

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:

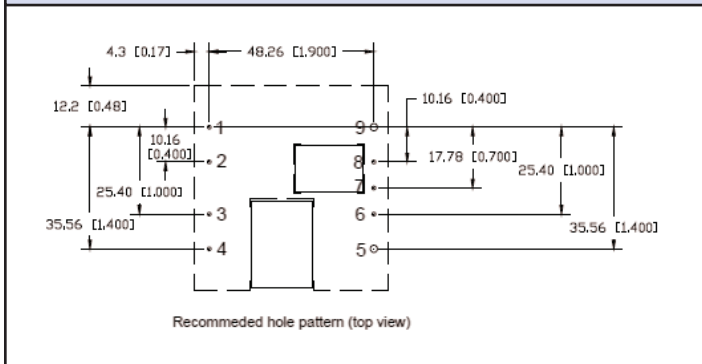
- (1) Measured across one 10uf, one 0.47uf, one 0.1uf ceramic capacitors, and one 220uf electrolytic capacitor. BW = 20MHz.
- (2) Latching
- (3) Non-latching

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 us.tdk-lambda.com/lp/products/iHG-series.htm



Other DC-DC Products

Series	Isolation	Rating	Output	Input
CC-E	Isolated	1.5 - 30W	1 -2 Outputs	5 - 48VDC
PX	Isolated	10 - 60W	1 -3 Outputs	12 - 48VDC
iSA	Isolated	36 - 82.5W	1.2 - 12V	36 - 75VDC
iEA	Isolated	48 - 78W	5 - 28V	36 - 75VDC
iEH	Isolated	300 - 317W	9.6 - 12V	36 - 75VDC
PAE50/100	Isolated	50 - 100W	1.8 - 5V	36 - 76VDC
iQL	Isolated	72 - 308W	1.2 - 28V	18 - 75VDC
iQE	Isolated	49.4 - 204W	3.3 - 12V	18 - 75VDC
iQG	Isolated	300 - 450W	9.6 - 12V	36 - 75VDC
iHG	Isolated	300 - 456W	12V	36 - 75VDC
PAH	Isolated	30 - 450W	2.5 - 48V	18 - 76VDC
PAF	Isolated	450 - 700W	3.3 - 48V	36 - 75VDC
iJB	POL, Digital	60A	0.6 - 2.0V	8 - 14VDC
i6A	POL	250W	3.3 - 20V	9 - 40VDC
iA,iB,iC	POL	3,6,12,20A	0.6 - 5.5V	2.4 - 14VDC