H500 Series Variable Frequency Drive Product Manual

Before installation and use, carefully read the user manual and keep it properly for future reference

Contents

Preface ..... - 1 -
Document Overview ..... - 1 -
Obtaining the Manual ..... - 1 -
Warranty Statement ..... - 1 -
1. Product Information ..... - 2 -
1.1. Product Positioning and Features ..... - 2 -
1.2. Nameplate and Model ..... - 3 -
2. Product Structure ..... - 5 -
2.1. Model Specifications vs. Dimensions and Power ..... - 5 -
2.2. Overall Dimensions ..... - 6 -
3. System Components ..... - 11 -
3.1. System Connection Diagram ..... - 11 -
3.2. Electrical wiring diagram ..... - 13 -
4. Optional Accessories ..... - 15 -
4.1. List of Optional Accessories Supplied by Our Company ..... - 15 -
4.2. Braking Component ..... - 16 -
4.3. External operation keypad ..... - 18 -
5. Technical Data ..... - 20 -
5.1. Electrical parameters ..... - 20 -
5.2. Technical Specifications ..... - 24 -
6. Wiring ..... - 27 -
6.1. Electrical wiring diagram ..... - 27 -
6.2. Main Circuit Cable Wiring ..... - 28 -
6.3. Control Circuit Cable Wiring ..... - 33 -
7. Commissioning and Trial Operation ..... - 37 -
7.1. Onboard LED Operator Panel Description ..... - 37 -
7.2. Basic Debugging Procedure ..... - 39 -
8. Expansion Card ..... - 48 -
8.1. PG Card ..... - 48 -
8.2. IO Expansion Card ..... - 48 -
8.3. Communication Expansion Card ..... - 49 -
9. Appendix ..... - 50 -
9.1. Appendix I: Standard 485 Communication on the Device ..... - 50 -
9.2. Appendix II: Parameter List ..... - 57 -

9.3. Appendix III: Faults and Troubleshooting ..... - 130 -

Preface

Document Overview

The H500 series variable frequency drive is a universal high-performance current vector drive, primarily used for controlling and adjusting the speed and torque of three-phase AC asynchronous motors. It is suitable for driving applications in textiles, papermaking, wire drawing, machine tools, packaging, food processing, fans, pumps, and various automated production equipment.

This manual covers product wiring, debugging, fault handling, and other related topics. For complete information on function codes and fault codes, please refer to the series manuals such as the 'H500 Series Variable Frequency Drive Parameter Manual'.

Obtaining the Manual

To obtain the electronic PDF version, you may use the following methods:

● Scan the QR code on the product with your mobile device to access the accompanying manual.

● Request it directly from your sales manager or distributor.

Warranty Statement

Under normal usage conditions, warranty service is provided for product malfunctions or damages within the warranty period (refer to the purchase order for warranty details). Maintenance costs will be charged for repairs beyond the warranty period.

During the warranty period, maintenance costs will be charged for product damages caused by the following circumstances:

● Product damage resulting from failure to operate the product according to the manual specifications.

● Product damage caused by fire, flooding, or abnormal voltage.

● Product damage resulting from using this product for non-standard functions.

● Product damage caused by exceeding the specified usage scope of the product.

● Secondary product damage caused by force majeure (natural disasters, earthquakes, lightning strikes).

Service fees will be calculated according to the Manufacturer's unified standards. If a contract exists, it shall take precedence.

For detailed warranty terms, please refer to the 'Product Warranty Card'.

1. Product Information

1.1. Product Positioning and Features

This product is a universal high-performance current vector variable frequency drive, primarily designed for controlling and adjusting the speed and torque of three-phase AC asynchronous motors and three-phase AC synchronous motors. It incorporates advanced current vector technology while offering superior performance, rich functionality, user-friendly operation, and a premium aesthetic design.



Figure 1-1 Product Appearance Diagram

This series has the following features:

●Capable of driving three-phase AC asynchronous motors and three-phase AC synchronous motors.

●Enhanced drive performance enables asynchronous motors to achieve 0.25Hz/150% torque without encoders, simplifying drive and control.

●Easily resolves technical and performance challenges encountered in equipment for industries such as cables, machine tools, metal products, petrochemicals, natural gas, lifting equipment, pulp and paper, textiles, printing and dyeing, ceramics, etc.

●Advanced synchronous motor control algorithm simplifies and stabilizes synchronous motor control, especially in high-speed applications.

● Comes with a wide range of functional accessories, including PG card, communication card, IO expansion card, optional mounting bracket, etc.

1.2. Nameplate and Model

MODEL：H500G18R5P22T4BLDS
INPUT：AC 3PH 380V~480V 42/51A 50/60Hz
OUTPUT：AC 3PH 0V~480V 37/45A 0~599Hz 18.5/22kW
HARDWARE VERSION：1.0.01
SOFTWARE VERSION：1.01
SN：G18R5P22T4BLDS25B000001

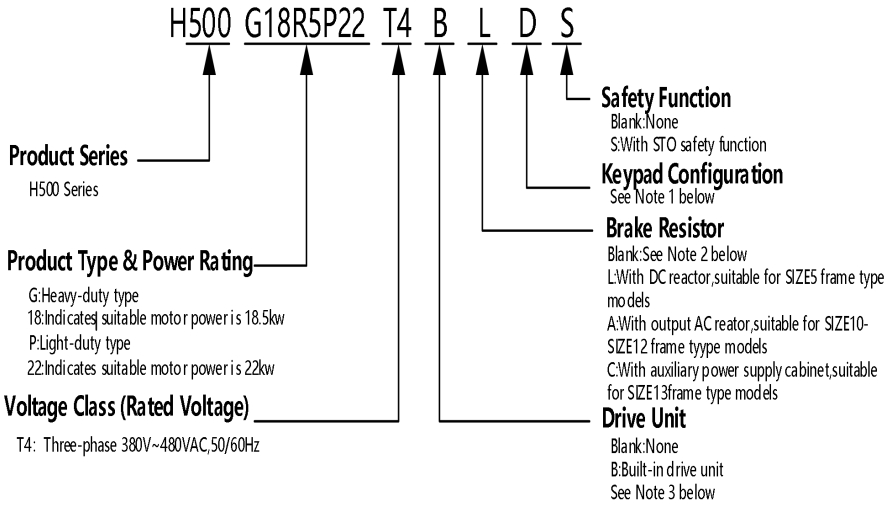


Figure 1-2 Nameplate Diagram

Note 1:
Blank: HLED00NNKA500 (LED, standard version, with potentiometer)
D: No keyboard
E: HLED00NNNA500 (LED, no potentiometer)
F: HLED00NBKA500 (LED, with Bluetooth, with potentiometer)
G: HLED00NBNA500 (LED, with Bluetooth, no potentiometer)
H: HLCD00NNNA500 (LCD, Chinese)
I: HLCD01NNNA500 (LCD, English)
J: HLCD02NNNA500 (LCD, Russian)
K: HLCD00RNNA500 (LCD, with RTC, Chinese)
L: HLCD01RNNA500 (LCD, with RTC, English)

M: HLCD02RNNA500 (LCD, with RTC, Russian)
N: HLCD00NBNA500 (LCD, with Bluetooth, Chinese)
O: HLCD01NBNA500 (LCD, with Bluetooth, English)
P: HLCD02NBNA500 (LCD, with Bluetooth, Russian)
Q: HLCD00RBNA500 (LCD, with RTC and Bluetooth, Chinese)
R: HLCD01RBNA500 (LCD, with RTC and Bluetooth, English)
S: HLCD02RBNA500 (LCD, with RTC and Bluetooth, Russian)

Note 2:
● Three-phase 380V ~ 480V: SIZE1~SIZE4 (0.4-15kW) do not support DC reactors, while SIZE5 (18.5-22kW) and above models come standard with a DC reactor.
Note 3:
● Three-phase 380V ~ 480V: SIZE1~SIZE4 (0.4-15kW) come standard with a braking unit, while SIZE5~SIZE8 (18.5-110kW) can be equipped with an optional braking unit, SIZE9 (132kW) and above models do not support built-in braking unit .

2. Product Structure

2.1. Model Specifications vs. Dimensions and Power

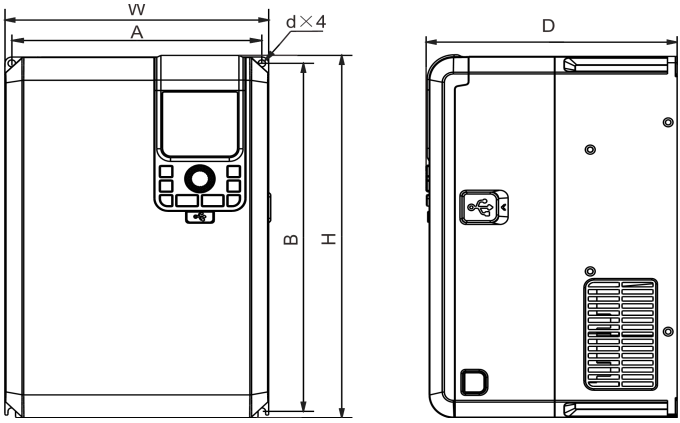
Refer to the table below for the correspondence between product models and dimensions.

Table of Model Specifications vs. Dimensions and Power

Dimensions, External Structure Model	Product Model Three-phase 380V~480V	Power Range (kW)
SIZE1	H500G0R4P0R75T4B	0.4-3.0
	H500G0R75P1R1T4B	
	H500G1R1P1R5T4B	
	H500G1R5P2R2T4B	
	H500G2R2P3R0T4B	
	H500G3R0P4R0T4B	
SIZE2	H500G4R0P5R5T4B	4.0-5.5
	H500G5R5P7R5T4B	
SIZE3	H500G7R5P011T4B	7.5-11
	H500G11P15T4B	
SIZE4	H500G15P18R5T4B	15
SIZE5	H500G18R5P22T4(B)L	18.5-22
	H500G22P30T4(B)L	
SIZE6	H500G30P37T4(B)L	30-37
	H500G37P45T4(B)L	
SIZE7	H500G45P55T4(B)L	45-55
	H500G55P65T4(B)L	
SIZE8	H500G65P75T4(B)L	65-110
	H500G75P90T4(B)L	
	H500G90P110T4(B)L	
	H500G110P132T4(B)L	
SIZE9	H500G132P160T4L	132-160
	H500G160P185T4L	
SIZE10	H500G185P200T4L	185-220
	H500G200P220T4L	
	H500G220P250T4L	
SIZE11	H500G250P280T4L	250-315
	H500G280P315T4L	
	H500G315P355T4L	
SIZE12	H500G355P375T4L	355-450
	H500G375P400T4L	
	H500G400P450T4L	
	H500G450P500T4L	
SIZE13	H500G500P560T4L	500-710
	H500G560P630T4L	
	H500G630P710T4L	
	H500G710P800T4L	
Note: Parentheses in the model number indicate optional accessories.		

2.2. Overall Dimensions

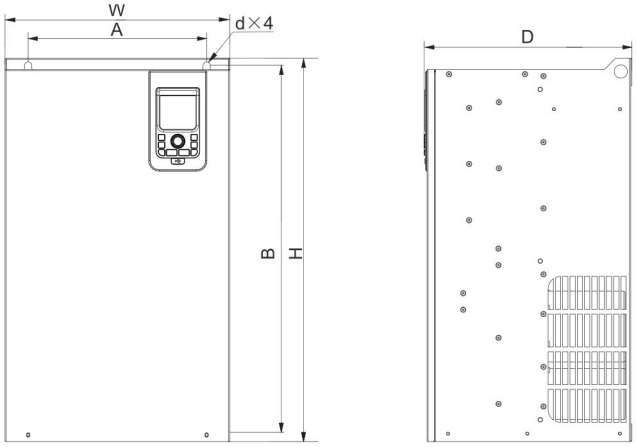
SIZE1-SIZE6 Models



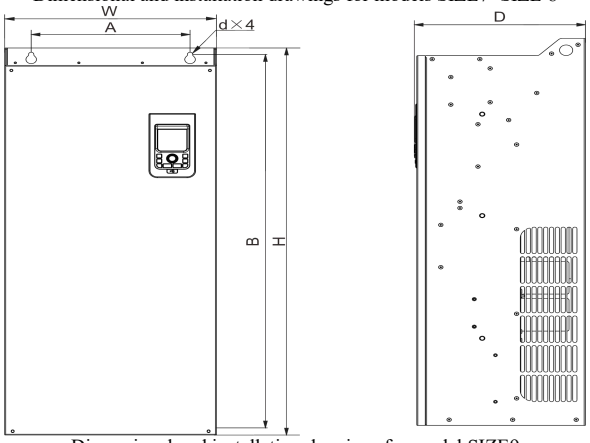
Dimensional and installation drawings for models SIZE1~SIZE6

Outline dimensions and mounting hole dimensions for SIZE1-SIZE6 models

Outline structure	Mounting hole positions (mm)		Outline dimensions (mm)			Mounting hole diameter	Weight (kg)
	A	B	H	W	D	d×4	
SIZE1(G Type 0.4-3.0kW)	119	194	205	130	160	Ø5	1.92
SIZE2(G Type 4.0-5.5kW)	119	194	205	130	170	Ø5	2.15
SIZE3(G Type 7.5-11kW)	144	244	254	155	181.5	Ø5.5	3.69
SIZE4(G Type 15kW)	182	275	285	192	181.5	Ø5.5	4.9
SIZE5(G Type 18.5-22kW)	198	338	350	210	210	Ø5.5	8.3
SIZE6(G Type 30-37kW)	240	395	410	260	248	Ø7	18.5



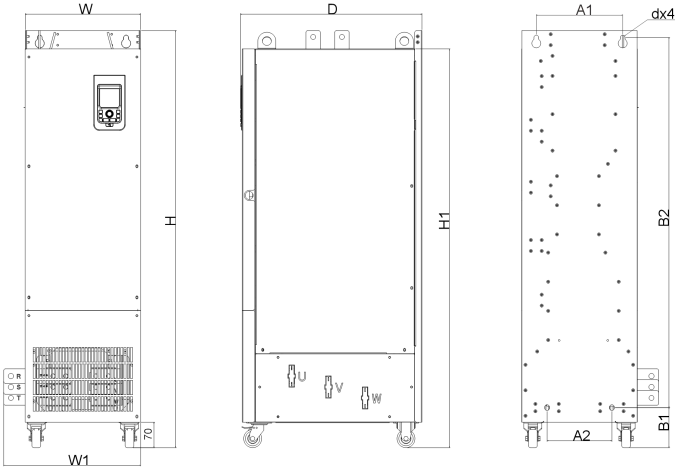
Dimensional and installation drawings for models SIZE7~SIZE 8



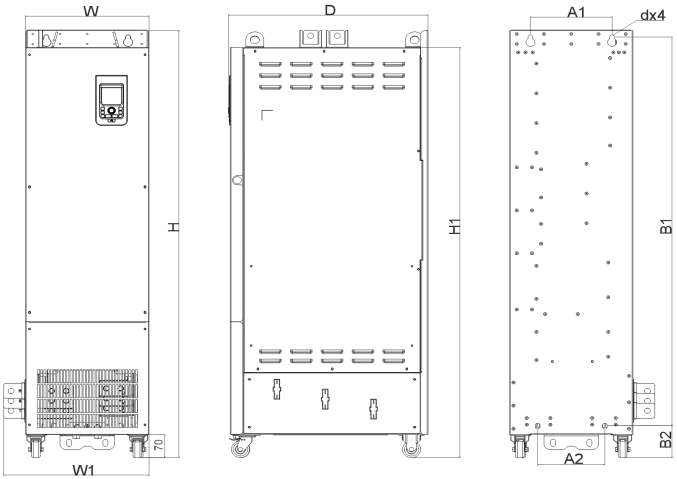
Dimensional and installation drawings for model SIZE9

Outline dimensions and mounting hole dimensions for SIZE7-SIZE9 models

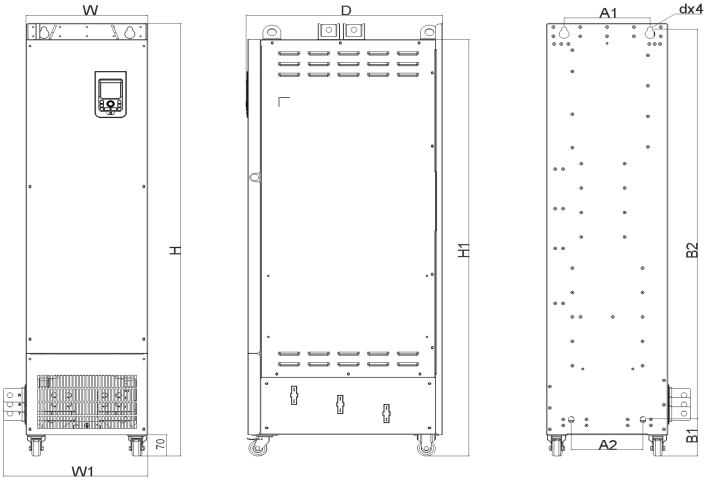
Outline structure	Mounting hole positions (mm)		Outline dimensions (mm)			Mounting hole diameter	Weight (kg)
	A	B	H	W	D	d×4	
SIZE7(G Type 45-55kW)	240	520	540	300	277	Ø9	32.6
SIZE8(G Type 63-110kW)	270	560	580	340	314.5	Ø10	48
SIZE9(G Type 132-160kW)	300	890	915	400	323.5	Ø10	83



Dimensional and installation drawings for model SIZE10



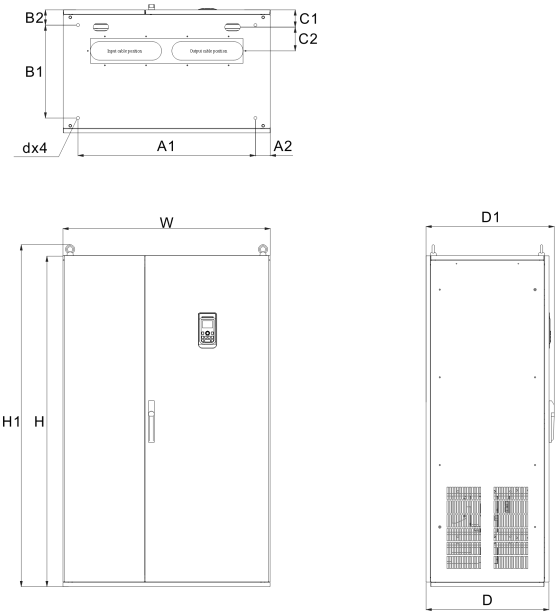
Dimensional and installation drawings for model SIZE11



Dimensional and installation drawings for model SIZE12

Dimensions and mounting hole specifications for SIZE10-SIZE12 models

Outline structure	Mounting hole positions (mm)				Outline dimensions (mm)					Mounting hole diameter	Weight (kg)
	A1	A2	B1	B2	H	H1	W	W1	D	d×4	
SIZE10(G Type 185-220 kW)	246.5	180	1016	110	1145	1094	320	380.5	505	Ø13	130
SIZE11(G Type 250-315 kW)	225	185	1175	98	1292	1241.5	340	400	550	Ø13	180
SIZE12(G Type 355-450 kW)	240	200	1276.5	121.5	1417	1364.5	340	403	550	Ø15.5	203



Dimensional and installation drawings for model SIZE13

Dimensions and mounting hole specifications for SIZE13 models

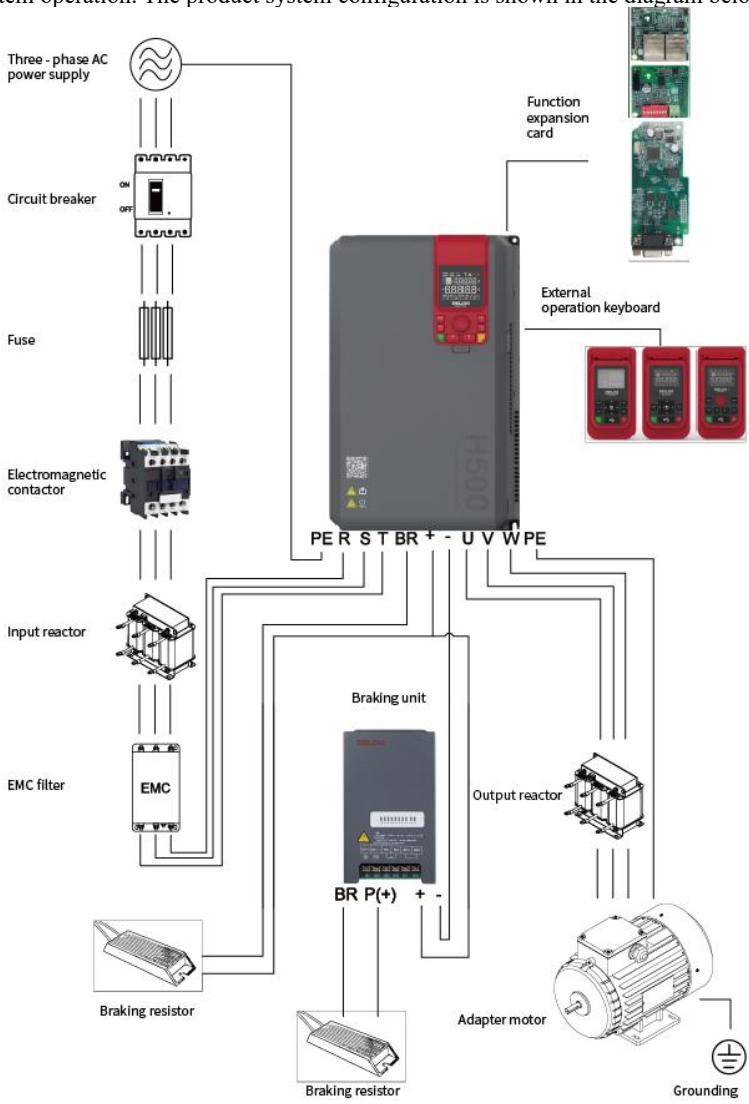
Outline structure	Mounting hole positions (mm)					
	A1	A2	B1	B2	C1	C2
SIZE13(G Type 500-710kW)	860	72	450	73.7	83.7	115

Outline structure	Outline dimensions (mm)					Mounting hole diameter	Weight (kg)
	H	H1	W	D	D1	d×4	
SIZE13(G Type 500-710kW)	1603	1656	1004	596	621.3	Ø15	-

3. System Components

3.1. System Connection Diagram

When a variable frequency drive controls a motor to form a control system, various electrical components should be installed on the input and output side of the drive to ensure safe and stable system operation. The product system configuration is shown in the diagram below.

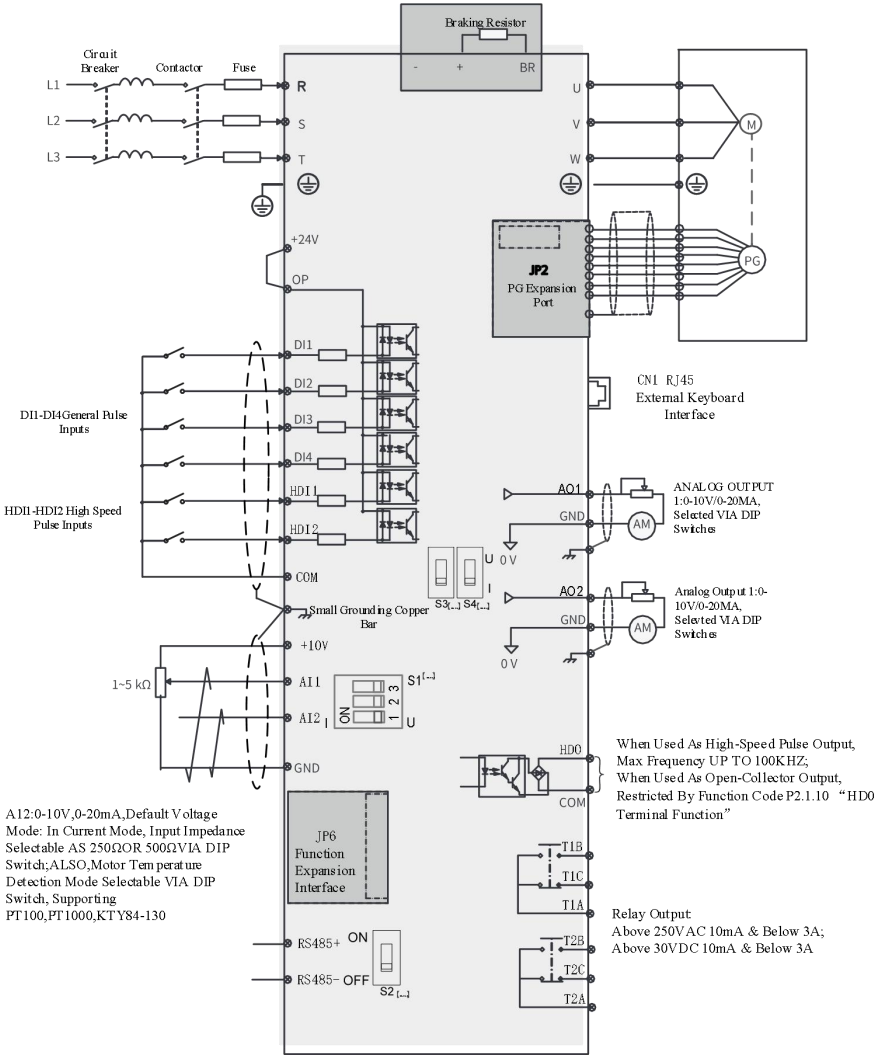


System Components Diagram

Instructions for Peripheral Electrical Components

Component Name	Installation Location	Function Description
Circuit Breaker	Drive Input Side	Should be installed between the power supply and the input side of the variable frequency drive. Short-circuit breaker: Cuts off power supply when downstream equipment experiences overcurrent to prevent accidents. Earth leakage circuit breaker: Variable frequency drives may generate high-frequency leakage currents during operation. To prevent electrocution accidents and electrical fires, select and install an appropriate earth leakage circuit breaker according to site conditions.
Fuse	Drive input side	Prevents accidents caused by short circuits and protects downstream semiconductor devices.
Contactor	Drive input side	For powering the variable frequency drive on and off, avoid frequent power cycling using a contactor (minimum interval of one hour) or performing direct starting operations.
Input reactor	Drive input side	Effectively reduces power-frequency harmonics on the grid and improves the power factor on the input side.
EMC filter	Drive input side	Reduces conducted and radiated interference from the drive.
Braking resistor	Drive output side	Models with B in their model name have built-in braking resistors or built-in braking units. During motor deceleration, regenerative energy is dissipated through the braking resistor.
Braking Unit	Drive output side	For product models without the suffix 'B', select the recommended Braking Unit. During motor deceleration, regenerative energy is dissipated through the braking resistor.
Output AC Reactor	Drive output side	Protects motor insulation and extends motor service life.
Ferrite cores, ferrite clips	Drive output side	Reduces external interference and minimizes bearing currents.
	Signal cables	Enhances signal immunity against interference.
Motor	Drive output side	Select compatible motors according to recommendations.
Remote keypad	Connect to the variable frequency drive control board via the external keyboard interface	External LED keypad or external LCD keypad for convenient on-site operation of the variable frequency drive
Note: Refer to 'Chapter 4 Optional Accessories' for peripheral electrical equipment selection		

3.2. Electrical wiring diagram



Standard system wiring diagram

3.2.1. DIP Switch

S1-1 DIP Switch Description

DIP Switch Status	Function Description
S1-1	
OFF	AI1 Voltage Mode, DC 0V~10V, factory default status
ON	AI1 Current Mode, 0mA~20mA, Input Impedance 500Ω

S1-2 and S1-3 DIP Switch Description

DIP Switch Status		Function Description
S1-2	S1-3	
OFF	OFF	AI2 Voltage Mode, DC 0V~10V, factory default status
OFF	ON	AI2 Temperature Mode. Temperature sensor type can be set via function code P5.1.04: 0: No temperature sensor (AI2 channel serves as analog input) 1：PT100，-25℃~+200℃ 2：PT1000，-25℃~+200℃ 3：KTY84-130，-40℃~+260℃
ON	OFF	AI2 Current Mode, 0mA to 20mA, Input Impedance 500Ω

3.2.2. COM/GND Grounding Screw

When the variable frequency drive is adequately grounded, it can reduce interference levels in external low-voltage signal cables and mitigate the impact of externally introduced interference on the control board. Default connection.

On the other hand, under inadequate grounding conditions or when the drive enclosure exhibits elevated interference voltage due to other causes, interference may be introduced into the control system. This could affect terminal signals of the drive, potentially causing malfunctions in communication, current sampling, encoder signals, analog I/O, digital I/O, and may even affect other equipment connected to the control board terminals of the variable frequency drive.

4. Optional Accessories

4.1. List of Optional Accessories Supplied by Our Company

See below for optional accessories supplied by our company. For detailed usage, refer to the accessory's manual. If you require any of the following optional accessories, please specify when ordering.

Name		Model	Supported Models	Description
Braking Component	External Braking Unit	/	18.5kW~710kW	Used for braking; select according to the corresponding drive
Mounting Accessories	Recessed Mounting Bracket	/	0.4kW~160 kW	Used for recessed mounting; select according to the corresponding drive
External operation keypad	LCD Remote Keypad	HLCD01NNNB500	H500 Full Series	
	LED Remote Keypad (Without Knob)	HLED00NNNB500	H500 Full Series	
	LED Remote Keypad (With Knob)	HLED00NNKB500	H500 Full Series	
	Input/Output AC Reactors	/	/	Used for improving grid power factor or enhancing inverter output; select according to the corresponding variable frequency drive
	External keypad, LED, with analog potentiometer, (standard version)	HLED00NNKB500A	H500 Full Series	Includes card slot
	LCD liquid crystal external keyboard	HLCD00RBSB500	H500 Full Series	Supports Chinese and English, Bluetooth, RTC, SD card, including card slot
Encoder Expansion Card		DHEEPG1	H500 Full Series	ABZ Differential Input
		DHEEPG1D	H500 Full Series	ABZ Differential Input with Frequency-Divided Output
		DHEEPG2	H500 Full Series	ABZ/UVW Differential Input
		DHEEPG3A	H500 Full Series	Open Collector Input (up to 100KHz)
		DHEEPG3B	H500 Full Series	Open Collector Input (up to 200KHz)
		DHEEPG4	H500 Full Series	Resolver encoder
		DHEEPG4D	H500 Full Series (Applicable for 5.5kW and above Models)	Resolver Encoder with Frequency-Divided Output
		DHEEPG5	H500 Full Series	17 bit/ 23 bit Absolute Encoder Card
		DHEEPG5D	H500 Full Series	17 bit/ 23 bit Absolute Encoder Card with Frequency-Divided Output
		DHEEPG6C	H500 Full Series	Compatible with Differential/Collector/Push-Pull Input, with Collector Frequency-Divided Output
		DHEEPG6D	H500 Full Series	Compatible with differential/collector/push-pull inputs, featuring differential frequency output
Function Expansion Card	I/O Expansion Card	DHEEIO1	H500 Series (Applicable to 15kW and above models)	4 channels DI + 1 channel AI + 1 channel DO and 1 relay output + CAN + RS485 (Applicable to 15kW and above models)

	I/O Expansion Card	DHEEIO2	Full H500 Series	3 channels DI
	I/O Expansion Card	DHEEIO3	Full H500 Series	3 channels DI + 1 relay + RS485
	I/O Expansion Card	DHEEIO4	Full H500 Series	3 channels DI + 1 channel DO + 1 relay output
	I/O Expansion Card	DHEEIO5A	Full H500 Series	4 channels DI + 2 channels DO + RS485
	I/O Expansion Card	DHEEIO5B	Full H500 Series	4 channels DI + 2 channels DO
	I/O Expansion Card	DHEEIO6	Full H500 Series	1 channel AI (Supports differential voltage input and temperature detection resistor input)
	I/O Expansion Card	DHEEIO7	Full H500 Series	1 Channel AI (Supports-10V DC~10V DC Input)
	RS485 Communication Card	DHEE485	Full H500 Series	RS485 Communication Card （MODBUS-RTU）
	CAN Communication Card	DHEECAN	Full H500 Series	CAN Communication Card
	CANopen Communication Card	DHEECAN OPEN	Full H500 Series	CANOPEN Communication Card
	PROFIBUS-DP Communication Card	DHEEDP	Full H500 Series	PROFIBUS-DP Communication Card
	PROFINET Communication Card	DHEEPN	Full H500 Series	PROFINET Communication Card
	EtherCAT Communication Card	DHEEECAT	Full H500 Series	EtherCAT Communication Card
	MODBUS TCP Communication Card	DHEETCP	Full H500 Series	MODBUS TCP Communication Card
	4G Communication Card	DHEE4G	Full H500 Series	4G Communication Card
Matching Cable	DP Expansion Card Matching Cable	/	H500 Full Series	Dual Male DP9 Cable for Connecting DHEEDP Card and PROFIBUS Master Station
	PROFINET, EtherCAT, TCP Expansion Card Matching Network Cable	/	H500 Full Series	Direct-Connect Network Cable Meeting CAT5e or Higher Standard
	4G Expansion Card Matching Antenna	/	H500 Full Series	4G Antenna Kit

4.2. Braking Component

4.2.1.1. Selection of Braking Resistor Resistance Value

During braking, almost all regenerative energy of the motor is consumed by the braking resistor. The resistance value can be calculated using the formula: U×U/R=Pb:

U－Braking voltage at system stable braking (U values vary across systems, with this series of variable frequency drives defaulting to 760V);

Pb－Braking power.

