CHB100 SERIES

66 - 100 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT

E176177



FEATURES

* 66 - 100W 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
* UL60950-1 Approval
* Without Tantalum Capacitor Inside (Except 3.3&5Vout)

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB100-24S33	18-36 VDC	3.3 VDC	0 mA	20 A	50 mA	3313 mA	83	20000uF
CHB100-24S05	18-36 VDC	5 VDC	0 mA	20 A	50 mA	4960 mA	84	20000uF
CHB100-24S12	18-36 VDC	12 VDC	0 mA	8.3 A	50 mA	4770 mA	87	8300uF
CHB100-24S15	18-36 VDC	15 VDC	0 mA	6.7 A	50 mA	4758 mA	88	6700uF
CHB100-24S24	18-36 VDC	24 VDC	0 mA	4.17 A	50 mA	4793 mA	87	4170uF
CHB100-48S33	36-75 VDC	3.3 VDC	0 mA	20 A	50 mA	1676 mA	82	20000uF
CHB100-48S05	36-75 VDC	5 VDC	0 mA	20 A	50 mA	2422 mA	86	20000uF
CHB100-48S12	36-75 VDC	12 VDC	0 mA	8.3 A	50 mA	2331 mA	89	8300uF
CHB100-48S15	36-75 VDC	15 VDC	0 mA	6.7 A	50 mA	2352 mA	89	6700uF
CHB100-48S24	36-75 VDC	24 VDC	0 mA	4.17 A	50 mA	2369 mA	88	4170uF

NOTE: 1. Nominal Input Voltage 24 or 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

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

Under Voltage Lockout:
24Vin ..... Power Up ..... 17V, Power Down 16V
48Vin ..... Power Up ..... 34V, Power Down 32.5V

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.

Temperature Coefficient ..... ±0.03%/°C max.
Short Circuit Protection ..... Continuous
Line Regulation (note1) ..... ±0.2% max.
Load Regulation (note2) ..... ±0.2% max.
Over Voltage Protection Trip Range, % Vo Nom. 115-140%
Current Limit ..... 110%-140% Nominal Output
Start up time ..... 5ms typ.

GENRAL SPECIFICATIONS:

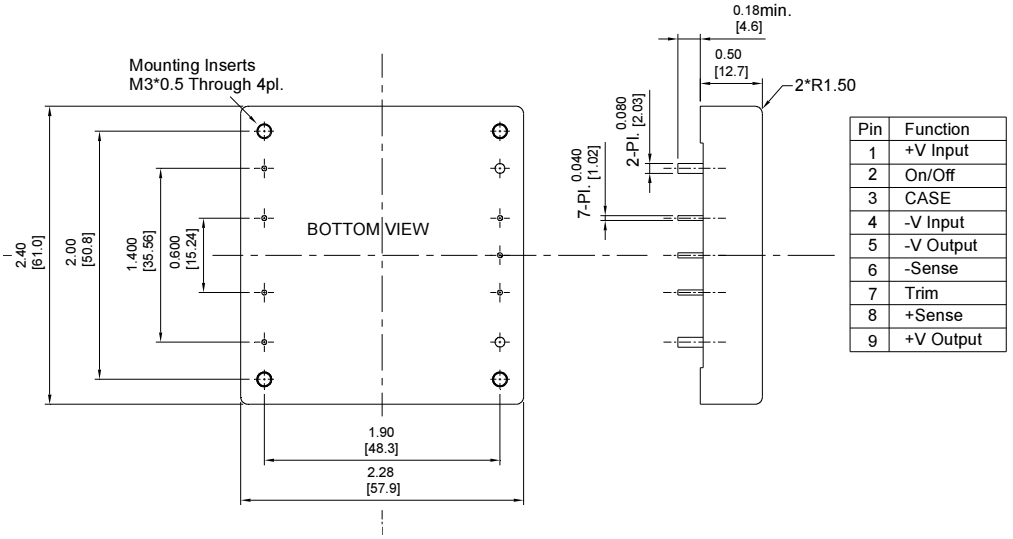
Efficiency ..... See Table
Isolation Voltage ..... Input/Output, Input/Case, Output/Case ..... 1500VDC min.
Isolation Resistance ..... 10^7 ohm min.
Isolation Capacitance ..... 1000pF typ.
Switching Frequency ..... 500KHz typ.
Operating Case Temperature ..... -40℃ to +100℃
Storage Temperature ..... -40℃ to +105℃
Thermal Shutdown Case Temperature ..... 100℃ typ.
Humidity ..... 95% RH max. Non Condensing

MTBF ..... MIL-HDBK-217F, GB, 25℃, Full Load ..... 900Khrs typ.
Dimensions ..... 2.28×2.40x0.50 inches (57.9x61.0×12.7 mm)
Case Material ..... Aluminum
Weight 95g

NOTE:

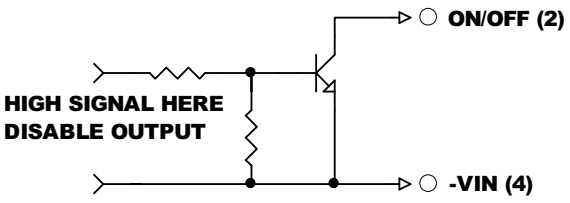
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Logic compatibility .... open collector ref to -Input
   Module on ..... open circuit
   Module off ..... 0 to < 0.8Vdc
4. Suffix "N" to the model number with negative logic remote on/off.
5. Output ripple and noise measured 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



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

