

# USER'S MANUAL



## DC REGULATED POWER SUPPLY



### DC POWER SUPPLY

#### BRIEF INTRODUCTION:

Switching DC power supplies are very stable, DC power supplies allowing continuous adjustment of both the output voltage and output current levels.

#### MODELS:

MODEL	HY2050E	HY2060E	HY3030E	HY3040E	HY3050E	HY3060E	HY5030E
Regulated Output Voltage	0~20V	0~20V	0~30V	0~30V	0~30V	0~30V	0~50V
Regulated Output Current	0~50A	0~60A	0~30A	0~40A	0~50A	0~60A	0~30A
Display	Double LED	Double LED	Double LED	Double LED	Double LED	Double LED	Double LED
Ripple and Noises	$\leq 5.0\text{mVrms}$	$\leq 5.0\text{mVrms}$	$\leq 3.0\text{mVrms}$	$\leq 3.0\text{mVrms}$	$\leq 5.0\text{mVrms}$	$\leq 5.0\text{mVrms}$	$\leq 5.0\text{mVrms}$

### 1. TECHNICAL PARAMETER

1.1 Input voltage: 104~127V AC (60Hz), or 207~253V AC (50Hz)

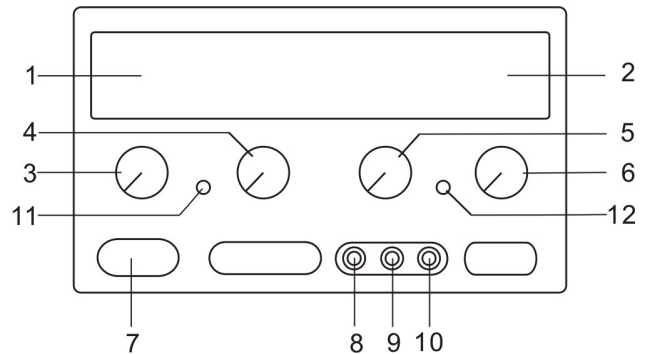
1.2 Line regulation :      CV $\leq 0.02\%+3\text{mV}$                       CC $\leq 0.5\%+3\text{mA}$

- 1.3 Load regulation :       $CV \leq 0.02\% + 10\text{mV} (I \leq 6\text{A})$        $CC \leq 0.5\% + 10\text{mA} (I \leq 6\text{A})$   
     $CV \leq 0.1\% + 5\text{mV} (I > 6\text{A})$                        $CC \leq 0.5\% + 20\text{mA} (I > 6\text{A})$
- 1.8 Protection : constant current protection
- 1.9 Voltage indication accuracy :  $\pm 1\% + 2\text{digits}$
- 1.10 Current indication accuracy :  $\pm 2\% + 2\text{digits}$
- 1.11 Environment :  $0 \sim +40\text{ }^\circ\text{C}$       Relative humidity :  $<90\%$

## 2. OPERATION

### 2.1 Front panel controls.

- (1) Current indication.
- (2) Voltage indication.
- (3) Fine adjustment of current
- (4) Coarse adjustment of current.
- (5) Fine adjustment of output voltage.
- (6) Coarse adjustment of output voltage.
- (7) Power ON/OFF switch
- (8) Negative Low current output terminal ( $I \leq 20\text{A}$ )
- (9) Ground connection.
- (10) Positive Low current output terminal ( $I \leq 20\text{A}$ )
- (11) Constant current mode indicator

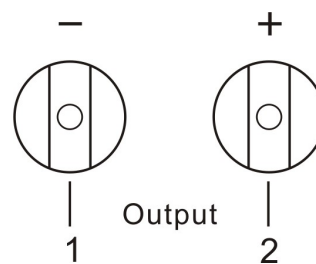


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- (12) Constant voltage mode indicator

### 2.2 Output terminals at back panel

- (1) Negative High current output terminal (Black)
- (2) Positive High current output terminal (Red)



**! When output current greater than 20A ,  
 connect negative wires with “1” terminals, and positive wires with “2” terminals.**

### 2.3 OPERATING PROCEDURE

- 2.3.1 For constant voltage mode adjust controls 3 & 4 clockwise to the maximum position. Switch on the power ON/OFF switch 7 and adjust controls 5 & 6 to set the desired output voltage. Connect the load to the output terminals 8 & 10.
- 2.3.2 For constant current mode adjust controls 5 & 6 clockwise to the maximum position. Adjust controls 3 & 4 anti-clockwise to the minimum position. Switch on the power ON/OFF switch 7 and connect the load to the output terminals 8 & 10. Adjust controls 3 & 4 to set the desired output current.
- 2.3.3 For restricted current protection mode switch on the power ON/OFF switch 7, adjust controls 3 & 4 anti-clockwise to the minimum position, adjust controls 5 & 6 clockwise to set the desired output

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voltage level and then connect the load to the output terminals 8 & 10. Adjust controls 3 & 4 clockwise to set the output current at the desired level for restricted current protection.



### **3. ATTENTION:**

3.1 In the event of a short circuit at the output the current will limit at the value set by the current controls, however the unit should be turned off and the short circuit removed before continuing use.

3.2 The mains power must be switched off before servicing and servicing should be referred to a qualified person.

3.3 The unit should be stored in a dry and well ventilated place and the power cord removed if storing for long periods.

### **4. ACCESSORIES**

4.1 Power cord-----one piece

4.2 Instruction manual-----one piece