

High-precision DC voltage current regulator

INSTRUCTION MANUAL

305D/303D/302D

English

Statement: The company reserves the right to improve and upgrade products, product specifications and design are subject to change without notice.



Thank you for choosing this type of DC power supply. Please read the user guide thoroughly before using, and keep it in a safe place for future reference.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions are required to always be followed, including the following:

Read all instructions before using DANGER - To reduce the risk of electric shock:

1. This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
2. Children shall not play with the appliance.
3. Cleaning and user maintenance shall not be made by children without supervision.
4. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
5. Do not leave the appliance unattended when it is switched on.
6. High voltage in machine, amateurs do not dismantle machine.

I. Feature

PS series DC power supply designed for scientific research, product development, laboratories, universities and laptop computer repair, electronic production. Voltage /Current in a nominal value adjustable continuously. It has high precision, high reliability, and has improved the overload protection circuit, for the industry the ideal choice.

II. Parameter specification

Rated operating condition			
Power voltage	AC 110V/220V $\pm 10\%$ (Switch select)	Frequency	50Hz/60Hz
Work environment	-10°C~40°C	Relative humidity	< 90%
Storage environment	-10°C~40°C	Relative humidity	< 80%

Voltage stabilization			
Output voltage	0 to the nominal value adjustable continuously		
Voltage stability	$\leq 0.01\% + 2\text{mV}$	Load stability	$\leq 0.01\% + 2\text{mV}$
Recovery time	$\leq 100\mu\text{s}$		
Ripple noise	$\leq 1\text{mVREMS}$ (Effective value)		
Temperature coefficient	$\leq 200\text{PPM}/^\circ\text{C}$		
Current stabilization			
Output current	0 to the nominal value adjustable continuously		
Current stability	$\leq 0.1\% + 3\text{mA}$	Load stability	$\leq 0.02\% + 3\text{mA}$
Ripple noise	2mARMS (Effective value)		

III. Technical Parameters

Parameters \ Model	PS-302D	PS-303D	PS-305D
The output voltage range	0~30V	0~30V	0~30V
Output current range	0~2A	0~3A	0~5A
Voltage current display	PS series of the LED three digital tube		
Display precision	Digital display of 1% ± 1 characters		
Parameters \ Model	YH-302D	YH-303D	YH-305D
The output voltage range	0~30V	0~30V	0~30V
Output current range	0~2A/0~999mA	0~3A/0~999mA	0~5A/0~999mA
Voltage current display	YH series of the LED three digital tube		
Display precision	Digital display of 1% ± 1 characters		
Parameters \ Model	PSN-302D	PSN-303D	PSN-305D
The output voltage range	0~30V	0~30V	0~30V
Output current range	0~2A	0~3A	0~5A
Voltage current display	PSN series of the LED four digital tube		
Display precision	Digital display of 1% ± 1 characters		

IV. Panel Control Description

The three-figure display front panel description

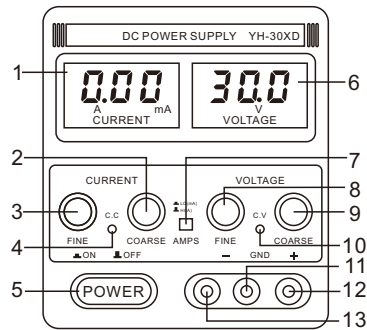


Figure 1

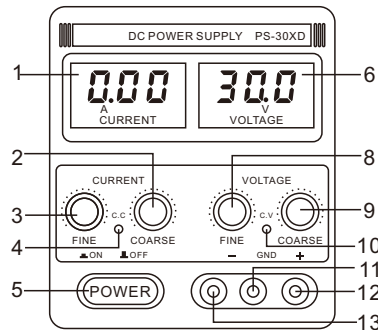


Figure 2

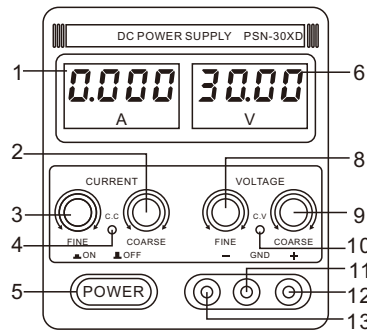
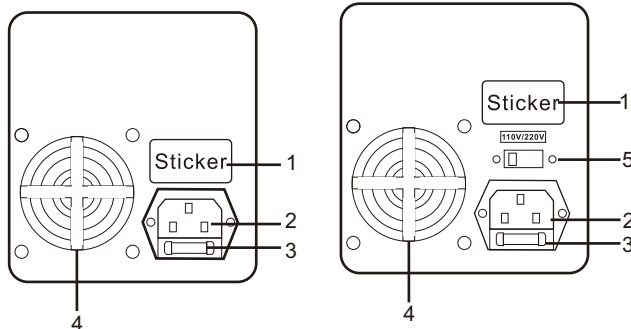


