

SPD3000X Series

Programmable DC

Power Supply



Datasheet

EN_03A



SIGLENT TECHNOLOGIES CO.,LTD

SPD3303X

SPD3303X-E

Product Overview

SPD3000X Series Linear Programmable DC Power Supply has a 4.3 inches TFT_LCD display, Supports Programmability and Real Time Wave Display, bringing a new experience to users. It has three isolated outputs: two adjustable channels and one selectable channel from 2.5V, 3.3V, and 5V. It also has output short and overload protect function, and can be used in production and development.

Main Features

- 3 independent controlled and isolated output, 32V/3.2A×2, 2.5V/3.3V/5V/3.2A×1, total 220W
- 5 digits Voltage, 4 digits Current Display, Minimum Resolution: 1mV/1mA
- Supports panel timing output functions
- 4.3 inch true color TFT-LCD 480x272 display
- 3 types of output modes: independent, series, parallel
- 100V/120V/220V/230V compatible design to meet the needs of different power grids.
- Intelligent temperature-controlled fan, effectively reducing noise
- Clear graphical interface, with the waveform display function
- Internal 5 groups of system parameter save/recall, supports data storage space expansion
- Provides PC software: Easypower, supports SCPI, LabView driver



Characteristics

High-resolution and high-precision output

The highest resolution of 1mV/1mA (SPD3303X), provides excellent setting and read back accuracy. This ensures accurate output even with very small changes in voltage or current. This is impossible for a low resolution power supply.

Series / parallel / independent mode function

Series and parallel function allows two channels combined into one output with more power output capability, extending the application range. Each of 3 channels power can be turned on or off independently and also can be turned all on or all off.



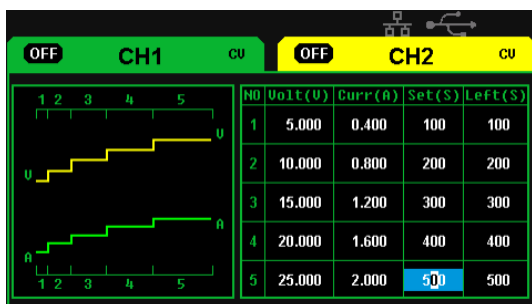
Series output mode



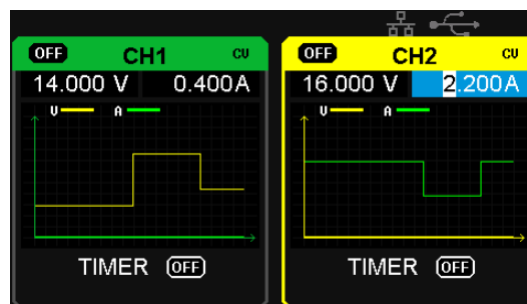
Parallel output mode

Panel displays the timing output

Through front panel operation, 5 groups of timing settings and output control can be displayed, which provides users a simple power programming function. Also a connection can be made with Siglent's EasyPower PC software providing a full range of communication and control requirements.



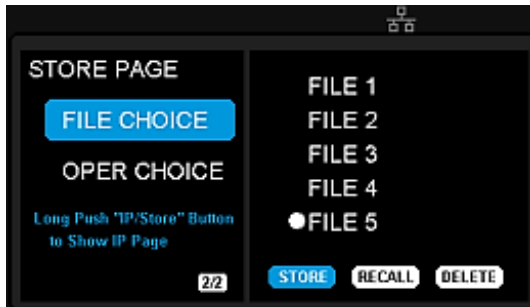
Panel timing output



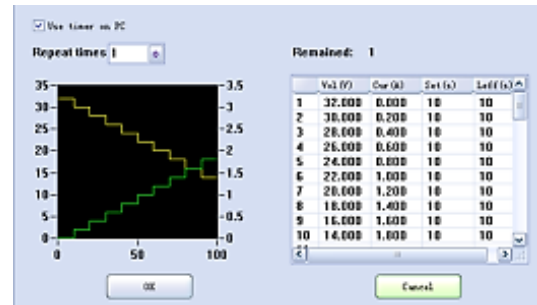
Real time wave display

Save / Recall setting parameters

SPD3000X series programmable power supply can save or recall 5 groups of setting parameter in internal storage, also supports external storage expansion. You can easily obtain the settings you needed.



