ARTESYN ADH700 SERIES

700 Watt Half-Brick DC-DC Converter



Advanced Energy's Artesyn ADH700 series half-brick isolated DC-DC converter provides a single regulated low noise output. ADH700-48S28 with 28V/25A output and ADH700-48S50 with 50V/14A output. It has a Telecom input range of 36 to 75Vdc and is designed primarily for use with standard 48 V telecommunications equipment supplies. The converter's main application area is in low power and remote radio head (RRH) telecommunications applications.

DATA SHEET

Total Power:

700 Watt
(28 V @ 25 A)

Input Voltage:

36 - 65 Vdc

Single Output:

28 V Nom

SPECIAL FEATURES

- 700 W continuous power
- Ultra high efficiency 95% @ 100% load
- 36 - 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% ~118%
- 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

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ELECTRICAL SPECIFICATIONS

Input	
Input voltage	36 - 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	1500 Vdc
Efficiency (48 Vin, 25 °C ambient)	95% @ 100% load 95% @ 100% load
Output	
Output voltage (Vin = 48 V)	28 V
Output current maximum	25 A
Noise & ripple	130 mV pk-pk typical
Overtemperature protection	115 °C typical
Overvoltage protection method / OVP operation	35 - 42 V window / Hiccup and auto restart
Overcurrent protection method / OCP operation	26.5 - 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
ADH700-48S28-6L	36 - 65 Vdc	28 Vdc	25 A	95% (100% load)
ADH700-48S28P-6L	36 - 65 Vdc	28 Vdc	25 A	95% (100% load)

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

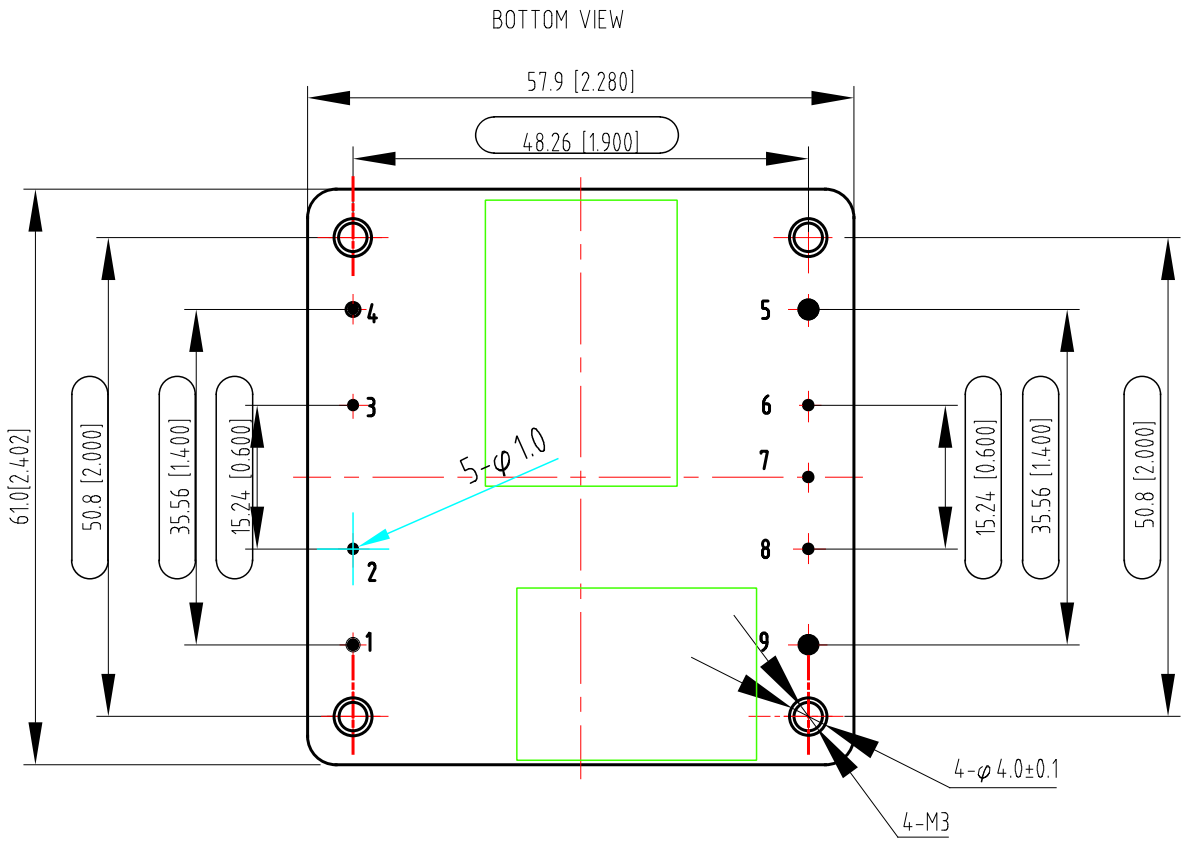
PIN LENGTH OPTIONS

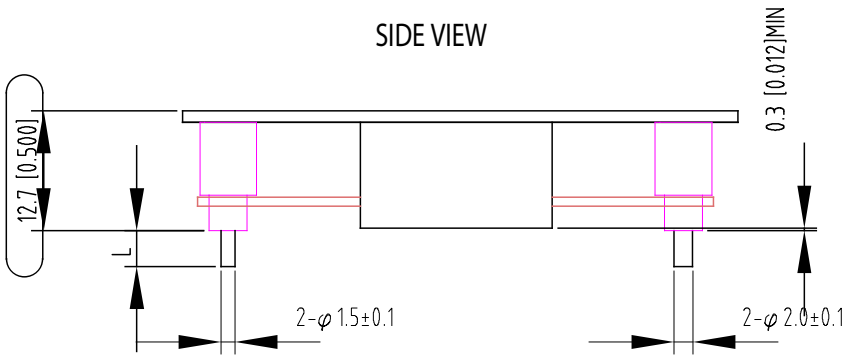
Device code suffix	L
-4	4.6 mm ± 0.5 mm
-6	3.8 mm ± 0.5 mm
-8	2.8 mm ± 0.5 mm
None	5.8 mm ± 0.5 mm

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.]

Notes: Dimensions whitin the box are critical dimensions.

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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