

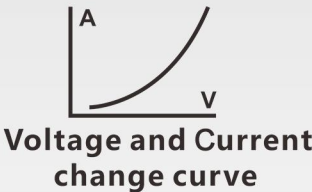


# SPM Series

## DC Power supply & Multimeter



4<sup>1/2</sup> Digit



High Resolution  
at 10mV/1mA

- DC power supply+multimeter
- Small body for easy carry
- USB communication interface, support SCPI

### Power Supply Specifications:

- 150W/300W output power
- High resolution: 10mV / 1mA
- List waveform editing output, editable 10 groups of timing output function
- Over voltage / over current protection
- Output voltage and current curve monitoring function

### Multimeter Specifications :

- 4 1/2 digits multimeter
- Support Voltage, Current, Capacitance, Resistance, Continuity, and Diode test



| Model        | SPM3051                                                                                                   | SPM6053 | SPM3103 | SPM6103 |
|--------------|-----------------------------------------------------------------------------------------------------------|---------|---------|---------|
| Output Range | 30V/5A                                                                                                    | 60V/5A  | 30V/10A | 60V/10A |
| Output Power | 150W                                                                                                      | 300W    |         |         |
| Multimeter   | 4 1/2 digits multimeter.<br>Support Voltage, Current, Capacitance, Resistance, Continuity and Diode test. |         |         |         |

# DC Power supply + Multimeter, make work more convenient



## DC Power supply interface

Display cumulative running time

Actual output power

Channel output status

CV: Constant Voltage output  
CC: Constant Current output

Actual voltage output

Actual current output

Set values of voltage/current

Set values of O.V.P/O.C.P

## Multimeter interface

Measurement type

Measurement range

Auto range or manual range

Bar chart

## DC Power supply & Multimeter dual display interface

Measurement type

Auto range or manual range

Measurement range

DC power supply quick output editing

DC power supply output editing

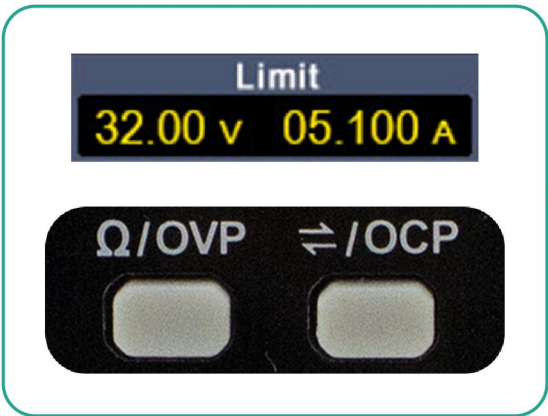
DC power supply output automatically setting

# Multiple settings to protect your circuit



Independent output On/Off button control, protect the circuit.

Long press to set the automatic output voltage/current 5 seconds after booting.



Overvoltage and overcurrent values can be set to protect the circuit

CV: Constant Voltage output  
CC: Constant Current output

Constant voltage CV/constant current CC intelligent switching mode, effectively protect the circuit.

When the actual current exceeds the preset current value, the power supply automatically switches to CC mode to protect the circuit.



List waveform editing output, editable 10 groups of timing output.

