

Precautions before use

1. The equipment must work under safe operating conditions;
2. Please first understand the relevant contents of the user manual before turning on the power;
3. Any operation that violates the safety requirements of this manual is strictly prohibited.

Version format:2.2

| | |
|---|-----------|
| Chapter 1 Product Installation, Wiring | 1 |
| Summary of this chapter: | 1 |
| 1.1 Input Wiring | 2 |
| 1.2 Output Wiring | 3 |
| 1.3 Wire Diameter Requirement | 4 |
| 1.4 Connect Power | 5 |
| 1.5 Initial Power-On | 5 |
| Chapter 2 Panel Description | 6 |
| 2.1 Front Panel Description | 6 |
| 2.1.1 Liquid Crystal Screen | 7 |
| 2.1.2 Key Press Function | 8 |
| 2.2 Rear Panel Description | 10 |
| Chapter 3 Setup Menu Description | 11 |
| 3.1 Setup Menu Description | 11 |
| 3.1.1 Function Setting | 11 |
| 3.1.2 System Setting | 12 |
| Chapter 4 Programming Menu | 14 |
| 4.1 Programming Menu Settings | 14 |
| 4.1.1 Step Setting | 14 |
| 4.2.1 Ladder Setting | 16 |
| 4.3.1 Gradient Setting | 18 |

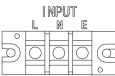
Chapter 1 Product Installation, Wiring

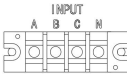
Summary of this chapter:

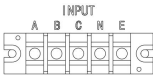
- 1、 The AC power supply will generate heat when it is working, and the PC Power supply unit should be placed in a well-ventilated environment, and avoid places with large heat, high humidity and dust.
- 2、 The left and right side of the AC power supply and the back should have good ventilation conditions, and avoid overlap with other products placed, and the distance between the back side of the PC Power supply unit and other objects should not be less than 300mm.
- 3、 When the AC power supply is working, it will produce a magnetic field that affects the surrounding environment. In order to avoid the influence, please install the equipment sensitive to the influence of the magnetic field in the unaffected location.
- 4、 Check whether the phase voltage and line voltage are consistent with the marking on the wiring terminal.
- 5、 Ensure that the input power switch is OFF(Closed).
- 6、 According to the rated power of the product, select the wire that meets the requirements and connect the input terminal of the product to the correct position, and carefully check to ensure that the connection is correct.
- 7、 In order to use safety, the selection of the output wire connected to the load must consider its safety current to prevent fire caused by overheating combustion caused by short circuit of the load. At the same time, the use of wire diameter larger wire, can get a better adjustment rate on the load, so in the selection of wire diameter, please according to the rated power of the product, select the wire that meets the requirements to make the correct connection between the output of this product and the load. Please refer to the wire diameter current meter for the cross-sectional area of the wire to select the copper material wire. Should use short output line as far as possible, too long output line will reduce the output performance of the PC Power supply unit due to voltage drop, if the distance between the PC Power supply unit and the load exceeds 3 meters, the cross-sectional area of the wire should be multiplied.

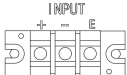
In practical applications, the contact resistance of the output terminal of the PC Power supply unit, the cross-sectional area of the wire, the material and the length are all factors that affect the output characteristics of the PC Power supply unit.
- 8、 If there are multistage loads connected to the same PC Power supply unit at the same time, the load per level you need to use a set of independent cables, respectively connected to the output of the PC Power supply unit.
- 9、 This series of AC current power supply is a constant voltage mode of AC power supply, in normal use, the user can according to the relationship between the set voltage and the load value, choose the AC power supply for the working constant voltage mode.
- 10、 This series of AC power supply can be used normally as long as the power switch is turned on, but in order to ensure that the product can get better performance, it is recommended to start the machine and preheat for 15 minutes before starting the load for use.

1.1 Input Wiring




The INPUT wiring terminal is labeled INPUT  ,Single-phase two-wire + ground wire (L stands for live line, N stands for neutral line, E/PE stands for ground line), input voltage AC220V, input frequency 50Hz/60Hz.Note: Sockets or terminals with ground wires must be connected!

The INPUT wiring terminal is labeled INPUT  ,Three-phase three-wire + ground wire (A, B, C represents the live wire, E/PE represents the ground wire), input voltage AC380V, input frequency 50Hz/60Hz.Note: Sockets or terminals with ground wires must be connected!

The INPUT wiring terminal is labeled INPUT  ,Three-phase four-wire + ground wire (A, B, C represents live wire, N represents neutral wire, E/PE represents ground wire), input voltage AC380V, input frequency 50Hz/60Hz.Note: Sockets or terminals with ground wires must be connected!

The INPUT wiring terminal is labeled INPUT  ,DC input (+ represents the positive electrode, - represents the negative electrode, E/PE represents the ground wire), input parameters can be selected as required.Note: Sockets or terminals with ground wires must be connected!

Physical Diagram Of The Wiring Terminal

| Identification | Terminal | Fence Type Wiring Terminals |
|---|----------|---|
| Single-phase two-wire + ground wire L、N、E\PE (DC input +、-、E\PE) | |  |
| Three-phase three-wire + ground wire A、B、C、E\PE | |  |
| Three-phase four-wire + ground wire A、B、C、N、E\PE | |  |



Be sure to connect the input PE/E wire.Otherwise, the power supply housing may be charged and electric shock may occur, or the power supply may work abnormally due to excessive interference.



Input single-phase models, please be sure to follow the mark L,N, E, be sure not to mistakenly connect the live wire to the E\PE line,otherwise it will directly lead to the power supply burning and cause power safety accidents.









The input three-phase model must be connected to the N line and A.B.C according to the sign, and must not mistakenly connect the live line to the E\PE line, otherwise it will directly lead to the power supply burning and cause power safety accidents.




1.2 Output Wiring

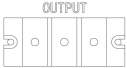
The AC power supply adopts three-phase three-wire + ground wire (ABC+E/PE) or three-phase four-wire + ground wire (ABCN+E/PE).

