



CHB300-300S SERIES 300 WATT 2:1 INPUT DC-DC CONVERTERS

FEATURES

- * 300W Isolated Output
- * Efficiency to 90%
- * Fixed Switching Frequency
- * Input Under Voltage Protection
- * Over Temperature Protection
- * Low No Load Power Consumption
- * Over Voltage/Current Protection
- * Remote On/Off
- * Half-Brick Size Meet Industrial standard
- * UL60950-1 2nd (Reinforced Insulation) Approval
- * CB Test Certificate IEC60950-1
- * Safety Meets IEC/EN/UL 62368-1



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% Eff.	CAPACITIVE LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB300-300S05	180-425 VDC	5 VDC	0 mA	60 A	10 mA	1125 mA	89	10000uF
CHB300-300S12	180-425 VDC	12 VDC	0 mA	25 A	10 mA	1135 mA	88	10000uF
CHB300-300S24	180-425 VDC	24 VDC	0 mA	12.5 A	10 mA	1110 mA	90	6000uF
CHB300-300S28	180-425 VDC	28 VDC	0 mA	10.7 A	10 mA	1110 mA	90	6000uF
CHB300-300S48	180-425 VDC	48 VDC	0 mA	6.25 A	10 mA	1110 mA	90	3000uF

NOTE:

1. Nominal Input Voltage 300 VDC.
2. An External Input Capacitor 150uF for All Models are Recommended to Reduce Input Ripple Voltage.
3. Measure at Nominal Input Voltage.

SPECIFICATIONS

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

INPUT SPECIFICATIONS:

Input Voltage Range 300V 180-425V
 Under voltage lockout 300Vin power up 170V
 300Vin power down 160V
 Positive Logic Remote On/Off (note5&6)
 Input Filter Pi Type

OUTPUT SPECIFICATIONS:

Voltage Accuracy $\pm 1.0\%$ max.
 Transient Response:25% Step Load Change <250us
 External Trim Adj. Range +10%, -20%
 Ripple & Noise, 20MHz BW (note3)
 5V 60mV RMS max., 120mV pk-pk max.
 12V 60mV RMS max., 150mV pk-pk max.
 24V 120mV RMS max., 240mV pk-pk max.
 28V 150mV RMS max., 280mV pk-pk max.
 48V 200mV RMS max., 480mV pk-pk max.

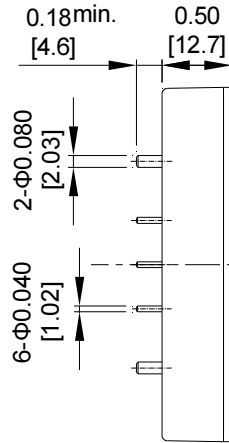
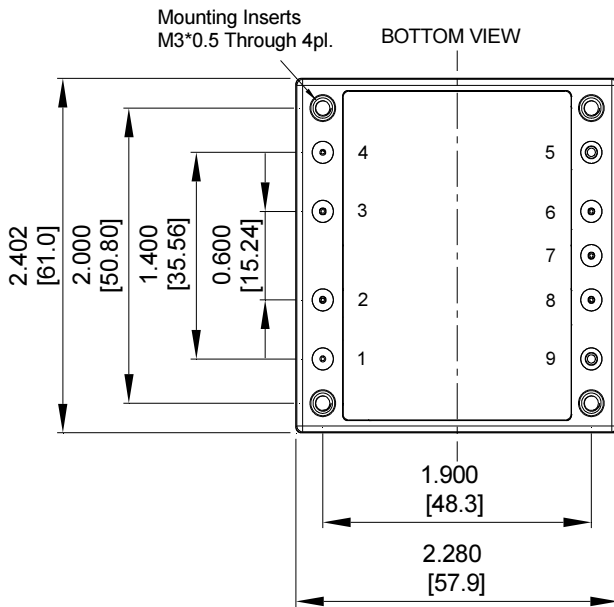
Temperature Coefficient $\pm 0.02\%/^\circ\text{C}$ max.
 Short Circuit Protection Continuous
 Line Regulation (note1) $\pm 0.2\%$ max.
 Load Regulation (note2) $\pm 0.2\%$ max.
 Over Voltage Protection Trip Range, %Vo Nom. 115-140%
 Current Limit 105%-140% Nominal Output
 Start up Time 300ms typ.

GENERAL SPECIFICATIONS:

Efficiency..... See Table
 Isolation Voltage Input/Output..... 3000VAC min.
 Input/Case..... 2500VAC min.
 Output/Case..... 500VAC min.
 Isolation Resistance 10^8 Ohm min.
 Switching Frequency 300KHz typ.
 Operating Case Temperature -40°C to 100°C
 Storage Temperature..... -55°C to +105°C
 Thermal Shutdown, Case Temp. 105°C typ.
 Humidity 95% RH max. Non Condensing
 MTBF MIL-HDBK-217F. GB.25°C. Full Load 5V 470Khrs typ.
 12V..... 590Khrs typ., Others 760Khrs typ.
 Dimensions 2.28x2.40x0.50 inches (57.9x61.0x12.7 mm)
 Case Material Aluminum Baseplate with Plastic Case
 Weight 90g

NOTE:

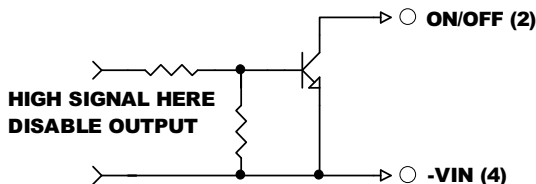
- Measured from high line to low line.
- Measured from full load to zero load.
- Output ripple and noise measured with 10uF tantalum capacitor and 1uF ceramic capacitor across output. (5V: 47uF polymer tantalum capacitor and 1uF ceramic capacitor across output). (48V: 10uF aluminum capacitor and 1uF ceramic capacitor across output).
- Logic compatibility open collector refer to -Input Module on >3.5Vdc to 75Vdc or open circuit Module off 0 to <1.2Vdc
- Suffix "N" to the model number with negative logic remote on/off Module on 0 to <1.2Vdc Module off >3.5Vdc to 75Vdc or open circuit



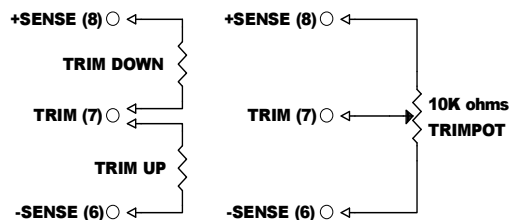
Pin	Function
1	+V Input
2	On/Off
3	NP
4	-V Input
5	-V Output
6	-Sense
7	Trim
8	+Sense
9	+V Output

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



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