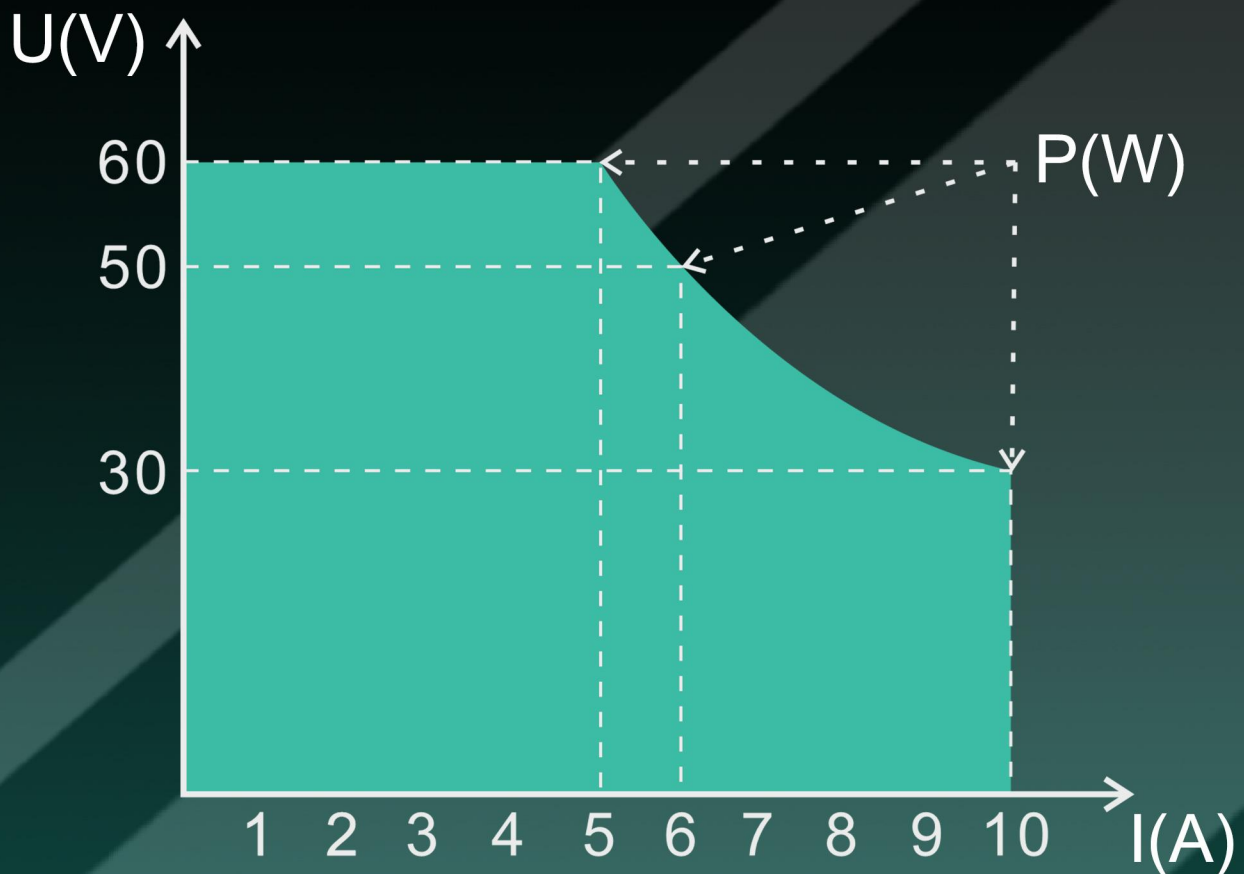
| ON      | CV     | T        | 00:00:31 | 06.80w                              | (A) |
|---------|--------|----------|----------|-------------------------------------|-----|
|         | U      | I        | T        | Y/N                                 |     |
| 6       | 05.00v | 01.600A  | 00:00:10 | <input type="checkbox"/>            |     |
| 7       | 04.00v | 01.400A  | 00:00:10 | <input type="checkbox"/>            |     |
| 8       | 03.00v | 01.200A  | 00:00:10 | <input checked="" type="checkbox"/> |     |
| 9       | 03.00v | 01.100A  | 00:00:10 | <input type="checkbox"/>            |     |
| Set     |        | Limit    |          |                                     |     |
| 30.00 v |        | 10.065 A |          | 32.00 v 10.200 A                    |     |

4 groups of Memory shortcut parameters for quick output

| ON      | CV     | T        | 00:00:16 | 06.80w           | (A) |
|---------|--------|----------|----------|------------------|-----|
|         | U      | I        | OVP      | OCP              |     |
| M1      | 05.12v | 05.000A  | 32.00v   | 10.200A          |     |
| M2      | 14.97v | 04.960A  | 16.00v   | 05.100A          |     |
| M3      | 07.00v | 02.000A  | 08.00v   | 02.500A          |     |
| M4      | 15.00v | 02.000A  | 32.00v   | 03.400A          |     |
| Set     |        | Limit    |          |                  |     |
| 30.00 v |        | 10.065 A |          | 32.00 v 10.200 A |     |

