SPM Series Source Measuring Unit
Technical Specifications

The instrument must be operated continuously for more than 30 minutes at the specified operating temperature to achieve the following specifications:

Power Supply

Model		SPM3051	SPM6053	SPM3103	SPM6103	SPM8104	SPM8205
Input Characteristics							
Supply Voltage		110Vac±10% or 220Vac±10%, please supply power according to the mark on the left of the power input socket on the rear panel of the instrument				100V ~ 240V	
Input Frequency		50~60Hz	50~60Hz	50~60Hz	50~60Hz	45~65Hz	45~65Hz
Input Fuse	**110V**	250V,F5A	250V,F10A			250V,F10A	
	220V	250V, F3A	250V, F5A				
Rated Output							
Voltage		0~30V	0~60V	0~30V	0~60V	0~80V	0~80V
Current		0~5A	0~5A	0~ 10A	0~ 10A	0~10A	0~20A
Power		150W	300W	300W	300W	400W	500W
Regulation(CV)							
Load		≤30mV	≤30mV	≤30mV	≤30mV	≤20mV	≤20mV
Line		≤20mV	≤20mV	≤20mV	≤20mV	≤20mV	≤20mV
Regulation(CC)							
Load		≤30mA	≤30mA	≤30mA	≤30mA	≤10mA	≤10mA
Line		≤20mA	≤20mA	≤20mA	≤20mA	≤10mA	≤10mA
Ripple & Noise (Noise bandwidth 20MHz, ripple bandwidth 1MHz, connect 10uF electrolytic capacitor in parallel with 0.1uF ceramic capacitor to the output terminal for testing)							
Voltage (Vp-p)		≤30mV	≤30mV	≤30mV	≤50mV	≤50mVp-p	≤50mVp-p
Voltage (rms)		≤3mV	≤3mV	≤3mV	≤5mV	≤15mA	≤15mA
Setting Resolution							
Voltage		10mV	10mV	10mV	10mV	10mV	10mV
Current		1mA	1mA	1mA	1mA	1mA	1mA

Readback Resolution						
Voltage	10mV	10mV	10mV	10mV	10mV	10mV
Current	1mA	1mA	1mA	1mA	1mA	1mA
Setting Accuracy						
Voltage	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±30mV	≤0.05%±20mV	≤0.05%±20mV
Current	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.05%±10mA	≤0.05%±20mA
Readback Accuracy						
Voltage	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±30mV	≤0.05%±20mV	≤0.05%±20mV
Current	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.05%±10mA	≤0.05%±20mA
Response time						
Transient recovery time (10% ~90%rated load)	≤1ms				≤5.0ms	
Protective function						
OVP	0~31V	0~61V	0~31V	0~61V	0~85V	0~85V
OCP	0~5.1A	0~5.1A	0~ 10.1A	0~ 10.1A	0~11A	0~21A
OTP	85℃	85℃	85℃	85℃	85℃	85℃
Temperature coefficient of output						
Voltage	100ppm/℃					
Current	200ppm/℃					
Temperature coefficient of readback value						
Voltage	100ppm/℃					
Current	200ppm/℃					

Multimeter

Characteristic	**Description**	
Display	4½ bit (Max. reading 20000)	
Measurement	Voltage, Current, Resistance, Capacitance, Diode, Continuity	
Input impendance	≥10 MΩ	
Diode	0~2V	
	Range	**Accuracy**
DC Voltage	200.00mV	±(0.3%+10dig)
	2.0000V/20.000V/200.00V	±(0.3%+5dig)

	1000.0V	
AC Voltage	200.00mV /2.0000V/20.000V/200.00V	±(0.8%+10dig)
	750V	±(1.0%+10dig)
DC Current	200.00mA	±(0.8%+10dig)
	10.000A	±(2.5%+10dig)
AC Voltage	200.00mA	±(1.0%+10dig)
	10.000A	±(2.8%+10dig)
Resistance	200.00Ω/2.0000kΩ/20.000kΩ/200.00kΩ/2.0000MΩ	±(0.8%+10dig)
	20.000MΩ	±(1.0%+3dig)
	100.00MΩ	±(5.0%+10dig)
Capacitance[1](F)	20.000nF/200.00nF/2.0000uF/ 20.000uF/200.00uF/2.0000mF	±(3.0%+10dig)
Frequency response(Hz)	（40 - 1000）Hz	

[1] The accuracy guarantee range for AC voltage/current and capacitance measurements is from 5% to 100% of the range.

Others

Display	
Display Type	2.8inches color LCD
Resolution	240 × 320 pixels
Color	65536 color,TFT
Environment	
Temperature	Working Temperature:0℃～40℃ Storage Temperature:-20℃～60℃
Relative Humidity	≤90%RH; no condensation
Height	2,000 meters
Cooling	Fan cooling, temperature intelligent speed control
Other	
Communication Port	Provides three optional interfaces: USB, LAN(Optional), and RS232(Optional), compatible with the SCPI communication protocol.
USB Charging Port	5V/ 1A charging
Dimension	82mm(W)× 142mm(H)×226mm(D)
Weight	Approx. 1.5 kg