

ADH700 Series

700 Watt Half-Brick DC-DC Converter

Data Sheet

Total Power: 700 Watt
(50 V @ 14 A)
Input Voltage: 36 - 65 Vdc
Single Output: 50 V Nom

SPECIAL FEATURES

- 700 W continuous power
- Ultra high efficiency 95% @ 50% 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

- EN62368
- IEC62368
- CSA
- CE
- UL



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	2250 Vdc
Efficiency (48 Vin, 25 °C ambient)	95% @ 50% load 94.8% @ 100% load

Output

Output voltage (Vin = 48 V)	50 V
Output current maximum	14 A
Noise & ripple	90 mV pk-pk typical
Overtemperature protection	115 °C typical
Overvoltage protection method / OVP operation	60 - 70 V window / Hiccup and auto restart
Overcurrent protection method / OCP operation	14.5 - 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
ADH700-48S50-6L	36 - 65 Vdc	50 Vdc	14 A	94.8% (100% load)
ADH700-48S50P-6L	36 - 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

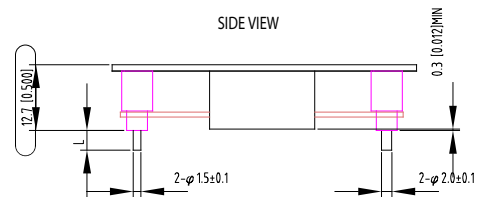
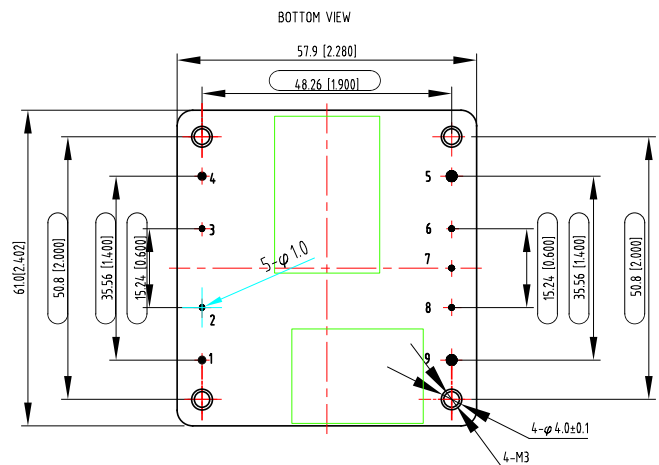
Pin Length Options

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.]

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