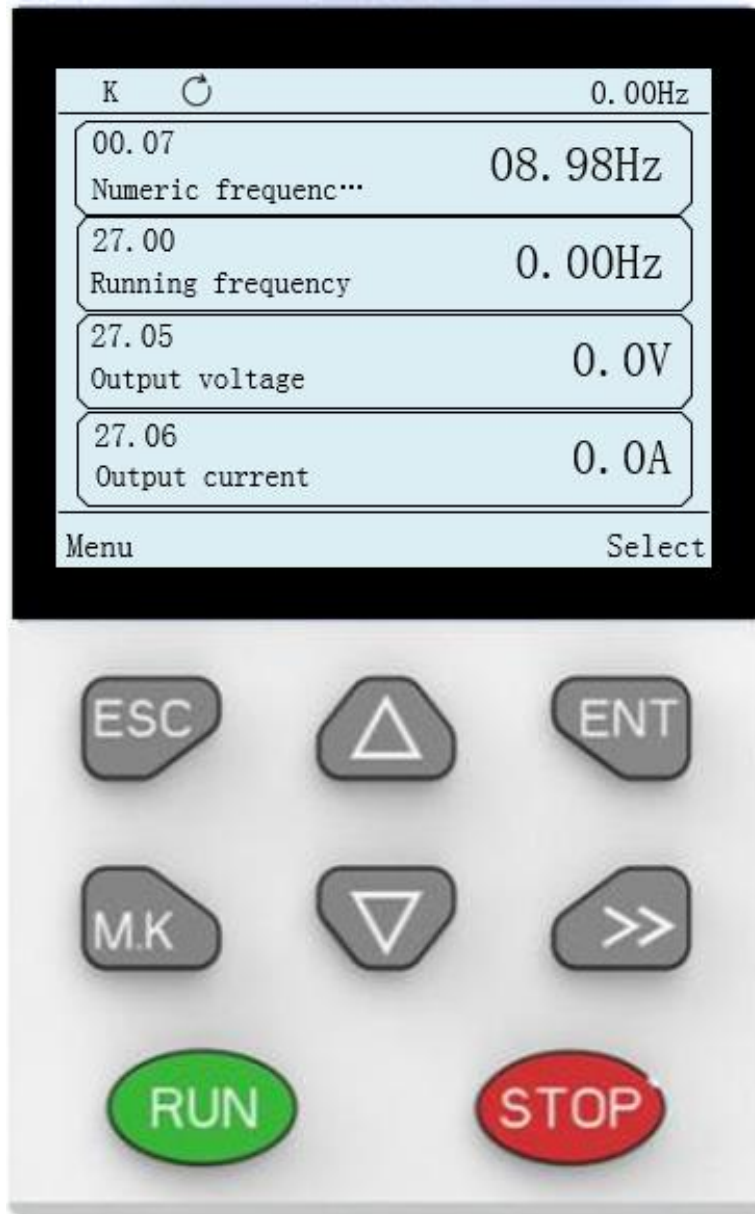


VEIKONG Smart Operator User Manual



Contents

1.Product introduction	3
2.Menu interface	4
2.1.Status bar description.....	4
2.2.Icon description.....	5
3.Parameter list	5
4.Setup interface.....	8
5. Device information.....	9
6. Fault information.....	9
7. Parameter macro	10
7.1. Custom parameter macro	11
7.1.1. Edit parameter macro.....	11
7.1.2. Download parameter macro	12
7.1.3. Delete parameter macro	13
7.2. Parameter copy and download	13
7.2.1. Parameter view.....	14
7.2.2. parameter deletion.....	14
8. Monitoring interface.....	15
9. Quick search.....	16
10. technical parameter	17
Display	17
Size and weight.....	18
Protection level.....	18
environment condition.....	18

Matters needing attention

- ◆ Do not install this product in places where water splashes or in environments prone to corrosion.
- ◆ Do not use this product near flammable gases or combustibles, otherwise there will be a risk of fire.
- ◆ Do not exert too much impact, otherwise it may lead to product failure.

1.Product introduction

The LCD keyboard is composed of one LCD screen and eight keys. It can be used to set parameters, copy parameters, monitor status and view faults. The keyboard shape is shown in Figure 1-1.

