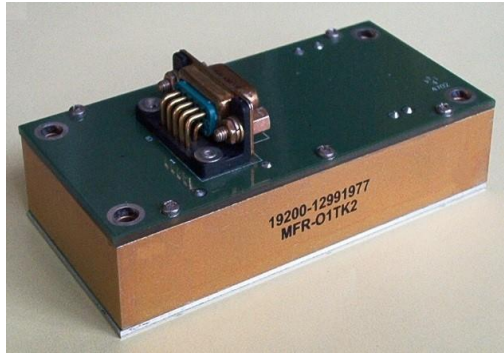




MP2163

50 WATT DC/DC CONVERTER FOR GROUND VEHICLES



- 1275A input
- MIL-STD-461 EMI Filtering
- Operates down to +10VDC
- Over current protected and short circuit protected
- Less than 1% output ripple typical
- Navmat component derating
- Meets The Requirements Of MIL-STD-810

DESCRIPTION:

The MP2163 DC/DC Converter was designed for a small vehicle application, but is very versatile, can be used in other demanding environments. The MP2163 DC/DC Converter meets the requirements of MIL-STD-810, along with MIL-STD-461 EMI requirements. The MP2163 DC/DC Converter was designed using NAVMAT P4855-1 derating guidelines for components. The MP2163 DC/DC Converter is easily modified for other output voltages, and power requirements. Please consult Sales@Prime-Power.com if this is a requirement for your power supply.

GENERAL SPECIFICATIONS	
INPUT VOLTAGE	+16-40VDC
FREQUENCY RANGE	N/A
OUTPUT VOLTAGE	+12VDC
OUTPUT CURRENT	4.2 AMPS
PHYSICAL SIZE	4.0" X 2.0" X .75"
WEIGHT	<1 LB.
MTBF	>150,000 HRS.

PHYSICAL CHARACTERISTICS	
MAXIMUM CASE SIZE	4.0" X 2.0" X .75"
COOLING METHOD	CONDUCTION
ENCAPSULATION	SILICONE POTTING
ENCLOSURE FINISH	YELLOW CHROMATE
BASEPLATE FINISH	YELLOW CHROMATE
INPUT/OUTPUT TERMINATION	CUSTOM FOR EACH APPLICATION
MOUNTING	4X .170 MTG. HOLES
WEIGHT	<1 LB.

WWW.PRIME-POWER.COM

PRIME POWER INC: (603) 329-4675.
1 OWENS CT.
HAMPSTEAD NH, 03841.



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ELECTRICAL SPECIFICATIONS	
LINE REGULATION (LO LINE TO HI LINE)	.05%
LOAD REGULATION (1/2-FL W/SENSE)	.2%
PARD (RIPPLE NOISE) DC-20MHZ	120Mv P-P
OVERCURRENT SETPOINT	130% OF OUTPUT CURRENT
OVERVOLTAGE SET	140% OF OUTPUT VOLTAGE
LOAD STEP RECOVERY (1/2 TO FL)	500μS
TURN-ON OVERSHOOT	1% TYP.
EFFICIENCY (MIN)	77%
ISOLATION	+500VDC
EMI FILTERING	MIL-STD-461, CE102
OUTPUT POWER	50 WATTS

ENVIRONMENTAL SPECIFICATIONS		
HIGH TEMPERATURE	MIL-STD-810F	METHOD 501.4 PROCEDURE 1 & 2
LOW TEMPERATURE	MIL-STD-810F	METHOD 502.4 PROCEDURE 1 & 2
HUMIDITY	MIL-STD-202G	METHOD 103B
FUNGUS	MIL-STD-810F	METHOD 508, CONDITION A
SALT FOG	MIL-STD-202G	METHOD 101 E, TEST CONDITION A
SAND AND DUST	MIL-STD-810F	METHOD 501.4, PROCEDURE 1 & 2
EXPLOSIVE ATMOSPHERE	MIL-STD-810F	METHOD 511, CONDITION A
ACCELERATION	MIL-STD-810F	METHOD 513.5, PROCEDURE 1 & 2
VIBRATION	MIL-STD-810F	METHOD 514.2
SHOCK	MIL-STD-883	METHOD 2002.4

TEMPERATURE SPECIFICATIONS	
OPERATING TEMPERATURE	-40°C TO +85°C
STORAGE TEMPERATURE	-55°C TO +100°C
TEMPERATURE COEFFICIENT	0.02%/ C



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