

# HB75

37.5 to 75 WATT WIDE INPUT  
DC/DC CONVERTERS  
SINGLE OUTPUT

## Features:

- 37.5W - 75 W Isolated Output
- Efficiency to 85%
- 300KHz Switching Frequency
- 2:1 Input Range
- Regulated Outputs
- Continuous Short Circuit Protection
- Five-Sided Metal Case
- Half-Brick size meets Industrial Standards

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT NO LOAD	INPUT CURRENT FULL LOAD	% EFF.	CASE
HB75-12S25	9-18VDC	2.5VDC	15A	50mA	4110mA	76	HB
HB75-12S33		3.3VDC	15A		5290mA	78	
HB75-12S05		5VDC	15A		7715mA	81	
HB75-12S12		12VDC	6.25A		7440mA	84	
HB75-12S15		15VDC	5A		7440mA	84	
HB75-12S24		24VDC	3.13A		7440mA	84	
HB75-24S25	18-36VDC	2.5VDC	15A	50mA	2029mA	77	HB
HB75-24S33		3.3VDC	15A		2610mA	79	
HB75-24S05		5VDC	15A		3810mA	82	
HB75-24S12		12VDC	6.25A		3675mA	85	
HB75-24S15		15VDC	5A		3675mA	85	
HB75-24S24		24VDC	3.13A		3640mA	86	
HB75-48S25	36-75VDC	2.5VDC	15A	50mA	1015mA	77	HB
HB75-48S33		3.3VDC	15A		1305mA	79	
HB75-48S05		5VDC	15A		1883mA	83	
HB75-48S12		12VDC	6.25A		1838mA	85	
HB75-48S15		15VDC	5A		1838mA	85	
HB75-48S24		24VDC	3.13A		1820mA	86	

Note: 1. Nominal Input voltage 12, 24 or 48VDC.



**D1 International, Inc.**

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**INPUT SPECIFICATIONS:**

Input Voltage Range.....12V.....9-18V  
 .....24V.....18-36V  
 .....48V.....36-75V  
 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 note 3&4)

Input Filter.....Pi Type

**OUTPUT SPECIFICATIONS:**

Voltage Accuracy.....±1% max.  
 Transient Response: 25% Step Load Change.....<500µs  
 External Trim Adj. Range.....±10%  
 Ripple & Noise, 20MHz BW  
 2.5V & 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 (1).....±0.02% max.  
 Load Regulation(2).....±0.02% max.  
 Over Voltage protection trip range, %Vo nom.....115-140%  
 Current Limit.....110% - 140% nominal Output

**GENERAL SPECIFICATIONS:**

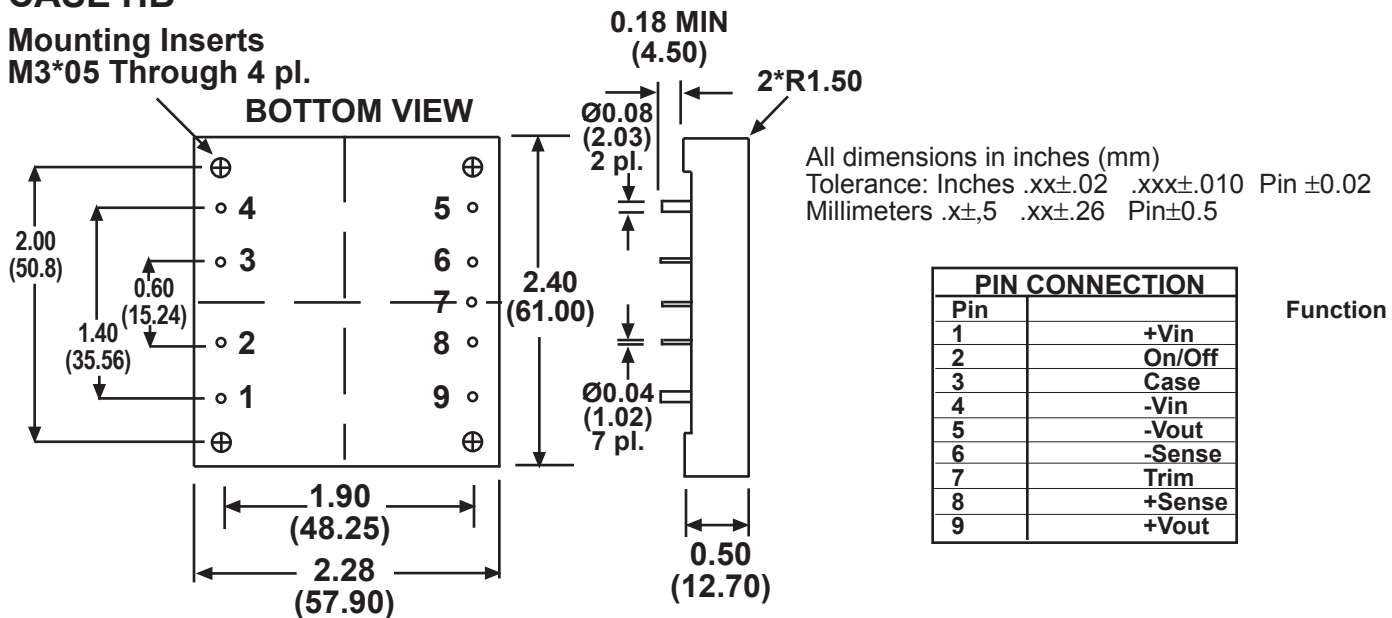
Efficiency.....See Table  
 Isolation Voltage.....Input/Output.....1500VDC min.  
 Input Case.....1500VDC min.  
 Output Case.....1500VDC min.  
 Isolation Resistance.....10- Ohm min.  
 Switching Frequency.....(12/24)Vin.....400KHz Typ.  
 48Vin.....300KHz Typ.  
 Operating Case Temperature.....-40°C to +100°C  
 Storage Temperature.....-55°C to +105°C  
 Thermal Shutdown, Case Temp. ....100°C Typ.  
 Dimensions.....2.28 x 2.40 x 0.50 inches  
 (57.9 x 61.0 x 12.7 mm)  
 Case Material.....Aluminum

**Notes:**

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.

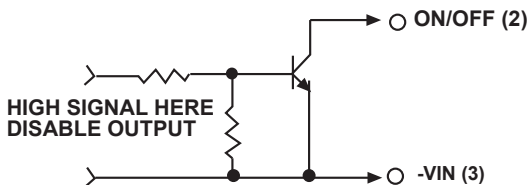
**CASE HB**

**Mounting Inserts  
 M3\*05 Through 4 pl.**

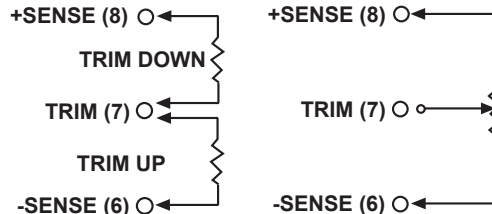


PIN CONNECTION	
Pin	Function
1	+Vin
2	On/Off
3	Case
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

**REMOTE ON/OFF CONTROL**



**EXTERNAL OUTPUT TRIM**



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