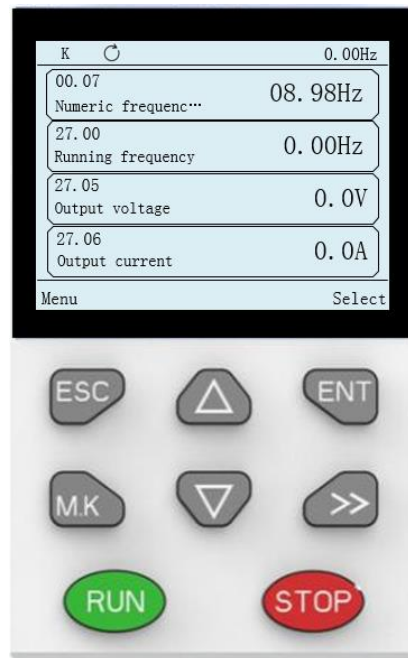




Figure 1-1 outline of LCD keyboard

The functions of each key are described in the following table:

Table 1-1 Key Function Description Table

Key	Name	function
	Return key	Usually used to withdraw or cancel. And features in specific scenarios.
	Entry key	Used for selection or confirmation.
	Upper key	Used to move the cursor up or increase the value.
	Lower key	Used for cursor down or value reduction.
	Function key	This key integrates many functions. Switch to the corresponding function by changing the "MK Key Function Selection" option in the Settings menu.
	Right click	Used to move the cursor to the right or enter the quick search function in the parameter list interface.

Key	Name	function
	Run	Make the motor run.
	Stop	To stop the motor or reset the motor for failure.

2.Menu interface

2.1.Status bar description

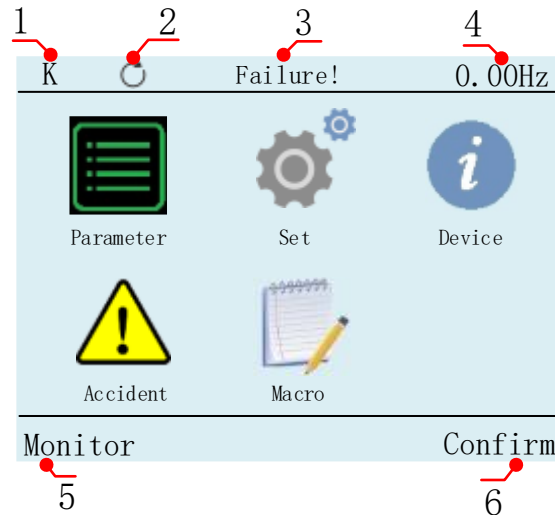



Figure 2.1 Menu Interface Display Diagram

Table 2.1 Status Bar Description

Grade	Name	function
1	Control source	Display the control source of the running instructions, keyboard, terminal, or communication.
2	Direction of operation	Indicates the direction of the current motor: clockwise is positive, counterclockwise is reverse.
3	fault	Used to display warning information. If there is a malfunction, it will show "Failure!" If you are in a self-learning state, it will show "self-learning..." If a communication error occurs, the "COMM Err" will be displayed.
4	Real-time monitoring	The real-time value of the function code can be viewed on any interface, and the monitored function code can be set in "Settings > Real-time monitoring selection".
5	Monitor	press  to enter the monitoring interface.
6	Confirm	Used for selection or confirmation.

2.2.Icon description

Brief description of each icon of the menu interface.

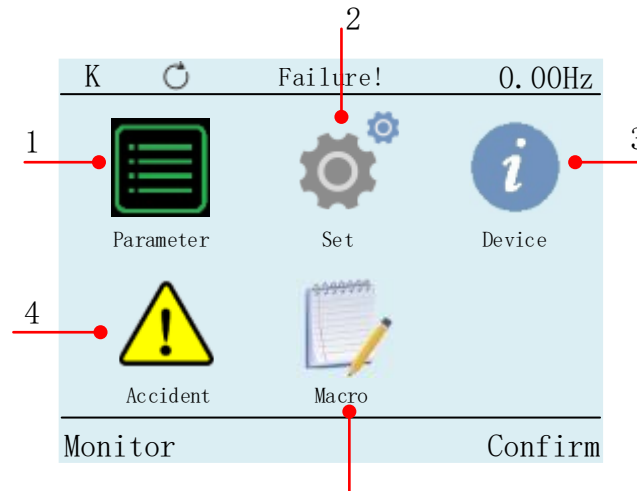


Figure 2.2 Menu Interface icon

Table 2.2 Overview of icons in menu interface

Grade	Name	content
1	Parameter	Used to set and view parameters.
2	Set	Used for setting Manufacturer-password, user-password multi-function key function setting, language setting, etc.
3	Device	Used to view version information and program upgrade (program upgrade function is not available yet).
4	Accident	Used to view the details of the current fault, and historical fault information.
5	Macro	Edit and save macros, download parameters to the converter.

