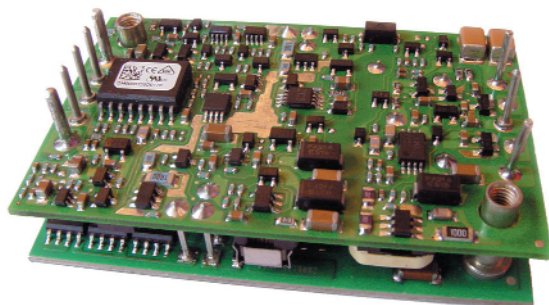


LAMBDA iQM/iQN/iQP Series



72 - 300W Quarter Brick Converter

- ◆ Standard Quarter Brick Footprint
- ◆ 36-75VDC Input
- ◆ 1.2V 100A - 35V 6A Nominal Outputs
- ◆ Through Hole Mounting
- ◆ Low 12.7mm Profile
- ◆ 1500VDC Basic Isolation

RoHS

Features and Benefits

Feature

- ◆ High operating efficiency (up to 92%)
- ◆ Constant switching frequency
- ◆ Baseplate

Benefit

- ◆ Reduced system heating
- ◆ Easier system filtering
- ◆ Allows for improved thermal management with optional heatsink

Specifications

MODEL		iQM (iQP)									
ITEMS		1.2	1.5	1.8	2.5	3.3	5	12	28	35	
Nominal Output Voltage	VDC	36 - 75									
Input Voltage Range	VDC	36 - 75									
Input Current (max)	A	2.8 - 10.5 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	11.6 - 12.4	27.44 - 28.56	34.48 - 35.53	
Ripple & Noise (max)(pk to pk)	mV	80 ¹ (50 ⁵)	90 ¹ (100 ⁵)	90 ¹ (80 ⁵)	95 ¹ (75 ⁵)	100 ¹ (80 ⁵)	100 ¹	120 ² (200 ⁵)	200 ³	250 ⁴	
Line Regulation (max)	mV	5					6.6	8 (10)	24	56	100
Load Regulation (max)	mV	5	7	6	5	6.6	10	24	N/A	N/A	
Overload Protection (typ)	%	Inception- 108-117% of rated output; Short circuit auto recovery									
Overvoltage Protection	VDC	1.5	1.83	2.25	3.1	4.1	6.1	14.5	33.6	39.7	
Remote Sense	-	Yes									
Remote On / Off	-	Positive or Negative Logic available, see Feature Set									
Temperature (operating)	°C	-40-120(121)			-40-117(121)		-40-115(119)		-40-117(116)		-40-119
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	1500V Input to output & base plate, 500V Output to base plate									
Vibration (non operating)	-	5 to 50Hz @ 0.5g (4.9m/s²), and 50 to 500Hz @ 1.5g (14.7m/s²) per Bellcore TR-EOP-000063-5.4.4									
Shock	-	196.1m/s²									
Safety Agency Approvals	-	UL60950 (US and Canada), VDE0805 (IEC60950), CB scheme (IEC60950), CE Mark (LVD)									
Weight (max)	g	60									
Size	mm	57.9 x 36.8 x 12.7									
Warranty	-	3 years									

Notes: See website for detailed specifications

- (1) Measured across 47μF + 1μF + 0.1μF ceramic caps
- (2) Measured across 47μF + 1μF + 0.1μF ceramic caps + 470μF Al electrolytic
- (3) Measured across 40μF + 1μF + 0.1μF ceramic caps + 2X220μF Al electrolytic
- (4) Measured across 47μF + 1μF + 0.1μF ceramic caps + 68μF Al electrolytic
- (5) Measured across 47μF + 1μF + 0.1μF ceramic caps + 1000μF Al electrolytic

LAMBDA iQM/iQN/iQP Series

Model Selector

Model	Voltage (V)	Adjust Range (V)	Max. Curr. (A)	Max. Output Power (W)	Efficiency at Full Load (%)
iQM48060A012V-001-R	1.2	0.96 - 1.32	60	72	80.5
iQP48100A012V-001-R	1.2	0.96 - 1.32	100	120	80
iQM48060A015V-001-R	1.5	1.2 - 1.65	60	90	83.5
iQP48090A015V-001-R	1.5	1.2 - 1.65	90	135	84
iQM48060A018V-001-R	1.8	1.44 - 1.98	60	108	85
iQP48085A018V-001-R	1.8	1.44 - 1.98	85	153	86.5
iQM48050A025V-001-R	2.5	2.0 - 2.75	50	125	88.5
iQM48060A025V-001-R	2.5	2.0 - 2.75	60	150	87.5
iQP48080A025V-001-R	2.5	2.0 - 2.75	80	200	89
iQM48035A033V-001-R	3.3	2.64 - 3.63	35	115.5	91.8
iQM48050A033V-001-R	3.3	2.64 - 3.63	50	165	90.5
iQP48070A033V-001-R	3.3	2.64 - 3.63	70	231	91.5
iQM48033A050V-001-R	5	4.0 - 5.5	33	165	91
iQP48050A050V-001-R	5	4.0 - 5.5	50	250	91.5
iQM48017A120V-001-R	12	9.6 - 13.2	17	204	90.5
iQP48021A120V-001-R	12	9.6 - 13.2	21	252	92
iQP48025A120V-001-R	12	9.6 - 13.2	25	300	91.5
iQN48007A280V-001-R	28	16.8 - 30.8	7	196	92
iQN48006A350V-001-R	35	17 - 35	6	210	90

Pinout

PIN	Function (iQM, iQN)	Function (iQP)
1	Vin (+)	Vin (+)
2	On / Off	On / Off
3	Vin (-)	Vin (-)
4	Vout (-)	Vout (-)
5	Sense (-)	Vout (-)
6	Trim	Sense (-)
7	Sense (+)	Trim
8	Vout (+)	Sense (+)
9	no pin	Vout (+)
10	no pin	Vout (+)

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

Feature Set

Feature Set	On / Off Logic	OVP	Pin Length
00	Positive	Latch	0.145
01*	Negative	Latch	0.145
02	Positive	Latch	0.110
03	Negative	Latch	0.110
04	Positive	Latch	0.200
05**	Negative	Latch	0.200
06	Positive	Non-Latch	0.145
07	Negative	Non-Latch	0.145
08	Positive	Latch	0.180
09	Negative	Latch	0.180

* Preferred feature set for iQM/iQN

** Preferred feature set for iQP

Model Number Example: iQM48050A033V-001-R

Model Number Example: iQP48050A050V-005-R

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
iQB	100W, 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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TDK-Lambda:

[iQM48017A120V-001-R](#) [iQM48035A033V-001-R](#) [iQM48050A025V-001-R](#) [iQM48050A033V-001-R](#) [iQM48060A012V-001-R](#) [iQM48060A025V-001-R](#) [iQP48021A120V-001-R](#) [iQP48025A120V-001-R](#) [iQP48050A050V-001-R](#) [iQP48070A033V-001-R](#) [iQP48080A025V-001-R](#) [iQP48090A015V-001-R](#) [iQP48100A012V-001-R](#) [iQM48033A050V-001-R](#) [iQM48060A015V-001-R](#) [iQN48006A350V-001-R](#) [iQP48085A018V-001-R](#) [iQN48007A280V-001-R](#) [iQM48060A018V-001-R](#)