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# 1. INSTRUCTION

This power supply are integrated analog and digital control technology in one of the new general-purpose power supply, it has both analog power high stability, low ripple noise characteristics of digital circuits and easy implementation and a variety of control functions, for your work and production provides a wide range of convenient, simple, easy-to-use. Specification see Table 1:

Table 1

Туре	PPS2116A
Output Voltage	0-32.00V(step 0.01V)
Output Current	0-5A
Power (220VLoaded)	192VA
Weight	About 3.6Kg

# 2. SPECIFICATIONS

2.1 Source effect: CV≤0.01%+3mV(mA)

2.2 Load regulation:  $CV \le 0.01\% + 3mV(I \le 3A)$   $CC \le 0.2\% + 3mA(I \le 3A)$ 

Load regulation:  $CV \le 0.02\% + 5mV(I > 3A)$   $CC \le 0.2\% + 5mA(I > 3A)$ 

2.3 Ripple & Niose: CV≤1.0mVrms(I≤3A) CC≤3mArms(I≤3A)

Ripple & Niose: CV≤2.0mVrms(I>3A) CC≤6mArms(I>3A)

2.4 Protection type: Overcurrent protection (OCP) Overvoltage protection (OVP)

2.5 Show the accuracy: Precision voltage directive,±(0.5%+2 words)

Accuracy of current instructions,±(1%+2 words)

2.6 Output voltage rise time: Unladen <60ms Loaded:<60ms

2.7 Output voltage fall time: Unladen:<100ms Loaded:<100ms

2.8 Working Voltage:220V±10%AC 50Hz/60Hz

2.9 Package Size:310mm×150mm×205mm(L×W×H)

2.10 Dimensions: W (100mm)×H (160mm+ Machine feet 6mm)×D (275mm non-terminal)

2.11 Operating environment:temperature0~+40°C relative humidity≤80%

## 3. USER GUIDE

#### 3.1 Panel Instruction

3.1.1 Front Panel Instruction

(1) Indicates the output voltage (2) 5 Group output parameter storage instructions

(3) Indicates the output current (4) Group 5 output parameters to store and select

(5) SHIFT key to enable the second function (6) Output turn-off button

(7) Panel key lock function (8) Voltage adjust selection key

(9) Current adjust selection key (10) Power ON –OFF control

(11) "+" output terminal (12) "GND" terminal

(13) "-" output terminal (14) ADJUST switch

(15) Over-current protection instructions (16) Current status instructions

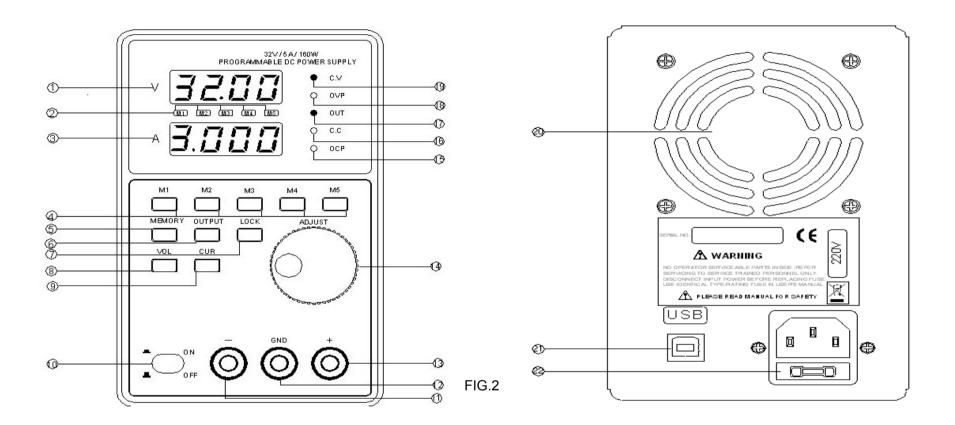
(17) Output turn-off instructions (18) Overvoltage protection instructions

(19) Constant status instructions

3.1.2 Rear Panel Instruction

(20) Cooling fan (21) USB interface (Limited to products DPS2000U series)

# (22) Power supply socket and fuse holder



# 3.2 Operation Instruction

#### 3.2.1 Front Panel Operation Instruction

Front panel display includes, Voltage, current digital display, constant voltage, over-voltage status, output, constant current, over-current protection LED status of instructions. Panel Features

M1, M2, M3, M4, M5 Preset storage parameters selection key;

SHIFT is the second function enable key;

SHIFT is the second function enable key; Output turn-off key can be arbitrarily cut off the output, without having to use the power switch;

LOCK Relax all panel key lock to ensure that job without external influence;

VOL, VUR Voltage / current adjust selection key, one-button switch, space-saving;

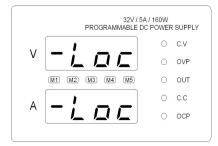
ADJUST Safe and reliable digital code switch, effective way to avoid the noise Analog potentiometer output more stable, reliable.