3.Parameter list

1. In menu interface, through the , and key to select the parameter list icon.
2. Press the key into the parameter list interface.

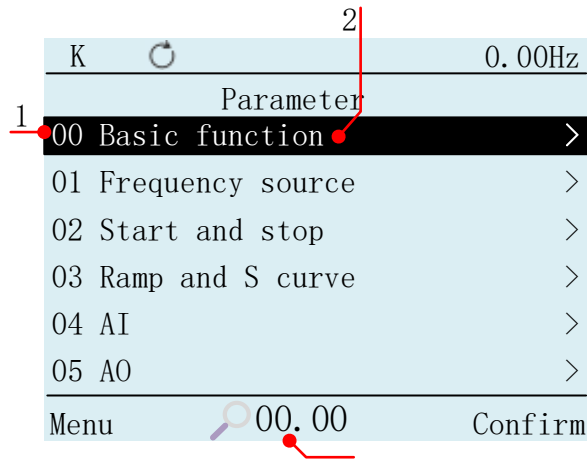


Figure 3.1 Parametric List Interface

Table 3.1 Interface description of parameter list

Grade	Meaning
1	Represents the serial number of the functional code group.
2	Represents the name of the functional code group.
3	Quick search. Quickly locate the function code to look for

3. The background of the function code group name shows black, indicating that the function code group is in the selected state. Press the Δ and ∇ can select functional code groups, such as: when you want to edit functional code P00.04. Select “00” sets of function codes as shown in Figure 3.1 and press the ENT key enter the function code list selection interface.

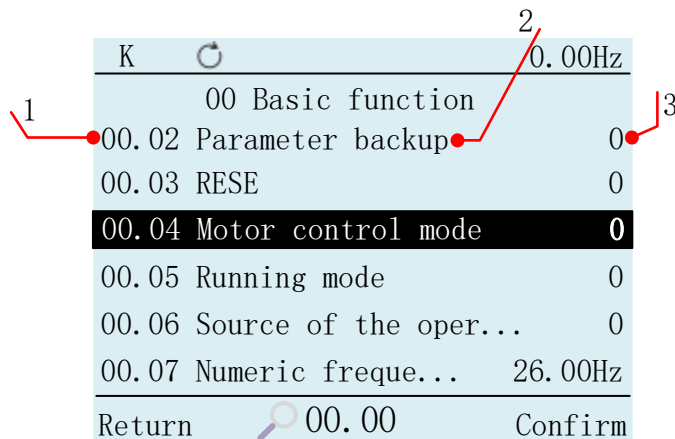


Figure 3.2 Function Code Selection Interface

Table 3.2 Function Code Selection Interface Description

Grade	Meaning
1	The function number of the function code.
2	The name of the function code.
3	The value and unit of the function code. If there are no units, only the values are displayed, not the units.

4. The background of the function code name shows black, indicating that the function code is in the selected state. Press the Δ and ∇ can select function code, such as select function code P00.04, press ENT enter the function code editing interface.

