



300-504W Quarter Brick Converters



Features	Benefits
• High Operating Efficiency (up to 94.5%)	• Reduces Heat in System
• Constant Switching Frequency	• Predictable EMI
• Starts with Pre-biased Output	• Monotonic Start-up
• Baseplate Cooled	• Better System Thermal Management
• Parallel Operation (400W model)	• For High Power Systems

Specification		iQG48033A120V-000-109	iQG48033A120V-1D1 & 1D9	iQG48042A120V-109 & 1U9
Nominal Output Voltage	VDC	12V	12V	12V
Input Voltage Range	VDC	36 - 75VDC		39 - 75VDC
Input Current (max)	A	10.5A		15A
Efficiency (48V Input)	%	94.5%		
Output Voltage Tolerance	VDC	11.5 - 11.85	11.6 - 12.0	11.93 - 12.35
Output Voltage Adjustment	-	None		
Ripple & Noise (max) (pk - pk)	mV	125mV	150mV	175mV
Line Regulation (typical)	mV	20mV		12mV
Load Regulation (typical)	mV	35mV	n/a	35mV (-109 only)
Overload Protection (typ)	A	39A (non-latching)		52A (non-latching)
Overvoltage Protection	VDC	13.7 - 15.6 (latching)		
Remote Sense	-	No	Yes	No
Remote On / Off	-	Negative		
Current Share (Droop Mode)	-	No	Yes	(-1U9 only)
Current Share Accuracy	-	±10% (50-100% of total load)		
Temperature (operating)	°C	-40°C to 124°C (1)		-40°C to 125°C (1)
Temperature (storage)	°C	-55°C to 125°C		
Humidity (operating)	%RH	20-95% RH Non Condensing		
Humidity (storage)	%RH	10-95% RH Non Condensing		
Cooling	-	Conduction, convection, or forced air (See detailed datasheet for derating)		
Isolation Voltage	VDC	1500VDC Input to Output, Input to Baseplate		
Vibration (non operating)	-	5-50Hz @ 0.5g (4.9m/s ²) and 50-500Hz @ 1.5g (14.7m/s ²) per Bellcore TR-EOP-000063-5.4.4		
Shock	-	196.1m/s ²		
Safety Agency Certifications	-	UL60950-1 (US and Canada), VDE0805 (IEC60950-1), CB scheme (IEC60950-1), CE Mark		
Weight	g	70g		88g
Size (LxWxH)	mm	57.91 x 36.83 x 13.21		57.91 x 36.83 x 13.97
Warranty	Yrs	3		

Note: See website for detailed specifications and test methods

Note: (1) See detailed datasheet for derating

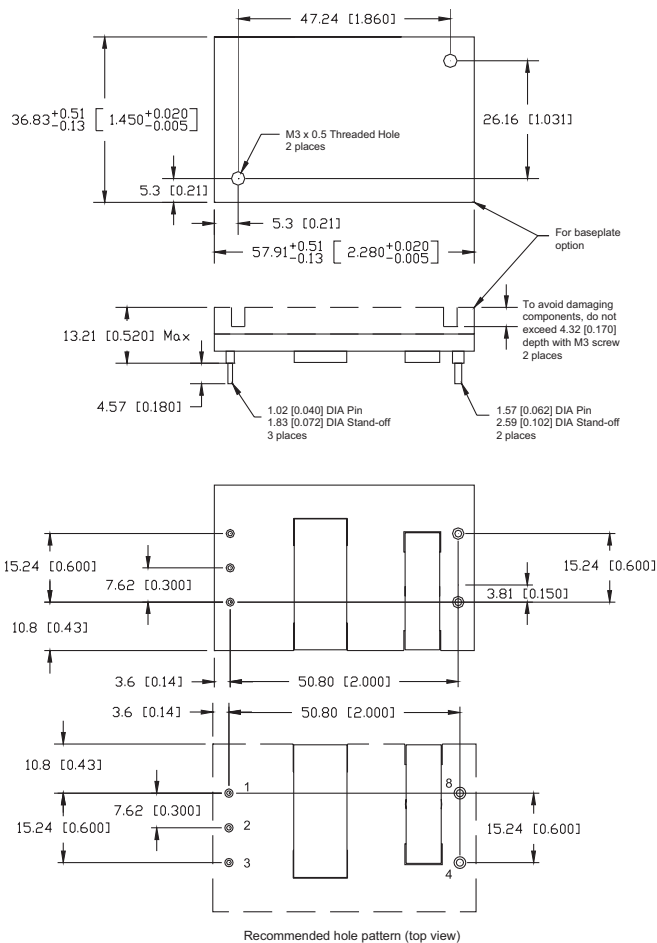
Model Selector

Model	Input Voltage (V)	Output Voltage (V)	Max. Curr. (A)	Max. Output Power (W)	On/Off Polarity	Pin Length	Base Plate
iQG48047A096V-1D1-R	36 - 75	9.6	47	450	Neg	0.145"	Yes
iQG48025A120V-001-R	36 - 75	12	25	300	Neg	0.145"	No
iQG48025A120V-101-R	36 - 75	12	25	300	Neg	0.145"	Yes
iQG48025A120V-009-R	36 - 75	12	25	300	Neg	0.180"	No
iQG48025A120V-109-R	36 - 75	12	25	300	Neg	0.180"	Yes
iQG48033A120V-109-R	36 - 75	12	33	396	Neg	0.180"	Yes
iQG48033A120V-1D9-R	36 - 75	12	33	396	Neg	0.180"	Yes
iQG48033A120V-101-R	36 - 75	12	33	400	Neg	0.145"	Yes
iQG48033A120V-1D1-R	36 - 75	12	33	400	Neg	0.145"	Yes
iQG48033A120V-009-R	36 - 75	12	33	400	Neg	0.180"	No
iQG48042A120V-109-R	39 - 75	12	42	504	Neg	0.180"	Yes
iQG48042A120V-1U9-R	39 - 75	12	42	504	Neg	0.166"	Yes

Preferred

Recommended Footprint (Top View) iQG Series

Dimensions are in mm [in]. Unless otherwise specified tolerances are: x.x ± 0.5 [0.2], x.xx and x.xxx ± 0.25 [0.010]



Pin Assignment

PIN	Function	PIN	Function
1	Vin (+)	5	None
2	On / Off	6	None
3	Vin (-)	7	None
4	Vout (-)	8	Vout (+)



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