

# 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:

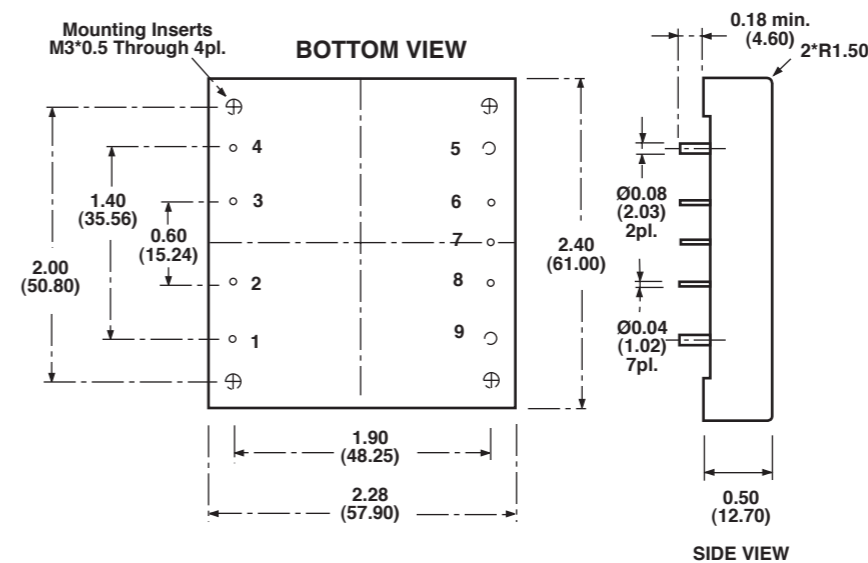
Efficiency.....See Table  
 Isolation Voltage .....Input/Output.....1500VDC min.  
 Input/Case.....1500VDC min.  
 Output/Case.....1500VDC min.  
 Isolation Resistance .....10<sup>7</sup> ohm min.  
 Switching Frequency .....300KHz, Typ.  
 Operating Case Temperature .....-40°C to 100°C  
 Storage Temperature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