#### 3.2.2 Operation Instruction

This series of power supplies with output parameter storage group 5 functions in use can be divided into normal use, pre-storage to use both cases, normal use, Refer to the following steps:

- (1). Open the power switch, set the voltage, press the VOL voltage adjust selection key, shows the digital voltage regulator tube is selected, the selected digital tube status in the flickering, spinning move ADJUST switch, variable voltage value of the size, again press the VOL voltage adjust selection keys can be selected to change the location of digital tube;
- (2). Current settings, press VUR current adjust selection key, shows the digital tube current regulation is selected, the selected digital tube status in the flickering, spinning move ADJUST switch, set the current value of variable size, once again press the adjust VUR select key, adjust voltage selection button, the selected digital tube location;
- (3). Achieve the voltage and current settings, the time did not press the power button output shutdown, power is turned off, no output, press the OUTPUT key to turn off the output after the status instruction constant (CV), the output status (OUT) of the lantern was lit, power normal work; see FIG.3:





- (4). Over-current close settings, press the SHIFT key, panel indicator led M1  $\sim$  M5 are lighted, then press the OUTPUT key ,at this point the power supply run in the over-current close mode . When the overload OCP led is lighted and cut off the output voltage.
- (5). Panel button lock, at the normal output apparatus can use the feature, which is mainly in order to avoid the load when connected to adjust the output voltage to the harmful effects of the load, The use of panel keypad lock is on, press the keyboard key lock (LOCK) 2 second or more, digital display "-Loc", said keyboard panel has been locked, the keyboard is locked, the Operation panel is displayed when "-Loc" prompt, all keys are not working, unlock long again by the button, you can return to normal status, see FIG.4:

  Default storage can store a maximum of 5 group output parameter default value to M1 as an example by doing the Following:
- (1). Storage operation, first set the preset voltage, current, specific settings can be when used with reference to the normal voltage and current settings methods, voltage and current settings End After, After Press the second function enable key (SHIFT) on the panel, M1 ~ M5LED all lighted, the show voltage and current values are to be stored, see FIG.5 and see FIG.6;



V C.V OVP

MM2 MM3 MM4 MM5 OUT

A C.C C.C

OCP

FIG.5

Storage status

FIG.6 After storage

- status
- (2). Press the corresponding memory key output parameters, storage time of M1, M1 pressing keys corresponding to the M1 light-emitting diode light, see FIG.6
- (3). Other in each group stored in the default method and the same M1;

(4). Out has been stored at the default, press the M1 key to display the stored voltage, current, and then press the shutdown button OUTPUT, can be stored in the output voltage, Current, see FIG.7



FIG.7

Memory output

### 4. ATTENTION

- 4.1 The power supply features over-current protection with sound, when the output short circuit, the circuit protection will be activated only when a short circuit when troubleshooting to restore output.
- 4.2 Maintenance of power supply, the input power must be disconnected by repair professionals
- 4.3 Machine after use, please be ventilated dry place, not long-term, should unplug the power plug
- 4.4 Belong to high-power instrument of the power supply, at full capacity, therefore they should pay attention to the use of ventilation and cooling power, and power radiator shell and a higher temperature, please note that hand-to-avoid
- 4.5 Three core power cord the protective earthing grounding terminal must be reliable to ensure that the use of safety
- 4.6 When the power to place too much time re-use, pre-election power 15 20 minutes and be stable before equipment put into use

## 5. MAINTENANCE

The apparatus should be used under normal working conditions, are not allowed in the sunlight exposure, a strong vibration and occasions with the use of corrosive gases.

#### 5.1 Fuse replacement

If the fuse burned, the equipment will not be able to work. Fuse will not open normally, unless the failure of circuits. Please check before replacing fuses may cause burning fuse circuit, and then replace the fuse. Fuse replacement, please use the original specifications in line with the fuse

#### 5.2 Cleaning

When cleaning the instrument, use neutral detergent Baptist has a soft cloth and water. Do not spray detergent on the surface of the apparatus, there is probably because of detergent into the internal chassis damage. Do not use with gasoline, benzene, toluene, xylene, acetone and other chemical substances or similar solvent. Do not use abrasive cleaning products such as the apparatus

# 6. ACCESSORIES

Product use instructions 1
Power cord 1
Output Line: 1
Product certification 1

Matching: USB Interface, Communication Software