4.2.1.2. Selection of braking resistor power

Theoretically, braking resistor power equals braking power, but derating factor K must be considered. Use the formula:

K×Pr=Pb×D，

K－Approximately 50%,

Pr－Power rating of braking resistor,

D－Braking frequency, representing the ratio of regenerative process to entire operation

From the above two equations, we can derive:

K×Pr=Pb×D= U×U/R×D； Pr=(U×U×D)/(R×K)，

Users can calculate the braking resistor power using this formula.

The K value is the derating coefficient for the braking resistor. A lower K value ensures the braking resistor does not overheat. Users may appropriately increase the K value under conditions of good heat dissipation for the braking resistor, but it should not exceed 50%. Otherwise, there is a risk of fire due to resistor overheating.

The braking frequency D needs to be determined based on the user's actual application scenario. 'Braking Frequency for Common Application Scenarios' provides typical values for common scenarios:

Braking Frequency for

Common Application Scenarios	Elevator	Unwinding and Winding	Centrifuge	Occasional braking load	General applications
Braking frequency value assignment	20 ~30%	20 ~30%	50~60%	5%	10%

4.2.1.3. Model of braking unit

Description

The braking resistor values in the table are based on heavy overload models (G-type) with a Braking Use Rate (ED) of 10% and a maximum single braking duration of 10s.

Braking component selection table

Variable frequency drive model	Braking unit model	Braking resistor resistance (Ω)	Braking resistor power (W)
H500G0R4P0R75T4B	Built-in	600	160
H500G0R75P1R1T4B	Built-in	600	160
H500G1R1P1R5T4B	Built-in	600	160
H500G1R5P2R2T4B	Built-in	400	250
H500G2R2P3R0T4B	Built-in	250	400
H500G3R0P4R0T4B	Built-in	150	600
H500G4R0P5R5T4B	Built-in	150	600
H500G5R5P7R5T4B	Built-in	100	1000
H500G7R5P011T4B	Built-in	75	1200
H500G11P15T4B	Built-in	50	2000
H500G15P18R5T4B	Built-in	40	2500
H500G18R5P22T4(B)L	Built-in External Option CDI-BR-50	30	4000
H500G22P30T4(B)L	Built-in External Option CDI-BR-50	30	4000
H500G30P37T4(B)L	Built-in External Option CDI-BR-50	20	6000
H500G37P45T4(B)L	Built-in External Option CDI-BR-100	16	9000
H500G45P55T4(B)L	Built-in External Option CDI-BR-100	13.6	9000
H500G55P65T4(B)L	Built-in External Option CDI-BR-100	20/2	12000
H500G65P75T4(B)L	Built-in External Option CDI-BR-200	13.6/2	18000
H500G75P90T4(B)L	Built-in External Option CDI-BR-200	13.6/2	18000
H500G90P110T4(B)L	Built-in External Option CDI-BR-200	20/3	18000
H500G110P132T4(B)L	Built-in External Option CDI-BR-200	20/3	18000
H500G132P160T4L	External Option CDI-BR-200	20/4	24000
H500G160P185T4L	External Option CDI-BR-400	13.6/4	36000
H500G185P200T4L	External Option CDI-BR-400	13.6/5	45000
H500G200P220T4L	External Option CDI-BR-400	13.6/5	45000
H500G220P250T4L	External Option CDI-BR-400	13.6/6	54000

H500G250P280T4L	External Option CDI-BR-400	13.6/6	54000
H500G280P315T4L	External Option CDI-BR-400	13.6/6	54000
H500G315P355T4L	External Option CDI-BR-400	13.6/6	54000
H500G355P375T4L	External Option CDI-BR-600	13.6/7	63000
H500G375P400T4L	External Option CDI-BR-600	13.6/7	63000
H500G400P450T4L	External Option CDI-BR-600	13.6/8	72000
H500G450P500T4L	External Option CDI-BR-600	13.6/8	72000
H500G500P560T4L	External Option CDI-BR-600	13.6/9	81000
H500G560P630T4L	External Option CDI-BR-600	13.6/9	81000
H500G630P710T4L	External Option 2*CDI-BR-400	13.6/10	90000
H500G710P800T4L	External Option 2*CDI-BR-400	13.6/10	90000

● The values in the above table are for reference only. Users may select different resistance values and power ratings based on actual conditions (however, the resistance value must not be less than the minimum braking resistor value in the table, while the power rating may be higher). The selection of braking resistors should be determined based on the power generated by the motor in the actual application system. It is related to system inertia, deceleration time, potential energy of loads, and other factors. Users should make selections according to their specific circumstances.

● The greater the system inertia, the shorter the required deceleration time, and the more frequent the braking, the higher the power rating and lower the resistance value required for the braking resistor.

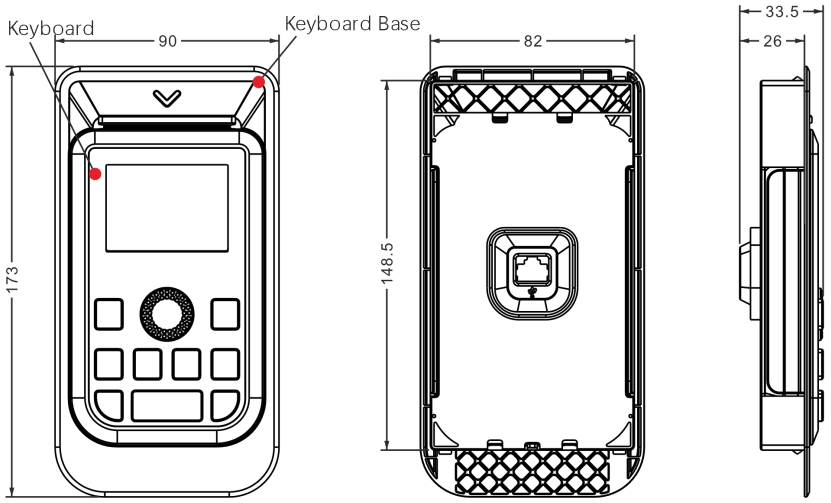
4.3. External operation keypad

We provide three models of external operation keypads as optional accessories, with specific details as follows.

External operation keypad

Model	Description	Appearance
HLCD01NN NB500	LCD operation panel (optional accessory) supporting parameter copy and download. Users can conveniently modify parameters through the LCD panel. With Chinese display capability, the LCD panel offers more straightforward and convenient operation. As shown in the product image.	
HLED00NN KB500	(With knob) LED operation panel (optional accessory) supporting parameter display and modification. Users can conveniently view and modify parameters through the LED panel. As shown in the product image.	
HLED00NN NB500	(Knobless) LED operation panel (optional accessory) supporting parameter display and modification. Users can conveniently view and modify parameters through the LED panel. As shown in the product image.	

Refer to the diagram below for base installation of the external operation keypad.



Base Installation SIZE: 82*148.5mm

H500 External Keypad Dimension Diagram

5. Technical Data

5.1. Electrical parameters

Description

In the table below, the determination conditions for the inverter rated power are as follows:

- Three-phase 380V~480V: Inverter rated power determined under an input of 440V AC.
- Three-phase 200V~240V: Inverter rated power determined under an input of 220V AC.
- Single-phase 200V~240V: Inverter rated power determined under an input of 220V AC.

Three-phase 380V~480V

Electrical Parameters (Three-phase 380V~480V) (SIZE1)

Item		Specification					
Model: H500		G0R4 P0R75	G0R75 P1R1	G1R1 P1R5	G1R5 P2R2	G2R2 P3R0	G3R0 P4R0
Outline structure		SIZE1					
Output	Power (kW) (Heavy Duty Load)	0.4	0.75	1.1	1.5	2.2	3.0
	Rated Output Current (A) (Heavy Duty Load)	1.6	3	3.5	4.5	6	7.2
	Power (kW) (Light Load)	0.75	1.1	1.5	2.2	3.0	4.0
	Rated Output Current (A) (Light Load)	3	3.5	4.5	6	7.2	9.5
	Output Voltage	Three-phase 0~Input Voltage					
	Maximum Output Frequency	599Hz (adjustable via parameters)					
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)					
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated current for 60s					
Input	Rated Input Current (A) (Heavy Duty Load)	2.2	4.4	5.0	6.0	7.5	9.5
	Rated Input Current (A) (Light Load)	4.4	5.0	6.0	7.5	9.5	11
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz					
	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V					
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz					
	Power Capacity (kVA)	2	3.5	4.1	5	6.7	9.5
Thermal Design	Exhaust Air Volume (CFM)	-	-	-	9	9	9
Overvoltage Category	OVCIII						
Pollution Degree		PD2					
Protection Class		IP20 (open type, IP Protection Rating applies to IEC products)					

Electrical parameters (Three-phase 380V~480V) (SIZE2-SIZE4)

Item		Specification				
Model: H500		G4R0 P5R5	G5R5 P7R5	G7R5 P11	G11 P15	G15 P18
Outline structure		SIZE2		SIZE3		SIZE4
Output	Power (kW) (Heavy Duty Load)	4.0	5.5	7.5	11	15
	Rated Output Current (A) (Heavy Duty Load)	9.5	13	17	25	32
	Power (kW) (Light Load)	5.5	7.5	11	15	18
	Rated Output Current (A) (Light Load)	13	17	25	32	37
	Output Voltage	Three-phase 0~Input Voltage				
	Maximum Output Frequency	599Hz (adjustable via parameters)				
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)				
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated				

		current for 60s				
Input	Rated Input Current (A) (Heavy Duty Load)	11	15.5	20.5	26	35
	Rated Input Current (A) (Light Load)	15.5	20.5	26	35	38.5
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz				
	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V				
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz				
	Power Capacity (kVA)	12	17.5	22.8	33.4	42.8
Thermal Design	Exhaust Air Volume (CFM)	20	24	30	40	42
Overvoltage Category	OVCIII					
Pollution Degree	PD2					
Protection Class	IP20 (open type, IP Protection Rating applies to IEC products)					

Electrical parameters (Three-phase 380V~480V) (SIZE5, SIZE6)

Item		Specification			
Model: H500		G18R5 P22	G22 P30	G30 P37	G37 P45
Outline structure		SIZE5		SIZE6	
Output	Power (kW) (Heavy Duty Load)	18.5	22	30	37
	Rated Output Current(A) (Heavy Duty Load)	37	45	60	75
	Power (kW) (Light Load)	22	30	37	45
	Rated Output Current(A)) (Light Load)	45	60	75	90
	Output Voltage	Three-phase 0~Input Voltage			
	Maximum Output Frequency	599Hz (adjustable via parameters)			
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)			
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated current for 60s			
Input	Rated Input Current(A) (Heavy Duty Load)	38.5	46.5	62	76
	Rated Input Current(A) (Light Load)	46.5	62	76	92
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz			
	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V			
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz			
	Power Capacity (kVA)	33	39	52	63
Thermal Design	Exhaust Air Volume (CFM)	52	57	118	118
Overvoltage Category	OVCIII				
Pollution Degree	PD2				
Protection Class	IP20 (open type, IP Protection Rating applies to IEC products)				

Electrical parameters (Three-phase 380V~480V) (SIZE7-SIZE9)

Item		Specification							
Model: H500		G45P 55	G55P 65	G65P 75	G75P 90	G90P 110	G110 P132	G132 P160	G160 P185
Outline structure		SIZE7		SIZE8				SIZE9	
Output	Power (kW) (Heavy	45	55	65	75	90	110	132	160

	Duty Load)								
	Rated Output Current(A) (Heavy Duty Load)	90	110	130	152	176	210	253	300
	Power (kW) (Light Load)	55	65	75	90	110	132	160	185
	Rated Output Current(A) (Light Load)	110	130	152	176	210	253	300	340
	Output Voltage	Three-phase 0~Input Voltage							
	Maximum Output Frequency	599Hz (adjustable via parameters)							
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)							
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated current for 60s							
Input	Rated Input Current(A) (Heavy Duty Load)	92	113	134	157	180	214	256	305
	Rated Input Current(A) (Light Load)	113	134	157	180	214	256	305	344
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz							
	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V							
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz							
	Power Capacity (kVA)	81	97	110	127	150	180	220	263
Thermal Design	Exhaust Air Volume (CFM)	122.2	122.2	218.6	218.6	287.2	354.2	547	627
Overvoltage Category	OVCIII								
Pollution Degree	PD2								
Protection Class	IP20 (open type, IP Protection Rating applies to IEC products)								

Electrical parameters (Three-phase 380V~480V) (SIZE10-SIZE11)

Item		Specification					
Model: H500		G185P200	G200P220	G220P250	G250P280	G280P315	G315P355
Outline structure		SIZE10		SIZE11			
Output	Power (kW) (Heavy Duty Load)	185	200	220	250	280	315
	Rated Output Current(A) (Heavy Duty Load)	340	380	420	480	540	600
	Power (kW) (Light Load)	200	220	250	280	315	355
	Rated Output Current(A) (Light Load)	380	420	480	540	600	680
	Output Voltage	Three-phase 0~Input Voltage					
	Maximum Output Frequency	599Hz (adjustable via parameters)					
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)					
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated current for 60s					
Input	Rated Input Current(A) (Heavy Duty Load)	344	383	425	484	543	605
	Rated Input Current(A) (Light Load)	383	425	484	543	605	683
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz					

	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V					
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz					
	Power Capacity (kVA)	278	334	375	404	453	517
Thermal Design	Exhaust Air Volume (CFM)	861.28	861.28	1291.92	1291.92	1291.92	1291.92
Overvoltage Category	OVCIII						
Pollution Degree	PD2						
Protection Class	IP20 (open type, IP Protection Rating applies to IEC products)						

Electrical parameters (Three-phase 380V~480V) (SIZE12)

Item		Specification			
Model: H500		G355P375	G375P400	G400P450	G450P500
Outline structure		SIZE12			
Output	Power (kW) (Heavy Duty Load)	355	375	400	450
	Rated Output Current(A) (Heavy Duty Load)	680	710	750	860
	Power (kW) (Light Load)	375	400	450	500
	Rated Output Current(A) (Light Load)	710	750	860	900
	Output Voltage	Three-phase 0~Input Voltage			
	Maximum Output Frequency	599Hz (adjustable via parameters)			
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)			
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated current for 60s			
Input	Rated Input Current(A) (Heavy Duty Load)	683	714	753	864
	Rated Input Current(A) (Light Load)	714	753	864	905
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz			
	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V			
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz			
	Power Capacity (kVA)	565	596	629	715.5
Thermal Design	Exhaust Air Volume (CFM)	1291.92	1291.92	1291.92	1291.92
Overvoltage Category	OVCIII				
Pollution Degree	PD2				
Protection Class	IP20 (open type, IP Protection Rating applies to IEC products)				

Electrical parameters (Three-phase 380V~480V) (SIZE13)

Item		Specification			
Model: H500		G500P560	G560P630	G630P710	G710P800
Outline structure		SIZE13			
Output	Power (kW) (Heavy Duty Load)	500	560	630	710
	Rated Output Current(A) (Heavy	900	1020	1120	1240

	Duty Load)				
	Power (kW) (Light Load)	560	630	710	800
	Rated Output Current(A) (Light Load)	1020	1120	1240	1390
	Output Voltage	Three-phase 0~Input Voltage			
	Maximum Output Frequency	599Hz (adjustable via parameters)			
	Carrier Frequency	0.5kHz~16.0kHz (Carrier frequency automatically adjusted based on load characteristic)			
	Overload Capacity	Heavy Duty Load: 150% rated current for 60s; Light Load: 120% rated current for 60s			
Input	Rated Input Current(A) (Heavy Duty Load)	905	1023	1124	1242
	Rated Input Current(A) (Light Load)	1023	1124	1242	1393
	Rated Voltage / Rated Frequency	AC: Three-phase 380~480V, 50/60Hz			
	Allowable Voltage Fluctuation Range	-15%~10%, Actual allowable range: AC 323V~528V			
	Allowable Frequency Fluctuation Range	±5%, Actual allowable range: 47.5Hz~63Hz			
	Power Capacity (kVA)	756	860	939	1038
Thermal Design	Exhaust Air Volume (CFM)	1800	1800	1800	1800
Overvoltage Category	OVCIII				
Pollution Degree	PD2				
Protection Class	IP20 (open type, IP Protection Rating applies to IEC products)				

5.2. Technical Specifications

Technical Specifications Table 1

Item			Technical Specifications
Control Performance	Drive Motor Types		Asynchronous Induction Motors (IM), Permanent Magnet Synchronous Motors (PMSM)
	Control Methods		Open-loop Vector Control (SVC), Closed-loop Vector Control (FVC), V/F Control
	Asynchronous Motors VF	Supported Functions	Overvoltage Suppression, Overcurrent Suppression, Momentary Power Loss Operation, Oscillation Suppression, Torque Boost, Slip Compensation, Multiple V/F Curve Selection, V/F Separation, DC Braking, Random PWM, Overexcitation Quick Deceleration, Droop Control, Parameter Auto-tuning, Speed Tracking, etc.
	Asynchronous Motors FVC	Supported Functions	Master-Slave Control, Overvoltage Suppression, Torque Control, Momentary Power Loss Operation, Parameter Auto-tuning, etc.
		Encoder support	Communication Encoder, ABZ Encoder (Differential, Collector, Push-pull), Resolver Encoder
		Starting torque	0Hz/180%（FVC）
		Torque step response	Torque step response within 2ms
		Speed stability accuracy	0.02%
		Speed fluctuation	0.05%
		Torque control accuracy	Torque control accuracy ±2%
		Flux-weakening ratio	5x flux-weakening
	Asynchronous Motors SVC	Supported Functions	Master-Slave Control, Overvoltage Suppression, DC braking, Torque control, Momentary power loss operation, Parameter auto-tuning, Speed Tracking, etc.
		Speed regulation range	1:250 （SVC）
		Starting torque	0.25Hz/150%（SVC）
		Torque step	Torque step response within 2ms

		response	
		Torque control accuracy	Torque control accuracy ±3% above 5Hz
		Speed stability accuracy	Within 10% of rated slip
		Flux-weakening ratio	5x flux-weakening

Technical Specifications Table 2

Item			Technical Specifications
Control Performance	Synchronous Motor FVC	Supported Functions	Master-Slave Control, Overvoltage Suppression, Torque Control, Momentary Power Loss Operation, Parameter Auto-tuning, etc.
		Encoder support	Communication Encoder, ABZ Encoder (Differential, Collector, Push-pull), Resolver Encoder
		Starting torque	0Hz/180%（FVC）
		Torque step response	Torque step response within 2ms
		Speed stability accuracy	0.02% under normal motor and encoder conditions
		Speed fluctuation	0.05% under normal motor and encoder conditions
		Torque control accuracy	Torque control accuracy ±2%
	Synchronous Motor SVC	Supported Functions	Master-Slave Control, Overvoltage Suppression, DC braking, Torque control, Momentary power loss operation, Parameter auto-tuning, Speed Tracking, etc.
		Speed regulation range	1:100 （SVC）
		Starting torque	0.5Hz/150%（SVC）
		Torque step response	Torque step response within 2ms
		Torque control accuracy	Torque control accuracy ±3% above 5Hz
		Speed stability accuracy	0.05%

Technical Specifications Table 3

Item			Technical Specifications
Basic Functions	Command Channel		Controls motor start/stop, etc., including DI/DO, virtual DI/DO, external expansion card DI/DO; supports switching between four sets of motor parameters and control parameters; supports free programming for start/stop commands
	Reference Channel	Input Frequency Resolution	Digital setting: 0.01Hz Analog setting: Maximum Frequency×0.1%
		Speed/Torque Reference	Acceleration and deceleration curves; dynamic switching of multiple acceleration/deceleration time groups; S-curve acceleration/deceleration; external PID Reference; AI (2 channels supporting 0-10V, 0-20mA); communication-based speed/torque reference; pulse reference (HDI1, HDI2); multi-step value reference; supports free programming for setting speed/torque reference
	Communication Methods		Supports 7 communication methods: Modbus (Modbus-RTU, Modbus-TCP), Profibus-DP, CAN, CANopen, Profinet, EtherCAT, 4G-LTE
	Output Limitations		Supports torque limitation, power limitation, current limitation, ultimate torque limitation, speed limitation, frequency jumping
	Process Control	PID	Sleep, freely configurable sources for given and feedback values, two-stage PID parameter switching, feedback loss detection, freely configurable output limits, freely configurable initialization
	Protection		Variable frequency drive motor protection, including over-voltage, over-current, over-load, motor overheat (PT100, PT1000, KTY84-130), load shedding protection, automatic fault reset, auto restart, etc.

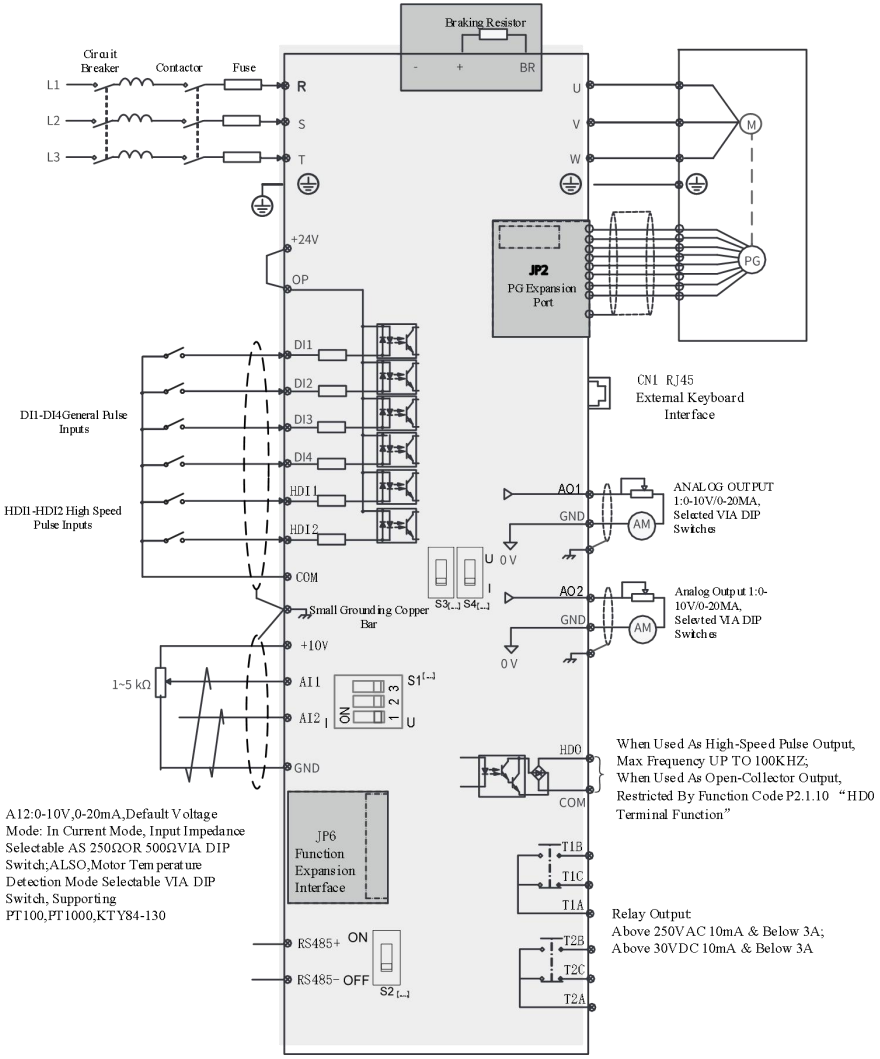
Technical Specifications Table 4

Item		Technical Specifications
Personalized Functions	Free programming	Free programming can be implemented. Logic operations (AND/OR/NOT, XOR/XNOR), arithmetic operations (addition/subtraction/multiplication/division, absolute value, numerical comparison), logic delay on/off, multi-point curve, constant value
	Self-check	Variable frequency drive and motor detection. Supports self-check functions for IGBT shoot-through, ground faults, phase loss, and

		inter-phase short circuits
	Powerful background software	The background software Dlx.DriveStudio supports parameter upload/download operations and oscilloscope functions for variable frequency drives. This software enables remote debugging and fault diagnosis. The oscilloscope function allows monitoring of internal drive statuses.
Run	Run command	Command sources: operator panel, control terminals, serial communication port (switchable through multiple methods).
	Frequency Command	14 frequency command sources: digital setting, analog voltage input, analog current input, pulse input, serial port input (switchable through multiple methods)
	Auxiliary Frequency Command	14 types of auxiliary frequency commands. Enables flexible auxiliary frequency fine-tuning and frequency synthesis.
	Input Terminals	Standard: 4 DI terminals, 2 HDI terminals 2 AI terminals. AI1/AI2 support 0V~10V voltage mode input and 0~20mA current mode input. AI2 additionally supports temperature mode input (function switchable via DIP switch).
	Output Terminals	Standard: 2 AO terminals, supporting 0~20mA current output or 0~10V voltage output 2 relay output terminals 1 HDO (configurable as High-Speed Pulse Output or ordinary DO function)
Display and Key pad Operation	LED operation panel display	Display and modification of parameters; status indications for the variable frequency drive (forward/reverse/shutdown; panel/terminal/communication control; speed/torque control, etc.)
	LCD and LED external extension control panel display	Optional accessories: Operation prompts in Chinese/English/Russian languages (LCD only), and parameter modification
	Parameter copying	Rapid parameter upload and download can be achieved via the onboard LCD control panel or external extension control panel option
	Key lock and function selection	Partial key locking and defining functional scope of specific keys to prevent misoperation
Environment	Installation site	Indoor locations, free from direct sunlight exposure, dust, corrosive gases, flammable gases, oil mist, water vapor, dripping water, or salt
	Altitude	No derating required below 1000m. Above 1000m, derate by 1% for every additional 100m increase. Maximum operating altitude is 3000m. For altitudes exceeding 3000m, contact the manufacturer.
	Ambient temperature	-20°C ~ +50°C. When ambient temperature ranges from 40°C to 50°C, derating operation is required. Derate by 1.5% for every 1°C increase in ambient temperature.
	Humidity	Less than 95% RH, no condensation.
	Vibration	Less than 5.9m/s² (0.6g)
	Storage Temperature	-40°C~+70°C

6. Wiring

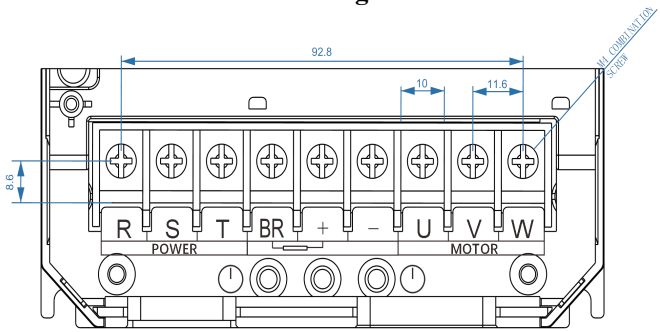
6.1. Electrical wiring diagram



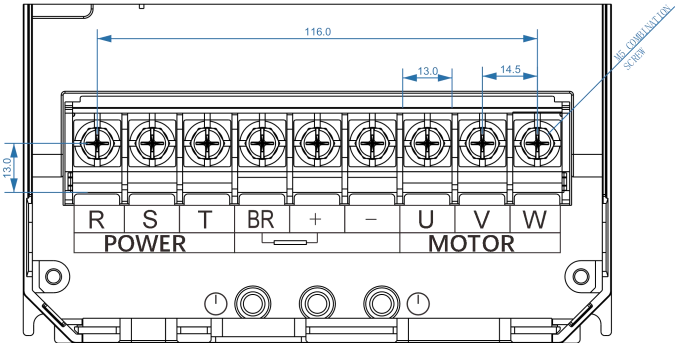
Standard system wiring diagram

6.2. Main Circuit Cable Wiring

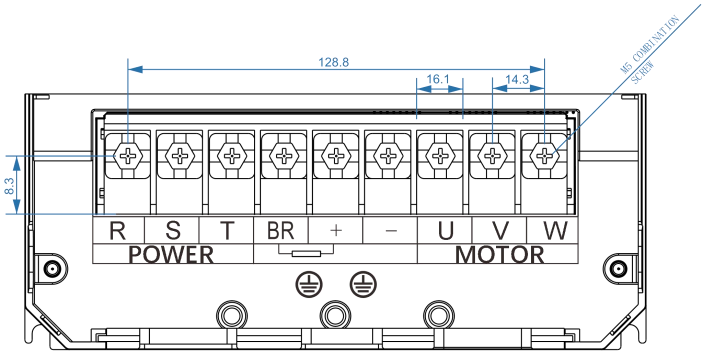
6.2.1.1. Main Circuit Terminal Size Diagram



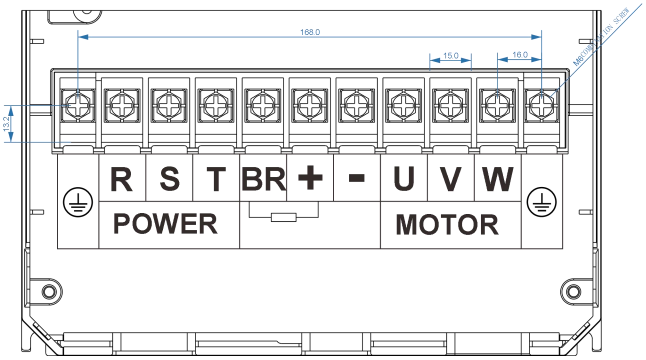
Terminal Layout and Size Diagram for SIZE1-SIZE2 Models



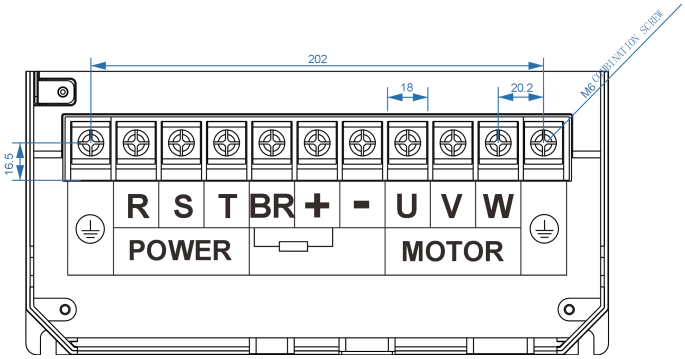
Terminal Layout and Size Diagram for SIZE3 Model



