



Single Output Programmable DC Power Supply



Mywave Instrument Co., Ltd.

◆ Introduction

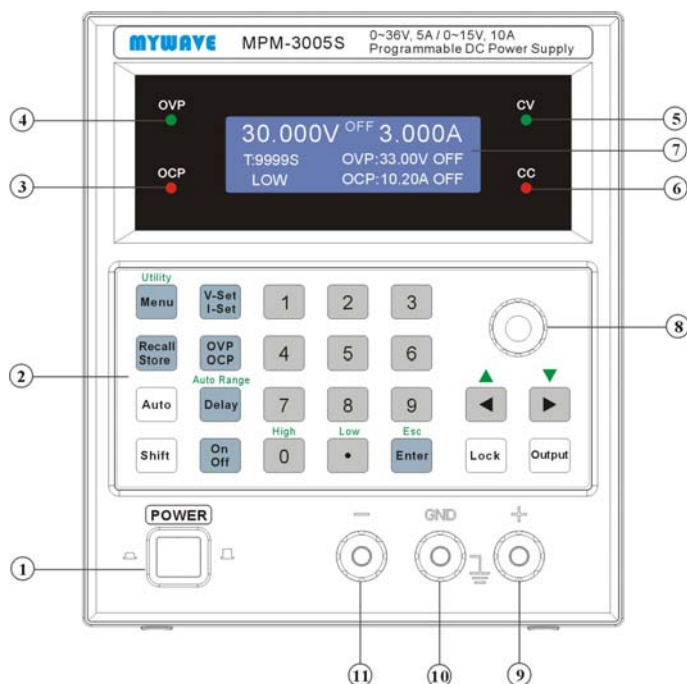
This series Single Output Programmable Power Supply is controlled by Micro Processor Unit (MPU) with extreme high accuracy, which can easily connect communication interface RS-232 or USB to computer in order to satisfy users' demand for auto-testing and auto-control. The software commands are fully complied with the SCPI format, it is convenient for user to proceed auto-tested and auto-controlled application program. Also, the digitalization of system makes a speedy, precise and convenient input of information controlled by keyboard. The adjustment of voltage/current is made by software calibration without manual error that will increase the preciseness of the instrument.

◆ Main Features

- Single output with dual range (MPM-3003S, MPM-3005S)
- 24 bits ADC and 16 bits DAC, high accuracy, high resolution
- Safety design: over load, over voltage, over current, over temperature and reverse polarity productions
- Auto CC and CV switch
- 122×32 LCD display
- Convenient and high efficiency operation of setting interface, high speed rotary knob and numeric key input
- Warning buzzer
- Key-lock to prevent improper operation
- Output ON/OFF control
- Save and Recall function of 100 groups setting and proceed together with auto operation can achieve the purpose of auto test
- Standard interface: USB or RS232
- Support SCPI commands

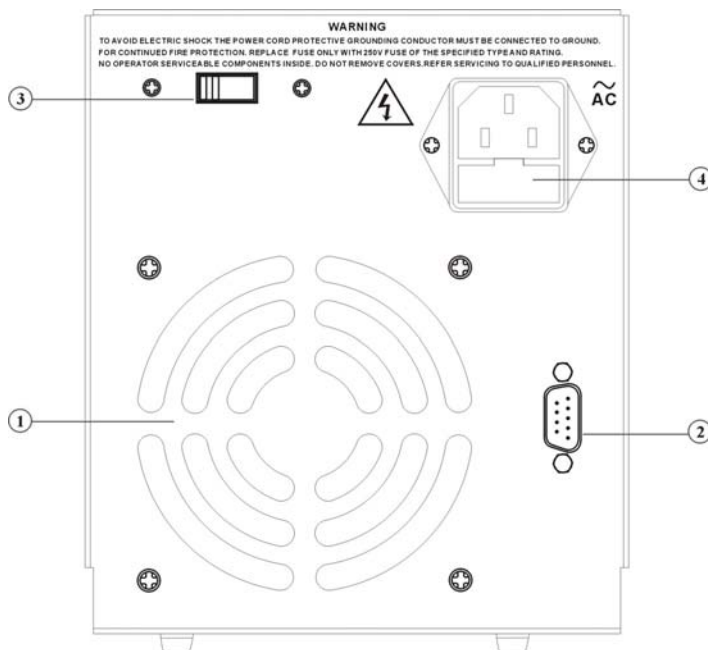
◆ Front Panel and Rear Panel

Front Panel



- | | | |
|------------------|------------------------------------|------------------------------|
| 1. Power switch | 2. Function key and Numeric keypad | 3. OCP indicator |
| 4. OVP indicator | 5. CV indicator | 6. CC indicator |
| 8. Rotary knob | 9. Positive output terminal | 10. Ground terminal |
| | | 11. Negative output terminal |

Rear Panel



- | | |
|--------------------------------------|-----------------------------|
| 1. Cooling fan | 2. RS232 or USB interface |
| 3. AC110/220V power selection switch | 4. Power cord / fuse socket |

◆ Technical Specifications

The specifications apply when the power supply series are powered on for at least 30 minutes under regulated temperature.

