CHB75W SERIES

49.5 TO 75 WATT 4:1 INPUT RANGE DC-DC CONVERTERS SINGLE OUTPUT

E176177

FEATURES

* 49.5-75W Isolated Output
* Efficiency to 85%
* 300KHz Switching Frequency
* 4:1 Wide Input Range
* Regulated Outputs
* Continuous Short Circuit Protection
* Five-Sided Metal Case
* Half-Brick Size Meet Industrial Standard
* Safety Meets IEC/EN/UL62368-1
* UL60950-1 Approval (Except 28 Vout)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB75W-24S33	9-36 VDC	3.3 VDC	0 mA	15 A	50 mA	2611 mA	79	15000uF
CHB75W-24S05	9-36 VDC	5.0 VDC	0 mA	15 A	50 mA	3811 mA	82	15000uF
CHB75W-24S12	9-36 VDC	12 VDC	0 mA	6.25 A	50 mA	3765 mA	83	6250uF
CHB75W-24S15	9-36 VDC	15 VDC	0 mA	5 A	50 mA	3720 mA	84	5000uF
CHB75W-24S24	9-36 VDC	24 VDC	0 mA	3.12 A	50 mA	3720 mA	84	3120uF
CHB75W-24S28	9-36 VDC	28 VDC	0 mA	2.67 A	50 mA	3720 mA	84	2670uF
CHB75W-24S48	9-36 VDC	48 VDC	0 mA	1.56 A	50 mA	3811 mA	82	1560uF
CHB75W-48S33	18-75 VDC	3.3 VDC	0 mA	15 A	50 mA	1289 mA	80	15000uF
CHB75W-48S05	18-75 VDC	5.0 VDC	0 mA	15 A	50 mA	1883 mA	83	15000uF
CHB75W-48S12	18-75 VDC	12 VDC	0 mA	6.25 A	50 mA	1860 mA	84	6250uF
CHB75W-48S15	18-75 VDC	15 VDC	0 mA	5 A	50 mA	1838 mA	85	5000uF
CHB75W-48S24	18-75 VDC	24 VDC	0 mA	3.12 A	50 mA	1835 mA	85	3120uF
CHB75W-48S28	18-75 VDC	28 VDC	0 mA	2.67 A	50 mA	1835 mA	85	2670uF
CHB75W-48S48	18-75 VDC	48 VDC	0 mA	1.56 A	50 mA	1860 mA	84	1560uF

NOTE: 1. Nominal Input Voltage 24, 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range ..... 24V 9-36V
48V 18-75V
Input Surge Voltage (100ms max.) ..... 24V ..... 50Vdc max.
48V ..... 100Vdc max.
Under Voltage Lockout ..... 24Vin power up 8.8V
24Vin power down 8.0V
48Vin power up 17V
48Vin power down 16V
Positive Logic Remote On/Off (note3&4)
Input Filter ..... Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy ..... ±1.0% max.
Transient Response: 25% Step Load Change ..... <500μs
External Trim Adj. Range ..... ±10%
Ripple & Noise, 20MHz BW (note5)
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.
28V ..... 100mV RMS max., 280mV pk-pk max.
48V ..... 200mV RMS max., 480mV pk-pk max.
Temperature Coefficient ..... ±0.03%/°C max.
Short Circuit Protection ..... Continuous
Line Regulation (note1&7) ..... ±0.2% max.
Load Regulation (note2&7) ..... ±0.2% max.
Over Voltage Protection Trip Range, % Vo nom. 115-140%
Current Limit ..... 110%-160% Nominal Output
Start up Time ..... 5ms typ.

