



# CHB150W8 SERIES

## 150 WATT 8:1 INPUT

## DC-DC CONVERTERS

## SINGLE OUTPUT



### FEATURE

- \* 150W Isolated Output
- \* Efficiency to 90%
- \* Fixed Switching Frequency
- \* Input Under Voltage Protection
- \* Over Temperature Protection
- \* Over Voltage/Current Protection
- \* Remote On/Off
- \* Industry Standard Half-Brick Package
- \* Fully Isolated 1500VDC
- \* UL60950-1 2<sup>nd</sup> Approval



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.			CAPACITIVE LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD	(2)	(1)	(3)	
CHB150W8-36S12	9-75 VDC	12 VDC	0 mA	12.5 A	60 mA	4.66 A	89.5	89.5	89.5	5000 $\mu$ F
CHB150W8-36S15	9-75 VDC	15 VDC	0 mA	10 A	60 mA	4.63 A	90	90	90	5000 $\mu$ F
CHB150W8-36S24	9-75 VDC	24 VDC	0 mA	6.25 A	60 mA	4.66 A	89.5	89.5	89	2000 $\mu$ F <sup>(4)</sup>
CHB150W8-36S28	9-75 VDC	28 VDC	0 mA	5.35 A	60 mA	4.63 A	90	90	89.5	1500 $\mu$ F <sup>(4)</sup>
CHB150W8-36S48	9-75 VDC	48 VDC	0 mA	3.13 A	60 mA	4.63 A	90.5	90	89.5	1000 $\mu$ F <sup>(4)</sup>

#### NOTE:

1. Nominal Input Voltage 36 VDC
2. Measured at 24Vin
3. Measured at 48Vin
4. The output terminal of 24, 28, 48Vout models required a minimum capacitor 100uF to maintain specified regulation.

# SPECIFICATIONS

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

## INPUT SPECIFICATIONS:

Operating Input Voltage Range	36V	9-75V
Input Surge Voltage (100ms max.)		100Vdc max
Under Voltage Lockout	power up	9.5V
	power down	8.0V
Positive Logic Remote On/Off (see note 4&5)		
Input Filter		LC Type

## OUTPUT SPECIFICATIONS:

Voltage Accuracy	$\pm 1.5\%$ max.
Transient Response: 25% Step Load Change	< 500 $\mu$ s
External Trim Adj. Range (note6)	$\pm 10\%$
Ripple & Noise, 20MHz BW	
12V&15V	60mV RMS, 120mV pk-pk max.
24V&28V	100mV RMS, 280mV pk-pk max.
48V	200mV RMS, 480mV pk-pk max.
Temperature Coefficient	$\pm 0.03\%/^{\circ}\text{C}$
Short Circuit Protection	Continuous
Line Regulation (note1)	$\pm 0.2\%$ max.
Load Regulation (note2)	$\pm 0.2\%$ max.
Over Voltage Protection Trip Range, % Vo nom.	115-140%
Current Limit	105- 200% Nominal Output
Start up Time	100ms typ.

## GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output 1500VDC min. Input/Case, Output/Case 1500VDC min.
Isolation Resistance	$10^7$ ohm min.
Isolation Capacitance	12V/15V 3500pF typ. 24V/28V/48V 2500pF typ.
Switching Frequency	200KHz typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown, Case Temperature	110°C Typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-HDBK-217F, GB, 25°C Full Load 665Khrs typ.
Dimensions	2.28x2.40x0.5 inches (57.9x61.0x12.7 mm)
Case Material	Aluminum Baseplate with Plastic Case
Weight	109g

## NOTE:

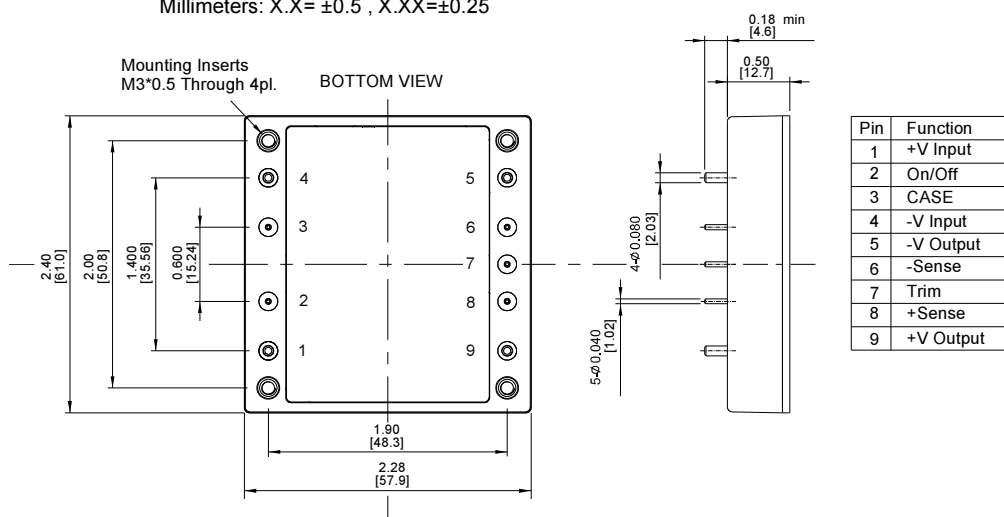
- Measured from high line to low line.
- Measured from full load to zero load.
- Output ripple and noise measured with 10uF tantalum (for 48Vout with 10uF aluminum), 1uF ceramic capacitor and minimum capacitor across output.
- Logic compatibility ..... open collector ref. to -input  
Module on ..... >3.5Vdc to 75Vdc or open circuit  
Module off ..... 0 to < 1.2Vdc
- Suffix "N" to the model number with negative logic remote on/off  
Module on ..... 0 to < 1.2Vdc  
Module off ..... >3.5Vdc to 75Vdc or open circuit
- The input external capacitor recommend to parallel with 330uF ESR<0.7Ω to reduce the input ripple voltage.

CASE HB

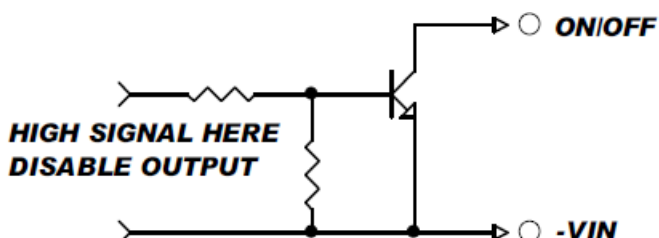
All Dimensions In Inches(mm)

Tolerances Inches: X.XX=  $\pm 0.02$  , X.XXX=  $\pm 0.010$

Millimeters: X.X=  $\pm 0.5$  , X.XX= $\pm 0.25$



## REMOTE ON/OFF CONTROL



## EXTERNAL OUTPUT TRIM

