

# ANALYTIC SYSTEMS

Power Conversion Solutions

#207 12448 82nd Ave.  
Surrey, BC V3W 3E9 CANADA

+1 (604) 543-7378 · phone  
1-800-668-3884 · toll free  
+1 (604) 543-7354 · fax

[www.analyticsystems.com](http://www.analyticsystems.com)



(Shown with Optional Digital Meter)

## Benefits

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

## Applications

- Marine & other rugged environments
- Mobile Offices (TV and Radio Vans)
- Automotive / RV
- Electric Utilities and Substations
- Base Station Power (Radio & Telecommunications)
- Industrial Controls (OEM Applications)
- Field Work / Construction Sites
- Solar / Alternative Power Systems
- Emergency Power Backup (UPS)
- Security Systems
- Product Burn-in Facilities

# AC Power Supplies

## PWS1000 Series Power Supply

### Description

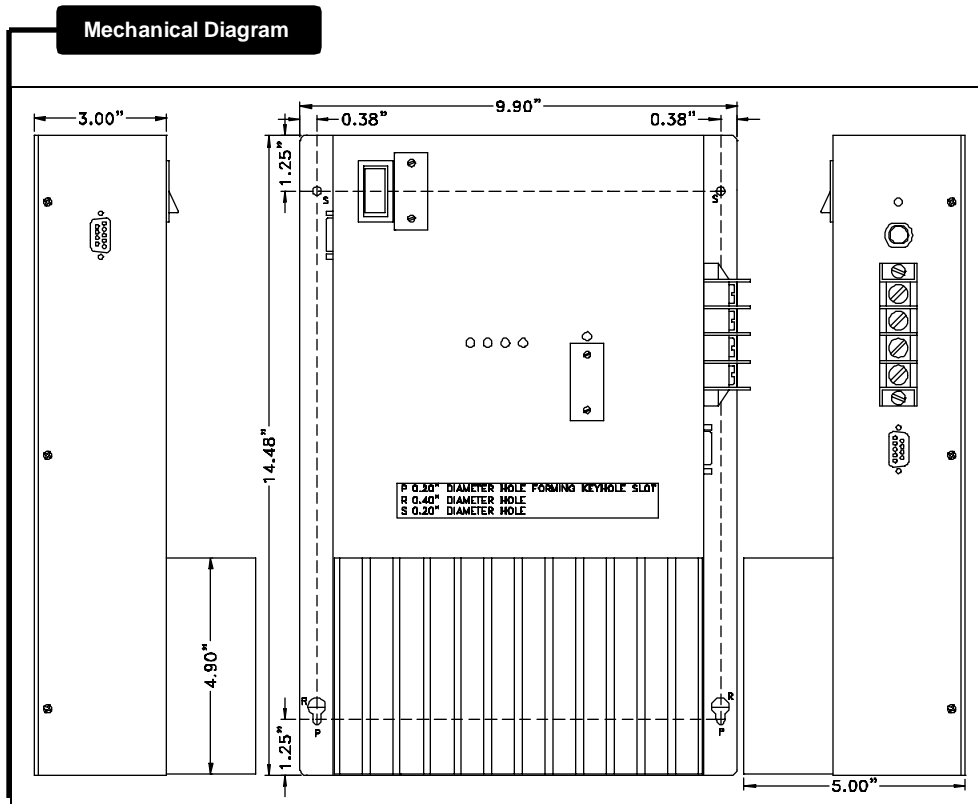
The PWS1000 Series of power supplies provides 12, 24 or 48 Volts DC at 1000 Watts of continuous power from a 110 or 220 Volt AC source.

Analytic Systems' power supplies use Switchmode technology with powerful IGBT switching transistors for reliability and efficiency with minimum size. 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.

The newly updated single-board PWS1000 is ultra-quiet and features the latest generation of current mode PWM control. 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 PWS1000 also features a four contact output terminal (two positive and two negative contacts) for easy connection of devices to the supply.

### 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
- Remote control option
- Digital Volt/Ammeter option
- Custom output voltages available (8V to 55V)
- 19" Rackmount Available
- 3 year parts and labour warranty
- Parallel output diodes available



## Specifications

### Electrical (Input)

<b>Nominal Vac (ip)</b>	110	220
<b>Actual (Vac)</b>	105-125	210-250
<b>Input Amps (max)</b>	14.6	7.3
<b>Input Fuse (MDA)</b>	12A	6A
<b>Input Frequency</b>	45-65 Hz	
<b>Noise on Input</b>	< 50 mV	

### Environmental Specifications

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

### Electrical (Output)

<b>Output Nominal (op)</b>	12	24	48
<b>Output Volts (DC)</b>	13.6 ± 0.05	27.2 ± 0.05	54.4 ± 0.1
<b>Output Amps</b>	60 cont. / 70 peak	40 cont. / 45 peak	20 cont. / 22.5 peak
<b>Output Crowbar</b>	16.0 ± 0.5V	32.0 ± 1.0V	63.9 ± 2.0V
<b>Output Adjustment</b>	± 0.5V		
<b>Output Ripple &amp; Noise</b>	< 50 mV		
<b>Transient Response</b>	< 1V for 50% Surge		
<b>Regulation (Line &amp; Load)</b>	< +/- 0.5%		
<b>Duty Cycle</b>	Peak 20% for 10 min maximum Continuous 100% for 24 hours per day		
<b>Efficiency</b>	> 80% @ Maximum Output		

### Mechanical Specifications

<b>Length</b>	14.5 in / 36.8 cm
<b>Width</b>	9.9 in / 25.1 cm
<b>Height</b>	5.5 in / 14.0 cm
<b>Clearance</b>	1 inch (2.5 cm) all around
<b>Material</b>	Marine Grade Aluminium
<b>Finish</b>	Black Anodize / Powder Epoxy Coat
<b>Fastenings</b>	All 18-8 Stainless Steel
<b>Weight</b>	12.0 lb / 5.5 kg
<b>Connections</b>	Four contact output terminals
<b>Warranty</b>	3 years
<b>Safety</b>	UL458 & CSA 22.2.107.1 Pending

Available From:



**ANALYTIC SYSTEMS**

Quality since 1976

#207 12448 82<sup>nd</sup> Ave.  
 Surrey, BC V3W 3E9 CANADA  
 +1 (604) 543-7378 • phone  
 1-800-668-3884 • toll free  
 +1-604-543-7354 • fax  
[www.analyticssystem.com](http://www.analyticssystem.com)

© 2002 Analytic Systems Ware Ltd. (1993)  
 Specifications Subject to Change Without Notice