

USER'S MANUAL



DIGITAL CONTROL DC REGULATED POWER SUPPLY

DC POWER SUPPLY

BRIEF INTRODUCTION:

HY3010M、HY3020M、HY3010MR、HY3020MR、HY5010M、HY5005M series DC power supplies are very stable, it's voltage and current can be adjusted from zero to rated value. Constant voltage and current can be automatic conversion.

The series DC power supplies adopt digital control and have high precision. It uses advanced controlling technique of microprocessor to achieve the following functions: the enactment, display, feedback, and protecting of voltage and current. This technique improves the accuracy of enactments and the accuracy of control. Besides, it makes more convenient to operate and more intuitionistic to see. So this technique avoids the unsteadiness of the enactment point caused by adjust of regular potentiometer, which brings the error, excursion, and parts of an apparatus being abrasion. Therefore, the precision and stability of power supply have heightened greatly. Another characteristic of this power supply is: the enacted voltage could lock in the whole range. This characteristic offers users much more convenience and avoids needless inaccurate operate.

MODELS:

MODEL	HY3010M	HY3020M	HY3010MR	HY3020MR	HY5010M	HY5005M
OUTPUT VOLTAGE	0~30V	0~30V	0~30V	0~30V	0~50V	0~50V
OUTPUT CURRENT	0~10A	0~20A	0~10A	0~20A	0~10A	0~5A
INTERFACE	NO	NO	RS232	RS232	NO	NO

1 TECHNICAL PARAMETER

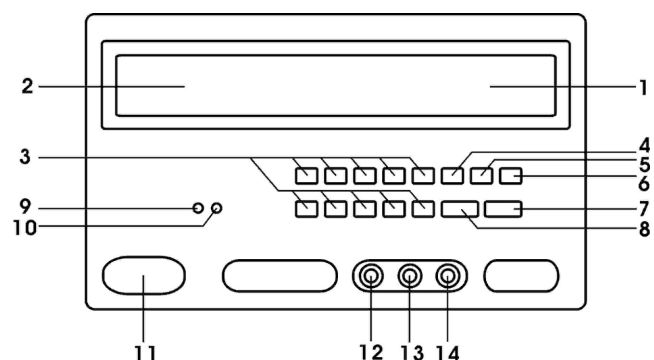
- 1.1 Input voltage: 220V/110V AC \pm 10% 50Hz/60Hz \pm 2Hz
- 1.2 Line regulation: CV \leq 0.02%+3mv CC \leq 0.5%+3mA
- 1.3 Load regulation: CV \leq 0.02%+10mv CC \leq 0.5%+10mA
- 1.4 Ripple and noise: CV \leq 1mVr.m.s CC \leq 10mAr.m.s
- 1.5 Protection: current restricted protection and short-circuit protection
- 1.6 Voltage indication accuracy: LED \pm 1%+2digits
- 1.7 Current indication accuracy: LED \pm 2%+2digits
- 1.8 Environment : 0 ~+40 $^{\circ}$ C relative humidity : <90%

2 Operation

- 2.1 Front panel control illustration see right picture

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- (1) Output voltage indicator
- (2) Output current indicator
- (3) Digital button
- (4) Radix point
- (5) Output voltage enactment button
- (6) Output current enactment button
- (7) 'Enter' button
- (8) 'Clear' button
- (9) Constant current indicator
- (10) Constant voltage indicator
- (11) On / Off Switch
- (12) Negative output terminal
- (13) Grounding terminal for casing
- (14) Positive output terminal



2.2 USING METHOD

- 2.2.1 Setting voltage output: Take turns pressing (V) button \rightarrow (0~9 digital) button \rightarrow (ENTER) button, until it to the voltage value needed.
- 2.2.2 Setting current limit: Take turns pressing (I) button \rightarrow (0~9 digital) button \rightarrow (ENTER) button, until it to the voltage value needed. (Must connected load, The actual current limit value should be display.)

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2.2.3 If operate by mistake, while setting the output voltage or the current, can press 'CLEAR' button to clearup, then re-set value according to 2.2.1 or 2.2.2.

2.2.4 Fine adjustment of output voltage and current: rejected by accessorial function button.

2.2.5 Use the function of lock: press (.) button for three second sequentially, after hearing the buzzer loud, the voltage value and current value are locked, any button is inoperative

2.2.6 Release the lock-in values: press (.) button for three second sequentially, after hearing the buzzer loud, then the unit gets back to the adjustable state.



3 CAUTION:

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

4.3 RS232 interface (cable included)-----one piece (HY3010MR、HY3020MR)