

300-456W, 48V Input Half Brick Converter

Features

- ◆ Standard Half Brick Footprint with Baseplate
- ◆ 36 -75VDC Input
- ◆ 12V Nominal Output
- ◆ Through Hole Mounting
- ◆ 1500VDC Basic Isolation
- ◆ High operating efficiency (up to 94%)
- ◆ Constant switching frequency
- ◆ Low component count



Key Market Segments & Applications



Specifications			
Model	iHG48025A120V-101-R		iHG48038A120V-109-R
Nominal Output Voltage	VDC	12	
Input Voltage Range	VDC	36 - 75	38 - 75
Efficiency	%	94	92.5
Ripple & Noise (max)(pk-pk) (1)	mV	250	280
Line Regulation (max)	mV	12	15
Load Regulation (max)	mV	10	15
Overload Protection Threshold (3)	A	30	45
Overvoltage Protection (2)	VDC	14.7	14.7
Overtemperature Protection (3)	-	Yes	
Remote Sense	-	Yes	
Remote On-Off	-	Negative Logic	
Temperature (operating)	°C	-40 to 116	
Temperature (storage)	°C	-55 to 125	
Humidity (operating)	-	20 to 95% (non-condensing)	
Humidity (storage)	-	10 to 95% (non-condensing)	
Cooling	-	Convection or Forced Air	
Isolation Voltage	VDC	1500	
Vibration (non operating)	-	5 to 50Hz@0.5g (4.9m/s ²), and 50 to 500Hz@1.5g (14.7m/s ²) per Bellcore TR-EOP-000063-5.4.4	
Shock	-	50 G at 6ms pulse in three axes	
Safety Agency Approvals	-	UL60950 (US and Canada), VDE0805, CB scheme (IEC950), CE Mark (EN60950)	
Weight (max)	g	105	
Size	mm	59.94 x 56.90 x 13.21	
Warranty	yrs	3 years	

Notes:

- (1) Measured across one 10uf, one 0.47uf, one 0.1uf ceramic capacitors, and one 220uf electrolytic capacitor. BW = 20MHz.
- (2) Latching
- (3) Non-latching

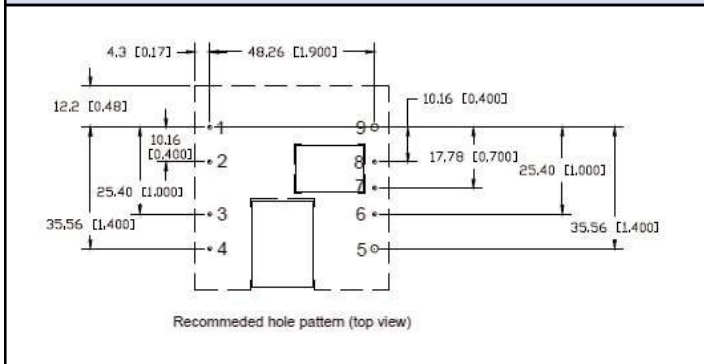
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Model Selector

Model	Input Volt. (V)	Output Volt. (V)	Adjust Range (V)	Max. Current (A)	Max. Output Power (W)	On/Off Logic	Pin Length
iHG48025A120V-101-R	36 - 75	12	6 - 13.2	25	300	Neg	0.145
iHG48038A120V-109-R	38 - 75	12	6 - 13.2	38	456	Neg	0.180

Preferred Model

Outline Drawing



PIN Assignments

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

For Additional Information, please visit
<https://product.tdk.com/en/power/>



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