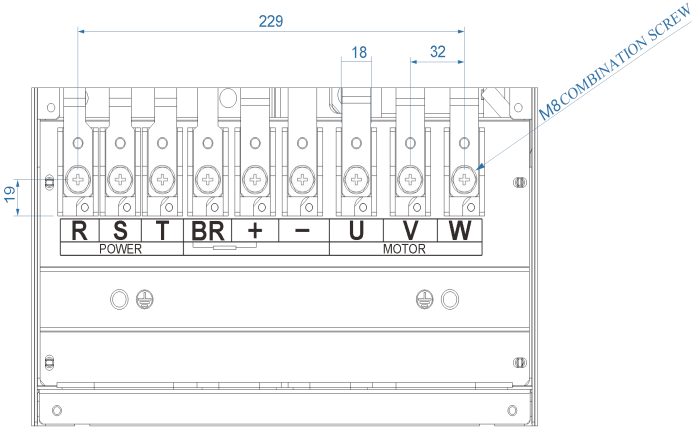
Terminal Layout and Size Diagram for SIZE4 Model



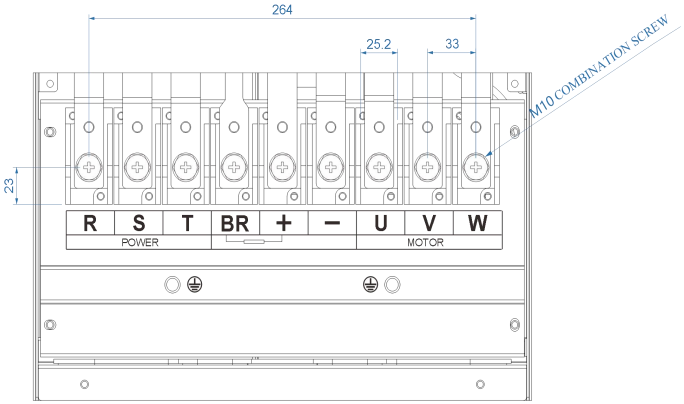
Terminal Layout and Size Diagram for SIZE5 Model



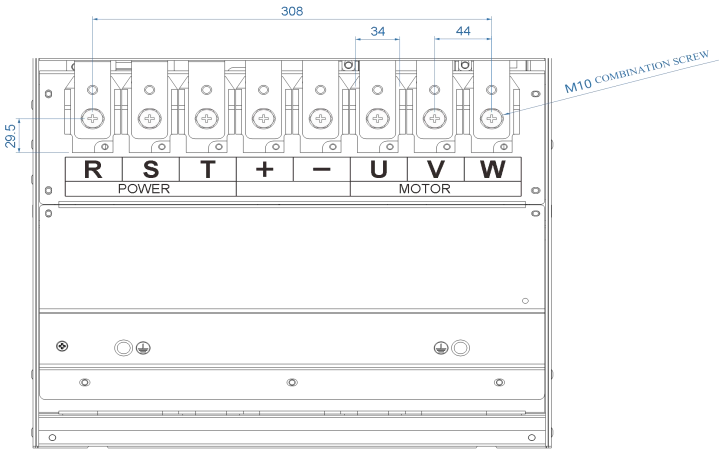
Terminal Layout and Size Diagram for SIZE6 Model



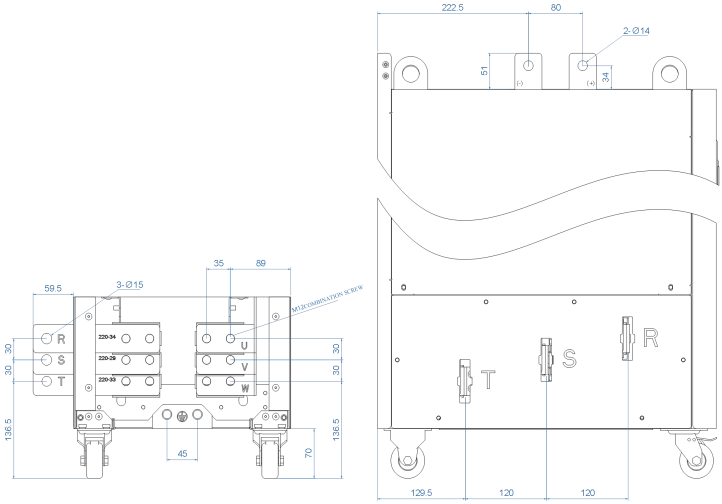
Terminal Layout and Size Diagram for SIZE7 Model



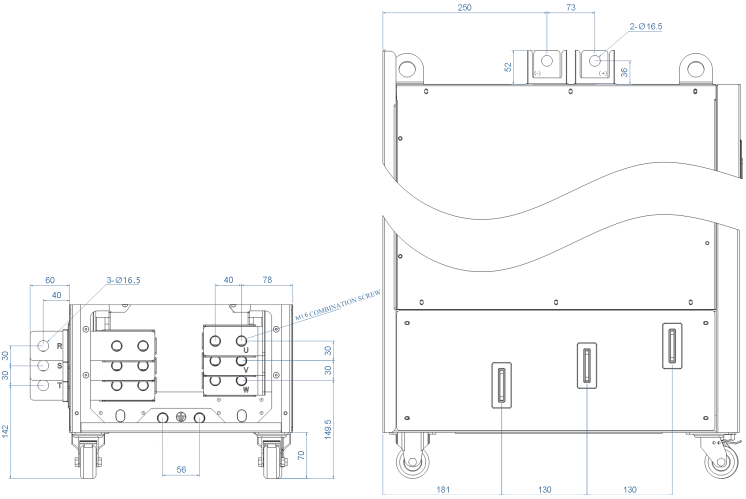
Terminal Layout and Size Diagram for SIZE8 Model



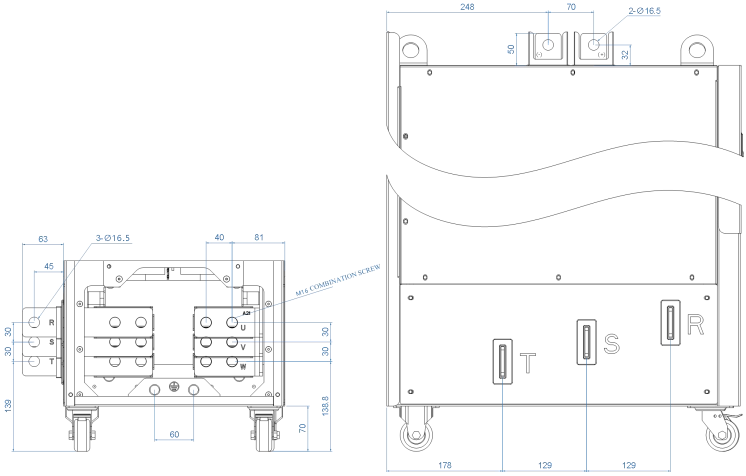
Terminal Layout and Size Diagram for SIZE9 Model



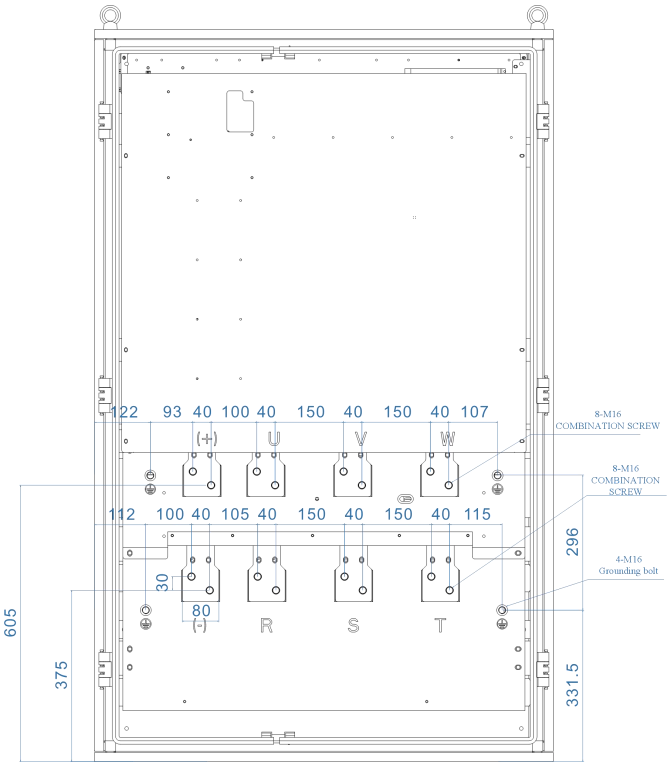
Terminal Layout and Size Diagram for SIZE10 Model



Terminal Layout and Size Diagram for SIZE11 Model



SIZE12 Model Main Circuit Terminal Layout and Dimensions Diagram



SIZE13 Model Main Circuit Terminal Layout and Dimensions Diagram

6.2.1.2. Main Circuit Terminal Wiring Instructions

The following describes the wiring requirements for the main circuit terminals.
To prevent accidents due to short circuits, be sure to connect a fuse to the input side.

Input power supply R, S, T

● Wiring on the input side of the equipment has no phase sequence requirement.
● The specifications and installation methods for external main circuit wiring must comply with local regulations and relevant IEC Standard requirements.
● For main circuit cable wiring, select copper conductors of the corresponding size based on the recommended selection values for main circuit cables.

DC Bus (+), (-), BR

● Residual voltage remains on the DC Bus (+) and (-) terminals immediately after power shutdown. You must wait and confirm that 10 minutes have elapsed after power shutdown before performing wiring operations; otherwise, there is a risk of electric shock.
●When using external braking components for 90kW and above models, ensure the (+) and (-) polarities are correctly connected. Reverse polarity may cause damage to both the drive and braking components, potentially resulting in fire.
●The wiring length for the braking unit should not exceed 10m. Use twisted-pair cable or tightly parallel-run wiring.
●Do not connect braking resistors directly to the DC bus. This may cause equipment damage or fire.

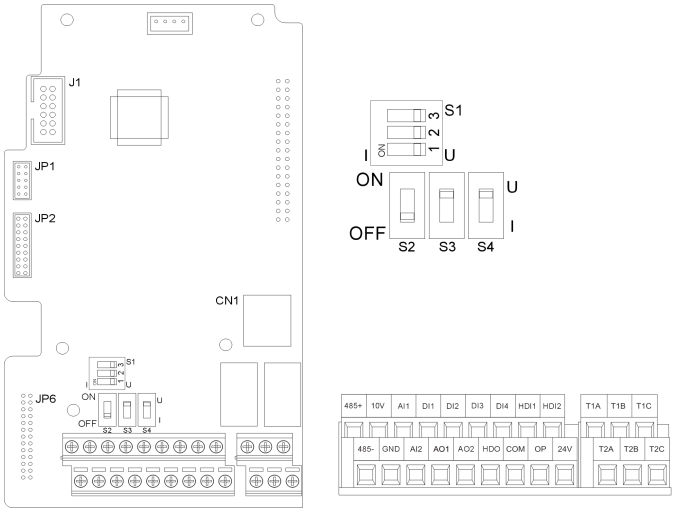
Output terminals U, V, W

●Main circuit cable specifications and installation methods must comply with local regulations and relevant IEC Standard requirements.
●Select copper conductors of corresponding size for main circuit cabling.
●Do not connect capacitors or surge absorbers to the output side. This may cause frequent protection activations or equipment damage.
● When the motor cable is excessively long, distributed capacitance may cause electrical resonance, potentially leading to motor insulation failure or significant leakage current that triggers equipment overcurrent protection. When motor cable length exceeds 100m, an AC output reactor must be installed near the equipment.

Grounding Terminal (PE)

6.3. Control Circuit Cable Wiring

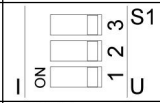
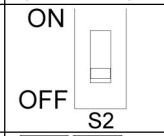
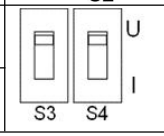
6.3.1.1. Control Circuit Terminal Description



Control Circuit Terminal Layout Diagram

Control Circuit Terminal Function Description

Category	Terminal Symbol	Terminal Name	Function Description
Power Supply	10V-GND	External 10V Power Supply	Provides external DC 10V power supply voltage, generally used as the operating power source for external potentiometers. Maximum Output Current: 10mA.
	24V-COM	External 24V power supply	Provides DC 24V power supply voltage, typically used as the operating power for digital input/output terminals or external low-voltage terminals. Maximum output current: 200mA [Note 1].
	OP	External power supply input terminal	Factory default connection to 24V. When using an external power supply to drive the digital input terminals, disconnect OP from the 24V power terminal and jumper it to the external power supply.
Analog input	AI1-GND	Analog input terminal 1	Supports both voltage input and current input; voltage input is the default. Supports 0V~10V/0mA~20mA, 12-bit resolution, calibration accuracy 1%. Input impedance: 22KΩ for voltage input, 500Ω for current input [Note 2]. It is recommended to connect using a pair of twisted-pair cables.
	AI2-GND	Analog Input Terminal 2	Supports voltage input, current input, and temperature input simultaneously; defaults to voltage input. Supports 0V to 10V for voltage input / 0mA to 20mA for current input, 12-bit resolution, calibration accuracy of 1%. Input impedance: 22KΩ for voltage input, 500Ω for current input [Note 2]. It is recommended to connect using a pair of twisted-pair cables.
Digital Input	DI1-OP	Digital Input 1	Opto-isolated, compatible with bipolar input. Input Impedance: 1.88 kΩ Input Voltage Range: 9V to 30V
	DI2-OP	Digital Input 2	
	DI3-OP	Digital Input 3	
	DI4-OP	Digital Input 4	
	HDI1-OP	High-speed Pulse Input 1	In addition to the features of DI1~DI4, it can also function as a high-speed pulse input channel. Input Impedance: 2.35 kΩ Maximum input frequency: 100kHz Operating voltage range: 15V~30V It is recommended to connect using a pair of twisted-pair cables.
	HDI2-OP	High-Speed Pulse Input 2	
Analog Output	AO1-GND	Analog Output 1	Voltage or current output is selected via the DIP switch on the control board, with voltage output as default. Output voltage range: 0V~10V Output current range: 0~20mA It is recommended to connect using a pair of twisted-pair cables.
	AO2-GND	Analog Output 2	
Digital Output	HDO-COM	High-Speed Pulse Output	Photocoupler isolated output. Output voltage range: 0V~24V Output current range: 0mA~50mA High-Speed Pulse Output is restricted by function code P2.1.10 'HDO Terminal Function': when used as high-speed pulse output, maximum frequency can reach 100KHz; it can also serve as open collector output. It is recommended to connect using a pair of twisted-pair cables.
Relay Output	T1/A	T1 Common Terminal	Contact Driving Capacity: 250VAC，3A，COSφ=0.5 30VDC，3A
	T1/B	T1 Normally Open Terminal	
	T1/C	T1 Normally Closed Terminal	
	T2/A	T2 Common Terminal	
	T2/B	T2 Normally Open Terminal	
	T2/C	T2 Normally Closed Terminal	
Auxi	JP2	PG Expansion Card	Supports differential encoders, push-pull encoders, collector

liary Interface		Interface	encoders, rotary encoders, communication encoders, etc.
	JP6	Function Expansion Card Interface	26-pin terminal serving as the interface for expansion cards (including optional cards such as I/O cards and communication cards).
	CN1	External Keypad Interface	Connects to external keypads, compatible with external LED keypads and LCD keypads.
DIP Switch	S1		S1 details refer to 『S1-1 DIP Switch Description』 and 『S1-2 and S1-3 DIP Switch Description』 [Note 3].
	S2		RS485 matching resistor. ON: Matching resistor connected OFF: Matching resistor disconnected, factory default status
	S3		AO1 current/voltage mode selection. I: Current output mode U: Voltage output mode, factory default status
	S4		AO2 current/voltage mode selection. I: Current output mode U: Voltage output mode, factory default status

S1-1 DIP Switch Description

DIP Switch Status	Function Description
S1-1	
OFF	AI1 Voltage Mode, DC 0V~10V, factory default status
ON	AI1 Current Mode, 0mA~20mA, Input Impedance 500Ω

S1-2 and S1-3 DIP Switch Description

DIP Switch Status		Function Description
S1-2	S1-3	
OFF	OFF	AI2 Voltage Mode, DC 0V~10V, factory default status
OFF	ON	AI2 Temperature Mode. Temperature sensor type can be set via function code P5.1.04: 0: No temperature sensor (AI2 channel serves as analog input) 1：PT100，-25℃~+200℃ 2：PT1000，-25℃~+200℃ 3：KTY84-130，-40℃~+260℃
ON	OFF	AI2 Current Mode, 0mA to 20mA, Input Impedance 500Ω

Description

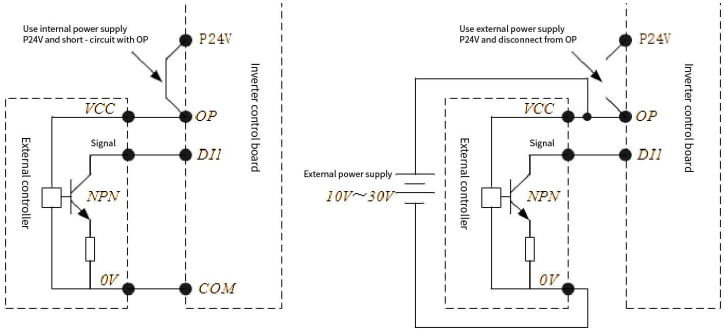
●【Note 1】: Derating Operation is required when ambient temperature exceeds 23°C. Output current decreases by 1.8mA for every 1°C increase in ambient temperature. Maximum output current is 170mA at 40°C ambient temperature. When users short OP to 24V, the current at digital input terminals must also be considered.

●【Note 2】: For users employing 500Ω impedance, the signal source must ensure a maximum output voltage of no less than 10V to guarantee AI can measure 20mA current.

●【Note 3】: S1-1 serves as the switch for AI1 and is used individually; S1-2 and S1-3 are switches for AI2 and are used in combination.

6.3.1.2. Digital input terminal DI wiring

●Sink wiring method



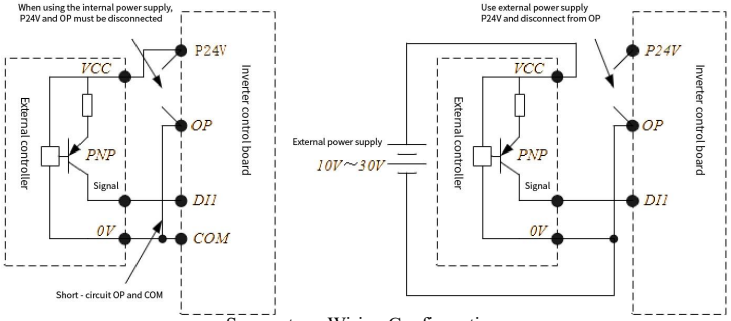
Sink wiring method

Using the internal 24V power supply of the variable frequency drive is a common wiring method. Short-circuit the drive's OP and 24V terminals, and connect the drive's COM terminal to the external controller's 0V.

When using an external 24V power supply, remove the jumper between +24V and OP. Connect the positive terminal of the external power supply to the OP terminal. Current flows out from the DI port, passes through the external controller contact, and returns to the external power supply's 0V.

In this wiring configuration, DI terminals of different variable frequency drives cannot be used in parallel connection. Otherwise, it may cause DI malfunctions.

● Source-type Wiring Configuration



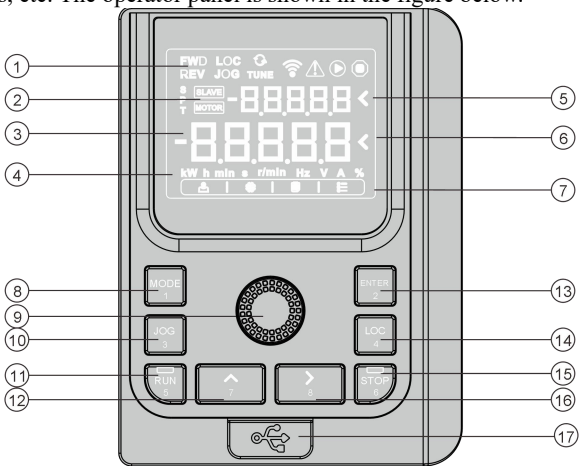
Source-type Wiring Configuration

7. Commissioning and Trial Operation

7.1. Onboard LED Operator Panel Description

7.1.1. Component Description

The onboard LED operator panel can display operation status, fault information, and perform parameter settings, etc. The operator panel is shown in the figure below.



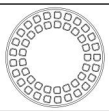
Schematic Diagram of Onboard Operator Panel Components

Composition Description of Onboard Operator Panel

No.	Component Name	Description
1	Status Indicator	Displays forward/reverse rotation status, local/remote control, jogging, tuning, warnings/faults, running, shutdown
2	Auxiliary Display Area	Displays the following information: Keypad test, tuning prompts, and other informational displays Current faults and overall system monitoring Station number, Electric, STO status
3	Main Display Area	Display function code parameters
4	Unit Display Area	Displays the unit corresponding to the function code value
5	Auxiliary Display Area operation status	Lit indicates that operation is possible
6	Main Display Area operation status	Lit indicates that operation is possible
7	Menu Display Area	Displays Basic mode, User mode, Verification mode
8	MODE key	Switches display mode, cancels data modification
9	Keyboard knob	Adjusts frequency, modifies data, modifies function codes
10	JOG key	Multi-function key (controlled by Function Code P0.1.35)
11	RUN key	Used for starting device in Local control mode
12	UP key	Frequency incrementing, data incrementing, function code incrementing
13	ENTER key	In parameter setting mode, reads and stores parameter settings
14	LOC key	Multi-function key (controlled by Function Code P0.1.35)
15	STOP key	During equipment operation, stops the equipment; during equipment failure, resets faults
16	Right shift key	Switches display data during monitoring; moves data modification position during parameter selection and setting
17	USB interface	Connects to PC via USB cable for data interaction

7.1.2. Key information

Key description

Key	Name	Description
	MODE key	Switches display mode; cancels data modification
	ENTER key	In parameter setting mode, reads and stores parameter settings
	JOG key	Multi-function key (controlled by Function Code P0.1.35)
	LOC key	Multi-function key (controlled by Function Code P0.1.35)
	RUN key	Used for starting device in Local control mode
	STOP key	During equipment operation, stops the equipment; during equipment failure, resets faults
	Increment key	Increments frequency during monitoring; increments data and function codes
	Right shift key	Switches display data during monitoring; moves data modification position during parameter selection and setting
	Keyboard knob	Adjusts frequency, modifies data, modifies function codes

7.1.3. Status Indicator

Status Indicator

No.	Component Name	Description
FWD REV	Forward/reverse status	FWD lit indicates target speed is positive FWD flashing indicates target direction switching to positive REV lit indicates target speed is reverse REV flashing indicates target direction switching to reverse
LOC	Local/Remote Status	Steady on indicates local control Flashing indicates communication control Off indicates terminal control
	Master-slave communication status	Steady on indicates normal master-slave communication Blinking indicates master-slave communication fault Off indicates master-slave communication disabled
TUNE	Tuning Status/Mains frequency status	Steady on indicates tuning in progress Blinking indicates mains frequency status active
	Alarm Status	Steady on indicates equipment fault has occurred Off indicates no equipment fault

	Run/Shutdown Status	 Steady Off  Steady on, indicates in shutdown  Steady on  Steady off, indicates running  Steady on  Flashing, indicates deceleration shutdown in progress  Flashing  Steady on, indicates in standby mode  Steady Off  Steady off, indicates reverse prohibition active  Steady on  Steady on, indicates DC braking in progress  Flashing  Flashing, indicates DC braking shutdown in progress
S	S Speed control mode	S steady on indicates system is currently in speed control mode S flashing indicates Speed Tracking is active
P	P Position control mode	P steady on indicates system is currently in position control mode
T	T Torque control mode	T steady on indicates system is currently in torque control mode
SLAVE	Slave mode	When steady on, Auxiliary Display Area shows slave address
MOTOR	Motor mode	When steadily lit, the Auxiliary Display Area indicates which motor number
−	Symbol Status	Steady on indicates a negative value; steady off indicates a positive value
kW h min s r/min Hz V A %	Unit Status	The unit of the value in the Main Display Area corresponds to the steadily lit indicator
	Mode Status	Main Display Area shows Basic mode
	Mode Status	Main Display Area shows User mode
	Mode Status	Main Display Area shows Verification mode

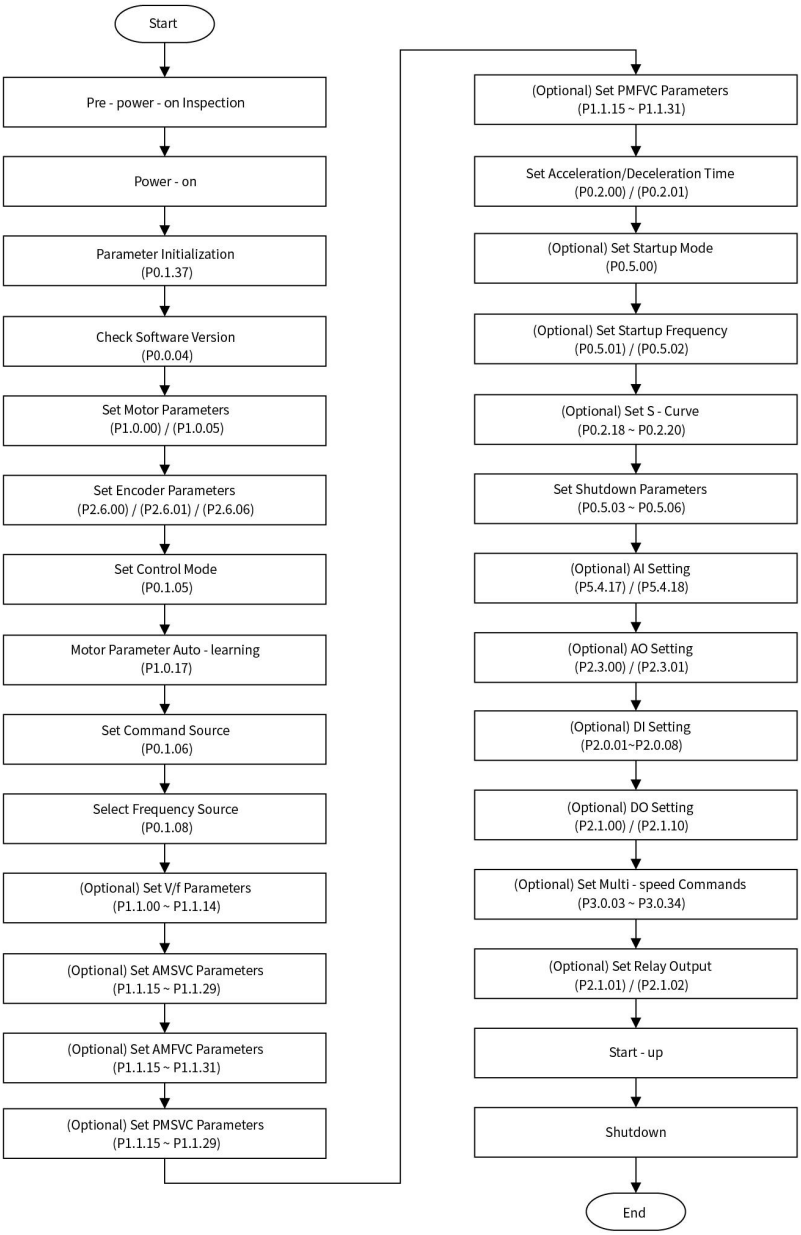
7.2. Basic Debugging Procedure

Be sure to confirm the following items before powering on.

Pre-power On Checklist

Item	Content
Main Circuit Connection Verification	Confirm correct supply voltage (380V AC~480V AC 50/60Hz).
	Confirm reliable connection between power input and drive input terminals (R/S/T).
	Confirm reliable connection between motor terminals and drive output terminals (U/V/W).
	Verify that the variable frequency drive and motor are properly grounded.
	Confirm that the cable gauge for the main circuit meets specifications.
	Ensure that heat-shrink tubing is applied to the crimped copper lugs and conductor strands of the main circuit cables, with the tubing fully encapsulating the cable conductors.
	For motor output cables exceeding 50 meters, reduce the carrier frequency (P0.6.06).

Control Circuit Connection Verification	Confirm secure connections between control circuit terminals and other control devices.
	Verify that shielded twisted-pair cable is used for control circuit signal wiring.
	Confirm correct wiring of the optional card.
	Ensure separate routing of control circuit cables and main circuit power cables.
	Verify all control circuit terminals on the variable frequency drive are in the OFF state (when the drive is not operating).
Load confirmation	Confirm that the motor is in a no-load state and not connected to the mechanical system.
Braking resistor confirmation	When using braking resistors and Braking Units, ensure correct wiring and appropriate resistance value.

