

PDS  
**SWITCH POWER SUPPLY**

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**USER MANUAL**

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**SWITCH POWER SUPPLY**

Thank you for your trust in our power supply products. After purchasing our DC power supply products, for better use, please read the instructions carefully before use and keep it properly.

## 1.Overview

This power supply is a high-efficiency DC stabilized voltage and current supply, with strong load carrying capacity and low continuous working faults. The power supply has various protections such as overload and current limiting. It can be used as a regulated power supply or a regulated current power supply, with automatic conversion between regulated and regulated currents.

**The specific model parameters are shown in the table below**

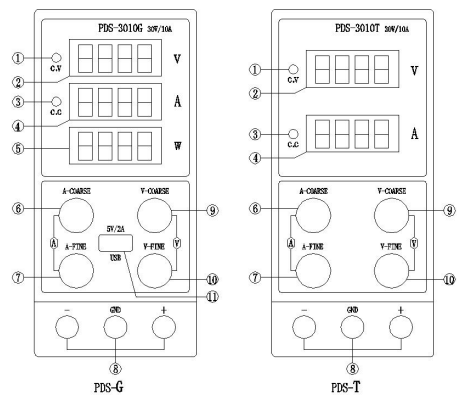
PDS-T Model Power Supply							
<div>Parameter</div> <div>Model</div>	Voltage Output	Current output	Voltage display accuracy	Current display accuracy	Display method	Power value	5V/2A output
PDS-303T	0-30V	0-3A	±0.5%FS	±0.5%FS	LED Digital display	×	×
PDS-305T	0-30V	0-5A	±0.5%FS	±0.5%FS			
PDS-3010T	0-30V	0-10A	±0.5%FS	±0.5%FS			
PDS-603T	0-60V	0-3A	±0.5%FS	±0.5%FS			
PDS-605T	0-60V	0-5A	±0.5%FS	±0.5%FS			
PDS-1002T	0-100V	0-2A	±0.5%FS	±0.5%FS			
PDS-1003T	0-100V	0-3A	±0.5%FS	±0.5%FS			

PDS-G Model Power Supply							
Model \ Parameter	Voltage Output	Current output	Voltage display accuracy	Current display accuracy	Display method	Power value	5V/2A output
PDS-303G	0-30V	0-3A	$\pm 0.5\%FS$	$\pm 0.5\%FS$	LED Digital display	√	√
PDS-305G	0-30V	0-5A	$\pm 0.5\%FS$	$\pm 0.5\%FS$			
PDS-3010G	0-30V	0-10A	$\pm 0.5\%FS$	$\pm 0.5\%FS$			
PDS-603G	0-60V	0-3A	$\pm 0.5\%FS$	$\pm 0.5\%FS$			
PDS-605G	0-60V	0-5A	$\pm 0.5\%FS$	$\pm 0.5\%FS$			
PDS-1002G	0-100V	0-2A	$\pm 0.5\%FS$	$\pm 0.5\%FS$			
PDS-1003G	0-100V	0-3A	$\pm 0.5\%FS$	$\pm 0.5\%FS$			

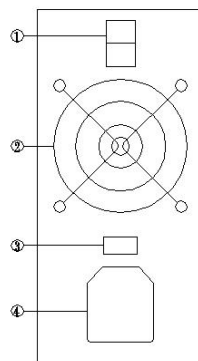
## 2.Panel Features and Specifications

### 2-1.Panel Features and Description

- (1) Stable voltage indicator light
- (2) Voltage value display
- (3) Stable current indicator light
- (4) Current value display
- (5) Power value display
- (6) Current coarse adjustment knob
- (7) Current fine adjustment knob
- (8) Output positive and negative poles and ground terminals
- (9) Voltage coarse adjustment knob
- (10) Voltage fine adjustment knob
- (11) 5V/2A output terminal



- (1) Power switch
- (2) Cooling fan
- (3) Input voltage switching switch
- (4) Power socket with fuse inside



