



25 - 150W Quarter Brick Converter

- ◆ Standard Quarter Brick Footprint
- ◆ 18-36, 36-75VDC Inputs
- ◆ 1.2V 25A, 12V 12.5A Nominal Outputs
- ◆ Through Hole Mounting
- ◆ Low 8.81mm Profile
- ◆ 1500VDC Basic Isolation

RoHS

Features and Benefits

Feature	Benefit
◆ High operating efficiency (up to 92%)	◆ Reduced system heating
◆ Constant switching frequency	◆ Easier system filtering
◆ Low component count	◆ Higher reliability

Specifications

ITEMS	MODEL	iQB						
		1.2	1.5	1.8	2.5	3.3	5	12
Nominal Output Voltage	VDC	1.2	1.5	1.8	2.5	3.3	5	12
Input Voltage Range	VDC	36-75			18-36,36-75		36-75	
Input Current (max)	A	2 - 6.5 Amps model dependent						
Output Voltage Tolerance	VDC	1.16 - 1.24	1.45 - 1.55	1.74 - 1.86	2.42- 2.58	3.20 - 3.40	4.85 - 5.15	11.58 - 12.42
Ripple & Noise (max)(pk to pk) (1)	mV	75	100			125		150-250
Line Regulation (max)	mV	5						
Load Regulation (max)	mV	7						
Overload Protection (typ)	%	Inception- 120-153% of output rating; Short circuit auto recovery						
Overvoltage Protection	VDC	1.41 to 1.8	1.7 to 2.3	2.15 to 2.58	2.7 to 3.5	3.75 to 4.4	5.7 to 6.7	13.6 to 16
Remote Sense	-	Yes						
Remote On / Off	-	Positive or Negative Logic available, see Feature Set						
Temperature (operating)	°C	-40 to 120 (115°C for 24V input model)						
Temperature (storage)	°C	-55 to 125						
Humidity (operating)	-	20-95% RH Non condensing						
Humidity (storage)	-	10-95% RH 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	-	196.1m/s ²						
Safety Agency Approvals	-	UL60950 (US and Canada), VDE0805 (IEC60950), CB scheme (IEC60950), CE Mark (LVD)						
Weight (max)	g	39						
Size	mm	57.9 x 36.8 x 8.81 (10.11 for 12V 8.3A model)						
Warranty	-	3 Years						

Notes: See website for detailed specifications

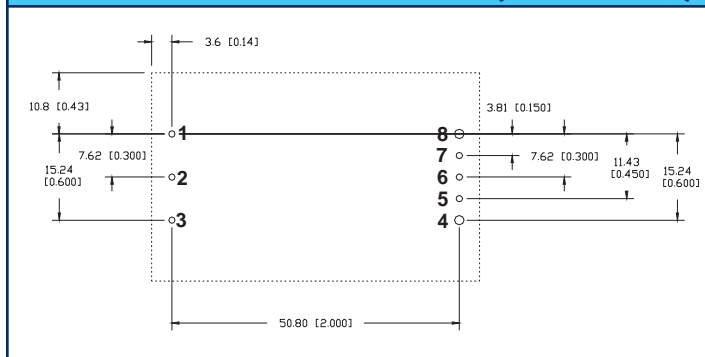
- (1) Measured across one 1µF ceramic capacitor and one 10µF Tan capacitor;
BW = 20MHz

Model Selector

Model	Voltage (V)	Adjust Range (V)	Max. Curr. (A)	Max. Output Power (W)	Efficiency at Full Load (%)
iQB48025A012V-001-R	1.2	1.08 to 1.32	25	30	78
iQB48025A015V-001-R	1.5	1.35 to 1.65	25	37.5	82
iQB48015A018V-001-R	1.8	1.62 to 1.98	15	27	85
iQB48025A018V-001-R	1.8	1.62 to 1.98	25	45	84
iQB48010A025V-001-R	2.5	2.25 to 2.75	10	25	87
iQB48020A025V-001-R	2.5	2.25 to 2.75	20	50	86
iQB48025A025V-001-R	2.5	2.25 to 2.75	25	62.5	85
iQB48010A033V-001-R	3.3	2.97 to 3.63	10	33	90
iQB24015A033V-001-R*	3.3	2.97 to 3.63	15	49.5	89
iQB48020A033V-001-R	3.3	2.97 to 3.63	20	66	89
iQB48025A033V-001-R	3.3	2.97 to 3.63	25	82.5	88
iQB48008A050V-001-R	5	4.5 to 5.5	8	40	90
iQB48015A050V-001-R	5	4.5 to 5.5	15	75	90
iQB48004A120V-001-R	12	9.6 to 13.2	4.17	50	91
iQB48008A120V-001-R	12	9.6 to 13.2	8.33	100	90
iQB48012A120V-001-R	12	9.6 to 13.2	12.5	150	92

* 24V Nominal Input

Recommended Footprint (Top View)



For Additional Information, please visit www.lambdapower.com/products/iqb-series.htm

Feature Set

Feature Set	On / Off Logic	Pin Length
00	Positive	0.145"
01*	Negative	0.145"
02	Positive	0.110"
03	Negative	0.110"
04	Positive	0.200
05	Negative	0.200

* Preferred feature set

Model Number Example: iQB48015A050V-001-R

Pinout

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

Other Lambda DC-DC Products

CC-E	1.5-12W, 1 to 2 Outputs, 5 to 48VDC Input
PX	10-40W, 1 to 3 Outputs, 12 to 48VDC Input
iPB	15-35W, 1.5-5V Output, 36-75VDC Input, Pico Brick
iSA	30-78W, 1.2-12V Output, 36-75VDC Input, Sixteenth Bricks
iEA	30-78W, 1.2-28V Output, 36-75VDC Input, Eighth Brick DC-DC
PAE50/100	36-100W, 1.9-5V Output, 36-75VDC Input, Eighth Brick DC-DC
iEB	150W, 12V Output, 42-56V Input, Eighth Brick Intermediate Bus DC-DC
iQD	300W, 12V Output, 42-53VDC Input, Quarter Brick Intermediate Bus DC-DC
iQM, iQN, iQP	30-300W, 1.2-12V Output, 24 to 48VDC Input, Quarter Brick DC-DC
PAH300/350	300-350W, 12 to 28V Output, 36-75VDC Input, Half Brick DC-DC
PAF	400-700W, 1.8 to 48V output, 24 to 400VDC Input, Full Brick DC-DC
FPS	1kW to 3kW, 24 to 48V Output, AC-DC Front Ends
iAA, iBC, PL	Non Isolated DC-DC Converters