

SPE15/SPE30/SPE50 Series

Single Output Power Supply

0.05% High Precision

500W



CORE STRENGTHS



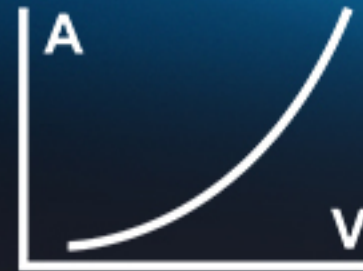
Mainstream DSP main control chip

24-bit ADC
High-margin power devices
Precise measurement, stable output



List Waveform Editing

Timed output



Real-time V / A Curve Display

1-min data online recording



Industrial-grade Interconnection and Control

Easily integrates



Built-in Discharge Circuit

Safety discharge to prevent risk

MODEL COMPARISON

Model	SPE15054	SPE15105	SPE30054	SPE30055	SPE50024	SPE50025
Rated Output Voltage	0 - 150V		0 - 300V		0 - 500V	
Rated Output Current	0 - 5A	0 -10A	0 - 5A		0 - 2A	
Rated Output Power	400W	500W	400W	500W	400W	500W
Setting Resolution	10mV/1mA					
Readback Resolution	10mV/1mA					
Transient recovery time (10%- 100% rated load)	≤5.0ms					
Display	2.8-inch Color LCD Display (IPS Panel)					
Communication Port	USB, DB9: RS232/RS485(optional), LAN (optional), compatible with the SCPI communication protocol					
Dimension	82mm(W)×142mm(H)×226mm(D)					

FEATURES



Compact Design • Exceptional Visibility

High resolution, high contrast color LCD display screen.

Portable Body

DESIGN



2.8-inch IPS LCD

Clear display, ensuring ease of operation and readability in both bright and dark environments.

owon®

SPE3005S
DIGITAL POWER SUPPLY

ON

CV

T 00:04:08

00.00 W

300.0V

0.000A

Set

300.00V 01.000A

Limit

310.00V 06.000A



Precision Comes from the Core

Ensures High-Precision Measurements and Long-term Stable Operation.



Equipped with a mainstream DSP control chip for powerful computing performance, a 24-bit high-precision ADC for measurement accuracy, power and components with ample margin to ensure reliable, stable operation over time.

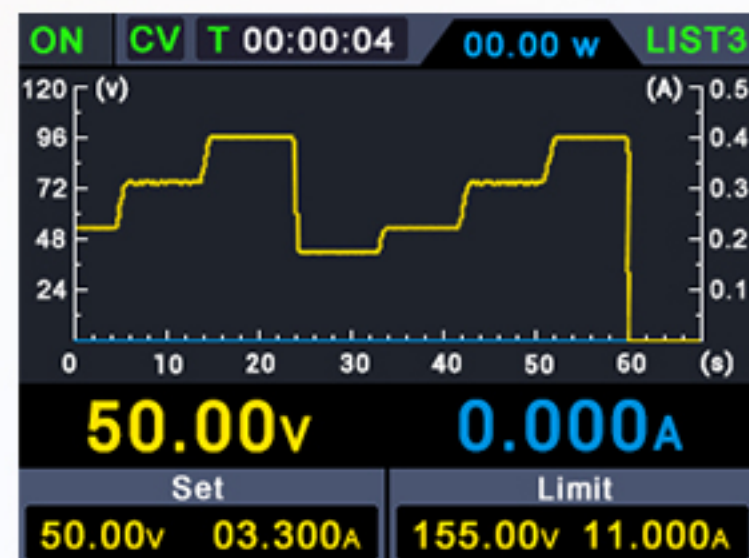


List Waveform Editing Output

Built-in 10 timed waveforms, expandable to 100 with PC software.



Equipped with LIST waveform editing, allowing users to customize output waveforms for sequential output in CV or CC mode to meet specific test needs.





4 Groups of Memory Quick Parameter Recall

The system has 4 preset memory groups for quick one-click recall of outputs, greatly improving operational efficiency.





