

Datasheet

CHB 75

Cincon

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CHB75 SERIES

49.5 - 75 WATT WIDE INPUT DC-DC CONVERTERS SINGLE OUTPUT



FEATURES

- * 49.5W-75W Isolated Output
- * Efficiency to 89%
- * 300/400KHz 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 2006/95/EC, 93/68/EEC, and 89/336/EEC
- * Safety Meets UL60950-1, EN60950-1 and IEC60950-1
- * UL60950-1 Approval



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB75-12S33	9 -18 VDC	3.3 VDC	0 mA	15 A	50 mA	5290 mA	78	10000uF
CHB75-12S05	9 -18 VDC	5 VDC	0 mA	15 A	50 mA	7530 mA	83	10000uF
CHB75-12S12	9 -18 VDC	12 VDC	0 mA	6.25 A	50 mA	7183 mA	87	10000uF
CHB75-12S15	9 -18 VDC	15 VDC	0 mA	5 A	50 mA	7267 mA	86	4000uF
CHB75-12S24	9 -18 VDC	24 VDC	0 mA	3.13 A	50 mA	7183 mA	87	2000uF
CHB75-24S33	18-36 VDC	3.3 VDC	0 mA	15 A	50 mA	2578 mA	80	10000uF
CHB75-24S05	18-36 VDC	5 VDC	0 mA	15 A	50 mA	3720 mA	84	10000uF
CHB75-24S12	18-36 VDC	12 VDC	0 mA	6.25 A	50 mA	3551 mA	88	10000uF
CHB75-24S15	18-36 VDC	15 VDC	0 mA	5 A	50 mA	3551 mA	88	4000uF
CHB75-24S24	18-36 VDC	24 VDC	0 mA	3.13 A	50 mA	3551 mA	88	2000uF
CHB75-48S33	36-75 VDC	3.3 VDC	0 mA	15 A	50 mA	1273 mA	81	10000uF
CHB75-48S05	36-75 VDC	5 VDC	0 mA	15 A	50 mA	1860 mA	84	10000uF
CHB75-48S12	36-75 VDC	12 VDC	0 mA	6.25 A	50 mA	1755 mA	89	10000uF
CHB75-48S15	36-75 VDC	15 VDC	0 mA	5 A	50 mA	1775 mA	88	4000uF
CHB75-48S24	36-75 VDC	24 VDC	0 mA	3.13 A	50 mA	1755 mA	89	2000uF

NOTE: 1. Nominal Input Voltage 12, 24 or 48VDC

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range	12V	9-18V
	24V	18-36V
	48V	36-75V
Input Surge Voltage (100ms max.)	12V	25Vdc max.
	24V	50Vdc max.
	48V	100Vdc max.

Under Voltage Lockout :

12Vin	power up ---->8.8V, power down ----->8V
24Vin	power up ---->17V, power down ----->16V
48Vin	power up ---->34V, power down ----->32.5V

Positive Logic Remote ON/OFF (see note3&4)

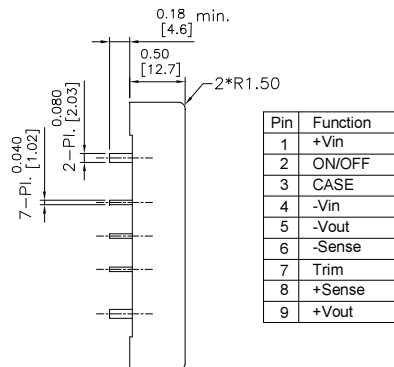
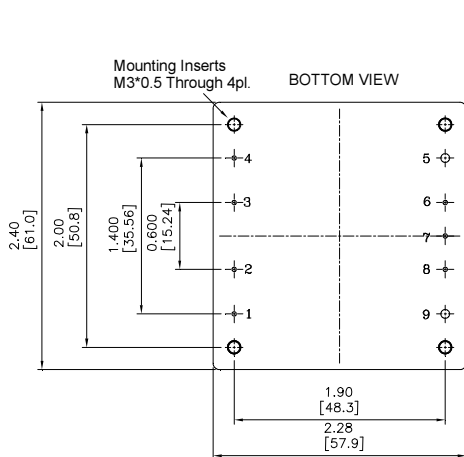
Input Filter Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy	±1.0% max.
Transient Response:25% Step Load Change	<500µs
External Trim Adj. Range	±10 %
Ripple & Noise, 20MHz BW(see note5)	
3.3V & 5V	20mV RMS max. 75mV pk-pk max.
12V & 15V	30mV RMS max. 100mV pk-pk max.
24V	100mV RMS max. 240mV pk-pk max.

Temperature Coefficient	±0.03%/°C
Short Circuit Protection	Continuous
Line Regulation (see note1)	±0.2% max.
Load Regulation (see note2)	±0.2% max.
Over Voltage Protection Trip Range, % Vo nom.	115-140%
Current Limit	110% ~150% Nominal Output
Start up time	5ms typ.

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



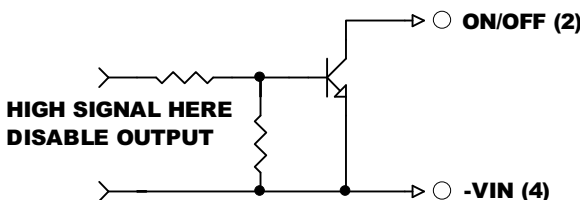
GENERAL SPECIFICATIONS:

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	(12/24)Vin 400KHz typ. 48Vin 300KHz typ.
Operating Case Temperature	-40°C to 100°C
Storage Temperature	-55°C to +105°C
Thermal Shutdown Case Temp.	100°C typ.
Humidity	95% RH max. Non condensing
MTBF	MIL-STD-217F, GB, 25°C, Full Load 1000Khrs typ.
Dimensions	2.28x2.40x0.50 inches (57.9x61.0x12.7 mm)
Case Material	Aluminum
Weight	92g

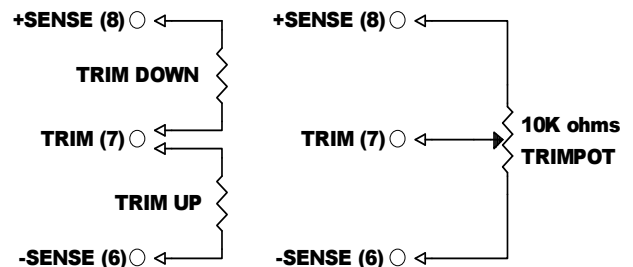
NOTE:

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.)
7. ON/OFF Pin is not directly applied voltage, please refer to remote on / off control circuit.

REMOTE ON/OFF CONTROL



EXTERNAL OUTPUT TRIM



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