

WPS Series DC Power Supply

User Manual

Welcome

Thank you for choosing a Chaalakam programmable DC power supply. The WPS series offers a versatile range of voltage and current outputs, designed to meet the demanding requirements of component, circuit, module, and complete device testing whether in research laboratories, design and development environments, or production testing.

This series includes models with output voltages ranging from 30 V to 120 V, and power ratings of 150 W, 300 W, and 360 W. These power supplies operate as both constant voltage and constant current sources, providing a wide range of adjustability for precise control. User-friendly interface features, such as a multifunction control knob, allow for quick digit selection and value adjustment delivering exceptional precision, stability, and ease of use.

Operating requirements

1. Nominal voltage ratings :

When plugged into a power source between 115V and 230V, the DC power supply automatically adapts to the input voltage.



Warnings

Incorrect AC voltage input may cause serious damage to the machine. Please ensure that the correct input voltage required by the machine is used.

2. Connect the earth wire:

When using this product, ensure the power cord is properly grounded. If the power supply outlet lacks a ground wire, connect the machine's grounding terminal to earth using a wire. Proper grounding effectively prevents electrical leakage and reduces output ripple interference.

Connecting Load Devices

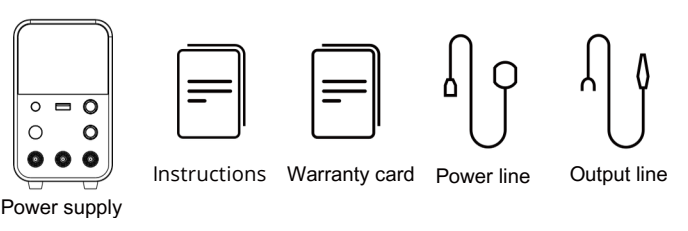
1. Securely connect one end of the output wire to the corresponding terminal on the power supply, ensuring correct polarity (positive (+) and negative (-) terminals).
2. Connect the other end of the output lead wire firmly to the positive and negative terminals of the load equipment.



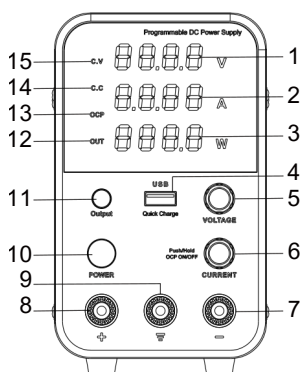
Notice

Incorrect connection may cause damage to the power supply and the load connected to the power supply. When connecting loads such as batteries, do not reverse the "+" and "-" poles. This may damage the power supply.

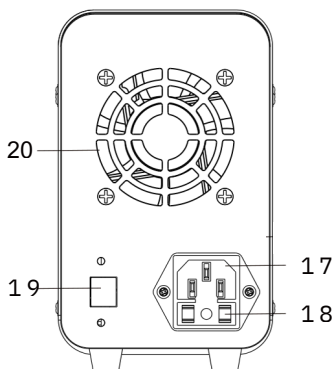
Product Specification

WPS Model	WPS305H	WPS3010H	WPS605H	WPS1203H	
Output voltage	0~30V	0~30V	0~60V	0~120V	
Output Current	0~5A	0~10A	0~5A	0~3A	
Output power	150W	300W	300W	360W	
Fuse Specifications	3A	5A	5A	5A	
Product size	L190mm X W90mm X H145mm				
Product weight	Net weight: 1.15Kg, Gross weight: 1.5Kg				
Product List	 <p>Power supply</p> <p>Instructions Warranty card Power line Output line</p>				

Products Details



1	Voltage output display	9	Grounding terminal (Green)
2	Current output display	10	Power switch
3	Power output display	11	Output switch (long press to enter system settings)
4	USB fast charging		
5	Voltage regulation	12	Output indicator
6	Current regulation	13	OCP indicator
7	Negative polarity (Black)	14	CC indicator
8	Positive polarity (Red)	15	CV indicator



		19	USB communication interface (optional)
17	Electric socket		
18	Fuse box	20	Cooling Fan

Operating Instructions

The power supply output modes are categorized into two types: Constant Voltage (C.V) and Constant Current (C.C). The output mode is automatically determined by the user-set voltage and current values, as well as the connected load. The power supply ensures that the output voltage or current never exceeds the user-defined settings.

