



# CHB75 SERIES

## 37.5 TO 75 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT



### FEATURES

- \* 37.5W-75W Isolated Output
- \* Efficiency to 89%
- \* 300KHz Switching Frequency
- \* 2:1 Input Range
- \* Regulated Outputs
- \* Continuous Short Circuit Protection
- \* Five-Sided Metal Case
- \* Half-Brick size meet industrial standard
- \* CE Mark Meets 2006/95/EC, 93/68/EEC, and 89/336/EEC
- \* Safety Meets UL60950-1, EN60950-1, and IEC60950-1
- \* UL60950-1 and EN60950-1 Approval



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB75-12S25	9 -18 VDC	2.5 VDC	0 mA	15 A	50 mA	4110 mA	76	10000uF
CHB75-12S33	9 -18 VDC	3.3 VDC	0 mA	15 A	50 mA	5290 mA	78	10000uF
CHB75-12S05	9 -18 VDC	5 VDC	0 mA	15 A	50 mA	7530 mA	83	10000uF
CHB75-12S12	9 -18 VDC	12 VDC	0 mA	6.25 A	50 mA	7183 mA	87	10000uF
CHB75-12S15	9 -18 VDC	15 VDC	0 mA	5 A	50 mA	7267 mA	86	4000uF
CHB75-12S24	9 -18 VDC	24 VDC	0 mA	3.13 A	50 mA	7183 mA	87	2000uF
CHB75-24S25	18-36 VDC	2.5 VDC	0 mA	15 A	50 mA	2029 mA	77	10000uF
CHB75-24S33	18-36 VDC	3.3 VDC	0 mA	15 A	50 mA	2578 mA	80	10000uF
CHB75-24S05	18-36 VDC	5 VDC	0 mA	15 A	50 mA	3720 mA	84	10000uF
CHB75-24S12	18-36 VDC	12 VDC	0 mA	6.25 A	50 mA	3551 mA	88	10000uF
CHB75-24S15	18-36 VDC	15 VDC	0 mA	5 A	50 mA	3551 mA	88	4000uF
CHB75-24S24	18-36 VDC	24 VDC	0 mA	3.13 A	50 mA	3551 mA	88	2000uF
CHB75-48S25	36-75 VDC	2.5 VDC	0 mA	15 A	50 mA	1015 mA	77	10000uF
CHB75-48S33	36-75 VDC	3.3 VDC	0 mA	15 A	50 mA	1273 mA	81	10000uF
CHB75-48S05	36-75 VDC	5 VDC	0 mA	15 A	50 mA	1860 mA	84	10000uF
CHB75-48S12	36-75 VDC	12 VDC	0 mA	6.25 A	50 mA	1755 mA	89	10000uF
CHB75-48S15	36-75 VDC	15 VDC	0 mA	5 A	50 mA	1775 mA	88	4000uF
CHB75-48S24	36-75 VDC	24 VDC	0 mA	3.13 A	50 mA	1755 mA	89	2000uF

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

# SPECIFICATIONS

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

## INPUT SPECIFICATIONS:

Input Voltage Range .....	12V .....	9-18V
	24V .....	18-36V
	48V .....	36-75V
Input Surge Voltage (100ms max.) .....	12V .....	25Vdc max.
	24V .....	50Vdc max.
	48V .....	100Vdc max

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 ( see note 3 & 4 )

Input Filter ..... PI Type

## OUTPUT SPECIFICATIONS:

Voltage Accuracy: .....	±1.0% max.
Transient Response:25% Step Load Change .....	<500u sec.
External Trim Adj. Range .....	±10 %
Ripple & Noise, 20MHz BW(see note 5)	

2.5 & 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.

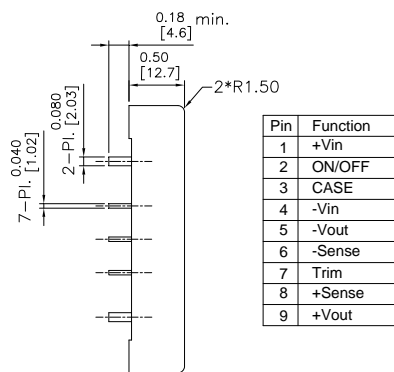
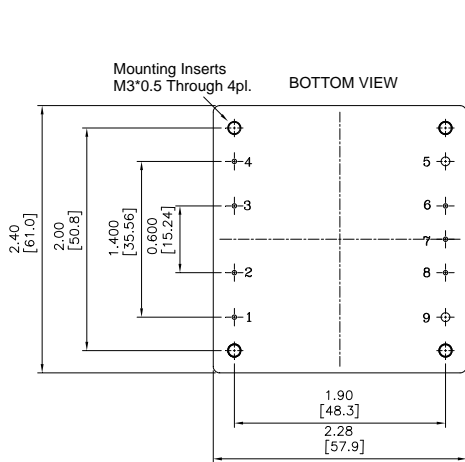
Temperature Coefficient .....	±0.03%/°C
Short Circuit Protection .....	Continuous
Line Regulation (see note 1) .....	±0.2% max.
Load Regulation (see note 2) .....	±0.2% max.
Over Voltage Protection trip Range, % Vo nom. ....	115-140%
Current Limit .....	110% ~150% Nominal Output
Start up time .....	5ms Typ.

CASE HB

All Dimensions In Inches(mm)

Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010

Millimeters: X.X= ±0.5 , X.XX=±0.25



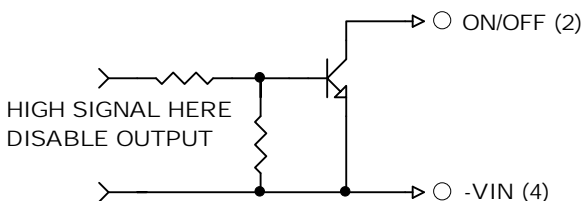
## GENERAL SPECIFICATIONS:

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.	
Isolation Capacitance .....	1000pF Typ.	
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.	
Humidity .....	95% RH max. Non condensing	
MTBF .....	MIL-STD-217F, GB, 25°C, Full Load .....	1000khrs Typ.
Dimensions .....	2.28x2.40x0.50 inches (57.9x61.0x12.7 mm)	
Case Material .....	Aluminum	
Weight .....	92g	

## 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
5. Output Ripple and Noise measured with 10uF tantalum and 1uF ceramic capacitor across output
6. Suffix "-C" to the Model Number with Clear Mounting Insert (3.2mm DIA.)

## REMOTE ON/OFF CONTROL



## EXTERNAL OUTPUT TRIM

