

USER'S MANUAL



DC REGULATED POWER SUPPLY



DC POWER SUPPLY

BRIEF INTRODUCTION:

The HY3000 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 HYXXXXE including HY3010E, HY3020E, HY3030E, HY5005E, HY5010E and HY5020E are switching power supply.

MODELS:

MODEL	HY3010 HY3010E	HY3010C	HY3020 HY3020E	HY3020C	HY3030E	HY5005 HY5005E	HY5010 HY5010E	HY5020 HY5020E
Regulated Output Voltage	0~30V	0~30V	0~30V	0~30V	0~30V	0~50V	0~50V	0~50V
Regulated Output Current	0~10A	0~10A	0~20A	0~20A	0~30A	0~5A	0~10A	0~20A
Display	Double LED	Double Analogue	Double LED	Double Analogue	Double LED	Double LED	Double LED	Double LED
Ripple and Noises	≤0.5mVrms	≤0.5mVrms	≤1.0mVrms	≤1.0mVrms	≤3.0mVrms	≤0.5mVrms	≤1.0mVrms	≤3.0mVrms

1 TECHNICAL PARAMETER

1.1 Input voltage : 104~127V AC (60Hz), 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 : $CV \leq 0.02\% + 10\text{mV} (I \leq 6\text{A})$ $CC \leq 0.5\% + 10\text{mA} (I \leq 6\text{A})$

$CV \leq 0.1\% + 5\text{mV} (I > 6\text{A})$ $CC \leq 0.5\% + 20\text{mA} (I > 6\text{A})$

1.4 Protection : constant current and short-circuit protection

1.5 Voltage indication accuracy : LED $\pm 1\% + 2\text{digits}$, analogue display 2.5%

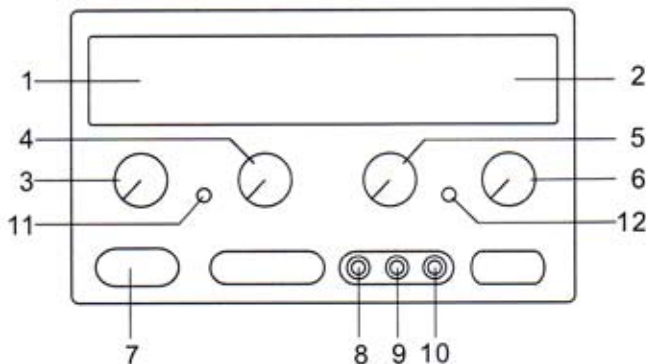
1.6 Current indication accuracy : LED $\pm 2\% + 2\text{digits}$, analogue display 2.5%

1.7 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.



- (9) Ground connection.
- (10) Positive output terminal
- (11) Constant current mode indicator
- (12) Constant voltage mode indicator

2.2 OPERATING PROCEDURE

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 storing for long periods.

4 ACCESSORIES

4.1 Power cord-----one piece

4.2 Instruction manual-----one piece