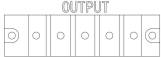
Note: The specific mark on the machine shall prevail!

Physical Diagram Of The Wiring Terminal


| Terminal Identification | Plug And Pull Wiring Terminals | Terminal Identification | Fence Type Wiring Terminals |
|--|--|---|--|
| Single-phase two-wire + ground wire L、N、E\PE |  | Single-phase two-wire + ground wire L、N、E\PE (DC input +、-、E\PE) |  |
| Three-phase three-wire + ground wire A、B、C、E\PE |  | Three-phase three-wire + ground wire A、B、C、E\PE |  |
| Three-phase four-wire + ground wire A、B、C、N、E\PE |  | Three-phase four-wire + ground wire A、B、C、N、E\PE |  |

| | |
|---|--|
|  | Be sure to connect the input PE/E wire. Otherwise, the power supply housing may be charged and electric shock may occur, or the power supply may work abnormally due to excessive interference. |
|  | Input single-phase models, please be sure to follow the mark L,N, E, be sure not to mistakenly connect the live wire to the E\PE line, otherwise it will directly lead to the power supply burning and cause power safety accidents. |
|  | The input three-phase model must be connected to the N line and A.B.C according to the sign, and must not mistakenly connect the live line to the E\PE line, otherwise it will directly lead to the power supply burning and cause power safety accidents. |

The OUTPUT wiring terminal is labeled OUTPUT  ,Single-phase two-wire + ground wire (L stands for live line, N stands for neutral line, E/PE stands for ground line). Note: Sockets or terminals with ground wires must be connected!

The OUTPUT wiring terminal is labeled OUTPUT  ,Three-phase four-wire + ground wire (A, B, C represents live wire, N represents neutral wire, E/PE represents ground wire). Note: Sockets or terminals with ground wires must be connected!

The OUTPUT wiring terminal is labeled OUTPUT  ,L stands for live line, N stands for neutral line.

The OUTPUT wiring terminal is labeled OUTPUT  ,+ represents the positive terminal, - represents the negative terminal (high voltage power supplies generally use this terminal port).

1.3 Wire Diameter Requirement

The wire diameter of the input and output connection should not be smaller than the data in Table 2-1.

When using the AC power supply, pay special attention to the diameter of the input and output wires to prevent overheating caused by too much current, and cause accidents. The following table shows the wire and current specification table 2-1 for the wire at different temperatures



注意

Do not use too thin wire, so as not to overheat the connecting wire and cause danger.

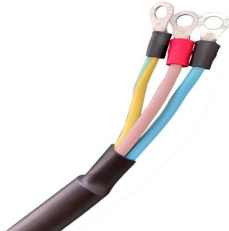
| AWG NO | Line Diameter (Approximate Value) | Copper Wire Temperature | | | |
|--------|--------------------------------------|-------------------------|------|------|------|
| | | 60°C | 75°C | 85°C | 90°C |
| | | Current (A) | | | |
| 14 | 2mm ² | 20 | 20 | 25 | 25 |
| 12 | 3.5mm ² | 25 | 25 | 30 | 30 |
| 10 | 5.5mm ² | 30 | 35 | 40 | 40 |
| 8 | 8mm ² | 40 | 50 | 55 | 55 |
| 6 | 14mm ² | 55 | 65 | 70 | 75 |
| 4 | 22mm ² | 70 | 85 | 95 | 95 |
| 3 | 30mm ² | 85 | 100 | 110 | 110 |
| 2 | 38mm ² | 95 | 115 | 125 | 130 |
| 1 | 50mm ² | 110 | 130 | 145 | 150 |
| 0 | 60mm ² | 125 | 150 | 165 | 170 |
| 00 | 70mm ² | 145 | 175 | 190 | 195 |
| 000 | 80mm ² | 165 | 200 | 215 | 225 |
| 0000 | 100mm ² | 195 | 230 | 250 | 260 |

The impedance of the wire is proportional to its length and inversely proportional to its diameter, and directly affects the output characteristics of the AC power supply. So generally the voltage measured on the output terminal is not used for the voltage on the load, in general, this potential difference must not be greater than 0.5V.

Remark: when the potential difference is greater than 0.5V, the wire diameter can be thickened by 1 times or 2 times or even 3 times.

1.4 Connect Power

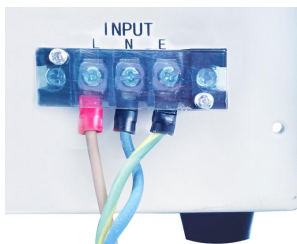
① Prepare a make good wires



② Use a Phillips screwdriver to loosen the screws on the connector, fix the electric wire to the corresponding wiring hole with the screw, and finally tighten the screw; (Note: The red line is the live line, the blue line is the neutral line, and the flower line is the ground line)




③ Secure the transparent cover, and tighten the screws.



