

Linear Power Supply



PSU505



- 0 to 30 Vdc
- Standard RS232, USB Interface
- Liquid Crystal Display
- Programmable Triple Outputs (Auto-Ranging Function on Channel 3)
- Low Ripple, Low Noise
- Number and Function Keys
- 100 Store and Recall Settings
- Timer (1 second to 100 hours)
- Precise Voltage and Current Measurement
- Dual Tracking Mode
- Average Measurement Time: 50 ms

PSU505 shown smaller than actual size.

The PSU505 is a DC power supply with 3 programmable outputs and 12-bit resolution. The total output power is 210 W: channels 1 and 2, 30V/3 A, provide 90 W each; channel 3, 10V/ 5 A, puts out 30 W at a constant rate. Channel 1 provides outputs in serial and parallel modes; channel 2, in serial mode only. On channel 3, the

user can perform auto-ranging, a feature not found on traditional power supplies.

The user can monitor OVP (overvoltage protection) and OCP (overcurrent protection) on the front-panel LCD. Because of its 0.01% load-and-line regulation and 50 ms max response time, the PSU505 remains stable even when the voltage source and loads change. The PSU505 is also highly efficient, with an average measurement time of 50 ms.

The PSU505 is easy to use, featuring an adjustable tracking function, a rotary selection dial, and

an alphanumeric keypad. With the timer function, the user can control when each output is switched off (1 second to 100 hours); this feature is particularly useful in burn-in-room and electroplating applications. Up to 100 configurations can be stored in memory. A key-lock function prevents users from changing the original settings.



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

To Order	
Model No.	Description
PSU505	Linear power supply

Comes complete with 1.5 m (5') power cord, fuse and operator's manual.

Ordering Examples: PSU505, linear power supply.

OCW-3, OMEGACARESM extends standard 1-year warranty to a total of 4 years.

PSU505 shown smaller than actual size.



Specifications

Channel Number	CH1 and CH2	CH3
Output Voltage	0 to 30 V	0 to 15 V
Output Current	0 to 3 A	0 to 5 A
Output Power (CH3 Auto-Ranging)	90 W	30 W
Line Regulation ±(% of Output + Offset)		
Voltage	0.01% + 2 mV	
Current	0.01% + 300 µA	
Load Regulation ±(% of Output + Offset)		
Voltage	≤3 mV	≤5 mV
Current	0.01% + 300 µA	
Ripple and Noise (20 Hz to 20 MHz)		
Normal Mode Voltage	300 µVrms/3 mVpp	1 mVrms/20 mVpp
Normal Mode Current	<1 mA	<5 mA
Resolution		
Programming	10 mV/1 mA	10 mV/2 mA
Readback	10 mV/1 mA	3 mV/2 mA
Programming Accuracy ±(% Output + Offset)		
Voltage	0.05% + 20 mV	0.05% + 6 mV
Current	0.05% + 3 mA	0.05% + 4 mA
Readback Accuracy ±(% Output + Offset)		
Voltage	0.05% + 20 mV	0.05% + 6 mV
Current	0.05% + 3 mA	0.05% + 4 mA
Temperature Coefficient per ±(% Output + Offset)		
Voltage	<0.1% + 3 mV	
Current	<0.2% + 2 mA	
Tracking Accuracy ±(% of Output + Offset)		
Voltage	<0.1% + 40 mV	
Transient Response Time	<50 µs	
Stability, Constant Output and Temperature ±(% of Output + Offset), 8 hrs		
Voltage	<0.2% + 2 mV	
Current	<0.1% + 1 mA	
Voltage Programming Speed		
Rising Time at Full Load	1 ms	
Rising Time at No Load	1 ms	
Falling Time at Full Load	2.5 ms	
Falling Time at No Load	250 ms	
General		
AC Line Input Voltage Ranges	115/220 Vac ±10% (47 to 63 Hz)	
Temperature Ranges	Operating: 0 to 40°C (32 to 104°F); Storage: -10 to 70°C (14 to 158°F)	
Common-Mode Voltage	±240 Vdc	
Dimensions (W x H x D)	216 x 135 x 432 mm (8.5 x 5.3 x 17")	
Weight	6.5 kg (14 lb)	
Communications	RS232/USB interface	