

# SPE Series Single Channel Power Supply Technical Specification

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

<b>Specifications</b>				
	<b>SPE3051</b>	<b>SPE6053</b>	<b>SPE3102</b>	<b>SPE6102</b>
<b>Input Characteristics</b>				
<b>Supply Voltage</b>	110Vac±15% or 220Vac±15%, please supply power according to the mark on the left of the power input socket on the rear panel of the instrument			
<b>Input Frequency</b>	45~65Hz	45~65Hz	45~65Hz	45~65Hz
<b>Input Parameter 1 (110Vac±15%)</b>				
<b>Input Voltage Range</b>	93~127Vac	93~127Vac	93~127Vac	93~127Vac
<b>Full Load Input Current</b>	≤2.8A	≤5.6A	≤2.8A	≤2.8A
<b>No-Load Input Current</b>	≤200mA	≤300mA	≤300mA	≤300mA
<b>Input Fuse</b>	250V,F5A	250V,F10A	250V,F5A	250V,F5A
<b>Input Parameter 2 (220Vac±15%)</b>				
<b>Input Voltage Range</b>	187~253Vac	187~253Vac	187~253Vac	187~253Vac
<b>Full Load Input Current</b>	≤1.4A	≤2.8A	≤1.4A	≤1.4A
<b>No-Load Input Current</b>	≤100mA	≤150mA	≤150mA	≤150mA
<b>Input Fuse</b>	250V,F3A	250V,F5A	250V,F3A	250V,F3A
<b>Rated Output</b>				
<b>Voltage</b>	0~30V	0~60V	0~30V	0~60V
<b>Current</b>	0~5A	0~5A	0~10A	0~10A
<b>Power</b>	150W	300W	200W	200W
<b>Efficiency (110Vac, rated load)</b>	80%	80%	80%	80%
<b>Efficiency (220Vac, rated load)</b>	85%	85%	85%	85%
<b>Regulation(CV)</b>				

	<b>SPE3051</b>	<b>SPE6053</b>	<b>SPE3102</b>	<b>SPE6102</b>
<b>Load</b>	≤30mV	≤30mV	≤30mV	≤30mV
<b>Line</b>	≤20mV	≤20mV	≤20mV	≤20mV
<b>Regulation(CC)</b>				
<b>Load</b>	≤30mA	≤30mA	≤30mA	≤30mA
<b>Line</b>	≤20mA	≤20mA	≤20mA	≤20mA
<b>Ripple &amp; Noise (Noise bandwidth 20MHz, ripple bandwidth 1MHz, connect 10uF electrolytic capacitor in parallel with 0.1uF ceramic capacitor to the output terminal for testing)</b>				
<b>Voltage (Vp-p)</b>	≤30mV	≤30mV	≤30mV	≤50mV
<b>Voltage (rms)</b>	≤3mV	≤3mV	≤3mV	≤5mV
<b>Current (Ap-p)</b>	≤30mA	≤30mA	≤30mA	≤30mA
<b>Setting Resolution</b>				
<b>Voltage</b>	10mV	10mV	10mV	10mV
<b>Current</b>	1mA	1mA	1mA	1mA
<b>Readback Resolution</b>				
<b>Voltage</b>	10mV	10mV	10mV	10mV
<b>Current</b>	1mA	1mA	1mA	1mA
<b>Setting Accuracy</b>				
<b>Voltage</b>	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±30mV
<b>Current</b>	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA
<b>Readback Accuracy</b>				
<b>Voltage</b>	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±30mV
<b>Current</b>	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA
<b>Response time</b>				
<b>Transient recovery time (50%~100% rated load)</b>	≤1ms			
<b>Protective function</b>				
<b>OVP</b>	0~31V	0~61V	0~31V	0~61V
<b>OCP</b>	0~5.1A	0~5.1A	0~10.1A	0~10.1A
<b>OTP</b>	85℃	85℃	85℃	85℃
<b>Temperature coefficient of output</b>				
<b>Voltage</b>	100ppm/℃			
<b>Current</b>	200ppm/℃			
<b>Temperature coefficient of readback value</b>				
<b>Voltage</b>	100ppm/℃			

<b>Current</b>	200ppm/°C
<b>Display</b>	
<b>Display Type</b>	2.8inches color LCD
<b>Resolution</b>	240 × 320 pixels
<b>Color</b>	65536 color, TFT
<b>Environment</b>	
<b>Temperature</b>	Working Temperature:0°C~40°C Storage Temperature:-20°C~60°C
<b>Relative Humidity</b>	≤90%RH; no condensation
<b>Height</b>	2,000 meters
<b>Cooling</b>	Fan cooling, temperature intelligent speed control
<b>Other</b>	
<b>Communication Port</b>	USB communication, compatible with SCPI communication protocol
<b>USB Charging Port</b>	5V/1A charging
<b>Dimension</b>	82mm (Width) × 142mm (Height) ×226mm (Length)
<b>Weight</b>	Approx. 1.5 kg



