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SHENZHEN MEIRUIKE ELECTRONIC TECHNOLOGY CO., LTD



美瑞克仪器
MEIRUIKE INSTRUMENT

DC power supply

使用说明书

USER MANUAL

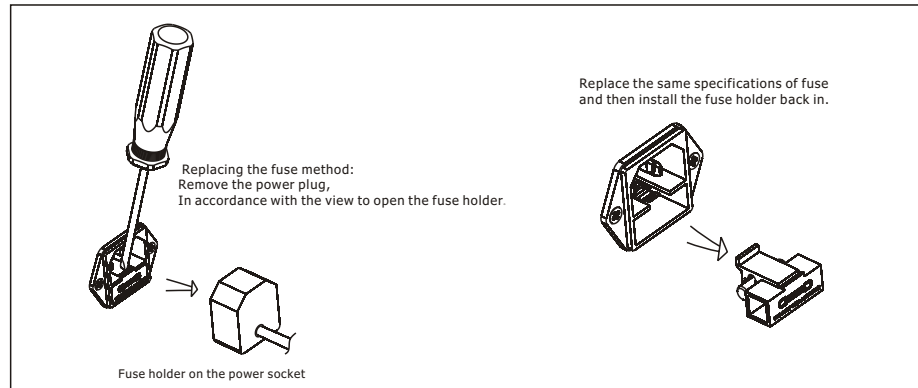
深圳市美瑞克电子科技有限公司
SHENZHEN MEIRUIKE ELECTRONIC TECHNOLOGY CO., LTD

CONTENTS

1. Overview	-----	2
2. Specification	-----	2
3. Parameter Specification	-----	3
4. Panel control and indicator	-----	4
5. Instructions	-----	7
6. Maintenance	-----	8
7. Fuse Replacement	-----	9
8. Packing list	-----	9

7. Fuse Replacement

If the fuse blew out, Regulated power supply will stop working.



8. Packing list

1. power supply x 1;
2. power cord x 1 ;
3. Users manual x 1;

1. Product Overview

RPS, RKS series adjustable dc regulated power supply is designed for laboratory, school and the production line, the output voltage and load current can be adjustable between 0 and the nominal value. The RPS series has the electric circuit protection function can stop the output and brings a 3.3V/5.0V/1A fixed output. Stability and ripple coefficient is good can perfect protection circuit. Can work at the full load for a long time, can be used as a regulated power supply or a stabilized current supply.

RPS series is linear dc regulated power supply

RKS series is switch dc regulated power supply

2. Specification

Model	input voltage	voltage	current	protection	Fixed output	Display mode	size mm	Kg
RPS3003C-2	110/V220V	0~30V	0~3A	Y	5V/3A	<div> <div>A</div> <div>8.8.8.8</div> <div>CURRENT</div> </div> <div> <div>V</div> <div>8.8.8.8</div> <div>VOLTAGE</div> </div>	273*130*168	3.6
RPS3005C-2	110/V220V	0~30V	0~5A	Y	5V/3A		273*130*168	4.7
RPS6003C-2	110/V220V	0~60V	0~3A	Y	5V/3A		273*130*168	5.1
RPS6005C-2	110/V220V	0~60V	0~5A	Y	5V/3A		273*130*168	6.5
RPS3003D-2	110/V220V	0~30V	0~3A	Y	5V/3A	<div> <div>A</div> <div>8.8.8</div> <div>CURRENT</div> </div> <div> <div>V</div> <div>8.8.8</div> <div>VOLTAGE</div> </div>	273*130*168	3.6
RPS3005D-2	110/V220V	0~30V	0~5A	Y	5V/3A		273*130*168	4.7
RPS6003D-2	110/V220V	0~60V	0~3A	Y	5V/3A		273*130*168	5.1
RPS6005D-2	110/V220V	0~60V	0~5A	Y	5V/3A		273*130*168	6.5
RPS3010D-3	110/V220V	0~30V	0~10A	Y	3.3V/5V/1A		295*195*180	8.0
RPS3020D-2	220V	0~30V	0~20A	Y	3.3V/5V/1A		420*260*170	14.5
RPS3030D-2	220V	0~30V	0~30A	Y	3.3V/5V/1A		420*260*170	18.1
RPS3003D-3	220V	0~30V	0~3A	Y	5V/3A		364*260*170	7.6
RPS3005D-3	220V	0~30V	0~5A	Y	5V/3A		364*260*170	9.9
RPS3010D	220V	0~30V	0~10A	N	N	<div> <div>A</div> <div>8.8.8</div> <div>CURRENT</div> </div> <div> <div>V</div> <div>8.8.8</div> <div>VOLTAGE</div> </div>	350*260*170	4.2
RPS3020D	170~265V	0~30V	0~20A	N	N		350*260*170	4.2
RPS3030D	170~265V	0~30V	0~30A	N	N		350*260*170	4.2

