MH600 Series

High Protection Dedicated VFD

USER MANUAL

V2.0

Power Range:

Three-phase 380V (4T) 1.5~160kW

For safe use of this product, please be sure to read this user manual.

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Chapter 1 Safety Precautions

Definitions of Safety Signs

In this manual, safety precautions are divided into the following two categories:

DANGER: this sign indicates that failure to operate as required may result in serious injury or even death;

CAUTION: this sign indicates that failure to operate as required may result in moderate or minor injury or machine damage;

Users shall read this section carefully and be sure to follow the safety precautions given when installing, commissioning, and servicing this system. The Company assumes no responsibility for any injury or damage caused by improper operation.

Stage of Use	Safety Level	Operations
Before Installation	Danger	Do not install the equipment if you find water ingress, missing parts or damaged parts in the control system upon unpacking. Do not install the equipment if the name is different from that given on the packing list.
	Caution	Handle the equipment with due care. Otherwise there is a risk of equipment damage. Do not use the VFD with damaged drive or missing parts. Otherwise, there is a risk of personal injury. Do not touch the components of the control system with your hands. Otherwise there is a risk of electrostatic damage.
During Installation	Danger	Install the equipment on metal or other flame-retardant objects and keep it away from combustible materials. Otherwise it may cause fire hazards. Do not unscrew the anchor bolts of the components, especially those with red marks.
	Caution	Do not allow lead ends or screws in the drive, as this may cause damage to the drive. Install the drive in a place free of vibration and do not expose it to direct sunlight. When a cabinet contains two or more VFDs, please pay attention to their installation positions to ensure effective heat dissipation.

Stage of Use	Safety Level	Operations
During Wiring	Danger	Wiring operations must be performed by professional electrical engineers to avoid unexpected dangers. There must be a circuit breaker to separate the VFD from the power supply to avoid fire hazards. Please make sure that the power supply is in zero energy state before wiring operations to avoid electric shock. Make sure that the VFD is properly grounded according to grounding standards to avoid electric shock.
	Caution	Do not connect the input power supply to the output terminals (U, V, W) of the VFD. Pay attention to the marks of the terminals and do not connect the wrong wires. Otherwise the drive may damage. Do not connect the braking resistor directly between (+) and (-) terminals ofthe DC busbar to avoid fire hazards. For the diameter of the wires used, please refer to the recommendations in the User Manual. Otherwise safety accidents may occur.
Before Powering Up	Caution	Please check whether the voltage level of the input power supply is consistent with the rated voltage level of the VFD, whether the connection positions on the power input terminals (R, S, T) and output terminals (U, V, W) are correct, whether there is any short circuit in the peripheral circuits connected to the drive, and whether the connected lines are tightened. Otherwise the drive may damage. Do not conduct the withstand voltage test on any parts of the VFD. This test has been made at the factory. Otherwise, safety accidents may occur.
	Danger	The VFD must be tightly covered before powering up to avoid electric shock. All peripheral accessories must be wired in accordance with the instructions in the User Manual and be wired correctly using the circuit connection method provided in the User Manual. Otherwise safety accidents may occur.
After Powering Up	Danger	Do not open the cover after powering up. Otherwise electric shock may occur. Do not touch any input or output terminals of the VFD. Otherwise electric shock may occur.
	Caution	Please be aware of the risk of injury from the running motor while identifying parameters to avoid safety accidents. Do not change the factory defaults of the VFD without authorization to avoid equipment damage.

Stage of Use	Safety Level	Operations
During Operation	Danger	Non-professional technicians should not detect signals while the equipment is operating, as this may cause personal injury or equipment damage. Do not touch the cooling fan and discharge resistor to test the temperature. Otherwise this may cause burns.
	Caution	Avoid foreign matters inside while the VFD is operating to avoid equipment damage.Do not start or stop the drive by making or breaking the contactor. This will cause equipment damage.
During Maintenance	Danger	Non-professionals without receiving professional training should not repair and maintain the VFD. This will cause personal injury or equipment damage. Do not repair and maintain the equipment with power on. Otherwise there is a risk of electric shock. Make sure that the input power supply of the VFD is disconnected for at least 10 minutes before carrying out maintenance and repair on the drive. Otherwise the residual charge on the capacitors will cause personal injury. All pluggable connectors must be plugged and unplugged with power off. Parameters must be set and checked after the VFD is replaced.

Chapter 2 Product Information

2.1 Naming Rules

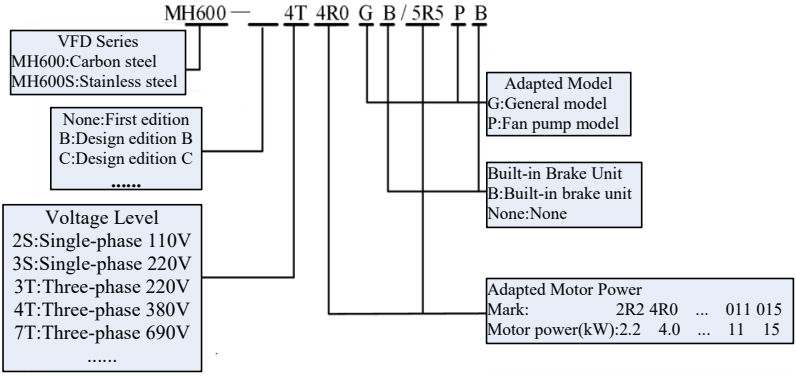


Figure 2-1. Naming Specifications

2.2 Nameplate

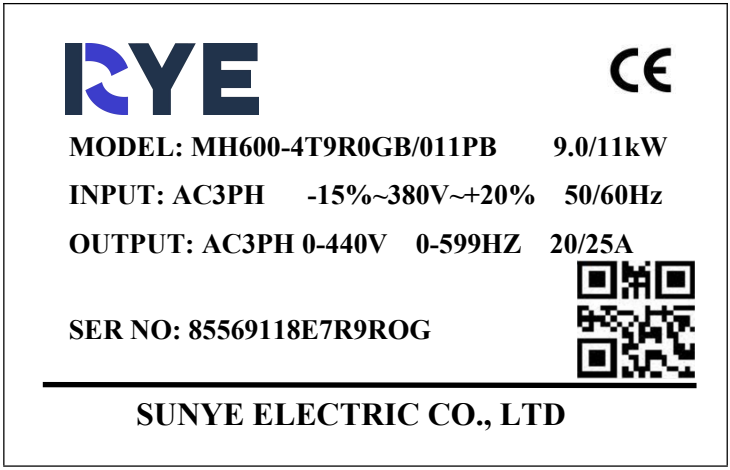


Figure 2-2. Nameplate

2.3 MH600 VFD Series

Table 2-1 Model and Technical Specifications of MH600 VFD

VFD model	Input Voltage	Input Current(A)	Output Current (A)	Adapter Motor (kW)
MH600-C4T1R5GB/2R2PB	Three-phase 380V Range: -15%～20%	5.0/5.8	3.8/5.1	1.5/2.2
MH600-C4T2R2GB/4R0PB		5.8/10.5	5.1/9.0	2.2/4.0
MH600-C4T4R0GB/5R5PB		10.5/14.6	9.0/13.0	4.0/5.5
MH600-C4T5R5GB/7R5PB		14.6/20.5	13.0/17.0	5.5/7.5
MH600-C4T7R5GB/9R0PB		20.5/22.0	17.0/20.0	7.5/9.0
MH600-4T9R0GB/011PB		22.0/26.0	20.0/25.0	9.0/11.0
MH600-4T011GB/015PB		26.0/35.0	25.0/32.0	11.0/15.0
MH600-4T015GB/018PB		35.0/38.5	32.0/37.0	15.0/18.5
MH600-4T018GB/022PB		38.5/46.5	37.0/45.0	18.5/22.0
MH600-4T022GB/030PB		46.5/62.0	45.0/60.0	22.0/30.0
MH600-4T030G(B)		62.0	60.0	30.0
MH600-4T037G(B)		76.0	75.0	37.0
MH600-4T045G(B)		92.0	90.0	45.0
MH600-4T055G(B)		113.0	110.0	55.0
MH600-4T075G(B)		157.0	152.0	75.0
MH600-4T093G(B)		180.0	176.0	93.0
MH600-4T110G(B)		214.0	210.0	110.0
MH600-4T132G		256.0	253.0	132.0
MH600-4T160G		307.0	304.0	160.0

2.4 Product Appearance and Installation Hole Size

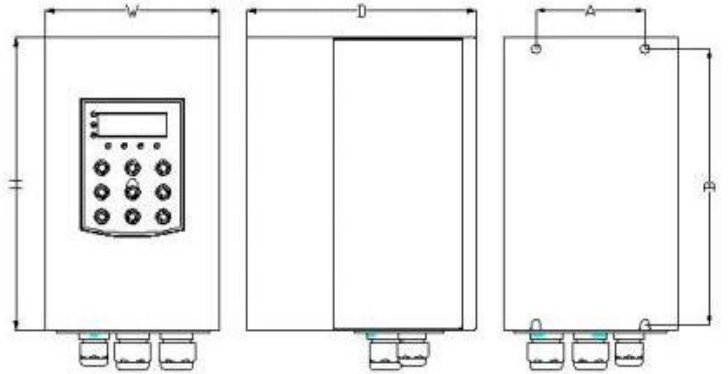


Figure 2-3. Schematic Diagram of 380V (4T) 1.5kW~7.5kW External Dimensions and Installation Dimensions

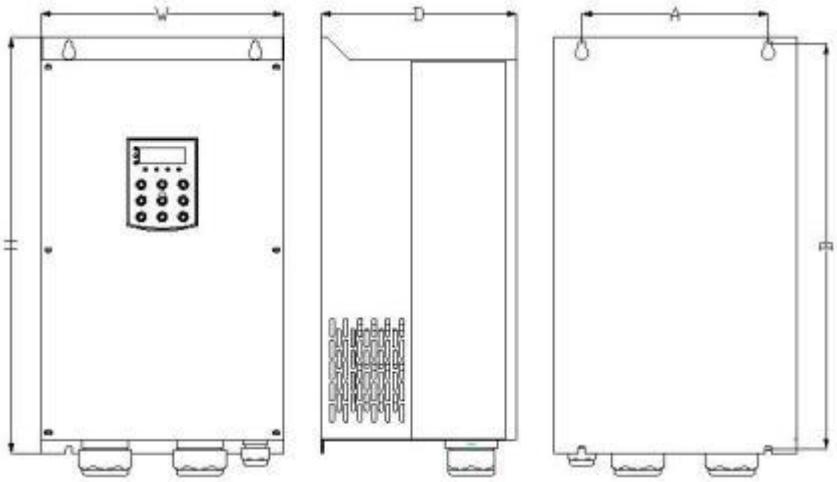
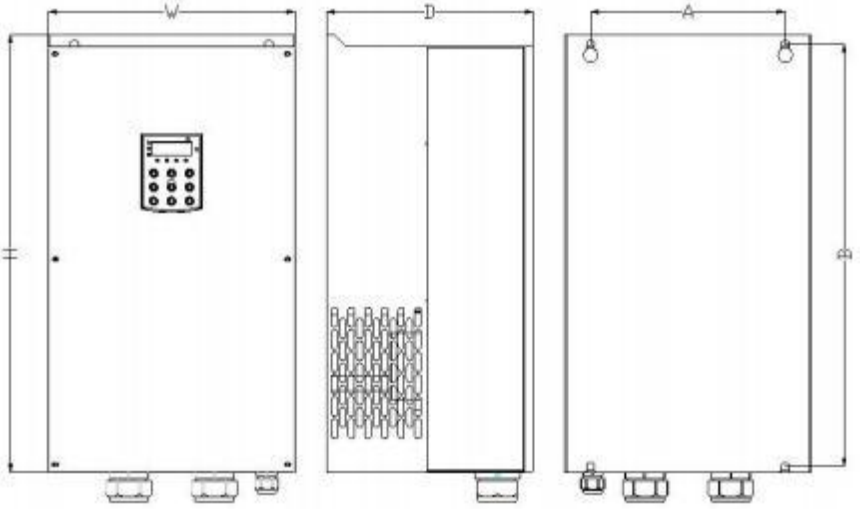


Figure 2-4.Schematic Diagram of 380V (4T) 9kW~37kW External Dimensions and Installation Dimensions



Schematic Diagram of 380V (4T) 45kW and Above External Dimensions and Installation Dimensions

Table 2-2 MH600 External Dimensions and Mounting Hole Dimensions

VFD Model	Mounting Hole		External Dimensions			Mounting Diameter (mm)
	A(mm)	B(mm)	H(mm)	W(mm)	D(mm)	
MH600-C4T1R5GB/2R2PB	80	198	210	128	168	Ø6.5
MH600-C4T2R2GB/4R0PB						
MH600-C4T4R0GB/5R5PB						
MH600-C4T5R5GB/7R5PB	125	258	270	149	169	Ø6.5
MH600-C4T7R5GB/9R0PB						
MH600-4T9R0GB/011PB	150	317	328	190	182	Ø6.5
MH600-4T011GB/015PB						
MH600-4T015GB/018PB						
MH600-4T018GB/022PB	165	372	383	215	192	Ø6.5
MH600-4T022GB/030PB						
MH600-4T030G(B)	200	436	448	260	210	φ7
MH600-4T037G(B)						
MH600-4T045G(B)	245	531	550	310	260	Ø10
MH600-4T055G(B)						
MH600-4T075G(B)	280	561	580	350	260	Ø10
MH600-4T093G(B)						
MH600-4T110G(B)						
MH600-4T132G	320	695	715	430	295	Ø10
MH600-4T160G						

2.5 Optional

For detailed functions and usage instructions of the optional accessories, please refer to the relevant optional accessory specifications.

If you require any of the above optional accessories, please specify this when ordering.Table 2-3 MH600 VFD Accessories

Name	Model	Function	Remarks
Built-in Brake Unit	Product type number with “B”	Energy saving brake	The built-in braking module is standard
	Product type number followed by “(B)”	Energy saving brake	Built-in braking module is optional

Chapter 3 Electrical Installation and Wiring

3.1 Electrical Installation

3.1.1 Selection Guide for Peripheral Electrical Components

Table 3-1 Selection Guidelines for Peripheral Electrical Components of MH600 VFD

VFD Model	MCCB (A)	Contactor （A）	Input Side Main Loop Conductor (mm²)	Main Output Circuit Conductor (mm²)	Control Loop Conductor (mm²)	Ground Wire (mm²)
MH600-C4T1R5GB/2R2PB	10	9	2.5	2.5	1.5	2.5
MH600-C4T2R2GB/4R0PB	13	12	2.5	2.5	1.5	2.5
MH600-C4T4R0GB/5R5PB	16	16	2.5	2.5	1.5	2.5
MH600-C4T5R5GB/7R5PB	25	18	2.5	2.5	1.5	2.5
MH600-C4T7R5GB/9R0PB	32	26	4.0	4.0	1.5	4
MH600-4T9R0GB/011PB	50	38	4.0	4.0	1.5	6
MH600-4T011GB/015PB	63	50	4.0	4.0	1.5	6
MH600-4T015GB/018PB	63	50	6.0	6.0	1.5	6
MH600-4T018GB/022PB	80	65	10	10	1.5	10
MH600-4T022GB/030PB	80	80	10	10	1.5	16
MH600-4T030G(B)	100	80	16	16	1.5	16
MH600-4T037G(B)	160	95	25	25	1.5	25
MH600-4T045G(B)	160	115	35	35	1.5	25
MH600-4T055G(B)	225	150	50	50	1.5	25
MH600-4T075G(B)	225	170	70	70	1.5	25
MH600-4T093G(B)	250	205	95	95	1.5	25
MH600-4T110G(B)	315	245	120	120	1.5	25
MH600-4T132G	350	300	120	120	1.5	25
MH600-4T160G	400	400	150	150	1.5	25

3.1.2 Instructions for Using Peripheral Electrical Components

Table 3-2: Specifications for Peripheral Electrical Components of MH600 VFD

Accessory Name	Installation Place	Function Declaration
Air Switch	Input loop front end	Power supply interruption due to downstream equipment overload
Contactor	Between the circuit breaker and the input side of the VFD	Power operation of VFD. Avoid frequent power-on/off operations (less than twice per minute) or direct startup operations through contactors.

Accessory Name	Installation Place	Function Declaration
Flow Input Reactor	VFD input side	1. Improve the input side power factor; 2. Effectively eliminate the high-order harmonics on the input side to prevent damage to other equipment caused by voltage waveform distortion. 3. Eliminate the input current unbalance caused by the phase unbalance of power supply.
EMC Input Filter	Input side of VFD	1. Reducing the VFD's external conducted and radiated interference; 2. Reduce the conduction interference from the power supply to the VFD, and improve the anti-interference ability of the VFD.
Exchange Output Reactor	The device is installed near the VFD on the output side of the VFD and between the VFD and the motor.	The output side of the VFD usually contains a large number of higher harmonics. When the motor is far from the VFD, there is a large distributed capacitance in the line. One of the harmonics may produce resonance in the circuit, which will bring two effects: 1. The insulation performance of the motor is damaged, and the motor will be damaged in a long time. 2. The VFD frequently triggers protection due to excessive leakage current. When the distance between a standard VFD and a motor exceeds 100 meters, installing an AC output reactor is recommended.