7007020100121

V1.0.1

# SPE Series Single Channel Power Supply Technical Specification

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

<b>Specifications</b>		
	SPE3103	SPE6103
<b>Input Characteristics</b>		
<b>Supply Voltage</b>	110Vac±15% or 220Vac±15%, please supply power according to the mark on the left of the power input socket on the rear panel of the instrument	
<b>Input Frequency</b>	45~65Hz	45~65Hz
<b>Input Parameter 1 (110Vac±15%)</b>		
<b>Input Voltage Range</b>	93~127Vac	93~127Vac
<b>Full Load Input Current</b>	≤5.6A	≤5.6A
<b>No-Load Input Current</b>	≤300mA	≤300mA
<b>Input Fuse</b>	250V,F10A	250V,F10A
<b>Input Parameter 2 (220Vac±15%)</b>		
<b>Input Voltage Range</b>	187~253Vac	187~253Vac
<b>Full Load Input Current</b>	≤2.8A	≤2.8A
<b>No-Load Input Current</b>	≤150mA	≤150mA
<b>Input Fuse</b>	250V,F5A	250V,F5A
<b>Rated Output</b>		
<b>Voltage</b>	0~30V	0~60V
<b>Current</b>	0~10A	0~10A
<b>Power</b>	300W	300W
<b>Efficiency (110Vac, rated load)</b>	80%	80%
<b>Efficiency (220Vac, rated load)</b>	85%	85%
<b>Regulation(CV)</b>		
<b>Load</b>	≤30mV	≤30mV
<b>Line</b>	≤20mV	≤20mV
<b>Regulation(CC)</b>		

	SPE3103	SPE6103
Load	≤30mA	≤30mA
Line	≤20mA	≤20mA
<b>Ripple &amp; Noise (Noise bandwidth 20MHz, ripple bandwidth 1MHz, connect 10uF electrolytic capacitor in parallel with 0.1uF ceramic capacitor to the output terminal for testing)</b>		
Voltage (Vp-p)	≤30mV	≤50mV
Voltage (rms)	≤3mV	≤5mV
Current (Ap-p)	≤30mA	≤30mA
<b>Setting Resolution</b>		
Voltage	10mV	10mV
Current	1mA	1mA
<b>Readback Resolution</b>		
Voltage	10mV	10mV
Current	1mA	1mA
<b>Setting Accuracy</b>		
Voltage	≤0.1%±20mV	≤0.1%±30mV
Current	≤0.1%±10mA	≤0.1%±10mA
<b>Readback Accuracy</b>		
Voltage	≤0.1%±20mV	≤0.1%±30mV
Current	≤0.1%±10mA	≤0.1%±10mA
<b>Response time</b>		
Transient recovery time (50%~100% rated load)	≤1ms	
<b>Protective function</b>		
OVP	0~31V	0~61V
OCP	0~10.1A	0~10.1A
OTP	85°C	85°C
<b>Temperature coefficient of output</b>		
Voltage	100ppm/°C	
Current	200ppm/°C	
<b>Temperature coefficient of readback value</b>		
Voltage	100ppm/°C	
Current	200ppm/°C	
<b>Display</b>		
Display Type	2.8inches color LCD	

<b>Resolution</b>	240 × 320 pixels
<b>Color</b>	65536 color, TFT
<b>Environment</b>	
<b>Temperature</b>	Working Temperature: 0°C ~ 40°C Storage Temperature: -20°C ~ 60°C
<b>Relative Humidity</b>	≤90%RH; no condensation
<b>Height</b>	2,000 meters
<b>Cooling</b>	Fan cooling, temperature intelligent speed control
<b>Other</b>	
<b>Communication Port</b>	USB communication, compatible with SCPI communication protocol
<b>USB Charging Port</b>	5V/1A charging (without U model); Support QC2.0, QC3.0, BC1.2, Apple, Huawei FCP, Samsung AFC quick charge protocol 5V, 9V quick charge output, the maximum power is 12W, beyond the maximum power will turn off the quick charge output (only with U models)
<b>Dimension</b>	82mm (Width) × 142mm (Height) × 226mm (Length)
<b>Weight</b>	Approx. 1.5 kg



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