

# CHB75

S E R I E S

## 37.5-75 WATT 1/2 BRICK DC-DC CONVERTERS



### Features

- 37.5-75W 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		
CHB75-12S25	9-18 VDC	2.5 VDC	15A	50 mA	4110 mA	76	Half-Brick
CHB75-12S33		3.3 VDC	15A		5290 mA	78	
CHB75-12S05		5 VDC	15A		7715 mA	81	
CHB75-12S12		12 VDC	6.25A		7440 mA	84	
CHB75-12S15	15 VDC	5A			7440 mA	84	
CHB75-12S24	24 VDC	3.13A			7440 mA	84	
CHB75-24S25	18-36 VDC	2.5 VDC	15A	50 mA	2029 mA	77	Half-Brick
CHB75-24S33		3.3 VDC	15A		2610 mA	79	
CHB75-24S05		5 VDC	15A		3810 mA	82	
CHB75-24S12		12 VDC	6.25A		3675 mA	85	
CHB75-24S15	15 VDC	5A			3675 mA	85	
CHB75-24S24	24 VDC	3.13A			3640 mA	86	
CHB75-48S25	36-75 VDC	2.5 VDC	15A	50 mA	1015 mA	77	Half-Brick
CHB75-48S33		3.3 VDC	15A		1305 mA	79	
CHB75-48S05		5 VDC	15A		1883 mA	83	
CHB75-48S12		12 VDC	6.25A		1838 mA	85	
CHB75-48S15		15 VDC	5A		1838 mA	85	
CHB75-48S24		24 VDC	3.13A		1820 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	24Vin power up.....17V	48Vin power up.....34V
	power down.....8V	power down.....16V	power down.....32.5V

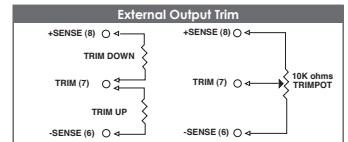
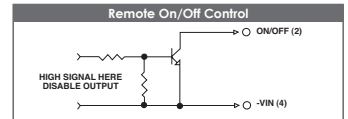
Positive Logic Remote ON/OFF\*  
Input Filter.....PI Type

**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	.....75mV pk-pk, max.
	12V & 15V.....30mV RMS, max.
	100mV pk-pk, max.
	24V.....100mV RMS, max.
	240mV pk-pk, max.
Temperature Coefficient	.....±0.05%/°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, % V <sub>o</sub> nom.	.....115-140%
Current Limit	.....110% -150% Nominal Output

**GENERAL SPECIFICATIONS:**

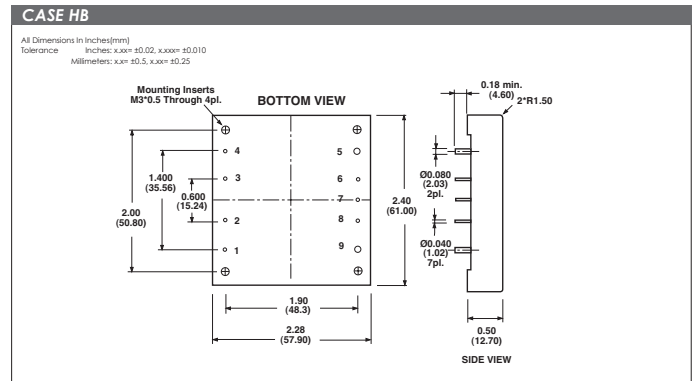
Efficiency	.....See Table
Isolation Voltage	.....Input/Output.....1500VDC min.
	Input/Case.....1500VDC min.
	Output/Case.....1500VDC min.
Isolation Resistance	.....10 ohm min.
Switching Frequency	.....(1/2)24Vin.....400KHz, typ.
	48Vin.....300KHz, typ.
Operating Case Temperature	.....-40°C to +100°C
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	.....22g



### 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.



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