3.2 Wiring Method

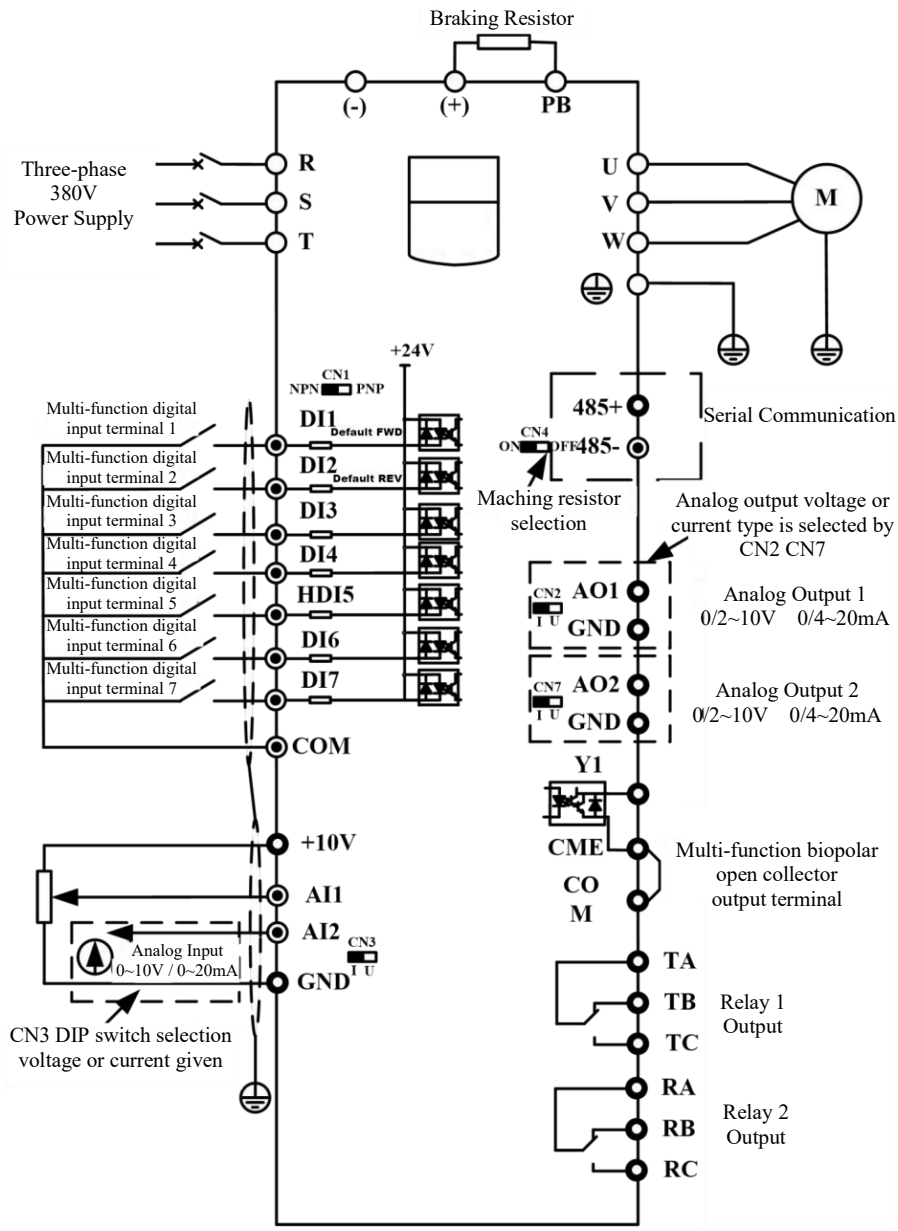


Figure 3-1. Three-Phase VFD Below 30kW

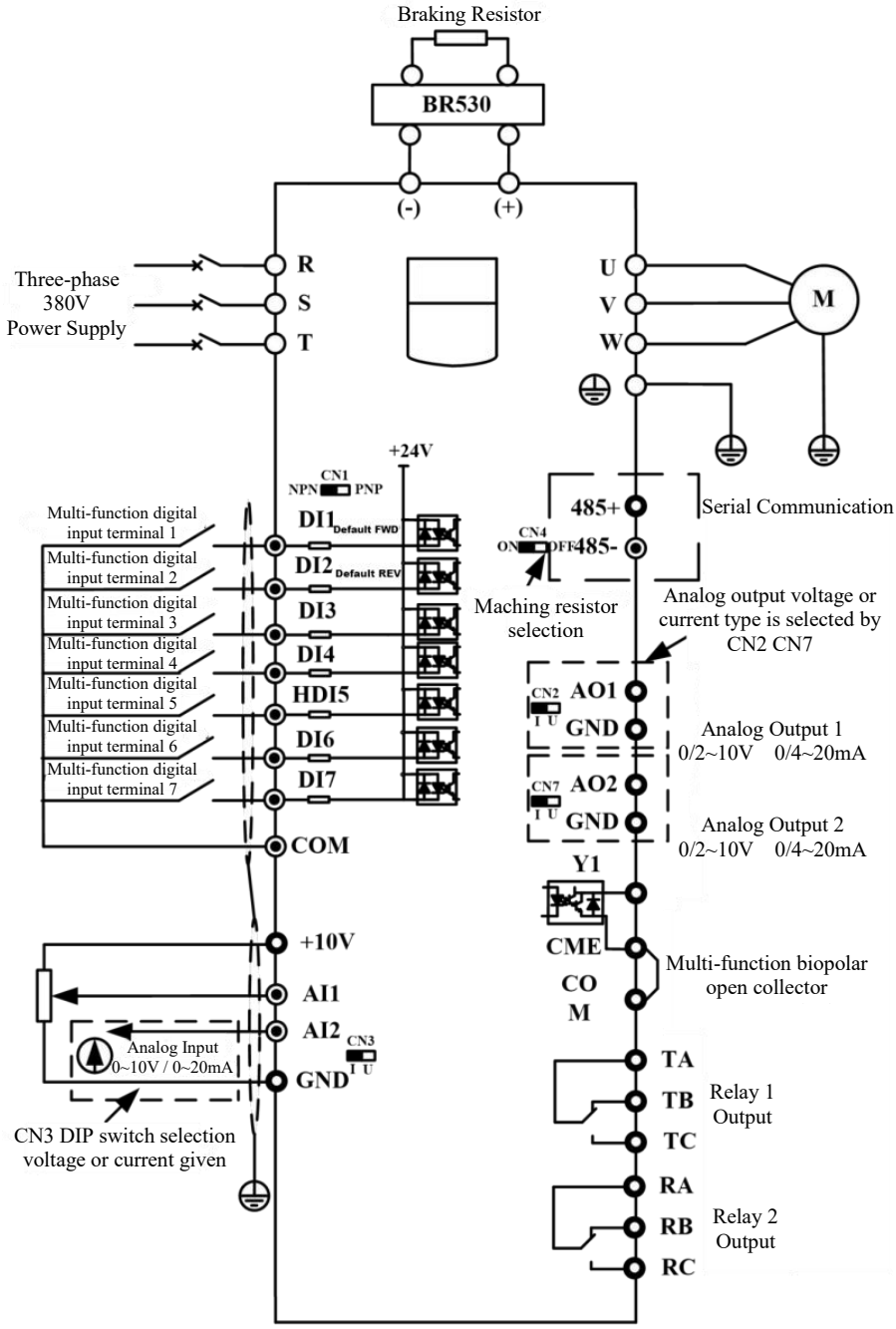


Figure 3-2. Three-Phase VFD Above 37kW

3.2.1 Main Circuit Terminals and Wiring

Main circuit terminal description:

Terminal marking	Name	Explain
R, S, T	Three-phase power supply input terminal	AC three-phase power input connection point
P(+), (-)	Positive and negative terminals of the DC busbar	Common DC bus input point
P(+), PB	Braking resistor terminal	The 220V connection point for braking resistors below 7.5kW, and for other voltage levels below 18.5kW.
U, V, W	VFD output terminal	Three-phase motor connection
⏚	Ground terminal	Ground terminal

Cabling considerations:

Input power R, S, T :

The input-side wiring of the VFD has no phase sequence requirements.

DC bus P (+), (-) :

Note: After a power outage, residual voltage may remain at the P(+) and (-) terminals of the DC bus. Wait until the power indicator on the drive board turns off and confirm the power has been cut for 10 minutes before performing wiring operations, as this could result in electric shock.

The length of the wiring of the braking unit should not exceed 10 m, and the wiring should be made of twisted pair or tight double parallel.

The braking resistor should not be directly connected to the DC busbar, as it may cause damage to the VFD or even fire.

Brake resistor connection terminals : P (+), PB

The braking resistor selection should be based on the recommended value and the wiring distance should be less than 5 m, otherwise the VFD may be damaged.

The output-side parameters of the VFD (U, V, W):

Capacitors or surge absorbers should not be connected to the VFD output side, as this may cause frequent protection trips or even damage to the VFD.

When the length of motor cable is too long, the electrical resonance is easy to be produced because of the influence of distributed capacitance, which will cause the motor insulation to be destroyed or the leakage current is too large to cause the VFD to overcurrent protection.

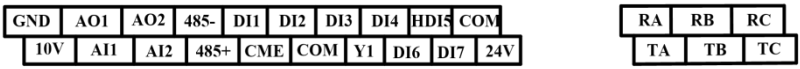
Ground terminal ⏚ PE :

The terminal must be reliably grounded, and the resistance of the grounding wire must be less than 0.1 Ω.

The grounding terminal cannot be connected. It is shared with the N terminal of the power supply neutral line.

3.2.2 Control Terminal and Wiring

The terminal layout diagram of the control circuit is shown below:



Control terminal function description:

Table 3-3: Function Description of Control Terminal for MH600 VFD

Class	Terminal Symbol	Terminal Name	Function Declaration
Power Supply	+10V-GND	External +10V power supply	Provides +10V power, maximum output current: 10mA It is typically used as the power supply for external potentiometers, with a resistance range of 1~5 kΩ .
	24V-COM	External +24V power supply	It provides +24V external power, typically used as the operating power for digital input/output terminals and external sensor power. Maximum output current: 200mA
Analog Input	AI1-GND	Analog input terminal 1	1. Input voltage range: DC0~10V 2. Input impedance: 100KΩ
	AI2-GND	Analog Input Terminal 2	1. Input range: DC0~10V/4~20mA, selected by the DIP switch on the control board, with the voltage mode as the default setting. 2. The input impedance is 100kΩ for voltage input and 500 Ω for current input.
Digital Input	DI1-COM	Digital input 1	1. Optical fiber isolation with bipolar input compatibility, switchable via DI DIP switch, factory defaults to NPN mode 2. Input impedance: 3.3kΩ 3. Voltage range for level input: 9~30V 4. HDI5 can be used as a high-speed input port.
	DI2-COM	Digital input 2	
	DI3-COM	Digital input 3	
	DI4-COM	Digital input 4	
	HDI5-COM	Digital input 5	
	DI6-COM	Digital input 6	
	DI7-COM	Digital input 7	
Analog Output	AO1-GND	Analog output 1	The output voltage or current is selected by the dip switch on the control board. The output voltage range is 0~10V. Output current range: 0~20mA
	AO2-GND	Analog output 2	

Class	Terminal Symbol	Terminal Name	Function Declaration
Numeric Output	Y1-CME	Digital output 1	Optocoupler isolation, bipolar open collector output Output voltage range: 0~24V Output current range: 0~50mA Note: The digital output port CME and the digital input port COM are internally isolated, but they are externally short- circuited at factory (with Y1 defaulting to +24V drive). To use an external power supply for Y1, the external short-circuit between CME and COM must be disconnected.
COMM Terminal	485+ -485-	Modbus communication interface	The Modbus communication interface allows selection of whether to use a communication matching resistor via a DIP switch. For Profibus communication functionality, select the CM 580 series VFD with a Profibus DP card.
Relay Output 1	TA-TB	Normally close terminal	Contact drive capability: AC250V, 3A, COS Ø=0.4 DC30V, 1A
	TA-TC	Normally open terminal	
Relay Output 2	RA-RB	Normally closed terminal	Contact drive capability: AC250V, 3A, COS Ø=0.4 DC30V, 1A
	RA-RC	Normally open terminal	

Signal input terminal wiring instructions:

AI simulation input terminal :

Because the weak analog voltage signal is particularly susceptible to external interference, shielded cables are generally required, and the wiring distance should be kept as short as possible, not exceeding 20 meters, as shown in the figure below. In cases where analog signals are severely interfered with, filter capacitors or ferrite cores should be added on the analog signal source side.

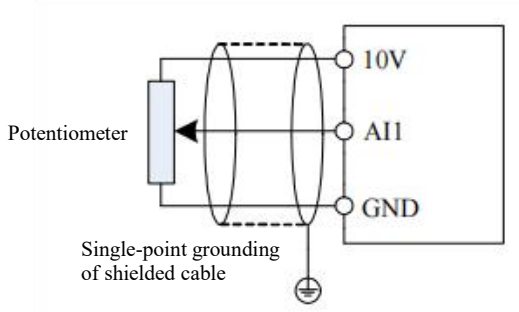
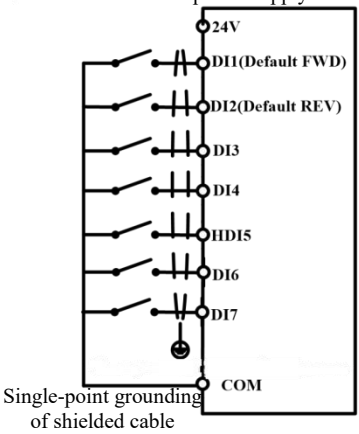


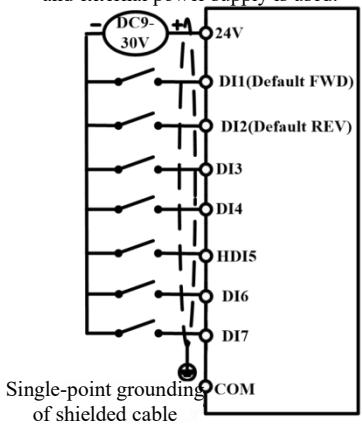
Figure 3-3. Schematic Wiring Diagram of Analog Input Terminals

DI digital input terminal:

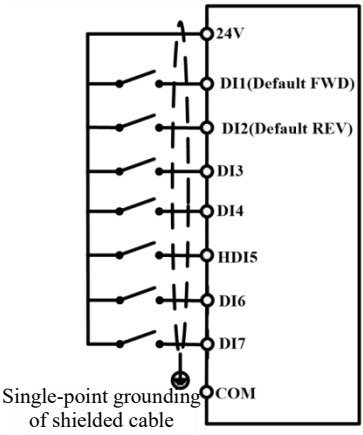
DI wiring mode 1(Default wiring method):
When the DI DIP switch is in NPN mode and no external power supply is used.



DI wiring mode 2:
When the DI DIP switch is in NPN mode and external power supply is used.



DI wiring mode 3(:
When the DI DIP switch is in PNP mode and no external power supply is used.



DI wiring mode 4:
When the DI DIP switch is in PNP mode and external power supply is used.

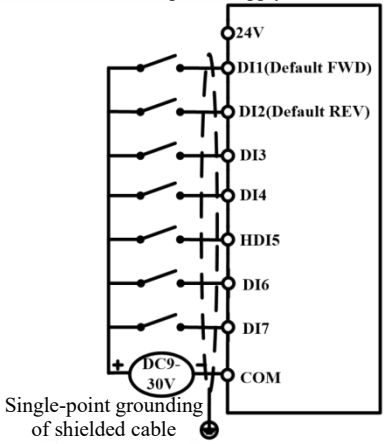


Figure 3-4. Wiring Diagram of Digital Input Terminals for the MH600 VFD in Four Different Modes.

Shielded cables are generally required, and the wiring distance should be kept as short as possible, not exceeding 20 meters.

When the active mode is used, the crosstalk of the power supply must be filtered.

It is recommended to use contact control mode.

Y1 digital output terminal :

When driving a relay with digital output terminals, a diode must be placed across the relay coil with a driving current not exceeding 50mA. Otherwise, it may damage the 24V DC power supply.

Note: The polarity of the photodiode must be installed correctly, as shown in Figure 3-7. Otherwise, if the digital output terminal is activated, it will immediately damage the 24V DC power supply.