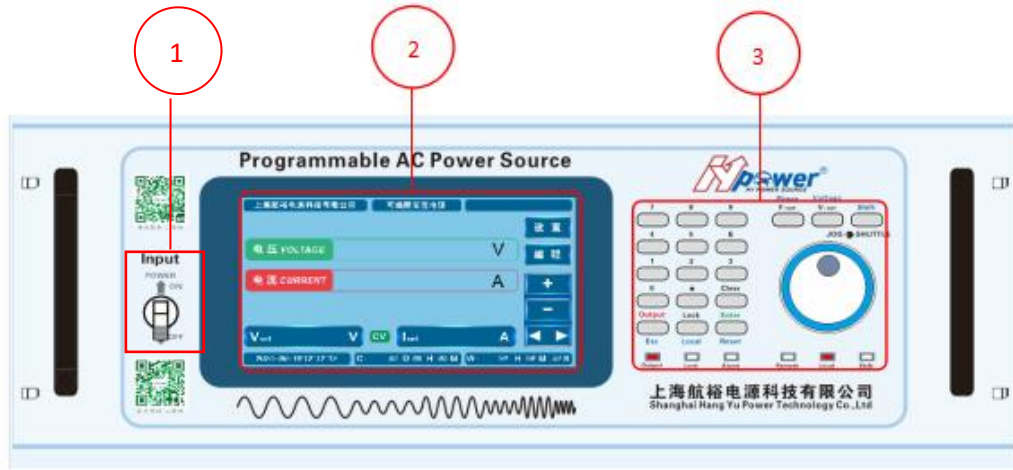
1.5 Initial Power-On

- 1、 Check whether the phase voltage and line voltage are consistent with the marking on the wiring terminal;
- 2、 Turn on the panel "POWER" power switch;
- 3、 Put the load in the off state and set the current and frequency to the desired value;
- 4、 After pressing OUTPUT to start the power supply, the product is in the voltage output working state. Use a multimeter to measure whether the output voltage is consistent with the voltage displayed on the panel.
- 5、 Turn off the panel "POWER" power switch.

| | |
|---|---|
|  禁止 | After disconnecting the power supply, do not touch the input and load end immediately to avoid electric shock in the discharge process (Let sit for 10-15 minutes); |
| | When the power supply output voltage, do not connect the load. |

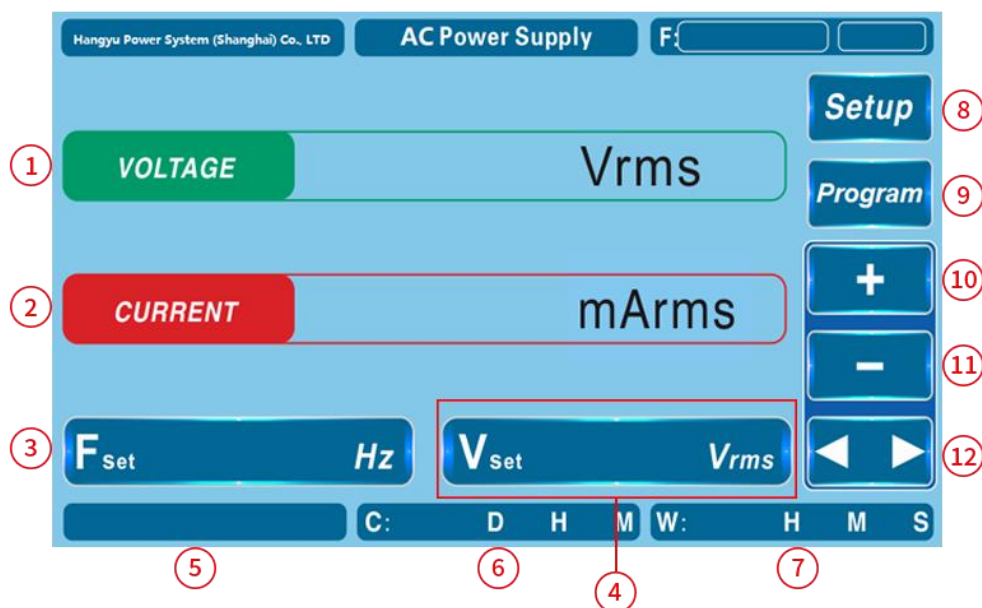
Chapter 2 Panel Description

2.1 Front Panel Description



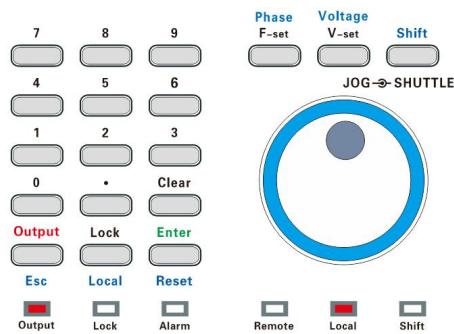
- 1、Power input circuit breaker;
- 2、7-inch LCD display touch screen, numerical display, setting window: frequency and voltage setting and measurement, function setting, etc. (please see chapter 2.1.1 Liquid Crystal Screen, 3 Settings, 4 Programming introduction);
- 3、Key press function area: key, knobs and indicators (see Chapter 2.1.2 Key Press Function introduction);

2.1.1 Liquid Crystal Screen



- 1、 Voltage measurement value display;
- 2、 Current measurement value display;
- 3、 Frequency setting value: press F-set, when the number turns red, the number key input parameter, Enter confirm, output run;
- 4、 Voltage setting value: press V-set, when the number turns red, the number key input parameter, Enter confirm, output run;
- 5、 Current time display window;
- 6、 Accumulate working time display window;
- 7、 After pressing OUTPUT, the current working time is timed.After stopping the output, the time record value is kept.After pressing Output again, the timing is restarted.
- 8、 Set menu button, enter the function Settings, system parameter Settings page(See Chapter 3 for an introduction);
- 9、 Programming button, used to set parameters during programming(See Chapter 4 for an introduction);
- 10、 When the voltage and current are edited, it can be increases quickly. For example, when the voltage is 2V, press "+" to rise to 3, 4, 5.....;
- 11、 When the voltage and current are edited, it can be reduced quickly. If the voltage is 10V, press "-" to drop to 9, 8, 7.....;
- 12、 When entering a value, you can shift it left and right to select the number you want to modify.