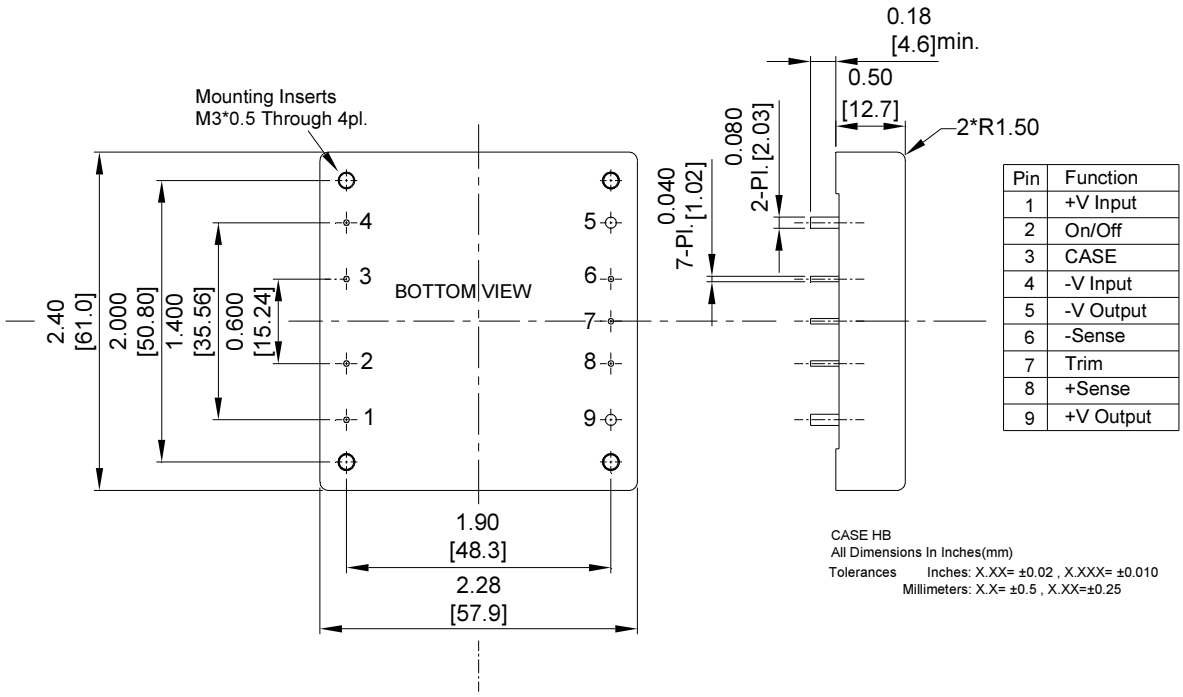
GENRAL SPECIFICATIONS:

Efficiency ..... See Table
Isolation Voltage .... Input/Output, Input/Case, Output/Case ... 1500VDC min.
Isolation Resistance ..... 10^7 ohm min.
Isolation Capacitance ..... 1000pF typ.
Switching Frequency ..... 300KHz typ.
Operating Case Temperature ..... -40℃ to 100℃
Storage Temperature ..... -55℃ to +105℃
Thermal Shutdown Case Temp. ..... 100℃ typ.
Humidity ..... 95% RH max. Non Condensing
MTBF ..... MIL-HDBK-217F. GB. 25℃. Full Load .....1000Khrs typ.
Dimensions ..... 2.28x2.40x0.50 inches (57.9x61.0x12.7 mm)
Case Material ..... Aluminum
Weight 94g

NOTE:

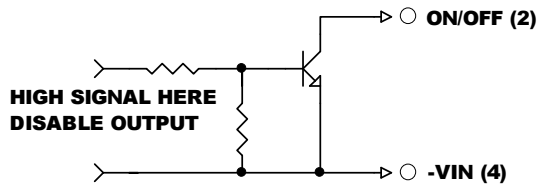
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Logic compatibility ..... open collector ref to -input
   Module on ..... >3.5VDC to 75VDC or open circuit
   Module off ..... 0 to <0.8Vdc
4. Suffix "N" to the model number with negative logic remote on/off
   Module on ..... 0 to <0.8Vdc
   Module off ..... >3.5VDC to 75VDC or open circuit
5. Output ripple and noise measured with 10uF tantalum and 1uF ceramic capacitor across output. (48V: 1uF ceramic cap. only)
6. Suffix "-C" to the model number with clear mounting insert. (3.2mm DIA.)
7. Require a 47uF aluminum capacitor connected between +Vout and -Vout for 48Vout models

CASE HB



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

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

