

## PPW series (300W~900W, 1mV/1mA)

### Introduction

PPW series are high accuracy programmable DC power supply with single output. MPU control, RS-232/RS-485/USB interface for PC control, the PPW series facilitates auto test and auto control. The commands of the PPW 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 input, fast and accurate. Voltage and current regulations by software, avoids human error and makes the PPW series more accurate.

### Features

- ✓ High accuracy, 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
- ✓ 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, 300 sets save & recall for voltage, current and time setups, easy use in auto test
- ✓ Remote sense function
- ✓ Display load resistance value
- ✓ Battery charge mode
- ✓ Standard RS-232 interface, support SCPI commands, support Labview
- ✓ Optional RS-485 interface, support Modbus
- ✓ Optional RS-232 to USB cable
- ✓ Optional 0-5V analog control



## Selection Guide

We have different series of laboratory programmable power supplies. Each of them has their own remarkable features.

	PPA	PPS	PPW	PPM	TPM
Display	4.3-inch TFT LCD	4.3-inch TFT LCD	4.3-inch LCD	4.3-inch LCD	122*32 LCD
Rated Power	400W 850W 1500W	300W 600W 900W	300W 600W 900W	90W~375W	90W~180W
Voltage Ripple	50mVpp	30mVpp	30mVpp	1mVrms	1mVrms
Ramp output	✓	✓	×	×	×
USB Host	✓	✓	×	×	×
USB Device	×	×	×	×	✓
RS232	✓	✓	✓	✓	×
RS485	✓	✓	Optional	Optional	×
Analog Control 0-5V	×	✓	Optional	Optional	×
Remote Sensing	✓	✓	✓	✓	×
Battery Charge Mode	✓	✓	✓	✓	×
Low resistance measurement	✓	✓	✓	✓	×
List Mode	✓	✓	✓	✓	✓
19-Inch Rack Compatible	✓	✓	✓	✓	×
Data logger	Optional	Optional	×	×	×

## Display and Control Panel

Output voltage, output current and output time can be set through digital keypad or rotary knob. Actual values of output voltage and output current can be represented in waveform display.

To prevent unintentional operations, all operation controls can be locked.



# Programmable Switching DC Power Supply



## Specifications (300W/600W)

(0°C~40°C)		PPW-3010	PPW-2030	PPW-3020	PPW-6010	PPW-8008
Rated Output	Voltage	0~31V	0~20.5V	0~31V	0~60.5V	0~80.5V
	Current	0~10.5A	0~30.5A	0~21A	0~10.5A	0~8.0A
Line regulation	Voltage	≤0.01%+4mV				
	Current	≤0.1%+3mA				
Load regulation	Voltage	≤0.1%+5mV				
	Current	≤0.1%+5mA				
Setting accuracy	Voltage	±(0.03% of reading + 10mV)				
	Current	±(0.1% of reading + 0.1% of FS)				
Setting resolution	Voltage	1mV				
	Current	1mA				
Reading accuracy	Voltage	±(0.02% of reading +5mV)				
	Current	±(0.1% of reading + 0.1% of FS)				
Reading resolution	Voltage	1mV				
	Current	1mA				
Ripple&Noise (20Hz~20MHz)	Voltage	≤2mVrms, 30mVpp				
	Current	≤10mArms				
Rise time	Empty load	≤500ms				
	Full load	≤1s				
Fall time	Empty load	≤1.5s	≤1.5s	≤1.5s	≤3s	≤4s
	Full load	≤3ms	≤2ms	≤3ms	≤8ms	≤10ms
Recovery time	≤1.5ms (50% load change)					
Temperature Coefficient	≤100ppm/°C					
Efficiency	80% typical					
Power factor	0.98					
Protection	Over load, over voltage, over current, over temperature and reverse polarity protections					
O.V.P setting range	0.1~34V	0.1~24V	0.1~34V	0.1~64V	0.1~88V	
O.C.P setting range	0.1~24A	0.1~34A	0.1~24A	0.1~12A	0.1~8.8A	
Remote sense function	Maximum compensation voltage 5% of FS					
Battery charge	Lithium battery curve charge					
Digital interface	RS232 interface, Support SCPI; Optional RS485 interface, support ModBus commands					
Analog interface	Optional 0-5V analog control for output ON/OFF, voltage & current control & monitor					
Memory	300 sets					
Insulation	Between base and terminals: ≥20MΩ/500VDC					
	Between base and AC line: ≥30MΩ/500VDC					
Operating environment	Indoor use		Altitude: ≤2000m		Ambient temperature: 0~40°C	
	Relative humidity: ≤80%		Installation category: II		Pollution degree: 2	
Storage environment	-10°C~70°C, ≤70%RH					
Power source	AC220V±10%, 50/60Hz					
Accessories	Power cord x1, Operation manual x1, RS232 cable x1, Software CD x1					
Dimension (WxHxD)	215x89x352mm					
Weight	4.5kg					