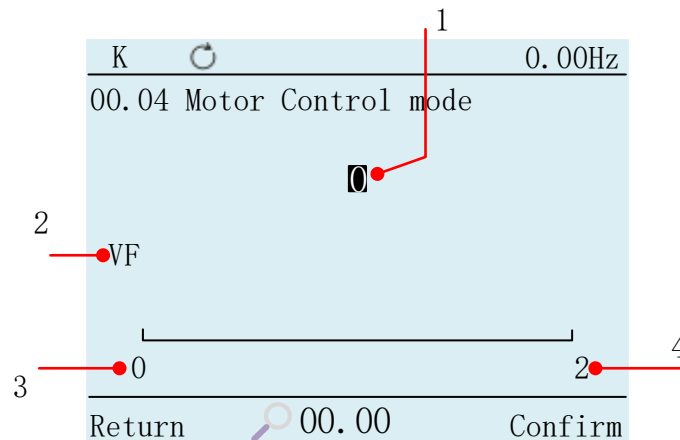


Figure 3.3 Function Code Editing Interface

Table 3.3 Function Code Editing Interface Description





Grade	Name	Explain
1	Numbers and Units	You can edit the value between the minimum and maximum. Press the Δ key, values increase. Press ∇ The bond value decreases. Press ENT key can move the cursor to the right.
2	Parameter description	The meaning of the values of some selective function codes is explained.
3	minimum value	The minimum value that the function code can get.
4	Maximum value	The maximum value that the function code can get.

When the value of the function code is set, press ENT key, confirm the change of the function code value, and return to the function code selection interface; if the value of the function code is set, press the key ESC discards the value of the modified function code.

When the value of the function code reaches the maximum value, press Δ keys remain unchanged and do not increase.

When the value of the function code reaches the minimum value, press the ∇ key value remains unchanged and does not decrease.

4.Setup interface

1. Through the menu interface ,  and  keyboard select setting icon.
2. Press  key into the settings function selection interface.

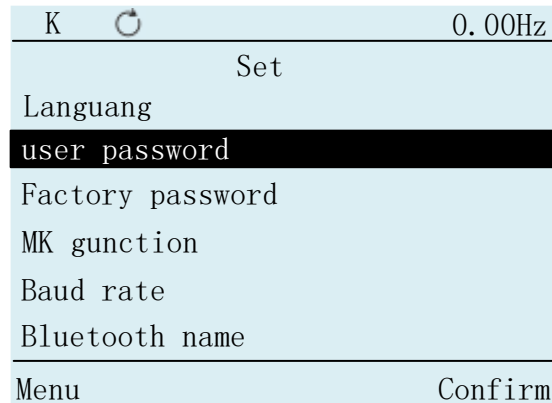






Figure 4.1 Setting up Functional Selection Interface

3. The background of the function name shows black, indicating that the function is in the selected state. The keys ,  can select functions. Press  enter the corresponding function editing interface. If you select the "User Password" function, press  key into the user password editing interface.

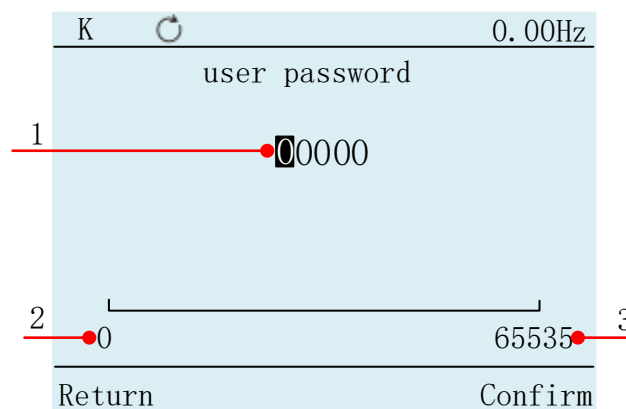









Figure 4.2 User Password Editing Interface

Table 4.1 User Password Editing Interface Description

Grade	Name	function
1	Password value	Adopt  ,  keys can increase or decrease the size of password values.  Key can move the cursor to the corresponding number of one bits, ten bits, hundred bits, etc.
2	Maximum value	The maximum value is 65535. When it reaches the maximum value, it can not be increased any more.
3	minimum value	The minimum value is 0. When it reaches the minimum value, it can not be reduced any more.

5. Device information

In the menu interface, through ,  and  key to select device information icon, press  to entry interface, you can see the driver and application version and other information in the interface.






K		0.00Hz
About this machine		
LCD software version		1.20
Power board version		1.20
Application version		1.20
Non-standard version		0
SN 1		0
SN 2		0
Return		Confirm

Figure 5.2 About the native view interface

6. Fault information

1. In the menu interface, Through ,  and  key to select the fault information icon.
2. Press  into the fault information function selection interface.


K		0.00Hz
Accident details		
Incurring fault		
Trouble shooting		
Historical failure		
Menu		Confirm

Figure 6.1 Fault Information Selection Interface

In the fault information, you can see the detailed information of the current fault and the fault information of the history.