Real-time Voltage/Current Curve Display

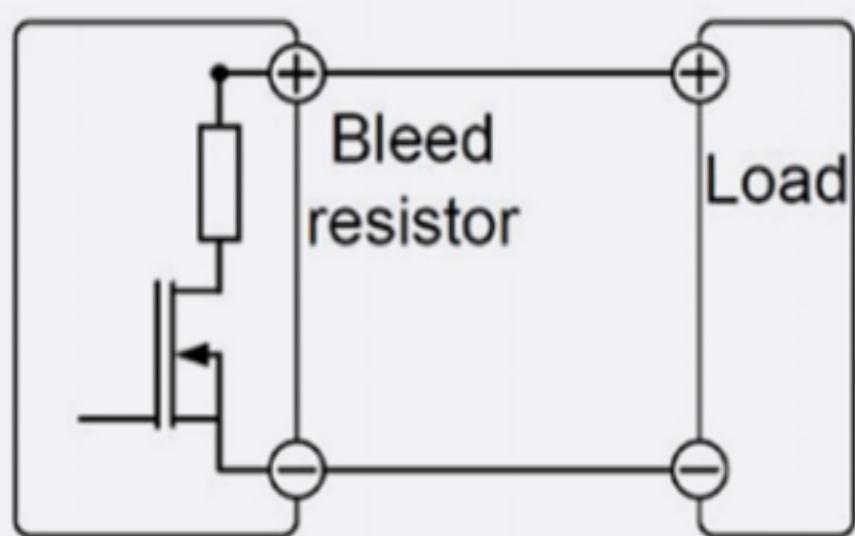
Online data recording for 1 minute, helping users detect abnormal fluctuations in real time.





Multiple Protection for Enhanced Stability

Full digital control with comprehensive protection



Built-in Discharge Circuit

When the power is turned off or the load is disconnected, the discharge resistor actively dissipates residual charge in the filter capacitor to prevent safety hazards.

CV/CC mode switching

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

CV: Constant Voltage output

CC: Constant Current output





PC Host Control

Support PC host computer programming output, flexibly respond to diverse testing needs.





Industrial-grade Interconnection & Control

Easily integrates with industrial automation and networking systems.

Supports USB Device, DB9:RS485/RS232 (optional), and LAN (optional) interfaces, compatible with Modbus and SCPI protocols. Easily integrates into automation systems for remote control and multi-device network management.



