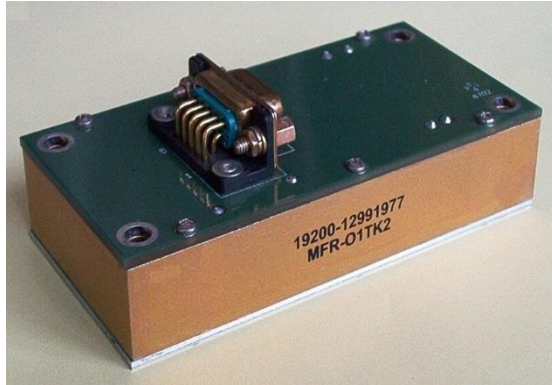




MB5 SERIES

30W TRIPLE OUTPUT DC/DC CONVERTER



- Wide Input Range 16-40 VDC
- Operates -46°C To +100°C
- Ruggedized For MIL-STD-810 Requirements
- MIL-STD-1275 Compliant
- Meets MIL-STD-461D Requirements
- Over Current And Voltage Protection
- Designed For Combat Vehicles
- Fixed Frequency
- Meets Nuclear Hardening Requirements
- Custom Configurations Upon Request

DESCRIPTION:

The Modular Block (MB5) Series of triple output DC/DC converters are designed for demanding military and aerospace applications. These DC/DC converters come in two configurations, PCB mount or D-Sub connector. These converters are designed for demanding ground vehicle applications and meet MIL-STD-1275 requirements as well as being able to withstand nuclear environments and operation to +100°C. The converters are a fixed frequency technology and are designed with high reliability in mind.

GENERAL SPECIFICATIONS	
INPUT VOLTAGE	+16 – 40 VDC (+28VDC NOM.)
FREQUENCY RANGE	100KHZ
OUTPUT POWER	30W (TOTAL)
OUTPUT VOLTAGE	+5V, ±15V (CONFIGURABLE)
ISOLATION	100 VDC INPUT TO OUTPUT, 50 VDC ALL PINS TO CASE
PHYSICAL SIZE	4" X 2" X 1"
WEIGHT	9 OZ.
MTBF	CONTACT: SALES@PRIME-POWER.COM

PHYSICAL CHARACTERISTICS	
MAXIMUM CASE SIZE	4 X 2 X 1 (INCHES)
COOLING METHOD	CONDUCTION, BASE PLATE
ENCAPSULATION	YES, 2 PART SILICONE
ENCLOSURE FINISH	YELLOW CHROMATE
BASEPLATE FINISH	NONE (UPON REQUEST)
INPUT/OUTPUT TERMINATION	(7X) 40MIL PINS OR 9 PIN D-SUB CONNECTOR
MOUNTING	MOUNTING HOLES (4)
WEIGHT	9 OZ.

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ELECTRICAL SPECIFICATIONS	
SET POINT ACCURACY	±1%
LINE REGULATION (LO LINE TO HI LINE)	0.02%
LOAD REGULATION (1/2-FL W/SENSE)	0.02%
PARD (RIPPLE NOISE) DC-20MHZ	1%
O.V.P.	NON-SHUTDOWN, AUTO RECOVERY
CURRENT LIMIT	110-130%, FOLD BACK, AUTO RECOVERY
START UP TIME	≤ 20MS
TURN-ON OVERSHOOT	≤ 0.5V
EFFICIENCY (MIN)	75%
ABNORMAL OPERATION	PER MIL-STD--1275, 6 VDC CRANKING REQUIREMENT AT REDUCED OUTPUT LOADS. VOLTAGE SPIKE TO ±250 VDC

NOTE: ALL SPECIFICATIONS ARE TYPICAL AT 25°C WITH NOMINAL INPUT VOLTAGE UNDER FULL OUTPUT LOAD CONDITIONS, UNLESS OTHERWISE NOTED.