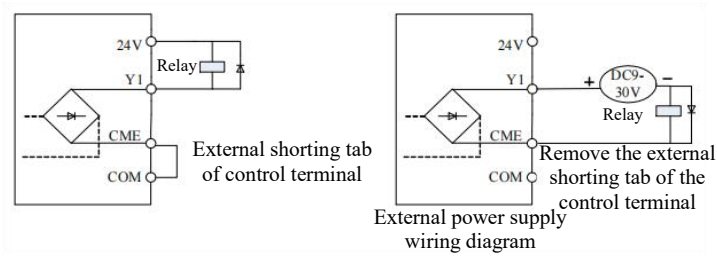


Figure 3-5. Wiring Diagram of Digital Output Terminal Y1

Chapter 4 Operation and Display

4.1 Operation and Display Interface Introduction

The control panel allows users to modify the VFD's functional parameters, monitor its operational status, and perform control operations (such as starting and stopping). Its design and features are illustrated in the figure below.

Figure 4-1. Schematic Diagram of the Control Panel (standard With LED Keyless Keyboard)

4.1.2 Keyboard Button Instructions

Table 4-2 Keyboard Function Table

Key	Name	Function
PRG/ESC	Program key/Exit	Enter or exit the first-level menu, or return to the parent menu
ENTER	Confirm key (ENTER)	Access the menu screen and confirm the settings
▲	Increment key (+)	Increment of data or function code
▼	Decreasing key (-)	Decreasing data or function code
>>/SHIFT	Shift key	The display parameters can be cyclically selected between the shutdown display interface and the operation display interface. For specific display meanings, refer to F7-29 and F7-30. When modifying parameters, the modification bits can be selected.
RUN	Run key	Used to run operations in keyboard mode
STOP/RESET	Stop/Reset	In operation mode, this key stops the operation; in fault alarm mode, it resets the operation. The key's functionality is governed by function code F7-27.

Key	Name	Function
QUICK/JOG	Move the operation key or arrow key	Set F7-28 to 0 for the jog button, set F7-28 to 1 for the direction button. Pressing this key reverses the direction.

4.2 The Organization of Function Code of VFD

The meanings of each function code group in the MH600 VFD are as shown in the table below:

Function Code Group	Functional Description	Expla
F0~FF	Basic Functional Parameter Group	Compatible with CM530 series function codes
H0~H3	Second motor parameter set	The second motor's parameters, acceleration/deceleration time, and control mode can be independently configured.
L0~L6	Enhanced Feature Parameters Group	System parameter configuration, user function code customization, optimization control, AI/AO correction, master-slave control, brake function and sleep function;
N0~NF	Private Flight Function Group	Select to use different professional VFD functions;
U0~U1	Monitoring parameter group	U0 is the fault logging parameter group, while U1 is the user monitoring parameter, enabling easy access to relevant output statuses.

4.3 Instructions for Viewing and Modifying Function Codes

The MH600 VFD's function code parameters utilize a three-tier menu structure, allowing parameter viewing and modification through the control panel. The menu hierarchy is: Function Parameter Group (Level I) → Function Code (Level II) → Function Code Setting (Level III). As shown in Figure 4-2, the ">>" key enables access to various status parameters within the status parameter interface.

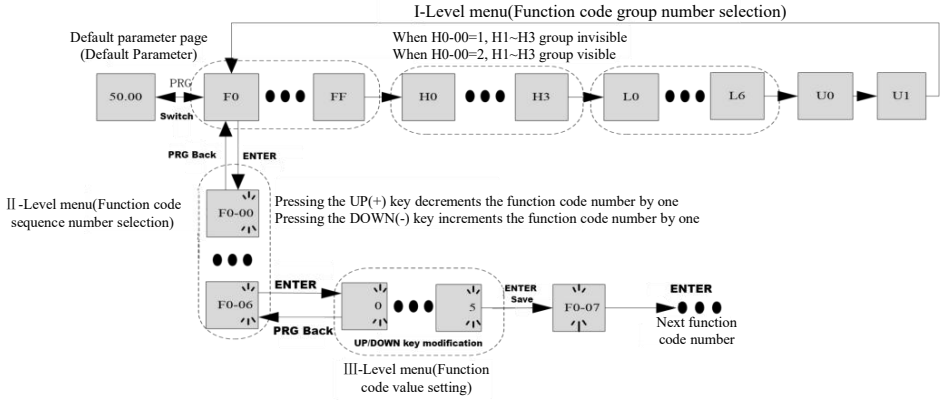


Figure 4-2. Three-Level Menu Operation Flowchart

Note: When operating the third-level menu, you can press the PRG key or the ENTER key to return to the second-level menu. However, pressing the ENTER key will save the current parameter modification value and transfer it to the next function code, while pressing the PRG key will discard the current parameter modification.

For example: Change the function code F1-04 from 0.00Hz to 5.00Hz.

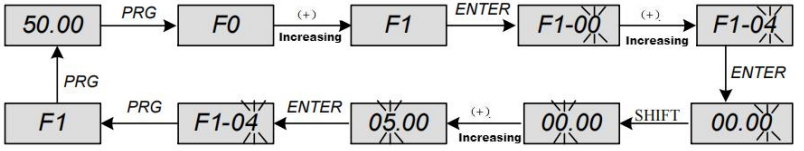


Figure 4-3 Parameter setting operation flowchart

In the third-level menu state, if the parameter has no flashing bit, it means the function code parameter value cannot be modified. For details, refer to the function code attribute description.

Chapter 5 Fault Diagnosis and Countermeasures

5.1 Fault Alarm and Countermeasures

During system operation, if a fault occurs, the VFD will immediately protect the motor by halting output, while the corresponding VFD fault relay contacts activate. The VFD panel displays the fault code, with the corresponding fault type and common troubleshooting methods detailed in the table below. The table is provided for reference only; do not attempt repairs or modifications without authorization. If the fault cannot be resolved, please contact our company or product agent for technical support.

Table 5-1 Fault Alarm and Countermeasures

Fault Name	Panel Display	Troubleshooting	Fault Handling Countermeasures
VFD Module Protection	Err01	1. Check for phase-to-phase or ground short circuits at the motor connection terminals U, V, and W. 2. Is the module overheating? 3. Check if the internal wiring of the VFD is loose. 4.Is the main control board, driver board, or module functioning properly?	1.Contact short circuit 2.Are the fans and air ducts functioning properly? 3.Connect all loose wires. 4.Request technical support
Accelerating Flow	Err04	1. The VFD output circuit is grounded or short-circuited. 2. Motor parameters are incorrect 3. The acceleration time is too short 4. V/F torque increase or inappropriate curve 5. The input voltage is too low. 6. Start a rotating motor 7. Sudden loading during acceleration 8. The VFD is under selected	1. Eliminate peripheral faults 2. Parameter check and parameter identification 3. Increase acceleration time 4. Adjust V/F to increase torque or curve 5. Adjust the voltage to the normal range 6. Select either speed tracking startup or wait for the motor to stop before starting 7. Cancellation of sudden load 8. Select a VFD with higher power rating

Overflow During Deceleration	Err05	1. The VFD output circuit is grounded or short-circuited 2. Motor parameters are incorrect 3. The reduction time is too short. 4. The input voltage is too low. 5. Sudden loading during deceleration 6. No brake unit or brake resistor 7. excessive flux braking gain	1. Eliminate peripheral faults 2. Parameter Identification of motor 3. Reduce deceleration time 4. Adjust the voltage to the normal range 5. Cancellation of sudden load 6. Brake unit and resistor 7. Reduce the flux brake gain
Overcurrent in Constant Speed Operation	Err06	1. The VFD output circuit is grounded or short circuited. 2. Motor parameters are incorrect 3. The input voltage is too low. 4. Is there a sudden load during operation? 5. The VFD is under selected	1. Eliminate peripheral faults 2. Parameter check and parameter identification 3. Adjust the voltage to the normal range 4. Cancellation of sudden load 5. Select a VFD with higher power rating
Overvoltage During Acceleration	Err08	1. The input voltage is too high. 2. External force dragging the motor during acceleration 3. The acceleration time is too short. 4. No brake unit or brake resistor 5. Motor parameters are incorrect	1. Adjust the voltage to the normal range 2. Remove the additional power source or install a brake resistor. 3. Increase acceleration time 4. Add a brake unit and resistor 5. Parameter check and parameter identification
Overvoltage During Deceleration	Err09	1. The input voltage is too high. 2. The motor is driven by an external force during the deceleration process. 3. The deceleration time is too short. 4. No brake unit or brake resistor	1. Adjust the voltage to the normal range 2. Remove the additional power source or install a brake resistor. 3. Reduce deceleration time 4. Add a brake unit and resistor
Overvoltage During Constant Speed Operation	Err10	1. The input voltage is too high. 2. External force dragging the motor during acceleration	1. Adjust the voltage to the normal range 2. Remove the additional power source or install a brake resistor.
Undervoltage Fault	Err12	1. Transient power failure 2. The input voltage of the VFD is outside the specified range. 3. Busbar voltage is abnormal 4. The rectifier bridge and buffer resistor are abnormal. 5. Drive board malfunction 6. Abnormal control board	1. Reducing fault 2. Adjust the voltage to the normal range 3. Request technical support

Drive Overload Fault	Err13	1. The load is too heavy or the motor is locked up. 2. The VFD is underselected	1. Reduce the load and inspect the motor and mechanical components. 2. Select a VFD with higher power rating
Motor Overload Fault	Err14	1. Is the motor protection parameter F9-01 set appropriately? 2. The load is too heavy or the motor is locked up. 3. The VFD is underselected	1. Set this parameter correctly 2. Reduce the load and inspect the motor and mechanical components. 3. Select a VFD with higher power rating
Drive Overheating	Err15	1. The ambient temperature is too high. 2. Air duct blockage 3. Fan damage 4. Module thermistor failure 5. Inverter module is damaged	1. Reduce the ambient temperature 2. Clean the air duct 3. Change the fan 4. Replace the thermistor 5. Replace the inverter module
Software Overload	Err16	1. Are the F7-61 and F7-62 parameter settings appropriate? 2. The load is too heavy or the motor is locked up. 3. The VFD is under selected	1. If the software overflow is not required, the fault logic can be disabled by setting F9-21=0. 2. The overcurrent judgment thresholds and response times for F7-61 and F7-62 can be appropriately increased. 3. Reduce the load and inspect the motor and mechanical components. 4. Select the appropriate power VFD
Current Detection Fault	Err17	1. Check if the internal wiring of the VFD is loose 2. Check if the current detection device is functioning properly 3. Is the main control board or driver board functioning properly?	1. Check wiring 2. Request technical support
Short Circuit to Ground	Err20	Short circuit of motor to ground	Replace the cable or motor.
Tuning Timeout Fault	Err21	1. Tuning time> (acceleration time + deceleration time+ 90 seconds) 2. Motor parameters are not set correctly	1. Enter the correct motor parameters to restart self-leaning 2. Replace the cable or motor. 3. Request technical support

Input Phase Fault	Err23	1.The three-phase input power supply is abnormal. 2.Drive board malfunction 3.abnormal lightning protection plate 4.Main control board malfunction	1.Check and resolve issues in the peripheral circuitry 2.Request technical support
Output Phase Loss Fault	Err24	1. The lead from the VFD to the motor is abnormal. 2. Unbalance of three-phase output of VFD during motor operation 3. Drive board malfunction 4. Module error	1. Eliminate peripheral faults 2. Check the three-phase winding of the motor and troubleshoot any issues. 3. Request technical support
Parameter Read and Write Fault	Err25	EEPROM chip damage	Replace the main control board
Communication Error	Err27	1. Is the host computer working? 2. Is the communication connection working properly? 3. Is the F8 group of communication parameters correct?	1. Check the upper computer wiring and other components. 2. Check the communication wiring 3. Check F8 group parameters
External Fault	Err28	1. The multi-functional DI terminal inputs external normally open or normally closed fault signals.	1. fault reset
Excessive Speed Deviation	Err29	1. The load is too heavy and the acceleration time is too short 2. The fault detection parameters F9-31 and F9-32 are improperly set.	1. Extend acceleration and deceleration time 2. Reset F9-31 and F9-32
User-defined Fault 1	Err30	1. User-defined fault 1 signal input through the multi-function terminal DI	1. Reset
User-defined Fault 2	Err31	2. User-defined fault 2 signal input through the multi-function terminal DI	1. Reset
PID Feedback Loss During Operation	Err32	1. The PID feedback value is lower than the FA-13 setpoint	1. Check the feedback single or reset FA-13.
Quick Rate Limiting	Err33	1. Overload or locked rotor 2. The acceleration time is too short	1. Reduce the load or replace with a higher-power VFD 2. Apropriately extended acceleration time
Dropout Fault	Err34	1. The drop detection condition is met. For specific usage, refer to F9-28-F9-30.	1. Reset or reconfigure detection conditions

Power Input Fault	Err35	1. The input voltage is outside the specified range. 2. Frequent power fluctuations	1. Adjust the input voltage 2. extend the power cycle
Parameter Storage Error	Err37	Communication Abnormality Between DSP and EEPROM Chip	1. Replace the main control board 2. Contact the manufacturer
The run Time Has Reached	Err39	1. The VFD's current operating time exceeds the F7-38 set value	1. Reset
Cumulative Runtime Reached	Err40	1. The cumulative runtime has reached the set value F7-20	1. Use the parameter initialization function 2 to clear the recording time or reset the cumulative running time
Switch Motor During Operation	Err42	Switching motor through terminals during operation	Switch the motor after the shutdown
Motor Overspeed	Err43	1. The speed detection time F9-34 setting is unreasonable 2. No motor is connected when operating in open-loop vector mode	1. The control mode is switched to VF mode when the motor is not in use. 2. Reset F9-34 parameters
Master-slave Control Communication Disconnection	Err46	1. No host is set, but a slave is configured 2. Communication line error or incorrect communication parameters	1. Set host and reset fault 2. Check the communication cable and communication parameter F8 group

5.2 Common Faults and Their Treatment

The following fault scenarios may occur during VFD operation. Refer to the methods below for basic troubleshooting.

Table 5-2 Common Faults and Their Solutions

Order Number	Fault Phenomenon	Possible Reasons	Resolution
1	No display on the power supply	1. The grid voltage is either absent or too low. 2. Fault of switching power supply on VFD drive board 3. Rectifier bridge damaged 4. The buffer resistor of the VFD is damaged. 5. Fault in the control board and keyboard 6. The connection between the control board, drive board, and keyboard is broken.	1. Check the input power 2 . Check the bus voltage 3. Replug the keyboard and 30-pin cable 4. Contact the manufacturer

2	The power supply display shows an “Err20” alarm.	1. Motor or output line short-circuited to ground 2. VFD damage	1. Insulation of motor and output line measured by oscilloscope 2. Contact the manufacturer
3	Frequent Err 15 (module overheating) fault	1. The carrier frequency is set too high 2. Fan damage or air duct blockage 3. Internal components of the VFD are damaged (thermocouple or other)	1. Reduce the carrier frequency (F0-26) 2. Replace the fan and clean the air duct. 3. Contact the manufacturer
4	The motor does not rotate after the VFD is activated.	1. Motor and motor wire 2. VFD parameter configuration error (motor parameters) 3. Poor contact between the drive board and control board 4. Drive board failure	1. Reconfirm the wiring between the VFD and the motor 2. Replace the motor or resolve the mechanical issue 3. Check and reset the motor parameters
5	DI terminal failure	1. Parameter configuration error 2. External signal error 3. The DI dial switch is in the wrong position 4. control board failure	1. Check and reset the F5 group parameters 2. Reconnect the external signal line 3. Check if the DI dial switch position matches the wiring configuration 4. Contact the manufacturer
6	The frequency VFD reports overcurrent and overvoltage faults.	1. Incorrect motor parameter settings 2. The acceleration and deceleration times are inappropriate 3. Fluctuation of load	1. Reset motor parameters or tune the motor 2. Set appropriate acceleration and deceleration times 3. Contact the manufacturer

Chapter 6 MH600 Modbus Communication Protocol

The MH600 series VFDs feature RS232/RS485 communication interfaces and support the Modbus protocol. Centralized control can be achieved via computer or PLC, enabling users to configure operation commands, modify or access function code parameters, and monitor the converter's operational status and fault information through this protocol.

1. Communication Frame Structure

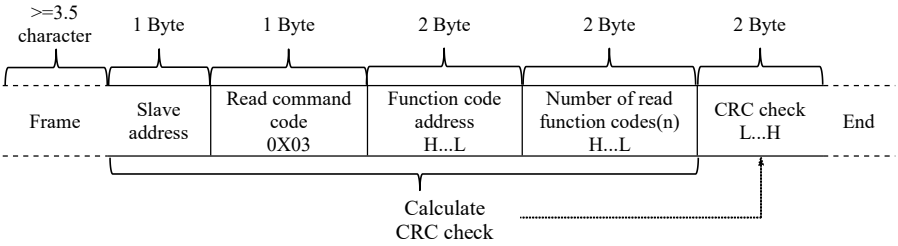
The Communication Data Format of the MH600 Series VFD's Modbus-RTU Protocol is as Follows.