Device



RS485/RS232



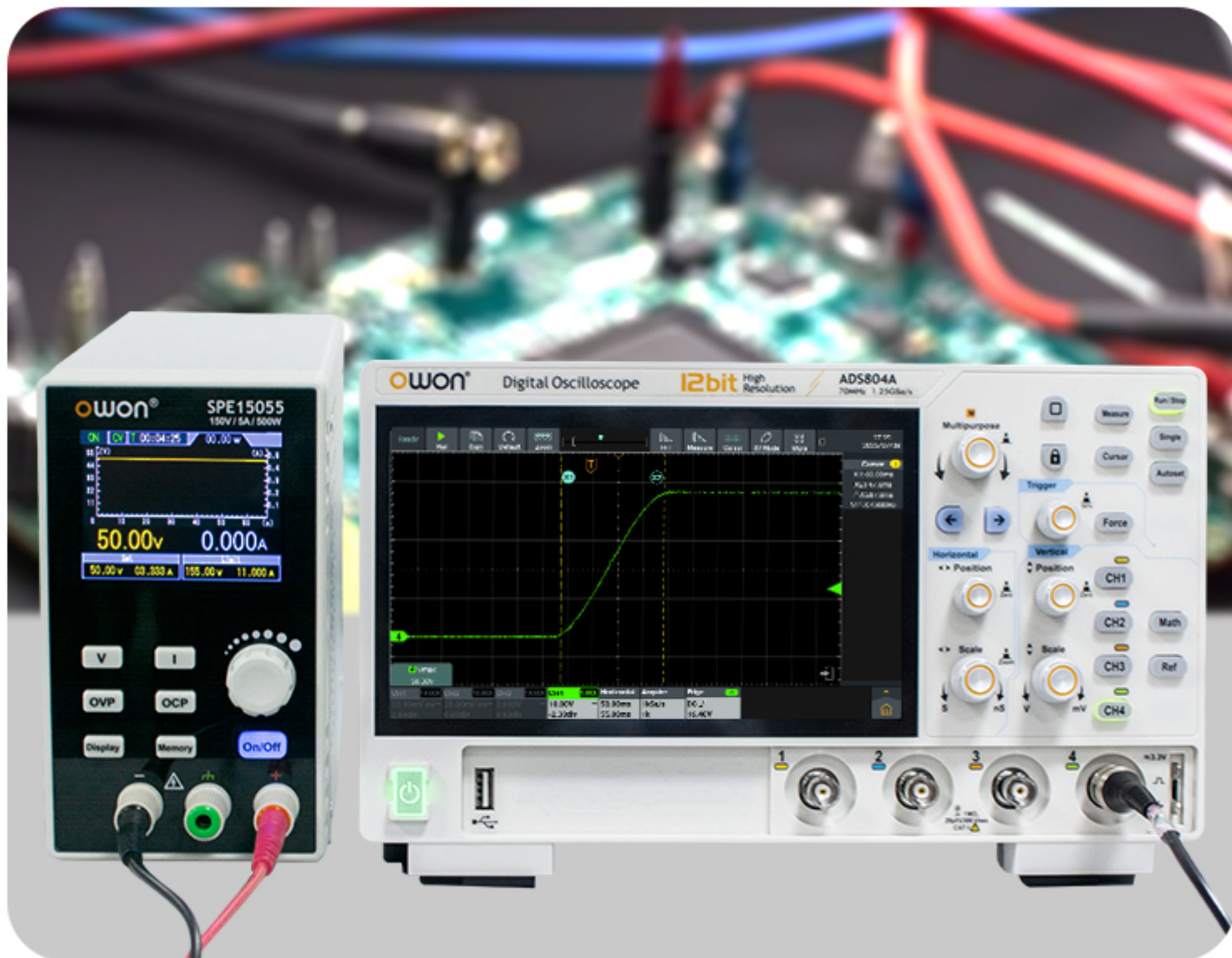
LAN

Note: The interfaces are selectable (RS485/RS232 shared port).



