made for experts

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LAB-PS Triple Output Desktop Power Supply

Description

These units pack a host of features into a convenient desktop case. The backlit menu driven LC-Display clearly shows the voltage and current for all 3 output channels simultaneously. Values can be quickly and precisely preset by using the numbered keypad. A rotary encoder is also provided. While each output can be set independently the user can also combine channels 1 & 2. For example channel 2 can be set to copy the values entered for channel 1. The first 2 channels can also be programmed to operate in parallel or series mode to increase the output current or voltage. Adjustable OVP and OCP levels are also provided to help protect sensitive loads. A key lock function, similar to a mobile phone, can be enabled to guard against accidental adjustment during operation. The transient response time to a load step change is excellent at <50us. The LAB-LPS 505N provides the fastest voltage rise with typical values being 1ms to full load. The LAB-PPS 3210 provides the best setting & readback resolutions of 1mV & 100µA across the whole voltage and current range. Both models are provided with RS232 and USB interfaces as standard. LAN, IEE488.2 (GPIB) and analogue interfaces are available on request. The set up parameters for each computer interface is accessed from the front panel. The unit's memory allows common set-ups to be saved and recalled. A last setting function enables a quick resumption of a test after the unit has been switched off. Another useful feature provided on both units is an adjustable timer. This can be set to switch the output off at any time interval between 1 second and 100 hours. This helps ensure that correct timings are observed for burn-in or chemical applications such as electroplating.

- Adjustable over voltage and over current protection
- Optional LAN, GPIB and analogue interfaces
- Timer function for automatic switch off
- Series, tracking and parallel modes
- Precise & accurate measurements
- RS232 & USB as standard
- Front panel memory

Selection Table

Part Number	Total Power	Channel 1 V / I / W	Channel 2 V / I / W	Channel 3 V / I / W	Weight Dims (WxHxD)
LAB-LPS 505N	210W	0 - 30VDC 0 - 3A 90Wmax	0 - 30VDC 0 - 3A 90Wmax	0 - 15VDC 0 - 5A 30Wmax	6½kgs 216x135x432mm
LAB-PPS 3210	222W	0 - 32VDC 0 - 3A 96Wmax	0 - 32VDC 0 - 3A 96Wmax	0 - 15VDC 0 - 5A 30Wmax	9kgs 216x135x432mm

Options Table

Code	Description
/LT	IEEE488.2 interface with both listener and talker functions (12 bit resolution)
/AI-5	0 - 5 VDC Analogue interface for control and measurement
/LAN	Ethernet interface with listener and talker functions over a LAN

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Technical Data

	LAB-LPS 505N			LAB-PPS 3210		
Outputs	**Channel 1**	**Channel 2**	**Channel 3**	**Channel 1**	**Channel 2**	**Channel 3**
Output Voltage	0 - 30Vdc	0 - 30Vdc	0 - 15Vdc	0 - 32Vdc	0 - 32Vdc	0 - 15Vdc
Output Current	0 - 3A	0 - 3A	0 - 5A	0 - 3A	0 - 3A	0 - 5A
Output Power	90W	90W	30W	90W	90W	30W
Programming						
V & I Resolution	10mV / 1mA	10mV / 1mA	10mV / 2mA	1mV / 100µA		
Voltage Accuracy	±0.05% + 20mV	±0.05% + 20mV	±0.05% + 6mV	± 0.01% + 5mV		
Current Accuracy	±0.05% + 3mA	±0.05% + 3mA	±0.05% + 4mA	±0.01% + 1mA	±0.01% + 1mA	±0.01% + 2mA
Read Back						
V & I Resolution	10mV / 1mA	10mV / 1mA	3mV / 2mA	1mV / 100µA		
Voltage Accuracy	±0.05% + 20mV	±0.05% + 20mV	±0.05% + 6mV	± 0.01% + 5mV		
Current Accuracy	±0.05% + 3mA	±0.05% + 3mA	±0.05% + 4mA	±0.01% + 1mA	±0.01% + 1mA	±0.01% + 2mA
Voltage Ramp Times						
Ramp Up Time (full load)	1ms			3ms		
Ramp down Time (no load)	1ms			3ms		
Fall Time (full load)	2½ms			8ms		
Fall Time (no load)	250ms			250ms		
Line Regulation						
Voltage	± 0.01% + 2mV			± 0.01% + 2mV		
Current	± 0.01% + 300µA			± 0.01% + 300µA		
Load Regulation						
Voltage	<3mV	<3mV	<5mV	<3mV	<3mV	<5mV
Current	± 0.01% + 300µA			± 0.01% + 300µA		
Ripple & Noise 20Hz - 20Hz						
Normal Mode Voltage	300µVrms/3mVpp	300µVrms/3mVpp	1mVrms/20mVpp	700µVrms/7mVpp	700µVrms/7mVpp	1mVrms/20mVpp
Normal Mode Current	<1mA	<1mA	<1mA	<1mA		
Stability						
Voltage Stability	± <0.2% + 2mV (for const line & temp)			± <0.02% +2mV (for const line & temp)		
Current Stability	± <0.1% + 1mA (for const line & temp)			± <0.01% +1mA (for const line & temp)		
Other						
Timer for Output Off	1sec to 100hours			1sec to 100hours		
Voltage Temp Coeffecient	± <0.1% + 3mV per °C			± <0.01% + 3mV per °C		
Current Temp Coefficient	± <0.2% + 2mA per °C			± <0.02% + 2mA per °C		
Transient Response	<50µs			<50µs		
Common Mode Voltage	±240Vdc			±240Vdc		
Operating Temperature	6.5kg			9kg		
Storage Temperature	216 x 135 x 432mm			216 x 135 x 432mm		
Screen	20 character x4 line green backlit LCD			20 character x4 line blue backlit LCD		
Weight	6.5kg			9kg		
Dimensions (WxHxD)	216 x 135 x 432mm			216 x 135 x 432mm		
Line Input	115 / 230Vac ± 10% at 50/60Hz			115 / 230Vac ± 10% at 50/60Hz		