Frame Header START	3.5 character time
Address of Device	Address: 1-247 (configured by F8-02)
Command Code CMD	03: Read slave parameters; 06: Write slave parameters
Data Content DATA (n-1)	Data content : Function code parameter address, function code parameter count, function code parameter value, etc.
Data Content DATA (n-2)	
……	
Data Content DATA0	
CRC CHK Low Bit	Check value: CRC16 checksum. During transmission, the low byte comes first and the high byte comes last. For the calculation method, refer to the CRC checksum section in this chapter.
CRC CHK High	
END	3.5 character time

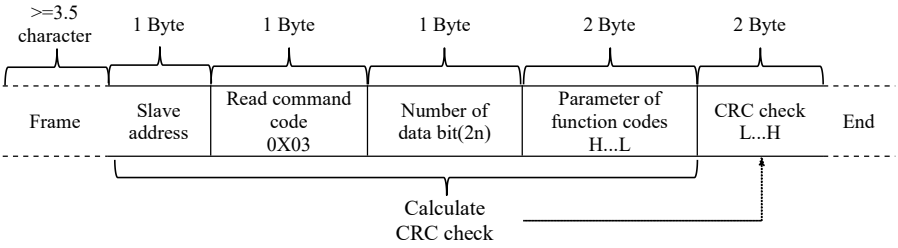
Command (CMD) and Data Description (DATA)

The read operation instruction 0x03H reads n words, with a maximum of 12 words that can be read, n=1~12.

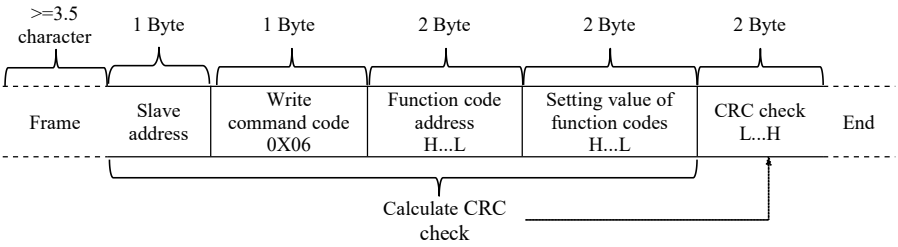
Host reads command frame



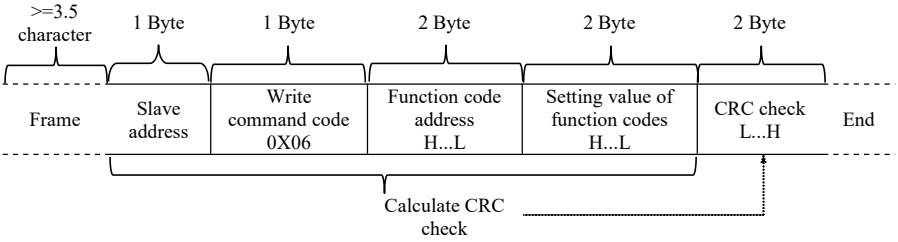
Slave device reads respond frame



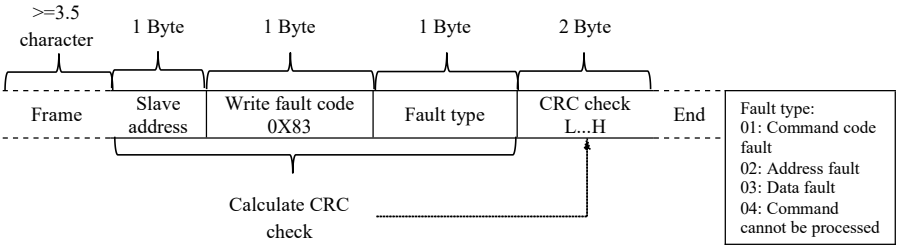
Host writes command frame



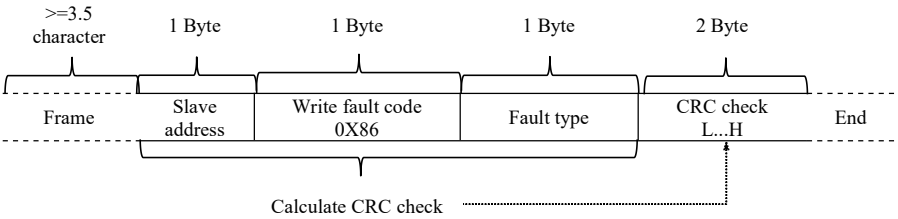
Slave device writes respond frame



If the slave device detects a communication frame error, or if read/write fails for other reasons, it will reply with an error frame. The slave station reads the error frame as an acknowledgment.



Slave device writes respond fault frame



Example: Read the contents of two consecutive parameters starting from F0-03 of the VFD with slave address F8-02 set to 01.

The host sends the frame as shown in the figure:

Frame >=3.5 character	Slave address 0X01	Read command code 0X03	Function code address 0XF0 0XF3	Read the number of read function codes 0X00 0X02	CRC check 0X07 0X08	End

The host sends the frame as shown in the figure:

Frame >=3.5 character	Slave address 0X01	Read command code 0X03	Number data bit 0X04	F0-03 parameter value 0X00 0X00	F0-04 parameter value 0X00 0X00	CRC check 0XFA 0X33	End

2.Address Definition of Communication Parameters

This section contains communication data for controlling the VFD's operation, including its status and parameter settings. It also includes read/write functions for code parameters (some codes are non-modifiable and reserved for manufacturer use or monitoring purposes).

Function code parameter address marking rules:

Rule for parameter address representation using function code group number and label:

High byte: F0~FF (F group), H0~HF (H group), L0~LF (L group), n0~nF (N group),

P0~PF (P group), 70~7F (U group) Low byte: 00~FF

For example, F0-11, with the address represented as F00B.

Note:

FF group: Parameters cannot be read or modified.

Group U: Read-only, no parameter changes allowed.

Some parameters cannot be modified when the VFD is in operation; others remain unchanged regardless of the VFD's status. When modifying function code parameters, attention must be paid to their range, unit, and relevant specifications.

Function Code Group Number	Communication Access Address	Modify the Function Code Address in RAM (Write Only)
Groups F0~FE	0xF000~0xFEFF	0x0000~0x0EFF
Groups H0~HF	0xA000~0xAFFF	0x4000~0x4FFF
Groups L0~LF	0xB000~0xBFFF	0x5000~0x5FFF
Groups n0~nF	0xC000~0xCFFF	0x6000~0x6FFF
Groups U0 and U1	0x70xx、0x71xx	

Note that frequent EEPROM writes may shorten its lifespan. Therefore, certain function codes in communication mode need not be stored—just update the RAM values.

For F-group parameters, this function can be implemented by setting the high bit F of the function code address to 0.

For the H-group parameter, this function can be implemented by setting the high bit A of the function code address to 4.

The corresponding function code addresses are represented as follows: High byte: 00~0F (F group), 40~4F (A group); Low byte: 00~FF

For example, the function code F0-11 is not stored in EEPROM, and its address is 000B. This address only allows RAM writing and cannot be used for reading, as it is an invalid address during read operations.

Shut-Down/Operation Parameters Section:

Address	Parametric description
0x1000/ 0x9000	1000: *Communication setting value (-10000 to 10000) Decimal (unit: 0.01%), readable and writable
	9000: Communication frequency settings: 0Hz to F0-14 (maximum The unit is 0.01 Hz, and it can be read and written.
0x1001	Set frequency (unit: 0.01Hz), read-only
0x1002	Run frequency (unit: 0.01Hz), read-only
0x1003	Busbar voltage (unit: 0. 1V), read-only
0x1004	Output voltage (unit: 0. 1V), read-only
0x1005	Output current (unit: 0. 1A), read-only
0x1006	Output power (unit: 0. 1kW), read-only
0x1007	DI input flag (unit: 1), read-only
0x1008	DO output flag (unit: 1), read-only
0x1009	PID settings (unit: 1), read-only
0x100A	PID feedback (unit: 1), read-only
0x100B	AI1 voltage (unit: 0.01V), read-only
0x100C	AI2 voltage (unit: 0.01V), read-only
0x100D	AO1 output voltage (unit: 0.01V) read-only

Address	Parametric description
0x100E	PLC steps (unit: 1), read-only
0x100F	Rotation speed (unit: 1rpm), read-only
0x1010	Count value (unit: 1), read-only
0x1011	Enter pulse frequency (unit: 0.01 kHz), read-only
0x1012	Feedback speed (unit: 0. 1Hz), read-only
0x1013	Remaining runtime (unit: 0.1 min), read-only
0x1014	AI1 pre-calibration voltage (unit: 0.001V) read-only
0x1015	AI2 pre-corrected voltage (unit: 0.001V) read-only
0x1016	Actual linear speed (unit: 1 m/ min), read-only
0x1017	Load speed (unit: custom, refer to F7-31), read-only
0x1018	Current power-on time (unit: 1 min), read-only
0x1019	Current runtime (unit: 0.1 min) is read-only
0x101A	Enter pulse frequency (unit: 1Hz), read-only
0x101B	Main frequency X displayed (unit: 0.01Hz), read-only
0x101C	Display the secondary frequency Y (unit: 0.01Hz), read-only
0x101D	Target torque (unit: 0. 1%) Set the motor to 100% rated torque, read-only
0x101E	Output torque (unit: 0. 1%) Set the motor to 100% rated torque (read-only)
0x101F	Output torque (unit: 0. 1%) Set the VFD's rated current to 100% for read-only mode
0x1020	Maximum torque (unit: 0. 1%, with the VFD rated current set to 100%, read-only)
0x1021	Separate the target voltage of VF (unit: 1V), read-only
0x1022	VF separation output voltage (unit: 1V), read-only
0x1023	Keep as read-only
0x1024	Motor 1/2 indicator (unit: 1), read-only
0x1025	Length value input (unit: 1) Read-only
0x1026	AO2 output voltage (unit: 0.01V), read-only
0x1027	VFD status (unit: 1), read-only
0x1028	Current fault (unit: 1), read-only

Example 1: Read the operating frequency of the first device: 0x01 0x03 0x10 0x02 0x00 0 x01 0x21 0x0A 0x10 0x02 (1002) operating frequency address, 0x00 0x01 (0001) one data 0x21 0x0A (21 0A) CRC checksum.

Example 2: Simultaneously read the bus voltage, output voltage, and output current of the first device: 0x01 0x03 0x 10 0x03 0x00 0x03 CRC checksum. The data interpretation is similar to Example 1.

Note: The communication setting value is a percentage of the relative value. 10000 corresponds to 100.00%, and-10000 corresponds to-100.00%.

For data in frequency dimensions, this percentage is a percentage relative to the maximum frequency (F0-14); for data in torque dimensions, this percentage is F3-21, F3-23, H3-21, H3-23.

Note: The D0 output terminal must be configured with the 16 (Communication Control) function. The AO output must be configured with the 7(communication control output) function.

Type	Command Address	Command Content
Control Command Input (Write Only)	0x2000	0001: Forward operation 0002: Reverse operation 0003: Forward point movement 0004: Reverse point stop 0005: Free stop 0006: Slow down stop 0007: Fault reset
Status Read (Read Only)	0x3000	0001: Forward operation 0002: Reverse operation 0003: Shutdown
Digital Output Terminal Control (Write Only)	0x2001	BIT0: RELAY1 output control BIT1: DO1 output control BIT2: RELAY2 output control
Analog Output AO1 Control (Write Only)	0x2002	0~7FFF representation 0%~100%
Analog Output AO2 Control (Write Only)	0x2003	0~7FFF representation 0%~100%

Type	Command Address	Command Content
Fault Location of Frequency Converter	0x8000	0000: No faults 0001: Reserve 0002: Reserve 0003: Reserve 0004: Acceleration overcurrent 0005: Overcurrent reduction 0006: Constant-speed overcurrent 0007: Stop overcurrent 0008: Acceleration overvoltage 0009: Speed reduction overvoltage 000A: Constant-rate overvoltage 000B: Stop overvoltage 000C: Under-voltage fault 000D: VFD overload 000E: Motor overload 000F: Module overheating 0010: Reserve 0011: Current detection fault 0012: Reserve 0013:Reserve 0014: Motor ground short circuit fault 0015: Motor tuning fault 0016: Reserve 0017: Invalid phase input 0018: Output phase missing 0019: EEPROM read/write error 001A: Password input exceeded limit 001B: Communication error 001C: External fault 001D: Excessive speed deviation 001E: User-defined fault 1 001F: User-defined fault 2 0020: PID feedback loss during operation 0021: Hardware flow control failure 0022: Unloading 0023: Buffer resistor overload fault 0024: Contactor malfunction 0025: Agent runtime reached 0026: Motor overheating (reserved) 0027: Current runtime reached 0028: Cumulative runtime reached 0029: Power-on time reached 002A: Motor failure during runtime switching 002B: Motor overspeed 002C: Keep 002D: Keep 002E: Reserve 002F: Point-to-slave failure

The Return Address for Communication Failures: Read Failure 83XX, Write Failure 86XX.

Chapter 7 Functional Parameter Table

The function code symbol is as follows:

"☆" indicates that the VFD parameters can be modified during both shutdown and operation (0)

"★": The VFD is in operation and cannot be modified (1)

"○": This parameter is a manufacturer parameter and cannot be changed by the user (3)

"●": The actual detected value of the VFD or the manufacturer's fixed value, which cannot be modified (2)

The communication address in the function parameter table is written in hexadecimal.

Enhanced function code: H0 group~H3 group, L0 group~L6 group, enabled by function parameter F7-75.

FC	Name	Content	Factory Value	Change	Postal Address
F0 Group-Basic Function Group					
F0-00	Product model	Product model: 5-digit display with 2 decimal places	61#.##	●	F000
F0-01	Display of GP type in VFD	0: G mould 1: P-type	0	★	F001
F0-02	Rated current	0.1A~3000.0A	Model selection	●	F002
F0-03	Motor control mode	Unit: Motor control mode selection 1: Open-loop vector control (vector without speed sensor) 2: V/F control 3: Closed-loop vector (with speed sensor vector) Ten: Motor type selection 0: Asynchronous motor	2	★	F003
F0-04	Run command source	0: Operation panel command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashing)	0	★	F004
F0-05	Benchmark of up/down modification frequency command in running time	0: Running frequency 1: Set frequency	1	★	F005

FC	Name	Content	Factory Value	Change	Postal Address
F0-06	Primary frequency source X selection	0: Up/Down modification frequency stop without memory 1: Up/Down frequency modification with power-off memory 2:AI1 3:AI 4: Multi-speed 5: Simple PLC 6: PID 7: Communication given 8 PULSE pulse setting 9 Up/Down modification frequency, shutdown memory, power loss no memory	1	★	F006
F0-07	Auxiliary frequency source Y selection	0: Up/Down modification frequency stop without memory 1: UP/Down frequency modification with power-off memory 2: AI1 3: AI2 4: Multi-speed 5: Simple PLC 6 :PID 7: Communication given 8: PULSE pulse setting 9: Up/Down modification frequency, shutdown memory, power loss no memory	0	★	F007
F0-08	Auxiliary frequency source Y range selection	0: Relative to maximum frequency 1: Relative to frequency source X 2: The range is the same as 0, but there is no negative frequency output for the main and auxiliary channels.	0	☆	F008
F0-09	Auxiliary frequency source Y range	0%~100%	100%	☆	F009

FC	Name	Content	Factory Value	Change	Postal Address
F0-10	Frequency source selection	Unit: Frequency source selection 0: Main frequency source X 1: Main and auxiliary operation results (operation relationship determined by the tens digit) 2: Switching between primary frequency source X and auxiliary frequency source Y 3: Main frequency source X and switching of main and auxiliary operation results 4: Auxiliary Frequency Source Y and Switching of Main and Auxiliary Calculation Results Ten: Frequency Source Main and Auxiliary Operation Relationship 0: Main + Auxiliary 1: Main-Sub 2: Maximum of both 3: Minimum of both	00	☆	F00A
F0-11	Preset frequency	0.00Hz~maximum frequency F0-14	50.00Hz	☆	F00B
F0-13	Motor running direction selection	0: Same as the current motor direction 1: Opposite to the current motor direction 2: Reversal is prohibited	0	☆	F00D
F0-14	Maximum output frequency	When F0-20=2, the adjustable range is 50.00Hz~599.00Hz;	50.00Hz	★	F00E
F0-15	Upper limit frequency source	0: Number given (F0-16) 1: AI1 2: AI2 3: Communication given 4: PULSE settings	0	★	F00F
F0-16	Upper limiting frequency	Lower limit frequency F0-18 to upper limit frequency F0-14	50.00Hz	☆	F010
F0-17	Upper limit frequency offset	0.00 ~ maximum frequency F0-14	0.00Hz	☆	F011