# Programmable Switching DC Power Supply



## Specifications (900W)

(0°C~40°C)		PPW-1560	PPW-2045	PPW-3030	PPW-3625	PPW-4520
Rated output	Voltage	0~15.5V	0~20.5V	0~31V	0~36.5V	0~45.5V
	Current	0~60.5A	0~45.5A	0~31A	0~25.5A	0~20.5A
Line regulation	Voltage	≤0.01%+4mV				
	Current	≤0.2%+3mA				
Load regulation	Voltage	≤0.1%+5mV				
	Current	≤0.2%+5mA				
Setting accuracy	Voltage	±(0.03% of reading + 10mV)				
	Current	±(0.1% of reading + 0.1% of FS)				
Setting resolution	Voltage	1mV				
	Current	1mA				
Reading accuracy	Voltage	±(0.02% of reading +5mV)				
	Current	±(0.1% of reading + 0.1% of FS)				
Reading resolution	Voltage	1mV				
	Current	1mA				
Ripple&Noise (20Hz~20MHz)	Voltage	≤2mVrms, 30mVpp				
	Current	≤10mArms				
Rise time	Empty load	≤200ms	≤300ms	≤500ms	≤300ms	≤300ms
	Full load	≤300ms	≤1s	≤1s	≤1s	≤1s
Fall time	Empty load	≤2s	≤2s	≤2s	≤3s	≤3s
	Full load	≤2ms	≤2ms	≤2ms	≤3ms	≤3ms
Recovery time	≤1.5ms (50% load change)					
Temperature Coefficient	≤100ppm/°C					
Efficiency	80% typical					
Power factory	0.98					
Protection	Over load, over voltage, over current, over temperature and reverse polarity protections					
O.V.P setting range	0.1~18V	0.1~24V	0.1~34V	0.1~40V	0.1~55V	
O.C.P setting range	0.1~62 A	0.1~50A	0.1~34A	0.1~27.5A	0.1~22A	
Remote sense function	Maximum compensation voltage 5% of FS					
Battery charge	Lithium battery curve charge					
Digital interface	RS232 interface, Support SCPI; Optional RS485 interface, support ModBus commands					
Analog interface	Optional 0-5V analog control for output ON/OFF, voltage & current control & monitor					
Memory	300 sets					
Insulation	Between base and terminals: ≥20MΩ/500VDC					
	Between base and AC line: ≥30MΩ/500VDC					
Operating environment	Indoor use	Altitude: ≤2000m		Ambient temperature: 0~40°C		
	Relative humidity: ≤80%	Installation category: II		Pollution degree: 2		
Storage environment	-10°C~70°C, ≤70%RH					
Power source	AC220V±10%, 50/60Hz					
Accessories	Power cord x1, Operation manual x1, RS232 cable x1, Software CD x1					
Dimension (WxHxD)	215x89x412mm					
Weight	5.5kg					

# Programmable Switching DC Power Supply



## Specifications (900W)

(0°C~40°C)		PPW-6015	PPW-8011	PPW-12H75	PPW-15H60
Rated output	Voltage	0~60.5V	0~80.5V	0~121V	0~151V
	Current	0~15.5A	0~11.5A	0~7.6A	0~6.1A
Line regulation	Voltage	≤0.01%+4mV			
	Current	≤0.2%+3mA			
Load regulation	Voltage	≤0.1%+5mV			
	Current	≤0.2%+5mA			
Setting accuracy	Voltage	±(0.03% of reading + 10mV)			
	Current	±(0.1% of reading + 0.1% of FS)			
Setting resolution	Voltage	1mV	1mV	10mV	10mV
	Current	1mA			
Reading accuracy	Voltage	±(0.02% of reading +5mV)			
	Current	±(0.1% of reading + 0.1% of FS)			
Reading resolution	Voltage	1mV	1mV	10mV	10mV
	Current	1mA			
Ripple&Noise (20Hz~20MHz)	Voltage	≤2mVrms, 30mVpp		≤5mVrms, ≤50mVpp	
	Current	≤10mArms			
Rise time	Empty load	≤1s	≤1s	≤1.5s	≤1.5s
	Full load	≤1.5s	≤1.5s	≤2s	≤2s
Fall time	Empty load	≤3s	≤3s	≤8s	≤8s
	Full load	≤3ms	≤4ms	≤9ms	≤12ms
Recovery time	≤1.5ms (50% load change)				
Temperature Coefficient	≤100ppm/°C				
Efficiency	80% typical				
Power factory	0.98				
Protection	Over load, over voltage, over current, over temperature and reverse polarity protections				
O.V.P setting range	0.1~64V	0.1~88V	0.1~132V	0.1~160V	
O.C.P setting range	0.1~17A	0.1~12A	0.1~8A	0.1~6.6A	
Remote sense function	Maximum compensation voltage 5% of FS				
Battery charge	Lithium battery curve charge				
Digital interface	RS232 interface, Support SCPI; Optional RS485 interface, support ModBus commands				
Analog interface	Optional 0-5V analog control for output ON/OFF, voltage & current control & monitor				
Memory	300 sets				
Insulation	Between base and terminals: ≥20MΩ/500VDC				
	Between base and AC line: ≥30MΩ/500VDC				
Operating environment	Indoor use	Altitude: ≤2000m		Ambient temperature: 0~40°C	
	Relative humidity: ≤80%	Installation category: II		Pollution degree: 2	
Storage environment	-10°C~70°C, ≤70%RH				
Power source	AC220V±10%, 50/60Hz				
Accessories	Power cord x1, Operation manual x1, RS232 cable x1, Software CD x1				
Dimension (WxHxD)	215x89x412mm				
Weight	5.5kg				

Specifications are subject to change without prior notice.

TWINTEX • www.twintex.com.tw

Taipei, Taiwan: Tel: +886-02-2915 0101 • Fax: +886-02-2916 0101  
 Shenzhen, China: Tel.: +86-755-2812 9890 • Fax: +86-755-2814 9802