



CHB150W8 SERIES

150 WATT 8:1 INPUT

DC-DC CONVERTERS

SINGLE OUTPUT

FEATURE

- * 150W Isolated Output
- * Efficiency to 92.5%
- * 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



| MODEL NUMBER | INPUT VOLTAGE | OUTPUT VOLTAGE | OUTPUT CURRENT | | INPUT CURRENT | | % EFF. | | | CAPACITIVE LOAD MAX. |
|----------------|---------------|----------------|----------------|---------------------|---------------|-----------|--------|------|------|-----------------------------|
| | | | MIN. | MAX. | NO LOAD | FULL LOAD | (2) | (1) | (3) | |
| CHB150W8-36S05 | 9-75 VDC | 5 VDC | 0 mA | 30 A ⁽⁵⁾ | 150 mA | 4.71 A | 88 | 88.5 | 88.5 | 10000 μ F |
| CHB150W8-36S12 | 9-75 VDC | 12 VDC | 0 mA | 12.5 A | 150 mA | 4.53 A | 92 | 92 | 91 | 5000 μ F |
| CHB150W8-36S15 | 9-75 VDC | 15 VDC | 0 mA | 10 A | 150 mA | 4.50 A | 92 | 92.5 | 92.5 | 5000 μ F |
| CHB150W8-36S24 | 9-75 VDC | 24 VDC | 0 mA | 6.25 A | 60 mA | 4.66 A | 89.5 | 89.5 | 89 | 2000 μ F ⁽⁴⁾ |
| CHB150W8-36S28 | 9-75 VDC | 28 VDC | 0 mA | 5.35 A | 60 mA | 4.62 A | 90 | 90 | 89.5 | 1500 μ F ⁽⁴⁾ |
| CHB150W8-36S48 | 9-75 VDC | 48 VDC | 0 mA | 3.13 A | 60 mA | 4.64 A | 90.5 | 90 | 89.5 | 1000 μ F ⁽⁴⁾ |

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 100 μ F to maintain specified regulation.
5. CHB150W8-36S05 Vin=9-12V, Output Current =0.8*Io max.

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
 5V 40mV RMS, 100mV pk-pk max.
 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 $\pm 0.03\%/^{\circ}C$
 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 110ms typ.

GENERAL SPECIFICATIONS:

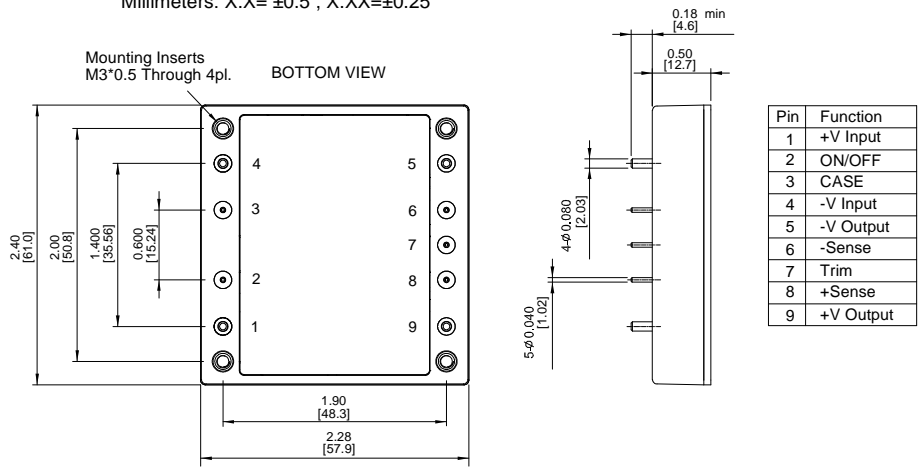
Efficiency See Table
 Isolation Voltage Input/Output 1500VDC min.
 Input/Case, Output/Case 1500VDC min.
 Isolation Resistance 10^7 ohm min.
 Isolation Capacitance 5V/12V/15V 3500pF typ.
 24V/28V/48V 2500pF typ.
 Switching Frequency 200KHz typ.
 Operating Case Temperature $-40^{\circ}C$ to $100^{\circ}C$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

NOTE:

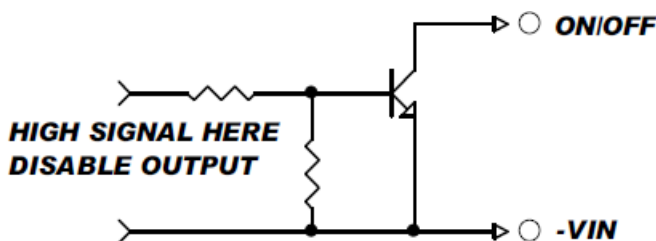
1. Measured from high line to low line.
2. Measured from full load to zero load.
3. Output ripple and noise measured with 10uF tantalum (for 48Vout with 10uF aluminum) and 1uF ceramic capacitor across output.
4. Logic compatibility open collector ref. to -input
 Module on $>3.5Vdc$ to $75Vdc$ or open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