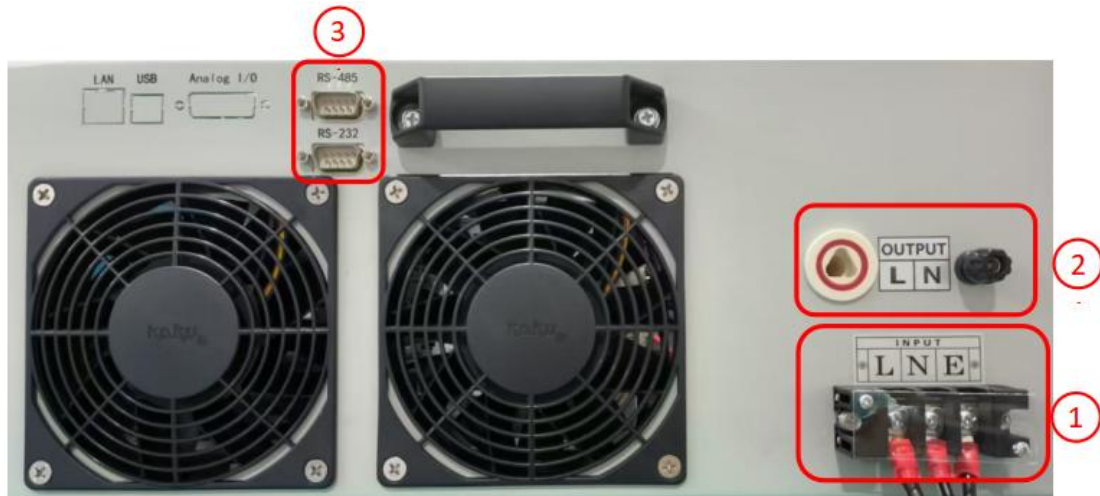
2.1.2 Key Press Function



| Name Of The Key Or Indicator light | Description | |
|------------------------------------|---|---|
| 0--9 | Numeric key | Used to input the set voltage and frequency parameters. |
| F-set | Frequency setting key | Press this key, the color of the frequency setting value becomes red, Enter the required parameter value after entering the frequency setting state, and then press Enter to confirm. |
| V-set | Voltage setting key | Press this key, the color of the voltage setting value becomes red, Enter the required parameter value after entering the voltage setting state, and then press Enter to confirm. |
| Clear | Clear key | Press this key to clear the value under the current setting. |
| Enter | Confirm key | Parameters used to confirm voltage and frequency setpoints. |
| Output | Start and stop keys | Used to start or stop the output, after starting the output indicator light will be lit, and then off after closing. |
| Lock | Keyboard lock key | It is used to Lock the keyboard and prevent misoperation. After the keyboard is locked, the LOCK key indicator light will be lit and then extinguished after it is closed. When the communication with the upper computer is completed, the Lock key indicator will automatically light up, and the keyboard lock will open. If you want to manually operate the panel, you need to press the Lock key, the Lock indicator will be off, and the keyboard lock will be closed, and you can manually operate the panel after unlocking. |
| Shift+Reset (Alarm) | Reset key | When the machine has an alarm for some reason, the Alarm indicator lights up at the same time, press Shift + Reset (Alarm) can restart the program, the Alarm indicator light is extinguished. |
| Shift+ Local | Switch key between local and remote operation | When you need to switch to the host computer operation, press the Shift+ Local key to switch. |
| Shift+Esc | Exit key | When you need to exit the setting parameters, press Shift+Esc to exit. |

| | | |
|------------------------|-----------------|---|
| Jog-Shuttle | Multistage knob | Frequency and voltage fine-tuning knob, the inner ring adjust each action to add or subtract 0.01 words, the outer ring encoder in different positions to indicate different addition or subtraction. |
| Shift indicator light | | Compound key, used when specific function |
| Local indicator light | | This machine operation indicator light |
| Remote indicator light | | Upper computer operation indicator light |
| Alarm indicator light | | Fault alarm |
| Lock indicator light | | Keyboard lock |
| Output indicator light | | Start-Stop switch |

2.2 Rear Panel Description



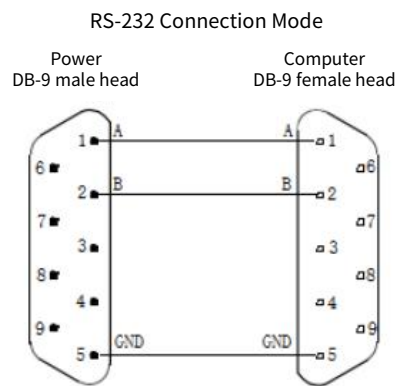
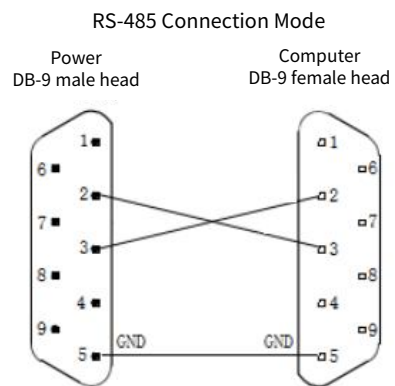
- 1、 INPUT:Input terminal,(L stands for live line, N stands for neutral line, E stands for ground line).Note: Must connect the socket with ground wire!;
- 2、 OUTPUT:Output terminal,(L stands for live line, N stands for neutral line);
- 3、 Communication interface:



RS-485/232communication interface:

RS-485:Interface definition (1:A 2:B 5:GND) Through connection mode;

RS-232:Interface definition (2:RXD 3:TXD 5:GND) Cross connection mode;