# Small size, Sufficient power

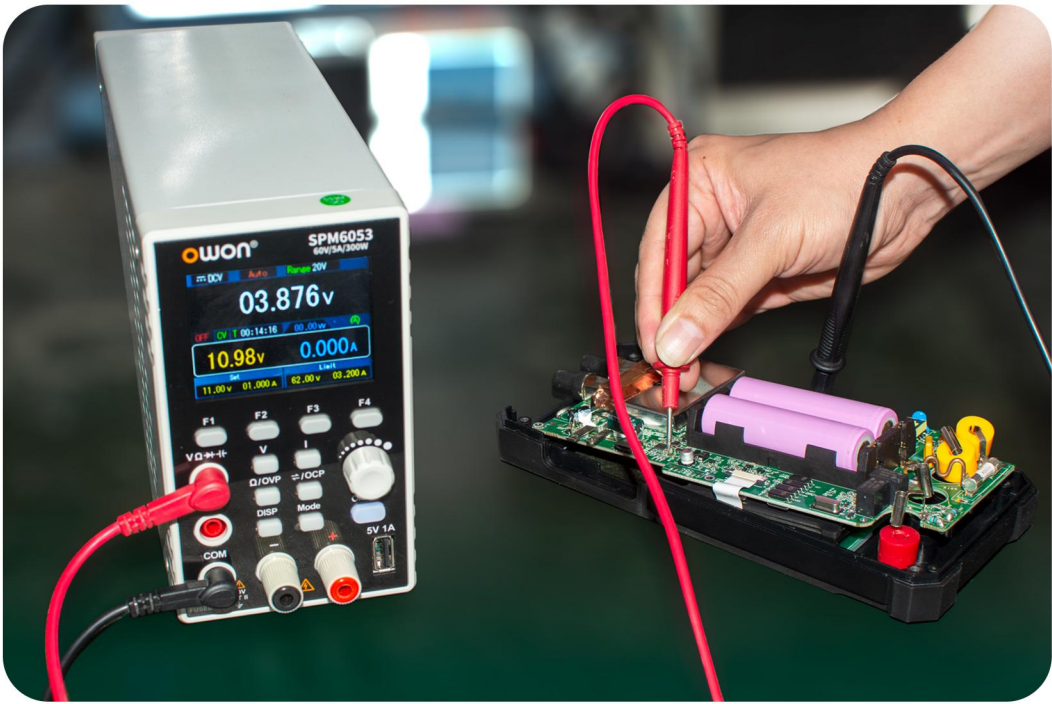
Constant power design, wide application range, provides flexible configuration of higher voltage and current within the rated power range. One device is equal to multiple.



Schematic diagram of power supply constant power  
(take SPM6103 for instance)

# Integrated with high resolution multimeter, convenient and easy to use

The integrated 4(1/2) digits multimeter can test voltage, current, resistance, capacitance, diode and continuity.



## Multiple functions to meet your different testing needs

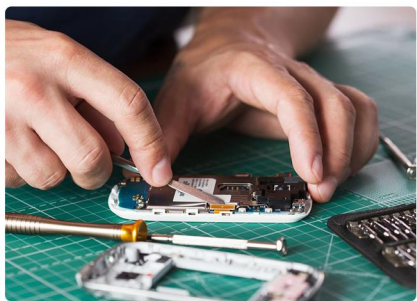
Output voltage/current change curve monitoring function, suitable for repair of phones and laptops, PCB aging test, battery charging and discharging experiment, etc.



Battery charging



Aging test



Phone repair





2.8-inch LCD

Press to switch menus

Multimeter voltage and current measurement sockets, red is positive and black is negative

Channel output terminals

- ① Voltage setting / To switch AC voltage or DC voltage
  - ② Current setting / To switch AC current or DC current
  - ③ Over voltage protection, Over current protection / Switch resistance, capacitance, diode and continuity measurement types
  - ④ Switch different display modes
  - ⑤ Switch between DC power supply or Multimeter modes
- Adjustment knob
- Channel output on/off button, long press to turn on the automatic output function
- Front USB port, output 5V/1A



USB Device communication port, supporting SCPI

Intelligent temperature control fan

Power cord socket

Fuse

Power switch

| Voltage     | Fuse      | Line Rating                   |
|-------------|-----------|-------------------------------|
| 200-240V AC | 250V, F5A | 50-60 Hz 600 Watts 800 VA Max |

| Model                | SPM3051                     | SPM6053          | SPM3103           | SPM6103           |
|----------------------|-----------------------------|------------------|-------------------|-------------------|
| Channel              | Single Channel Output       |                  |                   |                   |
| Total Output Power   | 150W                        | 300W             |                   |                   |
| Channel Output       | 0 - 30V / 0 - 5A            | 0 - 60V / 0 - 5A | 0 - 30V / 0 - 10A | 0 - 60V / 0 - 10A |
| Display              | 2.8 inch color LCD display  |                  |                   |                   |
| Interface            | USB Device, USB Host (5V1A) |                  |                   |                   |
| Dimension(W x H x D) | 82 x 142 x 226 (mm)         |                  |                   |                   |
| Working Temperature  | 0 - 40°C                    |                  |                   |                   |
| Weight               | Approx. 1.5kg               |                  |                   |                   |