3. Parameter Specification

[3-1] Rated working conditions

- (1) power supply voltage 220 v + 10% for 50 hz 60 hz
- (2) working conditions: temperature: 0 °C to 40 °C, relative humidity: < 80% RH
- (3) storage conditions: temperature: - 10 °C ~ 70 °C; Relative humidity: < 70% RH
- (4) the output mode (see product specification)

[3-2] Steady current working status:

- (1) the output current is adjustable from 0 between nominal value
- (2) Ripple noise $\leq 3\text{mArms}$
- (3) Current stability $\leq 0.1\% + 3\text{mA}$
Load stability $\leq 0.2\% + 3\text{mA}$

[3-3] Steady voltage working status:

- (1) the output voltage is adjustable from 0 between nominal value
- (2) Voltage stability:
Voltage stability $\leq 0.1\% + 2\text{mV}$
Load stability $\leq 0.01\% + 3\text{mV}$
- (3) Recovery time: $\leq 100\mu\text{S}$
- (4) Ripple noise: 1mVrms (Valid values)
- (5) temperature coefficient of 300PPM/

[3-4] 3.3V/5.0V Independent voltage

- (1) output voltage 3.3V/5.0V By switching
- (2) Voltage accuracy $\pm 1\%$
- (3) Maximum current 1A or 3A (See specification table for details)

[5-2] Limiting current Settings:

1. Decisions a maximum safe current for your instruments
2. The power supply with a shorter route temporarily (+) and (-) terminal short circuit. (the voltage must be adjusted below 10 v)
3. Rotating voltage control knob until the CC indicator bright
4. Adjust the current knob to the desired current value
5. Current value (overload protection) has been set, then do not change the current knob
6. Remove the short circuit, can enter the working state.
7. some model have preset function ignore the above 6 steps, press the preset key to set the current voltage, and finish the preset key and the voltage indicator light will be on

[5-3] The characteristics of constant voltage/current

This series of characteristics of the power supply is called constant voltage/ current type automatic conversion, It can vary with the load at constant voltage and constant current state of continuous transformation. For example, if the load to make the power work in constant voltage mode, just output stability constant voltage. As the load increases, the output voltage will remain stable, Until you reach the preset current limit value, After arrived at current limit value, Output current is stable, The output voltage is inversely proportional to the load, CV indicator bright means constant voltage and CC indicator bright means constant current.

[5-4] Working:

1. Put the power switch in "OFF" position.
2. to ensure that the input voltage.
3. input power and put the power switch in "ON" position
4. adjust the "VOLTAGE" and "CURRENT" knob to the required VOLTAGE and CURRENT value.
5. external loads connected "+", "-" output terminals.