Chapter 3 Setup Menu Description

3.1 Setup Menu Description

Setup

Press this button to enter the setting screen

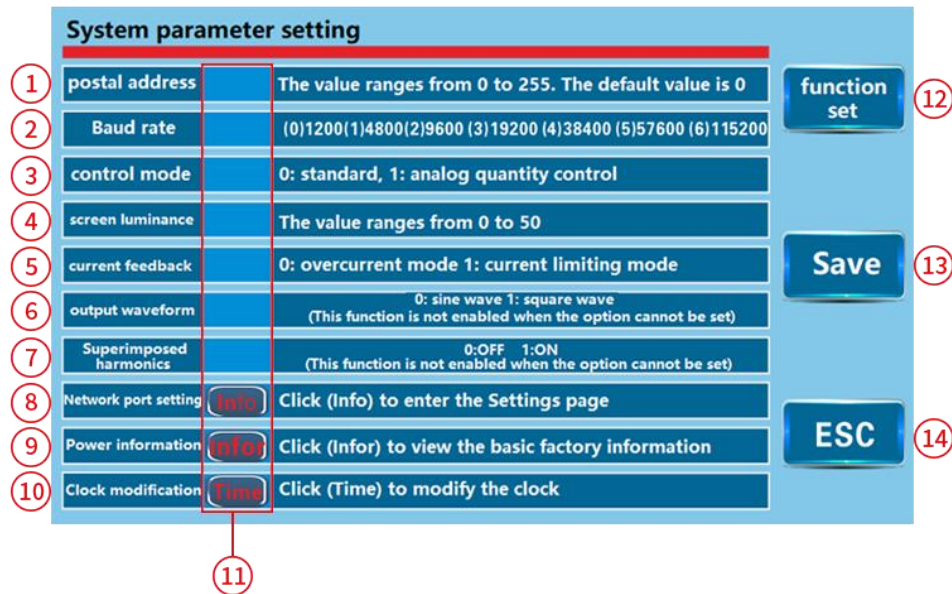
3.1.1 Function Setting

| Output function setting | | | |
|-------------------------|---------------------------------|-------|--|
| 1 | The output voltage rises slowly | | Setting range: 0~999.9 (0 indicates off) |
| 2 | The output voltage drops slowly | | Setting range: 0~999.9 (0 indicates off) |
| 3 | Low voltage limit | V | Setting range: 0~99% |
| 4 | High voltage limit | V | Setting range: 10%~ maximum rating |
| 5 | Low frequency limit | Hz | Setting range: Minimum ~90% |
| 6 | High frequency limit | Hz | Setting range: 10%~ maximum rating |
| 7 | Output current setting | mA | |
| 8 | Automatic output after power-on | | |
| 9 | Voltage gear setting | | 0: Automatic 1: low 2: high |
| 10 | Output start-stop phase | Start | Close 0 ~ 359.9° Resolution 0.1° |

Buttons: system setup, Save, ESC

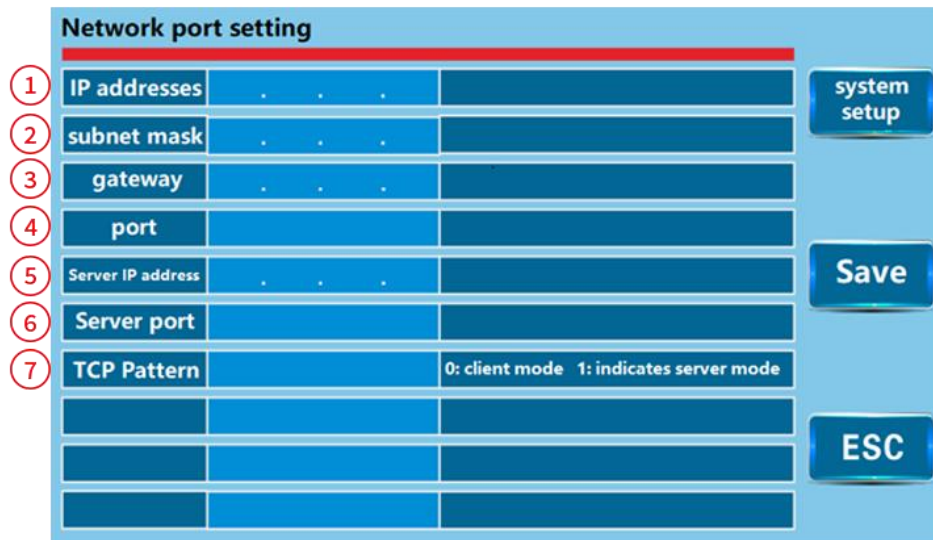
- 1、 Output voltage slow rise setting (press "out" to start the voltage slowly rise to the set value)
- 2、 Output voltage slow drop setting (after pressing "out" to start, set voltage +enter to slowly drop to the minimum value)
- 3、 Voltage of low-end limit(Limit the low-end voltage setting range)
- 4、 Voltage of high-end limit(Limit the high-end voltage setting range)
- 5、 Frequency of low-end limit(Limit the low-end frequency setting range)
- 6、 Frequency of high-end limit(Limit the high-end frequency setting range)
- 7、 Output current setting (Protection threshold setting)
- 8、 Power-on self-start setting (After the function is enabled, automatic output voltage after starting, after setting automatic output, please pay attention to high voltage danger!)
- 9、 Voltage gear setting(Select configuration function)
- 10、 Output start phase setting(Select configuration function)

3.1.2 System Setting



- 1、Postal address(Can be set in the range of 0-255, use this function when multiple power supplies communicate)
- 2、Baud Rate(Multiple baud rates can be selected, applied when communicating with the host computer)
- 3、Control mode(Select configuration function)
- 4、Control mode(Adjustable LCD screen brightness, adjustment range 0-50)
- 5、Current feedback(This feature is not available)
- 6、Output waveform(This feature is not available)
- 7、Superimposed harmonics(This feature is not available)
- 8、Network port setting(This feature is not available)
- 9、Power information(Called when the manufacturer repairs)
- 10、Clock modification(When the LCD clock display error, by clicking here can modify the clock)
- 11、Parameter setting area of the corresponding item
- 12、Switch to the function Settings
- 13、Save Settings
- 14、Exit current page

