



WPS-4200/WPS-4300 Series

High Precision Programmable DC Power Supply

Features

- 4.3-inch high-visibility TFT display
- The voltage and current can be adjusted using a digital key board or knob.
- High accuracy and high resolution, voltage resolution: 1mV, current resolution: 0.1mA
- List output function
- Low ripple and low noise
- Smart fan control, energy saving and noise reduction
- With CC/CV priority function
- Voltage and current rise slope can be set
- Supports SCPI and Modbus commands
- Data recording function is convenient for building intelligent test platform
- With overvoltage and overcurrent protection
- as well as overheat protection and other functions
- CV/CC wide range output design
- Supports Chinese and English interface display
- with rear panel output and voltage compensation function

Product Introduction

The WPS-4200/WPS-4300 series high-precision programmable DC power supplies deliver impeccable accuracy for precision testing scenarios with 1mV/0.1 mA resolution. Featuring a user-friendly interface, these devices combine superior performance with versatile functions including CC/CV priority mode list sequence programming, waveform display, and data logging. Their flexible adaptability enables seamless integration into diverse testing environments, meeting the demands of multiple application scenarios. The series features six models, categorized into dual-channel and triple-channel variants, delivering balanced output power with versatile channels election. Specifications are as follows:

•WPS-4200(Dual-channel) models: 80V/6A/200W,80V/10A/300W,and 150V/5A/300W.

•WPS-4300(Three-channel):80V/6A/200W,80V/10A/300W,150V/5A/300W.(Note:The total power of the series refers to single-channel power, not total power)

For precise output and data management, the device is equipped with a built-in Remote Sense sensing function, which intelligently compensates for voltage drop caused by wires, ensuring output accuracy at the source. It also features comprehensive data collection and recording capabilities, enabling users to track test data in real-time and providing reliable support for subsequent analysis and review.

In terms of safety, the product series establishes a comprehensive protective barrier with three core mechanisms: OVP(overvoltage protection), OCP(overcurrent protection), and OTP(overtemperature protection), ensuring stable operation of both equipment and loads. The integrated panel locking function further eliminates the risk of accidental operation, significantly enhancing user safety.

The communication and display configuration is equally impressive, featuring a standard RS-232 communication interface with optional USB, RS-485, or LAN ports for remote control and integration with automated testing systems. The 4.3-inch TFT HD display provides crystal-clear operational data, while the smart temperature-controlled fan ensures efficient heat dissipation and minimal noise, delivering both practicality and a seamless user experience.

In summary, the WPS-4200/WPS-4300 series stands out as high-performance programmable DC power supply solution, featuring high resolution, multiple communication interfaces, multi-channel output, comprehensive security protection, and flexible application modes. Whether for R&D verification, precision testing or large-scale production scenarios, it delivers stable and efficient power solutions that comprehensively meet diverse user needs. This product not only overcomes the technical limitations of traditional equipment but also aligns perfectly with the modern testing equipment's requirements for precision and convenience. The trend of high efficiency development.

Panel Introduction



Front Panel Introduction

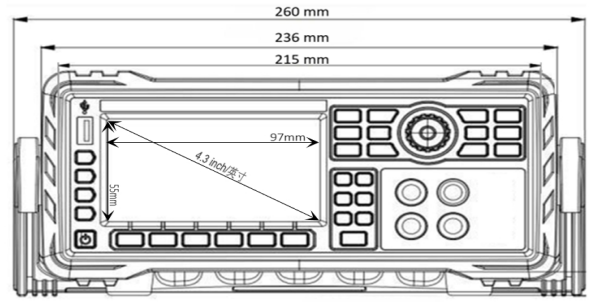
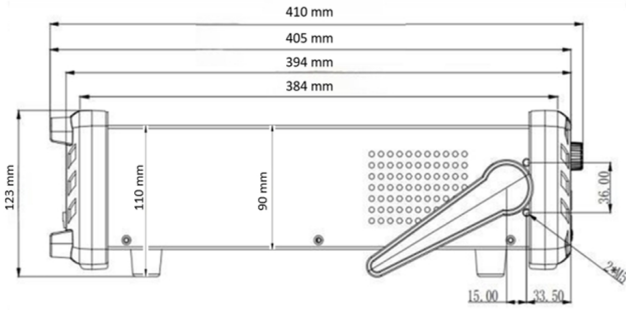
- ① USB port (5V/1A output, for software upgrades and data import/export/record)
- ②⑤ Function buttons
- ③ mains switch
- ④ The function keys on the bottom menu of the screen (menu differs by display interface)
- ⑥ Power output terminals (red for positive, black for negative)
- ⑦ Removable handle
- ⑧⑩ Digital keys and the "Enter" confirmation key
- ⑨ Multi-function knob
- ⑪ TFT display screen
- ⑫ Power Supply Specifications and Labels