FC	Name	Content	Factory Value	Change	Postal Address
F0-18	Lower limit frequency	0.00Hz ~ upper frequency F0-16	0.00Hz	☆	F012
F0-19	Command source binding selection	Unit: Operation panel command binding frequency source selection 0: Unbound 1: Digital set frequency 2: AI1 3: AI2 4: Multi-speed 5: Simple PLC 6: PID 7: Communication given 8: PULSE pulse setting (DI5) Ten: Terminal command binding frequency source selection Hundreds: Communication command binding frequency source selection Thousands: Reserve	000	☆	F013
F0-20	Select decimal frequency	1: 1 decimal place 2: Two decimal places	2	★	F014
F0-21	Acceleration and deceleration time unit	0: 1 second 1: 0.1 seconds 2: 0.01 seconds	1	★	F015
F0-22	Reference frequency for acceleration and deceleration time	0: Maximum frequency (F0-14) 1: Preset frequencies (F0-11) 2: Motor rated frequency (F4-05 or H1-05)	0	★	F016
F0-23	Acceleration time 1	0s~30000s(F0-21=0) 0.0s~3000.0s(F0-21=1) 0.00s~300.00s(F0-21=2)	10.0s	☆	F017
F0-24	Reduction time 1	0s~30000s(F0-21=0) 0.0s~3000.0s(F0-21=1) 0.00s~300.00s(F0-21=2)	10.0s	☆	F018
F0-25	Over modulated voltage rise	0%~10%	3%	★	F019
F0-26	Carrier frequency	1.0kHz~11.0kHz	Model selection	☆	F01A

FC	Name	Content	Factory Value	Change	Postal Address
F0-27	Carrier frequency temperature adjustment	0: Invalid 1: Valid	1	☆	F01B
F0-28	Parameter initialization	0: no-operation 1: Restore factory settings, excluding motor parameters, recorded information, and frequency decimal point F0-20. 2: Clear record information 3: Backup user current parameters 4: Restore user backup parameters	0	★	F01C
F1 Group-Start/Stop Control					
F1-00	Starting mode	0: Direct start 1: RPM tracking 2: Pre-excitation start-up of asynchronous motor	0	☆	F100
F1-01	Rotary speed tracking method	0: Start from the shutdown frequency 1: Start from the target frequency 2: Start from the maximum frequency	0	★	F101
F1-02	Maximum current of speed following	30%~150%	100%	★	F102
F1-03	Speed tracking speed	1~100	20	☆	F103
F1-04	Start frequency	0.00Hz~10.00Hz	0.00Hz	☆	F104
F1-05	Start frequency holding time	0.0s~100.0s	0.0s	★	F105
F1-06	Start DC braking current	0%~100%	0%	★	F106
F1-07	Starting DC braking time	0.0s~100.0s	0.0s	★	F107
F1-08	Selection of frequency curve for acceleration and deceleration	0: Straight line 1: S-curve A 2: S-curve B (F1-09 to F1-12, with units of 0.01 seconds)	0	★	F108
F1-09	S-curve acceleration start time	0.0%~100.0%	20.0%	★	F109

FC	Name	Content	Factory Value	Change	Postal Address
F1-10	S-curve acceleration end time	0.0%~100.0%	20.0%	★	F10A
F1-11	S curve deceleration start time	0.0%~100.0%	20.0%	★	F10B
F1-12	S curve deceleration end time	0.0%~100.0%	20.0%	★	F10C
F1-13	Shut-down mode	0: Deceleration and stop 1: Free stop	0	☆	F10D
F1-14	Start frequency of shutdown DC braking	0.00Hz~F0-14	0.00Hz	☆	F10E
F1-15	DC brake waiting time for shutdown	0.0s~100.0s	0.0s	☆	F10F
F1-16	Stop brake DC current	0%~100%	0%	☆	F110
F1-17	DC braking time of shutdown	0.0s~36.0s	0.0s	☆	F111
F1-21	Demagnetization time	0.01s~3.00s	0.50s	★	F115
F1-23	Stop-and-go mode selection	0: Invalid 1: Automatic adjustment of deceleration rate 2: Deceleration and stop	0	★	F117
F1-24	Deceleration time during instantaneous stop and no stop deceleration stop	0.0s~100.0s	10.0s	★	F118
F1-25	Instantaneous stop and no stop effective voltage	60%~85%	80%	★	F119
F1-26	Instantaneous stop and no stop restoration voltage	85%~100%	90%	★	F11A
F1-27	Instantaneous stop and no stop restoration voltage restoration voltage judgment	0.0s~300.0s	0.3s	★	F11B
F1-28	Instantaneous stop and no stop automatic gain control	0~100	40	☆	F11C
F1-29	Instantaneous stop and no stop automatic integral regulation	1~100	20	☆	F11D
F2 Group-V/F Control Parameters					

FC	Name	Content	Factory Value	Change	Postal Address
F2-00	V/F curve setting	0: Linear VF curve 1: Multi-point VF curve 2: Square VF curve 3: 1.7th power curve 4: 1.5th power curve 5: 1.3th power curve 6: VF complete dissociation mode 7: V/F semi-dissociation mode	0	★	F200
F2-01	Torque boost	0.0%~30.0%	0.0%	☆	F201
F2-02	Torque rise cut-off frequency	0.00Hz~maximum frequency	25.00Hz	★	F202
F2-03	V/F frequency point F1	0.00Hz~F2-05	1.30Hz	★	F203
F2-04	V/F voltage point V1	0.0%~100.0%	5.2%	★	F204
F2-05	V/F frequency point F2	F2-03~F2-07	2.50Hz	★	F205
F2-06	V/F voltage point V2	0.0%~100.0%	8.8%	★	F206
F2-07	V/F frequency point F3	0.00Hz~50.00 Hz	15.00Hz	★	F207
F2-08	V/F voltage point V3	0.0%~100.0%	35.0%	★	F208
F2-09	Slip compensation coefficient	0.0%~200.0%	50.0%	☆	F209
F2-10	Flux brake gain	0~200	100	☆	F20A
F2-11	Oscillation suppression gain	0~100	Model selection	☆	F20B
F2-13	VF slip compensation time constant	0.02s~1.00s	0.30s	☆	F20D
F2-15	Selection of Output Voltage Source for VF Separation	0 : Number settings (F2-16) 1: AI1 2: AI2 3: Multi-Stage Instruction 4: simple PLC 5: PID 6: Communication given 7: PULSE pulse setting (DI5) 100.0% corresponds to the	0	☆	F20F

FC	Name	Content	Factory Value	Change	Postal Address
		motor's rated voltage			
F2-16	Digital setting of output voltage for V/F separation	0V~the motor rated voltage	0V	☆	F210
F2-17	V/F separation output voltage acceleration time	0.0~3000.0s	1.0s	☆	F211
F2-18	V/F separation output voltage deceleration time	0.0~3000.0s	1.0s	☆	F212
F2-19	V/F separation stop mode selection	0: Frequency and output voltage deceleration time are independent 1: After the voltage is reduced to 0, the frequency is then decreased.	0	☆	F213
F3 Group-Vector Control Parameter					
F3-00	Switch frequency F1	0.00~F3-02	5.00 Hz	☆	F300
F3-02	Switch frequency F2	F3-00~F0-14	10.00 Hz	☆	F302
F3-04	Low frequency speed proportional gain	0.1~10.0	4.0	☆	F304
F3-05	Low frequency speed integral time	0.01s~10.00s	0.50s	☆	F305
F3-06	High frequency speed proportional gain	0.1~10.0	2.0	☆	F306
F3-07	High frequency speed integral time	0.01~10.00s	1.00s	☆	F307
F3-08	Speed loop integral attribute selection	0: Integration is active 1: integration separation	0	★	F308
F3-11	Torque current regulator Kp	0~30000	2200	☆	F30B
F3-12	Torque current regulator Ki	0~30000	1500	☆	F30C
F3-13	Excitation current regulator Kp	0~30000	2200	☆	F30D
F3-14	Excitation current	0~30000	1500	☆	F30E

FC	Name	Content	Factory Value	Change	Postal Address
	regulator Ki				
F3-15	Flux brake gain	0~200	0	☆	F30F
F3-16	Weak magnetic torque correction coefficient	50%~200%	100%	☆	F310
F3-17	Slip compensation gain	50%~200%	100%	☆	F311
F3-18	Time constant of speed loop feedback filter	0.000~1.000s	0.015s	☆	F312
F3-19	Time constant of speed loop output filter	0.000~1.000s	0.000s	☆	F313
F3-20	Upper limit source of electric torque	0: F3-21 1: AI1 2: AI2 3: Communication given 4: PLUSE given (Analog range corresponds to F3-21)	0	☆	F314
F3-21	Upper limit of electric torque	0.0%~200.0%	150.0%	☆	F315
F3-22	Upper limit source of braking torque	0: F3-23 1: AI1 2 : AI2 3: Communication given 4: PLUSE given (Analog range corresponds to F3-23)	0	☆	F316
F3-23	Upper limit of braking torque	0.0~200.0%	150.0%	☆	F317
F4 Group-First Motor Parameter					
F4-00	Motor parameter tuning	0: No function 1: Static tuning 2: Rotary tuning	0	★	F400
F4-01	Rated power of motor 1	0.1kW~1000.0kW	Model selection	★	F401
F4-02	Rated voltage of motor 1	1V~1500V	380V	★	F402
F4-04	Rated current of motor 1	0.01A~600.00A (motor rated power <=30.0kW) 0. 1A~6000.0A (motor rated	F4-01 confirmed	★	F404

FC	Name	Content	Factory Value	Change	Postal Address
		power>30.0kW)			
F4-05	Rated frequency of motor 1	0.01Hz~F0-14	50.00 Hz	★	F405
F4-06	Rated speed of motor 1	1rpm~20000rpm	F4-01 confirmed	★	F406
F4-07	No-load current of motor 1	0.01A~F4-04 (motor rated power <=30.0kW) 0. 1A~F4-04 (motor rated power>30.0kW)	Model selection	★	F407
F4-08	Motor stator resistance	0.001 Ω~65.535 Ω	Model selection	★	F408
F4-09	Rotor resistance of motor	0.001 Ω~65.535 Ω	Model selection	★	F409
F4-10	Motor 1 mutual inductance	0.1Mh~6553.5 Mh	Model selection	★	F40A
F4-11	Motor leakage inductance	0.01Mh~655.35Mh	Model selection	★	F40B
F4-12	Acceleration of Dynamic Complete Tuning	1.0s~6000.0s	10.0s	☆	F40C
F4-13	Deceleration at Dynamic Complete Tuning	1.0s~6000.0s	10.0s	☆	F40D
F5 Group-Input Terminal					
F5-00	DI1 terminal function	0: No function 1: Forward drive (FWD) 2: Reversal operation (REV) 3: Three-wire operation control 4: Forward jog (FJOG) 5: Reverse Jog (RJOG) 6: Terminal UP 7: Terminal DOWN 8: Free parking 9: Fault reset 10: Operation paused	1	★	F500

FC	Name	Content	Factory Value	Change	Postal Address
F5-01	DI2 terminal functions	11: External fault normally open input 12: Multi-stage instruction terminal 1 13: Multi-stage instruction terminal 2 14: Multi-stage instruction terminal 3 15: Multi-stage instruction terminal 4 16: Acceleration and deceleration selection terminal 1 17: Acceleration and deceleration selection terminal 2 18: Frequency source switching 19: Reset UP/DOWN settings (terminals, keyboard) 20: Run command to switch terminals 21: Acceleration and deceleration prohibited 22: PID failure (paused) 23: PLC status reset 24: Pause the swing 25: Timed trigger input 26: Immediate DC braking 27: External fault normally closed input 28: Counter input 29: Counter reset 30: Length count input 31: Reset length counter 32: Torque control disabled 33: PULSE (pulse) frequency input 34: Frequency modification is prohibited 35: PID action direction reversal 36: External parking terminal 1	2	★	F501
F5-02	DI3 terminal function		9	★	F502
F5-03	DI4 terminal functions		12	★	F503

FC	Name	Content	Factory Value	Change	Postal Address
F5-04	DI5 terminal functions	37: Control command switch terminal 2 38: PID integral pause terminal 39: Frequency source X and preset frequency switching terminal 40: Frequency source Y and preset frequency switching terminal 41: Switching between Motor 1 and Motor 2 42: Reserved 43: PID parameter switching terminal 44: Speed control/torque control switch 45: Emergency stop 46: External parking terminal 2 47: Deceleration DC braking 48: The run time is reset 49: Switching between two-wire and three-wire systems 50: Reverse is prohibited. 51: User-defined fault 1 52: User-defined fault 2 53: Sleep input			F504
F5-05	DI6 terminal functions		13	★	F505
F5-06	DI7 terminal functions				F506
F5-10	DI terminal filter time	0.000~1.000s	0.010s	☆	F50A
F5-11	Terminal command mode	0: Two-line 1 1: Two-line configuration 2 2: Three-wire 1 3: Three-wire 2	0	★	F50B
F5-12	Terminal UP/DOWN change rate	0.01Hz/s~100.00Hz/s	1.00Hz/ s	☆	F50C
F5-13	Terminal valid logic 1	0: High level 1: Low level Unit: DI1 Ten: DI2 Hundreds: DI3 Thousands: DI4 Tens Thousands: DI5	00000	★	F50D

FC	Name	Content	Factory Value	Change	Postal Address
F5-15	Minimum input value for AI1	0.00V~10.00V	0.00V	☆	F50F
F5-16	AI1 minimum input setting	-100.0%~100.0%	0.0%	☆	F510
F5-17	Maximum input value for AI1	0.00V~10.00V	10.00V	☆	F511
F5-18	AI1 maximum input setting	-100.0%~100.0%	100.0%	☆	F512
F5-19	AI1 input filter time	0.00s~10.00s	0.10s	☆	F513
F5-20	AI2 Minimum input value	0.00V~10.00V	0.00V	☆	F514
F5-21	AI2 minimum input setting	-100.0%~100.0%	0.0%	☆	F515
F5-22	AI2 Maximum input value	0.00V~10.00V	10.00V	☆	F516
F5-23	AI2 maximum input setting	-100.0%~100.0%	100.0%	☆	F517
F5-24	AI2 input filter time	0.00s~10.00s	0.10s	☆	F518
F5-30	Minimum PULSE input frequency	0.00KHz~100.00KHz	0.00KHz	☆	F51E
F5-31	Set the PULSE input minimum frequency	-100.0%~100.0%	0.0%	☆	F51F
F5-32	PULSE Maximum input frequency	0.00KHz~100.00KHz	50.00KHz	☆	F520
F5-33	PULSE Maximum input frequency	-100.0%~100.0%	100.0%	☆	F521
F5-34	PULSE input filter time	0.00s~10.00s	0.10s	☆	F522
F5-35	DI1 activation delay time	0.0s~3600.0s	0.0s	☆	F523
F5-36	DI1 delay time	0.0s~3600.0s	0.0s	☆	F524
F5-37	DI2 activation delay	0.0s~3600.0s	0.0s	☆	F525
F5-38	DI2 delay time	0.0s~3600.0s	0.0s	☆	F526
F5-39	DI3 activation delay	0.0s~3600.0s	0.0s	☆	F527
F5-40	DI3 delay time	0.0s~3600.0s	0.0s	☆	F528
F5-41	AI1 as the DI terminal function selection	0~53, with the same function as a standard DI terminal	0	★	F529

FC	Name	Content	Factory Value	Change	Postal Address
F5-42	AI2 as the DI terminal function selection	0~53, with the same function as standard DI terminals	0	★	F52A
F5-44	The effective mode selection of AI as DI terminal	Unit: AI1: 0: High level is valid. 1: Low-level valid Ten: AI2: 0: High level is valid. 1: Low-level valid Hundred: Keep	0x00	☆	F52C
F5-45	AI path selection	AI multi-point curve selection: Unit: AI1 0: 2-point straight line F5-15~F 5-19 1: Multi-point curve 1: FE-00~FE-07 2: Multi-point curve 2: FE-08~FE-15 Ten: AI2 0: 2-point straight line F5-20~F5-24 1 Multi-point curve 1: FE-00~FE-07 2: Multi-point curve 2: FE-08~FE-15 Hundreds: Reserved	0x00	☆	F52D
F6 Group-Output Terminal					
F6-00	Select the output of control board relay RELAY1 (TA/TB/TC)	0: No output 1: VFD operation signal (RUN) 2: Fault output 3: Frequency level detection FDT1 arrived 4: Frequency arrival (FAR) 5: Running at zero speed 6: Motor overload pre-alarm 7: VFD overload pre-alarm 8: PLC cycle completed 9: Cumulative runtime reached 10: Frequency limited 11: Running ready 12: AI1>AI2	2	☆	F600

