up to 25 A output
- Ultra-high efficiency 95.5% typ. at full load
- Wide input range: 36 ~ 75 Vdc
- Excellent thermal performance
- No minimum load requirement
- Basic isolation
- High power density
- Low output noise
- RoHS 3.0 (2011/65/EU)
- Remote control function
- Remote output sense
- Trim function: 50% ~ 118%
- Input under-voltage lockout
- Output over current protection
- Output short circuit protection
- Output over voltage protection
- Over temperature protection
- Industry standard half-brick
- Single PCB design with baseplate structure
- UL94 V-0 materials
- Two year warranty (consult factory for extended terms)

SAFETY

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

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ELECTRICAL SPECIFICATIONS

Input	
Input range	36 - 75 Vdc
Efficiency (100% load condition)	95.5%
Output	
Rated Output	28 Vdc @ 25 A
Voltage tolerance	+/-1%
Line regulation	0.5%
Load regulation	0.5%
Noise/ripple	200 mV
Temperature coefficient	± 0.02/°C
Over current protection	Hiccup
Over voltage protection	Latch
Over temperature protection	Auto-restart
Switching frequency	150 KHz
Isolation	
I/O isolation	1500 Vdc (input to output)

ENVIRONMENTAL SPECIFICATIONS

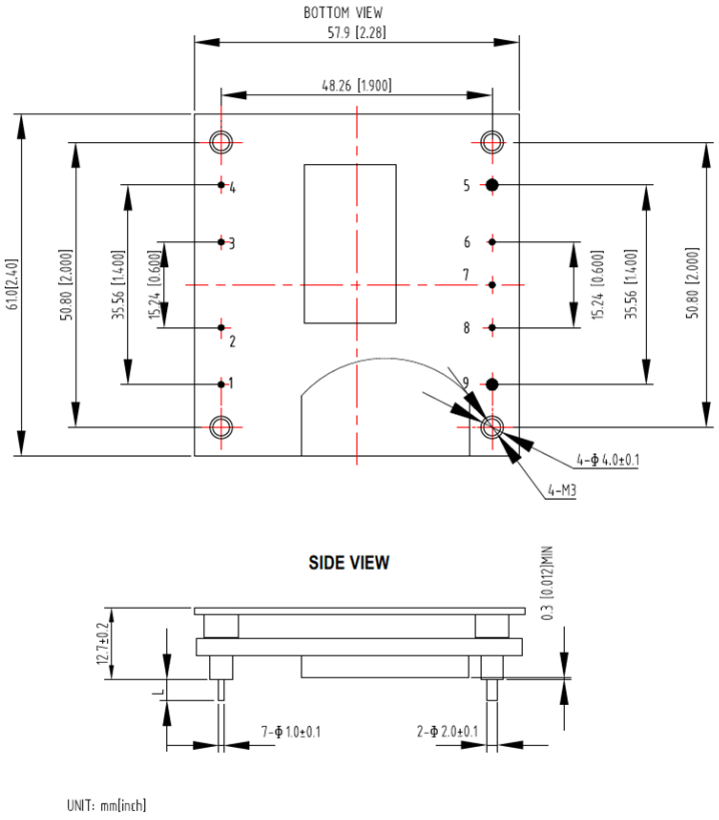
Operating temperature	-40° C to +85 °C (baseplate operating temperature up to 100 °C)
Storage temperature	-55 °C to +125 °C
MTBF	1.5 million hours

ORDERING INFORMATION

Model number	Input range	Rated output	Structure	Remote ON/OFF logic
AVE700-48S28B-6L	36 - 65 Vdc	28 Vdc @ 700 W	Baseplate	Negative
AVE700-48S28PB-6L	36 - 65 Vdc	28 Vdc @ 700 W	Baseplate	Positive

- Standard version is negative enable
- "-6" = 3.8 mm pin length
- "-L" = RoHS 3.0 (2011/65/EU) compliance
- "-P" = Positive enable

MECHANICAL DRAWINGS



UNIT: mm[inch]
TOLERANCE: X.X mm±0.5 mm[X.XX in. ±0.02 in.]
X.XX mm±0.25 mm[X.XXX in. ±0.01 in.]

PIN LENGTH OPTION

Device code suffix	L
-4	4.8 mm ± 0.5 mm
-6	3.8 mm ± 0.5 mm
-8	2.8 mm ± 0.5 mm
None	5.8 mm ± 0.5 mm

PIN DESIGNATIONS

Pin	Function	Function
1	Vin+	Positive input voltage
2	CNT	Remote ON/OFF control
3	-	-
4	Vin-	Negative input voltage
5	Vo-	Negative output voltage
6	S-	Negative remote sense
7	Trim	Output voltage trim
8	S+	Positive remote sense
9	Vo+	Positive output voltage

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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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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