

# 180W~375W SINGLE OUTPUT PROGRAMMABLE DC POWER SUPPLY

PSP Series

180W to 375W PSP series are high precision programmable DC power supplies features low regulation 0.01%, low ripple and noise with 1mVrms, automatic continuous or dynamic load change, battery charge function, MPU control, RS-232/RS-485/USB interface, etc.

The commands of the PSP series are compliant with SCPI commands. Users can easily develop programs to facilitate different applications in auto test and auto control. Digital input fulfilled by rotary dial and keypad makes input to be fast and accurate. Voltage and current regulations by software avoids human error and makes the PSP series to be more accurate.



MODEL	VOLTAGE	CURRENT
PSP-3605	36V	5A
PSP-6005	60V	5A
PSP-3010	30V	10A
PSP-7505	75V	5A
PSP-1820	18V	20A

## Features

- 0.01% low regulation, high accuracy and high resolution
- Over load, over voltage, over current, over temperature and reverse polarity protections
- Constant voltage and constant current operations, auto CV and CC switch
- Automatic continuous or dynamic load change
- 1mVrms low ripple & noise
- 4.3-inch backlit Segment LCD display
- High speed rotary dial and keypad input
- Built-in beeper alarm
- Panel lock and output ON/OFF function
- List mode function, 100 sets save & recall for voltage and current and time setups
- Remote sense function
- Low resistance measurement function, display load resistance value
- Battery charge mode
- Standard RS-232 interface, support SCPI commands, support Labview
- RS-232 to USB cable provided
- Optional RS-485 interface, support Modbus

# Technical Specification

Model	PSP-3605	PSP-6005	PSP-3010	PSP-7505	PSP-1820				
<b>Rated output (0°C~40°C)</b>									
Output	0~36V	0~60V	0~30V	0~75V	0~18V				
Output	0~5A	0~5A	0~10A	0~5A	0~20A				
O.V.P	0.1~40V	0.1~64V	0.1~34V	0.1~80V	0.1~21V				
O.C.P	0.1~5.5A	0.1~5.5A	0.1~11A	0.1~5.5A	0.1~22A				
<b>Constant Voltage Operation</b>									
Line regulation	$\leq 0.01\% + 3mV$								
Load regulation	$\leq 0.01\% + 3mV (I \leq 3A); \leq 0.02\% + 5mV (I > 3A)$								
Ripple & Noise (5Hz~1MHz)	$\leq 1mV_{rms} (I \leq 3A); \leq 2mV_{rms} (I > 3A); \leq 3mV_{rms} (V \geq 75V)$				$\leq 1mV_{rms}$				
Recovery time	$\leq 100\mu s$ (50% load change, minimum load 0.5A)								
<b>Constant Current Operation</b>									
Line regulation	$\leq 0.2\% + 3mA$								
Load regulation	$\leq 0.2\% + 3mA (I \leq 3A); \leq 0.2\% + 5mA (I > 3A)$								
Ripple & Noise	$\leq 3mA_{rms} (I \leq 3A), \leq 6mA_{rms} (I > 3A)$				$\leq 5mA_{rms}$				
<b>Display</b>									
Voltmeter	5 digits LCD display								
Ammeter	5 digits LCD display								
Setting resolution	1mV/0.1mA	1mV/0.1mA	1mV/1mA	2mV/0.1mA	1mV/1mA				
Reading resolution	Voltage	1mV	1mV	1mV	1mV				
	Current	0.1mA	0.1mA	1mA	0.1mA				
Setting accuracy (25±5°C)	Voltage	$\pm(0.03\% \text{ of reading} + 10mV)$							
	Current	$\pm(0.2\% \text{ of reading} + 10mA)$ $\pm(0.2\% \text{ of reading} + 20mA)$ : PSP-1820							
Reading accuracy (25±5°C)	Voltage	$\pm(0.02\% \text{ of reading} + 5mV)$							
	Current	$\pm(0.05\% \text{ of reading} + 5mA)$ $\pm(0.05\% \text{ of reading} + 10mA)$ : PSP-1820							
<b>General</b>									
Protection	Over load, over voltage, over current, over temperature and reverse polarity protections								
Panel lock	Provided								
Remote sense function	Maximum compensation voltage 0.1V@ Maximum output								
Battery charge	Lithium battery curve charge								

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Panel lock	Provided							
Remote sense function	Maximum compensation voltage 0.1V@ Maximum output							
Battery charge	Lithium battery curve charge							
Interface	RS232 interface, Support SCPI commands							
	RS232 to USB cable							
	Optional RS485 interface, support ModBus							
	Optional 0-5V analog control							
Memory	100 sets							
Insulation	Between base and terminals: $\geq 20M\Omega$ /500VDC							
	Between base and AC power cord: $\geq 30M\Omega$ /500VDC							
Operating environment	Indoor use	Altitude: $\leq 2000m$	Ambient temperature: 0~40°C					
	Relative humidity: $\leq 80\%$	Installation category: II	Pollution degree: 2					
Storage environment	-10°C~70°C, $\leq 70\%$ RH							
Power source	AC110V/220V $\pm 10\%$ selectable, 50/60Hz							
Accessories	Power cord x1, Operation manual x1, RS232 cable x1, Software CD x1, Test lead x1							
Dimension (WxHxD)	215x89x352mm							
Weight	8kg	8kg	8.5kg	8.5kg	9.8kg			



PSP-3605



PSP-3010



PSP-1820



PSP-6005