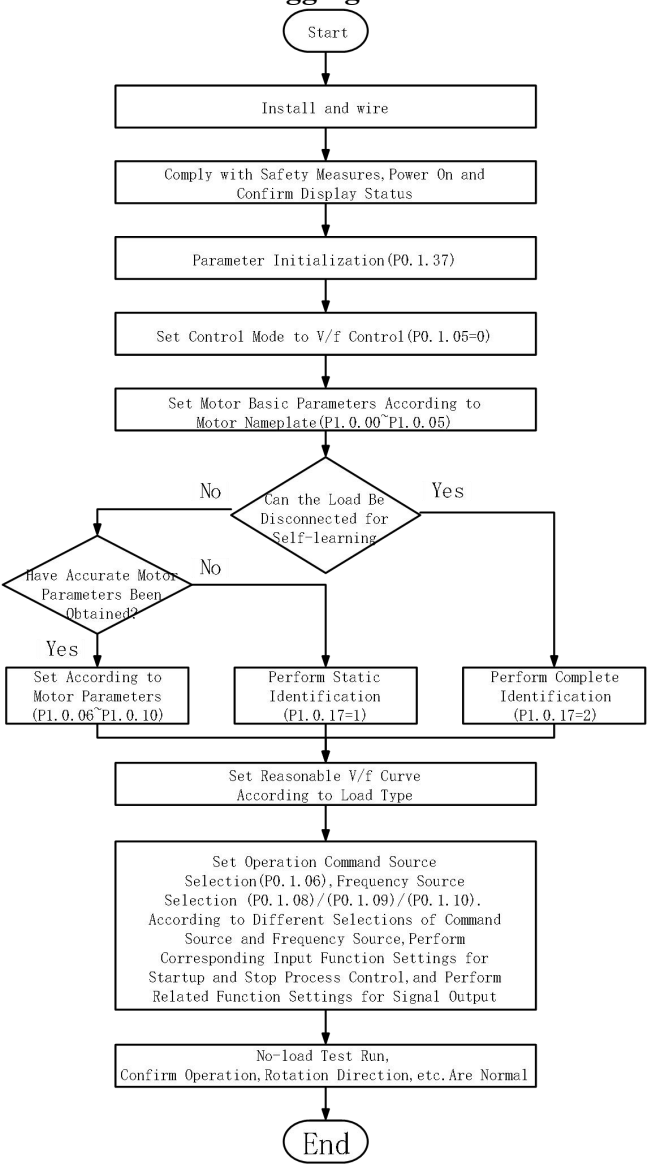


Commissioning procedure

Basic commissioning flow table

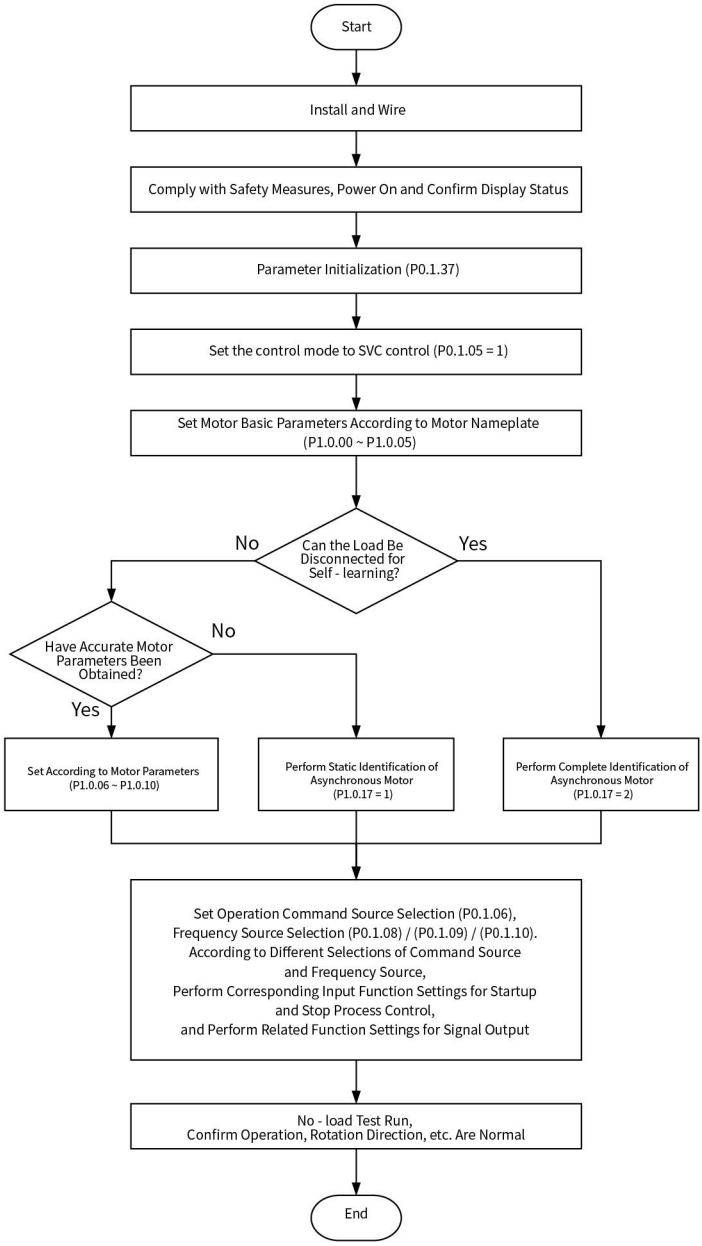
No.	Step	Related parameters
1	Pre-power-on check	None
2	Power-on	None
3	Parameter Initialization	P0.1.37
4	Check software version	P0.0.04
5	Set motor parameters	P1.0.00，P1.0.05
6	Set encoder parameters	P2.6.00，P2.6.01，P2.6.06
7	Set control mode	P0.1.05
8	Motor parameter auto-tuning	P1.0.17
9	Set command source	P0.1.06
10	Select frequency source	P0.1.08
11	Set acceleration/deceleration time	P0.2.00，P0.2.01
12	Set shutdown parameters	P0.5.03~P0.5.06
13	(Optional) Set V/f parameters	P1.1.00~P1.1.14
14	(Optional) Set AMSVC parameters	P1.1.15~P1.1.29
15	(Optional) Set AMFVC parameters	P1.1.15~P1.1.31
16	(Optional) Set PMSVC parameters	P1.1.15~P1.1.29
17	(Optional) Set PMFVC parameters	P1.1.15~P1.1.31
18	(Optional) Set start mode	P0.5.00
19	(Optional) Set start frequency	P0.5.01，P0.5.02
20	(Optional) Set S-curve	P0.2.18~P0.2.20
21	(Optional) AI settings	P5.4.17，P5.4.18
22	(Optional) AO settings	P2.3.00，P2.3.01
23	(Optional) DI settings	P2.0.01~P2.0.08
24	(Optional) DO settings	P2.1.00，P2.1.10
25	(Optional) Set multi-step speed commands	P3.0.03~P3.0.34
26	(Optional) Set relay output	P2.1.01，P2.1.02
27	Start	None

7.2.1. VF Control Mode Debugging Procedure

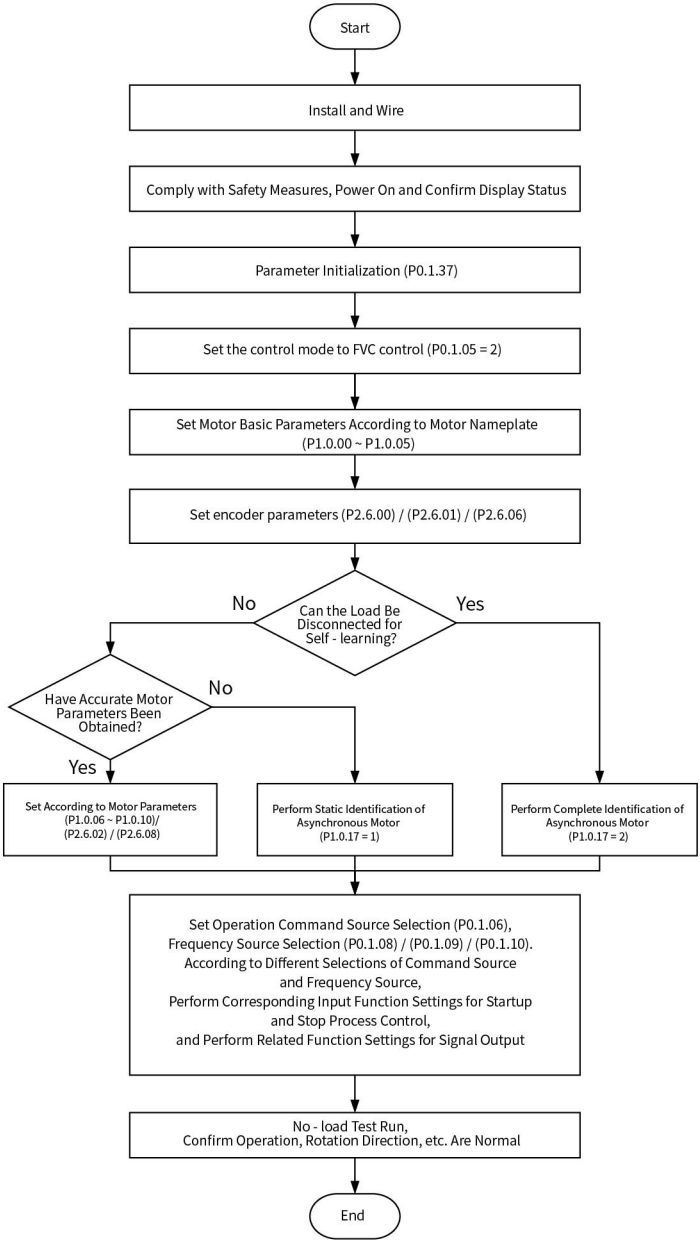


AMVF Control Mode Debugging Flowchart

7.2.2. AM SVC&FVC Control Mode Debugging Procedure

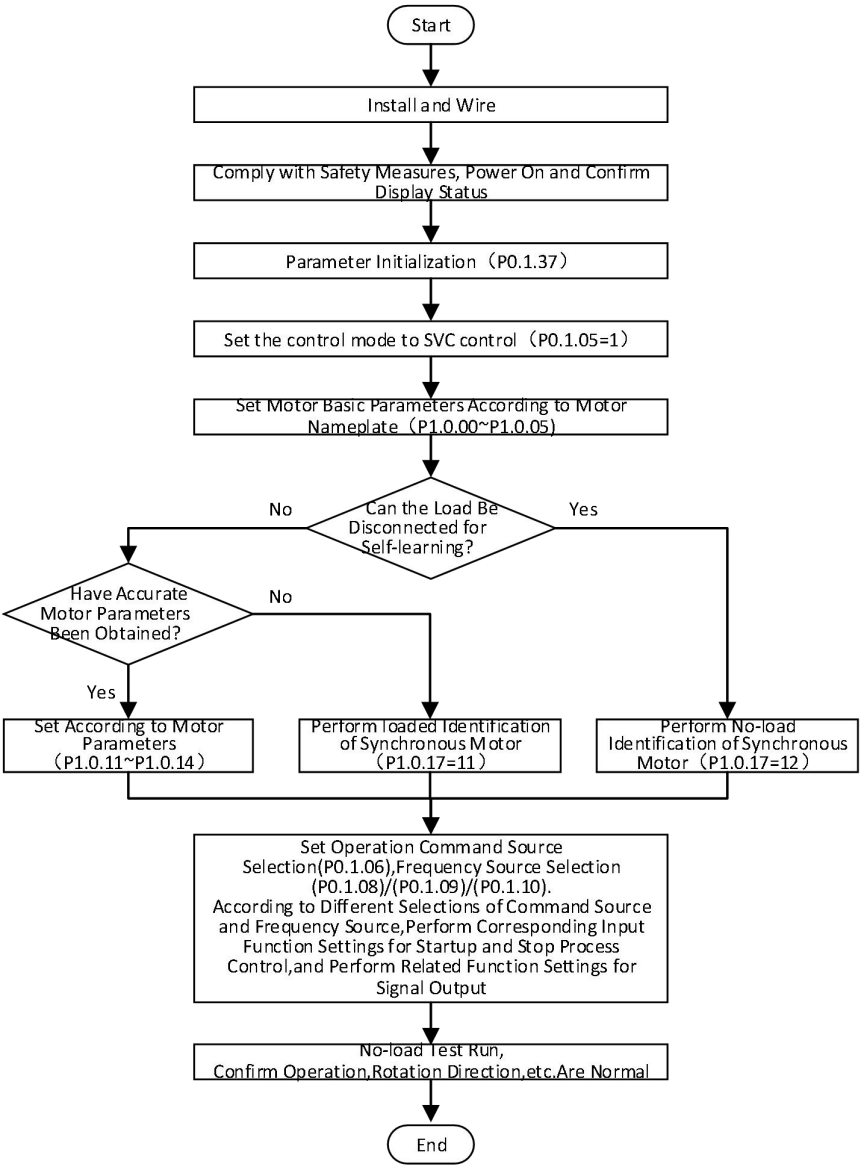


AMSVC Control Mode Debugging Flowchart

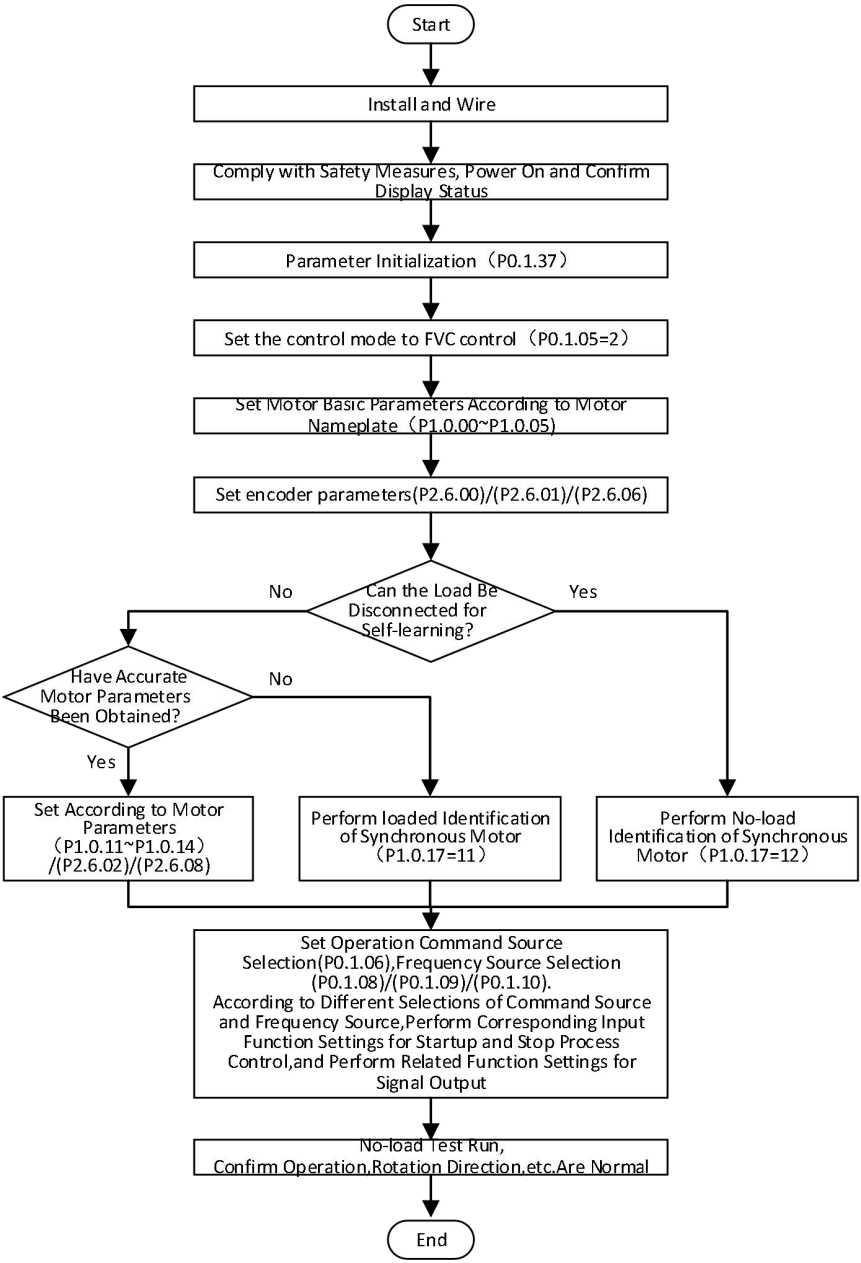


AMFVC Control Mode Debugging Flowchart

7.2.3. PM SVC&FVC Control Mode Debugging Procedure



PMSVC Control Mode Debugging Flowchart



PMFVC Control Mode Debugging Flowchart

8. Expansion Card

8.1. PG Card

Overview



PG Card Style Schematic Diagram

PG Cards compatible with H500 are shown in the following table

No.	Model	Main Functions
1	DHEEPG1	ABZ Differential Input
2	DHEEPG1D	ABZ Differential Input with Frequency-Divided Output
3	DHEEPG2	ABZ/UVW Differential Input
4	DHEEPG3A	Open Collector Input (up to 100KHz)
5	DHEEPG3B	Open Collector Input (up to 200KHz)
6	DHEEPG4	Resolver encoder
7	DHEEPG4D	Resolver encoder with frequency-divided output (for 5.5kW and above models)
8	DHEEPG5	17-bit/23-bit Absolute Encoder Card
9	DHEEPG5D	17-bit/23-bit Absolute Encoder Card with frequency-divided output
10	DHEEPG6C	Compatible with Differential/Collector/Push-Pull Input, with Collector Frequency-Divided Output
11	DHEEPG6D	Compatible with differential/collector/push-pull inputs, featuring differential frequency output

8.2. IO Expansion Card

Overview



IO Card Style Schematic Diagram

The IO expansion cards compatible with the H500 are as shown in the table below

No.	Model	Main Functions
1	DHEEIO1	4 channels DI + 1 channel AI + 1 channel DO and 1 relay output + CAN + RS485 (Applicable for models 15kW and above)
2	DHEEIO2	3 channels DI
3	DHEEIO3	3 channels DI + 1 relay + RS485
4	DHEEIO4	3 channels DI + 1 channel DO + 1 relay output
5	DHEEIO5A	4 channels DI + 2 channels DO + RS485
6	DHEEIO5B	4 channels DI + 2 channels DO
7	DHEEIO6	1 channel AI (supports differential voltage input and temperature detection resistor input)
8	DHEEIO7	1 channel AI (supports -10V DC~10V DC input)

8.3. Communication Expansion Card

Overview



DHEECANOPEN DHEEDP DHEEPN DHEEECAT DHEE4G DHEETCP DHEECAN DHEE485

Schematic diagram of communication expansion card

The communication expansion cards compatible with the H500 are as shown in the table below

Name	Model	Communication protocol
CANopen communication expansion card	DHEECANOPEN	CANopen
PROFIBUS Communication Expansion Card	DHEEDP	PROFIBUS
PROFINET Communication Expansion Card	DHEEPN	PROFINET
EtherCAT Communication Expansion Card	DHEEECAT	EtherCAT
4G Communication Expansion Card	DHEE4G	LTE
TCP Communication Expansion Card	DHEETCP	MOBDUS-TCP Slave Protocol
CAN Communication Expansion Card	DHEECAN	CAN 2.0B Protocol
RS485 Communication Expansion Card	DHEE485	MODBUS-RTU Slave

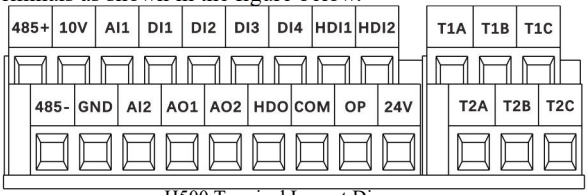
9. Appendix

9.1. Appendix I: Standard 485 Communication on the Device

9.1.1. Standard RS485 Terminals and Network Topology

9.1.1.1. Specifications for Standard RS485 Terminals

The control board of the H500 series variable frequency drive comes with built-in RS-485 communication terminals as shown in the figure below.

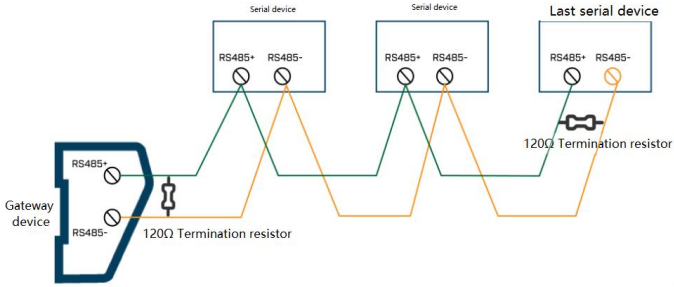


H500 Terminal Layout Diagram

Terminal Symbol	Terminal Definition
485+	485 Signal Positive Terminal
485-	485 Signal Negative Terminal

9.1.1.2. RS485 Networking Topology

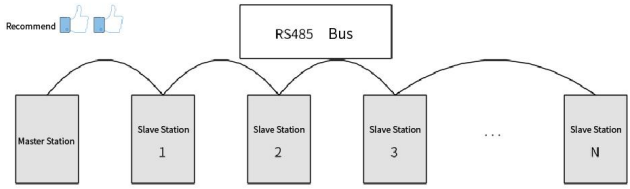
The RS485 bus connection topology is shown in the figure below. It is recommended to use shielded twisted-pair cable for the 485 bus, with the 485+ and 485- connections implemented using twisted pairs. Terminating resistors of 120Ω should only be connected at both ends of the bus to prevent signal reflection; the reference ground for all nodes' 485 signals should be connected together. A maximum of 247 nodes can be connected, with the branch line distance for each node less than 3m.



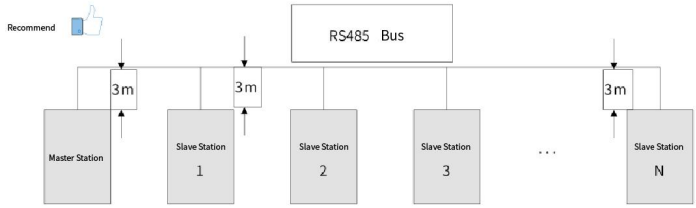
Half-duplex Connection Topology for RS485 Bus

Multi-node Connection Method

When the number of nodes is large, the 485 bus must adopt a daisy-chain topology. If branch line connections are required, the branch length from the bus to the node should be as short as possible, preferably not exceeding 3m. Star topology connections must be strictly avoided. Schematic diagrams of common bus structures are shown below.



Daisy Chain topology



Branch line connection

9.1.2. Standard RS485 parameters

Parameter	Parameter Name	Default Value	Setting Range
P0.1.40	Local Machine Address	1	000 is the broadcast address 001～247
P2.8.00	Standard Communication Baud Rate of This Device	3	Ones:MODBUS baud rate 0:1200 1:2400 2:4800 3:9600 4:19200 5:38400 6:57600 7:115200
P2.8.01	Standard Communication Data Format of This Device	0	0: No parity (8-N-2) 1: Even parity (8-E-1) 2: Odd parity (8-O-1) 3: No parity (8-N-1)
P2.8.03	Standard communication response delay of this device	2	0ms～20ms
P2.8.04	Communication timeout period of this device	5.0	0.1s～60.0s
P2.8.05	Standard Communication Data Transmission Format of This Device	1	0: ASCII mode (Reserved) 1: RTU mode
P2.8.06	Does the standard communication of this device using MODBUS protocol return data	0	0: Reply 1: No reply
P2.8.07	Communication Error Handling Method for Standard Configuration of This Device	0	0:Disable 1:Enable(The fault can not be automatically reset) 2:Enable(The fault can be automatically reset)

Note[1]:
Response delay: When the variable frequency drive receives data, it delays for the time set by function code P2.8.03 before starting to reply.
Communication timeout: After function code P2.8.07 (Communication error handling method) is enabled, if the interval between data frames received by the variable frequency drive exceeds the time set by function code P2.8.04, the drive will trigger an Err47 fault alarm, indicating communication abnormality.

9.1.3. Standard MODBUS Communication Format Specifications

9.1.3.1. Frame Example

Master Station Write Command String Format

Character Name	Slave Address	Write Command 06H	Function Code Address	Data Content	CRC Check
Character Length	1Byte	1Byte	2Byte	2Byte	2Byte
Example	01H	06H	9300H	0000H	A48EH

Slave Station Reply Write Command String Format

Character Name	Slave Address	Write Command 06H	Function Code Address	Data Content	CRC Check
Character Length	1Byte	1Byte	2Byte	2Byte	2Byte
Example	01H	06H	9300H	0000H	A48EH

Master Station Read Command String Format

Character Name	Slave Addresss	Read Command 03H	Function Code Address	Number of Data	CRC Check
Character Length	1Byte	1Byte	2Byte	2Byte	2Byte
Example	01H	03H	0000H	0003H	05CBH

Slave Station Reply Read Command String Format

Character Name	Slave Address	Read Command 03H	Number of Data	Data Content 1	Data Content 2	Data Content 3	CRC Check
Character Length	1Byte	1Byte	1Byte	2Byte	2Byte	2Byte	2Byte
Example	01H	03H	06H	0000H	0000H	000CH	2170H

Slave Station Reply Write Command Error String Format

Character Name	Slave Address	Exception Response Function Code	Read-Write Error Type	CRC Check
Character Length	1Byte	1Byte	1Byte	2Byte
Example	01H	86H	06H	C262H

Slave Station Reply Read Command Error String Format

Character Name	Slave Address	Exception Response Function Code	Read-Write Error Type	CRC Check
Character Length	1Byte	1Byte	1Byte	2Byte
Example	01H	83H	02H	C0F1H

9.1.4. Additional Settings for Standard RS485 Interface

9.1.4.1. Communication Protocol Parameter Address Definition

Function code parameters dedicated for communication access in H-series variable frequency drives. Read/write attributes are as follows

Function code parameter	Groups P0.1-P0.9, P2-P5, P9.3.00-P9.3.49	Readable and Writable
	Groups P0.0, P8, P9.0, P9.3.50-P9.3.99	Read Only

9.1.4.2. Function Code Parameter Read/Write Address Specification

The high-order address of the parameter address is formed by the group and level of function code parameters, while the low address is composed of the serial number.
Due to the limited lifespan of EEPROM, frequent storage operations to EEPROM should be avoided during communication processes. Therefore, some function codes only require updating values in RAM during communication and do not need to be stored in EEPROM.
If writing to EEPROM is required, convert the high-order address of the parameter address as a hexadecimal number and the low address as a decimal number converted to hexadecimal. Then combine the high-order address and low address into a 4-digit hexadecimal number.
For example, P2.1.12 written to EEPROM: high-order address is hexadecimal 21 (21H), low address is decimal 12 converted to hexadecimal 0C (0CH). Thus, the address is represented as 210CH.
If writing to EEPROM is not required, parameter groups Px.0 to Px.5 (x: 0-9) can be written to RAM by adding 0A00H to the parameter address. For example, the parameter address for writing P2.1.12 to RAM is 2B0CH. Writing groups Px.6 to Px.9 to RAM is not supported.
Example: The address for P2.1.12 without writing to EEPROM is
The High-Order Address is hexadecimal 21; adding 0A00H results in 2BH. The Low Address is decimal 12, converted to hexadecimal as 0CH. Therefore, the address is represented as 2B0CH.

9.1.5. Standard RS485 Communication Function Code Definition Table and Examples

9.1.5.1. Function Code Definition Table

<table>
<tr><th>Definition</th><th>Function code</th><th>Parameter address</th><th colspan="2">Function Description</th></tr>
<tr><td rowspan="20">Commands to the variable frequency drive</td><td rowspan="20">06H</td><td rowspan="7">9300H (corresponding to parameter address P9.3.00)</td><td>0001H</td><td>Forward operation</td></tr>
<tr><td>0002H</td><td>Reverse operation</td></tr>
<tr><td>0003H</td><td>Forward Jog</td></tr>
<tr><td>0004H</td><td>Reverse Jog</td></tr>
<tr><td>0005H</td><td>Coast to Stop</td></tr>
<tr><td>0006H</td><td>Deceleration Stop</td></tr>
<tr><td>0007H</td><td>Fault Reset</td></tr>
<tr><td>9301H (corresponds to parameter address P9.3.01)</td><td colspan="2">Frequency Command (as a percentage of maximum frequency, non-stored) (00.00～100.00 represents 00.00%～100.00%)</td></tr>
<tr><td rowspan="6">9302H (corresponds to parameter address P9.3.02)</td><td>BIT0</td><td>Multi-function Output Terminal HDO (When HDO terminal is used as DO, i.e., P2.1.10=1 Open Collector Output DO)</td></tr>
<tr><td>BIT1</td><td>Multi-function Output Terminal T1</td></tr>
<tr><td>BIT2</td><td>Multi-function Output Terminal T2</td></tr>
<tr><td>BIT3</td><td>Multi-function Output Terminal DO1 (Expansion Card)</td></tr>
<tr><td>BIT4</td><td>Multi-function Output Terminal DO2 (Expansion Card)</td></tr>
<tr><td colspan="2">To activate the multi-function output terminal signal, set its corresponding bit to 1, then convert this binary number to hexadecimal and send it to address 9302H</td></tr>
<tr><td>9303H (corresponds to parameter address P9.3.03)</td><td colspan="2">AO1 output address
(00.0～100.0 represents 00.0%～100.0%)</td></tr>
<tr><td>9304H (corresponds to parameter address P9.3.04)</td><td colspan="2">AO2 output address
(00.0～100.0 represents 00.0%～100.0%)</td></tr>
<tr><td>9305H (corresponds to parameter address</td><td colspan="2">HDO output address (When HDO terminal is used as PULSE output, i.e., P2.1.10=0 PULSE output)</td></tr>
</table>

Definition	Function code	Parameter address	Function Description	
		P9.3.05)	(0000H～7FFFH represents 0.00%～100.00%, 00.0～100.0 represents 00.0%～100.0%)	
		9306H (corresponds to parameter address P9.3.06)	Upper Limit Frequency Source (percentage of maximum frequency, non-stored) (00.00～100.00 represents 00.00%～100.00%)	
		9307H (corresponding to parameter address P9.3.07)	Upper Torque Limit Source (percentage of torque upper limit value, non-storable) (00.00 to 100.00 represents 00.00% to 100.00%)	
		9308H (corresponding to parameter address P9.3.08)	VF Separation Voltage Setting (percentage of motor rated voltage, non-storable) (00.00 to 100.00 represents 00.00% to 100.00%)	
		930AH (corresponding to parameter address P9.3.10)	PID Reference Value (percentage of PID Reference Feedback Range, non-storable) (00.00 to 100.00 represents 00.00% to 100.00%)	
		930BH (corresponding to parameter address P9.3.11)	PID Feedback Value (as a percentage of PID Reference Feedback Range, not stored) (00.00 ～ 100.00 represents 00.00%～100.00%)	
Monitor the operation status of the variable frequency drive	03H	9332H (corresponding to parameter address P9.3.50)	0001H	Forward operation
			0002H	Reverse operation
			0003H	Stop
Monitor faults of the variable frequency drive	03H	9333H (corresponding to parameter address P9.3.51)	00	No fault
			01	Over-current at constant speed
			02	Over-current at acceleration
			03	Over-current at deceleration
			04	Over-voltage at constant speed
			05	Over-voltage at acceleration
			06	Err06 Over-voltage at deceleration
			07	/
			08	Under-voltage
			09	Variable frequency drive overload
			10	Motor overload
			11	Input phase loss
			12	Output phase loss
			13	External Fault
			14	Extension card communication exception
			15	Frequency inverter Overheat
			16	Variable frequency drive hardware fault
			17	Motor-to-ground short circuit
			18	Motor Identification Fault
			19	Motor Off-load
			20	PID Feedback Loss
			21	User-Defined Fault 1
			22	User-Defined Fault 2
			23	Accumulative Power-on Time Reached

Definition	Function code	Parameter address	Function Description	
			24	Accumulative Running Time Reached
			25	Encoder Fault
			26	Parameter read and write exception
			27	Motor Overheat
			28	Larger Speed Deviation
			29	Motor Overspeed
			30	Initial Position Error
			31	Current detection fault
			32	/
			33	/
			34	Fast current limiting timeout
			35	Multi-motor control fault
			36	/
			37	/
			38	Output short circuit
			39	Brake tube short circuit
			40	Braking resistor
			41	Relay hardware fault
			42	Logic error during synchronous motor pole position identification
			43	Industrial power and variable frequency switching error
			44	Motor identification fault
			45	Torque Overload Fault
			46	Stall Detection and Protection fault
			47	The RS485 communication of this machine is abnormal.
			48	The network port communication is abnormal.
			49	Type-C communication is abnormal.