3. Press ,  to select "Incurring fault" Function, press  to enter. You can see the type of fault that is currently occurring.

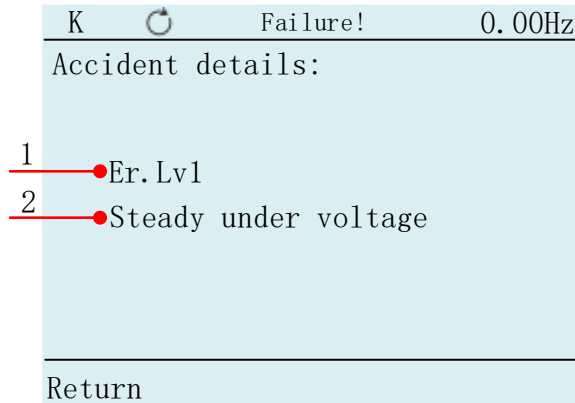


Figure 6.2 Fault Information Interface

Table 6.1 Fault Information Interface Description

Grade	function
1	Show the fault code that is breaking down, but not if there is no breakdown
2	The name of the fault that is occurring and will not be displayed if there is no fault

If no failure occurs, this page displays "No Failure".

In fault information, press Δ , ∇ to selection "fault diagnosis" function, press ENT key jumps to group 25 function code.

In fault information, press Δ , ∇ selection "History Fault Information" function, press ENT key jumps to group 26 function code

7. Parameter macro

1. Through the keys Δ , ∇ and \gg in the menu interface to select the parameter macro icon.

2. Press ENT enter the parameter macro function selection interface.

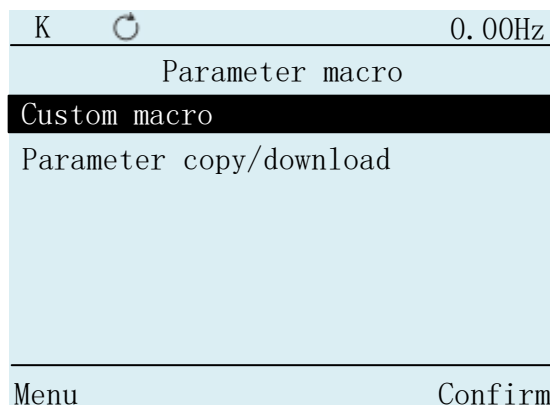


Figure 7.1 Parametric Macro Function Selection Interface

7.1. Custom parameter macro

7.1.1. Edit parameter macro

1. Through Δ , ∇ keyboard to Selection "Custom Parameter Macro" function, press ENT key into the custom parameter macro interface

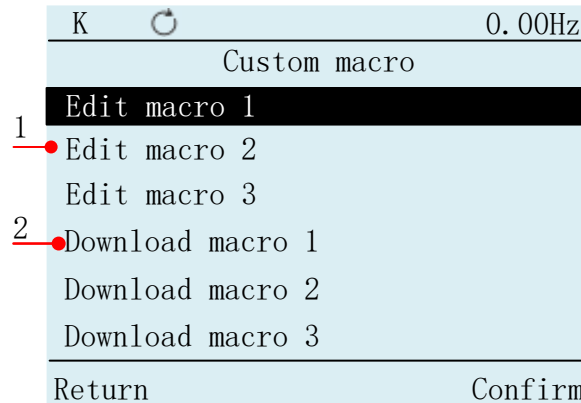


Figure 7.2 Custom parameter macro interface

Table 7.1 Macro Interface Description for Custom Parameters

Grade	function
1	Used to display the address of the custom function code and the value of the function code, and can download the edited function code to the converter.
2	The parameters of the converter which are different from the factory value are copied into the LCD panel. These parameters can be saved from the LCD panel to the converter.