## 2-2.Rated Operation Conditions

Input voltage: AC220V  $\pm$  10% 50Hz (Toggle switch: AC220V/AC110V)

Working environment: Temperature: -10℃-40℃ Relative humidity:<80%

Storage environment: Temperature: -20℃-50℃ Relative humidity:<70%

## 2-3.Power Output Parameters

Voltage stability:  $\leq$  0.5% FS

Current stability:  $\leq$  0.5% FS

Load stability:  $\leq$  0.5% FS

Ripple noise:  $\leq$  0.5% FS (effective value)

# 3.Instructions for Use

## 3-1.Preparation before Power on:

(1) If the input voltage is AC220V and the rear panel switch displays the font "220V", please confirm if the input voltage is within the nominal range (AC198-242V, 50HZ). If the input voltage is AC110V, move the voltage switch on the rear panel to expose the font "110V". Please confirm if the input voltage is within the nominal range (AC99-121V, 50HZ).

(2) To facilitate heat dissipation, a minimum of 10cm of heat dissipation

space should be left around the power supply. The working environment temperature should not be higher than 40 °C, and the humidity should be less than 80%. It should not be used in places with acid, alkali gases, or excessive dust. Prevent use in areas with rain, sunlight, and severe vibrations.

### 3-2.Operation Method:

(1) Connect the power supply (check if the input voltage matches the standard).

(2) On the rear panel of the machine, turn the power switch to the "-" position, the indicator light will light up, and the LED will display.

(3) Voltage regulation setting: clockwise adjust the current regulation knobs 6 and 7 to the maximum, adjust the voltage regulation knobs 9 and 10 to the required voltage value, connect the load to the positive and negative poles 8 of the output terminal (note that the positive and negative polarity should be correct), and then the voltage regulation indicator light 1 will light up. The power supply operates in a stable state, **where the voltage remains constant and the current changes with the load.**

(4) Steady current setting: Adjust the steady current setting knobs 9 and 10 to set the output voltage to any value of 3-5V, and then turn the steady current setting knobs 6 and 7 counterclockwise to the minimum. Connect the output positive and negative electrodes with a wire, adjust the current stabilization setting knobs 6 and 7 to the desired current value, and then remove the wire. Adjust the voltage to the required voltage value, connect the load to the positive and negative poles of the output terminal (note that the positive and negative polarity should be correct), and it can be used normally. At this time,

the steady current indicator light 3 will light up. The power supply operates in a steady current state, **where the current remains constant and the voltage changes with the load.**

(5) Attention: Do not start the power switch with a load, otherwise it may damage the power supply and load. Connect the load to the "+" and "-" output terminals, paying attention to the correct polarity. When the ripple coefficient requirement is high, please ensure that there is a reliable grounding "GND" at the "+" and "-" output terminals to reduce ripple.

## 4.Maintenance

### 4-1.Replacement of Safety Tube

If encountering a burnt fuse, the cause must be identified, and it can only be replaced with a fuse of the same capacity if it is not a malfunction of this machine.

### 4-2.Repair

This power supply has undergone precise calibration before leaving the factory. Non professional personnel are not allowed to turn it on without authorization. If there is internal damage, please contact the dealer. High voltage inside the machine, please do not repair it yourself.

## 5.Packing List

5-1.Power supply	1 pcs	5-2.Power cable	1pcs
5-3.Instructions	1 pcs	5-4.Certificate	1pcs

## 6. Warranty Service

6-1. The following conditions are not included in the free warranty:

(1) The product is damaged due to disassembly, modification and repair by the users themselves.

(2) Failure to follow the instructions results in damage to the product.

(3) Product damage caused by the use environment beyond the allowable range.

(4) Natural disasters, power grid failures or other irresistible factors lead to product damage.

(5) Accessories are not covered under warranty.

6-2. Please package the product for repair properly. The company will not be responsible for any damage or loss during transportation.

6-3. Please read the product manual carefully before using this power supply.

