



MS10 SERIES

MODULAR SYSTEMS / SERIES 10 / UP TO 300W



- Universal AC input
- Operates -40°C to +85°C
- Single and multiple outputs
- COTS modular construction
- Input and output filtering
- Fixed conversion frequency
- Over voltage and over current protection
- Custom configurations upon request

DESCRIPTION:

Prime Power's modular systems are complete turn-key systems. No external circuitry is required for proper operation. These systems are mainly comprised of Prime Power's own series of modular products, but are also designed to accept a wide variety of modular products made by other manufacturers. The flexibility of these designs allow for a large number of output and power combinations. This data sheet lists a few of the standards. Non-standards are reviewed upon request. Due to the systems modular construction, these products are ideally suited for ruggedized commercial or industrial applications as well as military grade applications.

GENERAL SPECIFICATIONS	
INPUT VOLTAGE:	90-132/180-264 VAC (Auto-ranging)
FREQUENCY RANGE:	47-440Hz
OUTPUT POWER:	Up to 300W
OUTPUT VOLTAGE:	3.3V, 5V, 12V, 15V, 24V Configurable
ISOLATION:	1500 VDC Input to output and case, 500 VDC output to case
PHYSICAL SIZE:	5.07" x 4.00" x 2.28"
WEIGHT:	Configuration dependent. Contact: Sales@Prime-Power.com
MTBF:	Contact: Sales@Prime-Power.com



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<u>ELECTRICAL SPECIFICATIONS</u>	
Set Point Accuracy	±1%
Transient	Trip Circuit @ 275 VAC
Continuous	Continuous
Line Regulation (Lo Line to Hi Line)	0.2% max.
Load Regulation (1/2-FL W/Sense)	0.2% max.
PARD (Ripple Noise) DC-20MHZ	1% typ., 3% max.
O.V.P.	120% of Rated Vout (Typical), Non-shutdown, auto recovery
Current Limit	105-130% rated current, fold back, auto recovery
Start Up Time	±10% Vout
Start Up Time	≤ 1S
Transient Response	±3% typ. ±2% for <100W, 200uS recovery, 20-80% load
Efficiency (MIN)	80%

Note: All Specifications are typical at 25°C with nominal input voltage under full output load conditions, unless otherwise noted.

<u>ENVIRONMENTAL SPECIFICATIONS</u>		
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		
Sand and Dust		
Explosive Atmosphere		
Acceleration		
Vibration	MIL-STD-810	Method 514.2
Shock	MIL-STD-810	Method 516.6
EMI/EMC	-	FCC Filtering, for MIL Contact: Sales@Prime-Power.com

<u>PHYSICAL CHARACTERISTICS</u>	
Maximum Case Size	5.07 x 4.00 x 2.28 (inches)
Cooling Method	Conduction, base plate
Encapsulation	None, Conformal Coat, RTV on necessary components
Enclosure Finish	Yellow Chromate
Baseplate Finish	Yellow Chromate
Input/Output Termination	Terminal Block, other configurations Contact: Sales@Prime-Power.com
Mounting Holes/Standard Threaded Baseplate	Threaded baseplate, (12x) 6-32, 3 mounting options, other configurations Contact: Sales@Prime-Power.com
Weight	Configuration dependent, Contact: Sales@Prime-Power.com



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TEMPERATURE SPECIFICATIONS	
Operating; Baseplate Temperature	-40°C to +85°C
Storage Temperature	-55°C to +110°C
Voltage Drift Over Temperature	.02%/°C

MODEL SPECIFICATIONS (Most common configurations listed, non-standards upon request)			
PART NUMBER	OUTPUT 1	OUTPUT 2	OUTPUT 3
MS10-50/5	5V/10A		
MS10-60/12	12V/5A		
MS10-60/24	24V/2.5A		
MS10-100/5	5V/20A		
MS10-120/12	12V/10A		
MS10-120/15	15V/8A		
MS10-120/24	24V/5A		
MS10-300/M1	12V/12.5A	12V/12.5A	
MS10-300/M2	15V/10A	15V/10A	

NOTES: 1.) Dual outputs require an adapter plate for mounting. Reduced operating temp. may be necessary. Contact: Sales@Prime-Power.com. 2.) Linearly derate from full load at 100 VAC to 50% load at 90 VAC. 3.) Above 240w: Linearly derate from full load at 25°C to 50% load at -40°C for startup only.

MECHANICAL DRAWING:

