DC POWER SUPPLY
Instruction Manual

(Please read carefully and thoroughly this instruction manual before operation, and keep it safely.)

一、Summary

302D、303D、305D、605D、3020D、3030Dare the single-output power supply, 303D-II、305D-II、3010D-II are the three-output power supply, collectively referred to as high-precision constant current, constant voltage DC Linear Power Supply .Characterized by high-precision and strong-reliability. And the three-output power supply with the string or parallel function.

This series constant voltage/current DC power supply design for technology product development, laboratory, junior college, electronic production line and communications industry. The specific type parameter, please see the table.

二、Parameter specification

2-1 Rated working condition:

Input voltage: AC 220V±10% 50/60Hz

Working conditions: Temperature: -10℃ to 40℃
relative humidity ＜90%

Storage conditions: Temperature: -10℃ to 40℃
relative humidity ＜80%

2-2 Voltage-stabilizing working condition:

(1) Output voltage between 0 to rated value is continuously adjustable.

(2) Voltage stability≤0.01% + 2mV
Load stability ≤0.01% + 2mV

(3) Recovery time ≤100μS

(4) Ripple and noise ≤1mVrms (effective value)

(5) Temperature coefficient: ≤200PPM/℃

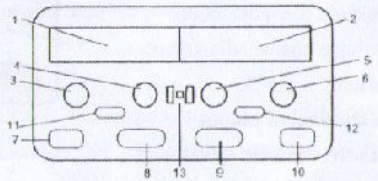
2-3 Current-stabilizing working condition:

(1) Output current between 0 to rated value is continuously adjustable.

(2) Current stability≤0.2% + 3mA Load stability ≤0.2% + 3mA

(3) Ripple and noise ≤2mArms (effective value)

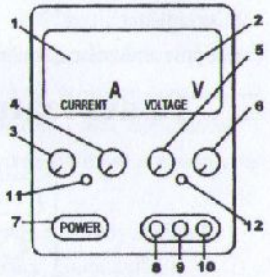
三、Panel features



2-1 3020D 3030D panel features	**305D-IIdouble-output panel feature**
(1) Current display	(single-way current/voltage display)
(2) Voltage display	(single-way current/voltage display)
(3) Current fine adjustment	(single-way current adjustment)
(4) Current coarse adjustment	(single-way voltage adjustment)
(5) Voltage fine adjustment	(double-way current adjustment)
(6) Voltage coarse adjustment	(double-way voltage adjustment)
(7) Power switch	(power switch)
(8)————	(single-way output terminal)
(9) Output terminal	(double-way output terminal)
(10)————	5V/3A fixed output
(11) Constant current pilot lamp and Over-voltage protection pilot lamp	(single-way constant current、constant voltage pilot lamp)
(12) Over-temperature protection pilot lamp and Constant voltage pilot lamp	(double-way constant current、constant voltage pilot lamp)
(13)————	(independent , series , parallel switch)

2-2 302D、303D、305D、605D Penal Features

(1)Current display
(2)Voltage display
(3)Output current fine adjustment
(4) Output current coarse adjustment
(5)Output voltage fine adjustment
(6)Output voltage coarse adjustment
(7)Power switch
(8)Negative terminal of output("—")
(9)Chassis earth terminal("GND")
(10)Positive terminal of output("+")



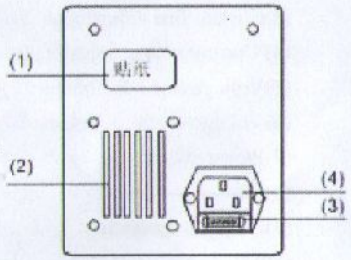
2-3 302D、303D、305D、605D Rear panel features

(1) "Attention" sticker

(2) Radiator fan

(3) Cartridge fuse seat

(4) AC input terminal



四、 Operating Instruction

4-1 Attention:

(1) AC input: AC 220V±10%

(2) **Insulation:** The radiator in the rear of the machine should have enough space to dissipate heat. 305D-2 Thermal Speed Controlled Fans. When inside temperature≥45℃radiator fan start to rotate to dissipate heat. Do not use the machine in a place where the temperature is over 45℃.

(3) Overshoot Limit of Output Voltage: The voltage of the output terminals is not greater than the preset value when turn on/off the power supply.

4-2 Method of operation:

(1) Connect the machine to the mains supply: AC220V±10%.

(2) Put power switch to the "ON", and the red pilot lamp will go on. (current coarse adjustment knob and current fine adjustment knob are not zero)

(3) Adjust voltage coarse and fine adjustment knob to the required value. (current coarse adjustment knob and current fine adjustment knob are not zero)

(4) Connect the external load to the "+" and "—"output terminal.

(5) When it is used to meet high requirement, the binding post of output "+"or "—"must be connected with "GND" binding post to reduce the output ripple voltage.

4-3 Current-stabilizing installation

(1) Adjust the voltage to 3-10V arbitrary value.(current coarse adjustment knob and current fine adjustment knob are not zero)

(2) Adjust current coarse adjustment knob and current fine adjustment knob to 0(turn it to the end anticlockwise)

(3) Using the wire to connect the output of the positive ("+") and the

negative("-") electrodes.

(4) Then clockwise adjust the current fine or coarse adjustment knob to the required current value.

(5) Remove the short-circuit wire ,then adjust voltage coarse or fine adjustment knob to the required voltage value, and now it is ready to be used.

五、Repair

If the cartridge fuse is burnt out, the power supply will stop working. If such case occurs, its cause must be found and corrected. Replace it then by the fuse with the same type. Do not open the fuse box, unless problem occurs.

If the interior of the power supply is burn out ,it must be repaired by professional service personnel or by the manufacturer through the distributor. Do not repair it by yourself for the safety reason.

六、Technical parameters

Type / parameters	1502D	303D	305D
Voltage output range	0-15V	0-30V	0-30V
Current output range	0-2A	0-3A	0-5A
Display mode	LED digital display		
Display precision	±1%±1word		

Type / parameters	605D	3020D	3030D
Voltage output range	0-60V	0-30V	0-30V
Current output range	0-5A	0-20A	0-30A
Display mode	LED digital display		
Display precision	±1%±1word		

Type / parameters	303D-II	305D-II	605D-II
Voltage output range	Double 0-30V	Double 0-30V	Double 0-60V
Current output range	Double 0-3A	Double 0-5A	Double 0-5A
Single fixed output	5V.3A	5V.3A	5V.3A
Display mode	LED digital display		
Display Precision	±1%±1word		