9.1.5.2. Example

Example 1 Forward start of VFD 1
Host sends data frame

ADR	CMD	ADRESS		DATA		CRC	
01H	06H	93H	00H	00H	01H	65H	4EH

Slave reply packet

ADR	CMD	ADRESS		DATA		CRC	
01H	06H	93H	00H	00H	01H	65H	4EH

Example 2 Set frequency for VFD 1 (non-stored)
Set the frequency of VFD #1 to 100.00% of the Maximum Frequency
Method: Remove decimal from 100.00 to get 10000D=2710H
Host sends data frame

ADR	CMD	ADRESS		DATA		CRC	
01H	06H	93H	01H	27H	10H	EFH	72H

Slave reply data frame

ADR	CMD	ADRESS		DATA		CRC	
01H	06H	93H	01H	27H	10H	EFH	72H

Example 3 Query the running frequency of VFD 1
Query the Output Frequency of VFD #1 during Operation Status
Method: Function code parameter for Output Frequency is P9.0.00, converted to address 9000H
If Output Frequency of VFD #1 is 50.00Hz. 5000D=1388H
Host sends data frame

ADR	CMD	ADRESS		DATA		CRC	
01H	03H	90H	00H	00H	01H	A9H	0AH

Slave reply data frame

ADR	CMD	Byte Count	DATA		CRC	
01H	03H	02H	13H	88H	B5H	12H

9.2. Appendix II: Parameter List

9.2.1. P0 Basic Functions

9.2.1.1. P0.0 VFD Information (Read only)

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.0.00 (0x0000)	Reserved	0~0	0	Any	"P0.0.00"
P0.0.01 (0x0001)	Current Motor Control mode display	Ones: 0:V/F Control 1:SVC Open loop vector control 2:FVC Closed loop vector control Tens: 0:Asynchronous motor 1:Synchronous motor	0	Read only	"P0.0.01"
P0.0.02 (0x0002)	Inverter Machine	1~3637	Model	Read only	"P0.0.02"
P0.0.03 (0x0003)	GP Type	1: G Type (over load type) 2: P Type (Light load type)	Manufactuier	Read only	"P0.0.03"
P0.0.04 (0x0004)	software version number	0.01~255.99	0.01	Read only	"P0.0.04"
P0.0.05 (0x0005)	Program Nonstandard Label	0.00~255.99	0.00	Read only	"P0.0.05"
P0.0.06 (0x0006)	Inverter rated power	0.1~2000.0(kW)	Model	Read only	"P0.0.06"
P0.0.07 (0x0007)	Inverter rated voltage	1~2000(V)	Model	Read only	"P0.0.07"
P0.0.08 (0x0008)	Inverter rated current	0.01~655.35(A)	Model	Read only	"P0.0.08"
P0.0.09 (0x0009)	Accumulative Running Time	0~65535(h)	0	Read only	"P0.0.09"
P0.0.10 (0x000A)	Accumulative Power On Time	0~65535(h)	0	Read only	"P0.0.10"
P0.0.11 (0x000B)	Accumulative Power Consumption	0~65535(kWh)	0	Read only	"P0.0.11"
P0.0.12 (0x000C)	Module Temperature	0~999(℃)	0	Read only	"P0.0.12"
P0.0.13 (0x000D)	Last Macro Recovery Value	0~1000	0	Read only	"P0.0.13"
P0.0.14 (0x000E)	Reserved	0~999	500	Read only	"P0.0.14"
P0.0.15 (0x000F)	Reserved	0~999	500	Read only	"P0.0.15"
P0.0.16 (0x0010)	Inverter rated current after derating	0.01~655.35(A)	9.50	Read only	"P0.0.16"

9.2.1.2. P0.1 Basic Parameter

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.1.00 (0x0100)	LCD language Switch	0:Chinese 1:English 2:Russian	0	Any	"P0.1.00"
P0.1.01 (0x0101)	Selection Display of Function Parameter Group	Ones: 0:Only display basic group 1:Display the menus at all levels Tens: 0:Dont display Group P0.9 1:Display Group P0.9 Hundreds: 0:Dont display Group P1.2~P1.9 1:Display Group P1.2~P1.9 Thousands: 0:Dont display Group P9.1~P9.2 1:Display Group P9.1~P9.2	111	Any	"P0.1.01"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		Ten Thousands: 0:Dont display Group P2.9 1:Display Group P2.9			
P0.1.02 (0x0102)	Type of Frequency inverter	1: G Type (over load type) 2: P Type (Lightload type)	Manufactuier	Limited Param	"P0.1.02"
P0.1.03 (0x0103)	Function Password Protection	0:Modifiable 1:Non-modifiable 2:Modifiable Constrained Parameters	0	Any	"P0.1.03"
P0.1.04 (0x0104)	Display Mode	0:Basic Mode(Prefix with'P') 1:User Mode(Prefix with'U') 2:Verification Mode(Prefix with'C')	0	Limited Param	"P0.1.04"
P0.1.05 (0x0105)	Motor 1 Control Mode	0:V/F Control 1:Open-loop Vector Control 2:Closed-loop Vector Control	0	Read only in run	"P0.1.05"
P0.1.06 (0x0106)	Operation Command Selection	0:Keyboard Control 1:Terminal Control 2:Communication Control	0	Any	"P0.1.06"
P0.1.07 (0x0107)	Run Command Bound to Frequency Source	Ones:Operation Panel Bound to Frequency Source Selection 0:No bindings 1:Keyboard Reference (Power-off memory function with digital potentiometer or no potentiometer) 2:External Terminal AI1 Reference 3:External Terminal AI2 Reference 4:External Terminal AI3 Reference 5:PULS Reference (P2.0.12) 6:Multiplex Directive Terminal Reference 7:Simple PLC Reference 8:PID Control Reference 9:Communication Reference A:PG card (Handwheel) B:External keypad analog potentiometer Tens:Terminal Command Bound to Frequency Source Selection 0:No bindings 1:Keyboard Reference (Power-off memory function with digital potentiometer or no potentiometer) 2:External Terminal AI1 Reference 3:External Terminal AI2 Reference 4:External Terminal AI3 Reference 5:PULS Reference (P2.0.12) 6:Multiplex Directive Terminal Reference 7:Simple PLC Reference 8:PID Control Reference 9:Communication Reference A:PG card (Handwheel) B:External keypad analog potentiometer Hundreds:Communication Bound to Frequency Source Selection 0:No bindings 1:Keyboard Reference (Power-off memory function with digital potentiometer or no potentiometer) 2:External Terminal AI1 Reference 3:External Terminal AI2 Reference 4:External Terminal AI3 Reference 5:PULS Reference (P2.0.12) 6:Multiplex Directive Terminal Reference 7:Simple PLC Reference 8:PID Control Reference 9:Communication Reference A:PG card (Handwheel) B:External keypad analog potentiometer	H.000	Read only in run	"P0.1.07"
P0.1.08 (0x0108)	Option of Frequency Source	0:Frequency Source A 1:Frequency Source B 2:Frequency Source A+B 3:Frequency Source A-B 4:Max. Value of A & B	0	Any	"P0.1.08"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		5:Min. Value of A & B 6:Standby Frequency Source 1 7:Standby Frequency Source 2 8:Switch of Terminal among the above 8 kinds			
P0.1.09 (0x0109)	Option of A Frequency Source	0:Keyboard Reference(No Power-off Memory function with digital potentiometer or no potentiometer) 1:Keyboard Reference(Power-off Memory function with digital potentiometer or no potentiometer) 2:External Terminal AI1 Reference 3:External Terminal AI2 Reference 4:External Terminal AI3 Reference 5:PULS Reference (P2.0.12) 6:Multiplex Directive Terminal Reference 7:Simple PLC Reference 8:PID Control Reference 9:Communication Reference 10:Operation Result 1 11:Operation Result 2 12:Operation Result 3 13:Operation Result 4 14:PG card (Handwheel) 15:External keypad analog potentiometer	1	Read only in run	"P0.1.09"
P0.1.10 (0x010A)	Option of Frequency Source B	Same as above	0	Read only in run	"P0.1.10"
P0.1.11 (0x010B)	B frequency source range selection	0:Relative to the highest frequency 1:Relative to A frequency source	0	Any	"P0.1.11"
P0.1.12 (0x010C)	Adjustment Volume of:Frequency Source B at superposition	0~150(%)	100	Any	"P0.1.12"
P0.1.13 (0x010D)	B frequency offset when superimposed	0.00~P0.1.16(Hz)	0.00	Any	"P0.1.13"
P0.1.14 (0x010E)	Keyboard Frequency Reference	0.00~P0.1.16(Hz)	50.00	Any	"P0.1.14"
P0.1.15 (0x010F)	Running Direction	0:Default direction 1:Negation of Direction 2:Determined by multi-funtion input terminal	0	Any	"P0.1.15"
P0.1.16 (0x0110)	Maximum frequency	5.00~320.00(Hz)	50.00	Read only in run	"P0.1.16"
P0.1.17 (0x0111)	Upper Limit Frequency Source	0:Digital Reference 1: External Terminal AI1 Reference 2: External Terminal AI2 Reference 3: Multiplex Directive Reference 4:PULS Reference (P2.0.12)) 5: Communication Reference 6: Operation Result 1 7: Operation Result 2 8: Operation Result 3 9: Operation Result 4	0	Read only in run	"P0.1.17"
P0.1.18 (0x0112)	Motor1 Upper frequency Digital Reference	P0.1.20~P0.1.16(Hz)	50.00	Any	"P0.1.18"
P0.1.19 (0x0113)	Upper Limit Frequency Offset	0.00~P0.1.16(Hz)	0.00	Any	"P0.1.19"
P0.1.20 (0x0114)	Lower frequency	0.00~P7.9.37(Hz)	0.00	Any	"P0.1.20"
P0.1.21 (0x0115)	Hopping Frequency 1	0.00~P0.1.16(Hz)	0.00	Any	"P0.1.21"
P0.1.22 (0x0116)	Hopping Frequency 2	0.00~P0.1.16(Hz)	0.00	Any	"P0.1.22"
P0.1.23 (0x0117)	Hopping Frequency scope	0.00~P0.1.16(Hz)	0.00	Any	"P0.1.23"
P0.1.24 (0x0118)	Does the operating frequency jump	0:Operating Frequency Without Jumps 1:Operating Frequency Jump	0	Any	"P0.1.24"
P0.1.25 (0x0119)	Frequency resolution	1:0.1 2:0.01	2	Read only in run	"P0.1.25"
P0.1.26	Lower frequency	0:Running at lower limit frequency	0	Any	"P0.1.26"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x011A)	operation mode	1:Stop 2:Zero-speed Running 3:Standby 4:DC braking			
P0.1.27 (0x011B)	Knob/Up/Down Frequency Setting Action Reference	0:Running Frequency 1:Reference frequency	1	Read only in run	"P0.1.27"
P0.1.28 (0x011C)	Frequency Memory Selection with Knob/Up/Down During Stop	0:No Memory 1:Memory	1	Any	"P0.1.28"
P0.1.29 (0x011D)	Inversion Control Enable	0:Allow 1:Prohibit	0	Any	"P0.1.29"
P0.1.30 (0x011E)	Forward and Reverse Dead Time	0.0~3000.0(s)	0.0	Any	"P0.1.30"
P0.1.31 (0x011F)	Power-on Running Selection	0:Running 1:Not Running	0	Any	"P0.1.31"
P0.1.32 (0x0120)	Motor selection	Ones:Function Code Motor Selection 1:Motor 1 2:Motor 2 3:Motor 3 4:Motor 4 Tens:Motor Selection Source 0:Function Code Selection (Determined by the Units Digit Value) 1:DI Terminal Selection (Determined by the DI Terminal)	H.01	Read only in run	"P0.1.32"
P0.1.33 (0x0121)	S/T/P Control Mode Selection	0:Speed Control 1:Torque Control 2:Speed Control/Torque Control 3:Position control 4:Speed Control/Position control 5:Torque Control/Position control 6:Speed Control/Torque Control/Position control	0	Read only in run	"P0.1.33"
P0.1.34 (0x0122)	Fan Control	0:Rotate at running 1:Continuous Running 2:Control based on Temperature	0	Read only in run	"P0.1.34"
P0.1.35 (0x0123)	Keyboard multifunction Key Function Reference	Ones:JOG key 0:Valid 1: Forward Jogging 2: Reverse Jogging 3: Forward and Reverse Switch 4:Local/remote switch 5: Backward running 6:Down key 7:Terminal and communication mode selection 8:Keyboard, terminal and communication mode selection 9:Coasting Stop Tens:LOC key 0:Valid 1: Forward Jogging 2: Reverse Jogging 3: Forward and Reverse Switch 4:Local/remote switch 5: Backward running 6:Down key 7:Terminal and communication mode selection 8:Keyboard, terminal and communication mode selection 9:Coasting Stop	41	Read only in run	"P0.1.35"
P0.1.36 (0x0124)	Keyboard STOP Key Stop Function	0:Only valid in Keyboard Operation Mode 1:Valid for any Mode	1	Any	"P0.1.36"
P0.1.37 (0x0125)	Parameter Initialization	0:No Operation 1:Clearance of Record Information 2:Clear Fault Information Only	0	Read only in run	"P0.1.37"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		9:Recover Factory set value, excluding motor parameter, correction group, password group (Reset p0.1.09 to 1) 15:Recover Factory set value, excluding motor parameter, correction group, password group (Reset p0.1.09 to 15) 19:Recover Factory set value, excluding motor parameter, password group (Reset p0.1.09 to 1) 20:Recover Factory set value, excluding password group (Reset p0.1.09 to 1) 30:Users Current Parameter Backup 60:User Backup Parameters Recovery 100:Manufacturer macros1 101:Manufacturer macros2 102:Manufacturer macros3 103:Manufacturer macros4 104:Manufacturer macros5 105:Manufacturer macros6 106:Manufacturer macros7 107:reserve 108:Manufacturer macros9 109:Manufacturer macros10			
P0.1.38 (0x0126)	Purpose Selection	0:No Function 1:Master-Slave Control	0	Read only in run	"P0.1.38"
P0.1.39 (0x0127)	User Password	0~65535	0	Limited Param	"P0.1.39"
P0.1.40 (0x0128)	Local Machine Address	000:Broadcast Address 001～247	1	Any	"P0.1.40"
P0.1.41 (0x0129)	Current Resolution for Communication Reading	0:two decimal place(<75kW),one decimal place(>=75kW) 1:one decimal place	0	Any	"P0.1.41"
P0.1.42 (0x012A)	Communication Settings for User Groups	Ones:Read Mode 0:Read Address 1:Read Address Mapping Function Code Value Ten:Write Mode 0:Write Address 1:Write Address Mapping Function Code Value 2:Write Address (Do Not Save on Power Off) 3:Write Address Mapping Function Code Value (Do Not Save on Power Off)	H.11	Any	"P0.1.42"
P0.1.43 (0x012B)	T4 Model Grid Input Line Voltage	0:380V/400V 1:440V/480V	0	Limited Param	"P0.1.43"
P0.1.44 (0x012C)	UP/DOWN Terminal Change Rate	0.01~655.35(Hz)	1.00	Any	"P0.1.44"

9.2.1.3. P0.2 Acceleration/Deceleration Parameters

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.2.00 (0x0200)	Acceleration Time 1	0.0~6500.0(s)	Model	Any	"P0.2.00"
P0.2.01 (0x0201)	Deceleration Time 1	0.0~6500.0(s)	Model	Any	"P0.2.01"
P0.2.02 (0x0202)	Acceleration time 2	0.0~6500.0(s)	Model	Any	"P0.2.02"
P0.2.03 (0x0203)	Deceleration time 2	0.0~6500.0(s)	Model	Any	"P0.2.03"
P0.2.04 (0x0204)	Acceleration time 3	0.0~6500.0(s)	Model	Any	"P0.2.04"
P0.2.05 (0x0205)	Deceleration time 3	0.0~6500.0(s)	Model	Any	"P0.2.05"
P0.2.06	Acceleration time 4	0.0~6500.0(s)	Model	Any	"P0.2.06"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x0206)					
P0.2.07 (0x0207)	Deceleration time 4	0.0~6500.0(s)	Model	Any	"P0.2.07"
P0.2.08 (0x0208)	Acceleration Time 1 Switch Frequency Point	P0.2.09~P0.1.16(Hz)	0.00	Any	"P0.2.08"
P0.2.09 (0x0209)	Acceleration Time 2 Switch Frequency Point	P0.2.10~P0.1.16(Hz)	0.00	Any	"P0.2.09"
P0.2.10 (0x020A)	Acceleration Time 3 Switch Frequency Point	0.00~P0.1.16(Hz)	0.00	Any	"P0.2.10"
P0.2.11 (0x020B)	Reserved	0~65535	0	Any	"P0.2.11"
P0.2.12 (0x020C)	Deceleration Time 1 Switch Frequency Point	P0.2.13~P0.1.16(Hz)	0.00	Any	"P0.2.12"
P0.2.13 (0x020D)	Deceleration Time 2 Switch Frequency Point	P0.2.14~P0.1.16(Hz)	0.00	Any	"P0.2.13"
P0.2.14 (0x020E)	Deceleration Time 3 Switch Frequency Point	0.00~P0.1.16(Hz)	0.00	Any	"P0.2.14"
P0.2.15 (0x020F)	Acceleration and deceleration time unit	0:s 1:min	0	Read only in run	"P0.2.15"
P0.2.16 (0x0210)	Acceleration/Deceleration Time Decimal Point (Unit Depends on P0.2.15)	0:1 1:0.1 2:0.01	1	Read only in run	"P0.2.16"
P0.2.17 (0x0211)	Benchmark frequency of accelerating and Deceleration time	0:Highest Frequency 1:Reference frequency 2:100Hz 3:Motor rated frequency 4:50HZ 5:60HZ	0	Read only in run	"P0.2.17"
P0.2.18 (0x0212)	Acceleration and Deceleration Curve	0:Straight Line 1:Curve S 1 2:Curve S 2	0	Read only in run	"P0.2.18"
P0.2.19 (0x0213)	Percentage of Starting Phase of Curve S	0.0~100.0(%)	30.0	Read only in run	"P0.2.19"
P0.2.20 (0x0214)	Percentage of Ending Phase of Curve S	0.0~100.0(%)	30.0	Read only in run	"P0.2.20"
P0.2.21 (0x0215)	Acceleration Time	0.0~6500.0(s)	Model	Any	"P0.2.21"
P0.2.22 (0x0216)	Deceleration Time	0.0~6500.0(s)	Model	Any	"P0.2.22"
P0.2.23 (0x0217)	Acceleration/Deceleration Time Selection for Motor 2	0:same as Motor 1 1:Acceleration/Deceleration Time 1 2:Acceleration/Deceleration Time 2 3:Acceleration/Deceleration Time 3 4:Acceleration/Deceleration Time 4	0	Any	"P0.2.23"
P0.2.24 (0x0218)	Acceleration/Deceleration Time Selection for Motor 3	Same as above	0	Any	"P0.2.24"
P0.2.25 (0x0219)	Acceleration/Deceleration Time Selection for Motor 4	Same as above	0	Any	"P0.2.25"

9.2.1.4. P0.3 Display Parameter

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.3.00 (0x0300)	LED Running Display Parameter 1	9000~9099	9001	Any	"P0.3.00"
P0.3.01	LED Running Display	8999~9099	9000	Any	"P0.3.01"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x0301)	Parameter 2				
P0.3.02 (0x0302)	LED Running Display Parameter 3	8999~9099	9002	Any	"P0.3.02"
P0.3.03 (0x0303)	LED Running Display Parameter 4	8999~9099	9003	Any	"P0.3.03"
P0.3.04 (0x0304)	LED Running Display Parameter 5	8999~9099	9004	Any	"P0.3.04"
P0.3.05 (0x0305)	LED Running Display Parameter 6	8999~9099	9005	Any	"P0.3.05"
P0.3.06 (0x0306)	LED Running Display Parameter 7	8999~9099	9006	Any	"P0.3.06"
P0.3.07 (0x0307)	Automatic Time Switch of LED Running Display Parameter	0.0:No Switch 0.1s～100.0s	0.0	Any	"P0.3.07"
P0.3.08 (0x0308)	LED Stop Display Parameter 1	9000~9099	9001	Any	"P0.3.08"
P0.3.09 (0x0309)	LED Stop Display Parameter 2	8999~9099	9004	Any	"P0.3.09"
P0.3.10 (0x030A)	LED Stop Display Parameter 3	8999~9099	9009	Any	"P0.3.10"
P0.3.11 (0x030B)	LED Stop Display Parameter 4	8999~9099	8999	Any	"P0.3.11"
P0.3.12 (0x030C)	LED Stop Display Parameter 5	8999~9099	8999	Any	"P0.3.12"
P0.3.13 (0x030D)	LED Stop Display Parameter 6	8999~9099	8999	Any	"P0.3.13"
P0.3.14 (0x030E)	LED Stop Display Parameter 7	8999~9099	8999	Any	"P0.3.14"
P0.3.15 (0x030F)	Automatic Time Switch of LED Stop Display Parameter	0.0:No Switch 0.1s～100.0s	0.0	Any	"P0.3.15"
P0.3.16 (0x0310)	LCD Line 1 Display at Running	9000~9099	9001	Any	"P0.3.16"
P0.3.17 (0x0311)	LCD Line 2 Display at Running	9000~9099	9000	Any	"P0.3.17"
P0.3.18 (0x0312)	LCD Line 3 Display at Running	9000~9099	9002	Any	"P0.3.18"
P0.3.19 (0x0313)	LCD Line 4 Display at Running	9000~9099	9003	Any	"P0.3.19"
P0.3.20 (0x0314)	LCD Line 5 Display at Running	9000~9099	9004	Any	"P0.3.20"
P0.3.21 (0x0315)	LCD Line 6 Display at Running	9000~9099	9007	Any	"P0.3.21"
P0.3.22 (0x0316)	LCD Line 7 Display at Running	9000~9099	9007	Any	"P0.3.22"
P0.3.23 (0x0317)	LCD Line 8 Display at Running	9000~9099	9007	Any	"P0.3.23"
P0.3.24 (0x0318)	LCD Line 9 Display at Running	9000~9099	9007	Any	"P0.3.24"
P0.3.25 (0x0319)	LCD Line 10 Display at Running	9000~9099	9007	Any	"P0.3.25"
P0.3.26 (0x031A)	LCD Line 1 Display at Stop	9000~9099	9001	Any	"P0.3.26"
P0.3.27 (0x031B)	LCD Line 2 Display at Stop	9000~9099	9004	Any	"P0.3.27"
P0.3.28 (0x031C)	LCD Line 3 Display at Stop	9000~9099	9009	Any	"P0.3.28"
P0.3.29 (0x031D)	LCD Line 4 Display at Stop	9000~9099	9010	Any	"P0.3.29"
P0.3.30 (0x031E)	LCD Line 5 Display at Stop	9000~9099	9004	Any	"P0.3.30"
P0.3.31 (0x031F)	LCD Line 6 Display at Stop	9000~9099	9007	Any	"P0.3.31"
P0.3.32 (0x0320)	LCD Line 7 Display at Stop	9000~9099	9008	Any	"P0.3.32"
P0.3.33 (0x0321)	LCD Line 8 Display at Stop	9000~9099	9007	Any	"P0.3.33"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.3.34 (0x0322)	LCD Line 9 Display at Stop	9000~9099	9007	Any	"P0.3.34"
P0.3.35 (0x0323)	LCD top row display selection	Ones:Display selection for Area 1 0:Status Display 1:Operation direction Display 2:Operation command source Display 3:RTC Display 4~E:Reserved F:Water pump application data Display Tens:Display selection for Area 2 0:Status Display 1:Operation direction Display 2:Operation command source Display 3:RTC Display 4~E:Reserved F:Water pump application data Display Hundreds:Display selection for Area 3 0:Status Display 1:Operation direction Display 2:Operation command source Display 3:RTC Display 4~E:Reserved F:Water pump application data Display Thousands:Display selection for Area 4 0:Status Display 1:Operation direction Display 2:Operation command source Display 3:RTC Display 4~E:Reserved F:Water pump application data Display	H.0123	Any	"P0.3.35"
P0.3.36 (0x0324)	Customized Display of Coefficient	0.0001~6.5000	1.0000	Any	"P0.3.36"
P0.3.37 (0x0325)	User-defined display control word	Ones:user-defined decimal place displaying 0:zero decimal place 1:one decimal place 2:two decimal places 3:three decimal places Tens:source of user-defined display value 0:determined by hundreds place of user-defined display control word 1:determined by set value of P0.3.36 Hundreds:selection of user-defined displaying coefficient 0:user-defined displaying coefficient is P0.3.36 1:user-defined displaying coefficient is calculation result 1 2:user-defined displaying coefficient is calculation result 2 3:user-defined displaying coefficient is calculation result 3 4:user-defined displaying coefficient is calculation result 4	1	Any	"P0.3.37"
P0.3.38 (0x0326)	Dual-Row LED upper Display Selection	0:Display P9.0 group function codes 1:Local address 2:Motor address	0	Any	"P0.3.38"
P0.3.39 (0x0327)	The upper LED during operation	9000~9099	9002	Any	"P0.3.39"
P0.3.40 (0x0328)	The upper LED at stop	9000~9099	9004	Any	"P0.3.40"
P0.3.41 (0x0329)	Function Code Upload/Download	0:Upload All Parameters Except Motor Parameter Group 1:Upload All Parameters 2:Download Function Code	0	Read only	"P0.3.41"
P0.3.42 (0x032A)	Output display filter coefficient	Ones:Output Current Filtering Tens:Output Voltage / Bus Voltage Filtering Hundreds:Output Torque Filtering Thousands:Output Power Filtering 0x0:No Filtering	0	Any	"P0.3.42"

9.2.1.5. P0.4 Jogging running

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.4.00 (0x0400)	Jogging running frequency	0.00~P0.1.16(Hz)	2.00	Any	"P0.4.00"
P0.4.01 (0x0401)	Jogging Acceleration time	0.0~6500.0(s)	20.0	Any	"P0.4.01"
P0.4.02 (0x0402)	Jogging Deceleration time	0.0~6500.0(s)	20.0	Any	"P0.4.02"
P0.4.03 (0x0403)	Jogging Priority	0:Valid 1:Invalid	0	Any	"P0.4.03"
P0.4.04 (0x0404)	Point-to-point start-stop mode	Ones:Deceleration Stop Method 0:Set Frequency Stop 1:Constrained by Deceleration Stop Parameters Tens:Stop DC Braking Method 0:Not Supported 1:Constrained by Stop DC Braking Parameters Hundreds:Reserved 0:Reserved 1:Reserved Thousands:Reserved 0:Reserved 1:Reserved Ten Thousands:Reserved 0:Reserved 1:Reserved	0	Read only in run	"P0.4.04"
P0.4.05 (0x0405)	Handwheel low-range frequency	0.00~P0.1.16(Hz)	10.00	Any	"P0.4.05"
P0.4.06 (0x0406)	Handwheel medium-range frequency	0.00~P0.1.16(Hz)	25.00	Any	"P0.4.06"
P0.4.07 (0x0407)	Handwheel acceleration time	0.0~6500.0(s)	20.0	Any	"P0.4.07"
P0.4.08 (0x0408)	Handwheel deceleration time	0.0~6500.0(s)	20.0	Any	"P0.4.08"

9.2.1.6. P0.5 Start-Stop parameters

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.5.00 (0x0500)	Start Mode	0:Direct Start 1:Speed Tracking Mode 2:Pre-Excitation Startupt	0	Any	"P0.5.00"
P0.5.01 (0x0501)	Start Frequency	0.00~10.00(Hz)	0.00	Any	"P0.5.01"
P0.5.02 (0x0502)	Hold Time of Start Frequency	0.0~100.0(s)	0.0	Read only in run	"P0.5.02"
P0.5.03 (0x0503)	Stop Mode	0:Stop by Deceleration 1:Free Stop	0	Any	"P0.5.03"
P0.5.04 (0x0504)	Select shutdown frequency	Ones:VF control 0:Set frequency 1: Feedback frequency Tens:SVC control 0:Set frequency 1: Feedback frequency Hundreds:FVC control 0:Set frequency 1: Feedback frequency	110	Any	"P0.5.04"
P0.5.05 (0x0505)	Shutdown frequency	0.00~P0.1.16(Hz)	0.50	Any	"P0.5.05"
P0.5.06 (0x0506)	Shutdown delay time	0.00~10.00(s)	0.00	Any	"P0.5.06"
P0.5.07	Enable power failure	0:Disabled	0	Read only	"P0.5.07"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x0507)	restart	1:Enabled		in run	
P0.5.08 (0x0508)	Power failure restart delay	0.0~500.0(s)	30.0	Read only in run	"P0.5.08"

9.2.1.7. P0.6 Carrier Frequency and PWM Adjustment

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.6.00 (0x0600)	Random PWM Model	0:Disable 1:Random PWM Mode 1 (Only valid for VF) 2:Random PWM Mode 2 (Only valid for CPWM) 3:Random PWM Mode 3 (Only valid for CPWM) 4:Random PWM Mode 4 (Only valid for CPWM)	0	Read only in run	"P0.6.00"
P0.6.01 (0x0601)	Dead time compensation switch	Ones:VF control 0:No compensation 1:Compensation method 1 2:Compensation method 2 Tens:SVC control 0:No compensation 1:Compensation method 1 2:Compensation method 2 3:Compensation method 3 Hundreds:FVC control 0:No compensation 1:Compensation method 1 2:Compensation method 2 3:Compensation method 3	H.032	Any	"P0.6.01"
P0.6.02 (0x0602)	Dead time given	100~200(%)	150	Read only in run	"P0.6.02"
P0.6.03 (0x0603)	DPWM switch upper limit frequency	0.00~15.00(Hz)	12.00	Any	"P0.6.03"
P0.6.04 (0x0604)	PWM modulation method	Ones: 0:Asynchronous modulation 1:Synchronous modulation Tens: 0:Both three-phase and two-phase modulation are present 1:All are three-phase modulation	0	Read only in run	"P0.6.04"
P0.6.05 (0x0605)	Adjustment Depth of Random PWM Mode 1	1~10	5	Any	"P0.6.05"
P0.6.06 (0x0606)	Carrier Frequency	0.5~16.0(kHz)	6.0	Any	"P0.6.06"
P0.6.07 (0x0607)	Low-speed carrier wave for open loop vector SVC control	0.5~16.0(kHz)	2.0	Any	"P0.6.07"
P0.6.08 (0x0608)	Switching frequency for low-speed carrier wave of open loop vector SVC	0.00~50.00(Hz)	25.00	Read only in run	"P0.6.08"
P0.6.09 (0x0609)	Does the Carrier Frequency Adjust with Temperature	Ones:Whether to adjust with temperature 0:No 1:Yes Tens:Whether to adjust for overload 0:No 1:Yes Hundreds:the maximum low-frequency carrier limited 0:No 1:Yes	111	Any	"P0.6.09"
P0.6.10 (0x060A)	Current detection compensation	0.000~0.100	0.005	Any	"P0.6.10"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.6.11 (0x060B)	VF control AVR function	0:Valid 1:Invalid	1	Any	"P0.6.11"
P0.6.12 (0x060C)	sampling Method	Ones:VF control Sampling method 0:Multi-point sampling 1:Single-point sampling Tens:Vector control sampling method 0:Multi-point sampling 1:Single-point sampling	H.01	Read only in run	"P0.6.12"
P0.6.13 (0x060D)	CPU Selection for PWM	0:slave CPU 1:master CPU	0	Read only in run	"P0.6.13"
P0.6.14 (0x060E)	The minimum multiple ratio of the carrier operating frequency	4.0~100.0	8.0	Read only in run	"P0.6.14"

9.2.1.8. P0.7 DC Braking

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.7.00 (0x0700)	Starting DC Brake Current	0~100(%)	0	Any	"P0.7.00"
P0.7.01 (0x0701)	Starting DC Brake Time	0.0~100.0(s)	0.0	Read only in run	"P0.7.01"
P0.7.02 (0x0702)	Stop DC Braking Initial Frequency	0.00~P0.1.16(Hz)	0.00	Any	"P0.7.02"
P0.7.03 (0x0703)	Stop DC Braking Waiting Time	0.0~100.0(s)	0.0	Read only in run	"P0.7.03"
P0.7.04 (0x0704)	Stop DC Braking Current	0~100(%)	0	Any	"P0.7.04"
P0.7.05 (0x0705)	Stop DC Braking Time	0.0~100.0(s)	0.0	Read only in run	"P0.7.05"
P0.7.06 (0x0706)	DC Braking Current During Operation	0~100(%)	0	Any	"P0.7.06"
P0.7.08 (0x0708)	Pre-excitation time	0.00~100.00(s)	2.00	Read only in run	"P0.7.08"
P0.7.09 (0x0709)	Pre-magnetization Broadband Coefficient	0.5~10.0	2.0	Any	"P0.7.09"
P0.7.10 (0x070A)	Pre-excitation current limit	1~200(%)	120	Any	"P0.7.10"

9.2.1.9. P0.8 Speed Tracking

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P0.8.00 (0x0800)	Revolving speed tracking current	30~200(%)	100	Read only in run	"P0.8.00"
P0.8.01 (0x0801)	Revolving speed tracking KP	0~1000	500	Any	"P0.8.01"
P0.8.02 (0x0802)	Revolving speed tracking KI	0~1000	800	Any	"P0.8.02"
P0.8.03 (0x0803)	Demagnetization time of revolving speed tracking	0.00~10.00(s)	1.00	Any	"P0.8.03"
P0.8.04 (0x0804)	Min. frequency of revolving speed tracking	0.00~10.00(Hz)	1.50	Read only in run	"P0.8.04"
P0.8.05 (0x0805)	Speed Tracking Mode	0:Direct Start 1:Start from power frequency(50HZ) 2:Brake and Restart 3:Magnetic field orientation (parameter	2	Read only in run	"P0.8.05"

		identification needed)			
P0.8.06 (0x0806)	Speed tracking responsiveness	1~100	20	Any	"P0.8.06"