2. When the cursor is in the Custom Parameter Macro, press ENT enter interface.

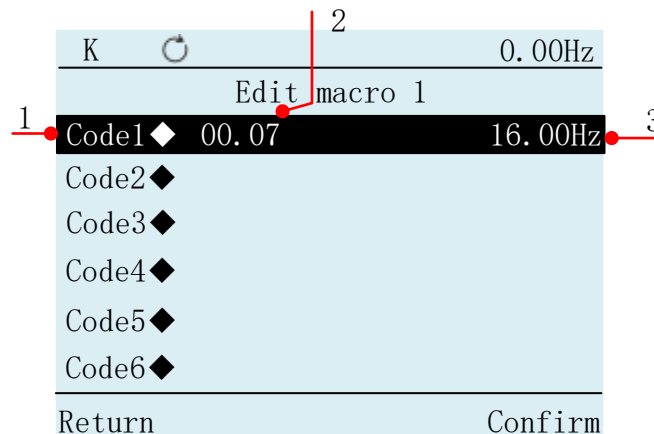


Figure 7.3 Custom Function Code List Interface

Table 7.1 Description of Custom Function Code List

Grade	function
1	Customize the function code name.
2	Displays the saved custom function code address. If not, it will not be displayed.
3	Displays the value of the saved custom function code. If not, it will not be displayed.

3. When the cursor is in "Code 2", press ENT key to enter the parameter macro editing page

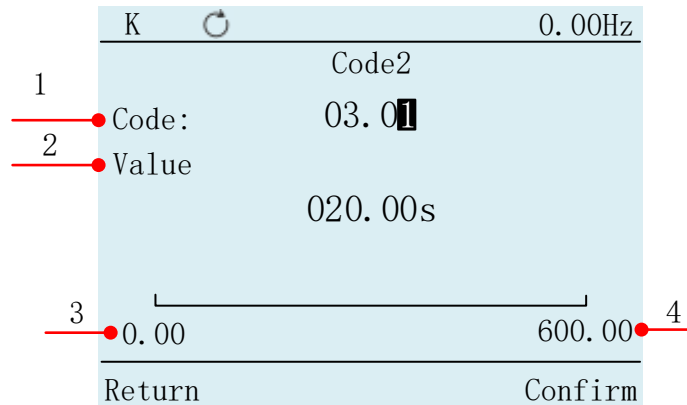


Figure 7.4 Parametric Macro Editing Interface

Table 7.2 Macro Editing Interface for Parameters

Grade	Name	Meaning
1	Function code	Function code address. When the cursor is in the first place of the function code, continuous press >> Four times later, the cursor can be moved to the first place of the value, and the size of the corresponding function code can be edited.
2	numerical value	Represents the value corresponding to the function code.
3	Minimum value	Represents the maximum of the current function code.
4	Maximum value	Represents the minimum of the current function code.

7.1.2. Download parameter macro

As shown in Figure 7.5, move the cursor to “Download Custom Macro 1”, press the key and enter the “waiting” page.

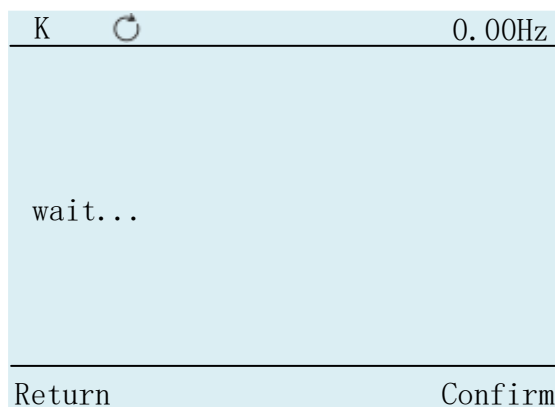


Figure 7.5 Waiting Page

When the download is complete, jump to the “success” page. As shown in Figure 7.6:

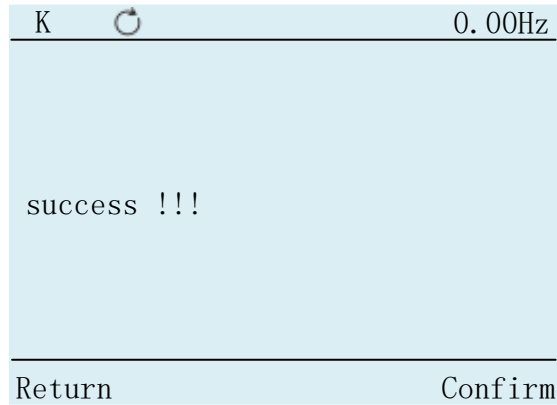


Figure 7.6 Success Page

7.1.3. Delete parameter macro

Select the parameter to delete, Press the **ENT** key to enter the confirmation interface.