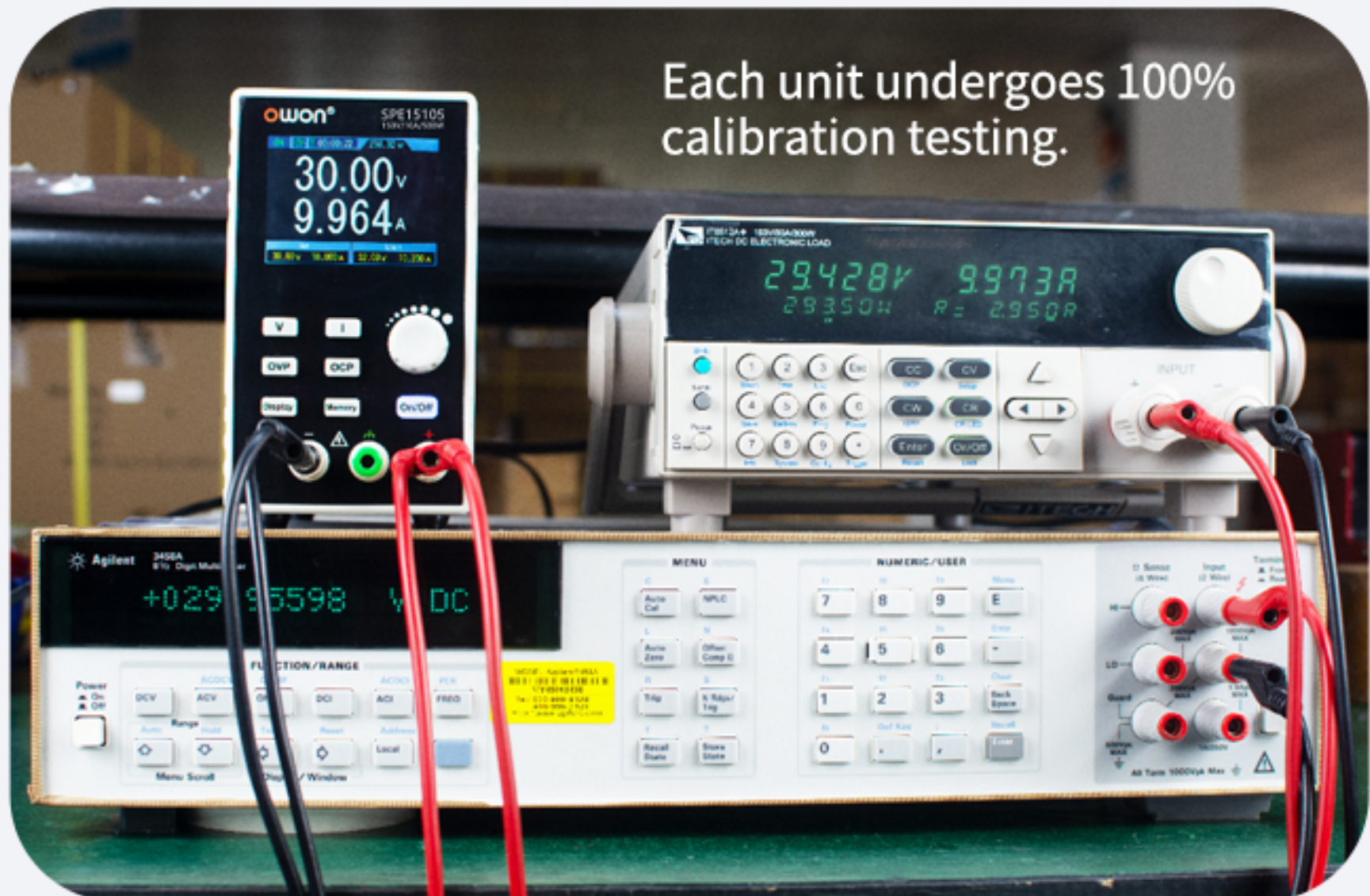
Stable Power-On, Ensuring Reliability

With excellent dynamic response and output stability, there is no voltage or current overshoot during power-on, effectively protecting sensitive components and improving system safety and reliability.



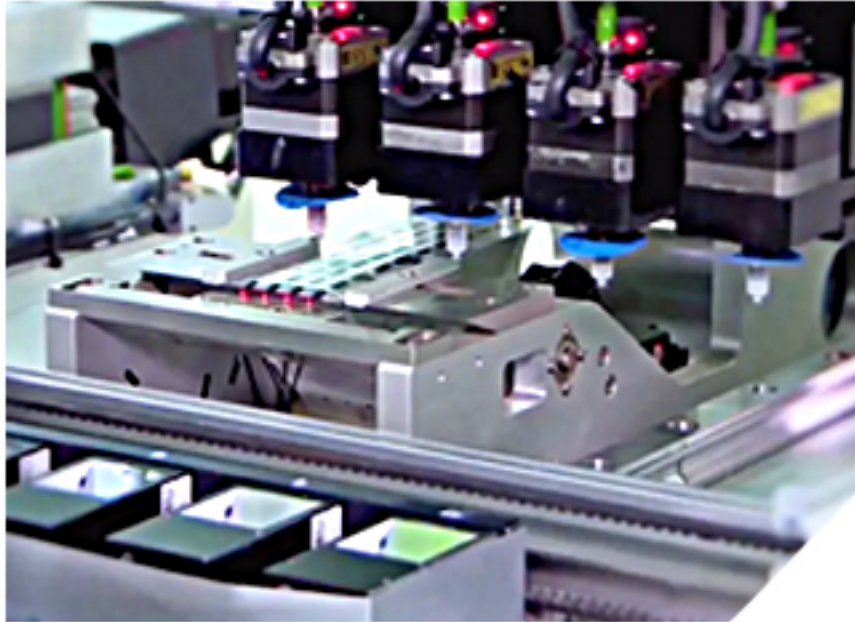
Rigorous Factory Testing, Consistent Quality

Million Calibration Test Equipment



Safe to use, worry free quality!