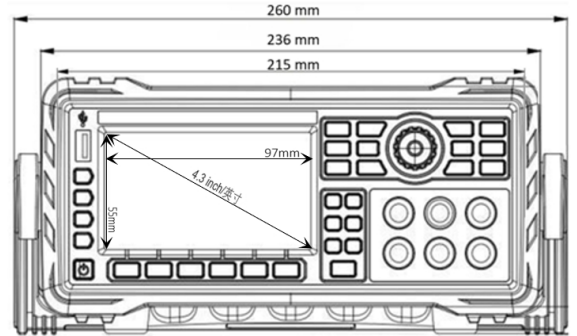
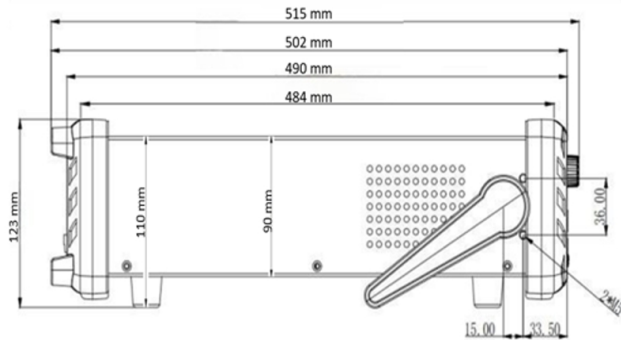
Back Panel Introduction

- ① Communication port (RS-232 standard, USB, RS-485, LAN optional)Note: If any optional interface is selected, it cannot be used together with the standard interface; only one interface can be chosen.
- ② SENSE: Voltage compensation interface (CH1, CH2, CH3 for channels 1, 2, 3 respectively, S+: positive terminal, S-: negative terminal)
- ③ Input voltage selector switch (Used to select the input voltage specification, AC 110V or 220V)Before powering on, ensure the switch position matches the input power source; otherwise, the power supply may be damaged.
- ④ Power socket (AC power input interface)
- ⑤ Ventilation and cooling opening

WPS-4200 size diagram



WPS-4300 size diagram

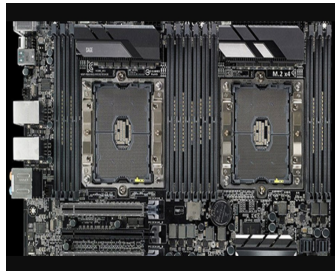


Application industry



发热片
 发热丝走线密，
 发热均匀温度高。
 采用进口复合纤维发热丝，
 不易氧化 烧坏 断路等情况。
 发热均匀且使用寿命长。

graphene heating



AI server motherboard repair/aging



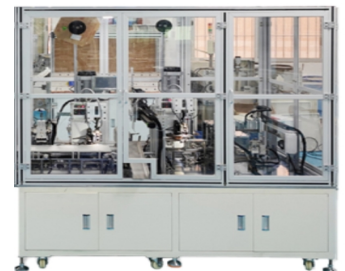
drone motor test



New energy vehicle controller



New energy vehicle water pump



automated integration testing

List (Sequence) Operation

No	Voltage (V)	Current (A)	Time (S)
00	01.000	0.2000	0010.0
01	02.000	0.4000	0010.0
02	03.000	0.6000	0010.0
03	04.000	0.8000	0010.0
04	05.000	1.0000	0010.0

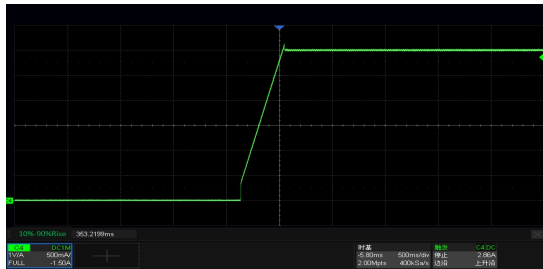
Cycles: 00000

Param	Cycles	Send	Start	Stop	Done

press **List** The sequence operation function allows you to edit the List (Sequence) file to set voltage, current values, and time for each step. You can customize the output waveform as needed and save it to the device or an external USB drive for easy retrieval later.