6. Maintenance

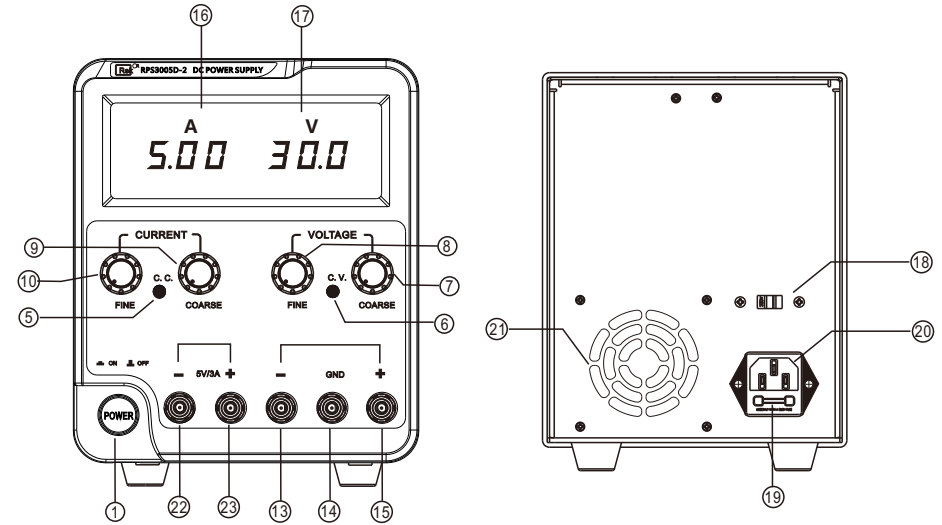
1. Please pull out the plug before clean.
2. With neutral detergent and water to wet soft cloth to wipe the instrument, do not spray cleaner directly on the instrument.
3. Do not use solvent containing hydrocarbons, chloride, or similar, also do not use detergent containing grinding ingredients.

- ②6、 Main current display
- ②7、 Main voltage display
- ②8、 Power mode switch S
- ②9、 Power mode switch M

Note output mode 1 switch 28 and 29 unpress simultaneously,the main and the secondary power supply are independent
 output mode 2 Switch 28 and 29 press simultaneously,the main and the secondary power supply are connected in parallel
 output mode 3 switch 28 press, 29 unpress,the main and the secondary power supply are series connection

- ③0、 Secondary power supply current regulation
- ③1、 Secondary power supply voltage regulation
- ③2、 Main power supply current regulation
- ③3、 Main power supply voltage regulation
- ③4、 Negative output of secondary power supply
- ③5、 Positive output of secondary power supply
- ③6、 Negative output of main power supply
- ③7、 Positive output of main power supply
- ③8、 5V/3A output indicator

