ARTESYN ADH700-48S50

700 Watt Half-Brick DC-DC Converter

Advanced Energy's Artesyn ADH700-48S50 series half-brick isolated DC-DC converter provides a single regulated low noise output. ADH700-48S50 with 50V/14A output. It has a Telecom input range of 36 to 65VDC and is designed primarily for use with standard 48 VDC telecommunications equipment supplies. The converter's main application area is in low power and remote radio head (RRH) telecommunications applications.

AT A GLANCE

Total Power:

700 Watt
(50 V @ 14 A)

Input Voltage:

36 to 65 VDC

Single Output:

50 V Nom

SPECIAL FEATURES

- 700 W continuous power
- Ultra high efficiency 95% @ 50% load
- 36 to 65 VDC telecom input range
- Contact cooling or heatsink mounting
- Excellent thermal performance
- Remote output sense
- Fully regulated output voltage
- No minimum load requirement
- Remote control function
- Low ripple and noise
- Fixed switching frequency
- Trim function: 50% to 114%
- High reliability
- RoHS 6 compliant
- UL94 V-0 materials
- Output overcurrent protection
- Output shortcircuit protection
- Output overvoltage protection
- Overtemperature protection
- Industry standard half-brick
- Two year warranty (consult factory for extended terms)

SAFETY

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

ELECTRICAL SPECIFICATIONS

Input	
Input voltage	36 to 65 VDC
Input surge	100 V / 100 mSec (Non-operation)
Input UVLO	Turn-on: 34 VDC typical Turn-off: 32 VDC typical Hysteresis: 2 VDC typical
I/O insulation	Basic insulation
I/O isolation	2250 VDC
Efficiency (48 Vin, 25 °C ambient)	95% @ 50% load 94.8% @ 100% load
Output	
Output voltage (Vin = 48 V)	50 VDC
Output current maximum	14 A
Noise & ripple	90 mV pk-pk typical
Overtemperature protection	115 °C typical
Overvoltage protection method / OVP operation	60 to 70 V window / Hiccup and auto restart
Overcurrent protection method / OCP operation	14.5 to 35 A window / Hiccup and auto restart
Control	
Enable	TTL compatible
Switching frequency	280 KHz fixed frequency

ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-40°C to +85°C
Storage temperature	-55°C to +125°C
MTBF	2 million hours

ORDERING INFORMATION

Model number	Input voltage	Output voltage set point	Output current	Efficiency
ADH700-48S50-6L	36 to 65 VDC	50 VDC	14 A	94.8% (100% load)
ADH700-48S50P-6L	36 to 65 VDC	50 VDC	14 A	94.8% (100% load)

B = Baseplate
-6 = 3.8 mm pin length
P = Positive logic control
Digital interface option

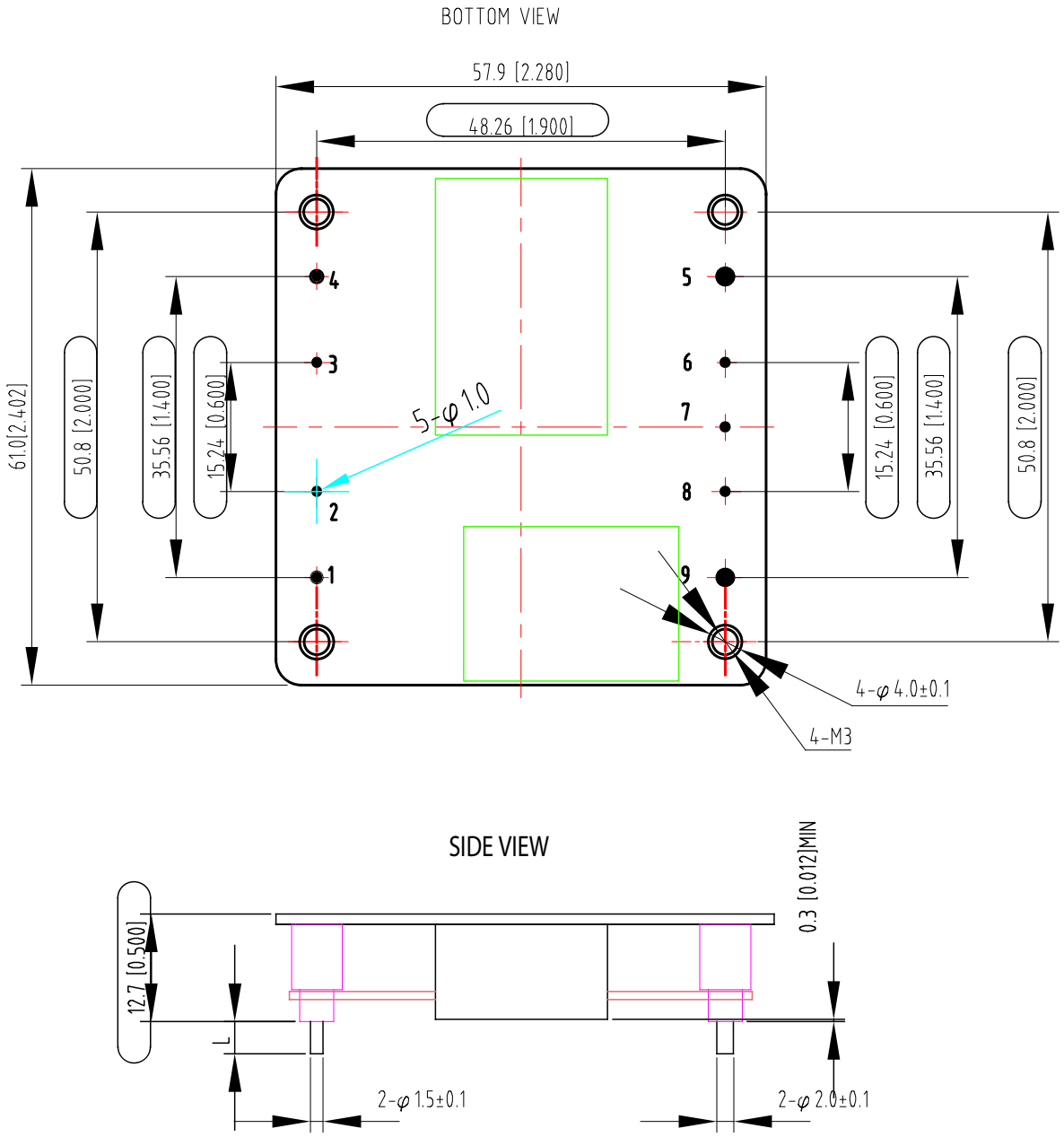
PIN LENGTH OPTIONS

Device code suffix	L
-4	4.6 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	Case	Case
4	Vin-	Negative input voltage
5	Vo-	Negative output sense
6	S-	Negative output sense
7	Trim	Output voltage trim
8	S+	Positive output sense
9	Vo+	Positive output voltage

MECHANICAL DRAWING



UNIT: mm[inch] L=3.80±0.25mm

TOLERANCE: X.Xmm±0.5mm[X.XX in.±0.02in.]
X.XXmm±0.25mm[X.XXX in.±0.01in.]

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 | TRUST

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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