FC	Name	Content	Factory Value	Change	Postal Address
F6-01	Control board relay RELAY2 output (RA/RB/RC) selection	13: Upper limit frequency reached 14: Reached the lower limit frequency 15: Undervoltage state output 16: Communication settings 17: Timer output 18: Running in reverse 19: Reserved 20: Reached setting length 21: Torque limited 22: Current 1 arrives 23: Frequency 1 arrives 24: Module temperature reaches 25: Unloading in progress 26: The cumulative power-on time has reached 27: Timed arrival output 28: The run time has reached 29: Set design value reached 30: The specified count value has reached 31: Motor 1, Motor 2 indicators 32: Brake control output 33: Running at zero speed 2 34: Frequency level detection FDT2 reached 35: Zero current state 36: Software current exceeds limit 37: The lower frequency limit is reached, and the system outputs a shutdown signal. 38: Alarm output 39: Reserved 40: AI1 input limit exceeded 41: Reserved 42: Reserved 43: The frequency reaches 2 44: The current reaches 2. 45: Fault output.	1	☆	F601
F6-02	Y1 output selection		1	☆	F602

FC	Name	Content	Factory Value	Change	Postal Address
F6-04	Selection of Output Mode for FM Terminal	0: Pulse Output (FMP) 1: Open-circuit collector switch output (FMR)	0	☆	F604
F6-05	FMR output selection	Select the same Y1 output	0	☆	F605
F6-09	AO1 output selection	0: Running frequency 1: Set frequency 2: Output current (100% corresponds to twice the motor's rated current) 3: Output power (100% corresponds to twice the motor's rated power) 4: Output voltage (100% corresponds to 1.2 times the VFD's rated voltage) 5: Analog AI1 input value 6: Analog AI2 input value 7: Communication Settings 8: Output torque 9: Length 10: Count 11: Motor speed 12: Bus voltage (100.0% corresponds to 1000.0V) 13: Pulse input 14: Output current (100% corresponds to 1000.0A) 15: Output voltage (100.0% corresponds to 1000.0V) 16: Output torque (actual value-2~2 times rated)	0	☆	F609
F6-10	AO2 output selection		0	☆	F60A
F6-11	FMP output selection				F60B
F6-12	Maximum FMP output frequency	0.01KHZ~100.00KHZ	50.00	☆	F60C
F6-13	AO1 output lower limit	-100.0%~F6-15	0.0%	☆	F60D
F6-14	The lower limit corresponds to AO1 output	0.00V~10.00V	0.00V	☆	F60E
F6-15	AO1 output limit	F6-13~100.0%	100.0%	☆	F60F
F6-16	The upper limit corresponds to AO1 output	0.00~10.00V	10.00V	☆	F610
F6-17	AO2 output lower limit	-100.0%~F6-19	0.0%	☆	F611

FC	Name	Content	Factory Value	Change	Postal Address
F6-18	The lower limit corresponds to AO2 output	0.00V~10.00V	0.00V	☆	F612
F6-19	AO2 output limit	F6-17~100.0%	100.0%	☆	F613
F6-20	The upper limit corresponds to AO2 output	0.00~10.00V	10.00V	☆	F614
F6-21	Main relay T pull-in delay	0.0s~3600.0s	0.0s	☆	F615
F6-22	main relay R pull-in delay	0.0s~3600.0s	0.0s	☆	F616
F6-23	Y1 high level output delay	0.0s~3600.0s	0.0s	☆	F617
F6-26	Main relay T disconnect delay	0.0s~3600.0s	0.0s	☆	F61A
F6-27	Main relay R disconnect delay	0.0~3600.0S	0.0s	☆	F61B
F6-28	Y1 low-level output delay	0.0~3600.0S	0.0s	☆	F61C
F7 Group-Accessibility and Keyboard Display					
F7-00	Jog frequency	0.00Hz ~ maximum frequency	6.00Hz	☆	F700
F7-01	Jog acceleration time	0.0s~3000.0s	10.0s	☆	F701
F7-02	Jog deceleration time	0.0s~3000.0s	10.0s	☆	F702
F7-03	Acceleration time 2	0.0s~3000.0s	10.0s	☆	F703
F7-04	Deceleration time 2	0.0~3000.0s	10.0s	☆	F704
F7-05	Acceleration time 3	0.0~3000.0s	10.0s	☆	F705
F7-06	Deceleration time 3	0.0~3000.0s	10.0s	☆	F706
F7-07	Acceleration time 4	0.0~3000.0s	10.0s	☆	F707
F7-08	Deceleration time 4	0.0~3000.0s	10.0s	☆	F708
F7-09	Jump frequency 1	0.00Hz~maximum frequency	0.00Hz	☆	F709
F7-10	Amplitude of jump frequency 1	0.00Hz~maximum frequency	0.00Hz	☆	F70A
F7-11	Jump frequency 2	0.00Hz~maximum frequency	0.00Hz	☆	F70B

FC	Name	Content	Factory Value	Change	Postal Address
F7-12	Amplitude of jump frequency 2	0.00Hz~maximum frequency	0.00Hz	☆	F70C
F7-15	Forward and reverse dead time	0.0s~3000.0s	0.0s	☆	F70F
F7-16	Keyboard knob precision	0: Default 1: 0.1Hz 2: 0.5Hz 3: 1Hz 4: 2Hz 5: 4Hz 6: 5Hz 7: 8Hz 8: 10Hz 9: 0.01Hz 10: 0.05Hz	0	☆	F710
F7-17	Frequency below the lower limit frequency processing	0: Run at the lower frequency 1: Shutdown 2: Zero-speed operation	0	☆	F711
F7-18	Droop rate	0.0%~100.0%	0.0%	☆	F712
F7-19	Delay time for shutdown when frequency is below the lower limit	0.0s~600.0s	0.0s	☆	F713
F7-20	Set cumulative runtime	0h~65000h	0h	☆	F714
F7-21	Jog first	0: Invalid 1: Jog Priority Mode 1 2: Jog Priority Mode 2 (1) The strobe function remains active during user faults or PID loss faults. (2) The shutdown mode and DC braking can be configured.	1	☆	F715
F7-22	Frequency detection value (FDT1 level)	0.00Hz~maximum frequency	50.00Hz	☆	F716
F7-23	Frequency detection hysteresis (FDT 1 hysteresis)	0.0%~100.0%	5.0%	☆	F717
F7-24	Frequency arrival detection width	0.0%~100.0%	0.0%	☆	F718

FC	Name	Content	Factory Value	Change	Postal Address
F7-25	Reserved		0	●	F719
F7-26	Fan control	0: The fan runs continuously 1: The fan runs while the VFD is operating. (When the temperature exceeds 40°C, the fan will continue to operate even when the system is shut down)	0	★	F71A
F7-27	STOP/RESET function	0: Valid only when keyboard control is used 1: Shutdown or reset function is available in all control modes	0	☆	F71B
F7-28	Quick /JOG key function selection	0: Jog forward 1: Forward/Reverse Switch 2: Jog reversal 3: Switch between Panel and Remote Control	0	★	F71C
F7-29	LED display	0000~0xffff (hexadecimal number) 0000 to 0xffff Bit00: Operating frequency 0001 Bit01: Set frequency 0002 Bit02: Bus voltage 0004 Bit03: Output voltage 0008 Bit04: Output current 0010 Bit05: Output power 0020 Bit06: DI Input Status 0040 Bit07: DO Output Status 0080 Bit08: AI1 voltage 0100 Bit09: AI2 voltage 0200 Bit10: PID setpoint 0400 Bit11: PID feedback 0800 Bit12: counter value 1000 Bit13: Length value Bit14: Load speed display 4000 Bit15: PLC stage 8000	H.441F	☆	F71D

FC	Name	Content	Factory Value	Change	Postal Address
F7-30	LED shutdown display	1~0x1fff (hexadecimal number) Bit00: Sets the frequency 0001 Bit01: Bus voltage 0002 Bit02: DI input status 0004 Bit03: DO output status 0008 Bit04: AI1 voltage 0010 Bit05: AI2 voltage 0020 Bit06: PID setpoint 0040 Bit07: PID feedback value 0080 Bit08: Count value 0100 Bit09: Length value 0200 Bit10: Load speed display 0400 Bit11: PLC stage 0800 Bit12: Input pulse frequency 1000 Bit13~Bit15: Reserved	H.0043	☆	F71E
F7-31	Load speed velocity coefficient	0.001~655.00	1.000	☆	F71F
F7-32	Radiator temperature	12℃~100℃	Measured value	●	F720
F7-33	Cumulative power-on time	0h~65535h	Measured value	●	F721
F7-34	Cumulative runtime	0h~65535h	Measured value	●	F722
F7-36	Enable scheduled execution for the current run	0 Disable 1: Enable	0	★	F724
F7-37	Select the time source for the current run	0: Number setting F7-38 1: AI1 2: AI2 (AI is 100% F7-38)	0	★	F725
F7-38	Current run time setting	0.0min~6500.0min	0.0min	☆	F726
F7-39	High level timing time	0.0s~6000.0s	2.0s	☆	F727
F7-40	Low level timing time	0.0s~6000.0s	2.0s	☆	F728

FC	Name	Content	Factory Value	Change	Postal Address
F7-41	Enable protection	0: Invalid (Start-up terminal command valid, start directly) 1: Valid	1	☆	F729
F7-43	Frequency reached detection value 1	0.00Hz~F0-14	50.00Hz	☆	F72B
F7-44	Frequency detection value 1 reaches the width	0.0%~100.0%	0.0%	☆	F72C
F7-45	The current reaches the detection threshold 1	0.0%~300.0%	100.0%	☆	F72D
F7-46	Current detection value 1 reaches the width	0.0%~300.0%	0.0%	☆	F72E
F7-49	User password	0~65535	0	☆	F731
F7-50	Is the jump frequency effective during acceleration and deceleration	0 : Invalid 1: Valid	0	☆	F732
F7-51	Set the power-on arrival time	0h~65530h	0h	☆	F733
F7-53	Half-switching frequency point of acceleration time	0.00Hz~maximum frequency (F0-14)	0.00Hz	☆	F735
F7-54	Halftime switching frequency point	0.00Hz~maximum frequency (F0-14)	0.00Hz	☆	F736
F7-55	Frequency detection value (FDT2 level)	0.00Hz~maximum frequency (F0-14)	50.00Hz	☆	F737
F7-56	Frequency Detection FDT2 Delay Value	0.0%~100.0%	5.0%	☆	F738
F7-57	Frequency detection value 2	0.00Hz~maximum frequency (F0-14)	50.00Hz	☆	F739
F7-58	Frequency detection amplitude 2	0.0%~100.0%	0.0%	☆	F73A
F7-59	Zero current detection value	0.0%~300.0%	10.0%	☆	F73B
F7-60	Zero current detection delay time	0.01s~300.00s	1.00s	☆	F73C
F7-61	Output current amplitude detection	20.0%~400.0%	200.0%	☆	F73D

FC	Name	Content	Factory Value	Change	Postal Address
F7-62	Maximum allowable time of software overcurrent	0s~3600.0s	0s	☆	F73E
F7-63	The current reaches the detection threshold 2	20.0%~300.0%	100.0%	☆	F73F
F7-64	Current reaches the detection amplitude 2	0.0%~300.0%	0.0%	☆	F740
F7-65	LED running display parameter 2	0x0~0x1FF Bit00: Target torque% 0001 Bit01: Output torque% 0002 Bit02: Pulse input pulse frequency (KHz) 0004 Bit03: DI5 high-speed pulse sampling line speed (m/min) 0008 Bit04: Motor speed (rmp) 0010 Bit05: AC input current (A) 0020 Bit06: Cumulative runtime (h) 0040 Bit07: Last run time (min) 0080 Bit08: Cumulative power consumption (kWh) 0100 Bit09~Bit15: Reserved	H.010	☆	F741
F7-67	AI1 input voltage lower limit	0.00V~F7-68	2.00V	☆	F743
F7-68	AI1 input voltage upper limit	F7-67~11.00V	8.00V	☆	F744
F7-69	Module temperature reached	0℃~90℃	70℃	☆	F745
F7-70	Output power display correction factor	0.001~3.000	1.000	☆	F746
F7-71	Velocity display correction factor	Linear velocity = (F7-71 × number of HDI pulses sampled per second) / Fb-07	1.000	☆	F747
F7-72	Total power consumption (kWh)	0~65535	Measured value	●	F748
F7-73	Performance software version	Performance software version number	#.#	●	F749
F7-74	Function software version	Function software version number	#.#	●	F74A

FC	Name	Content	Factory Value	Change	Postal Address
F7-75	Enhance function parameter display options	0: Hide enhanced function parameter groups: H0~H3, L0~L5 1: Display enhanced function parameter groups: H0~H3, L 0~L5	0	☆	F74B
F7-76	Motor speed display correction factor	0.0010~3.0000	1.0000	☆	F74C
F8 Group-Communication Parameters					
F8-00	Baud rate settings	0: 300BPS 1: 600BPS 2: 1200BPS 3: 2400BPS 4: 4800BPS 5: 9600BPS 6: 19200BPS 7: 38400BPS	5	☆	F800
F8-01	Data format	0: No parity <8, N, 2> 1: Even parity <8, E, 1> 2: Odd check <8, O, 1> 3: No check 1<8, N, 1>	0	☆	F801
F8-02	Postal address	0~247 (0 is the broadcast address)	1	☆	F802
F8-03	Answering time	0ms~30ms	2ms	☆	F803
F8-04	Communication timeout time	0.0s~30.0s	0.0s	☆	F804
F8-05	Select communication format	0: Standard Modbus RTU protocol 1: Non-standard ModBus RTU protocol	0	☆	F805
F8-06	Background software monitoring function	0: Disabled, default 485 communication function 1: Enable background software monitoring, the 485 communication function is unavailable.	0	☆	F806
F9 Group-Fault and Protection					
F9-00	Motor overload protection selection	0: Prohibit 1: Allowed	1	☆	F900
F9-01	Motor overload protection gain	0.20~10.00	1.00	☆	F901

FC	Name	Content	Factory Value	Change	Postal Address
F9-02	Motor overload warning coefficient (%)	50%~100%	80%	☆	F902
F9-03	Overspeed stall protection gain	000~100	030	☆	F903
F9-04	Overvoltage stall protection voltage	200.0~850.0V	760.0V	★	F904
F9-05	VF over-slip protection gain	0~100	20	☆	F905
F9-06	Overcurrent protection current for VF	50%~200%	150%	★	F906
F9-07	Loss rate protection factor of electric current in weak magnetic region of VF	50%~200%	100%	★	F907
F9-08	Allowable rise limit of overspeed stall	0.0%~50.0%	10.0%	☆	F908
F9-11	Number of automatic fault resets	0~20	0	☆	F90B
F9-12	Selection of fault relay action during automatic fault reset	0: No action 1: Action	0	☆	F90C
F9-13	Fault auto reset interval	0.1s~100.0s	1.0s	☆	F90D
F9-14	Select input phase enable	0: Invalid 1: Valid	1	☆	F90E
F9-15	Output phase loss enable selection	0: Invalid 1: Valid	1	☆	F90F
F9-16	Selection of short circuit protection between power supply and ground	0: Invalid 1: Valid	1	☆	F910
F9-17	Automatic reset selection for undervoltage fault	0: After a low-voltage fault, manually reset the system. 1: After a voltage drop fault, the system automatically resets the fault based on the bus voltage.	0	☆	F911

FC	Name	Content	Factory Value	Change	Postal Address
F9-18	Overvoltage suppression mode selection	0: Invalid 1: Overvoltage suppression mode 1 2: Overvoltage Suppression Mode 2	1	★	F912
F9-19	Over excitation effective state selection	0: Invalid 2: Only the deceleration process is valid 1: Constant speed during operation, effective deceleration process	2	★	F913
F9-20	Overvoltage suppression mode 2 limit	1.0%~150.0%	100.0%	★	F914
F9-22	Fault protection action 1	0~22202; Units: Motor overload-Err14 0: Free parking 1: Stop by shutdown method 2: Continue Ten: Keep Hundreds: Input loss phase -Err23 Thousands: Output loss phase-Err24 Ten-thousand: Parameter read/write error-Err25	00000	☆	F916
F9-23	Fault protection action 2	0~22222; Unit: Communication failure-Err27 0: Free parking 1: Stop by shutdown method 2: Continue Ten: External Fault-Err28 Hundreds: Speed deviation too large-Err29 Thousands: User-defined fault 1-Err30 Tens of thousands: User-defined fault 2-Err31	00000	☆	F917

