

# USER'S MANUAL



## DC REGULATED POWER SUPPLY



### DC POWER SUPPLY

#### BRIEF INTRODUCTION:

The HY3000F and HY5000F series variable DC power supplies are very stable, regulated DC power supplies allowing continuous adjustment of both the output voltage and output current levels.

The HY3000F and HY5000F series have LED displays.

#### MODELS:

MODEL	HY3002F	HY3003F	HY3005F	HY3006F	HY5002F	HY5003F	HY6003F
REGULATED OUTPUT VOLTAGE	0-30V	0-30V	0-30V	0-30V	0-50V	0-50V	0-60V
REGULATED OUTPUT CURRENT	0-2A	0-3A	0-5A	0-6A	0-2A	0-3A	0-3A
FIXED OUTPUT	5V, 3A	5V, 3A	5V, 3A	5V, 3A	5V, 3A	5V, 3A	5V, 3A

#### 1. TECHNICAL PARAMETERS

- 1.1 Input voltage : 104~127V AC (60Hz), or 207~253V AC (50Hz)
- 1.2 Line regulation: CV $\leq$ 0.01%+1mV      CC $\leq$ 0.2%+1mA
- 1.3 Load regulation: CV $\leq$ 0.01%+3mV(I $\leq$ 3A)      CC $\leq$ 0.2%+3mA(I $\leq$ 3A)  
CV $\leq$ 0.01%+5mV(I $>$ 3A)      CC $\leq$ 0.2%+5mA(I $>$ 3A)
- 1.4 Ripple and noise: CV $\leq$ 0.5mVr.m.s (I $\leq$ 3A)      CC $\leq$ 3mAr.m.s (I $\leq$ 3A)  
CV $\leq$ 1.0mVr.m.s (I $>$ 3A)      CC $\leq$ 6mAr.m.s (I $>$ 3A)

1.5 Protection: constant current or short-circuit protection

1.6 Voltage indication accuracy: LED/LCD  $\pm 1\%+2$ digits, analogue display 2.5%

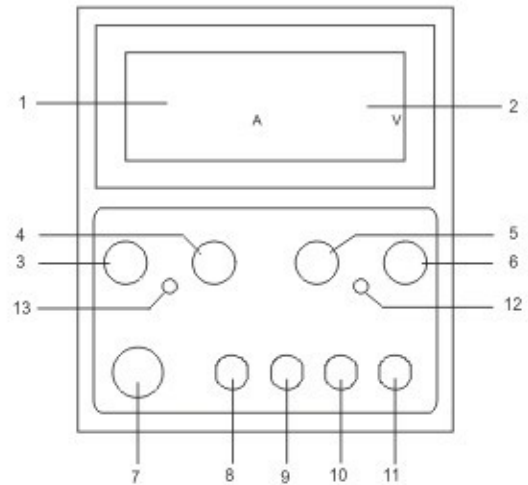
1.7 Current indication accuracy: LED/LCD  $\pm 2\%+2$ digits, analogue display 2.5%

1.8 Environment: 0 ~+40 °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 output terminal of fixed output 5V/3A.
- (9) Positive output terminal of fixed output 5V/3A.
- (10) Negative output terminal
- (11) Positive output terminal
- (12) Constant voltage mode indicator.
- (13) Constant current mode indicator.



### 2.2 Operating procedure

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2.2.1 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.

2.2.2 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.

2.2.3 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 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

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storing for long periods.

**4. ACCESSORIES**

4.1 Power cord-----one piece

4.2 Instruction manual-----one piece