



# 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 ..... ±1.5% max.  
 Transient Response:25% Step Load Change ..... <500μs  
 External Trim Adj. Range (note6) ..... ±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 ..... ±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 ..... 105- 200% Nominal Output  
 Start up Time ..... 100ms typ.

### GENRAL SPECIFICATIONS:

Efficiency ..... See Table  
 Isolation Voltage ..... Input/Output ..... 1500VDC min.  
   Input/Case, Output/Case ..... 1500VDC min.  
 Isolation Resistance ..... 10<sup>7</sup> 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 ..... 2.28×2.40×0.5 inches (57.9×61.0×12.7 mm)  
 Case Material ..... Aluminum Baseplate with Plastic Case  
 Weight ..... 109g

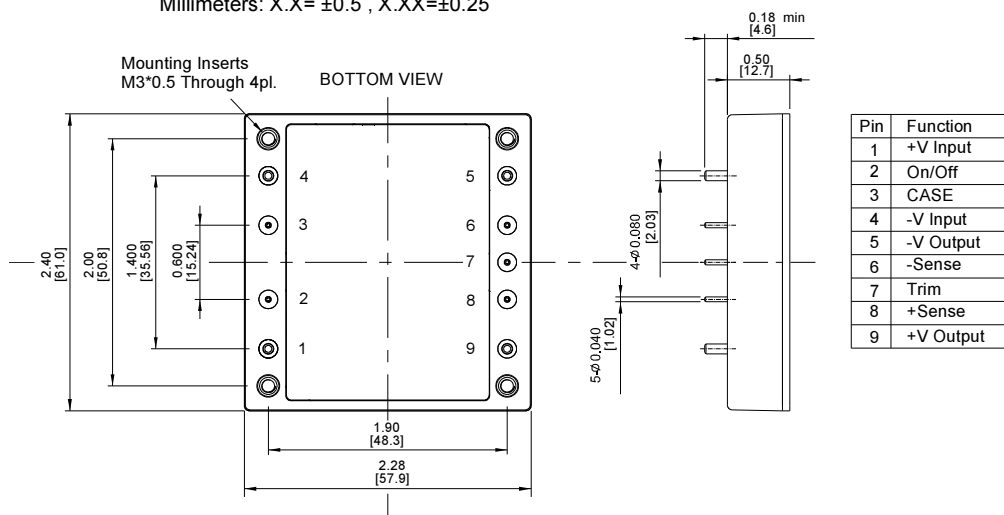
### NOTE:

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 (for 48Vout with 10uF aluminum), 1uF ceramic capacitor and minimum capacitor across output.
4. Logic compatibility ..... open collector ref. to -input  
     Module on ..... >3.5Vdc to 75Vdc or open circuit  
     Module off ..... 0 to < 1.2Vdc
5. 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
6. The input external capacitor recommend to parallel with 330uF ESR<0.7Ω to reduce the input ripple voltage.

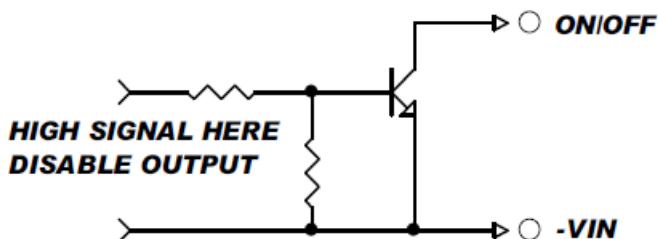
CASE HB

All Dimensions In Inches(mm)

Tolerances     Inches: X.XX= ±0.02 , X.XXX= ±0.010  
 Millimeters: X.X= ±0.5 , X.XX=±0.25



### REMOTE ON/OFF CONTROL



### EXTERNAL OUTPUT TRIM

