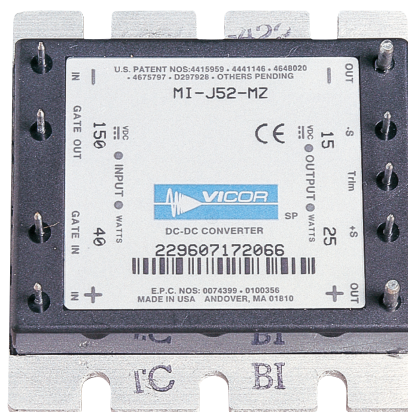


MI-J00 Series

10-50 WATTS MILITARY COTS DC/DC CONVERTER

Features

- 28Vdc and 270Vdc Inputs per MIL-STD-704D/E/F
- 155Vdc inputs per MIL-STD-1399A
- MIL-STD-810 environments
- Up to 23 W/in³
- 80-90% Efficiency
- Remote sense and current limit



Specifications

INPUT

Input voltage	See input voltage chart
No load power dissipation	Typ 1.35W

OUTPUT

Set point accuracy	0.5% V nom typical
Load/Line regulation	0.05% V nom typical
Output temperature drift	0.02%/°C
Output noise	1%pp V nom
Output voltage trimming	50% – 110%

Remote sense compensation 0.5 V

Current limit	105% – 125%
Short circuit current	105% – 130%

OPERATING

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

ENVIRONMENTAL

	I Grade	M Grade
Storage temperature	-55°C to +125°C	-65°C to +125°C
Operating temperature (baseplate)	-40°C to +100°C	-55°C to +100°C
Power cycling burn-in	12hrs 25 cycles	96hrs 200 cycles
Temperature cycled with power off	48 hrs, 12 cycles 65°C to +100°C	48hrs, 12 cycles - -65°C to +100°C
Test data supplied at these temperature	-40°C to +80°C	-55°C to +80°C

For Technical Illustration refer to page 230 in Module Section

STANDARDS AND APPROVALS

Environment (MIL-STD-8100)

Altitude – Method 500.2	70,000 feet
Humidity – Method 507.2	86/240 (%/hours)
Acceleration – Method 513.3	9 g's

Vibration – Method 514.3 20g's

Shock – Method 516.3 40g's

Reliability (MIL-HDBK-217F)

25°C Ground benign	3,619,000 hours
50°C Naval sheltered	2,208,000 hours
65°C Airborne inhabited cargo	1,701,000 hours

Environmental compliance MIL-STD-810

Derating NAVMAT P-4855-1A

MECHANICAL

Weight	85 grams
Dimensions	59.7 x 61.0 x 12.7mm

Selection Table

MI-J[A][B]-[C][D]

A = INPUT VOLTAGE			B = OUTPUT VOLTAGE			
VNOM	RANGE	TRANS.				
2= 28V	18–50V (1)	60V	Z=2V	T = 6.5V	2 = 15V	K = 40V
5= 155V	100–210V	230V	Y= 3.3V	R = 7.5V	N = 18.5V	J = 48V
6= 270V	125–400V (2)	475V	0= 5V	M = 10V	3 = 24V	
7= 165V	100–310V		X= 5.2V	1 = 12V	L = 28V	
			V= 5.8V	P = 13.8V	J = 36V	
C = PRODUCT GRADE			D = OUTPUT POWER/CURRENT			
			≥5V	<5V		
I= -40°C to +100°C			A= 10W			
M=-55°C to +100°C			Z=25W	5A		
			Y=50W	10A		

Note : (1) 16V operation at 75% load (2) These units rated at 75% load from 125-150Vin: MI-26Z-XV, MI-26Y-XV, MI-26O-XW.