

33 - 150W Quarter Brick Converter

Features

- ◆ Standard Quarter Brick Footprint
- ◆ 18-36, 36-75VDC Inputs
- ◆ 3.3V 10A, 12V 12.5A Nominal Outputs
- ◆ Through Hole Mounting
- ◆ Low 8.81mm Profile
- ◆ 1500VDC Basic Isolation



Key Market Segments & Applications



Specifications		iQB			
Model					
Nominal Output Voltage	VDC	3.3	3.3	5	12
Input Voltage Range	VDC	18-36		36 - 75	
Input Current (max)	A	4.25	4.25	4	6.5
Output Voltage Tolerance	VDC	3.20 - 3.40	3.20 - 3.40	4.85 - 5.15	11.58 - 12.42
Ripple & Noise (max) (pk-pk) (1)	mV	100	100	125	250
Line Regulation (max)	mV	5	5	10	24
Load Regulation (max)	mV	7	7	10	24
Overload Protection (typ)	A	21	32	23	15
Overvoltage Protection	VDC	3.75 - 4.4	3.75 - 4.4	5.7 - 6.7	13.6 - 16
Remote Sense	-	Yes			
Remote On / Off	-	Positive or Negative Logic, see Model Selector			
Temperature (operating)	°C	-40 to 115°C	-40 to 120°C	-40 to 120°C	-40 to 115°C
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

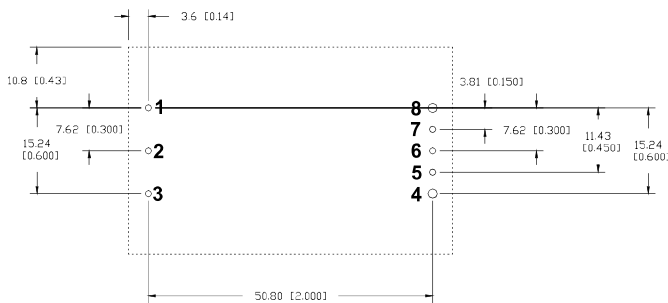
- (1) Measured across one 1μF ceramic capacitor and one 10μF Tan capacitor;
BW = 20MHz

Model Selector

Model	Output Voltage (V)	Output Curr. (A)	Max. Output Power (W)	Efficiency at Full Load (%)	Pos. Logic On/Off	Neg. Logic On/Off	OVP Latching	Pin Length
iQB48010A033V-005-R	3.3	10	33	90		X		0.200
iQB48010A033V-011-R	3.3	10	33	90		X	X	0.145
iQB24015A033V-000-R*	3.3	15	49.5	89	X			0.145
iQB48020A033V-011-R	3.3	20	66	89		X	X	0.145
iQB48025A033V-001-R	3.3	25	82.5	88		X		0.145
iQB48015A050V-005-R	5	15	75	90		X		0.200
iQB48015A050V-011-R	5	15	75	90		X	X	0.145
iQB48008A120V-000-R	12	8	96	90	X			0.145
iQB48008A120V-001-R	12	8	96	90		X		0.145
iQB48012A120V-001-R	12	12.5	150	92		X		0.145

*24V Nominal Input

Recommended Footprint (Top View)



Pinout

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

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



Other 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
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
iQD	300W, 12V Output, 42-53VDC Input, Quarter Brick Intermediate Bus DC-DC
PAH300/450	300-450W, 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, HFE	1kW to 2.5kW, 12 to 48V Output, AC-DC Front Ends
iAA, iAD, iBC	Non Isolated DC-DC Converters
iCF, iCG, iBF, iAF	Non Isolated DC-DC Converters (DOSA 2)