3.1.2.1 Network Port Setting(Selective configuration)

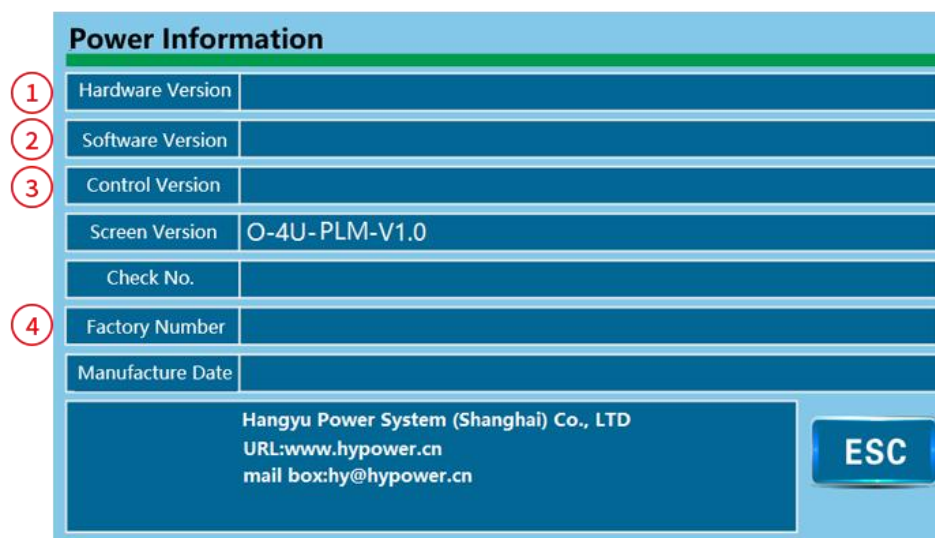


The screenshot shows a 'Network port setting' window. It contains several input fields for network configuration, each preceded by a red circled number from 1 to 7. The fields are: IP addresses, subnet mask, gateway, port, Server IP address, Server port, and TCP Pattern. The TCP Pattern field has a note: '0: client mode 1: indicates server mode'. On the right side of the window, there are three buttons: 'system setup', 'Save', and 'ESC'.

| Network port setting | | |
|----------------------|-------------------|---|
| 1 | IP addresses | . . . |
| 2 | subnet mask | . . . |
| 3 | gateway | . . . |
| 4 | port | |
| 5 | Server IP address | . . . |
| 6 | Server port | |
| 7 | TCP Pattern | 0: client mode 1: indicates server mode |
| | | |
| | | |
| | | |

- 1、 IP address settings value (for example, 192.168.0.9);
- 2、 Subnet mask settings value: general setting 255.255.255.0;
- 3、 Gateway Settings value: the network segment and IP address should be consistent (e.g. 192.168.0.1);
- 4、 Port setting value;
- 5、 Server IP address Settings value: The network segment should be the same as the IP address (e.g., 192.168.0.5).
- 6、 Server port Settings value;
- 7、 TCP mode Settings: 1 In server mode, you only need to set the IP address and port.

3.1.2.2 Power information (Check factory Settings)



The screenshot shows a 'Power Information' window. It contains several input fields for power-related information, each preceded by a red circled number from 1 to 4. The fields are: Hardware Version, Software Version, Control Version, and Factory Number. The 'Screen Version' field is pre-filled with 'O-4U-PLM-V1.0'. The 'Check No.' and 'Manufacture Date' fields are empty. At the bottom, there is a text box containing the company name 'Hangyu Power System (Shanghai) Co., LTD', the URL 'URL:www.hypower.cn', and the email 'mail box:hy@hypower.cn'. On the right side of the window, there is an 'ESC' button.

| Power Information | |
|-------------------|------------------------------|
| 1 | Hardware Version |
| 2 | Software Version |
| 3 | Control Version |
| | Screen Version O-4U-PLM-V1.0 |
| | Check No. |
| 4 | Factory Number |
| | Manufacture Date |

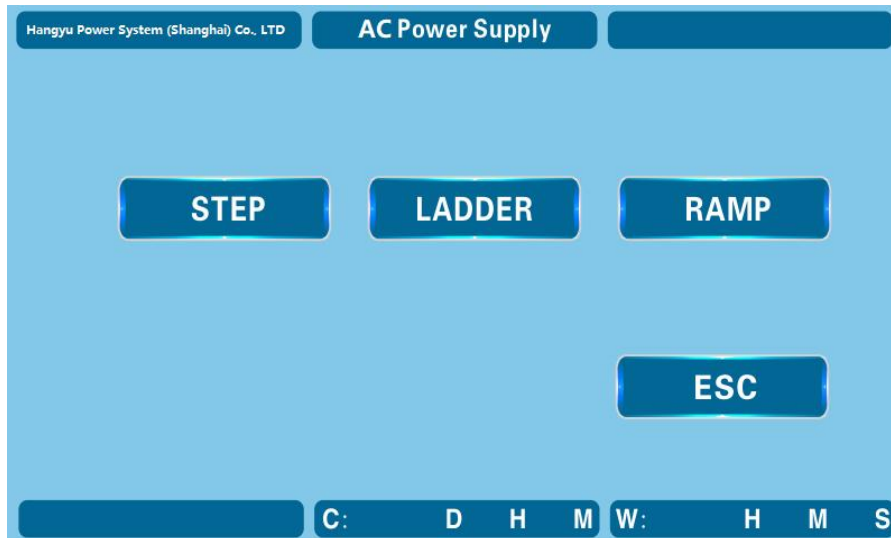
Hangyu Power System (Shanghai) Co., LTD
URL:www.hypower.cn
mail box:hy@hypower.cn

- 1、 Hardware Version:The model of the motherboard used
- 2、 Software Version:The version of the software used
- 3、 Control Version:The version of the control software
- 4、 Factory Number:The number when it leaves the factory

Chapter 4 Programming Menu

4.1 Programming Menu Settings

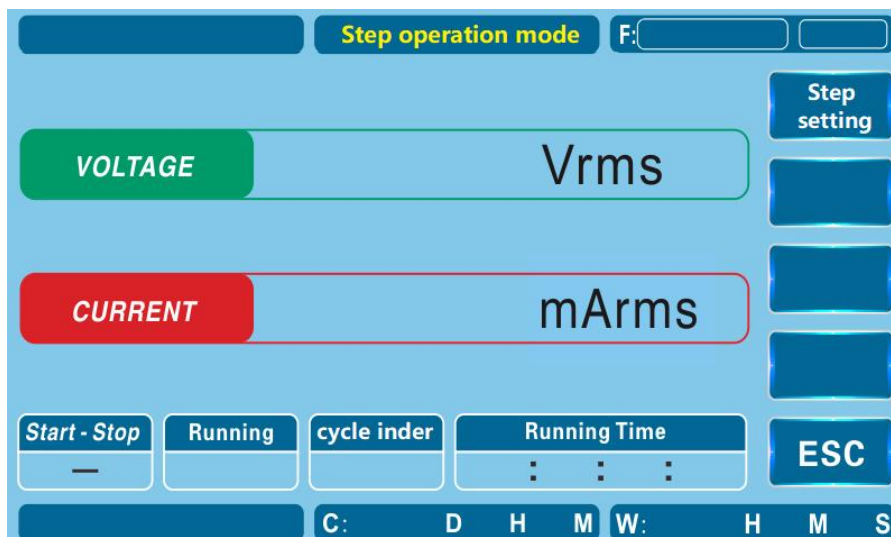
Program Press this key to enter the programming interface



4.1.1 Step Setting

4.1.1.1 Step running mode

If the step has been set, directly press the output key to start running the step. After "step" finishes running, the machine will stop output. If you need to run the "step" before again, press the Output key again to run again.



