



# MAC300-UAC(A)-xx

300W 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
- Less Than 1U in Height for System Integration
- High Efficiency

**DESCRIPTION:**

This line of AC/DC power supply is designed to be compact and ruggedized for military applications. The MAC300 series of AC/DC Power Supply provides high output power with a high power factor over an input range of 85–264Vrms. Many features are incorporated that make it an ideal choice for use in Airborne, Shipboard, or Ground Fixed applications.

<b>GENERAL SPECIFICATIONS</b>						
<b>INPUT VOLTAGE:</b>	85-264Vrms					
<b>PART NUMBER/ FREQUENCY</b>	MAC300-UAC			MAC300-UACA		
<b>FREQUENCY RANGE:</b>	47 - 63Hz			360 - 800Hz		
<b>PART NUMBER/OUTPUT VOLTAGE</b>						
<b>MAC300-UAC-</b>	<b>05</b>	<b>12</b>	<b>15</b>	<b>24</b>	<b>28</b>	<b>48</b>
<b>OUTPUT VOLTAGE:</b>	5VDC	12VDC	15VDC	24VDC	28VDC	48VDC
<b>OUTPUT CURRENT:</b>	50A	25A	20A	12.5A	10.7A	6.3A
<b>OUTPUT POWER:</b>	250W	300 WATTS				
<b>PHYSICAL SIZE (L, W, H):</b>	8.0" X 5.8" X 1.2"					
<b>WEIGHT:</b>	<3.5 LBS					
<b>MTBF:</b>	CONTACT <a href="mailto:SALES@PRIME-POWER.COM">SALES@PRIME-POWER.COM</a> TO SPECIFY ENVIRONMENT AND TEMPERATURE					

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

<b>PHYSICAL CHARACTERISTICS</b>	
<b>MAXIMUM CASE SIZE</b>	8.0" X 5.8" X 1.2"
<b>COOLING METHOD</b>	CONDUCTION
<b>ENCAPSULATION</b>	CONFORMAL COAT.
<b>SUPPLY FINISH</b>	YELLOW CHROMATE
<b>INPUT/OUTPUT TERMINATION</b>	9 PIN MALE DSUB      25 PIN FEMALE DSUB
<b>MOUNTING</b>	THREADED BASE PLATE

[WWW.PRIME-POWER.COM](http://WWW.PRIME-POWER.COM)

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HAMPSTEAD NH, 03841.



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<b>ELECTRICAL SPECIFICATIONS</b>						
<b>INPUT VOLTAGE</b>	85-264Vrms, PER MIL-STD-704A AND MIL-STD-1399 (60HZ)					
<b>UNDERVOLTAGE LOCKOUT</b>	30Vrms TYPICAL					
<b>INRUSH CURRENT</b>	10Apk (25Apk, 230V, 400Hz)					
<b>POWER FACTOR</b>	.99					
<b>ISOLATION</b>	IN TO OUT & IN to CASE: 1500Vdc, OUT TO CASE: 500Vdc					
<b>ISOLATION RESISTANCE</b>	100MOHM					
<b>EMI/EMC</b>	DESIGNED TO MEET MIL-STD-461F: CE101, CE102					
<b>OUTPUT VOLTAGE:</b>	5VDC	12VDC	15VDC	24VDC	28VDC	48VDC
<b>OUTPUT POWER</b>	250W	300 WATTS				
<b>CURRENT LIMIT (MIN-MAX)</b>	54-70A	27-35A	22-28A	13-17A	11-15A	7-9A
<b>O.V.P. (MIN-MAX)</b>	5.8-6.7V	14-16V	18-20V	28-32V	33-37V	56-64V
<b>LOAD STEP RECOVERY (TYP) (50% - 75% - 50%)</b>	120mV 500 μs	500mV 450 μs	500mV 250 μs	750mV 250 μs	750mV 250 μs	980mV 250 μs
<b>LINE/LOAD REGULATION</b>	1% TYP. N.L. TO F.L.					
<b>PARD (RIPPLE/NOISE) DC-20MHZ</b>	1% TYP. OF VOUT					
<b>SHORT CIRCUIT</b>	INDEFINITE, AUTO RECOVERY					
<b>OVER TEMPERATURE</b>	SHUTDOWN: 125°C TYP., AUTO RECOVERY: 10°C HYSTERESIS					
<b>EFFICIENCY</b>	80%					

