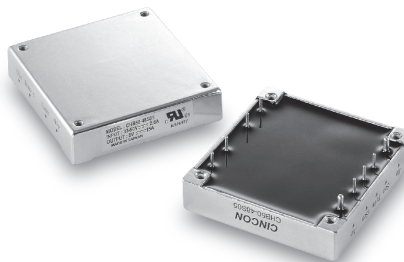


# CHB50

S E R I E S

## 25-50 WATT 1/2 BRICK DC-DC CONVERTERS



### Features

- 25-50W Isolated Output
- Half Brick Package
- Regulated Outputs
- Efficiency to 86%
- 300KHz Switching Frequency
- Five-Sided Shield Metal Case
- Continuous Short Circuit Protection

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF.	SIZE
				NO LOAD	FULL LOAD		
CHB50-12S25	9-18 VDC	2.5 VDC	10A	50 mA	2740 mA	76	Half-Brick
CHB50-12S33		3.3 VDC	10A		3525 mA	78	
CHB50-12S05		5 VDC	10A		5145 mA	81	
CHB50-12S12		12 VDC	4.16A		4950 mA	84	
CHB50-12S15		15 VDC	3.33A		4950 mA	84	
CHB50-12S24		24 VDC	2.08A		4950 mA	84	
CHB50-24S25	18-36 VDC	2.5 VDC	10A	50 mA	1353 mA	77	Half-Brick
CHB50-24S33		3.3 VDC	10A		1740 mA	79	
CHB50-24S05		5 VDC	10A		2540 mA	82	
CHB50-24S12		12 VDC	4.16A		2450 mA	85	
CHB50-24S15		15 VDC	3.33A		2450 mA	85	
CHB50-24S24		24 VDC	2.08A		2419 mA	86	
CHB50-48S25	36-75 VDC	2.5 VDC	10A	50 mA	676 mA	77	Half-Brick
CHB50-48S33		3.3 VDC	10A		870 mA	79	
CHB50-48S05		5 VDC	10A		1250 mA	83	
CHB50-48S12		12 VDC	4.16A		1220 mA	85	
CHB50-48S15		15 VDC	3.33A		1220 mA	85	
CHB50-48S24		24 VDC	2.08A		1209 mA	86	

NOTE: 1. Nominal Input Voltage 12, 24 or 48 VDC

## Specifications

### INPUT SPECIFICATIONS:

Input Voltage Range.....	12V.....	9-18V
	24V.....	18-36V
	48V.....	36-75V
Undervoltage lockout .....	12Vin power up .....	8.8V
	power down .....	8V
	24Vin power up .....	17V
	power down .....	16V
	48Vin power up .....	34V
	power down .....	32.5V
Positive Logic Remote ON/OFF <sup>1,4</sup>		
Input Filter .....		PI Type

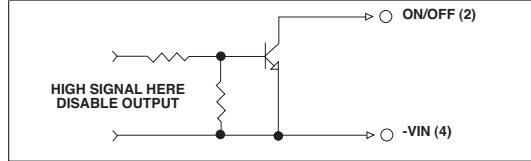
### OUTPUT SPECIFICATIONS:

Voltage Accuracy :	.....	±1% max.
Transient Response :25% Step Load Change.....		<500µ sec.
External Trim Adj. Range .....		±10%
Ripple & Noise, 20MHz BW, 2.5V & 3.3V & 5V.....		20mV RMS., max.
		75mV pk-pk, max.
	12V & 15V.....	30mV RMS., max.
		100mV 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% ~150% Nominal Output

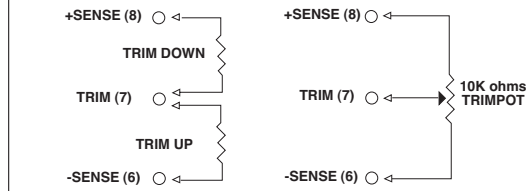
### GENERAL SPECIFICATIONS:

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 .....	(12/24)Vin.....	400KHz, Typ.
	48Vin.....	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.....		.88g

## Remote On/Off Control



## External Output Trim



## PIN CONNECTION

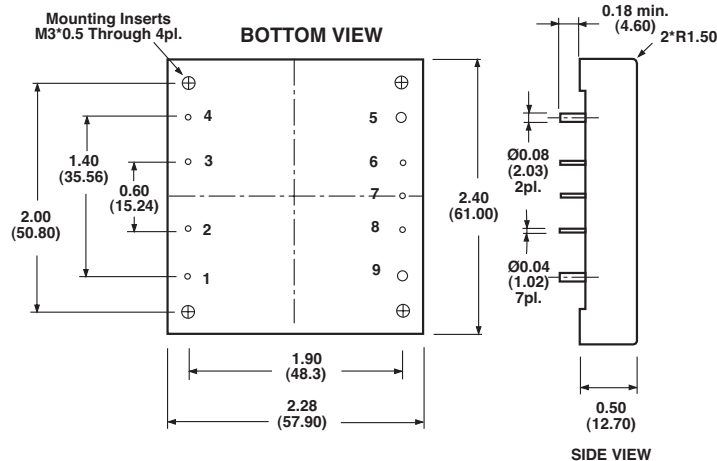
Pin	Function
1	+V Input
2	ON/OFF
3	CASE
4	-V Input
5	-V Output
6	-Sense
7	Trim
8	+Sense
9	+Vout

### 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)  
Tolerance 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.