



# CHB75W SERIES

## 49.5 TO 75 WATT 4:1 INPUT RANGE

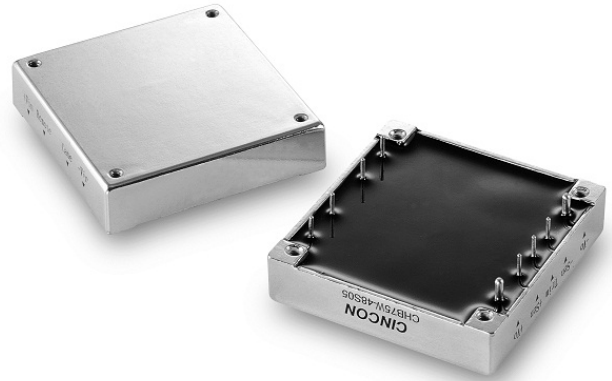
### DC-DC CONVERTERS

### SINGLE OUTPUT



## FEATURES

- \* 49.5-75W Isolated Output
- \* Efficiency to 85%
- \* 300KHz Switching Frequency
- \* 4:1 Wide Input Range
- \* Regulated Outputs
- \* Continuous Short Circuit Protection
- \* Five-Sided Metal Case
- \* Half-Brick Size Meet Industrial Standard
- \* Safety Meets IEC/EN/UL62368-1
- \* UL60950-1 Approval (Except 28 Vout)



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT		INPUT CURRENT		% EFF.	CAPACITOR LOAD MAX.
			MIN.	MAX.	NO LOAD	FULL LOAD		
CHB75W-24S33	9-36 VDC	3.3 VDC	0 mA	15 A	50 mA	2611 mA	79	15000uF
CHB75W-24S05	9-36 VDC	5.0 VDC	0 mA	15 A	50 mA	3811 mA	82	15000uF
CHB75W-24S12	9-36 VDC	12 VDC	0 mA	6.25 A	50 mA	3765 mA	83	6250uF
CHB75W-24S15	9-36 VDC	15 VDC	0 mA	5 A	50 mA	3720 mA	84	5000uF
CHB75W-24S24	9-36 VDC	24 VDC	0 mA	3.12 A	50 mA	3720 mA	84	3120uF
CHB75W-24S28	9-36 VDC	28 VDC	0 mA	2.67 A	50 mA	3720 mA	84	2670uF
CHB75W-24S48	9-36 VDC	48 VDC	0 mA	1.56 A	50 mA	3811 mA	82	1560uF
CHB75W-48S33	18-75 VDC	3.3 VDC	0 mA	15 A	50 mA	1289 mA	80	15000uF
CHB75W-48S05	18-75 VDC	5.0 VDC	0 mA	15 A	50 mA	1883 mA	83	15000uF
CHB75W-48S12	18-75 VDC	12 VDC	0 mA	6.25 A	50 mA	1860 mA	84	6250uF
CHB75W-48S15	18-75 VDC	15 VDC	0 mA	5 A	50 mA	1838 mA	85	5000uF
CHB75W-48S24	18-75 VDC	24 VDC	0 mA	3.12 A	50 mA	1835 mA	85	3120uF
CHB75W-48S28	18-75 VDC	28 VDC	0 mA	2.67 A	50 mA	1835 mA	85	2670uF
CHB75W-48S48	18-75 VDC	48 VDC	0 mA	1.56 A	50 mA	1860 mA	84	1560uF

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 (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 (note5)	
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&7)	±0.2% max.
Load Regulation (note2&7)	±0.2% max.
Over Voltage Protection Trip Range, % Vo nom.	115-140%
Current Limit	110%-160% Nominal Output
Start up Time	5ms typ.