9.2.2. P1 Group Motor Parameters, Control and Master-Slave Control

9.2.2.1. P1.0 Motor 1 Parameters

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P1.0.00 (0x1000)	Type of Motor 1	0:Common Asynchronous Motor 1:Variable frequency asynchronous motor 2:Permanent magnet synchronous motor	0	Read only in run	"P1.0.00"
P1.0.01 (0x1001)	Motor 1 rated power	0.1~2000.0(kW)	Model	Read only in run	"P1.0.01"
P1.0.02 (0x1002)	Motor 1 rated frequency	0.01~P0.1.16(Hz)	Model	Read only in run	"P1.0.02"
P1.0.03 (0x1003)	Motor 1 rated voltage	1~2000(V)	Model	Read only in run	"P1.0.03"
P1.0.04 (0x1004)	Motor 1 rated current	0.01A~655.35A (power inverter < 75kW) 0.1A~6553.5A (power inverter≥75kW)	Model	Read only in run	"P1.0.04"
P1.0.05 (0x1005)	Motor 1 Rated Rotating Speed	1~65535(rpm)	Model	Read only in run	"P1.0.05"
P1.0.06 (0x1006)	Stator resistance of asynchronous motor 1	0.001Ω~65.535Ω(inverter power＜75kW) 0.0001Ω~6.5535Ω(inverter power＜75kW)	Model	Read only in run	"P1.0.06"
P1.0.07 (0x1007)	Rator resistance of asynchronous motor 1	Same as above	Model	Read only in run	"P1.0.07"
P1.0.08 (0x1008)	Leakage inductance of asynchronous motor 1	0.01mH~655.35mH (power inverter≥75kW) 0.001mH~65.535mH (power inverter≥75kW)	Model	Read only in run	"P1.0.08"
P1.0.09 (0x1009)	Mutual inductance of asynchronous motor 1	0.1mH~6553.5mH (power inverter≥75kW) 0.01mH~655.35mH (power inverter≥75kW)	Model	Read only in run	"P1.0.09"
P1.0.10 (0x100A)	Non-load current of asynchronous motor 1	0.01A~Motor rated current (power inverter≥75kW) 0.1A~Motor rated current (power inverter≥75kW)	Model	Read only in run	"P1.0.10"
P1.0.11 (0x100B)	Stator Resistance of Synchronous motor 1	0.001Ω~65.535Ω(inverter power＜75kW) 0.0001Ω~6.5535Ω(inverter power＜75kW)	Model	Read only in run	"P1.0.11"
P1.0.12 (0x100C)	Back EMF of Synchronous motor 1	0.0~6553.5(V)	Model	Read only in run	"P1.0.12"
P1.0.13 (0x100D)	D axis inductance of synchronous motor 1	0.01mH~655.35mH (frequency converter power ≤55 kW) 0.001mH~65.535mH (frequency converter power > 55 kW)	Model	Read only in run	"P1.0.13"
P1.0.14 (0x100E)	Q axis inductance of synchronous motor 1	Same as above	Model	Read only in run	"P1.0.14"
P1.0.15 (0x100F)	Motor 1 Tuning KP coefficient	1~200(%)	100	Any	"P1.0.15"
P1.0.16 (0x1010)	Motor 1 Tuning KI coefficient	1~200(%)	100	Any	"P1.0.16"
P1.0.17 (0x1011)	Motor 1 Parameter Identification Control	0:No Action 1:Asynchronous motor Static identification 2:Asynchronous motor Complete identification 11:Synchronous motor on-load identification 12:Synchronous motor non-load identification	0	Read only in run	"P1.0.17"

9.2.2.2. P1.1 Vector Control and V/F Control for Motor 1

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P1.1.00	V/F Curve Mode of	0:Straight Line	0	Read only	"P1.1.00"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x1100)	Motor 1	1:Multi-poInt Broken Line 2:Square V/F Curve 1 3:Square V/F Curve 2 4:Square V/F Curve 3 10:V/F complete isolation 11:V/F partial isolation		in run	
P1.1.01 (0x1101)	Torque Boost of Motor 1	0.0% (Automatic Torque Boost) 0.1%～30.0%	Model	Any	"P1.1.01"
P1.1.02 (0x1102)	Motor 1 Cutoff Frequency of Torque Boost	0.00~P1.0.02(Hz)	50.00	Read only in run	"P1.1.02"
P1.1.03 (0x1103)	Motor 1 V/F Slip Compensation Gain	0.0~200.0(%)	0.0	Any	"P1.1.03"
P1.1.04 (0x1104)	Motor 1 Broken Line V/F PoInt 1 Frequency	0.00~P1.1.06(Hz)	0.00	Read only in run	"P1.1.04"
P1.1.05 (0x1105)	Motor 1 Broken Line V/F PoInt 1 Voltage	0.0~100.0(%)	0.0	Read only in run	"P1.1.05"
P1.1.06 (0x1106)	Motor 1 Broken Line V/F PoInt 2 Frequency	P1.1.04~P1.1.08(Hz)	0.00	Read only in run	"P1.1.06"
P1.1.07 (0x1107)	Motor 1 Broken Line V/F PoInt 2 Voltage	0.0~100.0(%)	0.0	Read only in run	"P1.1.07"
P1.1.08 (0x1108)	Motor 1Broken Line V/F PoInt 3 Frequency	P1.1.06~P1.0.02(Hz)	0.00	Read only in run	"P1.1.08"
P1.1.09 (0x1109)	Motor 1 Broken Line V/F PoInt 3 Voltage	0.0~100.0(%)	0.0	Read only in run	"P1.1.09"
P1.1.10 (0x110A)	Motor 1 V/F Overexcited Gain	0~200	64	Any	"P1.1.10"
P1.1.11 (0x110B)	Motor 1 VF oscillation suppression mode	1~3	3	Read only in run	"P1.1.11"
P1.1.12 (0x110C)	Motor 1 Response time of VF slip compensation	0.0~10.0(s)	0.5	Any	"P1.1.12"
P1.1.13 (0x110D)	Motor 1 VF online torque compensation gain	0~200	150	Any	"P1.1.13"
P1.1.14 (0x110E)	Motor 1VF oscillation suppression coefficient	0~100	20	Any	"P1.1.14"
P1.1.15 (0x110F)	Motor 1 Velocity Loop Proportional Gain 1	1~100	30	Any	"P1.1.15"
P1.1.16 (0x1110)	Motor 1 Velocity Circulation Integral Time 1	0.01~10.00(s)	0.50	Any	"P1.1.16"
P1.1.17 (0x1111)	Motor 1 Switching Frequency 1	0.00~P1.1.20(Hz)	5.00	Any	"P1.1.17"
P1.1.18 (0x1112)	Motor 1 Velocity Loop Proportional Gain 2	1~100	20	Any	"P1.1.18"
P1.1.19 (0x1113)	Motor 1 Velocity Circulation Integral Time 2	0.01~10.00(s)	1.00	Any	"P1.1.19"
P1.1.20 (0x1114)	Motor 1 Switching Frequency 2	P1.1.17~P0.1.16(Hz)	10.00	Any	"P1.1.20"
P1.1.21 (0x1115)	Motor 1 speed loop integral property	0:Valid 1:Invalid	0	Any	"P1.1.21"
P1.1.22 (0x1116)	Motor 1 Vector Control Torque Upper Frequency	0:Digital Reference (P1.1.23) 1: External Terminal AI1 Reference 2: External Terminal AI2 Reference 3: Multiplex Directive Reference 4:PULS Reference (P2.0.12)) 5: Communication Reference 6:MIN(AI1,AI2) 7:MAX(AI1,AI2)	0	Any	"P1.1.22"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		8: Operation Result 3 9: Operation Result 4 10:Standby Torque Source 1 11:Standby Torque Source 2			
P1.1.23 (0x1117)	Motor 1 Torque Upper Limit Reference	0.0~200.0(%)	Type GP	Any	"P1.1.23"
P1.1.24 (0x1118)	Motor 1 vector control slip gain	50~200(%)	100	Any	"P1.1.24"
P1.1.25 (0x1119)	Motor 1 Excitation adjustment ratio	0~60000	2000	Any	"P1.1.25"
P1.1.26 (0x111A)	Motor 1 Excitation adjustment Integral	0~60000	1300	Any	"P1.1.26"
P1.1.27 (0x111B)	Motor 1 Torque adjustment ratio	0~60000	2000	Any	"P1.1.27"
P1.1.28 (0x111C)	Motor 1 Torque adjustment Integral	0~60000	1300	Any	"P1.1.28"
P1.1.29 (0x111D)	Motor 1 Torque filtering coefficient	0~1000	100	Any	"P1.1.29"
P1.1.30 (0x111E)	Motor 1 FVC Velocity loop filter time	0.0000~1.0000(s)	0.0040	Any	"P1.1.30"
P1.1.31 (0x111F)	Reserved	0~65535	0	Any	"P1.1.31"
P1.1.32 (0x1120)	Reserved	0~65535	0	Any	"P1.1.32"
P1.1.33 (0x1121)	Motor 1 angle adjustment KP	1.0~300.0(%)	100.0	Read only in run	"P1.1.33"
P1.1.34 (0x1122)	Enable power limit for generator operation of Motor 1	0:Disable 1:Enable	0	Any	"P1.1.34"
P1.1.35 (0x1123)	Power limit for generator operation of Motor 1	0.0~200.0(%)	50.0	Any	"P1.1.35"
P1.1.36 (0x1124)	Enable vector over-excitation for motor 1	0:Disabled 1:Enabled	0	Any	"P1.1.36"
P1.1.37 (0x1125)	Motor 1 Vector Field-Weakening Current Limiting	0.0~200.0(%)	120.0	Any	"P1.1.37"

9.2.3. P2 Group Terminal Functions and Optional Cards

9.2.3.1. P2.0 External Terminal DI/DHI Input

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.0.00 (0x2000)	External Terminal Running Control Mode	0:Two-line Type 1 1:Two- line Type 2 2:Three- line Type 1 3:Three-line Type 2	0	Read only in run	"P2.0.00"
P2.0.01 (0x2001)	DI1Terminal Function	O:No Function 1:Forward (FWD) 2:Reverse (REV) 3:Three-wire Running Control 4:Forward Jogging 5:Reverse Jogging 6:Terminal UP 7:Terminal DOWN 8:Free Stop 9:Multiplex Directive Terminal 1 10:Multiplex Directive Terminal 2 11. Multiplex Directive Terminal 3 12:Multiplex Directive Terminal 4 13:Fault Reset (RESET) 14:Running Pause	1	Read only in run	"P2.0.01"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		15:External Fault Input 16:Acceleration & Deceleration Time Selection Terminal 1 17:Acceleration & Deceleration Time Selection Terminal 2 18:Frequency Source Selection Terminal 1 19:Frequency Source Selection Terminal 2 20:Frequency Source Selection Terminal 3 21:Running Command Selection Terminal 1 22:Running Command Selection Terminal 2 23:UP/DOWN Reference Reset 24:Prohibition of Acceleration & Deceleration 25:PID Pause 26:PLC State Reset 27:Wobbulating Pause 28:Counter Input 29:Counter Reset 30:Length Counting Input 31:Length Reset 32:Torque Control Prohibition 33:Reserved 34:Immediate DC Brake 35:External Fault Normally-closed Input 36:Frequency Modification Enable 37:PID Action Direction Negation 38:External Stop Terminal 1 39:External Stop Terminal 2 40:PID Integral Stop 41:PID Parameter Switch 42:Control Mode Selection Terminal 1 43:Emergency Stop 44:Deceleration DC Brake 45:User-Defined Fault 1 46:User-Defined Fault 2 47:Running Time Reset 48:Timer Input Terminal 1 49:Timer Input Terminal 2 50:Timer Reset Terminal 1 51:Timer Reset Terminal 2 52:Encoder Phase A Input 53:Encoder Phase B Input 54:Distance Reset 55:Integral Computation Reset 56:User Function 1 57:User Function 2 58:User Function 3 59:User Function 4 60:User Function 5 61:Handwheel Low Speed 62:Handwheel Medium Speed 63:Handwheel High Speed 64:Motor 1 Selection Terminal 65:Motor 2 Selection Terminal 66:Motor 3 Selection Terminal 67:Motor 4 Selection Terminal 68:Enable for switching between variable frequency and power frequency 69:Enable for fire mode 1 70:Enable for fire mode 2 71:Fire Mode Output Phase Loss Detection 72:Roll Diameter Reset 73:Initial Roll Diameter Selection Terminal 1 74:Initial Roll Diameter Selection Terminal 2 75:Pre-Drive Input Terminal 76:Winding and unwinding switch 77:Wire break detection for drawing machine 78:Manual/automatic mode switching 79:Counting pulse signal 80:Thickness selection terminal 1			

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		81:Thickness selection terminal 2 82:Cycloidal limit 1 83:Cycloidal limit 2 84:Reserved 85:Reserved 86:Reserved 87:Reserved 88:Reserved 89:Reserved 90:Reserved 91:Reserved 92:Reserved 93:Reserved 94:Reserved 95:Reserved 96:Step amount enable 97:Electronic gear selection 98:Multi-section position enable 99:Interrupt fixed-length status release signal 100:Interrupt fixed-length disable 101:Enable interrupt fixed-length 102:Home Switch 103:Home Return Enable 104:Set Current Position as Home 105:Forward Overtravel Switch 106:Reverse Overtravel Switch 107:Position Command Direction Selection 108:Position Command Disable 109:Handwheel Scale Signal 1 110:Handwheel Scale Signal 2 111:Handwheel Enable Signal 112:Position Gain Switching 113:Pulse Input Scale Enable 114:Control Mode Selection Terminal 2 115:Clear Position Deviation			
P2.0.02 (0x2002)	DI2 Terminal Function	Same as above	2	Read only in run	"P2.0.02"
P2.0.03 (0x2003)	DI3 Terminal Function	Same as above	9	Read only in run	"P2.0.03"
P2.0.04 (0x2004)	DI4 Terminal Function	Same as above	10	Read only in run	"P2.0.04"
P2.0.05 (0x2005)	DI5 Terminal Function	Same as above	11	Read only in run	"P2.0.05"
P2.0.06 (0x2006)	DI6 Terminal Function	Same as above	8	Read only in run	"P2.0.06"
P2.0.07 (0x2007)	DI7 Terminal Function	Same as above	0	Read only in run	"P2.0.07"
P2.0.08 (0x2008)	DI8 Terminal Function	Same as above	0	Read only in run	"P2.0.08"
P2.0.09 (0x2009)	DHI1 Terminal Function as DI Input	Same as above	0	Read only in run	"P2.0.09"
P2.0.10 (0x200A)	DHI2 Terminal Function as DI Input	Same as P2.0.01	0	Read only in run	"P2.0.10"
P2.0.11 (0x200B)	DI Filtering time	0.000~1.000(s)	0.010	Any	"P2.0.11"
P2.0.12 (0x200C)	Selection of PULSE Pulse Frequency Source	0:PULSE Reference (HDI1) 1:PULSE Reference (HDI2) 2:PULSE Differential Reference (HDI1+HDI2)	0	Any	"P2.0.12"
P2.0.13 (0x200D)	Minimum Input of PULSE	0.00~P2.0.15(kHz)	0.00	Any	"P2.0.13"
P2.0.14 (0x200E)	Corresponding reference for Minimum Input of PULSE	-100.0~100.0(%)	0.0	Any	"P2.0.14"
P2.0.15 (0x200F)	Maximum Input of PULSE	P2.0.13~100.00(kHz)	50.00	Any	"P2.0.15"
P2.0.16 (0x2010)	Corresponding reference for	-100.0~100.0(%)	100.0	Any	"P2.0.16"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
	Maximum Input of PULSE				
P2.0.17 (0x2011)	PULSE Filtering time	0.00~10.00(s)	0.10	Any	"P2.0.17"
P2.0.18 (0x2012)	AI1 Terminal Function as DI Input	0:Used as a Normal Analog Signal 1:Forward (FWD) 2:Reverse (REV) 3:Three-wire Running Control 4:Forward Jogging 5:Reverse Jogging 6:Terminal UP 7:Terminal DOWN 8:Free Stop 9:Multiplex Directive Terminal 1 10:Multiplex Directive Terminal 2 11. Multiplex Directive Terminal 3 12:Multiplex Directive Terminal 4 13:Fault Reset (RESET) 14:Running Pause 15:External Fault Input 16:Acceleration & Deceleration Time Selection Terminal 1 17:Acceleration & Deceleration Time Selection Terminal 2 18:Frequency Source Selection Terminal 1 19:Frequency Source Selection Terminal 2 20:Frequency Source Selection Terminal 3 21:Running Command Selection Terminal 1 22:Running Command Selection Terminal 2 23:UP/DOWN Reference Reset 24:Prohibition of Acceleration & Deceleration 25:PID Pause 26:PLC State Reset 27:Wobbulating Pause 28:Counter Input 29:Counter Reset 30:Length Counting Input 31:Length Reset 32:Torque Control Prohibition 33:Reserved 34:Immediate DC Brake 35:External Fault Normally-closed Input 36:Frequency Modification Enable 37:PID Action Direction Negation 38:External Stop Terminal 1 39:External Stop Terminal 2 40:PID Integral Stop 41:PID Parameter Switch 42:Control Mode Selection Terminal 1 43:Emergency Stop 44:Deceleration DC Brake 45:User-Defined Fault 1 46:User-Defined Fault 2 47:Running Time Reset 48:Timer Input Terminal 1 49:Timer Input Terminal 2 50:Timer Reset Terminal 1 51:Timer Reset Terminal 2 52:Encoder Phase A Input 53:Encoder Phase B Input 54:Distance Reset 55:Integral Computation Reset 56:User Function 1 57:User Function 2 58:User Function 3 59:User Function 4 60:User Function 5 61:Handwheel Low Speed 62:Handwheel Medium Speed	0	Read only in run	"P2.0.18"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		63:Handwheel High Speed 64:Motor 1 Selection Terminal 65:Motor 2 Selection Terminal 66:Motor 3 Selection Terminal 67:Motor 4 Selection Terminal 68:Enable for switching between variable frequency and power frequency 69:Enable for fire mode 1 70:Enable for fire mode 2 71:Fire Mode Output Phase Loss Detection 72:Roll Diameter Reset 73:Initial Roll Diameter Selection Terminal 1 74:Initial Roll Diameter Selection Terminal 2 75:Pre-Drive Input Terminal 76:Winding and unwinding switch 77:Wire break detection for drawing machine 78:Manual/automatic mode switching 79:Counting pulse signal 80:Thickness selection terminal 1 81:Thickness selection terminal 2 82:Cycloidal limit 1 83:Cycloidal limit 2 84:Reserved 85:Reserved 86:Reserved 87:Reserved 88:Reserved 89:Reserved 90:Reserved 91:Reserved 92:Reserved 93:Reserved 94:Reserved 95:Reserved 96:Step amount enable 97:Electronic gear selection 98:Multi-section position enable 99:Interrupt fixed-length status release signal 100:Interrupt fixed-length disable 101:Enable interrupt fixed-length 102:Home Switch 103:Home Return Enable 104:Set Current Position as Home 105:Forward Overtravel Switch 106:Reverse Overtravel Switch 107:Position Command Direction Selection 108:Position Command Disable 109:Handwheel Scale Signal 1 110:Handwheel Scale Signal 2 111:Handwheel Enable Signal 112:Position Gain Switching 113:Pulse Input Scale Enable 114:Control Mode Selection Terminal 2 115:Clear Position Deviation			
P2.0.19 (0x2013)	AI2 Terminal Function as DI Input	Same as above	0	Read only in run	"P2.0.19"
P2.0.20 (0x2014)	AI3 Terminal Function as DI Input	Same as above	0	Read only in run	"P2.0.20"
P2.0.21 (0x2015)	Valid Delay for AI1 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.21"
P2.0.22 (0x2016)	Valid Delay for AI2 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.22"
P2.0.23 (0x2017)	Valid Delay for AI3 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.23"
P2.0.24 (0x2018)	Invalid Delay for AI1 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.24"
P2.0.25 (0x2019)	Invalid Delay for AI2 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.25"
P2.0.26 (0x201A)	Invalid Delay for AI3 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.26"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.0.27 (0x201B)	DI1 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.27"
P2.0.28 (0x201C)	DI2 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.28"
P2.0.29 (0x201D)	DI3 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.29"
P2.0.30 (0x201E)	DI4 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.30"
P2.0.31 (0x201F)	DI5 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.31"
P2.0.32 (0x2020)	DI6 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.32"
P2.0.33 (0x2021)	DI7 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.33"
P2.0.34 (0x2022)	DI8 effective delay	0.0~3600.0(s)	0.0	Any	"P2.0.34"
P2.0.35 (0x2023)	Valid Delay for HDI1 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.35"
P2.0.36 (0x2024)	Valid Delay for HDI2 Terminal as DI Input	0.0~3600.0(s)	0.0	Any	"P2.0.36"
P2.0.37 (0x2025)	DI1 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.37"
P2.0.38 (0x2026)	DI2 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.38"
P2.0.39 (0x2027)	DI3 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.39"
P2.0.40 (0x2028)	DI4 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.40"
P2.0.41 (0x2029)	DI5 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.41"
P2.0.42 (0x202A)	DI6 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.42"
P2.0.43 (0x202B)	DI7 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.43"
P2.0.44 (0x202C)	DI8 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.0.44"
P2.0.45 (0x202D)	Invalid Delay for HDI1 Terminal as DI	0.0~3600.0(s)	0.0	Any	"P2.0.45"
P2.0.46 (0x202E)	Invalid Delay for HDI2 Terminal as DI	0.0~3600.0(s)	0.0	Any	"P2.0.46"
P2.0.47 (0x202F)	DI Valid State Option of AI	Ones:AI1 0:Active High Level 1:Active Low Level Tens:AI2 0:Active High Level 1:Active Low Level Hundreds:AI3 0:Active High Level 1:Active Low Level	0	Read only in run	"P2.0.47"
P2.0.48 (0x2030)	Valid Model Selection 1 of Terminal DI	Ones:DI1 0:Active High Level 1:Active Low Level Tens:DI2 0:Active High Level 1:Active Low Level Hundreds:DI3 0:Active High Level 1:Active Low Level Thousands:DI4 0:Active High Level 1:Active Low Level Ten Thousands:DI5 0:Active High Level 1:Active Low Level	0	Read only in run	"P2.0.48"
P2.0.49 (0x2031)	Valid Model Selection 2 of Terminal DI	Ones:DI6 0:Active High Level 1:Active Low Level Tens:DI7 0:Active High Level	0	Read only in run	"P2.0.49"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		1:Active Low Level Hundreds:DI8 0:Active High Level 1:Active Low Level Thousands:HDI1 0:Active High Level 1:Active Low Level Ten Thousands:HDI2 0:Active High Level 1:Active Low Level			

9.2.3.2. P2.1 External Terminal DO/DHO Output

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.1.00 (0x2100)	HDO Function Selection(Use Terminal HDO as DO)	O:No Function 1:Frequency inverter under Running 2:Fault Stop Output 3:Frequency Level Testing FDT1 Output 4:Frequency Reached 5:Zero-speed Running (no output when shut down) 6:Motor Overload Pre-alarm 7:Frequency inverter Overload Pre-alarm 8:Reference Count Value Reached 9:Designated Count Value Reached 10:Length Reached 11:PLC circulation cycle completed 12:Accumulative Running Time Reached 13:Frequency Limit 14:Torque Limit 15:Ready for Running 16:AI1>AI2 17:Upper Frequency Reached 18:Lower Frequency Reached (no output when shut down) 19:Undervoltage state output 20:Communication Reference 21:AI1 Output less than Lower Limit 22:AI1 Output more Upper Limit 23:Zero-speed Running 2 (also output when shut down) 24:Accumulative Power-on Time Reached 25:Frequency Level Testing FDT2 Output 26:Frequency 1 Reaches Output 27:Frequency 2 Reaches Output 28:Current 1 Reaches Output 29:Current 2 Reaches Output 30:Timing Reaches Output 31:AI1 Input Overlimit 32:In Off-load 33:In Reverse Running 34:Zero-current State 35:Module Temperature Reached 36:Output Current Overlimit 37:Lower Frequency Reached (also output when shut down) 38:Alarm Output 39:PLC Phase Completed 40:Current Running Time Reached 41:Fault Output (Not Output for Undervoltage) 42:Time of Timer 1 Reached 43:Time of Timer 2 Reached 44:Time of Timer 1 Reached but Time of Timer 2 not Reached	0	Any	"P2.1.00"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		45:Motor Fan Control 46:User Function 2 47:User Function 3 48:User Function 4 49:User Function 5 50:Synchronization Intermediate Relay M1 51:Synchronization Intermediate Relay M2 52:Synchronization Intermediate Relay M3 53:Synchronization Intermediate Relay M4 54:Synchronization Intermediate Relay M5 55:Distance over Zero 56:Distance Set value 1 Reached 57:Distance Set value 2 Reached 58:Operation Result 2 greater than 0 59:Operation Result 4 greater than 0 60:Motor temperature exceeds the pre-alarm threshold. 61:Frequency Converter Output During Power-Frequency Switching 62:Power frequency output during frequency conversion switching 63:Over Torque Output 64:Stall Output 65:Indication of water supply dormant operation 66:Fire mode activation status 67:Fault of disconnection detection in fire mode 68:Position Reached 69:Position Approaching 70:Interrupt Fixed-Length Completion 71:Home Return to Zero 72:Electrical Return to Zero 73:Position Command 74:Drawbench Cycloidal Direction			
P2.1.01 (0x2101)	T1 Relay Function Selection	Same as above	1	Any	"P2.1.01"
P2.1.02 (0x2102)	T2 Relay Function Selection	Same as above	2	Any	"P2.1.02"
P2.1.03 (0x2103)	Expansion Card DO1 Function Selection	Same as above	0	Any	"P2.1.03"
P2.1.04 (0x2104)	Expansion Card DO2 Function Selection	Same as above	0	Any	"P2.1.04"
P2.1.05 (0x2105)	HDO effective delay	0.0~3600.0(s)	0.0	Any	"P2.1.05"
P2.1.06 (0x2106)	T1 effective delay	0.0~3600.0(s)	0.0	Any	"P2.1.06"
P2.1.07 (0x2107)	T2 effective delay	0.0~3600.0(s)	0.0	Any	"P2.1.07"
P2.1.08 (0x2108)	DO1 effective delay	0.0~3600.0(s)	0.0	Any	"P2.1.08"
P2.1.09 (0x2109)	DO2 effective delay	0.0~3600.0(s)	0.0	Any	"P2.1.09"
P2.1.10 (0x210A)	HDO Terminal Function	0:Impulse output(HDO) 1:Open Collector Output(DO)	1	Any	"P2.1.10"
P2.1.11 (0x210B)	Highest Frequency of HDO Output	0.01~100.00(kHz)	50.00	Any	"P2.1.11"
P2.1.12 (0x210C)	Valid Sate of Multi-functional Output Terminal	Ones:DO 0:Positive Logic 1:Negative Logic Tens:T1 0:Positive Logic 1:Negative Logic Hundreds:T2 0:Positive Logic 1:Negative Logic Thousands:Expansion Card DO1 0:Positive Logic 1:Negative Logic	0	Any	"P2.1.12"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		Ten Thousands:Expansion Card DO2 0:Positive Logic 1:Negative Logic			
P2.1.13 (0x210D)	HDO Output Reference	0:Running Frequency 1:Reference frequency 2:Output Current 3:Output Torque (Absolute Value of Torque) 4:Output Power 5:Output Voltage 6:Impulse Input 7:AI1 Voltage 8:AI2 Voltage 9:AI3 Voltage 10:Actual Length Value 11:Actual Counting Value 12:Communication Reference 13:Motor Speed 14:Output Current 15:Bus line voltage 16:Output Torque 17:Operation Result 1 18:Operation Result 2 19:Operation Result 3 20:Operation Result 4	0	Any	"P2.1.13"
P2.1.14 (0x210E)	Reserved	0~65535	0	Any	"P2.1.14"
P2.1.15 (0x210F)	HDO ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.1.15"
P2.1.16 (0x2110)	T1 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.1.16"
P2.1.17 (0x2111)	T2 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.1.17"
P2.1.18 (0x2112)	DO1 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.1.18"
P2.1.19 (0x2113)	DO2 ineffective delay	0.0~3600.0(s)	0.0	Any	"P2.1.19"

9.2.3.3. P2.2 AI Input

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.2.00 (0x2200)	Analog Input Curve Selection	Ones:Curve selected for AI1 1:Curve 1 2:Curve 2 3:Curve 3 4:Curve 4 5:Curve 5 Tens:Curve selected for AI2 1:Curve 1 2:Curve 2 3:Curve 3 4:Curve 4 5:Curve 5 Hundreds:Curve selected for AI3 1:Curve 1 2:Curve 2 3:Curve 3 4:Curve 4 5:Curve 5	321	Any	"P2.2.00"
P2.2.01 (0x2201)	Analog Input resolution Selection	Ones:AI1 Input resolution 0:0.01Hz 1:0.02Hz 2:0.05Hz 3:0.10Hz 4:0.20Hz 5:0.50Hz	0	Any	"P2.2.01"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		6:1.00Hz Tens:AI2 Input resolution 0:0.01Hz 1:0.02Hz 2:0.05Hz 3:0.10Hz 4:0.20Hz 5:0.50Hz 6:1.00Hz Hundreds:AI3 Input resolution 0:0.01Hz 1:0.02Hz 2:0.05Hz 3:0.10Hz 4:0.20Hz 5:0.50Hz 6:1.00Hz			
P2.2.02 (0x2202)	Selection for Curve less than Min. Reference	Ones:AI1 0: Corresponding Min. Input Reference 1:0.0% Tens:AI2 0: Corresponding Min. Input Reference 1:0.0% Hundreds:AI3 0: Corresponding Min. Input Reference 1:0.0%	0	Any	"P2.2.02"
P2.2.03 (0x2203)	AI1 Filtering time	0.00~10.00(s)	0.10	Any	"P2.2.03"
P2.2.04 (0x2204)	AI2 Filtering time	0.00~10.00(s)	0.10	Any	"P2.2.04"
P2.2.05 (0x2205)	AI3 Filtering time	0.00~10.00(s)	0.10	Any	"P2.2.05"
P2.2.06 (0x2206)	AI1 set jump poInt	-100.0~100.0(%)	0.0	Any	"P2.2.06"
P2.2.07 (0x2207)	AI1 set jump amplitude	0.0~100.0(%)	0.5	Any	"P2.2.07"
P2.2.08 (0x2208)	AI2 set jump poInt	-100.0~100.0(%)	0.0	Any	"P2.2.08"
P2.2.09 (0x2209)	AI2 set jump amplitude	0.0~100.0(%)	0.5	Any	"P2.2.09"
P2.2.10 (0x220A)	Set jump poInt of AI3	-100.0~100.0(%)	0.0	Any	"P2.2.10"
P2.2.11 (0x220B)	Set jump amplitude of AI3	0.0~100.0(%)	0.5	Any	"P2.2.11"
P2.2.12 (0x220C)	Minimum Input of Curve 1	-10.00~P2.2.14(V)	0.00	Any	"P2.2.12"
P2.2.13 (0x220D)	Corresponding reference for Minimum Input of Curve 1	-100.0~100.0(%)	0.0	Any	"P2.2.13"
P2.2.14 (0x220E)	Maximum Input of Curve 1	P2.2.12~10.00(V)	10.00	Any	"P2.2.14"
P2.2.15 (0x220F)	Corresponding reference for Maximum Input of Curve 1	-100.0~100.0(%)	100.0	Any	"P2.2.15"
P2.2.16 (0x2210)	Minimum Input of Curve 2	-10.00~P2.2.18(V)	0.00	Any	"P2.2.16"
P2.2.17 (0x2211)	Corresponding reference for Minimum Input of Curve 2	-100.0~100.0(%)	0.0	Any	"P2.2.17"
P2.2.18 (0x2212)	Maximum Input of Curve 2	P2.2.16~10.00(V)	10.00	Any	"P2.2.18"
P2.2.19 (0x2213)	Corresponding reference for Maximum Input of Curve 2	-100.0~100.0(%)	100.0	Any	"P2.2.19"
P2.2.20	Minimum Input of	-10.00~P2.2.22(V)	-10.00	Any	"P2.2.20"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x2214)	Curve 3				
P2.2.21 (0x2215)	Corresponding reference for Minimum Input of Curve 3	-100.0~100.0(%)	-100.0	Any	"P2.2.21"
P2.2.22 (0x2216)	Maximum Input of Curve 3	P2.2.20~10.00(V)	10.00	Any	"P2.2.22"
P2.2.23 (0x2217)	Corresponding reference for Maximum Input of Curve 3	-100.0~100.0(%)	100.0	Any	"P2.2.23"
P2.2.24 (0x2218)	Min. Input of Curve 4	-10.00~P2.2.26(V)	0.00	Any	"P2.2.24"
P2.2.25 (0x2219)	Corresponding reference for Min. Input of Curve 4	-100.0~100.0(%)	0.0	Any	"P2.2.25"
P2.2.26 (0x221A)	Curve 4 Inflection PoInt 1 Input	P2.2.24~P2.2.28(V)	3.00	Any	"P2.2.26"
P2.2.27 (0x221B)	Corresponding reference for Curve 4 Inflection PoInt 1 Input	-100.0~100.0(%)	30.0	Any	"P2.2.27"
P2.2.28 (0x221C)	Curve 4 Inflection PoInt 2 Input	P2.2.26~P2.2.30(V)	6.00	Any	"P2.2.28"
P2.2.29 (0x221D)	Corresponding reference for Curve 4 Inflection PoInt 2 Input	-100.0~100.0(%)	60.0	Any	"P2.2.29"
P2.2.30 (0x221E)	Max. input of Curve 4	P2.2.28~10.00(V)	10.00	Any	"P2.2.30"
P2.2.31 (0x221F)	Corresponding reference for Max. input of Curve 4	-100.0~100.0(%)	100.0	Any	"P2.2.31"
P2.2.32 (0x2220)	Min. Input of Curve 5	-10.00~P2.2.34(V)	-10.00	Any	"P2.2.32"
P2.2.33 (0x2221)	Corresponding reference for Min. Input of Curve 5	-100.0~100.0(%)	-100.0	Any	"P2.2.33"
P2.2.34 (0x2222)	Curve 5 Inflection PoInt 1 Input	P2.2.32~P2.2.36(V)	-3.00	Any	"P2.2.34"
P2.2.35 (0x2223)	Corresponding reference for Curve 5 Inflection PoInt 1 Input	-100.0~100.0(%)	-30.0	Any	"P2.2.35"
P2.2.36 (0x2224)	Curve 5 Inflection PoInt 2 Input	P2.2.34~P2.2.38(V)	3.00	Any	"P2.2.36"
P2.2.37 (0x2225)	Corresponding reference for Curve 5 Inflection PoInt 2 Input	-100.0~100.0(%)	30.0	Any	"P2.2.37"
P2.2.38 (0x2226)	Max. input of Curve 5	P2.2.36~10.00(V)	10.00	Any	"P2.2.38"
P2.2.39 (0x2227)	Corresponding reference for Max. input of Curve 5	-100.0~100.0(%)	100.0	Any	"P2.2.39"

