SD200 Series Intelligent Water Pump Inverter Simple Instructions V1.0

This manual will explain the use and precautions of the product. Please be sure to read this manual carefully before installation and use in order to use the inverter correctly and safely.

1) Safety precautions

Safety precautions
● Please have qualified professionals perform installation, operation, maintenance and inspection.
● In this manual, safety precautions are divided into "Warning" and "Note".
⚠ WARNING: Improper operation may create a hazardous situation which may result in death or serious injury.
⚠ CAUTION: Improper operation may create a hazardous situation which may result in minor or moderate injury or property damage.

⚠ police tell
●Wiring must be completed by qualified professional electrical engineers, otherwise it may cause electric shock or damage to the inverter.
● The grounding terminal must be grounded reliably, otherwise the inverter casing may be electrified.
● If you want to change the wiring or check, you should first turn off the power of the inverter. Before the seven-segment display of the inverter goes off , it means that there is still high voltage inside the inverter. Do not touch the internal circuits and components.
● Please do not operate, touch the heat sink, or plug or unplug cables with wet hands, otherwise it may cause electric shock.
● Do not use a circuit breaker to control the stop or start of the inverter, otherwise the inverter may be damaged.
● Do not replace the cooling fan while the power is on. Otherwise, it may be dangerous. It is dangerous to replace the cooling fan while the power is on .

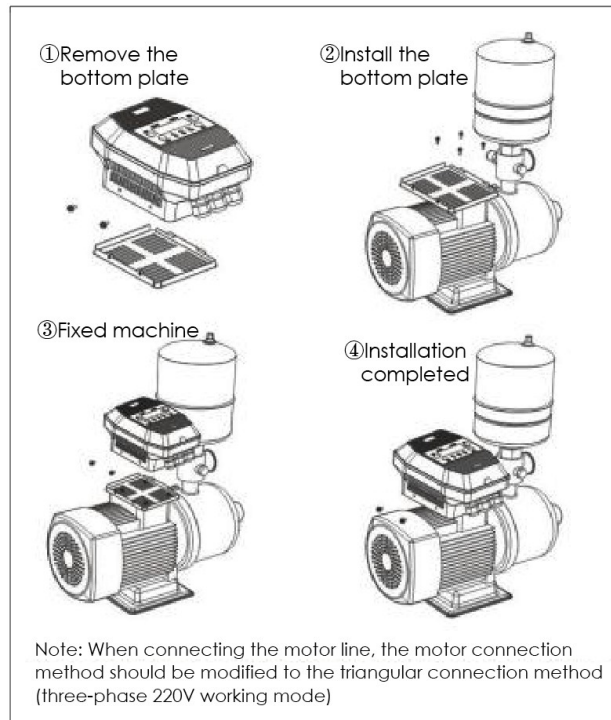| ⚠ Note meaning |
|---|
| ● The voltage applied to each terminal can only be the voltage specified in the operation manual, otherwise it will cause malfunction or damage. |
| ● When the power is on or just after it is disconnected, because the inverter temperature is high, only touch the operator, otherwise it may cause burns. |
| ● The factory preset parameters of the inverter can meet the operating requirements of most equipment. If it is not necessary, please do not modify the inverter parameters at will. Even if some equipment has special requirements, only the necessary parameters can be modified. Otherwise, modifying the parameters at will may cause damage to the equipment. |
| ● The company provides warranty and repair for this product in accordance with the "Product Quality Management Law" and does not bear joint and several liability. If the user uses this product, the motor fails. If the motor fails or burns out, the company will not be responsible for repairing or compensating the motor, and the company will not bear joint liability for the impact of the machine failure on the user. |

2) SD 200 Series product information

2.1 Product appearance size, model
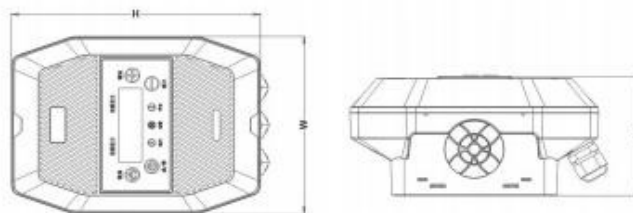
Voltage level	Type Number	Achievement Rate (kW)	Ruler Inch (mm)			Adaptive motor(kW)	Preparation Note
			H	W	D		
220V Single in and three out	SD 200-2S0.75 CX	0.75 kW	204	150	101	0.75 kW	Factory default 2.2 kW , available pass f/1.12 Setting up Adjustment 0: 0.75 kW 1: 1.5 kW 2: 2.2 kW
	S200-2S1.5 CX	1.5 kW	204	150	101	1.5 kW	
	S200-2S2.2 CX	2.2 kW	204	150	101	2.2 kW	

Note: SD -2S2.2 CX in CX Representatives standard power input, output lines and pressure sensor.