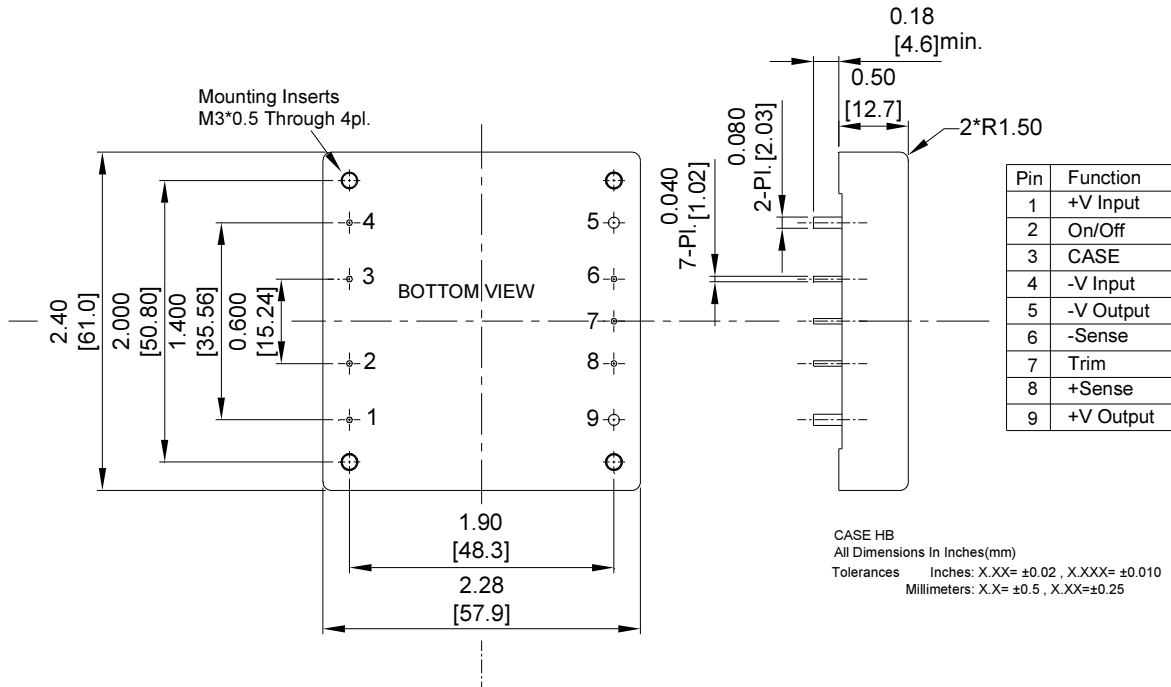
## GENERAL SPECIFICATIONS:

Efficiency	See Table
Isolation Voltage	Input/Output, Input/Case, Output/Case ... 1500VDC min.
Isolation Resistance	10 <sup>7</sup> ohm min.
Isolation Capacitance	1000pF typ.
Switching Frequency	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-HDBK-217F, GB, 25°C, Full Load ... 1000Khrs typ.
Dimensions	2.28x2.40x0.50 inches (57.9x61.0x12.7 mm)
Case Material	Aluminum
Weight	94g

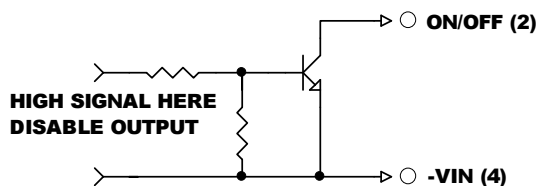
## NOTE:

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 ..... >3.5VDC to 75VDC or open circuit  
 Module off ..... 0 to <0.8Vdc
4. Suffix "N" to the model number with negative logic remote on/off  
 Module on ..... 0 to <0.8Vdc  
 Module off ..... >3.5VDC to 75VDC or open circuit
5. Output ripple and noise measured with 10uF tantalum and 1uF ceramic capacitor across output. (48V: 1uF ceramic cap. only)
6. Suffix "-C" to the model number with clear mounting insert. (3.2mm DIA.)
7. Require a 47uF aluminum capacitor connected between +Vout and -Vout for 48Vout models

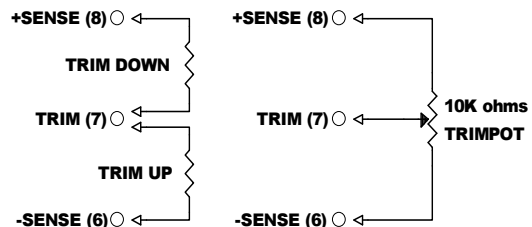
## CASE HB



## REMOTE ON/OFF CONTROL



## EXTERNAL OUTPUT TRIM



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[24S33-DIN](#) [CHB75W-48S33-DIN](#)