Internal Storage



PC Timer

Specification

Model		SPD3303X-E	SPD3303X
Channel		CH1 output voltage: 0 ~ 32V , output current: 0 ~ 3.2A	
		CH2 output voltage: 0 ~ 32V , output current: 0 ~ 3.2A	
		CH3 output voltage: 2.5 / 3.3 / 5.0V , output current: 3.2A	
Display		4.3 inch true color TFT-LCD 4 digits voltage 3 digits current	4.3 inch true color TFT-LCD 5 digits voltage 4 digits current
Resolution		10mV/10mA	1mV/1mA
Program Accuracy		Voltage $\pm (0.5\% \text{ of reading} + 2\text{digits})$	Voltage $\pm (0.03\% \text{ of reading} + 10\text{mV})$
		Current $\pm (0.5\% \text{ of reading} + 2\text{digits})$	Current $\pm (0.3\% \text{ of reading} + 10\text{mA})$
Readback Accuracy		Voltage $\pm (0.5\% \text{ of reading} + 2\text{digits})$	Voltage $\pm (0.03\% \text{ of reading} + 10\text{mV})$
		Current $\pm (0.5\% \text{ of reading} + 2\text{digits})$	Current $\pm (0.3\% \text{ of reading} + 10\text{mA})$
Constant Voltage Mode	Line Regulation	$\leq 0.01\% + 3\text{mV}$	
	Load Regulation	$\leq 0.01\% + 3\text{mV}$	
	Ripple&Noise	$\leq 1\text{mVrms}$ (5Hz ~ 1MHz)	
	Recovery Time	$< 50\mu\text{s}$ (50% load change, minimum load 0.5A)	
Constant Current Mode	Line Regulation	$\leq 0.2\% + 3\text{mA}$	
	Load Regulation	$\leq 0.2\% + 3\text{mA}$	
	Ripple&Noise	$\leq 3\text{mArms}$	
Parallel Mode	Line Regulation	$\leq 0.01\% + 3\text{mV}$	
	Load Regulation	$\leq 0.01\% + 3\text{mV}$	
Series Mode ^[1]	Line Regulation	$\leq 0.01\% + 5\text{mV}$	
	Load Regulation	$\leq 300\text{mV}$	
CH3	Output Voltage	$(2.5 / 3.3 / 5\text{V}) \pm 8\%$	
	Line Regulation	$\leq 0.01\% + 3\text{mV}$	
	Load Regulation	$\leq 0.01\% + 3\text{mV}$	
	Ripple&Noise	$\leq 1\text{mVrms}$ (5Hz ~ 1MHz)	
Locking Key		Yes	
Memory Save/Recall		5 Sets	
Max Output Power		220W	
Power Source		AC 100V/120V/220V/230V $\pm 10\%$ 50 / 60Hz	
Standard Configuration Interface		USB Device, LAN	
Insulation		Case to Terminal $\geq 20\text{M}\Omega$ (DC 500V) Case to AC line $\geq 30\text{M}\Omega$ (DC 500V)	
Operating Environment		Outdoor Usage: Elevation : $\leq 2000\text{m}$ Environment Temperature 0~40℃ Relative Humidity $\leq 80\%$ Installation Level : II Pollution Level: 2	
Storage Environment		Environment Temperature: -10~70℃ Relative Humidity $\leq 70\%$	
Dimension		225(W)×143(H)×278(D) mm	
Weight		$\approx 8.0\text{kg}$	

Remark:

[1] The SPD can output 60V voltage maximum in the Series mode.

Ordering information

Product description	Product No
3 channels independent output, min resolution 10mV/10mA, USB Device & LAN, 4.3 inch LCD display	SPD3303X-E
3 channels independent output, min resolution 1mV/1mA, USB Device & LAN, 4.3 inch LCD display	SPD3303X
Standard Accessories	
USB Cable -1	
Quick Start -1	
Calibration Certificate -1	
Power cord -1	
Output Test Cord -2 Sets	



About SIGLENT

SIGLENT is an international high-tech company, concentrating on R&D, sales, production and services of electronic test & measurement instruments.

SIGLENT first began developing digital oscilloscopes independently in 2002. After more than a decade of continuous development, SIGLENT has extended its product line to include digital oscilloscopes, isolated handheld oscilloscopes, function/arbitrary waveform generators, RF/MW signal generators, spectrum analyzers, vector network analyzers, digital multimeters, DC power supplies, electronic loads and other general purpose test instrumentation. Since its first oscilloscope was launched in 2005, SIGLENT has become the fastest growing manufacturer of digital oscilloscopes. We firmly believe that today SIGLENT is the best value in electronic test & measurement.

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