<b>ENVIRONMENTAL SPECIFICATIONS</b>		
<b>ALTITUDE</b>	MIL-STD-810G	Method 500.5, Procedure 1 & 2
<b>HIGH TEMPERATURE</b>	MIL-STD-810G	Method 501.5, Procedure 1 & 2
<b>LOW TEMPERATURE</b>	MIL-STD-810G	Method 502.5, Procedure 1 & 2
<b>HUMIDITY</b>	MIL-STD-810G	Method 507.5, Procedure 2
<b>FUNGUS</b>	MIL-STD-810G	Method 508.6, Table 508.6-I
<b>SALT FOG</b>	MIL-STD-810G	Method 509.5, Storage
<b>SAND AND DUST</b>	MIL-STD-810G	Method 510.5, Procedure 1 & 2
<b>EXPLOSIVE ATMOSPHERE</b>	MIL-STD-810G	Method 511.5, Procedure 1
<b>ACCELERATION</b>	MIL-STD-810G	Method 513.6, Procedure 2
<b>VIBRATION</b>	MIL-STD-810G	Method 514.6, Procedure 1
<b>SHOCK</b>	MIL-STD-810G	Method 516.6, Procedure 1 & 6

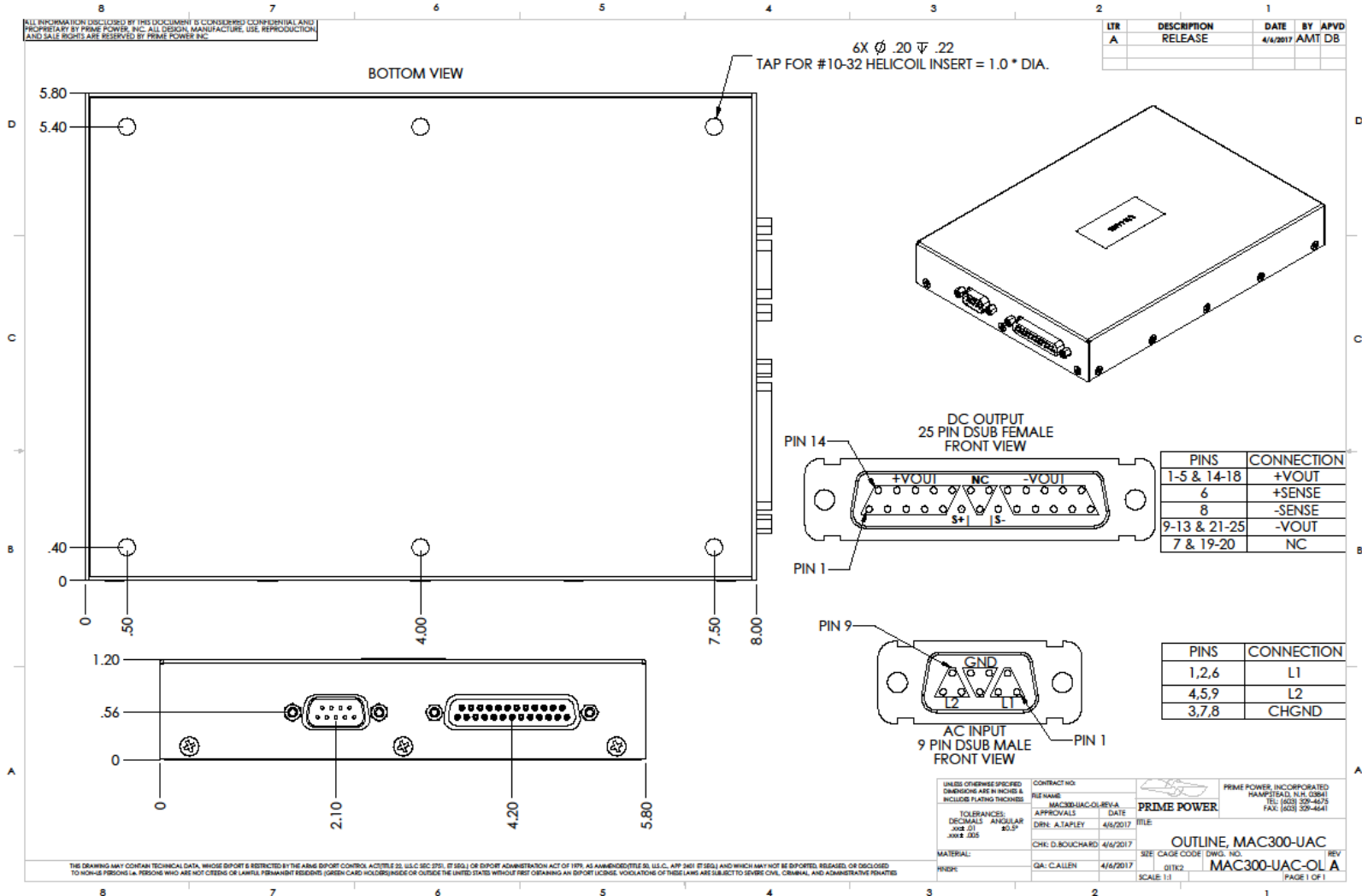
\* These are typical tests performed on similar designed ruggedized product.

<b>TEMPERATURE SPECIFICATIONS</b>	
<b>OPERATING TEMPERATURE (BASEPLATE)</b>	-40°C TO +85°C
<b>STORAGE TEMPERATURE</b>	-55°C TO +125°C
<b>TEMPERATURE COEFFICIENT</b>	.02%/°C



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