



# ANALYTIC SYSTEMS

Power Conversion Solutions

## AC POWER SUPPLY

### MODEL PWS1000R



## Description

The PWS1000R Series of rackmount power supplies provides 12, 24 or 48 Volts DC at 1000 Watts of continuous power from a 110 or 220 Volt AC source.

Circuit innovations reduce output ripple to levels previously available only from bulky and inefficient linear power supplies. Reliability features include an input fuse, thermal shutdown, current limiting and output short circuit protection with automatic recovery. An Output Over voltage Crowbar circuit protects any powered devices from excessive voltage in the event of a failure of the unit.

Extra features include adjustable output voltage audible and visual indicators for low input voltage, low output voltage, over temperature, overload and output on. Either 110 or 220 VAC input (Field Convertible) is available. The PWS1000R also features a four contact output terminal (two positive and two negative contacts) for easy connection of devices to the supply.

All rackmount units come standard with high quality digital output meters to allow monitoring of output current and output voltage. An optional Battery Back-up is also available.

## Benefits

- Ultra-Quiet
- Power sensitive electronics without interference
- Rugged & Reliable
- Ensure years of safe and trouble free operation

## Design Features

- Adjustable output voltage
- Extremely rugged and well suited for marine and other demanding environments
- Ultra-quiet low EMI operation
- Audible & visual indicators for output overload, low input voltage, low output voltage & over-temperature
- Over-temperature shutdown
- Current limiting
- Short circuit protection
- Output overvoltage crowbar
- Dry contact output fail relay
- Thermostatically controlled cooling fan
- Standard Digital Volt/Ammeter
- Optional Parallel output diodes available
- Custom output voltages available (8V to 55V)
- 3 year parts and labour warranty
- Battery Charging (Rectifier) models available

## Applications

- Telecom Power Plants
- Electric Utilities and Substations
- Marine & other rugged environments
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Solar / Alternative Power Systems
- Emergency Power Backup (UPS)

An ISO9001 and AS9100 Registered Company Battery Chargers • Inverters • Power Supplies • Voltage Converters

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## Electrical (Input)

Nominal Vac (ip)	110	220
Actual (Vac)	90 – 130	180 - 260
Input Amps (max)	13.2(12V) 17(24/32/48V)	6.6(12V) 8.5(24/32/48V)
Input Fuse (MDA)	20A(12V) 25A (24/32/48V)	10A(12V) 15A(24/32/48V)
Input Frequency	45-65 Hz	
Noise on Input	< 50 mV	

## Electrical (Output)

Output Nominal (op)	12	24	48
Output Volts (DC)	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.10
Output Amps	60 cont. / 70 peak	40 cont. / 45 peak	20 cont. / 22.5 peak
Output Crowbar	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
Output Adjustment (Vdc)	± 1.0V		
Output Ripple & Noise	< 50 mV		
Transient Response	< 1V for 50% Surge		
Regulation (Line & Load)	< +/- 0.5%		
Duty Cycle	Peak 20% for 10 min maximum Continuous 100% for 24 hours per day		
Efficiency	> 80% @ Maximum Output		

## Environment Specification

Operating Temp. Range	-25° to +40°C @ maximum output Derate Linearly 2.5% per °C from 40°C (Optional -40°C extra wide-temp. operation avail.)
Humidity	0 - 95% Relative Humidity (non-condensing) with optional conformal coating
Audible Noise	NONE Ødb @ 3 ft
Typical Service Life	> 10 yrs. (87,600 hrs)
Isolation	Input-Case & Input-Output 1500VDC Output-Case 500VDC (1500VDC @ 48V O/P)

## Mechanical Specification

Depth	13.5 in
Width	19"
Height	2u (3.5 in.)
Clearance	1 inch (2.5 cm) all around
Material	Marine Grade Aluminium
Finish	Black Anodize / Powder Epoxy Coat
Fastenings	All 18-8 Stainless Steel
Weight	12 lb / 5.5 kg
Connections	Four contact output terminals
Warranty	3 years
Safety	Designed to meet CSA 22.2.107.1 & UL458

Note: Specifications are subject to change without notice.



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