Model	MPM-3003S		MPM-3005S		MPD-3003S	MPD-3005S	MPD-6001S	MPD-6003S
Output range	36V/3A	15V/6A	36V/5A	15V/10A	30V/3A	30V/5A	60V/1A	60V/3A
Rating DC output (0°C~40°C)								
Voltage	0~36V	0~15V	0~36V	0~15V	0~30V	0~30V	0~60V	0~60V
Current	0~3A	0~6A	0~5A	0~10A	0~3A	0~5A	0~1A	0~3A
OVP	0.1~38V				0.1~34V	0.1~34V	0.1~64V	0.1~64V
OCP	0.1~6.5A		0.1~11A		0~3.5A	0~5.5A	0~1.5A	0~3.5A
Voltage output								
Line regulation	≤0.01%+3mV							
Load regulation	≤0.01%+3mV (I≤3A) / ≤0.02%+5mV (I>3A)							
Recovery time	≤100us (50% load change, minimum load 0.5A)							
Ripple & Noise	≤1mV rms (I≤3A) (5Hz~1MHz) / ≤2mV rms (I>3A) (5Hz~1MHz)							
Temp. co-efficient	≤300ppm/°C							
Setting accuracy	±(0.03% of reading + 10mV) (25±5°C)							
Setting resolution	1mV							
Current output								
Line regulation	≤0.2%+3mA							
Load regulation	≤0.2%+3mA (I≤3A) / ≤0.2%+5mA (I>3A)							
Ripple & Noise	≤3mA rms (I≤3A) / ≤6mA rms (I>3A)							
Setting accuracy	±(0.2% of reading + 10mA) (25±5°C)							
Setting resolution	0.1mA	1mA		0.1mA	0.1mA	0.1mA	0.1mA	0.1mA
Display								
Voltage	5 digits display							
Current	5 digits display							
Voltage resolution	1mV							
Current resolution	0.1mA	1mA		0.1mA	0.1mA	0.1mA	0.1mA	0.1mA
Readback accuracy	±(0.02% of reading +5mV) (25±5°C); ±(0.02% of reading +5mA) (25±5°C)							
Protection								
Protection	over load, over voltage, over current, over temperature and reverse polarity productions							
Key lock								
Key lock	Provided							
Interface								
Interface	RS232 or USB interface, SCPI commands provided							
Save /Recall								
Save /Recall	100 sets							
Insulation								
Insulation	Between chassis and output terminal: ≥20MΩ/500VDC				Between chassis and AC cord: ≥30MΩ/500VDC			
Operation environment								
Operation environment	Indoor use		Altitude: ≤2000m		Ambient temperature: 0~40°C			
	Relative humidity: ≤80%		Installation category: II		Pollution degree: 2			
Storage environment								
Storage environment	Ambient temperature: -10~70°C							
	Relative humidity: ≤70%							
Power source								
Power source	AC 110V/220V±10%, 50/60Hz							
Accessories								
Accessories	Operation manual, Power cord, Software CD, RS232 cable or USB cable							
Dimension								
Dimension	296 (D) ×126 (W) ×143 (H)mm							
Weight								
Weight	≤5.5kg	≤6.2kg		≤5.5kg	≤5.5kg	≤5.5kg	≤5.5kg	≤5.5kg

Model	MPD-6005S	MPD-2010S	MPD-3010S	MPD-7503S	MPD-7505S	
Output range	60V/5A	20V/10A	30V/10A	75V/3A	75V/5A	
Rating DC output (0°C~40°C)						
Voltage	0~60V	0~20V	0~30V	0~75V	0~75V	
Current	0~5A	0~10A	0~10A	0~3A	0~5A	
OVP	0.1~64V	0.1~24V	0.1~34V	0.1~80V	0.1~80V	
OCP	0~5.5A	0.1~11A	0.1~11A	0~3.5A	0~5.5A	
Voltage output						
Line regulation	≤0.01%+3mV					
Load regulation	≤0.01%+3mV (I≤3A) / ≤0.02%+5mV (I>3A)					
Recovery time	≤100us (50% load change, minimum load 0.5A)					
Ripple & Noise	≤1mV rms (I≤3A) (5Hz~1MHz) / ≤2mV rms (I>3A) (5Hz~1MHz)					
Temp. co-efficient	≤300ppm/°C					
Setting accuracy	±(0.03% of reading + 10mV) (25±5°C)					
Setting resolution	1mV	1mV	1mV	2mV	2mV	
Current output						
Line regulation	≤0.2%+3mA					
Load regulation	≤0.2%+3mA (I≤3A) / ≤0.2%+5mA (I>3A)					
Ripple & Noise	≤3mA rms (I≤3A) / ≤6mA rms (I>3A)					
Setting accuracy	±(0.2% of reading + 10mA) (25±5°C)					
Setting resolution	0.1mA	1mA	1mA	0.1mA	0.1mA	
Display						
Voltage	5 digits display					
Current	5 digits display					
Voltage resolution	1mV	1mV	1mV	1mV	1mV	
Current resolution	0.1mA	1mA	1mA	0.1mA	0.1mA	
Readback accuracy	±(0.02% of reading +5mV) (25±5°C); ±(0.02% of reading +5mA) (25±5°C)					
Protection						
Protection	over load, over voltage, over current, over temperature and reverse polarity productions					
Key lock						
Key lock	Provided					
Interface						
Interface	RS232 or USB interface, SCPI commands provided					
Save /Recall						
Save /Recall	100 sets					
Insulation						
Insulation	Between chassis and output terminal: ≥20MΩ/500VDC Between chassis and AC cord: ≥30MΩ/500VDC					
Operation environment						
Operation environment	Indoor use	Altitude: ≤2000m		Ambient temperature: 0~40°C		
	Relative humidity: ≤80%	Installation category: II		Pollution degree: 2		
Storage environment						
Storage environment	Ambient temperature: -10~70°C Relative humidity: ≤70%					
Power source						
Power source	AC 110V/220V±10%, 50/60Hz					
Accessories						
Accessories	Operation manual, Power cord, Software CD, RS232 cable or USB cable					
Dimension						
Dimension	296 (D) ×126 (W) ×143 (H)mm				396 (D) ×126 (W) ×143 (H)mm	
Weight						
Weight	≤7kg	≤6.4kg	≤7.5kg	≤6.3kg	≤8.8kg	

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