CHB100 SERIES

50 TO 100 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT

E176177

FEATURES



* 50 - 100W Isolated Output
* Efficiency to 89%
* 500KHz Switching Frequency
* 2 : 1 Input Range
* Regulated Outputs
* Continuous Short Circuit Protection
* Five-Sided Metal Case
* Half-Brick size meet industrial standard
* CE Mark Meets 2004/108/EC
* UL60950-1 Approval
* Without Tantalum Capacitor inside (V2.X Only, with TC Label)

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	Capacitor Load max.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB100-24S25	18-36 VDC	2.5 VDC	0mA	20A	50 mA	2637 mA	79	20000uF
CHB100-24S33	18-36 VDC	3.3 VDC	0mA	20A	50 mA	3313 mA	83	20000uF
CHB100-24S05	18-36 VDC	5 VDC	0mA	20A	50 mA	4960 mA	84	20000uF
CHB100-24S12	18-36 VDC	12 VDC	0mA	8.3A	50 mA	4770 mA	87	8300uF
CHB100-24S15	18-36 VDC	15 VDC	0mA	6.7A	50 mA	4758 mA	88	6700uF
CHB100-24S24	18-36 VDC	24 VDC	0mA	4.17A	50 mA	4793 mA	87	4170uF
CHB100-48S25	36-75 VDC	2.5 VDC	0mA	20A	50 mA	1302 mA	80	20000uF
CHB100-48S33	36-75 VDC	3.3 VDC	0mA	20A	50 mA	1676 mA	82	20000uF
CHB100-48S05	36-75 VDC	5 VDC	0mA	20A	50 mA	2422 mA	86	20000uF
CHB100-48S12	36-75 VDC	12 VDC	0mA	8.3A	50 mA	2331 mA	89	8300uF
CHB100-48S15	36-75 VDC	15 VDC	0mA	6.7A	50 mA	2352 mA	89	6700uF
CHB100-48S24	36-75 VDC	24 VDC	0mA	4.17A	50 mA	2369 mA	88	4170uF

NOTE: 1. Nominal Input Voltage 24 or 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range..... 24V.....18-36V
48V.....36-75V
Input Surge Voltage (100ms max.) ..... 24V ..... 50Vdc max.
48V ..... 100Vdc max.
Undervoltage lockout:
24Vin ..... power up -->17V, power down ----->16V
48Vin ..... power up -->34V, power down ----->32.5V
Positive Logic Remote ON/OFF (note 3 & 4)
Input Filter ..... PI Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy: ..... ±1% max.
Transient Response:25% Step Load Change .....<500u sec.
External Trim Adj. Range .....
± 1 0 %
Ripple & Noise, 20MHz BW(note 5)
2.5V & 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.
Temperature Coefficient ..... ±0.03%/°C
Short Circuit Protection ..... Continuous
Line Regulation (note 1) ..... ±0.2% max.
Load Regulation (note 2) ..... ±0.2% max.
Over Voltage Protection trip Range ,% Vo nom. 115-140%
Current Limit ..... 110% ~140% Nominal Output
Start up time ..... 5ms Typ.

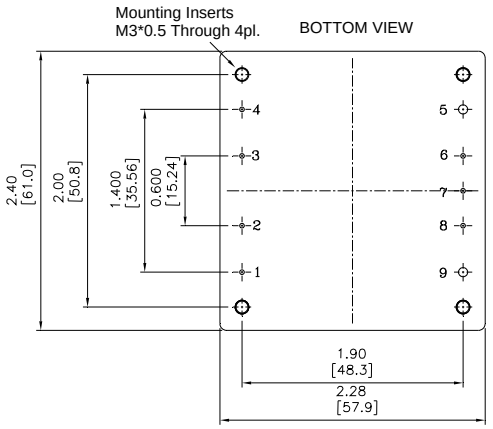
GENRAL SPECIFICATIONS:

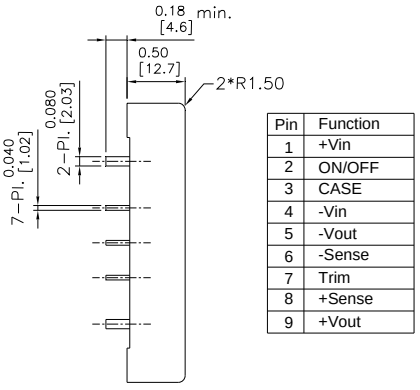
Efficiency ..... See Table
Isolation Voltage ..... Input/Output ..... 1500VDC min.
Input/Case ..... 1500VDC min.
Output/Case ..... 1500VDC min.
Isolation Resistance ..... 10^7 ohm min.
Isolation Capacitance ..... 1000pF Typ.
Switching Frequency ..... 500KHz Typ.
Operating Case Temperature ..... -40℃ to +100℃
Storage Temperature ..... -40℃ to +105℃
Thermal Shutdown, Case Temp. ..... 100℃ Typ.
Humidity ..... 95% RH max. Non condensing
MTBF ..... MIL-STD-217F, GB, 25℃, Full Load ..... 900khrs Typ.
Dimensions ..... 2.28×2.40x0.50 inches (57.9x61.0×12.7 mm)
Case Material ..... Aluminum
Weight 95g

NOTE :

1. Measured From High Line to Low Line
2. Measured From Full Load to Zero Load
3. Logic Compatibility .... Open Collector ref to -Input
   Module ON ..... Open Circuit
   Module OFF ..... < 0.8Vdc
4. Suffix "N" to the Model Number with Negative Logic Remote ON/OFF
5. Output Ripple and Noise measured with 10uF tantalum and 1uF ceramic capacitor across output
6. Suffix “-C” to the Model Number with Clear Mounting Insert (3.2mm DIA.)

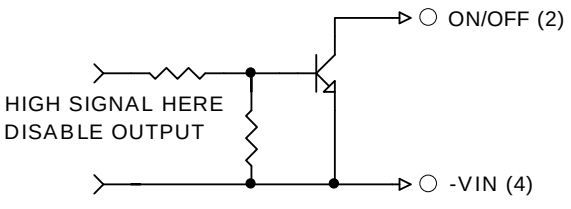
CASE HB
All Dimensions In Inches(mm)
Tolerances Inches: X.XX= ±0.02 , X.XXX= ±0.010
Millimeters: X.X= ±0.5 , X.XX=±0.25



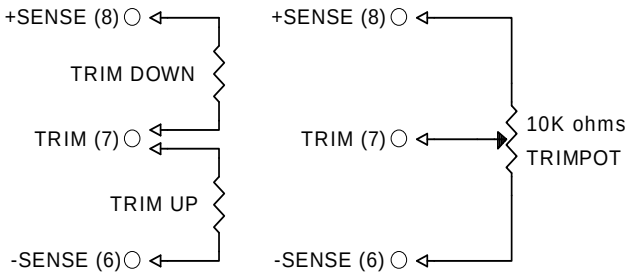


Pin	Function
1	+Vin
2	ON/OFF
3	CASE
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Cincon:

CHB100-24S25 CHB100-48S25 CHB100-48S33 CHB100-24S33 CHB100-24S05 CHB100-24S12 CHB100-24S15 CHB100-24S24 CHB100-48S05 CHB100-48S12 CHB100-48S24 CHB100-48S15N CHB100-48S24N CHB100-24S24N CHB100-48S15 CHB100-24S12N CHB100-24S05N CHB100-24S33N CHB100-24S15N CHB100-24S25N CHB100-48S12N CHB100-48S25N CHB100-48S33N CHB100-48S05N