



CHB150W SERIES

99 - 150 WATT 4:1 INPUT DC-DC CONVERTERS SINGLE OUTPUT



FEATURES

- * 99-150W Isolated Output
- * Efficiency to 91%
- * 250KHz Switching Frequency
- * 4:1 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 (Except 28&48 Vout)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB150W-24S3V3	9-36 VDC	3.3 VDC	0 mA	30 A	200 mA	4741 mA	87	30000uF
CHB150W-24S05	9-36 VDC	5.0 VDC	0 mA	30 A	200 mA	7184 mA	87	30000uF
CHB150W-24S12	9-36 VDC	12 VDC	0 mA	12.5 A	100 mA	7102 mA	88	12500uF
CHB150W-24S15	9-36 VDC	15 VDC	0 mA	10 A	100 mA	7184 mA	87	10000uF
CHB150W-24S24	9-36 VDC	24 VDC	0 mA	6.5 A	100 mA	7386 mA	88	1800uF
CHB150W-24S28	9-36 VDC	28 VDC	0 mA	5.4 A	100 mA	7325 mA	86	1800uF
CHB150W-24S48	9-36 VDC	48 VDC	0 mA	3.12 A	200 mA	7428 mA	84	1000uF
CHB150W-48S3V3	18-75 VDC	3.3 VDC	0 mA	30 A	100 mA	2344 mA	88	30000uF
CHB150W-48S05	18-75 VDC	5.0 VDC	0 mA	30 A	100 mA	3472 mA	90	30000uF
CHB150W-48S12	18-75 VDC	12 VDC	0 mA	12.5 A	50 mA	3434 mA	91	12500uF
CHB150W-48S15	18-75 VDC	15 VDC	0 mA	10 A	50 mA	3472 mA	90	10000uF
CHB150W-48S24	18-75 VDC	24 VDC	0 mA	6.5 A	50 mA	3611 mA	90	2200uF
CHB150W-48S28	18-75 VDC	28 VDC	0 mA	5.4 A	50 mA	3580 mA	88	2200uF
CHB150W-48S48	18-75 VDC	48 VDC	0 mA	3.12 A	100 mA	3633 mA	86	1000uF

NOTE: 1. Nominal Input Voltage 24, 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

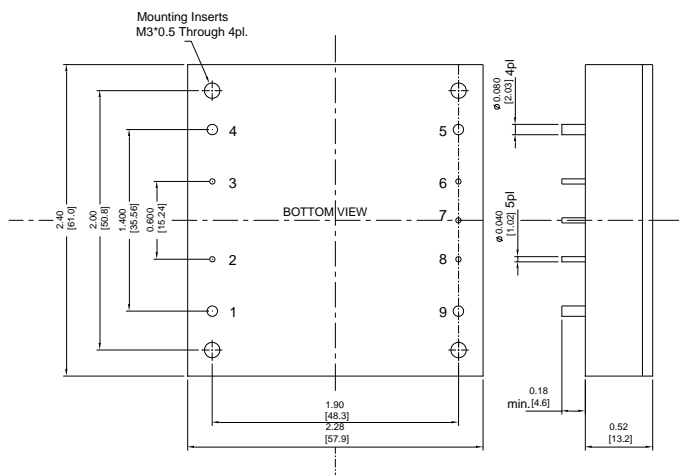
Input Voltage Range	24V	9-36V
	48V	18-75V
Input Surge Voltage (100ms max.)	24V	50Vdc max.
	48V	100Vdc max.
Under Voltage Lockout	24Vin Power Up	8.8V
	24Vin Power Down	8.0V
	48Vin Power Up	17V
	48Vin Power Down	16V
Positive Logic Remote On/Off (note 4&5)		
Input Filter		Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.0% max.
3.3V & 48V(note7)	±1.5% max.
Transient Response: 25% Step Load Change	<500µs
External Trim Adj. Range	±10%
Ripple & Noise, 20MHz BW (note3)	
3.3V & 5V	40mV RMS max., 100mV pk-pk max.
12V & 15V	60mV RMS max., 150mV pk-pk max.
24V	100mV RMS max., 240mV pk-pk max.
28V	100mV RMS max., 280mV pk-pk max.
48V	200mV RMS max., 480mV 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%-140% Nominal Output
Start up time	25ms typ.

CASE HB

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



PIN CONNECTION	
Pin	Function
1	+V Input
2	On/Off
3	CASE
4	-V Input
5	-V Output
6	-Sense
7	Trim
8	+Sense
9	+V Output

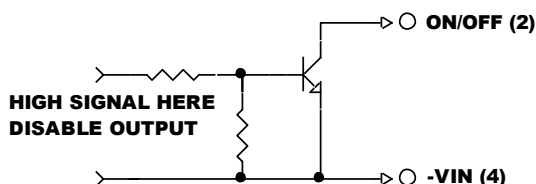
GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output, Input/Case, Output/Case ... 1500VDC min..
Isolation Resistance	10 ⁷ ohm min.
Isolation Capacitance	1000pF typ.
Switching Frequency	250KHz typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown Case Temp.	110°C typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-HDBK-217F, GB, 25°C, Full Load ... 400Khrs typ.
Dimensions	2.28x2.40x0.52 inches (57.9x61.0x13.2 mm)
Case Material	Aluminum Baseplate with Plastic Case
Weight	112g

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. Logic compatibility open collector ref to -input
Module on >3.5VDC or open circuit
Module off 0 to<1.8VDC
5. Suffix "N" to the model number with negative logic remote on/off
Module on 0 to<1.8VDC
Module off >3.5VDC or open circuit
6. Suffix "-C" to the model number with clear mounting insert. (3.2mm DIA.)
7. Require a 47µF aluminum capacitor connected between +Vout and -Vout for 48Vout models.

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM

