



XP2251

150W SINGLE PHASE AC/DC POWER SUPPLY



- Universal Frequency Range 47 - 63Hz / 360 - 800Hz
- Operates -40°C to +85°C Base Plate
- Ruggedized For MIL-STD-810 Requirements
- MIL-STD-704 and MIL-STD-1399 Compliant
- Meets MIL-STD-461 Requirements
- Over Current and Over Voltage Protection
- Near Unity Power Factor
- High Efficiency

DESCRIPTION:

This AC/DC power supply is designed to be compact and ruggedized for military applications. The XP2251 AC/DC Power Supply provides high output power with a high power factor over an input range of 85–264Vrms. The XP2251 provides an isolated 28VDC output from a single AC input. The output is limited to 150 watts.

GENERAL SPECIFICATIONS	
INPUT VOLTAGE:	85-264Vrms
PART NUMBER/ FREQUENCY	XP2251
FREQUENCY RANGE:	47 - 63Hz
OUTPUT VOLTAGE	
OUTPUT VOLTAGE:	28VDC
OUTPUT CURRENT:	5.35A
OUTPUT POWER:	150W
PHYSICAL SIZE:	5.8" L X 5.0" W X 2.0" H
WEIGHT:	< 3 LBS
MTBF:	CONTACT SALES@PRIME-POWER.COM TO SPECIFY ENVIRONMENT AND TEMPERATURE

*NOTE: () IN PART NUMBERS SHOW OPTIONAL CHARACTERS.

PHYSICAL CHARACTERISTICS		
MAXIMUM CASE SIZE	5.80" X 5.00" X 2.00"	
COOLING METHOD	CONDUCTION	
ENCAPSULATION	CONFORMAL COAT.	
SUPPLY FINISH	YELLOW CHROMATE MIL-C-5541 CLASS 3	
INPUT/OUTPUT TERMINATION	D38999/20KE6SN	D38999/20KB98SN
MOUNTING	THREADED BASE PLATE	

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ELECTRICAL SPECIFICATIONS	
INPUT VOLTAGE	85-264Vrms, 60HZ, PER MIL-STD-1399 (60HZ)
UNDERVOLTAGE LOCKOUT	30Vrms TYPICAL
INRUSH CURRENT	10Apk
POWER FACTOR	.99 TYP.
ISOLATION	INPUT TO OUTPUT AND INPUT TO CHASSIS: 1750Vdc; OUTPUT TO CHASSIS: 710Vdc
ISOLATION RESISTANCE	100M OHM, PER MIL-STD-202-302, TEST COND. B AT 500V
DIELECTRIC WITHSTANDING	IN TO OUT & CH: 1230Vrms; OUT TO IN & CH: 500Vrms; PER MIL-STD-202-301
EMI/EMC	DESIGNED TO MEET MIL-STD-461F: CE101, CE102, CS101, CS114, CS116, RE101, RE102, RS103.
OUTPUT VOLTAGE:	28VDC
OUTPUT POWER	150 WATTS
LINE/LOAD REGULATION	1% TYP. N.L. TO F.L.
PARD (RIPPLE/NOISE) DC-20MHZ	1% TYP. OF VOUT
CURRENT LIMIT	106-135% OF RATED CURRENT
SHORT CIRCUIT	INDEFINITE, AUTO RECOVERY
O.V.P.	112.5-137.5% VO, SHUTDOWN METHOD
LOAD STEP RECOVERY (50% - 75% - 50%)	830mV, 460μS TYP.
OVER TEMPERATURE	SHUTDOWN: 100°C TYP., AUTO RECOVERY: 10°C HYSTERESIS
EFFICIENCY	80%

ENVIRONMENTAL SPECIFICATIONS		
LOW PRESSURE /ALTITUDE	MIL-STD-810	Method 500.3
HIGH TEMPERATURE	MIL-STD-810G	Method 501.5, Procedure 1 & 2
LOW TEMPERATURE	MIL-STD-810G	Method 502.5, Procedure 1 & 2
HUMIDITY	MIL-STD-810G	Method 507.5, Procedure 2
FUNGUS	MIL-STD-810	Method 508.4
VIBRATION	MIL-STD-167	Type 1
SHOCK	MIL-S-901D	Grade A, Class 1, Type A

* Parameters for test methods per customer specification.

TEMPERATURE SPECIFICATIONS	
OPERATING TEMPERATURE (BASEPLATE)	-40°C TO +85°C
STORAGE TEMPERATURE	-55°C TO +125°C
TEMPERATURE COEFFICIENT	TBD