9.2.3.4. P2.3 Analog Output AO

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.3.00 (0x2300)	Analog Output AO1 Reference	0:Running Frequency 1:Reference frequency 2:Output Current 3:Output Torque (Absolute Value of Torque) 4:Output Power	0	Any	"P2.3.00"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		5:Output Voltage 6:Impulse Input 7:AI1 Voltage 8:AI2 Voltage 9:AI3 Voltage 10:Actual Length Value 11:Actual Counting Value 12:Communication Reference 13:Motor Speed 14:Output Current 15:Bus line voltage 16:Output Torque 17:Operation Result 1 18:Operation Result 2 19:Operation Result 3 20:Operation Result 4 21:Performance Data 0 22:Performance Data 1 23:Performance Data 2 24:Performance Data 3 25:Performance Data 4 26:External Taper Output 27:Coil Diameter Output 28:Tension Control Target Torque Output 29:Target Tension Output			
P2.3.01 (0x2301)	Analog Output AO2 Reference	Same as above	1	Any	"P2.3.01"
P2.3.02 (0x2302)	Reserved	0~25	1	Any	"P2.3.02"
P2.3.03 (0x2303)	Analog AO1 Output Offset	-100.0~100.0(%)	0.0	Any	"P2.3.03"
P2.3.04 (0x2304)	Analog AO1 Output Gains	-10.00~10.00	1.00	Any	"P2.3.04"
P2.3.05 (0x2305)	Analog AO2 Output Offset	-100.0~100.0(%)	0.0	Any	"P2.3.05"
P2.3.06 (0x2306)	Analog AO2 Output Gains	-10.00~10.00	1.00	Any	"P2.3.06"

9.2.3.5. P2.4 Curve Calibration for AI and AO

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.4.00 (0x2400)	AI1 actual voltage 1	0.000~4.000(V)	Manufactuier	Any	"P2.4.00"
P2.4.01 (0x2401)	AI1 indicated voltage 1	0.000~4.000(V)	Manufactuier	Any	"P2.4.01"
P2.4.02 (0x2402)	AI1 actual voltage 2	6.000~11.000(V)	Manufactuier	Any	"P2.4.02"
P2.4.03 (0x2403)	AI1 indicated voltage 2	6.000~11.000(V)	Manufactuier	Any	"P2.4.03"
P2.4.04 (0x2404)	AI2 actual voltage 1	0.000~4.000(V)	Manufactuier	Any	"P2.4.04"
P2.4.05 (0x2405)	AI2 indicated voltage 1	0.000~4.000(V)	Manufactuier	Any	"P2.4.05"
P2.4.06 (0x2406)	AI2 actual voltage 2	6.000~11.000(V)	Manufactuier	Any	"P2.4.06"
P2.4.07 (0x2407)	AI2 indicated voltage 2	6.000~11.000(V)	Manufactuier	Any	"P2.4.07"
P2.4.08 (0x2408)	AI3 actual voltage 1	-1.100~11.000(V)	Manufactuier	Any	"P2.4.08"
P2.4.09 (0x2409)	AI3 indicated voltage 1	-1.100~11.000(V)	Manufactuier	Any	"P2.4.09"
P2.4.10 (0x240A)	AI3 actual voltage 2	-1.100~11.000(V)	Manufactuier	Any	"P2.4.10"
P2.4.11	AI3 indicated voltage	-1.100~11.000(V)	Manufactu	Any	"P2.4.11"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x240B)	1		ier		
P2.4.12 (0x240C)	AO1 target voltage 1	0.000~4.000(V)	Manufactu ier	Any	"P2.4.12"
P2.4.13 (0x240D)	AO1 actual voltage 1	0.000~4.000(V)	Manufactu ier	Any	"P2.4.13"
P2.4.14 (0x240E)	AO1 target voltage 2	6.000~11.000(V)	Manufactu ier	Any	"P2.4.14"
P2.4.15 (0x240F)	AO1 actual voltage 2	6.000~11.000(V)	Manufactu ier	Any	"P2.4.15"
P2.4.16 (0x2410)	AO2 target voltage 1	0.000~4.000(V)	Manufactu ier	Any	"P2.4.16"
P2.4.17 (0x2411)	AO2 actual voltage 1	0.000~4.000(V)	Manufactu ier	Any	"P2.4.17"
P2.4.18 (0x2412)	AO2 target voltage 2	6.000~11.000(V)	Manufactu ier	Any	"P2.4.18"
P2.4.19 (0x2413)	AO2 actual voltage 2	6.000~11.000(V)	Manufactu ier	Any	"P2.4.19"

9.2.3.6. P2.6 PG Card

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.6.00 (0x2600)	Type of Encoder	0:ABZ Incremental Encoder 1:UVW Incremental Encoder 2:Rotary Transformer 3:Reserved 4:Simplified Wiring UVW 5:HDI1、HDI2 6:17-bit Communication Encoder 7:23-bit Communication Encoder	0	Read only in run	"P2.6.00"
P2.6.01 (0x2601)	Line Number of Encoder	1~65535	1024	Read only in run	"P2.6.01"
P2.6.02 (0x2602)	Encoder phase sequence	0:Forward Direction 1:Reverse Direction	0	Read only in run	"P2.6.02"
P2.6.03 (0x2603)	Encoder Disconnection Testing Time	No action 00.1s〜10.0s	0.0	Read only in run	"P2.6.03"
P2.6.04 (0x2604)	UVW Phase Sequence	0:Forward Direction 1:Reverse Direction	0	Read only in run	"P2.6.04"
P2.6.05 (0x2605)	UVW Encoder Angle	0.0~359.9	0.0	Read only in run	"P2.6.05"
P2.6.06 (0x2606)	Pole-pairs of Rotary Transformer	1~65535	1	Read only in run	"P2.6.06"
P2.6.07 (0x2607)	Reserved	0~1	0	Read only in run	"P2.6.07"
P2.6.08 (0x2608)	Mounting Angle of Encoder	0.0~359.9	0.0	Read only in run	"P2.6.08"
P2.6.09 (0x2609)	Reserved	0~4	0	Read only in run	"P2.6.09"
P2.6.10 (0x260A)	Reserved	0~65535	0	Any	"P2.6.10"
P2.6.11 (0x260B)	Encoder Protection Enable	Ones:Angle Correction Using Z-Signal (Valid for Synchronous Machines) 0:No Correction 1:Correction Tens:UVW Protection 0:Disable 1:Enable Hundreds: Reserved 0:Reserved 1:Reserved Thousands:Reserved 0:Reserved 1:Reserved	H.1111	Read only in run	"P2.6.11"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.6.12 (0x260C)	Encoder Speed measurement methods	0:M method and MT method 1:M method 2:MT method	0	Read only in run	"P2.6.12"
P2.6.13 (0x260D)	Speed measurement cycle	0.20~4.00(ms)	2.00	Read only in run	"P2.6.13"
P2.6.14 (0x260E)	Zero speed judgment cycle	1.00~20.00(ms)	4.00	Read only in run	"P2.6.14"
P2.6.15 (0x260F)	Encoder speed measurement cycle method	0:Minimum Sampling Interval 1:Accurate Time Moving Window 2:Estimated Time Moving Window	0	Read only in run	"P2.6.15"

9.2.3.7. P2.7 Expansion communication card settings

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.7.00 (0x2700)	Expansion card Baud Rate	Ones:MODBUS baud rate 0:1200 1:2400 2:4800 3:9600 4:19200 5:38400 6:57600 7:115200 8:256000 9:460800 A:921600 B:2500000 Tens: Reserved Hundreds: Reserved Thousands:Reserved	H.3	Any	"P2.7.00"
P2.7.01 (0x2701)	Expansion card Data Format	0:No Verification (8-N-2) 1:Even Parity Verification (8-E-1) 2:Odd Parity Verification (8-O-1) 3:No Verification (8-N-1)	0	Any	"P2.7.01"
P2.7.02 (0x2702)	Expansion card relay configuration	Thousands and hundreds place:Relay start address 0x00:Invalid relay 0x01～0x80:Corresponding relay addresses 1 to 128 Tens place:Relay end address 0x00:Invalid relay 0x81 ～ 0xF8:Corresponding relay addresses 129 to 247	0	Any	"P2.7.02"
P2.7.03 (0x2703)	Expansion card Response Delay	0~1000(ms)	2	Any	"P2.7.03"
P2.7.04 (0x2704)	Expansion card Communication Timeout	0.1~60.0(s)	5.0	Any	"P2.7.04"
P2.7.05 (0x2705)	Expansion card Data Transmission Format	Ones:MODBUS data format 0:ASCII Mode (Reserved) 1:RTU Mode Tens:PROFIBUS data format 0:PPO1 1:PPO2 2:PPO3 3:PPO5	1	Any	"P2.7.05"
P2.7.06 (0x2706)	Expansion card MODBUS communication data reply or not	0:Reply 1:No reply	0	Read only in run	"P2.7.06"
P2.7.07 (0x2707)	Expansion card communication error enable	Ones: 0:Disable 1:Enable(The fault can not be automatically	H.0	Any	"P2.7.07"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		reset) 2:Enable(The fault can be automatically reset) Tens: Reserved Hundreds: 0: No processing 1: Inter-board communication timeout, no response to the master station Thousands: Inter-board communication timeout time (in seconds), maximum 15 seconds			
P2.7.08 (0x2708)	first segment of IP Address	1~255	192	Any	"P2.7.08"
P2.7.09 (0x2709)	second segment of IP Address	0~255	168	Any	"P2.7.09"
P2.7.10 (0x270A)	third segment of IP Address(DP Address)(CANopen Address)	IP:0～255 DP:1～126 CANopen:1～127	1	Any	"P2.7.10"
P2.7.11 (0x270B)	fourth segment of IP Address(CANopen Baud Rate)	IP:1～254 CANopen:1,1000K 2,500K 3,250K 4,125K 5,100K 6,50K	100	Any	"P2.7.11"
P2.7.12 (0x270C)	first segment of subnet mask	0~255	255	Any	"P2.7.12"
P2.7.13 (0x270D)	second segment of subnet mask	0~255	255	Any	"P2.7.13"
P2.7.14 (0x270E)	third segment of subnet mask	0~255	255	Any	"P2.7.14"
P2.7.15 (0x270F)	fourth segment of subnet mask	0~255	0	Any	"P2.7.15"
P2.7.16 (0x2710)	first segment of gateway	0~255	192	Any	"P2.7.16"
P2.7.17 (0x2711)	second segment of gateway	0~255	168	Any	"P2.7.17"
P2.7.18 (0x2712)	third segment of gateway	0~255	1	Any	"P2.7.18"
P2.7.19 (0x2713)	fourth segment of gateway	0~255	1	Any	"P2.7.19"
P2.7.20 (0x2714)	first word of MAC Address	0~H.FFFF	H.4853	Any	"P2.7.20"
P2.7.21 (0x2715)	second word of MAC Address	0~H.FFFF	H.0057	Any	"P2.7.21"
P2.7.22 (0x2716)	last word of MAC Address	0~H.FFFF	H.5500	Any	"P2.7.22"
P2.7.23 (0x2717)	DHCP ENABLE	0:Disable 1:Enable	0	Any	"P2.7.23"
P2.7.24 (0x2718)	TCP Listen timeout reset	0:Disable 1:Enable	0	Any	"P2.7.24"
P2.7.25 (0x2719)	Reserved	0~65535	0	Any	"P2.7.25"
P2.7.26 (0x271A)	Reserved	0~65535	0	Any	"P2.7.26"
P2.7.27 (0x271B)	Reserved	0~65535	0	Any	"P2.7.27"
P2.7.28 (0x271C)	Reserved	0~65535	0	Any	"P2.7.28"
P2.7.29 (0x271D)	Reserved	0~65535	0	Any	"P2.7.29"
P2.7.30 (0x271E)	Reserved	0~65535	0	Any	"P2.7.30"
P2.7.31 (0x271F)	6 in 1 Expansion card communications	0:None 1:PROFINET	0	Any	"P2.7.31"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
	protocol	2:EtherCAT 3:Modbus TCP 4:EtherNet IP 5:CANopen 6:PROFIBUS 7:Reserved 8:Reserved 9:Reserved 10:Reserved 11:Reserved 12:Reserved 13:Reserved 14:Reserved 15:Reserved			

9.2.3.8. P2.8 Standard RS485 Settings of This Device

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P2.8.00 (0x2800)	Standard Communication Baud Rate of This Device	Ones:MODBUS baud rate 0:1200 1:2400 2:4800 3:9600 4:19200 5:38400 6:57600 7:115200	H.3	Any	"P2.8.00"
P2.8.01 (0x2801)	Standard Communication Data Format of This Device	0:No Verification (8-N-2) 1:Even Parity Verification (8-E-1) 2:Odd Parity Verification (8-O-1) 3:No Verification (8-N-1)	0	Any	"P2.8.01"
P2.8.02 (0x2802)	Standard communication relay configuration of the unit	Thousands and hundreds place:Relay start address 0x00:Invalid relay 0x01～0x80:Corresponding relay addresses 1 to 128 Tens place:Relay end address 0x00:Invalid relay 0x81 ～ 0xF8:Corresponding relay addresses 129 to 247	0	Any	"P2.8.02"
P2.8.03 (0x2803)	Standard Communication Response Delay of This Device	0~1000(ms)	2	Any	"P2.8.03"
P2.8.04 (0x2804)	Standard Communication Timeout of This Device	0.1~60.0(s)	5.0	Any	"P2.8.04"
P2.8.05 (0x2805)	Standard Communication Data Transmission Format of This Device	0:ASCII Mode (Reserved) 1:RTU Mode	1	Any	"P2.8.05"
P2.8.06 (0x2806)	Does the standard communication of this device using MODBUS protocol return data	0:Reply 1:No reply	0	Read only in run	"P2.8.06"
P2.8.07 (0x2807)	Standard Communication Error enable for This Device's Built-in Communication	0:Disable 1:Enable(The fault can not be automatically reset) 2:Enable(The fault can be automatically reset)	0	Any	"P2.8.07"
P2.8.08 (0x2808)	Reserved	0~1	0	Any	"P2.8.08"

9.2.4. Group P3 Application Function 1

9.2.4.1. P3.0 Multi-speed and Simple PLC

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.0.00 (0x3000)	Simple PLC Running Mode	0:End of Single Running and Stop 1:End of Single Running and Save Final Value 2:Continuous Running 3:Cycle N Times	0	Any	"P3.0.00"
P3.0.01 (0x3001)	Cycle number(s), N	0~65000	0	Any	"P3.0.01"
P3.0.02 (0x3002)	Option of PLC Power-off Memory	Ones:Option of Power-off Memory 0:No Power-off Memory 1:Power-off Memory Tens:Stop Memory Selection 0:No Stop Memory 1:Stop Memory	0	Any	"P3.0.02"
P3.0.03 (0x3003)	Phase Directive 0	-100.0~100.0(%)	0.0	Any	"P3.0.03"
P3.0.04 (0x3004)	Phase O Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.04"
P3.0.05 (0x3005)	Phase Directive 1	-100.0~100.0(%)	0.0	Any	"P3.0.05"
P3.0.06 (0x3006)	Phase 1 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.06"
P3.0.07 (0x3007)	Phase Directive 2	-100.0~100.0(%)	0.0	Any	"P3.0.07"
P3.0.08 (0x3008)	Phase 2 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.08"
P3.0.09 (0x3009)	Phase Directive 3	-100.0~100.0(%)	0.0	Any	"P3.0.09"
P3.0.10 (0x300A)	Phase 3 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.10"
P3.0.11 (0x300B)	Phase Directive 4	-100.0~100.0(%)	0.0	Any	"P3.0.11"
P3.0.12 (0x300C)	Phase 4 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.12"
P3.0.13 (0x300D)	Phase Directive 5	-100.0~100.0(%)	0.0	Any	"P3.0.13"
P3.0.14 (0x300E)	Phase 5 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.14"
P3.0.15 (0x300F)	Phase Directive 6	-100.0~100.0(%)	0.0	Any	"P3.0.15"
P3.0.16 (0x3010)	Phase 6 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.16"
P3.0.17 (0x3011)	Phase Directive 7	-100.0~100.0(%)	0.0	Any	"P3.0.17"
P3.0.18 (0x3012)	Phase 7 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.18"
P3.0.19 (0x3013)	Phase Directive 8	-100.0~100.0(%)	0.0	Any	"P3.0.19"
P3.0.20 (0x3014)	Phase 8 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.20"
P3.0.21 (0x3015)	Phase Directive 9	-100.0~100.0(%)	0.0	Any	"P3.0.21"
P3.0.22 (0x3016)	Phase 9 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.22"
P3.0.23 (0x3017)	Phase Directive 10	-100.0~100.0(%)	0.0	Any	"P3.0.23"
P3.0.24 (0x3018)	Phase 10 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.24"
P3.0.25 (0x3019)	Phase Directive 11	-100.0~100.0(%)	0.0	Any	"P3.0.25"
P3.0.26 (0x301A)	Phase 11 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.26"
P3.0.27 (0x301B)	Phase Directive 12	-100.0~100.0(%)	0.0	Any	"P3.0.27"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.0.28 (0x301C)	Phase 12 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.28"
P3.0.29 (0x301D)	Phase Directive 13	-100.0~100.0(%)	0.0	Any	"P3.0.29"
P3.0.30 (0x301E)	Phase 13 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.30"
P3.0.31 (0x301F)	Phase Directive 14	-100.0~100.0(%)	0.0	Any	"P3.0.31"
P3.0.32 (0x3020)	Phase 14 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.32"
P3.0.33 (0x3021)	Phase Directive 15	-100.0~100.0(%)	0.0	Any	"P3.0.33"
P3.0.34 (0x3022)	Phase 16 Running Time	0.0~6500.0(s)	0.0	Any	"P3.0.34"
P3.0.35 (0x3023)	Phase 0 attribution	Ones:Acceleration & Deceleration Time Selection (Invalid Multiplex Directive) 0:Acceleration & Deceleration Time 1 1:Acceleration & Deceleration Time 2 2:Acceleration & Deceleration Time 3 3:Acceleration & Deceleration Time 4 Tens:Frequency Source Selection (Valid Multiplex Directive) 0:Current Phase Directive 1:Keyboard Frequency Reference 2:AI1 Input 3:AI2 Input 4:AI3 Input 5:PULS Reference (P2.0.12) 6:PID Reference 7:Operation Result 1 8:Operation Result 2 9:Operation Result 3 A:Operation Result 4 Hundreds:running direction 0:Default direction 1:Negation of Direction	H.000	Any	"P3.0.35"
P3.0.36 (0x3024)	Phase 1 attribution	Same as above	H.000	Any	"P3.0.36"
P3.0.37 (0x3025)	Phase 2 attribution	Same as above	H.000	Any	"P3.0.37"
P3.0.38 (0x3026)	Phase 3 attribution	Same as above	H.000	Any	"P3.0.38"
P3.0.39 (0x3027)	Phase 4 attribution	Same as above	H.000	Any	"P3.0.39"
P3.0.40 (0x3028)	Phase 5 attribution	Same as above	H.000	Any	"P3.0.40"
P3.0.41 (0x3029)	Phase 6 attribution	Same as above	H.000	Any	"P3.0.41"
P3.0.42 (0x302A)	Phase 7 attribution	Same as above	H.000	Any	"P3.0.42"
P3.0.43 (0x302B)	Phase 8 attribution	Same as above	H.000	Any	"P3.0.43"
P3.0.44 (0x302C)	Phase 9 attribution	Same as above	H.000	Any	"P3.0.44"
P3.0.45 (0x302D)	Phase 10 attribution	Same as above	H.000	Any	"P3.0.45"
P3.0.46 (0x302E)	Phase 11 attribution	Same as above	H.000	Any	"P3.0.46"
P3.0.47 (0x302F)	Phase 12 attribution	Same as above	H.000	Any	"P3.0.47"
P3.0.48 (0x3030)	Phase 13 attribution	Same as above	H.000	Any	"P3.0.48"
P3.0.49 (0x3031)	Phase 14 attribution	Same as above	H.000	Any	"P3.0.49"
P3.0.50 (0x3032)	Phase 15 attribution	Same as above	H.000	Any	"P3.0.50"
P3.0.51 (0x3033)	Simple PLC Running Time Unit	0:s 1:min	0	Any	"P3.0.51"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		2:h			

9.2.4.2. P3.1 Process PID Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.1.00 (0x3100)	PID Reference Source	0:Digital Reference (P3.1.01) 1: External Terminal AI1 Reference 2: External Terminal AI2 Reference 3:External Terminal AI3 Reference 4:PULS Reference (P2.0.12)) 5: Communication Reference 6:Multiplex Directive Terminal Reference 7:Simple PLC Reference 8:Operation Result 1 9:Operation Result 2 10:Operation Result 3 11:Operation Result 4	0	Any	"P3.1.00"
P3.1.01 (0x3101)	PID Value Reference	0.0~P3.1.04(Mpa)	50.0	Any	"P3.1.01"
P3.1.02 (0x3102)	PID Feedback Source	0:External Terminal AI1 Reference 1:External Terminal AI2 Reference 2:AI1-AI2 3:AI1+AI2 4:PULS Reference (P2.0.12)) 5: Communication Reference 6:MAX[AI1,AI2] 7:MIN[AI1,AI2] 8:Switch of Multiplex Directive Terminal on the above conditions 9:Operation Result 1 10:Operation Result 2 11:Operation Result 3 12:Operation Result 4	0	Any	"P3.1.02"
P3.1.03 (0x3103)	PID Action Direction	0:Direct Action 1:Reverse Action	0	Any	"P3.1.03"
P3.1.04 (0x3104)	PID Reference Feedback Range	0.0~3276.7(Mpa)	100.0	Any	"P3.1.04"
P3.1.05 (0x3105)	Proportional Gains KP1	0.0~100.0	20.0	Any	"P3.1.05"
P3.1.06 (0x3106)	Integral Time TI1	0.01~10.00(s)	2.00	Any	"P3.1.06"
P3.1.07 (0x3107)	Derivative Time TD1	0.000~10.000(s)	0.000	Any	"P3.1.07"
P3.1.08 (0x3108)	PID Deviation Limit	0.0~P3.1.04(Mpa)	0.0	Any	"P3.1.08"
P3.1.09 (0x3109)	PID Feedback Filtering time	0.00~60.00(s)	0.00	Any	"P3.1.09"
P3.1.10 (0x310A)	Proportional Gains KP2	0.0~100.0	20.0	Any	"P3.1.10"
P3.1.11 (0x310B)	Integral Time TI2	0.01~10.00(s)	2.00	Any	"P3.1.11"
P3.1.12 (0x310C)	Derivative Time TD2	0.000~10.000(s)	0.000	Any	"P3.1.12"
P3.1.13 (0x310D)	PID Switch Conditions	0:No Switch 1:Switch through Terminals 2:Switch through Deviation	0	Any	"P3.1.13"
P3.1.14 (0x310E)	PID Switch Deviation 1	0.0~P3.1.15(%)	20.0	Any	"P3.1.14"
P3.1.15 (0x310F)	PID Switch Deviation 2	P3.1.14~100.0(%)	80.0	Any	"P3.1.15"
P3.1.16 (0x3110)	PID Initial Value	0.0~100.0(%)	0.0	Any	"P3.1.16"
P3.1.17 (0x3111)	PID Initial Value Hold Time	0.00~650.00(s)	0.00	Any	"P3.1.17"
P3.1.18	PID Feedback Loss	000.0%:No Judgment on Feedback Loss	0.0	Any	"P3.1.18"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x3112)	Test	000.1%～100.0%			
P3.1.19 (0x3113)	PID Feedback Loss Test Time	0.0~20.0(s)	0.0	Any	"P3.1.19"
P3.1.20 (0x3114)	PID Stop Operation	0:No Operation 1:Operation	0	Any	"P3.1.20"
P3.1.21 (0x3115)	PID reverse cutoff frequency	0.00~P0.1.16(Hz)	0.00	Any	"P3.1.21"
P3.1.22 (0x3116)	PID differential limiter	0.00~100.00(%)	0.10	Any	"P3.1.22"
P3.1.23 (0x3117)	PID given change time	0.00~650.00(s)	0.00	Any	"P3.1.23"
P3.1.24 (0x3118)	PID feedback filter time	0.00~100.00(s)	0.10	Read only in run	"P3.1.24"
P3.1.25 (0x3119)	PID output filter time	0.00~60.00(s)	0.00	Any	"P3.1.25"
P3.1.26 (0x311A)	Maximum Positive Deviation Between Two Outputs	0.00~100.00(%)	1.00	Any	"P3.1.26"
P3.1.27 (0x311B)	Maximum Negative Deviation Between Two Outputs	0.00~100.00(%)	1.00	Any	"P3.1.27"
P3.1.28 (0x311C)	PID Integral properties	Ones:Integral Separation 0:Valid 1:Invalid Tens:Halt Integral on Output Limit 0:Continue Integration 1:Stop Integration	0	Any	"P3.1.28"
P3.1.29 (0x311D)	Pressure unit	0:% 1:Mpa 2:kPa 3:Pa 4:mbar 5:bar 6:℃ 7:PSI 8:℉ 9:kg/cm²	0	Read only in run	"P3.1.29"
P3.1.30 (0x311E)	Pressure Accuracy	0:1 1:0.1 2:0.01	1	Read only in run	"P3.1.30"

9.2.4.3. P3.3 Energy-saving Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.3.00 (0x3300)	Quit sleep mode	0:Disable 1:Sleep and wake up based on frequency 2:Sleep and wake up based on pressure deviation 3:Wake-up from sleep mode based on frequency and pressure accuracy deviation	0	Read only in run	"P3.3.00"
P3.3.01 (0x3301)	Awake delay time	0.0~6500.0(s)	5.0	Any	"P3.3.01"
P3.3.02 (0x3302)	Sleep delay time	0.0~6500.0(s)	5.0	Any	"P3.3.02"
P3.3.03 (0x3303)	Wake-up frequency	P0.1.20~P0.1.16(Hz)	0.00	Any	"P3.3.03"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.3.04 (0x3304)	Sleep frequency	P0.1.20~P0.1.16(Hz)	0.00	Any	"P3.3.04"
P3.3.05 (0x3305)	Awake pressure deviation	00.0% ～ 50.0% [based on PID Reference Feedback Range]	5.0	Any	"P3.3.05"
P3.3.06 (0x3306)	Sleep pressure deviation	00.0% ～ 50.0% [based on PID Reference Feedback Range]	5.0	Any	"P3.3.06"
P3.3.07 (0x3307)	Sleep boost frequency	P0.1.20~P7.9.37(Hz)	50.00	Any	"P3.3.07"
P3.3.08 (0x3308)	Sleep boost frequency holding time	When set to 0, the sleep boost function is in-valid	0.0	Any	"P3.3.08"
P3.3.09 (0x3309)	Sleep boost tolerance	0～10.0% (When 10% is set, it corresponds to 10% of the PID set value)	10.0	Any	"P3.3.09"
P3.3.10 (0x330A)	Stable Holding Time	0.0 ～ 1000s (When the set value is 0, the sleep response is slow)	10.0	Any	"P3.3.10"
P3.3.18 (0x3312)	Energy-saving mode	0:Off 1:Power Factor Optimization for Energy Saving	0	Any	"P3.3.18"
P3.3.20 (0x3314)	Energy-saving start frequency	The output frequency must be higher than the set value of this function code to enter the energy-saving steady-state frequency output judgment	10.00	Any	"P3.3.20"
P3.3.21 (0x3315)	Energy-saving start delay	When the steady-state frequency output is reached and the time exceeds the set value of this function code, the energy-saving mode is entered	5	Any	"P3.3.21"
P3.3.22 (0x3316)	Energy-saving power factor angle	When operating in power factor energy-saving optimization mode, this parameter defines the target power factor angle for energy saving.If the current power factor angle exceeds the target power factor angle for energy saving, the inverter will continuously perform energy-saving adjustments.	40.00	Any	"P3.3.22"
P3.3.23 (0x3317)	Maximum voltage drop for energy saving	Energy-saving effects are most pronounced when the inverter operates under no load or light load conditions.However, the Output Voltage cannot be reduced without limit; this parameter sets the maximum permissible voltage drop ratio for the Output Voltage.	60.00	Any	"P3.3.23"

9.2.4.4. P3.4 Timing Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.4.00 (0x3400)	Accumulative Power-on Reaches Reference Time	0~65000(h)	0	Any	"P3.4.00"
P3.4.01 (0x3401)	Accumulative Running Reaches Reference Time	0~65000(h)	0	Any	"P3.4.01"

P3.4.02 (0x3402)	Current Running Reaches Reference Time	0.0~6500.0(min)	0.0	Read only in run	"P3.4.02"
P3.4.03 (0x3403)	Timing Function Selection	1:min 2:h	1	Read only in run	"P3.4.03"
P3.4.04 (0x3404)	Fixed Running Time Selection	0:Digital Reference (P3.4.05) 1: External Terminal AI1 Reference 2:External Terminal AI2 Reference(Analog input range corresponds to P3.4.05)	0	Read only in run	"P3.4.04"
P3.4.05 (0x3405)	Fixed Running Time	0000.0~6500.0 (unit depends on P3.4.03)	0.0	Read only in run	"P3.4.05"
P3.4.06 (0x3406)	Enable Timer Function	0:Disable 1:Enable	0	Read only in run	"P3.4.06"