2.2　Machine installation steps
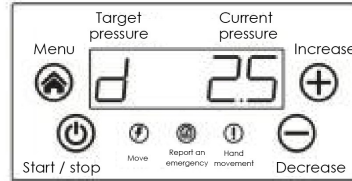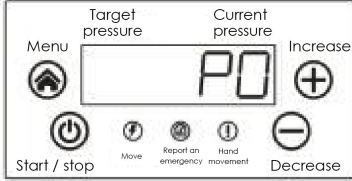

①Remove the bottom plate

②Install the bottom plate

③Fixed machine

④Installation completed

Note: When connecting the motor line, the motor connection method should be modified to the triangular connection method (three-phase 220V working mode)

2.3 Operation panel description

Target pressure　　Current pressure

Menu

Increase

Start / stop

Move　Report an emergency　Hand movement

Decrease
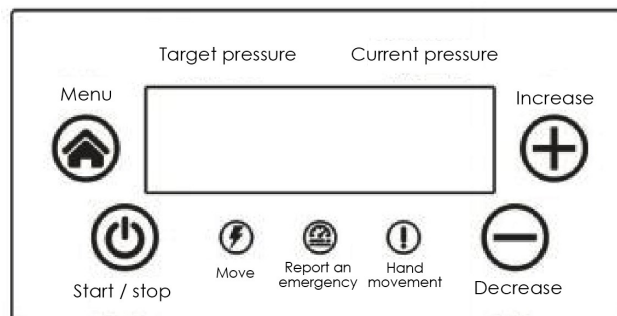
Name say	Definition and Operation Instructions
"menu"button	0 Click the level menu to shift and view the parameter function. Long press 2 Enter in seconds 1 Level parameter setting menu
Start/Stop"button	0 Click Run/Stop/Reset in the primary menu; 1/2/3 Level password input menu click confirm
"Increase"button	0 Click the menu to increase the set pressure, frequency, and modify the parameter value. Long press to increase quickly.
"Reduce"button	0 Click on the menu to reduce the set pressure, frequency, and modify the parameter value. Long press to quickly reduce
"Target pressure"Indicator light	When it is displayed as "Target pressure" and "Current Pressure" lights up, lights up when adjusting the pressure
"Current Pressure"Indicator light	When it is displayed as "Target pressure" and "Current Pressure"Light up
"run"Indicator light	Always on when running, flashing when in sleep mode, off when in shutdown mode
"Warning"Indicator light	Flashes when in fault state, turns off when not in fault state
"Manual"Indicator light	when F0.44=1 In speed control mode, the indicator light is on, and in other modes it is off