### + DC Power Specifications

The instrument must be operated continuously for more than 30 minutes at the specified temperature to ensure the following parameters.

| Model                                                |               | SPM3051          | SPM6053 | SPM3103 | SPM6103      |
|------------------------------------------------------|---------------|------------------|---------|---------|--------------|
| Rated Output<br>(0°C-40°C)                           | Voltage       | 0 - 30V          | 0 -60V  | 0 - 30V | 0 -60V       |
|                                                      | Current       | 5A               | 5A      | 10A     | 10A          |
|                                                      | Output Power  | 150W             | 300W    | 300W    | 300W         |
| Load Regulation                                      | Voltage       | ≤30mV            |         |         |              |
|                                                      | Current       | ≤20mA            |         |         |              |
| Power Regulation                                     | Voltage       | ≤30mV            |         |         |              |
|                                                      | Current       | ≤20mA            |         |         |              |
| Setting Resolution                                   | Voltage       | 10mV             |         |         |              |
|                                                      | Current       | 1mA              |         |         |              |
| Readback Resolution                                  | Voltage       | 10mV             |         |         |              |
|                                                      | Current       | 1mA              |         |         |              |
| Value Resolution<br>(within 12 months)<br>(25°C±5°C) | Voltage       | ≤0.1% ± 20mV     |         |         | ≤0.1% ± 30mV |
|                                                      | Current       | ≤0.05% ± 10mA    |         |         |              |
| Readback Value Resolution<br>(25°C±5°C)              | Voltage       | ≤0.1% ± 20mV     |         |         | ≤0.1% ± 30mV |
|                                                      | Current       | ≤0.1% ± 10mA     |         |         |              |
| Ripple/Noise(*)                                      | Voltage(Vp-p) | ≤30mVp-p         |         |         | ≤50mVp-p     |
|                                                      | Voltage (rms) | ≤3mVrms          |         |         | ≤5mVrms      |
|                                                      | Current (rms) | ≤30mAp-p         |         |         |              |
| Output temperature coefficient<br>(0°C-40°C)         | Voltage       | 100ppm/°C        |         |         |              |
|                                                      | Current       | 200ppm/°C        |         |         |              |
| Readback temperature coefficient                     | Voltage       | 100ppm/°C        |         |         |              |
|                                                      | Current       | 200ppm/°C        |         |         |              |
| Response Time(50%-100% rated load)                   |               | ≤1.0ms           |         |         |              |
| Storage                                              |               | 4 groups of data |         |         |              |

\* Noise bandwidth 20MHz, ripple bandwidth 1MHz, connect 10uF electrolytic capacitor in parallel with 0.1uF ceramic capacitor to the output terminal for testing.

## + Multimeter Specifications

|                    |                                                                                                                                                                   |            |   |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---|
| Full Scale Reading | 4½ digits                                                                                                                                                         | Auto Range | √ |
| Measure            | Voltage, Current, Capacitance, Resistance, Continue, Diode(0-2V) test                                                                                             |            |   |
| Capacitance        | 20.000nF,200.00nF,2.0000uF,20.000uF,200.00uF, 2.0000mF: ±(3.0%±10digit)                                                                                           |            |   |
| Voltage            | DCV: 200.00mV: ±(0.3%±10digit), 2.0000V, 20.000V, 200.00V,1000V: ±(0.3%±5digit),<br>ACV: 200.00mV, 2.0000V, 20.000V, 200.00V: ±(0.8%±10digit) 750V: ±(1%±10digit) |            |   |
| Current            | DCA: 200.00mA:±(0.8%±10digit),10.000A: ±(2.5%±10digit)<br>ACA: 200.00mA:±(1%±10digit),10.000A: ±(2.8%±10digit)                                                    |            |   |
| Impedance          | 200.00Ω,2.0000kΩ,20.000kΩ,200.00kΩ,2.0000MΩ: ±(0.8%±10digit),20.000MΩ: ±(1%±3digit)<br>100MΩ: ±(5%±10digit)                                                       |            |   |

Specifications subject to change without prior notice.

## PRODUCT ACCESSORY



- ① Main Device
- ② Quick Guide
- ③ Power Cord
- ④ Multimeter Lead
- ⑤ Ground Wire
- ⑥ Fuse

**Dimension (W×H×D):** 82 x 142 x 226 (mm)  
**Device Weight:** Approx. 1.5kg