Figure 3

- (1) Current Display
- (2) Steady flow coarse
- (3) The steady flow fine
- (4) The steady flow status indicator
- (5) Power Switch
- (6) Voltage Display
- (7) A / mA converter
- (8) Regulators fine
- (9) Regulators coarse
- (10) Regulators status indicator
- (11) ground terminal
- (12) The positive terminal of the output
- (13) output negative terminal

Machine rear panel description

- (1) Note sticker
- (2) AC/ AC input
- (3) The fuse socket
- (4) Radiation fan
- (5) AC/AC input voltage selector



V. Instructions for use

Attention

1. AC/AC input voltage: Select voltage must be identical (AC, 110V/220V).
2. Dissipate heat: Radiator located at rear, should leave enough space to facilitate heat dissipation, PS series machine equipped with temperature control switch, when the internal temperature $\geq 45^{\circ}\text{C}$, the fan will rotate to dissipate heat automatically, not at ambient temperature over 45°C places.
3. Output overshoot voltage limit: When the switch power supply, between the output terminal voltage should not exceed a predetermined value.
4. Power supply are not allow at full load state for long time. Control your utilization rate of less than 60%, or they may cause human early failure. When place order, you should be based on the actual operating current includes an allowance.

Operation

1. Connecting to the power source, the machine will be input selection voltage to and use the same voltage (AC110V/220V).
2. Turn on the power switch, indicator light (current coarse and fine adjustment knob does not 0), current and voltage display shows the "000", a voltage display the output voltage.
3. Voltage regulation and the knob to the desired output voltage value (current coarse and fine adjustment knob for 0), output voltage range: 0-30V DC.
4. Connection to an external load to the "+", "-" output terminals, power began to load power.
5. When used in a higher place, output "+" or "-" posts must have a reliable connection with GND terminal, it can reduce the output ripple of power.

Current stabilization settings

1. At first, fine and coarse adjustment voltage to 2-5V arbitrary values (current coarse and fine adjustment knob is not 0).
2. And then adjust coarse and fine knob to 0 (anti-clockwise end).
3. Wires to output terminals "+" and "-".
4. Then clockwise, coarse and fine adjust the required voltage can be used.


Voltage/current stabilization characteristic

The power of working property called stabilized voltage and current automatic conversion type, it can load changes in voltage regulator and the steady flow state between successive conversion. The voltage regulator and the steady flow state transition between the intersection known as the transfer point.

For example:

If the load operating the power supply at the stable state, the output voltage constant. That is to say the output voltage of the load not follow up which varies, the output current will change with the size of the load. The load increases (resistance becomes small voltage drop). Voltage and current conversion is composed of a panel of LED instructions, stabilized voltage CV indicator light, steady when the CC indicator light.

Product certification

Model NO.	
Product ID	
Examine	Upon examination products meet technical standards 
Sales Date	
Date of manufacture	

Warranty Card

Thank you for choosing this type of products, please read the following terms before using:

1. From purchasing date within 7 days, under normal use(Artificial damage),new package, not be disassemble and repaired ,enjoy replacement service.
2. From purchasing date within one year, under normal use, if there are quality problem, not be disassemble and repaired ,enjoy free repair service.
3. For more than warranty, we provide a lifetime warranty service, free of labor costs, charge only spare parts costs.
4. Failure to present warranty card during warranty period, the company will not be a free service.
5. Users need warranty service, please contact your original sales unit.
6. When users need warranty service, please provide warranty card and purchase invoice, or receipt of the certificate of the company seal.
7. Warranty does not include transportation costs and provide on-site service.

Maintenance records

NO.	Date for repair	Cause	Fix date	Repairer