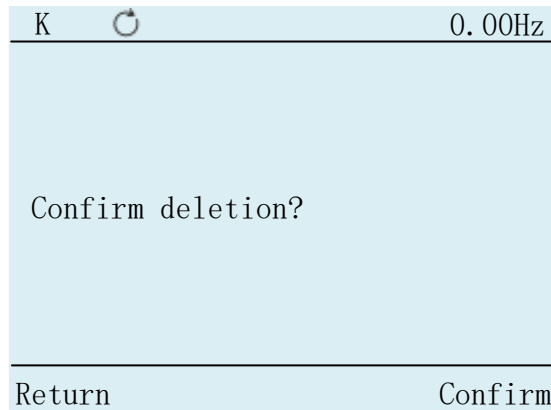


Figure 7.7 Parametric macro deletion interface

At this point, press the **ENT** key to delete the parameters

7.2. Parameter copy and download

When the cursor is in "parameter copy and download", press **ENT** Key, go to the page

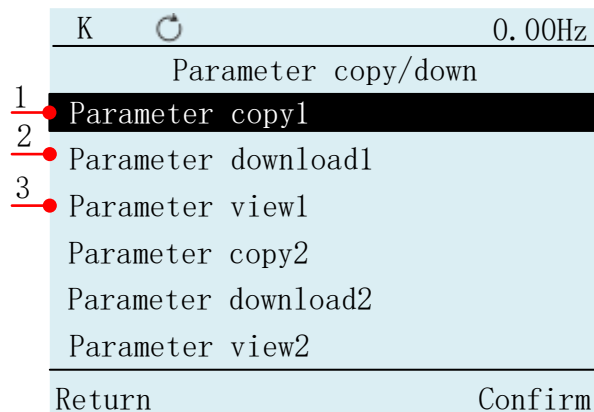



Figure 7.8 Parametric Copy and Download Page

Table 7.3 Description of parameter replication and download

Grade	function
1	The function codes with different factory values will be copied to the LCD memory.
2	The duplicated parameters are downloaded from the LCD panel to the frequency converter.
3	Used to view the copied parameters

After the parameter download is completed, it will prompt "success!!!"If there is a problem during the download process, it will prompt" defeat!!! "

7.2.1. Parameter view

Select the parameter view function, press the  key to enter the parameter view interface.

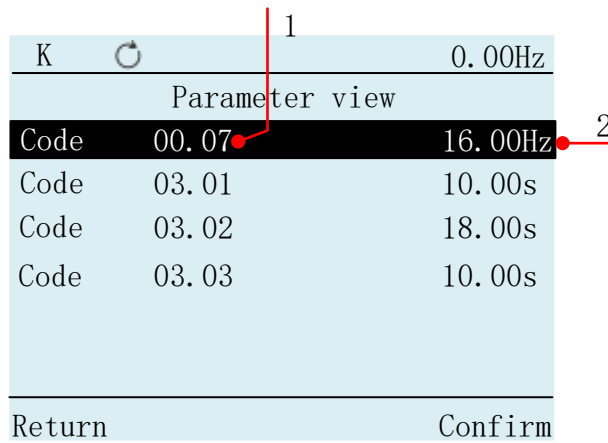




Figure 7.9 Parameter view page

Table 7.4 Description of parameter view

Grade	function
1	Duplicated function code
2	Copy the value of the function code

7.2.2. parameter deletion

Select the parameter to be deleted in the parameter view interface, press the  key to enter the delete confirmation interface, and then press the  key to delete the parameter.

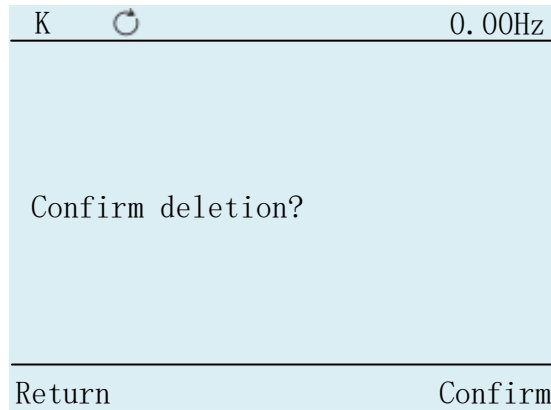


Figure 7.10 Parameter deletion confirmation interface

8. Monitoring interface

1. When in the menu interface, press  to enter the monitoring interface. The monitoring interface can display four monitoring quantities altogether.