2.4 Machine various modes display

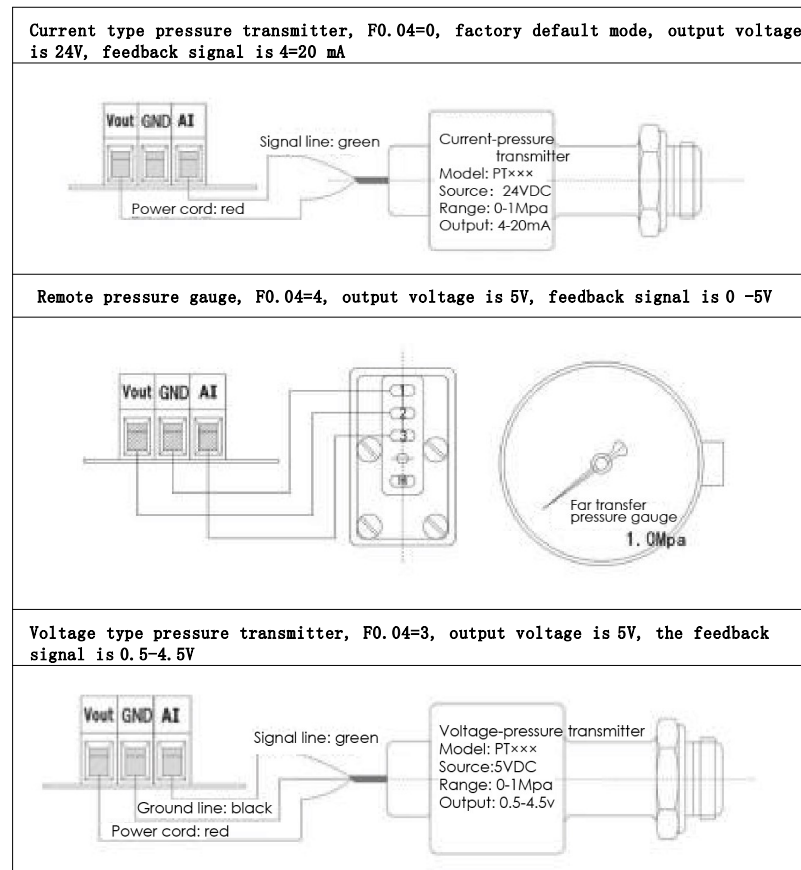| Constant pressure operation mode	Stress Design Pattern
In normal constant pressure, the target pressure and current pressure are displayed simultaneously	By "+" "-Adjust target pressure
Target pressure Current pressure Menu Increase **26-26** Start / stop Move Report an emergency Hand movement Decrease	Target pressure Current pressure Menu Increase **d 25** Start / stop Move Report an emergency Hand movement Decrease
Display switching mode	Parameter Design Pattern
During operation, through the "Menu "Switchable display of operating frequency	Long press the Menu " 2 seconds, you can enter the parameter design interface
Target pressure Current pressure Menu Increase **H50.00** Start / stop Move Report an emergency Hand movement Decrease	Target pressure Current pressure Menu Increase **P0** Start / stop Move Report an emergency Hand movement Decrease
Constant pressure stop mode	Stop switching mode
In stop state, the target pressure and current pressure value are displayed by default	In the stopped state, press the Menu "Switchable display of bus voltage
Target pressure Current pressure Menu Increase **26-0.0** Start / stop Move Report an emergency Hand movement Decrease	Target pressure Current pressure Menu Increase **U350.0** Start / stop Move Report an emergency Hand movement Decrease
Fault alarm mode	Manual FM mode
The fault light is on, the fault code is displayed, and the fault table can be checked	F0.44=1 To manually tune the frequency, press "+"-"FM
Target pressure Current pressure Menu Increase **E026** Start / stop Move Report an emergency Hand movement Decrease	Target pressure Current pressure Menu Increase **H35.00** Start / stop Move Report an emergency Hand movement Decrease

2.5 Main circuit and control circuit wiring diagram
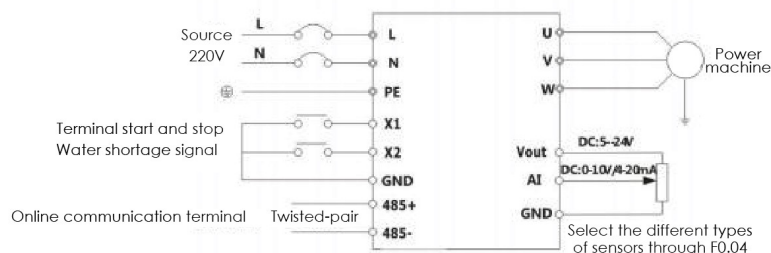
2.6 Sensor wiring diagram

Current type pressure transmitter, F0.04=0, factory default mode, output voltage is 24V, feedback signal is 4=20 mA
Remote pressure gauge, F0.04=4, output voltage is 5V, feedback signal is 0 -5V
Voltage type pressure transmitter, F0.04=3, output voltage is 5V, the feedback signal is 0.5-4.5V

2.7 Quick debugging parameter settings

2.7.1 Standalone debugging mode

Under normal circumstances, the machine is equipped with input and output cables and sensors. When connecting the water pump, the motor connection needs to be changed from the original star type (380V) to Adjust to triangle (220V) Working mode;

After power on, long press 3 Seconds "+"or"-" key to enter the pressure setting mode. d After setting the target pressure, press the "Start/Stop""key Save, then press "Start/Stop" key to start the machine, and the machine enters normal working mode;

F0.14=1 is the power-on self-start

function (need to be turned on by the

customer) Water pump direction

confirmation

After setting the parameters, you can do a short test run to see if the pump is turning correctly. Steering:

A. Stop the inverter and change the inverter output U, V, W Any two phases in .

B. Stop the inverter and modify the parameters F0.02.

2.7.2 Multi-connection mode

Wiring: Connect the terminals of the machine to be connected 485+ all in parallel, 485- all in parallel;

For parameter settings, refer to the macro parameter table below:

