California Instruments P Series

800VA-1250VA

General purpose Bench top AC power sources

135-270 V

115

6 - 9.2 A

GPIE RS232

230

149

- Low THD
- Portable Power, Low Cost.
- 810 VA to 1250 VA Output Power
- Simple Front Panel Operation
- 16 Hz to 500 Hz Frequency Range
- High Peak Current Capability
- Remote Control Option



Compact AC Power

With European and US outlet sockets to connect the load, the 801P, 1001P and 1251P portable programmable AC power sources are ideal for a wide variety of applications.

Universal input allows use anywhere in the world to provide a convenient source of variable utility power for the testing and evaluation of domestic and commercial equipment. All common line voltage and frequency combinations are covered.

In addition, the frequency range covers 500 Hz, making these products ideal for commercial and defense avionics applications. The current measurement function eliminates the need for an external current shunt or transformer. Load current of the UUT (Unit Under Test) can be read directly on the large LCD display to 0.1 A. For additional protection, a current limit function can be set from zero to the maximum current available.

High peak current capability of more than three times the RMS current allows the P Series to drive non-linear loads.

Easy To Use Controls

Front panel digital rotary encoders are used to set voltage and frequency. These controls have an analog feel, with the precision and reliability of digital circuits. Settings are read directly on the large high contrast LCD displays.

All models offer two output voltage ranges, 135 VRMS L-N and 270 VRMS L-N, maximizing the current at the required voltage.

The output frequency can be varied from 16 Hz up to 500 Hz to cover both avionics and utility power applications.

Product Evaluation and Test Applications

Traditional Variac tests can be automated using the P Series AC sources. With digital voltage readout, and measurement of load current, several items of equipment can be eliminated from 'first time power up' tests. All functions are contained in a single convenient and easily portable package, which can be most useful in production and on-site applications.

Avionics Applications

As affordable and reliable sources of 400 Hz AC power, the 801P, 1001P and 1251P are well suited for commercial and defense avionics applications.

Remote Control

Equipped with the optional RS232C serial interface, these units are easily integrated into an ATE system. A Windows ™ Graphical User Interface (GUI) program is included for PC control applications.

Low Cost Of Ownership

Careful design, the use of modular construction and quality components, all contribute to provide many years of uninterrupted service. The modular construction allows components or subassemblies to be replaced quickly to minimize downtime.

P Series : Product Specifications

Output					
Model	801P	1001P	1251P		
AC Power	810 VA	1000 VA	1250 VA		
Voltage					
Range Low	0-135 V(L-N)	0-135 V(L-N)	0-135 V(L-N)		
Range High	0-270 V(L-N)	0-270 V(L-N)	0-270 V(L-N)		
Accuracy @ 50/60 Hz	± 1 % FS	± 1 % FS	± 1 % FS		
Accuracy @ 400 Hz	± 2 % FS	± 2 % FS	± 2 % FS		
Resolution	0.1 V	0.1 V	0.1 V		
Line & Load Regulation lo range	± 1 % FS	± 1 % FS	± 1 % FS		
Line & Load Regulation hi range	± 0.5 % FS	± 0.5 % FS	± 0.5 % FS		
Total Harmonic Distortion @ 50/60 Hz	< 0.55 % typical	< 0.55 % typical	< 0.55 % typical		
Output Noise	< 0.1 V typical	< 0.1 V typical	< 0.1 V typical		
Frequency (specifications valid from 45 Hz t	o 500 Hz)				
Range	16 - 500 Hz	16 - 500 Hz	16 - 500 Hz		
Accuracy	± 0.02 %	± 0.02 %	± 0.02 %		
Resolution below 100 Hz	0.1 Hz	0.1 Hz	0.1 Hz		
Resolution above 100 Hz	1 Hz	1 Hz	1 Hz		
Current					
Current - Steady State lo range	6.0 ARMS	7.4 ARMS	9.2 ARMS		
Current - Steady State hi range	3.0 ARMS	3.7 ARMS	4.6 ARMS		
Peak Current lo range	17.8 A	22.2 A	27.6 A		
Peak Current hi range	8.9 A	11.1 A	13.8 A		
Input					
Line Voltage 2 wire + GND	100 - 240 ±10 % VRMS	100 - 240 ±10 % VRMS	100 - 240 ±10 % VRMS		
Input Current	<15 ARMS	<15 ARMS	<20 ARMS		
Line Frequency	47 - 63 Hz	47 - 63 Hz	47 - 63 Hz		
Holdup Time	20 ms	20 ms	20 ms		
Power Factor	> 0.95 typical	> 0.95 typical	> 0.95 typical		
Controller					
Туре	Programmable				
Controls	Digital Encoders				
Readout Voltage	4 digit LCD				
Readout Freqency and Current	4 digit LCD				
Non Volatile Setups (with Option -232)	8				
Protection					
Current limit Mode	Programmable (Reduces output voltage)				
Current limit Resolution	0.1 ARMS				
Over Temperature	yes				
Over Voltage	yes				
Measurements					
Measurements			0.0 - 10.0 ARMS		
		0.0 - 10.0 ARMS			
Current Range		0.0 - 10.0 ARMS ± 0.2 ARMS			
Current Range Current Accuracy					
Current Range Current Accuracy Current Resolution Voltage Range		± 0.2 ARMS			

P Series : Product Specifications

800VA-1250VA

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Remote Control Option -232	
Interface type	RS232C
Baud rate	9600
Command Language	SCPI
Physical	
Dimensions inches HxWxD	8.25 x 8.5 x 17.5
Dimensions mm HxWxD	210 x 216 x 445
Weight	30 lbs / 13.6 kg
Operating Temp.	0 - 40 ° C

 $^{^{\}star}$ Specifications are warranted over an ambient temperature range of 0 to 40 °C and apply after a 30 minute warmup period.

Options	
-232	Optional RS232C Interface. Includes Windows™ Graphical User Interface software and serial cable
-ISS	International Socket Strip
-ISR	Rackmounted ISS

Line Cord Options		
Country	801P/1001P	1251P
Europe	PC11	PC11
Australia / New Zealand	PC12	PC12
UK / Ireland	PC13	PC13
Denmark	PC14	PC14
India	PC15	PC15
Israel	PC16	PC16
Italy	PC17	PC17
North America*	PC21	PC18
Switzerland	PC19	PC19
Japan	PC20	PC20

^{*} Specifications are warranted over an ambient temperature range of 0 to 40 °C and apply after a 30 minute warmup period.

Supplied with

North American Line Power Cord

USA and European line output mating connector

Instruction Manual

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