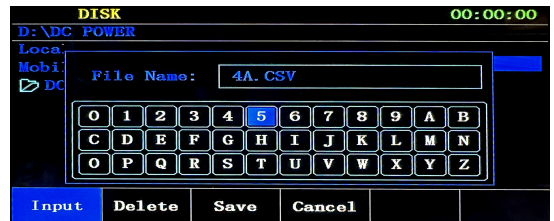
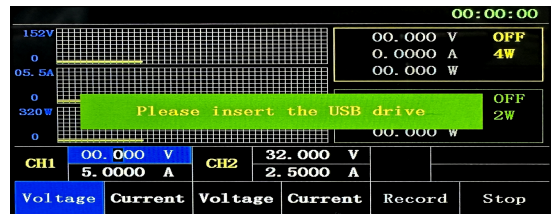
The edited List (Sequence) operation file can be sent to any channel from CH1 to CH3, allowing that channel to execute the List (Sequence) operation. Other channels remain unaffected and can perform other operations.

Rising Slope

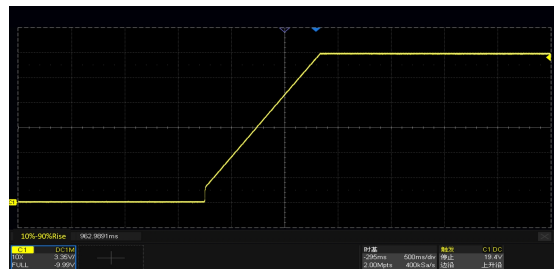


CC/ rising slope

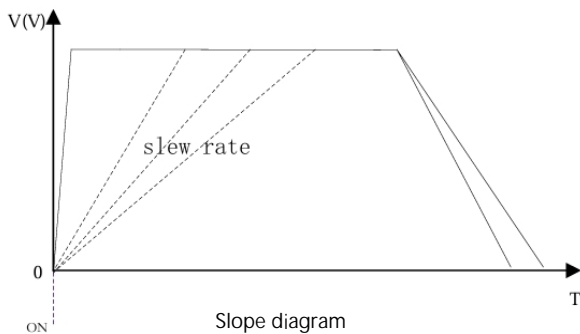
Data Recording Function



press **Record** It can store voltage, current, and time data from tests onto a USB drive, allowing users to track test data in real time and providing reliable support for subsequent analysis. drive and edit it. **Input** Required file name, by **Save** accomplish.



CV/ rising slope



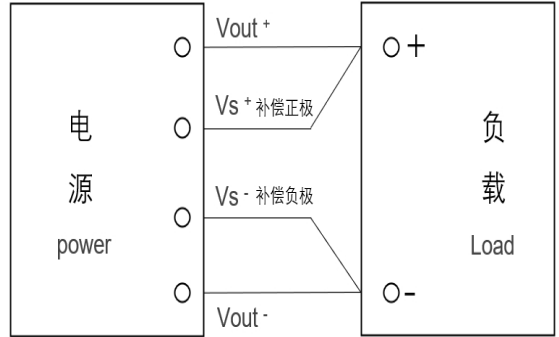
The slope rate can be set to either voltage or current when voltage priority is selected. The unit is mS/A or mS/V, with a range of 0-250.

Built in Compensation

Sense	2W
First	Voltage
Slope	001 mS/V

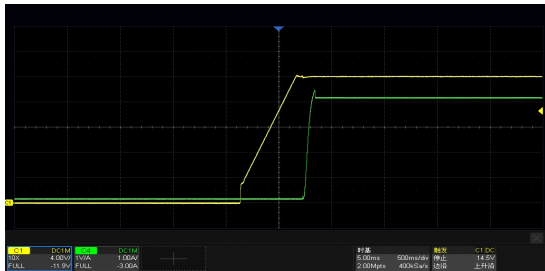
Sense	4W
First	Voltage
Slope	001 mS/V

The voltage remote compensation function set at-us: **2W** indicates off, **4W** indicates on.