System Type	Host	1# Auxiliary machine	2# Auxiliary machine	3# Auxiliary machine	4# Auxiliary machine	5# Auxiliary machine
Single pump water supply setup	F0.47=1	\	\	\	\	\
Two network host settings	F0.47=2	F0.47=11	\	\	\	\
Three network host settings	F0.47=3	F0.47=11	F0.47=12	\	\	\
Four network host settings	F0.47=4	F0.47=11	F0.47=12	F0.47=13	\	\
Five network host settings	F0.47=5	F0.47=11	F0.47=12	F0.47=13	F0.47=14	\
Six network host settings	F0.47=6	F0.47=11	F0.47=12	F0.47=13	F0.47=14	F0.47=15
Emergency water supply mode	F0.47=9	When the sensor fails, set this parameter and the machine will turn off the pressure alarm. Adjust output frequency to ensure emergency water supply				

3) Function parameter table

"☆": Indicates that the setting value of this parameter can be changed when the inverter is in standby or running state. "★": Indicates that the setting value of this parameter cannot be changed when the inverter is in operation ;

"●": Indicates that the value of the parameter is the actual detection record value and cannot be changed;

"*": Indicates that the parameter is a "factory parameter", which is limited to manufacturer settings and users are prohibited from operating

Function code	Name say	Parameter Description	Factory value	Change
		F0 Basic function group		
F0.00	Pressure setting	Available in 0 In the Advanced menu, use the "+" button to increase the pressure setting value, pass"-"Button to reduce the pressure setting value Setting range: 1.0 bar ~ F0.21	3.0 bar	☆
F0.01	Wake-up stress deviation	Target pressure minus current pressure is greater than F0.01 When the machine is running Setting range: 0.0 bar ~ F0.00	0.3 bar	☆
F0.02	Running direction selection	Adjustable water pump steering 0: The direction is consistent 1: Opposite direction	0	☆
F0.03	Sensor range	Setting range: 1.0~200.0 bar	10.0 bar	☆
F0.04	Sensor Feedback Type	Different modes can be selected according to the sensor feedback signal used 0:4-20 mA /24V 1:4-20 mA /10V 2:0-10V 3:0.5-4.5V 4:0-5V	0	☆
F0.05	Pressure calibration factor	Setting range: 0.750~1.250	1.000	☆
F0.06	Proportional Gain P1	Setting range: 0.0~100.0	2.0	☆
F0.07	Integration time I1	Setting range: 0.00s~10.00s	0.50s	☆
F0.08	PID Feature Selection	0: Off 1: Sleep mode 1 2: Sleep mode 2	1	☆
F0.09	PID Sleep delay	Setting range: 0.0s~ 100.0s	5.0s	☆
F0.10	PID Wake-up delay	Setting range: 0.0s~100.0s	3.0s	☆
F0.11	PID Sleep frequency	If the frequency is lower than this, the machine will enter sleep mode. Setting range: F1.31 to upper limit frequency	30.00 Hz	☆
F0.12	PID Low frequency hold Frequency running time	Setting range: 0.0s~120.0s	5.0s	☆
F0.13	PID Sleep deviation pressure	Setting range: 0.0 bar to 1.0 bar	0.1 bar	☆
F0.14	Automatic on power on Startup Function	After it is turned on, the power will be delayed to start automatically 0: Off 1: On	0	☆
F0.15	Power-on automatic start delay	Setting range: 0.0~100.0s	5.0s	☆
F0.16	Antifreeze function	0: Off 1: On	0	☆
F0.17	Antifreeze operation frequency	Setting range: 0.00~50.00 Hz	10.00 Hz	☆
F0.18	Antifreeze operation time	Setting range: 0~1000s	60s	☆
F0.19	Antifreeze operation cycle	Setting range: 0~1000s	300s	☆
F0.20	Water leakage coefficient	Setting range: 0.1~100.0	2.0	☆
F0.21	High pressure alarm setting value	Setting range: F0.00 ~F0.08	9.0 bar	☆
F0.22	High voltage alarm delay time	Setting range: 0.0~ 120.0s	3.0s	☆

