

# CHB50W

## 25 TO 50 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT



### Features

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

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

NOTE : 1. Nominal Input Voltage 24, 48 VDC

### Specifications

#### 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/OFF <sup>4</sup>	
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 Regulation <sup>1</sup> .....	±0.2% max.
Load Regulation <sup>2</sup> .....	±0.2% max.
Over Voltage Protection trip Range, % Vo nom.....	115-140%
Current Limit .....	110% ~160% Nominal Output

#### GENERAL SPECIFICATIONS:

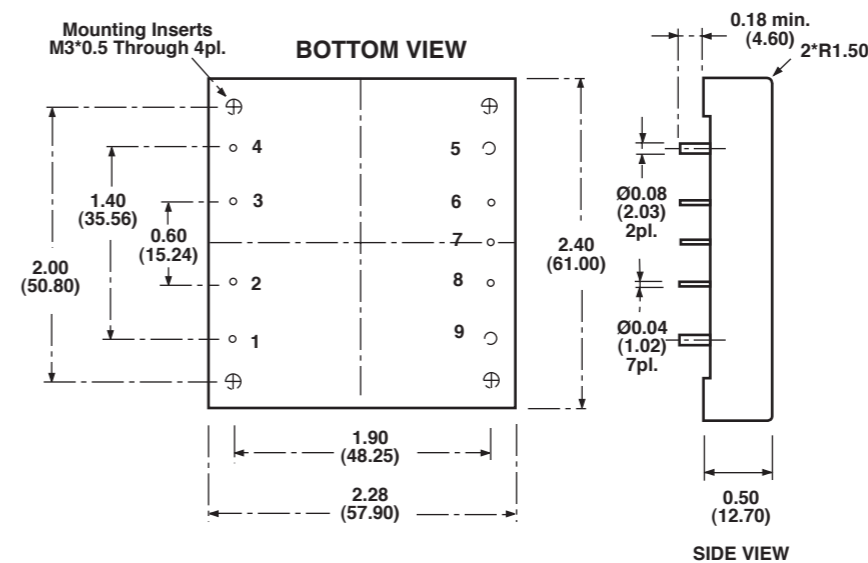
Efficiency.....	See Table
Isolation Voltage .....	Input/Output.....1500VDC min.
	Input/Case.....1500VDC min.
	Output/Case.....1500VDC min.
Isolation Resistance .....	10 <sup>7</sup> ohm min.
Switching Frequency .....	300KHz, Typ.
Operating Case Temperature .....	-40°C to 100°C
Storage Temperature .....	-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

#### NOTE:

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

All Dimensions In Inches(mm)  
Tolerances Inches .XX±.02 .XXX±.01 ±0.02  
Millimeters .X±.5 .XX±.25 ±0.5



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