FC	Name	Content	Factory Value	Change	Postal Address
F9-24	Fault protection action 3	0~22022; Unit: PID feedback loss during operation-Err32 0: Free parking 1: Stop by shutdown method 2: Continue Ten: Unload failure-Err34 Hundreds: Software overcurrent-Err16 Thousands: The current consecutive run time has reached-Err39 Ten thousandth: Running time reached-Err40	00000	☆	F918
F9-26	Fault continuation frequency selection	0: Run at the current frequency 1: Run at the set frequency 2: Operate at the upper frequency limit 3 Run at the lower frequency limit 4: Operate at the standby frequency setting F9-27	1	☆	F91A
F9-27	Abnormal standby frequency setting value	0.0%~100.0%	100.0%	☆	F91B
F9-28	Load drop protection selection	0: Invalid 1: Valid	0	☆	F91C
F9-29	Load drop detection level	0.0%~80.0%	20.0%	★	F91D
F9-30	Load drop detection time	0.0s~100.0s	5.0s	☆	F91E
F9-31	Speed deviation too large detection value	0.0%~100.0%	20.0%	☆	F91F
F9-32	Excessive speed deviation requires detection time	0.0s~100.0s	0.0s	☆	F920
F9-33	Over speed detection value	0.0%~100.0%	20.0%	☆	F921
F9-34	Over-speed detection time	0.0s~100.0s	2.0s	☆	F922
F9-35	Current coefficient of motor overload protection	100%~200%	100%	☆	F923

FC	Name	Content	Factory Value	Change	Postal Address
FA Group-PID Function					
FA-00	PID given source	0 : PID function code FA-01 1: AI1 2: AI2 3: Communication Given 4: PULSE given 5: Multi-stage instruction given 6: Up/Down modification of FA-01 (valid when F0-06=6)	0	☆	FA00
FA-01	PID digital setpoint	0.0%~100.0%	50.0%	☆	FA01
FA-02	PID given time	0.00s~650.00s	0.00s	☆	FA02
FA-03	PID feedback source	0: AI1 1: AI2 2: AI1-AI2 3: Communication Given 4: PULSE given 5: AI1+AI2 6: MAX(|AI1|, |AI2|) 7: MIN(|AI1|, |AI2|)	0	☆	FA03
FA-04	PID application direction	0 positive effect 1: Reaction	0	☆	FA04
FA-05	PID given feedback range	0~65535	1000	☆	FA05
FA-06	Proportional gain P	0.0~100.0	20.0	☆	FA06
FA-07	Integration time I	0.01s~10.00s	2.00s	☆	FA07
FA-08	Rate time D	0.000s~10.000s	0.000s	☆	FA08
FA-09	PID inverting cutoff frequency	0.00~maximum frequency (F0-14)	0.00Hz	☆	FA09
FA-10	Deviation limit	0.0%~100.0%	0.0%	☆	FA0A
FA-11	Differential limit	0.00%~100.00%	0.10%	☆	FA0B
FA-12	PID feedback filter time	0.00s~60.00s	0.00s	☆	FA0C
FA-13	PID feedback loss detection value	0.0%~100.0%	0.0%	☆	FA0D
FA-14	PID feedback loss detection time	0.0s~3600.0s	0s	☆	FA0E

FC	Name	Content	Factory Value	Change	Postal Address
FA-18	Proportional gain P2	0.0~100.0	20.0	☆	FA12
FA-19	Integration time I2	0.01s~10.00s	2.00s	☆	FA13
FA-20	Differential time D2	0.000s~10.000s	0.000s	☆	FA14
FA-21	PID parameter switching condition	0 Do not switch 1: DI terminal 2 Automatically switch based on deviation	0	☆	FA15
FA-22	PID parameter switching deviation 1	0.0%~FA-23	20.0%	☆	FA16
FA-23	PID parameter switching deviation 2	FA-22~100.0%	80.0%	☆	FA17
FA-24	PID starter	0.0%~100.0%	0.0%	☆	FA18
FA-25	PID initial value holding time	0.00s~650.00s	0.00s	☆	FA19
FA-26	Maximum positive deviation of the two outputs	0.00%~100.00%	1.00%	☆	FA1A
FA-27	Maximum reverse deviation of two outputs	0.00%~100.00%	1.00%	☆	FA1B
FA-28	PID integral property	Unit: Points Separation 0: Invalid 1: Valid Ten digits: Output reaches the limit, should integration stop? 0: Continue counting 1: Stop integration	00	☆	FA1C
FA-29	PID shutdown operation	0: Do not calculate during downtime 1: Stop run time calculation	0	☆	FA1D
Fb Group-Oscillating Frequency, Fixed Length, and Counting					
Fb-00	Amplitude setting method	0: Relative to center frequency 1: Relative to maximum frequency	0	☆	FB00
Fb-01	Amplitude of oscillation	0.0%~100.0%	0.0%	☆	FB01
Fb-02	Amplitude of sudden jump frequency	0.0%~50.0%	0.0%	☆	FB02

FC	Name	Content	Factory Value	Change	Postal Address
Fb-03	Oscillation period	0.1s~3000.0s	10.0s	☆	FB03
Fb-04	Triangle rise time coefficient	0.1%~100.0%	50.0%	☆	FB04
Fb-05	Set length	0m~65535m	1000m	☆	FB05
Fb-06	Physical length	0m~65535m	0m	☆	FB06
Fb-07	Pulse count per m	0.1~6553.5	100.0	☆	FB07
Fb-08	Set the count value	1~65535	1000	☆	FB08
Fb-09	Specify the count value	1~65535	1000	☆	FB09
FC Group-Multi-Stage Instruction and Simple PLC Function					
FC-00	Multi-speed 0	-100.0%~100.0%	0.0%	☆	FC00
FC-01	Multi-speed 1	-100.0%~100.0%	0.0%	☆	FC01
FC-02	Multi-speed 2	-100.0%~100.0%	0.0%	☆	FC02
FC-03	Multi-speed 3	-100.0%~100.0%	0.0%	☆	FC03
FC-04	Multi-speed 4	-100.0%~100.0%	0.0%	☆	FC04
FC-05	Multi-speed 5	-100.0%~100.0%	0.0%	☆	FC05
FC-06	Multi-speed 6	-100.0%~100.0%	0.0%	☆	FC06
FC-07	Multi-speed 7	-100.0%~100.0%	0.0%	☆	FC07
FC-08	Multi-speed 8	-100.0%~100.0%	0.0%	☆	FC08
FC-09	Multi-speed 9	-100.0%~100.0%	0.0%	☆	FC09
FC-10	Multi-speed 10	-100.0%~100.0%	0.0%	☆	FC0A
FC-11	Multi-speed 11	-100.0%~100.0%	0.0%	☆	FC0B
FC-12	Multi-speed 12	-100.0%~100.0%	0.0%	☆	FC0C
FC-13	Multi-speed 13	-100.0%~100.0%	0.0%	☆	FC0D
FC-14	Multi-speed 14	-100.0%~100.0%	0.0%	☆	FC0E
FC-15	Multi-speed 15	-100.0%~100.0%	0.0%	☆	FC0F
FC-16	PLC run mode	0: Stop after a single run 1: Maintain final value on single run 2: Loop forever	0	☆	FC10

FC	Name	Content	Factory Value	Change	Postal Address
FC-17	PLC power failure memory selection	0: Power loss and shutdown are not remembered 1: Power loss and shutdown are not remembered 2: Power failure does not affect memory, and shutdown retains memory 3: Power-off memory and shutdown memory	0	☆	FC11
FC-18	PLC segment 0 runtime	0.0~6500.0	0.0	☆	FC12
FC-19	PLC Segment 0 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC13
FC-20	PLC segment 1 runtime	0.0~6500.0	0.0	☆	FC14
FC-21	PLC Segment 1 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC15
FC-22	PLC segment 2 runtime	0.0~6500.0	0.0	☆	FC16
FC-23	PLC Segment 2 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC17
FC-24	PLC segment 3 runtime	0.0~6500.0	0.0	☆	FC18
FC-25	PLC Segment 3 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC19
FC-26	PLC segment 4 runtime	0.0~6500.0	0.0	☆	FC1A
FC-27	PLC Segment 4 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC1B
FC-28	PLC segment 5 runtime	0.0~6500.0	0.0	☆	FC1C
FC-29	PLC Segment 5 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC1D
FC-30	PLC segment 6 runtime	0.0~6500.0	0.0	☆	FC1E
FC-31	PLC Segment 6 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC1F

FC	Name	Content	Factory Value	Change	Postal Address
FC-32	PLC segment 7 runtime	0.0~6500.0	0.0	☆	FC20
FC-33	PLC Segment 7 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC21
FC-34	PLC segment 8 runtime	0.0~6500.0	0.0	☆	FC22
FC-35	PLC Segment 8 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC23
FC-36	PLC segment 9 runtime	0.0~6500.0	0.0	☆	FC24
FC-37	PLC Segment 9 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC25
FC-38	PLC segment 10 runtime	0.0~6500.0	0.0	☆	FC26
FC-39	PLC Segment 10 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC27
FC-40	PLC segment 11 runtime	0.0~6500.0	0.0	☆	FC28
FC-41	PLC Segment 11 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC29
FC-42	PLC segment 12 runtime	0.0~6500.0	0.0	☆	FC2A
FC-43	PLC Segment 12 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC2B
FC-44	PLC segment 13 runtime	0.0~6500.0	0.0	☆	FC2C
FC-45	PLC Segment 13 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC2D
FC-46	PLC segment 14 runtime	0.0~6500.0	0.0	☆	FC2E
FC-47	PLC Segment 14 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC2F
FC-48	PLC segment 15 runtime	0.0~6500.0	0.0	☆	FC30

FC	Name	Content	Factory Value	Change	Postal Address
FC-49	PLC Segment 15 add or subtract time selection	0~3 (representing acceleration/deceleration time 1~4 respectively)	0	☆	FC31
FC-50	PLC runtime unit selection	0: s (seconds) 1: h (hours)	0	☆	FC32
FC-51	Multistage speed priority method selection	0: Multi-segment speed without priority 1: Multi-segment priority	1	☆	FC33
FC-52	Multiple-stage speed priority plus acceleration time selection	0: Acceleration and deceleration time 1 1: Acceleration and deceleration time 2 2: Acceleration and deceleration time 3 3: Acceleration and deceleration time 4	0	☆	FC34
FC-53	Multi-speed FC-00~FC-15 unit selection	0: % 1: HZ	0	☆	FC35
FC-55	Multistage instruction 0 given method	0 Function code FC-00 given 1: AI1 2: AI2 3: PULSE 4: PID 5: Preset frequency range (F0-11), UP/DOWN adjustable	0	☆	FC37
Fd-Group Torque Control					
Fd-00	Torque command source selection	0 : Digital setting (Fd-01) 1: AI1 2：AI2 3: Communication Given 4: PULSE pulse frequency given 5: MIN (AI1, AI2) 6: MAX (AI1, AI2) (Options 1-6 correspond to Fd-01 for full scale)	0	★	FD00
Fd-01	Torque digital setting	-200.0%~200.0%	150.0%	☆	FD01
Fd-03	Maximum positive frequency of torque control	0.00Hz~maximum frequency (F0-14)	50.00Hz	☆	FD03

FC	Name	Content	Factory Value	Change	Postal Address
Fd-04	Torque control reverse direction maximum frequency	0.00Hz~maximum frequency (F0-14)	50.00Hz	☆	FD04
Fd-06	Torque command filtering time	0.00s~10.00s	0.00s	☆	FD06
Fd-07	Torque mode frequency acceleration time	0.0s~1000.0s	10.0s	☆	FD07
Fd-08	Torque mode frequency reduction time	0.0s~1000.0s	10.0s	☆	FD08
Fd-10	Speed/Torque Mode Selection	0: Speed Mode 1: torque mode	0	★	FD0A
FE Group-AI Multi-Point Curve Setting					
FE-00	Curve 1 minimum input	-10.00V~FE-02	0.00V	☆	FE00
FE-01	Minimum input for curve 1	-100.0%~100.0%	0.0%	☆	FE01
FE-02	Input for inflection point 1 of curve 1	FE-00~FE-04	3.00V	☆	FE02
FE-03	Input the corresponding setting for inflection point 1 of curve 1	-100.0%~100.0%	30.0%	☆	FE03
FE-04	Input for inflection point 2 of curve 1	FE-02~FE-06	6.00V	☆	FE04
FE-05	Input the corresponding setting for inflection point 2 of curve 1	-100.0%~100.0%	60.0%	☆	FE05
FE-06	Maximum input for curve 1	FE-06~10.00	10.00V	☆	FE06
FE-07	Maximum input for curve 1	-100.0%~100.0%	100.0%		FE07
FE-08	Minimum input for curve 2	-10.00~FE-10	0.00V	☆	FE08
FE-09	Minimum input for curve 2	-100.0%~100.0%	0.0%	☆	FE09
FE-10	Input for inflection point 1 of curve 2	FE-08~FE-12	3.00V	☆	FE0A

FC	Name	Content	Factory Value	Change	Postal Address
FE-11	Input the corresponding setting for inflection point 1 of curve 2	-100.0%~100.0%	30.0%	☆	FE0B
FE-12	Input for inflection point 2 of curve 2	FE-10~FE-14	6.00V	☆	FE0C
FE-13	Input the corresponding setting for inflection point 2 of curve 2	-100.0%~100.0%	60.0%	☆	FE0D
FE-14	Maximum input for Curve 2	FE-12~10.00V	10.00V	☆	FE0E
FE-15	Maximum input for curve 2	-100.0%~100.0%	100.0%	☆	FE0F
FE-24	AI1 Set Jump Point	-100.0%~100.0%	0.0%	☆	FE18
FE-25	AI1 Set jump range	0.0%~100.0%	0.5%	☆	FE19
FE-26	Set jump point in AI2	-100.0%~100.0%	0.0%	☆	FE1A
FE-27	AI2 Set jump range	0.0%~100.0%	0.5%	☆	FE1B
FF Group-Manufacturer Parameters					
FF-00	Manufacturer password	0~65535	*****	☆	FF00
H0 Group-Second Motor Parameter Setting					
H0-00	Motor selection	1: Motor 1 2: Motor 2	1	★	A000
H0-01	Motor 2 control mode	1: Open-loop vector control (vector without speed sensor) 2: VF control	2	★	A001
H0-02	Selection of Acceleration and Deceleration Time of Motor 2	0: Same as the first motor 1: Acceleration and deceleration time 1 2: Acceleration and deceleration time 2 3: Acceleration and deceleration time 3 4 : Acceleration and deceleration time 4	0	☆	A002
H1 group-second motor parameters					
H1-00	Motor parameter tuning	0: No function 1: Static tuning	0	★	A100

FC	Name	Content	Factory Value	Change	Postal Address
		2: Dynamic perfect tuning			
H1-01	Motor 2 rated power	0.1kW~1000.0kW	Model selection	★	A101
H1-02	Motor 2 rated voltage	1V~1500V	380V	★	A102
H1-04	Motor 2 rated current	0.01A~600.00A (motor rated power <=30.0kW) 0. 1A~6000.0A (motor rated power>30.0kW)	H1-01 confirmed	★	A104
H1-05	Motor 2 rated frequency	0.01Hz to maximum frequency (F0-14)	50.00Hz	★	A105
H1-06	Motor 2 rated speed	1rpm~20000rpm	H1-01 confirmed	★	A106
H1-07	Motor 2 no-load current	0.01A~H1-04 (rated motor power <=30.0kW) 0.1A~H1-04 (Motor rated power>30.0kW)	H1-01 confirmed	★	A107
H1-08	Stator resistance of motor 2	0.001ohm~65.535ohm	Model selection	★	A108
H1-09	Rotor resistance of motor 2	0.001ohm~65.535ohm	Model selection	★	A109
H1-10	Mutual inductance of motor 2	0.1mH~6553.5mH	Model selection	★	A10A
H1-11	Inductance of motor 2	0.01mH~655.35mH	Model selection	★	A10B
H1-12	Acceleration of Dynamic Complete Tuning	1.0s~600.0s	10.0s	☆	A10C
H1-13	Deceleration of Dynamic Complete Tuning	1.0s~600.0s	10.0s	☆	A10D
H2 Group-Second Motor VF Parameter Setting					
H2-00	Torque boost	0.0%~30.0%	0.0%	☆	A200
H2-02	Oscillation suppression gain	0~100	Model selection	☆	A202
H3 group-second motor vector control parameters					
H3-00	Switch frequency F1	1.00Hz~H3-02	5.00Hz	☆	A300
H3-02	Switch frequency F2	H3-00~F0-14	10.00Hz	☆	A302
H3-04	Low frequency speed	0.1~10.0	4.0	☆	A304