ENVIRONMENTAL SPECIFICATIONS		
PRESSURE-ALTITUDE	MIL-STD-810	METHOD 500.4
HIGH TEMPERATURE	MIL-STD-810	METHOD 501.4 PROCEDURE 1 & 2
LOW TEMPERATURE	MIL-STD-810	METHOD 502.4 PROCEDURE 1 & 2
HUMIDITY	MIL-STD-810	METHOD 507.4
FUNGUS	MIL-STD-810	METHOD 508, CONDITION A
SALT FOG	MIL-STD-810	METHOD 509
SAND AND DUST	MIL-STD-810	METHOD 501.4, PROCEDURE 1 & 2
EXPLOSIVE ATMOSPHERE	MIL-STD-810	METHOD 511, CONDITION A
ACCELERATION	MIL-STD-810	METHOD 513.5, PROCEDURE 1 & 2
VIBRATION	MIL-STD-810	METHOD 514.2, SINE 5G AT 15 TO 2000HZ. RANDOM 0.1 G2/HZ
SHOCK	MIL-STD-810	METHOD 516.6, PROCEDURE I, FUNCTIONAL SHOCK, 40G FOR 11MS AND 18 HALF-SINE SHOCK PULSES
EMI/EMC	MIL-STD-461	MIL-STD-461D, CE102-1, 28 VOLT BASIC CURVE. CS101, CS114, CS115, RE102-3
NUCLEAR HARDENING		CONTACT: SALES@PRIME-POWER.COM

TEMPERATURE SPECIFICATIONS	
OPERATING TEMPERATURE	-40°C TO +100°C
STORAGE TEMPERATURE	-55°C TO +125°C
TEMPERATURE COEFFICIENT	

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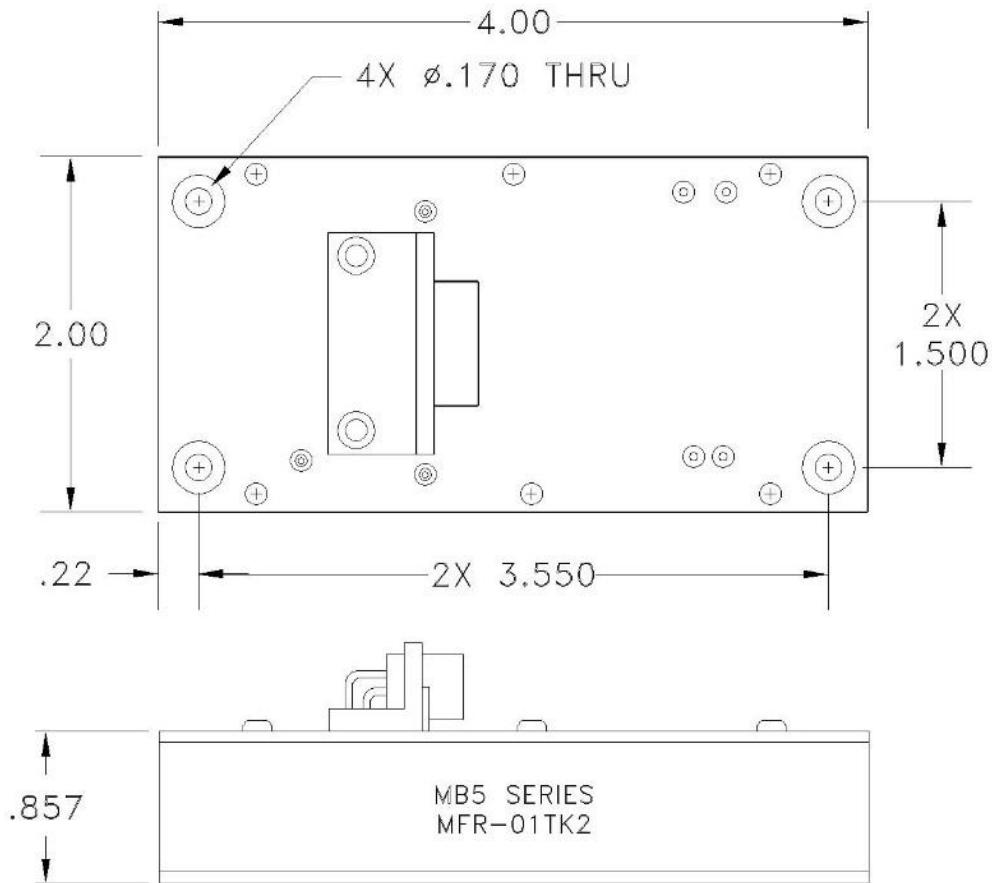
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MODEL SPECIFICATIONS (NON-STANDARDS UPON REQUEST)			
PART NUMBER	OUTPUT 1	OUTPUT 2	OUTPUT 3
MB5-30/M4	5V/3A	+15V/.5A	-15V/.5A
MB5-30/M3	5V/3A	+12V/.6A	-12V/.6A

ORDERING INFORMATION: For D-Sub connector option add "D" to the end of the part number.

MECHANICAL DRAWING:



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