



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.

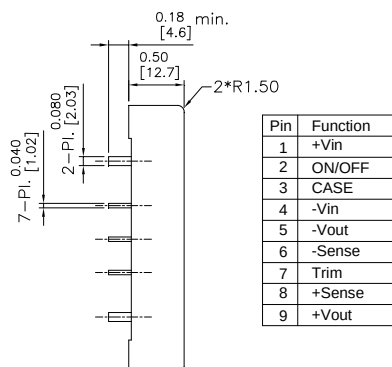
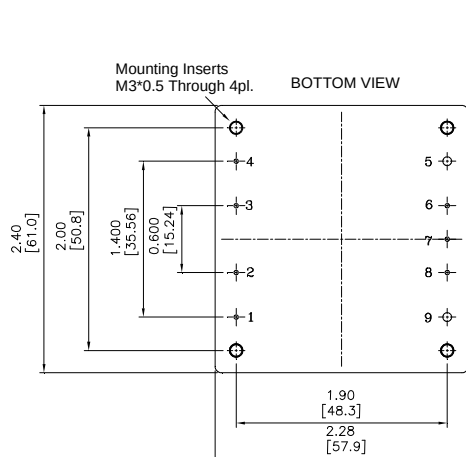
Temperature Coefficient	±0.03%/°C
Short Circuit Protection	Continuous
Line Regulation (see note 1)	±0.2% max.
Load Regulation (see note 2)	±0.2% max.
Over Voltage Protection trip Range, % Vo nom.	115-140%
Current Limit	110% ~150% Nominal Output
Start up time	5ms Typ.

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



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

GENERAL SPECIFICATIONS:

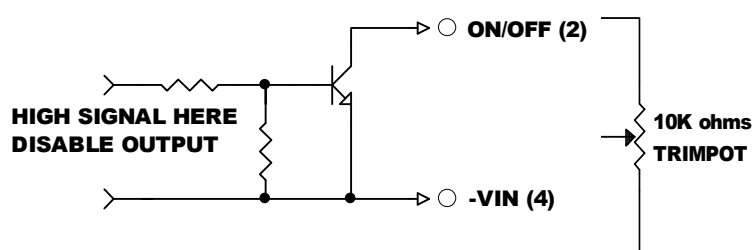
Efficiency	See Table
Isolation Voltage	Input/Output 1500VDC min.
	Input/Case 1500VDC min.
	Output/Case 1500VDC min.
Isolation Resistance	10 ⁷ ohm min.
Isolation Capacitance	1000pF Typ.
Switching Frequency	(12/24)Vin 400KHz, Typ.
	48Vin 300KHz, Typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-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



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