F0.23	Low pressure alarm setting value	Setting range: 0.0 bar ～ F0.00	0.0 bar	☆
F0.24	Low pressure alarm delay time	Setting range: 0.0～120.0s	3.0s	☆
F0.25	Water shortage protection function	0: Off 1: According to the frequency, Current to judge water shortage 2: Judge by frequency and pressure 3: According to the frequency, Current and pressure to determine water shortage	2	☆
F0.26	Water shortage failure Detection threshold	Water shortage will be judged when the pressure is lower than this Setting range: 0.0 bar ～ F0.00	0.5 bar	☆
F0.27	Water shortage protection Detection frequency	If the frequency is greater than this, it will be judged as water shortage. Setting range: 0.00 Hz to upper limit frequency	48.00 Hz	☆
F0.28	Water shortage protection detection Current percentage	When the running current is less than this current, it is judged as water shortage. Setting range: 0.0～100.0%	40.0%	☆
F0.29	Water shortage protection Detection time	The alarm will be triggered after this time when the water shortage condition is met Setting range: 0.0～200.0s	60.0s	☆
F0.30	Automatic water shortage protection Restart Delay	After reporting a water shortage fault, the machine resets the fault code after this time delay. Setting range: 0～9999 minute	15 min	☆
F0.31	PID Sleep rate	Setting range: 0～30	9	☆

Function code	Name say	Parameter Description	Factory value	Change
F0.32	Water pressure test	When the outlet pressure is greater than this value, after a delay F0.30 Fault reset Setting range: 0.0 bar ~ F0.00	1.0 bar	☆
F0.33	Water testing time	Setting range: 0.0～100.0s	20.0s	☆
F0.34	AI minimum input	Setting range: 0.00V～+10.00V	2.00V	☆
F0.35	AI maximum input	Setting range: 0.00V～+10.00V	10.00V	☆
F0.36	Acceleration time 1	Setting range: 0.0s～ 100.0s	2.0s	☆
F0.37	Deceleration time 1	Setting range: 0.0s～100.0s	2.0s	☆
F0.38	Parameter initialization	0: No operation 1: Restore factory parameters, excluding motor parameters 2: Clear the number of records	0	★
F0.39	Parameter function lock	0: Parameters are not locked 1: Parameter lock	0	☆
F0.40	Fault Record	Setting range: 0~50	0	●
F0.41	Radiator temperature	—	–	●
F0.42	Software version number	–	–	●
F0.43	Main frequency source X choose	0: Digital setting (no memory after power failure) 1: Digital setting (power-off memory) 2: Keyboard potentiometer 3:All 4: Multi-speed command 5: Simple PLC 6: Digital setting (no memory after power failure) 7: Digital setting (no memory after power failure) 8: PID 9: Communication setting	0	★
F0.44	System working mode	Adjust this value to change the working mode 0: Constant voltage mode 1: Constant speed mode	0	★
F0.45	Pressure display mode	0: Overall display 1: Independent display	0	☆
F0.46	Reserve	–	–	☆
F0.47	Application macro selection	Refer to the macro parameter setting table for details Setting range: 0~15	0	★
F1 Motor and auxiliary parameter group				
F1.00	Multi-connection slave backup master Machine action selection	0: Stop 1: Constant speed 2: Constant pressure	0	☆
F1.01	Multi-connection network Mode Selection	0: Slave 1: Host	0	●
F1.02	Multi-link auxiliary machine Number of units	Setting range: 0 to 5	0	●
F1.03	Multi-connection operation mode	0: Multi-pump main and auxiliary control 1: Multi-pump synchronous control 2: Multiple pumps with one in use and one in standby control	0	☆
F/1.04	Multi-line rotation Interval time	Setting range: 0 min ~ 3600 min	240 min	☆
F1.05	Maximum output frequency	Setting range: 50.00 Hz to 400.00 Hz	50.00 Hz	★

F/1.06	Upper frequency	The maximum frequency range that the machine can adjust Setting range: lower frequency limit F1.07～Maximum frequency F1.05	50.00 Hz	☆
F/1.07	Lower frequency	Setting range: 0.00 Hz to upper limit frequency f/1.06	0.00 Hz	☆
F/1.08	Frequency is below the lower limit Frequency Action	0: Run at the lower frequency limit 1:Shutdown 2:Zero speed operation	0	☆
F/1.09	Carrier frequency	Setting range: 1.0 kHz to 16.0 kHz	8.0 kHz	★
F/1.10	PID Feedback loss Detection value	Setting range: 0.00～10.00V	0.20V	☆
F/1.11	PID Feedback loss Detection time	Setting range: 0.0s～100.0s	30.0s	☆
F/1.12	Motor power selection	Factory 2.2kW , customers need to adjust the settings according to the actual pump 0:0.75kW 1:1.5kW 2:2.2kW	2	★

