

# SINGLE OUTPUT 0A~6A

## DC REGULATED POWER SUPPLY

This series is high-precision single output DC regulated power supply with its output voltage adjustable continuously from 0V on in the nominal range. Constant voltage and constant current are switchable automatically, and the current-limit protection point can be set arbitrarily. In the constant current state, output current is continuously adjustable from 0A on in the nominal range. Output current and voltage can be indicated by meter or LED(LCD).

Rated	Voltage	0~20V	0~30V	0~30V	0~30V	0~40V	0~40V	0~50V
Output	Current	0~5A	0~2A	0~3A	0~5A	0~3A	0~6A	0~5A

Table 1.

### 1. TECHNICAL DATA:

1.1 Input voltage: 110VAC or 220VAC 60Hz or 50Hz

1.2 Output voltage: see table1.

1.3 Output current: see table1.

1.4 Source regulation: C.V. $\leq 1 \times 10^{-4} + 0.5\text{mV}$   
C.C. $\leq 2 \times 10^{-3} + 6\text{mA}$

1.5 Load regulation:  $C.V. \leq 1 \times 10^{-4} + 2\text{mV}$  ( $I_{\text{rated}} \leq 3\text{A}$ )

$C.V. \leq 1 \times 10^{-4} + 5\text{mV}$  ( $I_{\text{rated}} > 3\text{A}$ )

$C.C. \leq 2 \times 10^{-3} + 6\text{mA}$

1.6 Ripple and noise:  $C.V. \leq 1\text{mV (rms)}$  ( $I_{\text{rated}} \leq 3\text{A}$ )

$C.V. \leq 20\text{mV}_{\text{p-p}}$  ( $I_{\text{rated}} > 3\text{A}$ )

$C.C. \leq 3\text{mA (rms)}$

$C.C. \leq 50\text{mA}_{\text{p-p}}$

1.7 Protection: current-limit

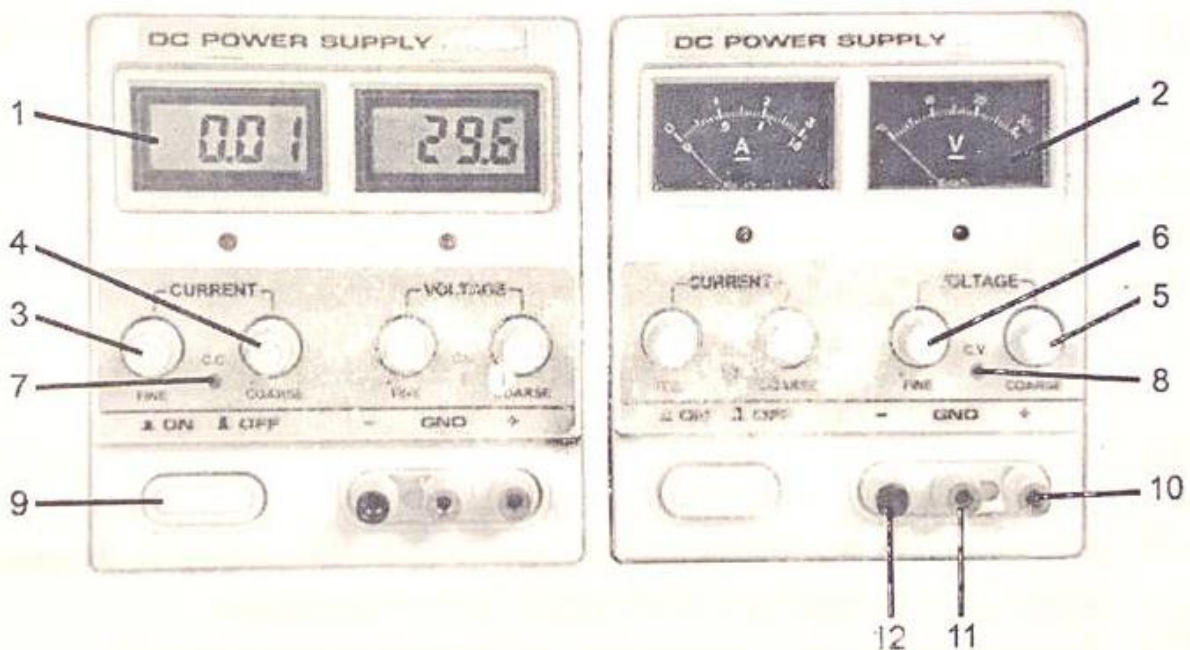
1.8 Indication accuracy:

a. Volt-indication: LED (LCD)  $\pm 1\% \pm 2\text{digits}$ ; meter class of 2.5 (F.S.)

b. Amp-indication: LED (LCD)  $\pm 2\% \pm 2\text{digits}$ ; meter class of 2.5 (F.S.)

## 2. OPERATION

### 2.1 Controls and description of front-panel



- (1) Amp display: indicating output current.
- (2) Volt display: indicating output voltage.
- (3) Current fine-adjustment: fine-adjustment the current-limit protection point.
- (4) Current coarse-adjustment: coarse-adjustment the current-limit protection point.
- (5) Voltage coarse-adjustment: coarse-adjustment output voltage.
- (6) Voltage fine-adjustment: fine-adjustment output voltage.
- (7) Constant current indicator: the indicator illuminates when the unit is in constant current state.
- (8) Constant voltage indicator: the indicator illuminates when the unit is in constant voltage state.
- (9) Power switch: the unit is "ON" when this button switch is depressed, while C.C. indicator (7) or CV indicator (8) illuminate.
- (10) Output terminal (+) : connecting the positive terminal of load.
- (11) Case ground: connect the case to ground.
- (12) Output terminal (-) : connecting the negative terminal of load.

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- (13) Amp-meter range switch: When set the switch to "LO" position, the F.S. indication of Amp-meter is in the lower step. Set the switch to "HI" position, the F.S. indication of Amp-meter is in the higher step. (Only for the model with meter)

## 2.2 Operating procedure:

2.2.1 Before switch on the unit, turn the adjustments (3) and (4) clockwise to the end. Then switch on and adjust (5) and (6) to get desired voltage. First, turn the coarse- adjustment (5) near the desired voltage, then fine-tune (6) to exact value.

### 2.2.2 Load connection:

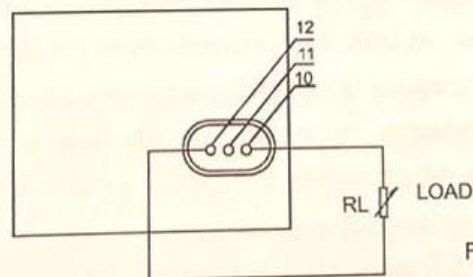


Fig.1

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class of 2.5 ) , if more accuracy value is needed, please calibrate the unit with external precious measuring instrument.

### 3. CAUTIONS

3.1 This unit has excellent current-limit protection. If short-circuit occurs, the output current is limited. But the power loss of the power transistors is maximum, and the unit must be switched off to exclude the faults to protect the unit from damage.

3.2 When operation finished, put the unit in a dry place of good ventilation, and keep it clean. If it is not in use for a long period, pull off the power supply plug for storage.

3.3 For maintenance, input voltage must be cut off.

3.4 The faults may be caused by the improper operation 、 abnormal operating ambient and component failure inside the unit. When the faults occur, the output voltage maybe exceed max. rated output voltage. TAKE CARE WHEN OPERATION AND AVOID UNNECESSARY DAMAGE OF LOAD.

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3.5 For safety operation, the 3-pin ground terminal of power cord must be grounded securely.

### 4. Accessories

4.1 Instruction manual                      1 copy