



Professional integrity at its *Best!*

# Linear Power Supplies



LPS 300 Series Power Supplies are designed by a high-tech team at Motech Industries. Their appearance, functions, and operations are superior to those of traditional power supplies. Considered the new standard for modern power supplies, the LPS Series offers impressive features including the following:

## Features

- Auto Range for High Current Capability
- Smart Features Simplify Work

Features	LPS 301	LPS 302	LPS 303	LPS 304	LPS 305
True Constant Voltage and Current	●	●	●	●	●
12 bit D/A Converter Accuracy	●	●	●	●	●
Backlit LCD Display	●	●	●	●	●
Intelligent Cooling System		●	●	●	●
Numeric Keyboard					●
Autorange	●	●			
Single Channel Dual Range	●	●			
Triple Channel				●	●
Single Channel			●		

- Software Calibration (programmed in EEPROM)
- Warning System (triggered when output exceeds max load or settings are changed)
- Reliable and Stable Performance
- Microcomputer Brain (microprocessor & 12-bits D/A Converter)
- RS-232C Interface: Optional Functions
- Easy to Set Button Keyboard
- Intelligent Cooling System (turns on when power rating of output is over preset value)
- Simultaneous Display of Current & Voltage Outputs (2x16 dot matrix backlit LCD)

## Specifications

MODEL	LPS 301	LPS 302	LPS 303	LPS 304	LPS 305

Max Output Power	30Watts	60Watts	90Watts	70Watts	165Watts				
<b>OUTPUT VOLTAGE</b>									
Output Voltage	HIGH 0 to 15V	LOW 0 to 30V	HIGH 0 to 15V	LOW 0 to 30V	0 to 30V	0 to +30V/0 to -30V	fixed 5V	0 to +30V/0 to -30V	fixed 3.3V/5V
Setting Resolution	10mV	10mV	10mV	10mV	10mV	10mV	i@	10mV	i@
Max Output Voltage	16V	32V	16V	32V	32V	+32V/-32V	i@	+32V/-32V	i@
Dual Tracking	i@					0 to +30V	i@	0 to +30V	i@
Tracking Deviation						±20mV	i@	±20mV	i@
<b>MODEL</b>	<b>LPS 301</b>	<b>LPS 302</b>	<b>LPS 303</b>	<b>LPS 304</b>	<b>LPS 305</b>				
<b>OUTPUT CURRENT</b>									
Output Current	0 to 2A	0 to 1A	0 to 4A	0 to 2A	0 to 2.5A	0 to 1A/0 to -1A	2A	0 to +2.5A/0 to -2.5A	3A
Setting Resolution	1mA	1mA	1mA	1mA	1mA	1mA	i@	1mA	i@
Max Output Current	2.4A	1.2A	4.4A	2.4A	3A	+1.2A/-1.2A	CL=2.2A	+3A/-3A	CL=3.3A
Dual Tracking	i@					0 to +1A	i@	0 to +2.5A	i@
Tracking Deviation						±2mA	i@	±5mA	i@
<b>Model</b>	<b>LPS 301</b>	<b>LPS 302</b>	<b>LPS 303</b>	<b>LPS 304</b>	<b>LPS 305</b>				
<b>CONSTANT VOLTAGE CHARACTERISTICS</b>									
Line Regulation	1mV			1mV	5mV	1mV	5mV		
Load Regulation	2mV			2mV	10mV	2mV	10mV		
Ripple/Noise rms	0.5mVrms			1.5mVrms	2mVrms	1.5mVrms	2mVrms		
Ripple peak(p-p)	5mVp-p			10mVp-p	20mVp-p	10mVp-p	20mVp-p		
Transient Response	200 μs Typical						200 μs Typical		
Temperature Coefficient	100 ppm/ °C Typical								
<b>MODEL</b>	<b>LPS 301</b>	<b>LPS 302</b>	<b>LPS 303</b>	<b>LPS 304</b>	<b>LPS 305</b>				
<b>CONSTANT CURRENT CHARACTERISTICS</b>									
Line Regulation	5mA Typical			15mA Typical	i@	15mA Typical	i@		
Load Regulation	5mA Typical			10mA Typical	i@	10mA Typical	i@		
Ripple/Noise rms	1mArms Typical			1mArms Typical	i@	1mArms Typical	i@		
Ripple peak (p-p)	5mA <sub>p-p</sub> Typical		10mA <sub>p-p</sub> Typical	5mA <sub>p-p</sub> Typical	i@	5mA <sub>p-p</sub> Typical	i@		

Temperature Coefficient	200 ppm/ °C Typical				
Display	2 x 16 LCD with backlit; Front Panel Status Annunciator with Beeper				
Voltage Accuracy**	$\pm(0.2\%$ of rdg + 2 digits)	$\pm(0.2\%$ of rdg + 2 digits)	j@	$\pm(0.2\%$ of rdg + 2 digits)	j@
Current Accuracy**	$\pm(0.5\%$ of rdg + 5 digits)	$\pm(0.5\%$ of rdg + 5 digits)	j@	$\pm(0.5\%$ of rdg + 5 digits)	j@
Common-mode Voltage	±240Vdc				
Temperature Ratings	Operating 0 °C to 40 °C, Storage -40 °C to 70 °C (less than 80% RH)				
Dimensions (WxHxL)	8.7" x 3.4" x 11.8"			8.4"x5.2"x15.7"	
Weight	Approx. 10 lbs	Approx. 12 lbs.		Approx. 18 lbs	
Cooling Method	Forced Air				
Power 115V AC ± 10%	47 to 63 Hz, 1A, Approx. 250W	47 to 63 Hz, 2A, Approx. 120W	47 to 63 Hz, 2A, Approx. 150W	47 to 63 Hz, 2A, Approx. 110W	47 to 63 Hz, 4A, Approx. 250W
Options	Opt 01 (230 Vac; factory-installable only); Opt 02 (RS 232; factory-installable only)				
Accessories	Instruction Manual, Power Cord, Fuse				

\*\* For output less than 5% of rated output, add 5 digits to the accuracy specifications.



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