Function code	Name say	Parameter Description	Factory value	Change
F/1.13	Motor rated power	Setting range: 0.1 kW to 2.2 kW	2.2 kW	★
F/1.14	Motor rated frequency	Setting range: 0 to maximum frequency F1.05	50.00 Hz	★
F1.15	Motor rated voltage	Setting range: 0～380V	220V	★
F/1.16	Motor rated current	Setting range: 1.00～10.00A	9.60A	★
F/1.17	User Password	Setting range: 0～65000	0	☆
F/1.18	X1 terminal function selection	0: No function 1: Forward operation FWD 2: Reverse operation REV 3: Three-wire operation control 4: Forward jog 5: Reverse jog 6: Fault reset	1	★
F/1.19	X2 terminal function selection	7: Terminal UP 8: Terminal DOWN 9: UP / DOWN Set to zero 10: External fault input (normally open) 11: PLC Status reset 12: Multi-stage command terminal 1 13: Multi-stage command terminal 2	10	★
F1.20	X terminal filter time	Setting range: 0.000s～1.000s	0.010s	☆
F/1.21	X1 enable delay time	Setting range: 0.0s～100.0s	1.0s	☆
F1.22	X2 enable delay time	Setting range: 0.0s～100.0s	1.0s	☆
F/1.23	X1 disable delay time	Setting range: 0.0s～100.0s	0.0s	☆
F1.24	X2 disable delay time	Setting range: 0.0s～100.0s	0.0s	☆
F1.25	Fault automatic reset times	Setting range: 0～10	5	☆
F/1.26	Fault automatic reset time	Setting range: 0.0～100.0s	30.0s	☆
F1.27	Cooling fan control	0: The cooling fan runs when the motor is running 1: Automatically operate according to the radiator temperature	1	☆
f/1.28	Shutdown mode	0: decelerate and stop 1: Free parking	0	☆
F1.29	Keyboard setting frequency	Setting range: 0.00 Hz to maximum frequency F1.05	50.00 Hz	☆
F1.30	PID Direction of action	0: Positive effect 1: Counteraction	0	☆
F/1.31	PID Low Frequency Maintain frequency	Setting range: 0.00 Hz ～ F1.05	20.00 Hz	☆
F1.32	Sleep detection cycle	The machine detects sleep at this time 0.0～1000.0s	30.0s	☆
F/1.33	PWM model	0: CPWM 1: CPWM and DPWM Switch	1	★
F1.34	Command source selection	Different start and stop modes can be selected 0: Operation panel command channel (LED Destroy) 1: Terminal command channel (LED on) 2: Serial port communication command channel (LED Flashing	0	☆
F1.35	Local address	Setting range: 1～6,0 Broadcast address	1	☆
F1.36	Baud rate	0:4800 bPS 1 :9600 bPS 2 :19200 bPS 3:38400 bPS	1	☆
F/1.37	Data Format	0: No check (8.N.1) 1: Odd parity (8.O.1) 2: Even parity (8.E.1)	0	☆
F/1.38	Response delay	Setting range: 0 ms to 20 ms	2 ms	☆
F1.39	Reserve	—	—	☆
F1.40	Reserve	—		☆
F/1.41	Reserve	—	—	☆
F1.42	Motor Type Selection	0: Three-phase motor 1: Single-phase motor	0	★

Function code	Name say	Parameter Description	Factory value	Change
F1.43	Single-phase motor main and auxiliary Winding turns ratio	Setting range: 10～200	100	☆
F1.44	Single-phase motor current Correction factor	Setting range: 50～200	150	☆
F1.45	Water shortage protection Reset times	Setting range: 0～9999	10	☆
F/1.46	Reserve	–	–	☆
F1.47	Parameter Hide Selection	F2 Group and subsequent parameters hidden selection 0: Do not hide 1: Hide	1	☆

