



CHB100-110S SERIES

100 WATT

DC-DC CONVERTERS



FEATURES

- * 100W Isolated Output
- * Efficiency to 89%
- * Low no load input power
- * 3:1 Input Range
- * Regulated Outputs
- * Remote On/Off
- * Over Temperature Protection
- * Over Voltage/Current Protection
- * Continuous Short Circuit Protection
- * Half Brick Size meet industrial standard
- * CE Mark Meets 2014/30/EU
- * Meet UL60950-1, Meet EN50155
- * LVD Approval



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB100-110S12	66-160 VDC	12 VDC	0 mA	8.3 A	5 mA	1050 mA	86.5	8300 μ F
CHB100-110S15	66-160 VDC	15 VDC	0 mA	6.7 A	5 mA	1040 mA	87.5	4170 μ F
CHB100-110S24	66-160 VDC	24 VDC	0 mA	4.17 A	5 mA	1040 mA	87.5	4170 μ F
CHB100-110S48	66-160 VDC	48 VDC	0 mA	2.08 A	5 mA	1020 mA	89	1500 μ F

NOTE: 1. Nominal Input Voltage 110VDC

Specifications

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

INPUT SPECIFICATIONS:

Input Voltage Range	110V	66-160V
Input Surge Voltage (100ms max.)		180Vdc max.
Under Voltage Lockout	Power up	62V
	Power down	56V
Positive Logic Remote On/Off:		
Logic Compatibility	Open Collector ref to -Input	
Module On	Open Circuit	
Module Off	0 to < 1.8Vdc	
Input Filter	PI Type	

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.5% max.
Transient Response: 25% Step Load Change	<500us
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW(note3)	
12V, 15V	60mVRMS, 150mVpk-pk max.
24V	100mVRMS, 240mVpk-pk max.
48V	200mVRMS, 480mVpk-pk max.
Temperature Coefficient	±0.03%/°C
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% ~160% Nominal Output
Start up time	120ms typ.

GENERAL SPECIFICATIONS:

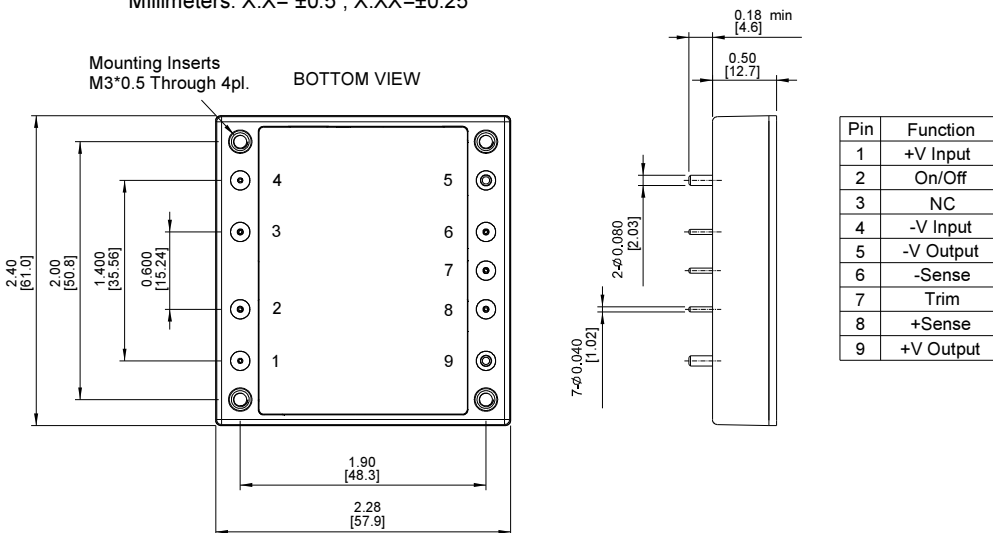
Efficiency	See Table
Isolation Voltage	Input/Output 300V _{rms} min.
	Input/Case 150V _{rms} min.
	Output/Case 50V _{rms} min.
Isolation Resistance	10 ⁹ Ohm min.
Isolation Capacitance	500pF typ.
Switching Frequency	250KHz typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown, Case Temp.	105°C typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-HDBK-217F, GB, 25°C, Full Load TBD
Safety	meet UL60950-1
EMC(note 6)	EN50155(EN50121-3-2) with external filter
Shock/Vibration	EN50155 (EN 61373)
Environmental	meet EN50155(EN60068-2-1)
Dimensions	2.28x2.40x0.50 Inches (57.9x61.0x12.7 mm)
Case Material	Aluminum Baseplate with Plastic Case
Weight	95g

NOTE:

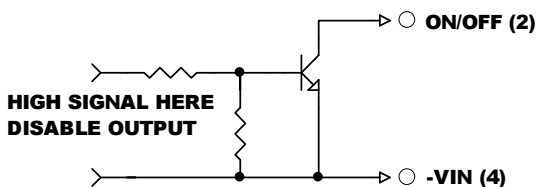
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 10uF tantalum and 1uF ceramic capacitor across output. (48V: 1uF ceramic cap. Only).
4. An external input capacitor 47uF for all models are recommended to reduce input ripple voltage.
5. Require a 47uF aluminum capacitor connected between +Vout and -Vout for 48Vout models.
6. Design meet EN50155 and RIA12 refer to application note.

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

