



electronic powersolutions

CHB100 SERIES

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



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°C 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.

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

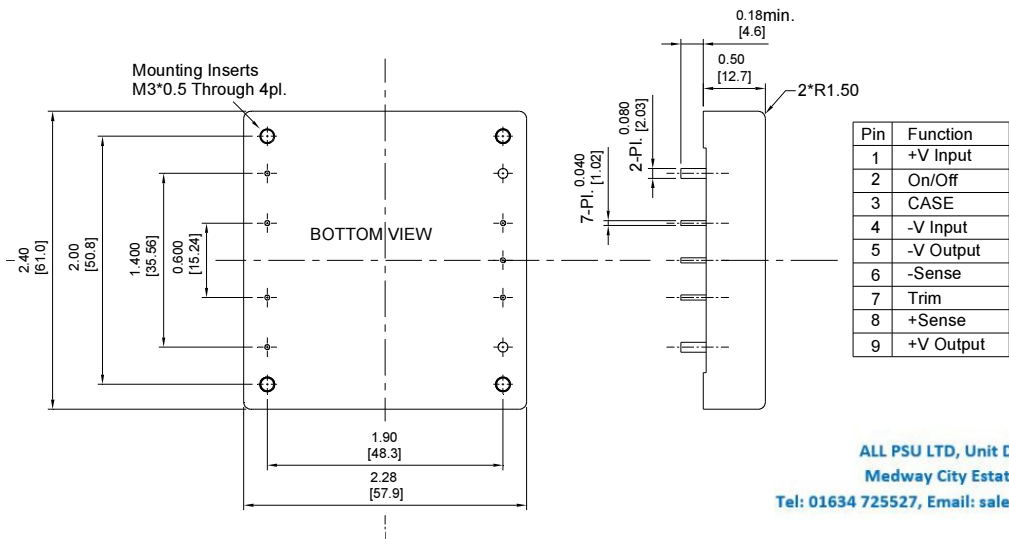
GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output, Input/Case, 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
Thermal Shutdown Case Temperature	100°C typ.
Humidity	95% RH max. Non Condensing

MTBF	MIL-HDBK-217F, GB, 25°C, Full Load	900Khrs typ.
Dimensions	2.28×2.40×0.50 inches (57.9×61.0×12.7 mm)	
Case Material	Aluminum	
Weight	95g	

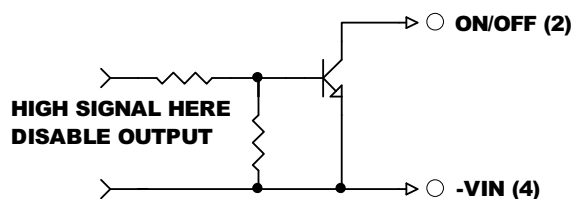
NOTE:

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.)



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REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

