

MI-J00 Mega Series

10-150 WATTS MILITARY COTS DC/DC CONVERTER

Features

- Inputs: 28, 155, 165, to 270VDC
- Output: 2 to 48VDC
- High efficiency
- Remote sense
- Up to 13.5 watts/cubic inch
- ZVS/ ZCS power architecture
- Low noise FM control



Selection Table

INPUT

Input Voltage	See table
No load power dissipation	Typ 1.35W

OUTPUT

Output Voltage	See table
Output Power	See table
Output Ripple	80mV pk-pk typical
Load Regulation	0.05% Vnom typical
Line Regulation	0.05% Vnom typical
Current Limit Setting	105%–125%
Set Point Accuracy	0.5% Vnom typical
Low–High Trim Voltage	50%–110%
Total Remote Sense Compensation	0.5V

OPERATING

Efficiency	80%–90%
Isolation	Input to Output 3,000Vrms Output to Baseplate 500Vrms Input to Baseplate 1,500Vrms

ENVIRONMENTAL

Cooling	External cooling may be required, consult sales office.
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STANDARDS AND APPROVALS

Safety standards	Refer to MI-J00
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MECHANICAL

Dimensions	1 Up: 65.5x63.5x15.7mm 2 Up: 65.5x124.4x15.7mm 3 Up: 65.5x185.4x15.7mm
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Selection Table

Single Output	MI-LJ [a] [b] – [c] [d]	10–50W
Dual Output	MI-PJ [a] [b] [b] – [c] [d] [d]	20–100W
Triple Output	MI-RJ [a] [b] [b] [b] – [c] [d] [d] [d]	30–150W

Please substitute selection character (e.g. [a]) with value designator in the appropriate table below.

A = INPUT VOLTAGE			B = OUTPUT VOLTAGE		
VNOM	RANGE	TRANS			
2 = 28V	18–50V (1)	60V	Z=2V	M = 10V	J = 36V
5 = 155V	100–210V	230V	Y = 3.3V	1 = 12V	K = 40V
6 = 270V	125–400V (2)	475V	0 = 5V	P = 13.8V	4 = 48V
7 = 165V	100–310V (3)		X = 5.2V	2 = 15V	
			V = 5.8V	N = 18.5V	
			T = 6.5V	3 = 24V	
			R = 7.5V	L = 28V	

C = PRODUCT GRADE D = OUTPUT POWER/CURRENT

	JUNIOR SIZE	JUNIOR SIZE MODULE
		V out ≥5V
		V out <5V
I = -40°C to +100°C	A = 10W	–
M = -55°C to +100°C	Z = 25W	Z = 5A
	Y = 50W	Y = 10A

Note : (1) 16V operation at 75% load.
(2) These units rated at 75% load from 125-150Vin: 5 Vout @ 50W, 2V and 3.3 V @ 10A
(3) For use with Vicor's MI-AIM

For Technical Illustration refer to page 375 in Module Section