

IMT Series

200/400W Full Bricks

Description

The IMT series of high current DC/DC converters offer current levels that are comparable to existing full-bricks. With a wide input voltage range of 36-75V or 18-36V, they are available with an output voltage of either 2.5, 3.3, 5 or 12 Volts. All models feature an input filter, input undervoltage lockout, output overvoltage and overtemperature protection, output current limiting and short circuit protection. The unique construction with aluminum heat spreader design achieves efficient heat transfer with no hot spots. The use of patented Flat Matrix Transformer technology and other patent-pending design concepts facilitate maximum power delivered. The converters combine creative design concepts with highly derated power devices to achieve very high reliability, high performance and offer a low cost solution to systems designers that are challenged to maximize power and minimize board space.



Features

- Delivers up to 200/400w in Bull Brick
- High efficiency patented topology
- Low profile of only 0.50 inch
- 2.5V, 3.3V, 5V, 12V or 24V output modules
- -40°C to +85 °C ambient operation
- Meets Basic Insulation requirements of EN60950
- UL 1950 recognized, TUV EN60950, and CSA C22.2 No. 950 Certified and CE marked
- Meets conducted limits of FCC Class B and CEI IEC61204-3 Class B with external filter

Applications

- Telecommunications
- Data Communications
- Wireless Communications
- Networking Gear
- Servers, Switches and Data Storage
- Semiconductor Test Equipment
- Distributed Power Architecture

Specification Summary

- 100A @ 2.5V, 50A @ 3.3V, 80 @ 5V, 34A @ 12V and more
- Tightly output regulation, typical $\pm 1\%$
- No minimum load required
- Ripple & Noise (20Mhz BW) 100 mv (pk-pk) typical
- Wide input operating range 36-75V, 18-36, or 200-400V
- On/Off pin and remote sense
- Output adjustment $\pm 10\%$ range
- Remote sense compensation
- 1500V, 10M input-to-output isolation
- Output overcurrent and overvoltage protection
- Over Temperature protection
- Input Under voltage protection
- MTBF of 1,500,000 hours @ 50°C (Bellcore)

Part Number and Selection Information

Model Part Number	Input			Output		Efficiency 75% Load (%)
	Voltage (Volts)	Current (A)		Voltage	Current	
	Nominal	No load	Full load	(Volts)	(Amps)	
IMT200-48-3.3	48	0.2	4.5	3.3	50	77
IMT200-48-5	48	0.2	5.4	5.0	40	78
IMT200-48-12	48	0.2	5.4	12.0	17	79
IMT200-24-3.3	24	0.2	7.2	3.3	40	77
IMT200-24-5	24	0.2	8.0	5.0	30	78
IMT200-24-12	24	0.2	10.8	12.0	17	79
IMT200-300-3.3	300	0.2	0.7	3.3	40	77
IMT200-300-5	300	0.2	0.9	5.0	40	78
IMT200-300-12	300	0.2	0.9	12.0	17	79
IMT200-300-15	300	0.2	0.6	15.0	10	80
IMT400-48-3.3	48	0.2	12	3.3	100	77
IMT400-48-5	48	0.2	11	5.0	80	78
IMT400-48-12	48	0.2	10.9	12.0	34	79
IMT400-48-15	48	0.2	10.7	15.0	27	80
IMT400-48-24	48	0.2	10.6	24.0	17	81
IMT400-300-3.3	300	0.2	1.8	3.3	100	77
IMT400-300-5	300	0.2	1.7	5.0	80	78
IMT400-300-12	300	0.2	1.7	12.0	34	79
IMT400-300-15	300	0.2	1.7	15.0	27	80
IMT400-300-24	300	0.2	1.6	24.0	17	81

Consult factory for other output voltage configurations

Outline Information and Pin-out

Pin Connection		IMT200	IMT400
Pin #	Function	Pin Size	Pin Size
1	Vin +	0.04"	0.08"
2	On/Off	0.04"	0.08"
3	NC	0.04"	0.08"
4	Vin -	0.04"	0.08"
5	Vout-	0.08"	0.18"
6	-Sense	0.04"	0.08"
7	Trim	0.04"	0.08"
8	+Sense	0.04"	0.08"
9	Vout +	0.08"	0.18"

All dimensions are in inches [mm]

0.04" [1.016mm]; 0.08" [2.032mm]

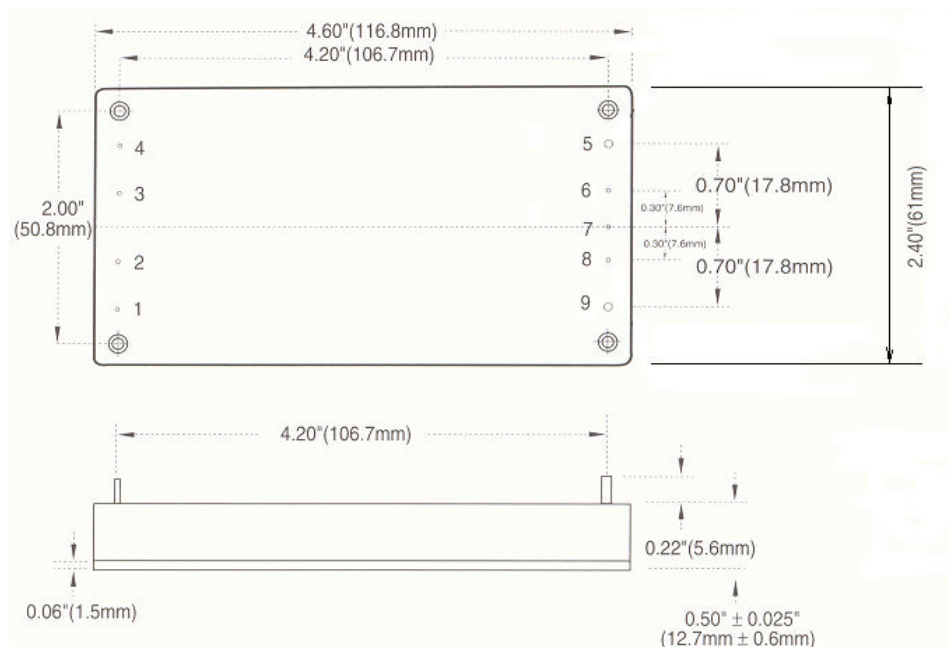
0.18" [4.572mm]

Pin material: Brass

Pin finish: Tin/Lead plated

Heat spreader (baseplate) material:

Aluminum. Weight: 135g



The information and specifications contained in this brief are believed to be accurate and reliable at the time of publication. Specifications are subject to change without notice. Refer to product specification sheet for performance characteristics and application guidelines.

Worldwide Headquarter:

Broadband TelCom Power, Inc.

1719 S. Grand Avenue, Santa Ana, CA 92705 U.S.A.

Tel.: 714-259-4888 Fax: 714-259-0840

Email: sales@btcpower.com

www.btcpower.com

European Headquarter:

Broadband TelCom Power Europe B.V.

Dukaatstraat 14, 4879 AD Etten-Leur, The Netherlands

Tel.: 31-76-5038350 Fax: 31-76-5012038

Email: info.europe@btcpower.com

PB IMT Rev1 6-22-02