Function code	Name say	Parameter Description	Factory value	Change
		F2 Debug parameter group		
F2.00	Alternate host command source	–	0	☆
F2.01	Multiple online startup command source	–	0	☆
F2.02	Multi-pump online communication address	Setting range: 1 to 6	1	●
F2.03	Multi-connection small pump Address Setting	Setting range: 1 to 6	6	☆
F2.04	Multi-link pump Delay time	Setting range: 0.0s～100.0s	5.0s	☆
F2.05	Communication start and stop Keeping the memory	0: Invalid 1: Valid	0	●
F2.06	Pipe burst detection time	Setting range: 0~1000s	0s	☆
		F3 PID and sleep parameter group		
F/3.02	Derivative time D1	Setting range: 0.000s～9,999s	0s	☆
F/3.03	PID Start-up hold time	Setting range: 0.0～100.0s	2.0s	☆
F/3.04	PID Deviation limit	Setting range: 0.0% to 100.0%	0.0%	☆
F/3.05	PID Given source	0: Function code F0.00 setting 1:AI	0	☆
F/3.16	Flow ratio of large pump to small pump	Setting range: 20.00 Hz to upper limit frequency	30.00 Hz	☆
		F6 Protection and fault parameter group		
F6.00	Motor overload software Protection options	0: Disable 1: Allow	1	☆
F6.01	Motor overload software Protection gain	Setting range: 0.20～10.00	1.00	☆
F/6.02	Motor quick stop Excitation selection	0: Disable 1: Allow	0	☆
F/6.03	Overvoltage stall gain	Setting range: 0~100	0	☆
F/6.04	Overvoltage stall protection voltage	Setting range: 120.0% to 150.0%	0	☆
F/6.07	Undervoltage point setting	Setting range: 60.0% to 140.0%	100% (200V)	☆
F/6.08	Overvoltage point setting	Setting range: 200.0V～810.0V	400.0V	☆
		L Group Monitoring Parameter Group		
L0.00	Operating frequency (Hz)	0.00 Hz to 400.00 Hz	–	●
L0.01	Set frequency (Hz)	0.00 Hz to 400.00 Hz	–	●
L0.02	Bus voltage (V)	0.0V～1000.0V	–	●
L0.03	Output voltage (V)	0～400V	–	●
L0.04	Output current (A)	0.00A～50.00A	–	●
L0.05	Module temperature	0℃~100℃	–	●
L0.06	X Input Status		–	●
L0.07	The most recent failure	0～99	–	●
L0.08	Keyboard potentiometer voltage	0.00V～10.57V	–	●
L0.09	AI1 Voltage (V)	0.00V～10.57V	–	●
L0.10	Load speed display	0～9999 rpm	–	●
L0.11	PID set pressure	0.0 bar to 9.9 bar	–	●
L0.12	PID feedback pressure	0.0 bar to 9.9 bar	–	●
L0.13	Cumulative power-on time	0～65535 Hour	–	●
L0.14	Cumulative running time	0～65535 Hour	–	●
L0.15	Communication setting value		–	●

E* Group Fault Record Parameter Group				
E0.00	The most recent fault type			●
E0.01	Most recent Fault frequency			●
E0.02	Most recent Fault current			●
E0.03	Most recent Bus voltage during fault			●
E0.04	The most recent failure Input terminal status			●
E0.05	The most recent failure Inverter temperature			●
E0.06	Most recent Fault pressure			●
E1.00	Previous fault type		–	●
E1.01	Frequency of the last fault		–	●
E1.02	Current at the previous fault		–	●
E1.03	Previous failure Bus voltage		–	●
E1.04	Previous failure Input terminal status		–	●
E1.05	Previous failure Inverter temperature			●
E1.06	Pressure at the last fault		–	●