In Constant Voltage (C.V) mode, the power supply maintains a fixed output voltage, matching the user-defined setting. In Constant Current (C.C) mode, the power supply maintains a fixed output current, matching the user-defined setting



Notice

During actual Constant Voltage (CV) operation, if the load resistance decreases and the output current increases to the set current value, the power supply automatically switches to Constant Current (CC) mode. As the load resistance continues to decrease, the current remains at the set value, while the voltage decreases proportionally ($I=V/R$). To restore CV output, increase the load resistance or raise the current setting

VOLTAGE - Voltage regulating encoder

Use this control to adjust the setting voltage magnitude. Turning the knob clockwise increases the value, while counterclockwise rotation decreases it. Press the coding switch to shift to the left. After completing the voltage setting, wait 3 seconds for the blinking to stop, indicating that the current setting value has been saved

CURRENT - Current Regulation Encoder

Use this control to adjust the current level setting. Clockwise rotation increases the value, while counterclockwise rotation decreases it. Press the coding switch to shift left. After completing the current setting operation, wait 3 seconds for the blinking to stop, indicating that the setting is saved. On WPS models, long-pressing this control toggles the short-circuit protection function on and off

OUT - Output switch

Press the OUT button briefly to toggle output power enable/disable. Press and hold the button for 5 seconds to access system settings

OCP - Short Circuit Protection Switch

For WPS models, long-press the current knob to enable or disable the OCP short-circuit protection function. When enabled, the indicator light turns on. If a short circuit occurs, the machine stops output and triggers an alarm. To clear the alarm and shut down the output, press the Output button.

USB fast charging function

This machine features USB fast charging capability, equipped with a built-in multi-protocol fast charging recognition chip. It delivers an output power of up to 18W for rapid charging

System settings

Press and hold the OUT output button for 5 seconds to access the system setup menu. This menu allows you to customize the device's default settings to suit your specific usage requirements.

After entering system settings, the current (A) display shows the current item number. Press the voltage coding switch to navigate through items. The power (W) display shows the current default parameters; rotate the voltage coding switch to modify these parameters. To save changes, select the last item (number 6) and press the voltage coding switch again. If any other key is pressed during this process, the machine will exit the setting state without saving changes

Refer to the table below for specific system setting items and their corresponding parameter meanings.

Serial number	Events	Parameters	Hidden meaning	Default value
1	Local ID (optional)	0 - 3 1	Specify the number of this machine in the host computer network	0
2	Output default state	0	OUT output is off by default when the power is turned on	0
		1	The OUT output is turned on by default when the power supply is turned on.	
3	Screen brightness	0	Low brightness	0
		1	High brightness	
4	Buzzer Mute	0	Unprompted	1
		1	Beep	
5	Communications baud rate (optional)	1	2 4 0 0	1
		2	4 8 0 0	
		3	9 6 0 0	
		4	1 9 2 0 0	
6	Communication size setting (optional)	0	Small end structure	0
		1	Big end structure	

Product Warranty

1. Circuitech Solutions Private Ltd (hereafter referred to as "CSPL") warrants to the first end user upon purchase that this product is free from defects in materials and workmanship for a period of 6 months from the date of the invoice

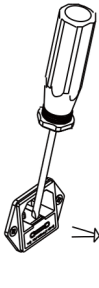
The following cases are excluded

- Warranty will be valid only when both this Warranty Card and the original Purchase Invoice are presented together for service.
- We follow a Carry-In warranty policy (offsite warranty policy), which means that the defective product should be delivered to our office in person or through courier for repair.
- CSPL reserves the right to decline warranty service if the above documents are not presented, or if the information contained is incomplete, or if the Warranty Card is found to be tampered with.
- This Warranty shall not cover any damages resulting from unauthorized adaptations or adjustments to the product.
- This Warranty shall not apply to damages caused to the product by accidents, lightning, ingress of water, fire, Acts of God, improper ventilation, dropping, excessive shock, or any external cause beyond CSPL's control, and/or any damage caused due to tampering of the product by an unauthorized agent.

Common problem

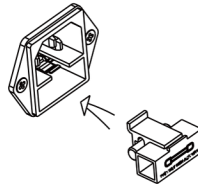
Fuse Replacement

If the fuse blows, the machine will stop working. Identify and correct the cause of the blown fuse. Then replace it with a fuse of the same fuse specification.



Fuse replacement method:
Remove the power plug first and then open the fuse holder as per the view.

Replace the fuse with a fuse of the same type and size, and then reinstall the fuse holder.



Distress

For effective safety protection, only fuses of specified sizes may be used for replacement. Additionally, ensure the power is turned off and the power cord is unplugged from the electrical outlet before replacing a fuse