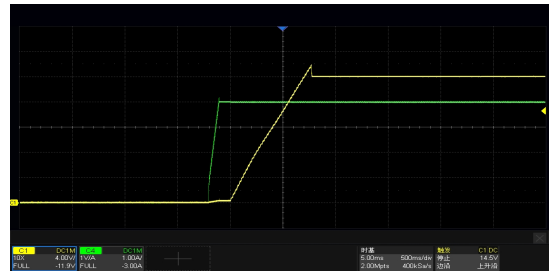


Power Supply Compensation Wire Connection Diagram

CC/CV Take Precedence



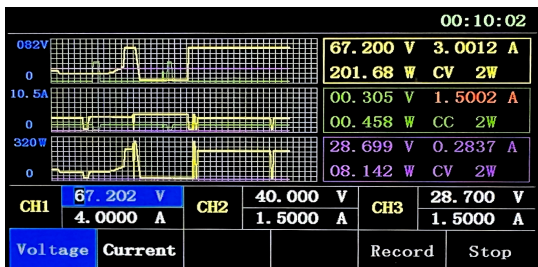
CC/ take precedence



CV/ take precedence

Users can flexibly select the priority response speed and operating mode between CC and CV modes based on testing requirements. When the power output is set to voltage priority mode, the output voltage activates first; if current priority is selected, the output current activates first.

View (Waveform View)



Monitor the waveform of the power supply's output voltage, current, and power. Press the button in standby mode. **View** You can enter the waveform view interface (as shown in the figure). Press again **View** Exit waveformview.

Panel Lock

LOCK						00:10:17		
CH1	2W	OFF	CH2	2W	OFF	CH3	2W	OFF
00.000V	00.000V	00.000V	00.000V	00.000V	00.000V	00.000V	00.000V	00.000V
0.0023A	0.0000A	0.0000A	0.0000A	0.0000A	0.0000A	0.0000A	0.0000A	0.0000A
00.000W	00.000W	00.000W	00.000W	00.000W	00.000W	00.000W	00.000W	00.000W
V-SET: 67.202V	V-SET: 40.000V	V-SET: 28.700V	I-SET: 4.0000A	I-SET: 1.5000A	I-SET: 1.5000A			
V-SET	I-SET	V-SET	I-SET	V-SET	I-SET			

Long press **ALL ON/OFF** Enable the LOCK panel feature (displaying a LOCK prompt on the screen) to prevent short-circuit risks caused by accidental touches.

Three Major Protection Functions

SET	67.202 V	CH1
	4.0000 A	
OVP	OFF	
	05.200 V	
OCP	OFF	
	1.2000 A	

Overvoltage protection (OVP) function: Prevents high-voltage damage to the load and triggers output disconnection.
 Overcurrent protection (OCP) function: Prevents load damage from high current and triggers output disconnection.
 Overtemperature protection (OTP) function: The instrument will be damaged by overheating, and the internal circuit will trigger an output disconnection.

Two Display Interfaces

00:07:09								
CH1	2W	CV	CH2	2W	CV	CH3	2W	CV
77.800V	78.999V	79.001V	0.0000A	0.0000A	0.0000A	0.0000A	0.0000A	0.0000A
00.000W	00.000W	00.000W	V-SET: 77.800V	V-SET: 79.000V	V-SET: 79.000V	I-SET: 3.8000A	I-SET: 3.8271A	I-SET: 3.8271A
V-SET	I-SET	V-SET	I-SET	V-SET	I-SET			

Three-channel display interface

00:10:17					
SET	67.202 V	CH1	2W	OFF	
	4.0000 A		00.000	V	
OVP	OFF		0.0000	A	
	05.200 V		00.000	W	
OCP	OFF				
	1.2000 A				
Sense	2W				
First	Voltage				
Slope	001 mS/V				
SET	OVP	OCP	Sense	First	Slope

Single channel display interface



press (CH1, CH2, CH3) access the single-channel and multi-channel display detail interface.

The single-channel interface provides detailed parameter settings including overvoltage, overcurrent, compensation, priority mode, and slope.