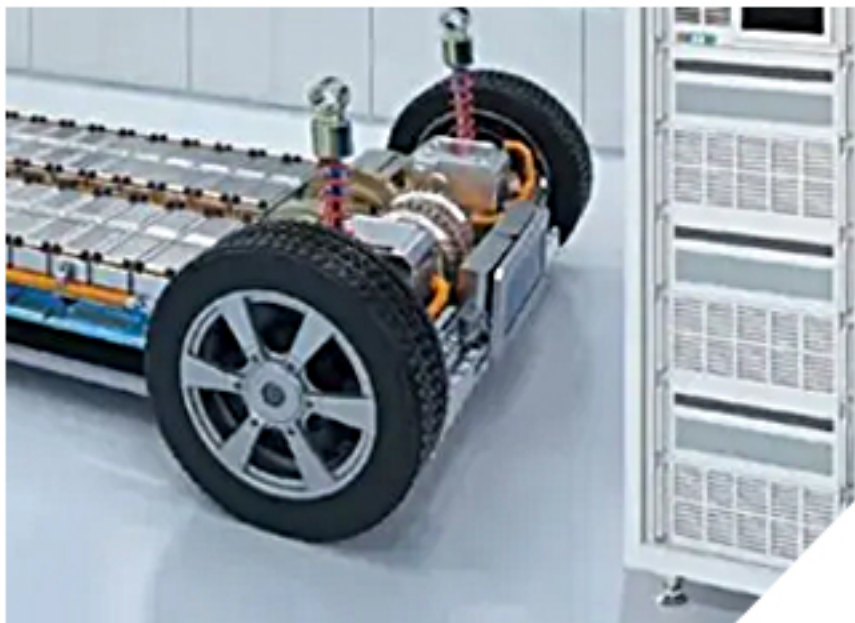
APPLICABLE FIELDS



Product R&D and Testing



**System and Industrial
Control Power Supply**



Charge and Discharge Testing



Educational Experiments

LEARN MORE



Product Mix



Shortcut output button, long press to enter the List waveform timing output interface

Voltage setting button

Overvoltage protection setting

Curve display switch button

2.8-inch LCD

Current setting button

Adjustment knob

Overcurrent protection setting

Channel output on/off button, long press to turn on the automatic output function

Channel output terminals



Intelligent temperature control fan

Power cord socket

Fuse

Power switch

USB Device Interface (default)
Optional: DB9/LAN



Voltage	Fuse
100-240V AC	250V, F10A

Product Dimension



82mm x 142mm x 226mm (W x H x D)
approx. 1.5 kg

Specifications

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

Model		SPE15054	SPE15105	SPE30054	SPE30055	SPE50024	SPE50025
Rated Output (0℃ -40℃)	Voltage	0 - 150V	0 - 150V	0~300V	0~300V	0~500V	0~500V
	Current	0 - 5A	0 - 10A	0~5A	0~5A	0~2A	0~2A
	Power	400W	500W	400W	500W	400W	500W
Input Characteristics	Supply Voltage	100V- 240V					
	Input Frequency	45- 65Hz					
	Input Fuse	250V, F10A					
Regulation (CV)	Load	≤20mV		≤30mV		≤200mV	
	Line	≤20mV		≤30mV		≤200mV	
Regulation (CC)	Load	≤10mA				≤10mA	
	Line	≤10mA				≤10mA	
Ripple & Noise	Voltage (Vpp)	≤150mVpp	≤150mVpp	≤300mVpp	≤300mVpp	≤500mVp-p	≤500mVp-p
	Current (rms)	≤30mA	≤30mA	≤30mA	≤30mA	≤20mA	≤20mA
Setting Resolution		10mV/1mA					
Readback Resolution		10mV/1mA					
Setting Accuracy	Voltage	≤0.05%±20mV		≤0.05%±200mV			
	Current	≤0.05%±20mA					
Readback Accuracy	Voltage	≤0.05%±20mV		≤0.05%±200mV			
	Current	≤0.05%±20mA					
Transient recovery time (10%- 100% rated load)		≤5.0ms					
OVP		0 - 155V	0 - 155V	0 - 310V	0 - 310V	0~510V	0~510V
OCP		0 - 6A	0 - 11A	0 - 6A	0 - 6A	0~3A	0~3A
OTP		85℃	85℃	85℃	85℃	85℃	85℃
Temperature coefficient of output	Voltage	100ppm/℃					
	Current	200ppm/℃					
Temperature coefficient of readback value	Voltage	100ppm/℃					
	Current	200ppm/℃					
Display	Display Type	2.8-inch Color LCD Display (IPS Panel)					
	Resolution	240 x 320 pixels					
	Color	65536 color,TFT					
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					
Communication Port		USB, DB9: RS232/RS485(optional), LAN (optional), compatible with the SCPI communication protocol					
Dimension		82mm(W)× 142mm(H)×226mm(D)					
Weight		Approx. 1.6kg					

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

Specifications subject to change without prior notice.

Accessory

Host



Manual



Power Cord



Banana head to
alligator clip
(Order No.7B2A-16)



USB Cable
(Order No.7ULD10)