FC	Name	Content	Factory Value	Change	Postal Address
	proportional gain				
H3-05	Low frequency velocity integral time	0.01s~10.00s	0.50s	☆	A305
H3-06	High frequency proportional gain	0.1~10.0	2.0	☆	A306
H3-07	High frequency integral time	0.01s~10.00s	1.00s	☆	A307
H3-08	Speed loop integral attribute selection	0: Integration is active 1: integration separation	0	★	A308
H3-11	Torque current regulator Kp	0~30000	2000	☆	A30B
H3-12	Torque current regulator Ki	0~30000	1300	☆	A30C
H3-13	Excitation current regulator Kp	0~30000	2000	☆	A30D
H3-14	Excitation current regulator Ki	0~30000	1300	☆	A30E
H3-15	Flux brake gain	100~200	110	☆	A30F
H3-16	Weak magnetic torque correction coefficient	50%~150%	100%	☆	A310
H3-17	Slip compensation coefficient	50%~200%	100%	☆	A311
H3-18	Feedback time constant of velocity loop filter	0.000s~1.000s	0.015s	☆	A312
H3-19	Speed loop output filter time constant	0.000s~1.000s	0.000s	☆	A313
H3-20	Upper limit source of electric torque	0: F3-21 1: AI1 (Analog range corresponds to F3-21) 2: AI2 3: Communication given 4: PLUSE given	0	☆	A314
H3-21	Upper limit of electric torque	0.0%~200.0%	150.0%	☆	A315
H3-22	Upper limit source of braking torque	0: F3-23 1 AI1 (Analog range corresponds to F3-23) 2: AI2 3 Communication given 4: PLUSE given	0	☆	A316

FC	Name	Content	Factory Value	Change	Postal Address
H3-23	Upper limit of braking torque	0.0%~200.0%	150.0%	☆	A317
L0 Group-System Parameters					
L0-00	Read-only function code selection	0: Invalid 1: Read-only	0	☆	B000
L0-03	ENTER key menu switch	0: Prohibit 1: Enable	0	☆	B003
L0-04	Vector operating frequency display selection	0: Real-time frequency 1: Set frequency	0	☆	B004
L0-05	Display selection when adjusting up/down	0: Display the set value 1: Display the current variable value	0	☆	B005
L1 Group-Custom User Function Code					
L1-00	Clear custom function code selection	0: Invalid 1: Valid	0	☆	B100
L1-01	Custom function code 1	uF0-00~uU1-xx	uF0-03	☆	B101
L1-02	Custom function code 2	uF0-00~uU1-xx	uF0-04	☆	B102
L1-03	Custom function code 3	uF0-00~uU1-xx	uF0-06	☆	B103
L1-04	Custom function code 4	uF0-00~uU1-xx	uF0-23	☆	B104
L1-05	Custom function code 5	uF0-00~uU1-xx	uF0-24	☆	B105
L1-06	Custom function code 6	uF0-00~uU1-xx	uF4-00	☆	B106
L1-07	Custom function code 7	uF0-00~uU1-xx	uF4-01	☆	B107
L1-08	Custom function code 8	uF0-00~uU1-xx	uF4-02	☆	B108
L1-09	Custom function code 9	uF0-00~uU1-xx	uF4-04	☆	B109
L1-10	Custom function code 10	uF0-00~uU1-xx	uF4-05	☆	B10A
L1-11	Custom function code 11	uF0-00~uU1-xx	uF4-06	☆	B10B
L1-12	Custom function code 12	uF0-00~uU1-xx	uF4-12	☆	B10C

FC	Name	Content	Factory Value	Change	Postal Address
L1-13	Custom function code 13	uF0-00~uU1-xx	uF4-13	☆	B10D
L1-14	Custom function code 14	uF0-00~uU1-xx	uF5-00	☆	B10E
L1-15	Custom function code 15	uF0-00~uU1-xx	uF5-01	☆	B10F
L1-16	Custom function code 16	uF0-00~uU1-xx	uF5-02	☆	B110
L1-17	Custom function code 17	uF0-00~uU1-xx	uF6-00	☆	B111
L1-18	Custom function code 18	uF0-00~uU1-xx	uF6-01	☆	B112
L1-19	Custom function code 19	uF0-00~uU1-xx	uF0-00	☆	B113
L1-20	Custom function code 20	uF0-00~uU1-xx	uF0-00	☆	B114
L1-21	Custom function code 21	uF0-00~uU1-xx	uF0-00	☆	B115
L1-22	Custom function code 22	uF0-00~uU1-xx	uF0-00	☆	B116
L1-23	Custom function code 23	uF0-00~uU1-xx	uF0-00	☆	B117
L1-24	Custom function code 24	uF0-00~uU1-xx	uF0-00	☆	B118
L1-25	Custom function code 25	uF0-00~uU1-xx	uF0-00	☆	B119
L1-26	Custom function code 26	uF0-00~uU1-xx	uF0-00	☆	B11A
L1-27	Custom function code 27	uF0-00~uU1-xx	uF0-00	☆	B11B
L1-28	Custom function code 28	uF0-00~uU1-xx	uF0-00	☆	B11C
L1-29	Custom function code 29	uF0-00~uU1-xx	uF0-00	☆	B11D
L1-30	Custom function code 30	uF0-00~uU1-xx	uF0-00	☆	B11E
L1-31	Custom function code 31	uF0-00~uU1-xx	uF0-00	☆	B11F
L2 Group-Optimized Control Parameters					
L2-00	Dead zone compensation enable selection	0 : No compensation 1: Compensation	1	☆	B200

FC	Name	Content	Factory Value	Change	Postal Address
L2-01	PWM way	0: Asynchronous modulation 1: Synchronous modulation	0	☆	B201
L2-02	PWM seven-stage/five-stage selection	0: Seven-stage in total 1: Automatic switching between seven and five-stage	0	☆	B202
L2-03	CBC rate limiting enable selection	0: Prohibit 1: Enable	1	☆	B203
L2-04	Braking point	330.0V~800.0V	360.0V	☆	B204
			690.0V	☆	
L2-05	Under-voltage point	150.0V~500.0V	200.0V	☆	B205
			350.0V	☆	
L2-06	Random PWM depth setting	0~6	0	☆	B206
L2-07	Select 0Hz operation mode	0: No current output; 1: Normal operation; 2: Output of shutdown DC braking current F1-16.	0	☆	B207
L2-08	Selection of Low Frequency Carrier Limitation Mode	0: Restricted Mode 0 1: Restricted Mode 1 2 Unlimited (all frequency bands use the same carrier)	0	☆	B208
L3 Group-AI AO Correction Parameters					
L3-00	AI1 shows voltage 1	-9.999V~10.000V	3.000V	☆	B300
L3-01	AI1 measured voltage 1	-9.999V~10.000V	3.000V	☆	B301
L3-02	AI1 shows voltage 2	-9.999V~10.000V	8.000V	☆	B302
L3-03	AI1 measured voltage 2	-9.999V~10.000V	8.000V	☆	B303
L3-04	AI2 shows voltage 1	-9.999V~10.000V	3.000V	☆	B304
L3-05	AI2 measured voltage 1	-9.999V~10.000V	3.000V	☆	B305
L3-06	AI2 shows voltage 2	-9.999V~10.000V	8.000V	☆	B306
L3-07	AI2 measured voltage 2	-9.999V~10.000V	8.000V	☆	B307
L3-12	AO1 target voltage 1	-9.999V~10.000V	3.000V	☆	B30C
L3-13	AO1 Measured voltage 1	-9.999V~10.000V	3.000V	☆	B30D

FC	Name	Content	Factory Value	Change	Postal Address
L3-14	AO1 target voltage 2	-9.999V~10.000V	8.000V	☆	B30E
L3-15	AO1 measured voltage 2	-9.999V~10.000V	8.000V	☆	B30F
L3-16	AO2 target voltage 1	-9.999V~10.000V	3.000V	☆	B310
L3-17	AO2 measured voltage 1	-9.999V~10.000V	3.000V	☆	B311
L3-18	AO2 target voltage 2	-9.999V~10.000V	8.000V	☆	B312
L3-19	AO2 measured voltage 2	-9.999V~10.000V	8.000V	☆	B313
L4 Group-Master-Slave Control Parameters					
L4-00	Enable master-slave control	0: Prohibit 1: Enable	0	★	B400
L4-01	Master-slave selection	0: Master 1: Slave	0	★	B401
L4-02	Host transmission frequency selection	0: Running frequency 1: Target frequency	0	★	B402
L4-03	Slave follows master command source selection	0: Do not follow 1: Follow	0	★	B403
L4-04	Frequency coefficient of slave receiver	0.00%~600.00%	100.00%	☆	B404
L4-05	Receiving torque coefficient of slave machine	-10.00~10.00	1.00	☆	B405
L4-06	Slave receiving torque offset	-50.00%~50.00%	0.00%	☆	B406
L4-07	Frequency deviation threshold	0.20%~10.00%	0.50%	☆	B407
L4-08	Master-slave communication disconnection detection time	0.00s~10.0s	0.1s	☆	B408
L5 Group-Brake Function Parameters					
L5-00	Brake control enable selection:	0: Prohibit 1: Enable	0	★	B500
L5-01	Brake release frequency	0.00Hz~20.00Hz	2.50Hz	★	B501
L5-02	Holding time of brake release frequency	0.0s~20.0s	1.0s	★	B502

FC	Name	Content	Factory Value	Change	Postal Address
L5-03	Current limit during brake	50.0%~200.0%	120.0%	★	B503
L5-04	Brake engagement frequency	0.00Hz~20.00 Hz	1.50Hz	★	B504
L5-05	Brake engagement delay time	0.0s~20.0s	0.0s	★	B505
L5-06	Holding time of brake engagement frequency	0.0s~20.0s	1.0s	★	B506
L6 Group – Parameters of Sleep-Wake Function					
L6-00	Dormancy selection	0: The hibernation feature is disabled 1: Digital Input Terminal DI Control Sleep Function 2: The hibernation function is controlled by the PID setpoint and feedback value. 3: Sleep mode control based on operating frequency	0	☆	B600
L6-01	Dormancy frequency	0.00Hz~F0-14	0.00Hz	☆	B601
L6-02	Dormancy delay	0.0s~3600.0s	20.0s	☆	B602
L6-03	Wake-up difference	0.0%~100.0% When L6-00=3, the unit is converted to HZ.	10.0%	☆	B603
L6-04	Wake-up delay	0.0s~3600.0s	0.5s	☆	B604
L6-05	Sleep delay frequency output selection	0 PID automatic regulation, 1: Sleep frequency L6-01	0	☆	B605

Function Code	Name		Minimum Unit	Change	Communication Address
U0 Group – Fault Record Parameters					
U0-00	Latest fault type	Err00: No faults Err01: Inverter module protection Err04: Overcurrent during acceleration Err05: Overcurrent during deceleration Err06: Overcurrent during constant speed operation Err08: Overvoltage during acceleration Err09: Overvoltage during deceleration Err10: Overvoltage during constant speed operation Err12: Under-voltage fault Err13: Driver overload fault Err14: Motor overload fault Err15: Driver overheating Err16: Software overcurrent Err17: Current detection fault Err20: Earth short circuit faul Err21: Tuning timeout fault Err23: Input phase loss error Err24: Output phase loss error Err25: EEPROM operation error Err27: Communication error Err28: External fault Err29: Excessive speed deviation Err30: User-defined fault 1 Err31: User-defined fault Err32: PID feedback loss during operation	1	●	7000
U0-01	Previous fault type		1	●	7001

Function Code	Name		Minimum Unit	Change	Communication Address
U0-02	Previous two fault types	Err33: Quick rate limiting 2 Err34: Unload fault Err35: Input power failure Err37: Parameter storage error Err39: The run time has reached Err40: Cumulative runtime has reached Err42: Motor switched on during operation Err43: Motor overspeed Err46: Master-slave control communication disconnected	1	●	7002
U0-03	Last failure frequency		0.01Hz	●	7003
U0-04	Current at last failure		0.01A	●	7004
U0-05	Bus voltage at last failure		0.1V	●	7005
U0-06	Input terminal status during the last failure		1	●	7006
U0-07	Output terminal status during the last fault		1	●	7007
U0-08	Latest status of the faulty VFD		1	●	7008
U0-09	Last failure time (seconds from power-on)		1min	●	7009
U0-10	Last failure time (seconds from runtime)		1min	●	700A
U0-13	Last failure frequency		0.01Hz	●	700D
U0-14	Current at last failure		0.01A	●	700E
U0-15	Bus voltage during last fault		0.1V	●	700F
U0-16	Input terminals during the last failure		1	●	7010
U0-17	Output terminal during the last failure		1	●	7011
U0-18	Previous fault VFD status		1	●	7012
U0-19	Last failure duration (seconds from power-on)		1min	●	7013
U0-20	Time of last failure (minutes from runtime)		1min	●	7014
U0-21	Reserved variable			●	7015
U0-22	Reserved variable			●	7016

Function Code	Name	Minimum Unit	Change	Communication Address
U0-23	Frequency of the first two faults	0.01Hz	●	7017
U0-24	Current at the first two faults	0.01A	●	7018
U0-25	Bus voltage during the first two faults	0.1V	●	7019
U0-26	Input terminals during the first two failures	1	●	701A
U0-27	Output terminals during the first two failures	1	●	701B
U0-28	Status of the VFD for the first two failures	1	●	701C
U0-29	Time since the last two failures (seconds from power-on)	1min	●	701D
U0-30	Time since the last two failures (minutes from start of operation)	1min	●	701E
U1 Group-Application Monitoring Parameters				
U1-00	Operating frequency (Hz)	0.01Hz	●	7100
U1-01	Set frequency (Hz)	0.01Hz	●	7101
U1-02	Busbar voltage (V)	0.1V	●	7102
U1-03	Output voltage (V)	1V	●	7103
U1-04	Output current (A)	0.1A	●	7104
U1-05	Output power (kW)	0.1kW	●	7105
U1-06	DI input status, hexadecimal number	1	●	7106
U1-07	DO output status, hexadecimal number	1	●	7107
U1-08	AI1 corrected voltage	0.01V	●	7108
U1-09	AI2 corrected voltage	0.01V	●	7109
U1-10	PID setpoint (percentage) * FA-05	1	●	710A
U1-11	PID feedback, PID feedback value (percentage) *FA-05	1	●	710B
U1-12	Count value	1	●	710C
U1-13	Length value	1	●	710D
U1-14	Motor speed	rpm	●	710E
U1-15	PLC phase, current segment during multi-segment speed operation	1	●	710F
U1-16	PULSE input frequency	0.01kHz	●	7110
U1-17	Feedback speed, actual motor operating frequency	0.1Hz	●	7111
U1-18	F7-38 Remaining Time of Timing	0.1Min	●	7112
U1-19	AI1 voltage before calibration	0.001V	●	7113

Function Code	Name	Minimum Unit	Change	Communication Address
U1-20	AI2 voltage before calibration	0.001V	●	7114
U1-21	DI5 high-speed pulse sampling line speed, refer to F7-71 for usage	1m/min	●	7115
U1-22	Load speed display (set speed during shutdown), refer to F7-31 for usage	User-defined	●	7116
U1-23	Time of this upload	1Min	●	7117
U1-24	Running time	0.1Min	●	7118
U1-25	PULSE input frequency, differing only in unit from U1-16	1Hz	●	7119
U1-26	Set communication frequency value	0.01%	●	711A
U1-27	Main frequency display	0.01Hz	●	711B
U1-28	Auxiliary frequency display	0.01Hz	●	711C
U1-29	Target torque, set to 100% of the motor's rated torque	0.1%	●	711D
U1-30	Output torque, with the motor rated torque at 100%	0.1%	●	711E
U1-31	Output torque, with the VFD rated current at 100%	0.1%	●	711F
U1-32	Torque limit, set at 100% of the VFD's rated current	0.1%	●	7120
U1-33	Voltage for VF separation	1V	●	7121
U1-34	VF separation output voltage	1V	●	7122
U1-35	Reserved		●	7123
U1-36	Current motor sequence number	1	●	7124
U1-37	AO1 target voltage	0.01V	●	7125
U1-38	AO2 target voltage	0.01V	●	7126
U1-39	VFD operating status: 0: Shutdown, 1: Forward, 2: Reverse, 3: Fault	1	●	7127
U1-40	VFD fault	1	●	7128
U1-41	Agent's remaining time	1h	●	7129
U1-42	AC input current	0.1A	●	712A
U1-43	PLC remaining time at this stage	0.1	●	712B
U1-47	Cumulative runtime 1 (Cumulative runtime = U1-47 + U1-48)	1h	●	712F
U1-48	Cumulative runtime 2 (Cumulative runtime = U1-47 + U1-48)	1min	●	7130

Appendix Version Change Log

Date	After Change Edition	Change Content
2023.4	V1.0	New release
2025.09	V2.0	Add product information for 75~160kW

CHANGSHA SUNYE ELECTRIC CO.,LTD.

HotLine: 0731-89932666 400-0755-731

Address: No.669, Xinsheng Road, Yuelu District, Changsha City, China.

Website: www.cssunye.com