System

00:10:17					
System			Config		
Power On	:Off		>>RS232		
PowerParm	:Last		Address	:001	
Beeper	:0n		Baud Rate	:9600	
BackLight	:05		>>Command		
Language	:English		Version	:SCPI	
			EndChar	:CR+LF	
			>>Reset		
			PowerReset	:No	
Power On	Power Parm	Beeper	Back Light	Language	>>

00:10:17					
System			Config		
Power On	:Off		>>RS232		
PowerParm	:Last		Address	:001	
Beeper	:0n		Baud Rate	:9600	
BackLight	:05		>>Command		
Language	:English		Version	:SCPI	
			EndChar	:CR+LF	
			>>Reset		
			PowerReset	:No	
<<	Address	BaudRate	Version	EndChar	Reset

Select communication mode on the next page

press **Menu** Go to the system panel to switch the language (Chinese/English) and adjust the background brightness from 1 to 10. **>>** Select communication mode on the next page

The communication mode is SCPI and Modbus. The baud rates of the power supply are 4800, 9600, 14400, 19200, 38400, 56000, 57600, and 115200 respectively. The communication end characters are CR, LF, CRLF, and LFCR.

CV/CC Wide-Range Output



CV setting



CC setting

CC/CV wide-range output design,
 CV: 0 to 80V/150V Max
 CC : 0 ~ 5A/6A/10A Max
 It provides users with one device for multi-purpose testing, flexibly adapt-ing to various testing scenarios to meet diverse testing needs.

Product specifications

Model		WPS-4201	WPS-4301	WPS-4202	WPS-4302	WPS-4203	WPS-4303
Rated output voltage		0 ~ 80V*2	0 ~ 80V*3	0 ~ 80V*2	0 ~ 80V*3	0 ~ 150V*2	0 ~ 150V*3
Rated output current		0 ~ 6A*2	0 ~ 6A*3	0 ~ 10A*2	0 ~ 10A*3	0 ~ 5A*2	0 ~ 5A*3
Output rating		200W*2	200W*3	300W*2	300W*3	300W*2	300W*3
Load regulation rate	Voltage	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV
	Current	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA
Power regulation rate	Voltage	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV	≤0.02%+8mV
	Current	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA	≤0.02%+5mA
Set resolution	Voltage	1mV	1mV	1mV	1mV	1mV	1mV
	Current	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA
Set precision (25°C±5°C)	Voltage	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV
	Current	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA
Readback resolution	Voltage	1mV	1mV	1mV	1mV	1mV	1mV
	Current	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA	0.1mA
Readback accuracy (25°C±5°C)	Voltage	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV	≤0.1%+8mV
	Current	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA	≤0.2%+2mA
Ripple and noise (25°C±5°C)	Voltage	<8mVrms	<8mVrms	<8mVrms	<8mVrms	<8mVrms	<8mVrms
	Current	<5mA _{rms}	<5mA _{rms}	<5mA _{rms}	<5mA _{rms}	<5mA _{rms}	<5mA _{rms}
Peak value	Voltage	<30mVpp	<30mVpp	<30mVpp	<30mVpp	<30mVpp	<30mVpp
Transient response	Loaded to capacity	<20ms	<20ms	<20ms	<20ms	<20ms	<20ms
Rise time (full load)	Voltage	≤80ms	≤80ms	≤80ms	≤80ms	≤80ms	≤80ms
Time to drop (full load)	Voltage	≤5.2ms	≤5.2ms	≤5.2ms	≤5.2ms	≤5.2ms	≤5.2ms
Power dissipation	No-load	9W	9W	10W	10W	10W	10W
	fully loaded	500W	700W	800W	1100W	700W	1200W

Offset voltage	Max	2 V					
Temperature coefficient	Operational environment	0 to 40°C≤80 R.H.					
	Storage environment	-15 to 70°C≤80 R.H.					
Size	mm (W*H*D)	260*123*410	260*123*515	260*123*410	260*123*515	260*123*410	260*123*515
Net weight	kg	4.3	5.6	4.8	6.1	4.8	6.1
Packing measurement	mm (W*H*D)	260*123*410	260*123*515	260*123*410	335*220*600	260*123*410	260*123*515
Pack weight	kg	5.9	7.1	6.4	7.6	6.4	7.6
Communication Interface	Standard configuration: RS-232 communication interface			Optional: RS-485 communication interface, USB communication interface, or LAN Ethernet communication interface			
Factory accessory	User Manual*1, Communication Cable*1, Factory Report*1, Test Cable*2/*3 (depending on the output port configuration of the device model), Power Cable*1 (specifications may vary by region)						

Test Instrument Precision Master

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