

## 66 - 78W Eighth Brick DC-DC Converters

- ◆ Standard Eighth Brick Footprint
- ◆ 36-75VDC Input
- ◆ 3.3V 20A - 28V 2.67A Nominal Output
- ◆ Through Hole Mounting
- ◆ Low 8.8mm Profile
- ◆ 1500VDC Basic Isolation

**RoHS**

### Features and Benefits

Feature	Benefit
◆ High operating efficiency (up to 91%)	◆ Reduced system heating
◆ Constant switching frequency	◆ Easier system filtering
◆ Open frame design	◆ Better thermal performance

### Specifications

ITEMS	MODEL						
		3.3	5	12	15	18	28
Nominal Output Voltage	VDC	3.3	5	12	15	18	28
Input Voltage Range	VDC	36 - 75					
Input Current (max)	A	4.5					
Output Voltage Tolerance	VDC	3.20 - 3.40	4.85 - 5.15	11.58 - 12.42	14.47 - 15.52	17.28 - 18.72	26.88 - 29.12
Ripple & Noise (max) (pk-pk) (1)	mV	100	125	200	150	200	250
Line Regulation (max)	mV	7	10	24	35	45	70
Load Regulation (max)	mV	8	10	24	35	45	70
Overload Protection (typ)	A	29	20	8.5	6	4.4	4
Overvoltage Protection	VDC	3.75 - 4.4	5.7 - 6.7	13.6 - 15.7	16.8 - 22.0	20.0 - 26.0	32.0 - 38.0
Remote Sense	-	Yes					
Remote On / Off	-	Positive or Negative Logic, 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					
Isolation Voltage	VDC	1500					
Vibration (non operating)	-	5~50Hz@0.5g (4.9m/s <sup>2</sup> ), & 50~500Hz@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	58.4 x 22.9 x 8.8					
Warranty	yrs	3 Years					

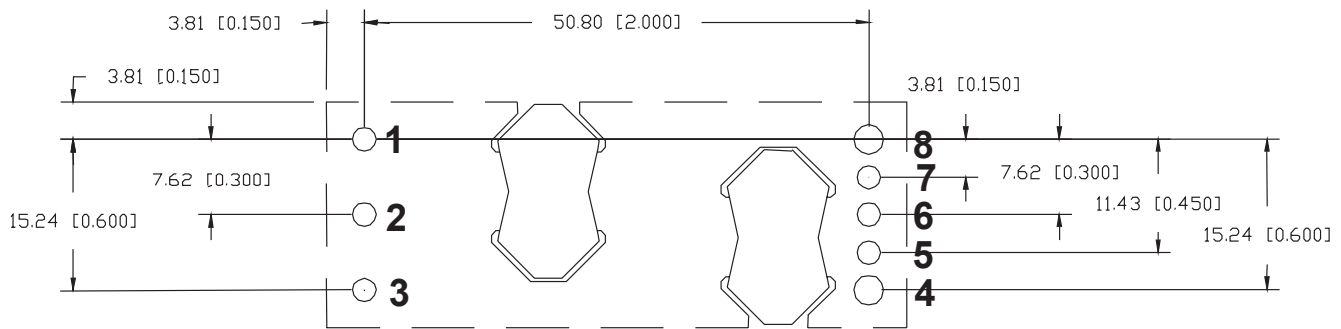
Notes: See website for detailed specifications

(1) Measured across one 1.0 μF ceramic capacitor and one 10μF tantalum capacitor; BW = 20MHz

### Model Selector

Model	Voltage Output (V)	Voltage Adjust (V)	Output Curr. (A)	Max. Output Power (W)	Efficiency at Full Load (%)	Pos. Logic On/Off	Neg. Logic On/Off
iEA48020A033V-000-R	3.3	2.97 - 3.63	20	66	90	X	
iEA48020A033V-001-R	3.3	2.97 - 3.63	20	66	90		X
iEA48015A050V-000-R	5	4.5 - 5.5	15	75	90	X	
iEA48015A050V-001-R	5	4.5 - 5.5	15	75	90		X
iEA48007A120V-000-R	12	10.8 - 13.2	7	78	91	X	
iEA48007A120V-001-R	12	10.8 - 13.2	7	78	91		X
iEA48005A150V-001-R	15	13.5 - 16.5	4.5	67.5	90		X
iEA48004A180V-001-R	18	16.2 - 19.8	3.75	67.5	90.5		X
iEA48003A280V-001-R	28	19.6 - 30.8	2.67	75	90		X

### Recommended Footprint (Top View)



### 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
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, iBC, iAD	Non Isolated DC-DC Converters

### 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/iea-series.htm](http://us.tdk-lambda.com/lp/products/iea-series.htm)