

132-200 WATT 4:1 INPUT RANGE DC-DC CONVERTERS



Features:

- 132-200W Isolated Output
- Half Brick Package
- 4 : 1 Input Range
- Regulated Outputs
- Efficiency to 89%
- Input Under Voltage Protection
- Monotonic Start Up
- Over Current / Voltage Protection
- Over Temperature Protection
- Remote On/Off Control
- 1500VDC Isolation
- Continuous Short Circuit Protection
- CE Mark Meets 2004/108/EC
- UL60950-1 Approval

Safety Approvals



Electrical Characteristics:

MODEL	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		%EFF	SIZE
			MIN	MAX	NO LOAD	FULL LOAD		
CHB200W-24S3V3	10-36VDC	3.3VDC	0mA	50A	130mA	7.90A	87	10000uF
CHB200W-24S05	10-36VDC	5.0VDC	0mA	40A	150mA	9.58A	87	10000uF
CHB200W-24S12	10-36VDC	12VDC	0mA	16.7A	50mA	9.71A	86	2200uF
CHB200W-24S15	10-36VDC	15VDC	0mA	13.3A	50mA	9.56A	87	2200uF
CHB200W-24S24	10-36VDC	24VDC	0mA	8.3A	45mA	9.54A	87	2200uF
CHB200W-24S48	10-36VDC	48VDC	0mA	4.2A	60mA	9.77A	86	2200uF ⁽²⁾
CHB200W-48S3V3	18-75VDC	3.3VDC	0mA	40A	80mA	3.13A	88	10000uF
CHB200W-48S05	18-75VDC	5.0VDC	0mA	40A	80mA	4.68A	89	10000uF
CHB200W-48S12	18-75VDC	12VDC	0mA	16.7A	60mA	4.74A	88	2200uF
CHB200W-48S15	18-75VDC	15VDC	0mA	13.3A	60mA	4.72A	88	2200uF
CHB200W-48S24	18-75VDC	24VDC	0mA	8.3A	60mA	4.72A	88	2200uF
CHB200W-48S48	18-75VDC	48VDC	0mA	4.2A	50mA	4.83A	87	2200uF ⁽²⁾

NOTE : 1. Nominal Input Voltage 48 VDC

2. The output terminal of 48Vout models required a minimum capacitor 47uF to maintain specific regulation.

Specification

INPUT SPECIFICATIONS

Input voltage range.....	24V.....	10-36V
	48V.....	18-75V
Input surge voltage (100 ms max.).....	24V.....	50Vdc max.
	48V.....	100Vdc max.
Under voltage lockout.....	24Vin power up.....	9.5V
	24Vin power down.....	8.5V
	48Vin power up	17V
	48Vin power down.....	16V
Positive Logic Remote ON/ OFF (see note 4 & 5)		
Input Filter.....		PI Type

OUTPUT SPECIFICATIONS

Voltage accuracy.....	±1.5% max
Transient Response: 25% Step Load Change.....	<500us
External Trim Adj. Range (6).....	±10%
Ripple & Noise, 20MHz BW	
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.
48V.....	150mV RMS, max., 480mV pk-pk max.
Temperature Coefficient.....	±0.03%/°C
Short Circuit Protection.....	Continuous
Line regulation (1).....	±0.2% max.
Load Regulation (2).....	±0.2% max.
Over Voltage Protection trip range, % Vo nom.,...	115-140%
Current Limit.....	110% ~ 150% Nominal Output
Start up time.....	120ms typ.

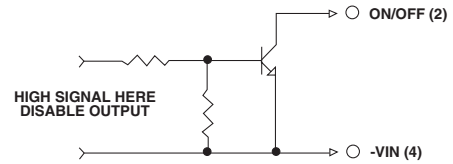
GENERAL SPECIFICATIONS

Efficiency.....	See Table
Isolation Voltage	
Input/Output, Input/Case, Output/Case.....	1500VDC min.
Isolation Resistance.....	10 ⁷ ohm min.
Isolation Capacitance.....	2000uF 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-STD-217F, GB, 25°C, Full Load.....600Khrs typ.
Dimensions.....	2.28x2.40x0.52 inches (57.9x61x13.2 mm)
Case Material.....	Aluminium Baseplate with Plastic Case
Weight.....	114g

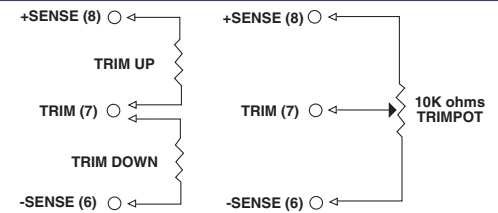
NOTE:

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 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<1.2Vdc
Module OFF>3.5Vdc to 75Vdc or Open Circuit
6. Trim-up.....Connect a Resistor Between the Trim Pin and+Sense
Trim-Down.....Connect a Resistor Between the Trim Pin and-Sense
7. Suffix "-C" to the Model Number with Clear Mounting Insert (3.2mm DIA.)
8. An external input capacitor 470uF for 24Vin or 47uF for 48Vin models are recommended to reduce the input ripple voltage.

Remote On/Off Control



Extended Output Trim

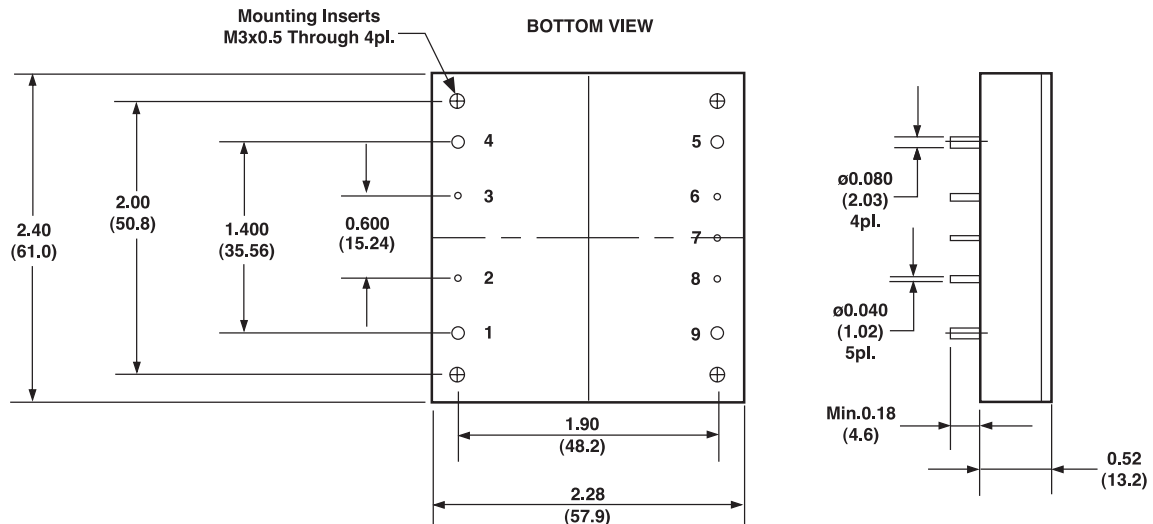


Pin Connectors

Pin	Function
1	+ V Input
2	ON / OFF
3	CASE
4	- V Input
5	- V Output
6	- Sense
7	Trim
8	+ Sense
9	+ Vout

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



All specifications typical at nominal line, Full Load and 25°C unless otherwise stated.