

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

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

	SPE3051	SPE6053	SPE3102	SPE6102
Load	≤30mV	≤30mV	≤30mV	≤30mV
Line	≤20mV	≤20mV	≤20mV	≤20mV
Regulation(CC)				
Load	≤30mA	≤30mA	≤30mA	≤30mA
Line	≤20mA	≤20mA	≤20mA	≤20mA
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
Voltage (rms)	≤3mV	≤3mV	≤3mV	≤5mV
Current (Ap-p)	≤30mA	≤30mA	≤30mA	≤30mA
Setting Resolution				
Voltage	10mV	10mV	10mV	10mV
Current	1mA	1mA	1mA	1mA
Readback Resolution				
Voltage	10mV	10mV	10mV	10mV
Current	1mA	1mA	1mA	1mA
Setting Accuracy				
Voltage	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±30mV
Current	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA
Readback Accuracy				
Voltage	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±20mV	≤0.1%±30mV
Current	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA	≤0.1%±10mA
Response time				
Transient recovery time (50%~100% rated load)	≤1ms			
Protective function				
OVP	0~31V	0~61V	0~31V	0~61V
OCP	0~5.1A	0~5.1A	0~10.1A	0~10.1A
OTP	85℃	85℃	85℃	85℃
Temperature coefficient of output				
Voltage	100ppm/℃			
Current	200ppm/℃			
Temperature coefficient of readback value				
Voltage	100ppm/℃			

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



7007020100121

V1.0.0

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Specifications		
	SPE3103	SPE6103
Input Characteristics		
Supply Voltage	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	
Input Frequency	45~65Hz	45~65Hz
Input Parameter 1 (110Vac±15%)		
Input Voltage Range	93~127Vac	93~127Vac
Full Load Input Current	≤5.6A	≤5.6A
No-Load Input Current	≤300mA	≤300mA
Input Fuse	250V,F10A	250V,F10A
Input Parameter 2 (220Vac±15%)		
Input Voltage Range	187~253Vac	187~253Vac
Full Load Input Current	≤2.8A	≤2.8A
No-Load Input Current	≤150mA	≤150mA
Input Fuse	250V,F5A	250V,F5A
Rated Output		
Voltage	0~30V	0~60V
Current	0~10A	0~10A
Power	300W	300W
Efficiency (110Vac, rated load)	80%	80%
Efficiency (220Vac, rated load)	85%	85%
Regulation(CV)		
Load	≤30mV	≤30mV
Line	≤20mV	≤20mV
Regulation(CC)		

	SPE3103	SPE6103
Load	≤30mA	≤30mA
Line	≤20mA	≤20mA
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	≤50mV
Voltage (rms)	≤3mV	≤5mV
Current (Ap-p)	≤30mA	≤30mA
Setting Resolution		
Voltage	10mV	10mV
Current	1mA	1mA
Readback Resolution		
Voltage	10mV	10mV
Current	1mA	1mA
Setting Accuracy		
Voltage	≤0.1%±20mV	≤0.1%±30mV
Current	≤0.1%±10mA	≤0.1%±10mA
Readback Accuracy		
Voltage	≤0.1%±20mV	≤0.1%±30mV
Current	≤0.1%±10mA	≤0.1%±10mA
Response time		
Transient recovery time (50%~100% rated load)	≤1ms	
Protective function		
OVP	0~31V	0~61V
OCP	0~10.1A	0~10.1A
OTP	85℃	85℃
Temperature coefficient of output		
Voltage	100ppm/℃	
Current	200ppm/℃	
Temperature coefficient of readback value		
Voltage	100ppm/℃	
Current	200ppm/℃	
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	USB communication, compatible with SCPI communication protocol
USB Charging Port	5V/1A USB charging
Dimension	82mm (Width) × 142mm (Height) ×226mm (Length)
Weight	Approx. 1.5 kg



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V1.0.0