- 1、Start-Stop: The step range of this programming run is displayed
- 2、Running: The running step number is displayed
- 3、Cycle Index: The number of times the loop runs is displayed
- 4、Running Time: Each step running time display

4.1.1.2 Step setting interface



Press this key to enter the step setting interface(Three-phase independent adjustable and three-phase standard setting method is consistent, no longer introduced)

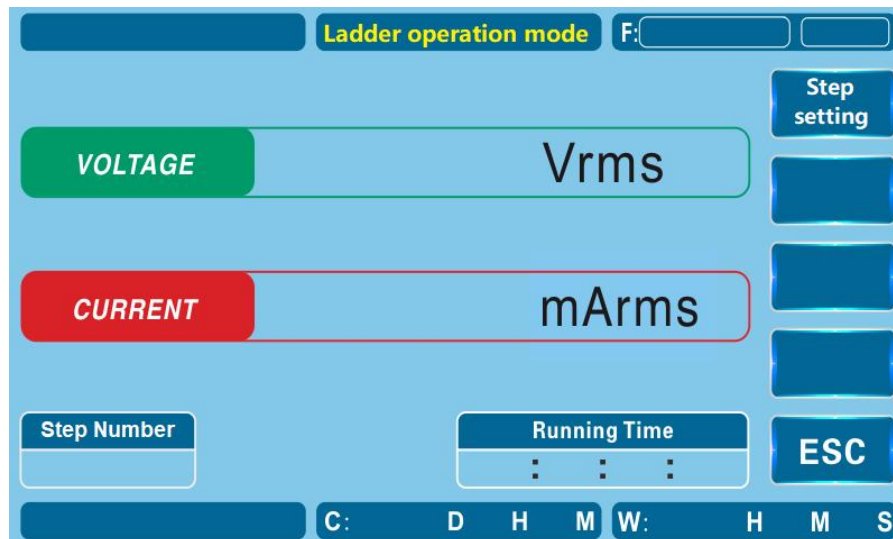
| Hangyu Power System (Shanghai) Co., LTD | | | | Step Setting Mode | |
|---|----------------|-------------|---------------------|-------------------|-------------|
| No. | frequency (Hz) | voltage (V) | run time (h:m:s:ms) | Initial step | |
| | | | : : : | | |
| | | | : : : | | End step |
| | | | : : : | | |
| | | | : : : | | Cycle index |
| | | | : : : | | |
| | | | : : : | | Save |
| | | | : : : | | ESC |
| | | | : : : | | Back |
| | | | : : : | | Next |

- 1、No. :The step number of the machine can be set 0-95 steps;
- 2、Frequency:Within the scope of the frequency of the machine set this value;
- 3、Voltage:Within the scope of the voltage of the machine set this value;
- 4、Running Time:The maximum running time of each step can be set to 999H(hour) 59min (minute) 59.99S (second) 999ms (millisecond);
- 5、Initial step:Set the starting step number to be tested, and set the range from 0 to 95 steps;
- 6、End Step:Set the step number of the end of the test, and set the range of 0-95 steps;
- 7、Cycle Index:Set the number of times needed to run from the start step number to the end step number, the maximum can be set 999 times (0 represents infinity);
- 8、Save:After the parameters are filled in, you need to press this key to run the saved parameters(It takes a few seconds to return to the step running interface);
- 9、ESC:When you do not need to save parameters, exit directly to the step running interface;
- 10、Back:Turn to the previous page in this interface;
- 11、Next:Turn to the next page in this interface;

4.2.1 Ladder Setting

4.2.1.1 Ladder running mode

If the ladder has been set, directly press the output key to start running. After completing the run, the machine will stop output. If you need to run the "ladder" before again, press the Output key again to run again.

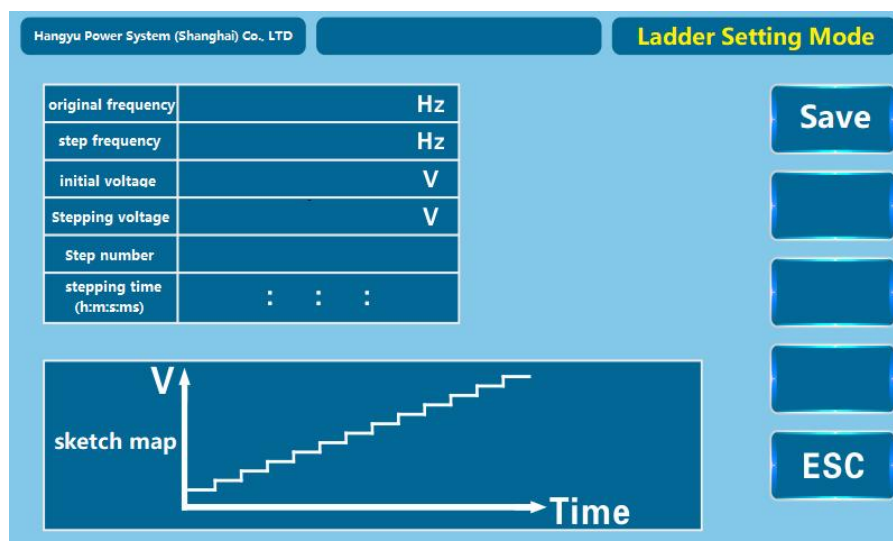


- 1、 Step Number: Shows the number of steps for this time programming run
- 2、 Cycles: Cycle number display
- 3、 Service time: Run time display