4. Panel control and indicator

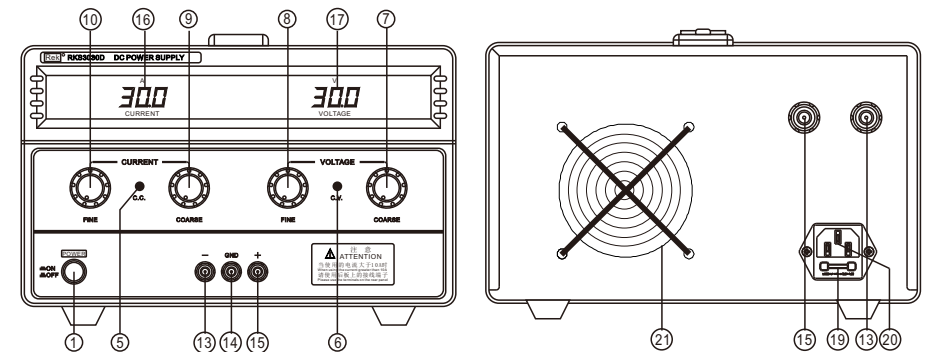


RPS3003D-2 RPS3003C-2 RPS3005D-2 RPS3005C-2
 RPS6003D-2 RPS6003C-2 RPS6005D-2 RPS6005C-2

5. Instructions

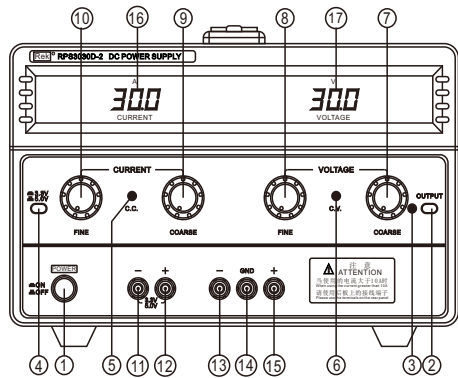
[5-1] Cautions

1. Ac input according to the rear panel (110V/ 220V switch):
 switch to 110V: 110V±10%60Hz.
 switch to 220V: 220V±10%50Hz.
2. do not use where the environmental temperature 40 ℃,
 the fan is located in the instrument back, should leave
 enough space.
3. the output voltage overshoot: when switching power supply,
 the output voltage is less than the preset.

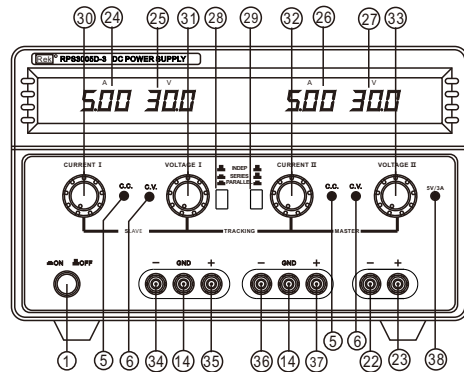


RKS3010D RKS3020D RKS3030D

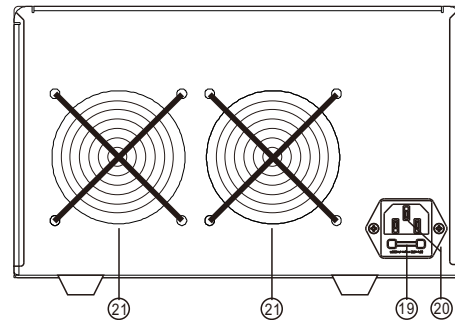
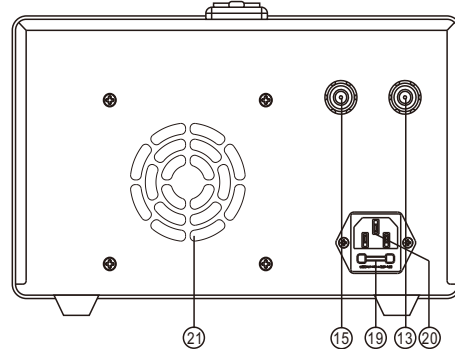
RPS3010D-2



RPS3020D-2 RPS3030D-2



RPS3003D-3 RPS3005D-3



[4-1] the Panel Description:

- ①. the power switch
- ②. control switch, voltage output
- ③. voltage output indicator light
- ④. 3.3V/5.0V switch (output accuracy $\leq 1\% \pm 1d$)
- ⑤. stable current indicator light
- ⑥. stable voltage indicator light
- ⑦. Voltage adjustment roughly
- ⑧. Voltage adjustment fine-tuned
- ⑨. Current adjustment roughly
- ⑩. Current adjustment fine-tuned
- ⑪. 3.3V/5.0V “-” output port
- ⑫. 3.3V/5.0V “+” output port
- ⑬. “-” Output: negative polarity (black)
- ⑭. “GND” output: grounding (green)
- ⑮. “+” Output: positive polarity (red)
- ⑯. Current output display (display accuracy of 1% or less $\pm 1d$)
- ⑰. Voltage output display (display accuracy of 1% or less $\pm 1d$)
- ⑱. 110 V / 220 V switch (according to clients' need)
- ⑲. Fuse box
- ⑳. power socket
- ㉑. Fan (fan with temperature control, when the internal temperature up to $60^{\circ}\text{C} + 5^{\circ}\text{C}$ would working)
- ㉒. 5V “-” output terminal
- ㉓. 5V “+” output terminal
- ㉔. Secondary current display
- ㉕. Secondary voltage display