

## 36 - 82.5W Sixteenth Brick Converter

- ◆ Standard Sixteenth Brick Footprint (DOSA)
- ◆ 36 - 75VDC Input
- ◆ 1.2V 30A - 12V 6.5A Nominal Outputs
- ◆ Through Hole Mounting
- ◆ Low 12.7mm Profile
- ◆ 1500VDC Basic Isolation



Features and Benefits	
Feature	Benefit
◆ High operating efficiency (up to 90%)	◆ Reduced system heating
◆ Constant switching frequency	◆ Easier system filtering
◆ 44% smaller than eighth bricks	◆ Optimization of board space

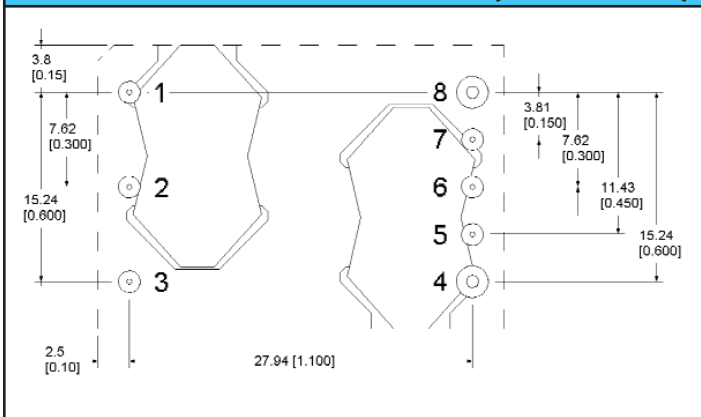
Specifications		iSA480							
ITEMS	MODEL	1.2	1.5	1.8	2.5	3.3	5	12	
Nominal Output Voltage	VDC	1.2	1.5	1.8	2.5	3.3	5	12	
Input Voltage Range	VDC	36 to 75							
Input Current (max)	A	4							
Output Voltage Tolerance	VDC	1.164-1.236	1.45-1.55	1.74-1.86	2.42-2.58	3.20-3.40	4.85-5.15	11.58-12.42	
Ripple & Noise (max)(pk to pk)	mV	75			100			200	
Line Regulation (max)	mV	7			7			10	
Load Regulation (max)	mV	8			8			10	
Overload Protection	%	Inception- 130-147% of rated output; Short circuit auto recovery							
Overvoltage Protection	VDC	1.5-2.0	1.7-2.3	2.1-2.6	2.7-3.5	3.75-4.65	5.7-6.7	13.6-15.7	
Remote Sense	-	Yes							
Remote On / Off	-	Positive and Negative Logic available, see Model Selector							
Temperature (operating)	°C	-40 to 125							
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							
I/O Isolation Voltage	VDC	1500							
Vibration (non operating)	-	5 to 50Hz @ 0.5g (4.9m/s <sup>2</sup> ), and 50 to 500Hz @ 1.5g (14.7m/s <sup>2</sup> ) per Bellcore TR-EOP-000063-5.4.4							
Shock	-	196.1m/s <sup>2</sup>							
Safety Agency Approvals	-	UL60950 (US and Canada), VDE0805 (IEC60950), CB scheme (IEC60950), CE Mark (LVD)							
Weight (max)	g	30.4							
Size	mm	33 x 22.9 x 12.7							
Warranty	-	3 Years							

Notes: See website for detailed specifications

## Model Selector

Model	Output Voltage (V)	Output Adjust (V)	Output Curr. (A)	Max. Output Power (W)	Efficiency at Full Load (%)	Pos. Logic On/Off	Neg. Logic On/Off	0.145 Pin Length
iSA48030A012V-001-R	1.2	1.08 to 1.32	30	36	75	X		X
iSA48030A015V-001-R	1.5	1.35 to 1.65	30	45	79	X		X
iSA48030A018V-001-R	1.8	1.62 to 1.98	30	54	82	X		X
iSA48025A025V-001-R	2.5	2.25 to 2.75	25	62.5	85	X		X
iSA48025A033V-000-R	3.3	2.97 to 3.63	25	82.5	88		X	X
iSA48025A033V-001-R	3.3	2.97 to 3.63	25	82.5	88	X		X
iSA48015A050V-001-R	5	4.5 to 5.5	15	75	90	X		X
iSA48007A120V-001-R	12	10.8 to 13.2	6.5	78	90	X		X

## Recommended Footprint (Top View)



## Pinout

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

For Additional Information, please visit [us.tdk-lambda.com/lp/products/isa-series.htm](http://us.tdk-lambda.com/lp/products/isa-series.htm)

## 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
iPB	15-35W, 1.5-5V Output, 36-75VDC Input, Pico Brick
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	30-300W, 1.2-12V Output, 24 to 48VDC Input, Quarter Brick 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	1kW to 3kW, 24 to 48V Output, AC-DC Front Ends
iAA, iAD, iBC	Non Isolated DC-DC Converters