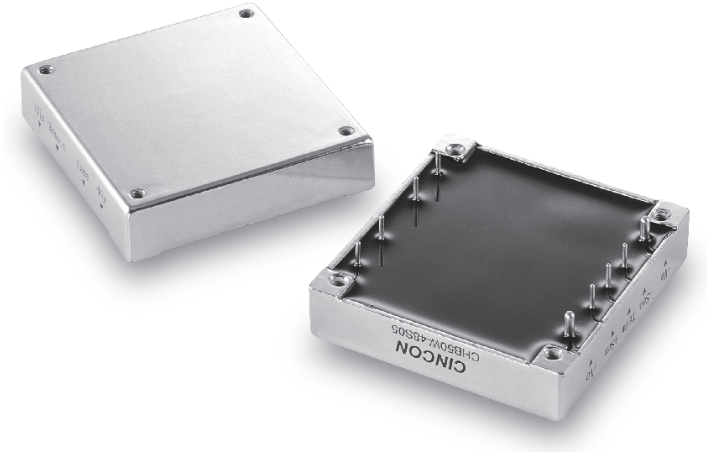
DC DC

Part Num

CHB50W SERIES

stadium POWER

25-50 WATT 4:1 INPUT RANGE DC-DC CONVERTERS



Features:

- 25-50W Isolated Output
- Half Brick Package
- 4 : 1 Input Range
- Regulated Outputs
- Efficiency to 84%
- 300KHz Switching Frequency
- Five-Sided Shield Metal Case
- Continuous Short Circuit Protection

Safety Approvals

Electrical Characteristics:

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		%EFF	SIZE
				NO LOAD	FULL LOAD		
CHB50W-24S33	9-36 VDC	3.3 VDC	10 A	50 mA	1785 mA	77	Half-Brick
CHB50W-24S05	9-36 VDC	5 VDC	10 A	50 mA	2570 mA	81	Half-Brick
CHB50W-24S12	9-36 VDC	12 VDC	4.16 A	50 mA	2510 mA	83	Half-Brick
CHB50W-24S15	9-36 VDC	15 VDC	3.33 A	50 mA	2510 mA	83	Half-Brick
CHB50W-24S24	9-36 VDC	24 VDC	2.08 A	50 mA	2510 mA	83	Half-Brick
CHB50W-48S33	18-75 VDC	3.3 VDC	10 A	50 mA	880 mA	78	Half-Brick
CHB50W-48S05	18-75 VDC	5 VDC	10 A	50 mA	1270 mA	82	Half-Brick
CHB50W-48S12	18-75 VDC	12 VDC	4.16 A	50 mA	1240 mA	84	Half-Brick
CHB50W-48S15	18-75 VDC	15 VDC	3.33 A	50 mA	1240 mA	84	Half-Brick
CHB50W-48S24	18-75 VDC	24 VDC	2.08 A	50 mA	1240 mA	84	Half-Brick

NOTE: 1. Nominal Input Voltage 24 or 48 VDC

Specification

INPUT SPECIFICATIONS:

Input Voltage Range.....24V..... 9-36V
48V..... 18-75V
Undervoltage lockout .....24Vin power up.....8.8V
power down 8V
48Vin power up.....17V
power down 16V
Positive Logic Remote ON/OFF3, 4
Input Filter .... PI Type

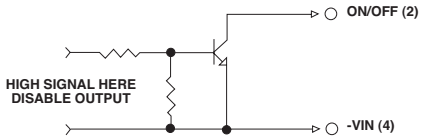
OUTPUT SPECIFICATIONS:

Voltage Accuracy : ..... ±1% max.
Transient Response :25% Step Load Change.....<500µ sec.
External Trim Adj. Range .....±10%
Ripple & Noise, 20MHz BW, 3.3V & 5V..... 40mV RMS., max.
100mV pk-pk, max.
12V & 15V..... 60mV RMS., max.
150mV pk-pk, max.
24V.....100mV RMS., max.
240mV pk-pk, max.
Temperature Coefficient..... ±0.03%/˚C
Short Circuit Protection..... Continuous
Line Regulation1 ..... ±0.2% max.
Load Regulation2 ..... ±0.2% max.
Over Voltage Protection trip Range, % Vo nom.....115-140%
Current Limit .....110% ~160% Nominal Output

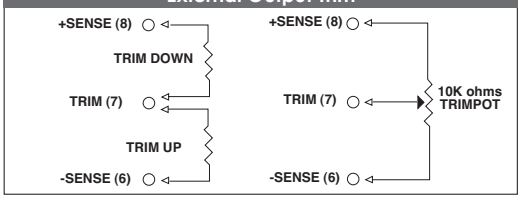
GENERAL SPECIFICATIONS:

Efficiency.....See Table
Isolation Voltage .....Input/Output.....1500VDC min
Input/Case... ..... 1500VDC min
Output/Case.....1500VDC min
Isolation Resistance .....10_7 ohm min.
Switching Frequency .....300KHz, Typ.
Operating Case Temperature .....-40˚C to 100˚C
Storage Temperature ..... -55˚C to +105˚C
Thermal Shutdown, case Temp. ..... 100˚C Typ.
Dimensions .....2.28x2.40x0.50 inches
(57.9x61.0x12.7 mm)
Case Material.....Aluminum
Weight.....94g

Remote On/Off Control



External Output Trim



PIN CONNECTION

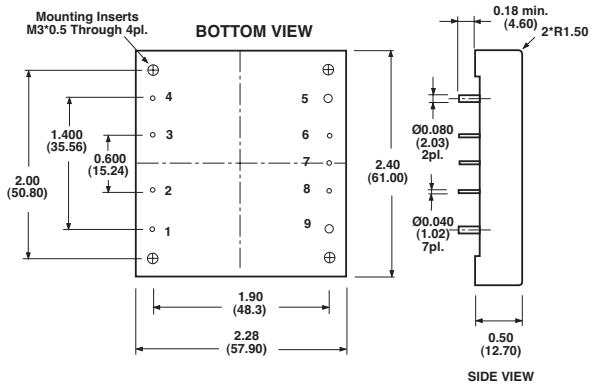
Pin	Function
1	+V Input
2	ON/OFF
3	CASE
4	-V Input
5	-V Output
6	-Sense
7	Trim
8	+Sense
9	+Vout

NOTES:

1. Measured From High Line to Low Line.
2. Measured From Full Load to Zero Load.
3. Logic Compatibility .....Open Collector Ref, to -Input.
   Module ON .....Open Circuit
   Module OFF..... <0.8Vdc
4. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF.

CASE HB

Dimensions In Inches(mm)
erance Inches: x.xx= ±0.02, x.xxx= ±0.010
Millimeters: x.x= ±0.5, x.xx= ±0.25



All Specifications Typical At Nominal Line, Full Load and 25˚C Unless Otherwise Noted.