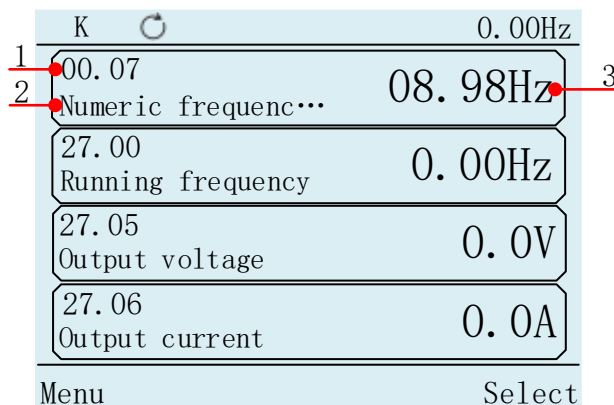





Figure 8.1 Monitoring and Monitoring Interface

Table 8.1 Monitoring Notes

Grade	Name	Meaning
1	Function code	Function code address. It can be changed. When the monitoring status is edited, you can replace the function code you want to monitor.
2	Function code name	The name corresponding to the function code
3	Numerical value and its units	Represents the corresponding value of the function code and the corresponding unit, no unit is not displayed.

2. In the monitoring interface, press  to call out cursor, press ,  can move cursors.

K		0.00Hz
00.07	Numeric frequenc...	08.98Hz
27.00	Running frequency	0.00Hz
27.05	Output voltage	0.0V
27.06	Output current	0.0A
Menu		Select

Figure 8.2 Monitoring and Monitoring Interface Selection Box

3. After determining the cursor, press Key into the monitoring parameter editing interface.

K		0.00Hz
Monitor select 1		
00.07		
Numeric frequency settin...		
<div style="border-top: 1px solid black; border-bottom: 1px solid black; width: 100%;"></div>		
0.00 99.99		
Return		Confirm

Figure 8.2 Monitoring Parameter Editing Interface

4. To edit the parameters to be monitored, press The key returns to the last interface.

When the cursor is called out from the monitoring interface, press Key, cursor moved to the function code value, at this time you can modify the value of the monitoring parameters (read-only parameters or run irmodifiable parameters can not modify its value). After modification, press Keyboard, cursor back to function code. Then press Keys hide cursors.

9. Quick search

1. In the parameter list interface or function code interface, press Keyboard to locate the cursor in the shortcut search bar.

K		0.00Hz
Parameter		
00	Basic function	>
01	Frequency source	>
02	Start and stop	>
03	Ramp and S curve	>
04	AI	>
05	AO	>
Menu	00.00	Confirm

Figure 9.1 Address Editing of Fast Search Function Code

2. Enter the function code you want to find and press the key, if the function code is valid, it will automatically jump to the position of the function code. If the function code is invalid, "X" will be displayed.

K		0.00Hz
00 Basic function		
00.07	Numeric freque...	26.00Hz
00.08	Rotation direction	0
00.09	Reverse control	0
00.10	Motor option	0
00.11	Special industry	0
00.16	Reserve parameter	0
Return	00.07	Confirm

Figure 9.2 Fast Search Jump

10. technical parameter

Display

The control keyboard uses a 16-bit true color 320x240 pixel resolution LCD display with four LED backlights.

Size and weight

weight	130g
High, deep and wide (mm)	

Protection level

Protection Level, Connected to Drive	IP55
Alone	IP20

environment condition

	operation	storage	transport
temperature	-20°C ~ +55 °C	-40°C ~ +70 °C	-40°C ~ +70 °C
relative humidity	95% (non-condensation)		
Pollution level	3C3		
To attack	Class 3M4 (according to EN 60062-2-27)	nothing	Class 2M2 (according to EN 60062-2-27)
Free falling body	IEC-60068-2-32, drop height 1 m.		
EMC compliance	IEC 6100-4-2, IEC 6100-4-3, IEC 6100-4-4, IEC 6100-4-6		