4) Fault diagnosis and countermeasures

Fault name	Operation panel display	Troubleshooting	Troubleshooting measures
Accelerating overcurrent	E002	1. The inverter output circuit is grounded or short-circuited 2. The control mode is vector and parameter identification is not performed 3. The acceleration time is too short 4. Manual torque boost or V/F curve is not suitable 5. Low voltage 6. Start the rotating motor 7. Sudden load during acceleration 8. The inverter is too small	1. Eliminate peripheral faults 2. Perform motor parameter identification 3. Increase acceleration time 4. Adjust the manual lifting torque or V/F Curve 5. Adjust the voltage to the normal range 6. Select speed tracking start or wait until the machine stops before start up 7. Cancel sudden load 8. Choose a frequency converter with a higher power rating
Deceleration overcurrent	E003	1. The inverter output circuit is grounded or short-circuited 2. The control mode is vector and parameter identification is not performed 3. The deceleration time is too short 4. Low voltage 5. Sudden load increase during deceleration 6. No brake unit and brake resistor are installed	1. Eliminate peripheral faults 2. Perform motor parameter identification 3. Increase deceleration time 4. Adjust the voltage to the normal range 5. Cancel sudden load 6. Install brake unit and resistor
Constant speed overcurrent	E004	1. The inverter output circuit is grounded or short-circuited 2. The control mode is vector and parameter identification is not performed 3. Low voltage 4. Is there any sudden load during operation? 5. The inverter is too small	1. Eliminate peripheral faults 2. Perform motor parameter identification 3. Adjust the voltage to the normal range 4. Cancel sudden load 5. Choose a frequency converter with a higher power rating
Accelerating overvoltage	E005	1. Input voltage is too high 2. There is an external force dragging the motor to run during acceleration 3. Acceleration time is too short 4. No brake unit and brake resistor are installed	1. Adjust the voltage to the normal range 2. Cancel the external power or install a braking resistor 3. Increase acceleration time 4. Install brake unit and resistor
Deceleration overvoltage	E006	1. Input voltage is too high 2. There is an external force dragging the motor to run during deceleration 3. Deceleration time is too short 4. Install a brake unit and a brake resistor	1. Adjust the voltage to the normal range 2. Cancel the external power or install a braking resistor 3. Increase deceleration time 4. Install brake unit and resistor
Constant speed overvoltage	E007	1. Input voltage is too high 2. There is external force dragging the motor during operation	1. Adjust the voltage to the normal range 2. Cancel the external power or install a braking resistor
Control power supply Fault	E008	1. The input voltage is not within the specified range	1. Adjust the voltage to within the range required by the specification
Undervoltage fault	E009	1. Momentary power outage 2. The voltage at the inverter input terminal is not within the specified range. scope 3. Bus voltage is abnormal 4. The rectifier bridge and buffer resistor are abnormal 5. Driver board abnormality 6. Control panel abnormality	1. Reset fault 2. Adjust the voltage to the normal range 3. Seek technical support 4. Seek technical support 5. Seek technical support 6. Seek technical support
Frequency Converter Overload	E010	1. Is the load too large or the motor is blocked? 2. The inverter is too small	1. Reduce the load and check the motor and mechanical condition 2. Choose a frequency converter with a higher power rating
Motor overload	E011	1. Motor protection parameter Fb.01 Is the setting appropriate? 2. Is the load too large or the motor is blocked? 3. The inverter is too small	1. Set this parameter correctly 2. Reduce the load and check the motor and mechanical condition 3. Choose a frequency converter with a higher power rating

Output phase loss	E013	1. The lead from the inverter to the motor is abnormal 2. The three-phase output of the inverter is unbalanced when the motor is running. 3. Driver board abnormality 4. Module abnormality	1. Eliminate peripheral faults 2. Check whether the three-phase windings of the motor are normally arranged in parallel Troubleshooting 3. Seek technical support 4. Seek technical support
Module overheating	E014	1. The ambient temperature is too high 2. Air duct blockage 3. Fan damage 4. The module thermistor is damaged 5. Inverter module is damaged	1. Reduce ambient temperature 2. Clean the air duct 3. Replace the fan 4. Replace the thermistor 5. Replace the inverter module
External water shortage	E015	1. Water shortage detected	1. Check whether there is water shortage
Current Sensing Fault	E018	1. Check if the Hall device is abnormal 2. Driver board abnormality	1. Replace the Hall device 2. Replace the driver board
EEPROM Read and write failure	E022	1. EEPROM Chip damage	1. Press Run/Stop Key reset 2. Replace the main control board
Short circuit to ground Fault	E023	1. The motor is short-circuited to ground	1. Replace the cable or motor 2. Seek services
PID Feedback cut off Line Fault	E024	1. The sensor is disconnected or in poor contact 2. The disconnection detection time is too short 3. The sensor is damaged or the system has no feedback signal	1. Check the sensor installation and wiring 2. Lengthen the disconnection detection time 3. Replace the sensor
Run time arrive	E025	1. Running time to set time	1. Seek services
Water shortage failure	E027	1. Abnormal water pressure/water level 2. The sensor is disconnected or in poor contact, and the system has no feedback. Feedback signal 3. Water shortage alarm detection time is too short (F0.29) 4. Water shortage protection detection frequency is too low (F0.27) 5. Water shortage protection detection current is too high (F0.28)	1. Check whether the water pressure at the water pump inlet is abnormal 2. Check the sensor installation and wiring 3. Check relevant parameter settings
High water pressure alarm	E028	1. Abnormal sensor feedback signal 2. The high pressure alarm value is adjusted too low (F0.21) 3. The alarm detection time is adjusted too short (F0.22)	1. Check the sensor wiring 2. Detection related parameter settings
Low water pressure alarm	E029	1. The low pressure alarm value is set too high (F0.23) 2. The sensor is disconnected or in poor contact, and the system has no feedback. Feedback signal 3. The sensor type selection does not match the actual situation	1. Modify parameters 2. Detection sensor
Password Protecting	-----	1. The inverter is set with a user password	1. Enter the correct user password or contact the agent business

5) **other**

- Products are constantly improving, parameters and contents are subject to change without prior notice;

- If you have any questions, please consult your agent or distri

合 格 证

产品编号：

生产日期：

检验员：

QC
PASS
检12