



CHB150-110S SERIES

150 WATT

DC-DC CONVERTERS



FEATURES

- * 150W Isolated Output
- * Efficiency to 92.5%
- * 200KHz Switching Frequency
- * 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
- * UL60950-1 Approval
- * Meet EN50155 with External Circuit



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB150-110S05	66-160 VDC	5.0 VDC	0 mA	30 A	40 mA	1474 mA	92.5	10000 μ F
CHB150-110S12	66-160 VDC	12 VDC	0 mA	12.5 A	40 mA	1474 mA	92.5	5600 μ F
CHB150-110S24	66-160 VDC	24 VDC	0 mA	6.5 A	60 mA	1541 mA	92	2200 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	> 3.5Vdc to 75Vdc or Open Circuit	
Module Off	0 to < 1.8Vdc	
Input Filter (note 6)	Pi Type	

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.0% max.
Transient Response: 25% Step Load Change	
Error Band	±5% Vout
Recover Time	<200µs
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW (note3)	
5V	40mV RMS, 100mV pk-pk max.
12V	60mV RMS, 150mV pk-pk max.
24V	100mV RMS, 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%-180% Nominal Output
Start up time	45ms typ.

GENERAL SPECIFICATIONS:

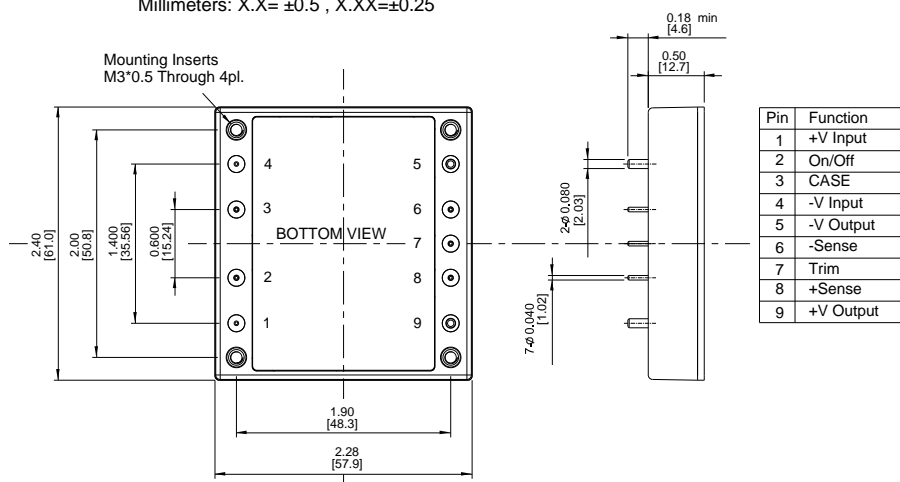
Efficiency	See Table	
Isolation Voltage	Input/Output, Input/Case	2250VDC min.
	Output/Case	1500VDC min.
Isolation Resistance	10 ⁷ ohm min.	
Isolation Capacitance	1000pF typ.	
Switching Frequency	200KHz typ.	
Operating Case Temperature	-40°C to 100°C	
Storage Temperature	-55°C to +105°C	
Thermal Shutdown Case Temp.	105°C typ.	
Humidity	95% RH max. Non condensing	
MTBF	MIL-HDBK-217F, GB, 25°C, Full Load	XXS05: 240Khrs typ.
	Others:	320Khrs typ.
Safety	UL60950-1 2 nd (Basic Insulation), Approval	
EMC (note7)	Meet EN50155(EN50121-3-2) with External Filter	
Shock/Vibration	Meet EN50155(EN61373)	
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	90g	

NOTE:

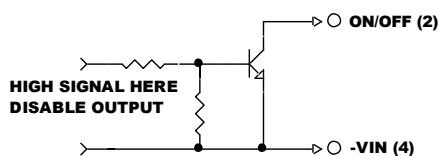
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 10µF tantalum and 1µF ceramic capacitor across output.
4. Suffix "N" to the model number with negative logic remote on/off

Module on	0 to <1.8VDC
Module off	>3.5VDC to 75VDC or open circuit
5. Suffix "-C" to the model number with clear mounting insert. (3.2mm DIA.)
6. An external input capacitor 220µF for all models are recommended to reduce input ripple voltage.
7. Design meet EN50155 and RIA12 refer to application note.

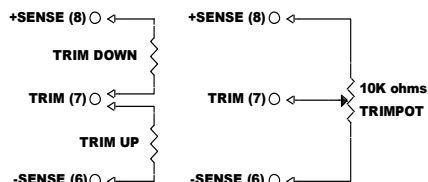
All Dimensions In Inches(mm)
 Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
 Millimeters: X.X= ±0.5 , X.XX=±0.25



Remote On/Off Control



External Output Trim



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