



CHB150 SERIES

75 TO 150 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT

CULUS
E176177

FEATURES

- * 75 - 150W Isolated Output
- * Efficiency to 89%
- * 500KHz 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 2004/108/EC
- * UL60950-1 Approval
- * Without Tantalum Capacitor inside
(V2.X Only, with ~~TC~~ Label)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB150-48S25	36-75 VDC	2.5 VDC	0mA	30A	25 mA	2A	77	30000uF
CHB150-48S33	36-75 VDC	3.3 VDC	0mA	30A	25 mA	2.5A	82	30000uF
CHB150-48S05	36-75 VDC	5 VDC	0mA	30A	25 mA	3.6A	86	30000uF
CHB150-48S12	36-75 VDC	12 VDC	0mA	12.5A	25 mA	3.5A	89	12500uF
CHB150-48S15	36-75 VDC	15 VDC	0mA	10A	25 mA	3.5A	89	10000uF
CHB150-48S24	36-75 VDC	24 VDC	0mA	6.25A	25 mA	3.5A	89	62500uF

NOTE: 1. Nominal Input Voltage 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range	48V.....	36-75V
Input Surge Voltage (100ms max.)	48V	100Vdc max.
Undervoltage lockout	48Vin power up	34V
	48Vin power down	32.5V
Positive Logic Remote ON/OFF (note 3 & 4)		
Input Filter		PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy:	±1% max.
Transient Response:25% Step Load Change	<500u sec.
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW(note 5)	
2.5V & 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 (note 1)	±0.2% max.
Load Regulation (note 2)	±0.2% max.
Over Voltage Protection trip Range, % Vo nom.	115-140%
Current Limit	110% ~140% Nominal Output
Start up time	5ms Typ.

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	500KHz ,Typ.
Operating Case Temperature	-40°C to +100°C
Storage Temperature	-40°C to +105°C
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-217F, GB, 25°C, Full Load 900khrs Typ.
Thermal Shutdown, Case Temp.	100°C Typ.
Dimensions	2.28×2.40×0.50 inches (57.9×61.0×12.7 mm)
Case Material	Aluminum
Weight	100g

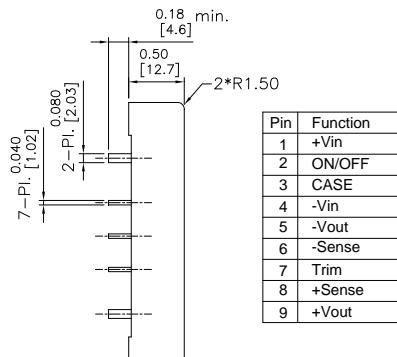
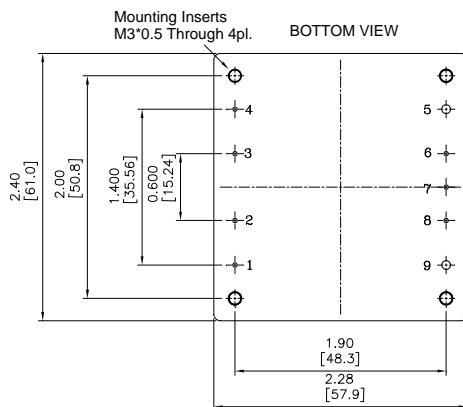
NOTE:

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.)

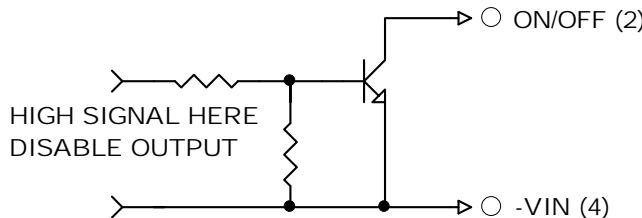
CASE HB

All Dimensions In Inches(mm)

Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
Millimeters: X.X= ±0.5 , X.XX=±0.25



REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