4.2.1.2 Ladder setting interface

Ladder Setting

Press this key to enter the ladder setting interface

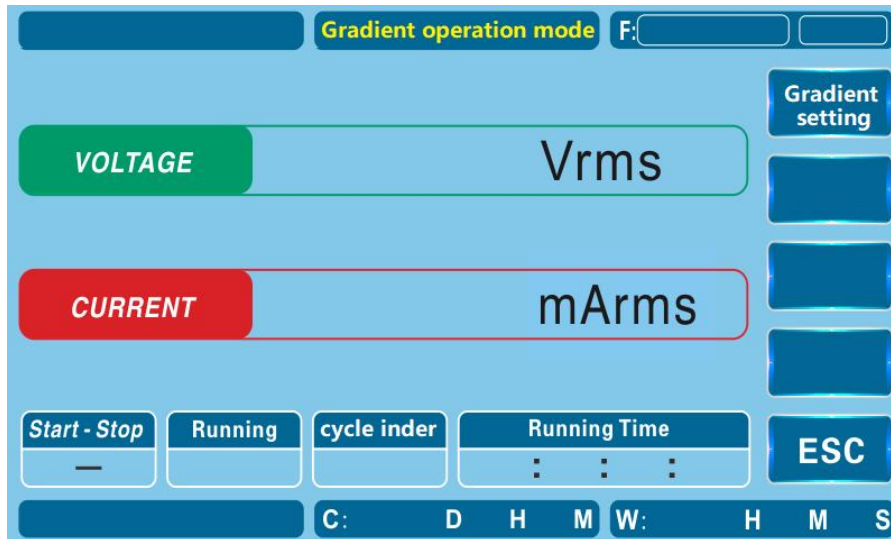


- 1、 Fill in the correct initial current frequency, step current frequency, step number, step time, cycle number according to the needs of your own test product;
- 2、 Initial voltage: Select the initial voltage and set the range to 0 - Maximum output value of the power supply;
- 3、 Stepping voltage: Fill in the voltage value according to your own needs;
- 4、 Step number: Fill in the number of steps according to your own needs;
- 5、 Stepping time: The number of time intervals per ladder;
- 6、 Cycle: (0 represents infinity) It can cycle a maximum of 999 times;
- 7、 Save: After the parameters are filled in, you need to press this key to run the saved parameters(It takes a few seconds to return to the ladder running interface);
- 8、 ESC: When you do not need to save parameters, exit directly to the ladder running interface.

4.3.1 Gradient Setting

4.3.1.1 Gradient running mode

If the gradient has been set, directly press the output key to start running. After completing the run, the machine will stop output. If you need to run the "gradient" before again, press the Output key to run again.

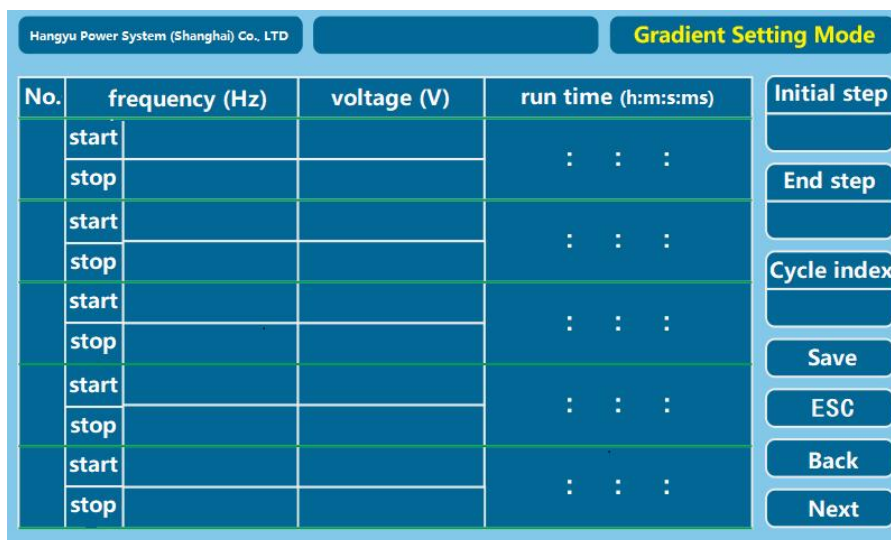


- 1、Start-Stop: The step range of this programming run is displayed
- 2、Running: The running step number is displayed
- 3、Cycle Index: The number of times the loop runs is displayed
- 4、Running Time: Each step running time display

4.3.1.2 Gradient setting interface



Press this key to enter the gradient setting interface



- 1、 Fill in the correct frequency,voltage and running time parameters according to the needs of your own test products;
- 2、 No.: The maximum step number of the machine is set 0-95 steps;
- 3、 Frequency: Set the frequency value of this step number in the frequency range of the machine;
- 4、 Voltage: Set the voltage value of this step number in the voltage range of the machine, the value from large to small or from small to large can be;
- 5、 Run time:The maximum running time of each step can be set to 999H(hour) 59min (minute) 59.99S (second) 999ms (millisecond);
- 6、 Initial Step:Set the starting step number to be tested, and set the range from 0 to 95 steps;
- 7、 End Step:Set the step number of the end of the test, and set the range of 0-95 steps;
- 8、 Cycle index:Set the number of times needed to run from the start step number to the end step number, the maximum can be set 999 times (0 represents infinity);
- 9、 Save: After the parameters are filled in, you need to press this key to run the saved parameters(It takes a few seconds to return to the gradient running interface);
- 10、 ESC:When you do not need to save parameters, exit directly to the gradient running interface;
- 11、 Back:Turn to the previous page in this interface;
- 12、 Next:Turn to the next page in this interface.