9.2.4.5. P3.5 Frequency Change Switching

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.5.00 (0x3500)	Enable Frequency Change Switching	0:Disable 1:Enable via function code 2:Enable via DI terminal	0	Read only in run	"P3.5.00"
P3.5.01 (0x3401)	Maximum Phase-Locked Adjustment Frequency	0.00~15.00(Hz)	3.00	Read only in run	"P3.5.01"
P3.5.02 (0x3502)	Phase-locked KP	0~10000	1000	Read only in run	"P3.5.02"
P3.5.03 (0x3503)	Phase-locked KI	0~10000	1000	Read only in run	"P3.5.03"
P3.5.04 (0x3504)	Delay Time from Wave Blocking to Disconnecting the Inverter Contactor	0.000~5.000(s)	0.002	Read only in run	"P3.5.04"
P3.5.05 (0x3405)	Delay Time from Disconnecting Inverter to Switching to Line Frequency	0.000~5.000(s)	0.020	Read only in run	"P3.5.05"
P3.5.06 (0x3506)	Delay Time from Disconnecting Line Frequency to Switching to Inverter Frequency	0.000~5.000(s)	0.020	Read only in run	"P3.5.06"
P3.5.07 (0x3507)	Shutdown Mode for Frequency Change Switching	0:Inverter Stop 1:Direct shutdown	0	Read only in run	"P3.5.07"

9.2.4.6. P3.6 Torque Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.6.00 (0x3600)	Torque Reference Source	0:Digital Reference 1: External Terminal AI1 Reference 2: External Terminal AI2 Reference 3: Multiplex Directive Reference 4:PULS Reference (P2.0.12)) 5: Communication Reference 6:MIN(AI1,AI2) 7:MAX(AI1,AI2) 8:Operation Result 1 9:Operation Result 2 10:Operation Result 3 11:Operation Result 4 12:Standby Torque Source 1 13:Standby Torque Source 2 14:External Terminal AI3 Reference	0	Read only in run	"P3.6.00"
P3.6.01 (0x3601)	Torque Digital Reference	-200.0~200.0(%)	150.0	Any	"P3.6.01"
P3.6.02	Torque Control FWD	0.00~P0.1.16(Hz)	50.00	Any	"P3.6.02"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x3602)	Frequency Limit				
P3.6.03 (0x3603)	Torque Control REV Frequency Limit	0.00~P0.1.16(Hz)	50.00	Any	"P3.6.03"
P3.6.04 (0x3604)	Torque Acceleration Time	0.0~6500.0(s)	0.0	Any	"P3.6.04"
P3.6.05 (0x3605)	Torque Deceleration Time	0.0~6500.0(s)	0.0	Any	"P3.6.05"
P3.6.06 (0x3606)	Torque filtering time	0.00~10.00(s)	0.00	Any	"P3.6.06"
P3.6.07 (0x3607)	Torque control forward frequency upper limit source	1:Function code command(P3.6.02) 2:External terminal AI1 command 3:External terminal AI2 command 4:External terminal AI3 command 5:PULS - pulse command(P2.0.12) 6:Multi-step command terminal command 7:Simple PLC command 8:Reserved 9:Communication command 10:Computation result 1 11:Computation result 2 12:Computation result 3 13:Computation result 4 14:PG card (Handwheel) 15:External pull-up keyboard analog potentiometer	1	Read only in run	"P3.6.07"
P3.6.08 (0x3608)	Torque control reverse frequency upper limit source	Same as above	1	Read only in run	"P3.6.08"
P3.6.09 (0x3609)	Torque control mode	0:Speed loop saturation mode 1:Upper frequency limit governed solely by torque control	0	Read only in run	"P3.6.09"

9.2.4.7. P3.7 Droop Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P3.7.00 (0x3700)	Droop Frequency	0.00~10.00(Hz)	0.00	Any	"P3.7.00"
P3.7.04 (0x3704)	Master-slave control mode	0:Invalid 1:This unit as master, speed control 2:This unit as slave,torque control 3:This unit as slave,speed control(P control) 4:This unit as slave,speed control(offset control)	0	Read only in run	"P3.7.04"
P3.7.05 (0x3705)	Enabling of slave following the master operation	0:Disable 1:Enable	1	Any	"P3.7.05"
P3.7.06 (0x3706)	Slave window frequency	0.00~10.00(Hz)	5.00	Any	"P3.7.06"
P3.7.07 (0x3707)	Percentage of slave deviation frequency	0.0~40.0(%)	5.0	Any	"P3.7.07"
P3.7.08 (0x3708)	Maximum frequency selection for slave torque control	0:Subject to torque control parameters(Group P3.6) 1:Subject to master Running Frequency 2:Subject to master target Frequency 3:Subject to master Feedback Frequency	0	Read only in run	"P3.7.08"

9.2.5. P4 Group Special Adjustment

9.2.5.1. P4.0 Asynchronous Motor Vector Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.0.11 (0x400B)	SVC mode	0:Mode 0 1:Mode 1(New)	1	Read only in run	"P4.0.11"
P4.0.12 (0x400C)	SVC Weak Field Current Regulation	0:Mode 0 1:Mode 1(New)	1	Read only in run	"P4.0.12"
P4.0.13 (0x400D)	AMFVC Orientation Method Selection	0:High-precision orientation 1:Filtered method	0	Read only in run	"P4.0.13"

9.2.5.2. P4.1 Synchronous Motor Vector Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.1.00 (0x4100)	Reserved	0~65535	0	Any	"P4.1.00"
P4.1.01 (0x4101)	DQ inductance calculation method	0:Old method 1:New method	1	Read only in run	"P4.1.01"
P4.1.02 (0x4102)	Max. flux-weakening current	0.0~300.0(%)	110.0	Any	"P4.1.02"
P4.1.03 (0x4103)	Reserved	0~65535	0	Any	"P4.1.03"
P4.1.04 (0x4104)	Voltage margin	0~100(%)	5	Read only in run	"P4.1.04"
P4.1.05 (0x4105)	Flux-weakening proportionality coefficient	0~50	0	Any	"P4.1.05"
P4.1.06 (0x4106)	Flux-weakening Integral coefficient	0~50	5	Any	"P4.1.06"
P4.1.07 (0x4107)	Manufacturer parameters	0~1	0	Read only in run	"P4.1.07"
P4.1.08 (0x4108)	Manufacturer parameters	50~600	100	Any	"P4.1.08"
P4.1.09 (0x4109)	Magnetic pole position identification method before the operation	0:Identification before each run 1:Identification before first run 2:No identification	0	Read only in run	"P4.1.09"
P4.1.10 (0x410A)	Identification current of magnetic pole position before running	30~200(%)	120	Any	"P4.1.10"
P4.1.11 (0x410B)	Manufacturer parameters	5~200	30	Any	"P4.1.11"
P4.1.12 (0x410C)	Manufacturer parameters	5~200	40	Any	"P4.1.12"
P4.1.13 (0x410D)	Manufacturer parameters	0~100	0	Read only in run	"P4.1.13"
P4.1.14 (0x410E)	Manufacturer parameters	0~10	0	Any	"P4.1.14"
P4.1.15 (0x410F)	PMSVC Low-Speed Current Compensation	0~100(%)	30	Read only in run	"P4.1.15"
P4.1.16 (0x4110)	PMSVC Velocity Filtering Coefficient	0~1000	100	Any	"P4.1.16"
P4.1.17 (0x4111)	PMSVC Low-Speed Velocity Filtering Coefficient	0~1000	200	Any	"P4.1.17"
P4.1.18 (0x4112)	PMSVC Low-Speed Current Compensation Mode	0: Limited by torque upper limit 1: Constant value compensation 2: Constant value plus real-time torque compensation	0	Any	"P4.1.18"
P4.1.19 (0x4113)	PMSVC Low-Speed Current Compensation cutoff frequency	20~100(%)	20	Read only in run	"P4.1.19"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.1.20 (0x4114)	Identification current of magnetic pole position during tuning	30~200(%)	100	Any	"P4.1.20"
P4.1.21 (0x4115)	The switching torque of PMSVC low-speed current compensation mode 0	1~50(%)	25	Read only in run	"P4.1.21"

9.2.5.3. P4.2 Asynchronous Motor VF Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.2.00 (0x4200)	Automatic Frequency Increase Enable	0:Disable 1:Enable	0	Read only in run	"P4.2.00"
P4.2.01 (0x4201)	Auto Frequency Increase Kp	0~100	50	Any	"P4.2.01"
P4.2.02 (0x4202)	Auto Frequency Increase Ki	0~100	50	Any	"P4.2.02"
P4.2.03 (0x4203)	Auto Frequency Ramp Minimum Torque Current	10~100(%)	50	Read only in run	"P4.2.03"
P4.2.04 (0x4204)	Auto Frequency Ramp Maximum Regenerative Torque Current	10~100(%)	20	Read only in run	"P4.2.04"
P4.2.05 (0x4205)	VF Weak Magnetic Field Zone Overcurrent Stall Compensation Coefficient	50~200(%)	50	Read only in run	"P4.2.05"
P4.2.06 (0x4206)	Anti-Stall Maximum Frequency Rise Limit	0~50(Hz)	5	Read only in run	"P4.2.06"
P4.2.07 (0x4207)	Voltage Gain for VF Overvoltage Stall Suppression	0~100	30	Any	"P4.2.07"
P4.2.08 (0x4208)	VF Mode	0:VF Mode 0 1:VF Mode 1(New)	1	Read only in run	"P4.2.08"
P4.2.09 (0x4209)	VF-Separated Voltage Source	0: Digital Reference (P4.2.10) 1: External Terminal AI1 Reference 2: External Terminal AI2 Reference 3: Multiplex Directive Reference 4: PULS Reference (P2.0.12)) 5: Communication Reference 6: Operation Result 1 7: Operation Result 2 8: Operation Result 3 9: Operation Result 4	0	Read only in run	"P4.2.09"
P4.2.10 (0x420A)	Digital setting of the voltage source for VF separation	0~2000(V)	380	Read only in run	"P4.2.10"
P4.2.11 (0x420B)	The voltage rise time of VF separation	0.0~1000.0(s)	0.0	Read only in run	"P4.2.11"
P4.2.12 (0x420C)	The voltage deceleration time for VF separation	0.0~1000.0(s)	0.0	Read only in run	"P4.2.12"
P4.2.13 (0x420D)	VF separation shutdown mode selection	0:The voltage and frequency decrease at the same time 1:Reduce the voltage first, then the frequency	0	Read only in run	"P4.2.13"

9.2.5.4. P4.3 Vector Control

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.3.00 (0x4300)	Over modulation coefficient	100~120(%)	110	Read only in run	"P4.3.00"
P4.3.01 (0x4301)	field weakening torque limit coefficient	30~200	80	Any	"P4.3.01"
P4.3.02 (0x4302)	Flux-weakening method	0: No field weakening 1: Field weakening method 1 2: Field weakening method 2	1	Read only in run	"P4.3.02"
P4.3.03 (0x4303)	Vector control response mode	Ones:Asynchronous Motor SVC Control 0:Slow Response 1:Responding 2:Fast Response Tens:Synchronous Motor SVC Control 0:Slow Response 1:Responding 2:Fast Response Hundreds:Asynchronous Motor FVC Control 0:Slow Response 1:Responding 2:Fast Response Thousands:Synchronous Motor FVC Control 0:Slow Response 1:Responding 2:Fast Response	H.2201	Read only in run	"P4.3.03"

9.2.5.5. P4.4 TypeC Port Settings

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.4.00 (0x4400)	TypeC communication baud rate	Ones:MODBUS baud rate 0:1200 1:2400 2:4800 3:9600 4:19200 5:38400 6:57600 7:115200 8:256000 9:460800 A:921600 B:2500000	H.7	Any	"P4.4.00"
P4.4.01 (0x4401)	TypeC communication Data Format	0:No Verification (8-N-2) 1:Even Parity Verification (8-E-1) 2:Odd Parity Verification (8-O-1) 3:No Verification (8-N-1)	0	Any	"P4.4.01"
P4.4.02 (0x4402)	TypeC Communication Relay Mode Configuration	Thousands and hundreds place:Relay start address 0x00:Invalid relay 0x01～0x80:Corresponding relay addresses 1 to 128 Tens place:Relay end address 0x00:Invalid relay 0x81 ～ 0xF8:Corresponding relay addresses 129 to 247	0	Any	"P4.4.02"
P4.4.03 (0x4403)	TypeC communication Response Delay	0~1000(ms)	2	Any	"P4.4.03"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.4.04 (0x4404)	TypeC Communication Timeout	0.1~60.0(s)	5.0	Any	"P4.4.04"
P4.4.05 (0x4405)	TypeC communication Data Transmission Format	0:ASCII Mode (Reserved) 1:RTU Mode	1	Any	"P4.4.05"
P4.4.06 (0x4406)	TypeC communication MODBUS communication data reply or not	0:Reply 1:No reply	0	Read only in run	"P4.4.06"
P4.4.07 (0x4407)	TypeC Communication Error enable for This Device's Built-in Communication	0:Disable 1:Enable	0	Any	"P4.4.07"
P4.4.08 (0x4408)	Reserved	0~1	0	Any	"P4.4.08"

9.2.5.6. P4.6 Port Filtering Time

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.6.00 (0x4600)	The filtering time of the standard configuration of this machine and HDI1/2	0.0~21.2(us)	0.0	Any	"P4.6.00"
P4.6.01 (0x4601)	Communication Expansion Card Filtering Time	0.0~21.2(us)	0.0	Any	"P4.6.01"
P4.6.02 (0x4602)	TYPE-C filtering time	0.0~21.2(us)	0.0	Any	"P4.6.02"
P4.6.03 (0x4603)	Network port filtering time	0.0~21.2(us)	0.0	Any	"P4.6.03"
P4.6.05 (0x4605)	PG card AB Signal Filter Time	0.0~21.2(us)	0.0	Any	"P4.6.05"
P4.6.06 (0x4606)	PG card Z Signal Filter Time	0.0~21.2(us)	0.0	Any	"P4.6.06"

9.2.5.7. P4.7 RJ45 Port Settings

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.7.00 (0x4700)	RJ45 communication baud rate	Ones:MODBUS baud rate 0:1200 1:2400 2:4800 3:9600 4:19200 5:38400 6:57600 7:115200	H.7	Any	"P4.7.00"
P4.7.01 (0x4701)	RJ45 communication Data Format	0:No Verification (8-N-2) 1:Even Parity Verification (8-E-1) 2:Odd Parity Verification (8-O-1) 3:No Verification (8-N-1)	0	Any	"P4.7.01"
P4.7.02 (0x4702)	RJ45 communication Relay Mode Configuration	Thousands and hundreds place:Relay start address 0x00:Invalid relay 0x01～0x80:Corresponding relay addresses 1 to 128	0	Any	"P4.7.02"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		Tens place:Relay end address 0x00:Invalid relay 0x81 ～ 0xF8:Corresponding relay addresses 129 to 247			
P4.7.03 (0x4703)	RJ45 communication Response Delay	0~1000(ms)	2	Any	"P4.7.03"
P4.7.04 (0x4704)	RJ45 Communication Timeout	0.1~60.0(s)	5.0	Any	"P4.7.04"
P4.7.05 (0x4705)	RJ45 communication Data Transmission Format	0:ASCII Mode (Reserved) 1:RTU Mode	1	Any	"P4.7.05"
P4.7.06 (0x4706)	RJ45 communication MODBUS communication data reply or not	0:Reply 1:No reply	0	Any	"P4.7.06"
P4.7.07 (0x4707)	RJ45 Communication Error enable for This Device's Built-in Communication	0:Disable 1:Enable(The fault can not be automatically reset) 2:Enable(The fault can be automatically reset)	0	Any	"P4.7.07"
P4.7.08 (0x4708)	Reserved	0~1	0	Any	"P4.7.08"

9.2.5.8. P4.8 Special Performance Adjustment

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P4.8.00 (0x4800)	Speed loop mode of closed-loop vector FVC	0:Speed mode 1:Position mode	0	Read only in run	"P4.8.00"
P4.8.01 (0x4801)	Resolver encoder speed measurement mode	0:Old method 1:New method	1	Read only in run	"P4.8.01"
P4.8.02 (0x4802)	MBD - model generation	0:No 1:Yes	0	Read only in run	"P4.8.02"

9.2.6. P5 Group Protection Functions

9.2.6.1. P5.0 Fault Recovery and Action Selection

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.0.00 (0x5000)	Fault Auto Reset Number	0~20	0	Any	"P5.0.00"
P5.0.01 (0x5001)	Waiting Interval Time of Fault Auto Reset	0.1~100.0(s)	1.0	Any	"P5.0.01"
P5.0.02 (0x5002)	Fault Protective Action Selection 1	Ones:Motor Overload 0: Free Stop 1: Stop by its Mode 2: Continuous Running Tens:Input Default Phase 0: Free Stop 1: Stop by its Mode 2: Continuous Running Hundreds:Output Default Phase 0: Free Stop 1: Stop by its Mode 2: Continuous Running Thousands: External Default	0	Any	"P5.0.02"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		0: Free Stop 1: Stop by its Mode 2: Continuous Running Ten Thousands:expansion card Communication Abnormality 0: Free Stop 1: Stop by its Mode 2: Continuous Running			
P5.0.03 (0x5003)	Fault Protective Action Selection 2	Ones:Motor Overload 0: Free Stop 1: Stop by its Mode 2: Continuous Running Tens:Feedback Loss 0: Free Stop 1: Stop by its Mode 2: Continuous Running Hundreds:User Customerized Fault 1 0: Free Stop 1: Stop by its Mode 2: Continuous Running Thousands:User Customerized Fault 2 0: Free Stop 1: Stop by its Mode 2: Continuous Running Ten Thousands:Power-on Time Reached 0: Free Stop 1: Stop by its Mode 2: Continuous Running	0	Any	"P5.0.03"
P5.0.04 (0x5004)	Fault Protective Action Selection 3	Ones:Running Time Reached 0: Free Stop 1: Stop by its Mode 2: Continuous Running Tens:Encoder Abnormality 0: Free Stop Hundreds:Parameter Read-Write Abnormity 0: Free Stop 1: Stop by its Mode Thousands:Motor Overhear 0: Free Stop 1: Stop by its Mode 2: Continuous Running Ten Thousands:Fault of 24V Power Supply 0: Free Stop 1: Stop by its Mode	0	Any	"P5.0.04"
P5.0.05 (0x5005)	Fault Protective Action Selection 4	Ones: Larger Speed Deviation 0: Free Stop 1: Stop by its Mode 2: Continuous Running Tens: Motor Overspeed 0: Free Stop 1: Stop by its Mode 2: Continuous Running Hundreds: Initial Position Error 0: Free Stop 1: Stop by its Mode 2: Continuous Running Thousands:Inverter overload 0: Free Stop 1: Stop by its Mode 2:Derating run Ten Thousands: There is a communication fault in the RS485 interface of this device 0:Reserved 1:Reserved 2:Reserved	0	Any	"P5.0.05"
P5.0.06 (0x5006)	Fault Protective Action Selection 5	Ones:Over-torque 0: Free Stop 1: Stop by its Mode 2: Continuous Running Tens: Reserved	0	Any	"P5.0.06"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		0: Free Stop 1: Stop by its Mode 2: Continuous Running Hundreds: Ethernet port communication failure 0: Free Stop 1: Stop by its Mode 2: Continuous Running Thousands: Type-C communication failure 0: Free Stop 1: Stop by its Mode 2: Continuous Running Ten Thousands: Slave failure under master-slave control 0:Free run stop 1:Stop by Stop Mode 2:Continue operation			
P5.0.07 (0x5007)	Fault Protective Action Selection 6	Ones: Reserved 0: Free Stop 1: Stop by its Mode 2: Continuous Running Tens: Reserved 0: Free Stop 1: Stop by its Mode 2: Continuous Running Hundreds: Reserved 0: Free Stop 1: Stop by its Mode 2: Continuous Running Thousands:Reserved 0:Reserved 1:Reserved 2:Reserved Ten Thousands: Reserved 0:Reserved 1:Reserved 2:Reserved	0	Any	"P5.0.07"
P5.0.08 (0x5008)	Fault Protective Action Selection 7	Same as P5.0.07	0	Any	"P5.0.08"
P5.0.09 (0x5009)	Fault Protective Action Selection 8	Same as P5.0.07	0	Any	"P5.0.09"
P5.0.10 (0x500A)	Fault Protective Action Selection 9	Same as P5.0.07	0	Any	"P5.0.10"
P5.0.11 (0x500B)	Fault Protective Action Selection 10	Same as P5.0.07	0	Any	"P5.0.11"
P5.0.12 (0x500C)	Continuous Running Frequency Selection when at Fault	0:Running at Current Frequency 1:Running at Reference frequency 2:Running at Upper Frequency 3:Running at Lower Frequency 4:Running at Back Frequency for Abnormality	0	Any	"P5.0.12"
P5.0.13 (0x500D)	Backup Frequency for Abnormality	0.0~100.0(%)	100.0	Any	"P5.0.13"

9.2.6.2. P5.1 Motor Protection Function

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.1.01 (0x5101)	Motor Overload Protection	0:Disabled 1:Enable	1	Any	"P5.1.01"
P5.1.02 (0x5102)	Motor Overload Protection Level	0.20~10.00	1.00	Any	"P5.1.02"
P5.1.03 (0x5103)	Motor Overload Alarm System	50~100(%)	80	Any	"P5.1.03"
P5.1.04 (0x5104)	Type of motor temperature sensor	0:No temperature sensor 1:PT100	0	Any	"P5.1.04"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		2:PT1000 3:KTY84			
P5.1.05 (0x5105)	Thermal protection threshold of motor	0~200(℃)	110	Any	"P5.1.05"
P5.1.06 (0x5106)	Overheat pre-alarm threshold of motor	0~200(℃)	90	Any	"P5.1.06"
P5.1.07 (0x5107)	Temperature detection Enable of motor	0: No detection 1: Pass AI2 detection 2: Pass AI3 detection	0	Any	"P5.1.07"
P5.1.08 (0x5108)	A multiple of the rated current of the maximum output motor	10.0~800.0(%)	300.0	Any	"P5.1.08"
P5.1.09 (0x5109)	A multiple of the rated voltage of the maximum output motor	10.0~400.0(%)	100.0	Any	"P5.1.09"
P5.1.10 (0x510A)	Maximum output voltage mode	Ones:VF control 0:Only the bus voltage is associated 1:Correlate P5.1.09 with bus voltage Tens:SVC and FVC vector control 0:Only the bus voltage is associated 1:Correlate P5.1.09 with bus voltage	H.10	Read only in run	"P5.1.10"
P5.1.11 (0x510B)	Over Torque Protection Method	0: No Protection 1: Full Protection 2: Only During Constant Speed Protection	0	Any	"P5.1.11"
P5.1.12 (0x510C)	Over Torque Protection Limit	0.0~800.0(%)	150.0	Any	"P5.1.12"
P5.1.13 (0x510D)	Over Torque Protection Delay Time	0.00~60.00(s)	2.00	Any	"P5.1.13"
P5.1.14 (0x510E)	Stall Protection Enable	0~1	0	Any	"P5.1.14"
P5.1.15 (0x510F)	Stall Protection Feedback Frequency	0.00~20.00(Hz)	5.00	Any	"P5.1.15"
P5.1.16 (0x5110)	Stall Protection Delay Time	0.00~60.00(s)	2.00	Any	"P5.1.16"
P5.1.17 (0x5111)	Stall Protection frequency offset	0.00~10.00(Hz)	2.00	Any	"P5.1.17"

9.2.6.3. P5.2 Instantaneous Power Loss Handling (Under-voltage Suppression)

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.2.00 (0x5200)	Action Selection for Momentary Interruption	0:Valid 1:Deceleration 2:Stop by Deceleration	0	Read only in run	"P5.2.00"
P5.2.01 (0x5201)	Judgment Time of Momentary Interruption Voltage Recovery	0.0~100.0(s)	0.5	Any	"P5.2.01"
P5.2.02 (0x5202)	Voltage Judgment for Momentary Interruption Action	40%~100% (Standard Bus line voltage)	80	Any	"P5.2.02"
P5.2.03 (0x5203)	Voltage Judgment for Suspension of Momentary Action	60%~100%(Standard Bus line voltage)	85	Read only in run	"P5.2.03"
P5.2.04 (0x5204)	Instantaneous stop non-stop Kp	0~100	40	Any	"P5.2.04"
P5.2.05 (0x5205)	Instantaneous stop non-stop Ki	0~100	30	Any	"P5.2.05"
P5.2.06 (0x5206)	Instantaneous stop and deceleration time	0.0~3000.0(s)	20.0	Any	"P5.2.06"

9.2.6.4. P5.3 Stall Prevention Function

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.3.00 (0x5300)	Braking Use Rate	0~100(%)	100	Any	"P5.3.00"
P5.3.01 (0x5301)	Undervoltage poInt setting	60.0~140.0(%)	100.0	Any	"P5.3.01"
P5.3.02 (0x5302)	Fast current limit enable	0:Disable 1:Enable	1	Any	"P5.3.02"
P5.3.03 (0x5303)	Overspeed Test	0.0~50.0(%)	20.0	Any	"P5.3.03"
P5.3.04 (0x5304)	Overspeed Test Time	0.0:No Test 00.1s〜60.0s	1.0	Any	"P5.3.04"
P5.3.05 (0x5305)	Speed Deviation greater than Test Value	0.0~50.0(%)	20.0	Any	"P5.3.05"
P5.3.06 (0x5306)	Speed Deviation greater than Test Time	0.0:No Test 00.1s〜60.0s	5.0	Any	"P5.3.06"
P5.3.07 (0x5307)	Overvoltage Stall Protection Sensitivity	0~100	5	Any	"P5.3.07"
P5.3.08 (0x5308)	Overvoltage Stall Protection Voltage PoInt	115~150(%)	143	Any	"P5.3.08"
P5.3.09 (0x5309)	vf Overcurrent Stall Protection Sensitivity	0~100	20	Any	"P5.3.09"
P5.3.10 (0x530A)	vf Overcurrent Stall Protection current	50~180(%)	Type GP	Any	"P5.3.10"
P5.3.11 (0x530B)	Braking voltage on point	115~150(%)	135	Any	"P5.3.11"
P5.3.12 (0x530C)	Max output current of inverter	10.0~200.0(%)	Type GP	Any	"P5.3.12"
P5.3.13 (0x530D)	Inverter derating selection	Ones:Carrier Signal Derating 0:No 1:Yes	1	Any	"P5.3.13"

9.2.6.5. P5.4 Frequency, Current, AI Detection

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.4.00 (0x5400)	The reference frequency reaches test width	0.0~100.0(%)	0.0	Any	"P5.4.00"
P5.4.01 (0x5401)	Frequency Test FDT1	0.00~P0.1.16(Hz)	50.00	Any	"P5.4.01"
P5.4.02 (0x5402)	FDT1 Lagged Value	0.0~100.0(%)	5.0	Any	"P5.4.02"
P5.4.03 (0x5403)	Frequency Test FDT2	0.00~P0.1.16(Hz)	50.00	Any	"P5.4.03"
P5.4.04 (0x5404)	FDT2 Lagged Value	0.0~100.0(%)	5.0	Any	"P5.4.04"
P5.4.05 (0x5405)	Any reached frequency tested value 1	0.00~P0.1.16(Hz)	50.00	Any	"P5.4.05"
P5.4.06 (0x5406)	Any reached frequency 1 test width	0.0~100.0(%)	0.0	Any	"P5.4.06"
P5.4.07 (0x5407)	Any reached frequency tested value 2	0.00~P0.1.16(Hz)	50.00	Any	"P5.4.07"
P5.4.08 (0x5408)	Any reached frequency 2 test width	0.0~100.0(%)	0.0	Any	"P5.4.08"
P5.4.09 (0x5409)	Zero Current Test Level	000.0%〜300.0% (100.0% correspond to rated current of motor)	5.0	Any	"P5.4.09"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.4.10 (0x540A)	Delay Time for Zero Current Test	0.01~600.00(s)	0.10	Any	"P5.4.10"
P5.4.11 (0x540B)	Output Current Overlimit Value	0.0%:No Test 000.1%～300.0%	200.0	Any	"P5.4.11"
P5.4.12 (0x540C)	Delay Time for Current Overlimit Test	0.00~600.00(s)	0.00	Any	"P5.4.12"
P5.4.13 (0x540D)	Current Level Test 1	0.0~300.0(%)	100.0	Any	"P5.4.13"
P5.4.14 (0x540E)	Test Width of Current Level 1	0.0~300.0(%)	0.0	Any	"P5.4.14"
P5.4.15 (0x540F)	Current Level Test 2	0.0~300.0(%)	100.0	Any	"P5.4.15"
P5.4.16 (0x5410)	Test Width of Current Level 2	0.0~300.0(%)	0.0	Any	"P5.4.16"
P5.4.17 (0x5411)	AI1 Input Lower Limit	0.00~P5.4.18(V)	3.10	Any	"P5.4.17"
P5.4.18 (0x5412)	AI1 Input Upper Limit	P5.4.17~11.00(V)	6.80	Any	"P5.4.18"
P5.4.19 (0x5413)	Model Temperature Reaches Reference	0~100(℃)	75	Any	"P5.4.19"

9.2.6.6. P5.5 Other Protection

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P5.5.00 (0x5500)	Power-on short circuit to ground enable	0:Disable 1:Enable	1	Any	"P5.5.00"
P5.5.01 (0x5501)	Output short circuit detection enable	0:Disable 1:Enable	1	Any	"P5.5.01"
P5.5.02 (0x5502)	Input Default Phase Protection Sensitivity	01~10 (The smaller it is, the more sensitivity it is)	5	Any	"P5.5.02"
P5.5.03 (0x5503)	Input Default Phase Protection	Ones:Input phase loss hardware enabled 0:Disabled 1: Enable (single-phase loss only) 2: Enable (single-phase, double-phase, or triple-phase loss) Tens:Input phase loss software enabled 0:Disabled 1:Enable	H.01	Any	"P5.5.03"
P5.5.04 (0x5504)	Output Default Phase Protection	0:Disabled 1:Enable	1	Any	"P5.5.04"
P5.5.08 (0x5508)	Fault Output Terminal Action Selection during Fault Auto Reset Period	0:No Action 1:Action	0	Any	"P5.5.08"
P5.5.09 (0x5509)	Output power display mode	0:Active power 1:Inactive power 2:Apparent power	0	Any	"P5.5.09"
P5.5.10 (0x550A)	Reserved	0~65535	0	Any	"P5.5.10"
P5.5.11 (0x550B)	Buffer relay protection enabled	0:Disabled 1:Enable	1	Any	"P5.5.11"
P5.5.12 (0x550C)	Output phase loss detection mode before operation	0: No detection 1: Detection before operation only 2: Detection during shutdown only 3: Detection both before operation and during shutdown 4: One-time detection prior to initial operation	0	Read only in run	"P5.5.12"
P5.5.13 (0x550D)	Output phase loss detection interval during shutdown	1~60000(s)	10	Any	"P5.5.13"
P5.5.14 (0x550E)	Fire mode selection	Ones: (Fire mode activation method) 0: Parameter activation (p5.5.15)	H.22	Read only in run	"P5.5.14"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		1: Terminal activation 2: Parameter activation or terminal activation Tens: (Enable method of phase loss detection for fire mode output) 0: Parameter enable (p5.5.16) 1: Terminal enable 2: Parameter enable or terminal enable			
P5.5.15 (0x550F)	Parameter activation of the fire mode	0: Exit the fire mode 1: Fire mode 1 is activated 2: Fire mode 2 is activated	0	Any	"P5.5.15"
P5.5.16 (0x5510)	Parameter enable for phase loss detection of the output in fire mode	0:Disable 1:Enable	0	Any	"P5.5.16"
P5.5.17 (0x5511)	Frequency source selection in fire mode	0: The set frequency in the fire mode is set by the parameter p5.5.19. 1: The set frequency in the fire mode is set by the parameter p0.1.08.	0	Any	"P5.5.17"
P5.5.18 (0x5512)	Set frequency in fire mode	P0.1.20~P7.9.37(Hz)	50.00	Any	"P5.5.18"
P5.5.19 (0x5513)	Fault reset time in fire mode	0.5~20.0	5.0	Any	"P5.5.19"

9.2.7. Group P6 Application Function 2

9.2.7.1. P6.0 Position

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.0.00 (0x6000)	Source of position command	0:Pulse Command 1:Step Amount Setting 2:Multi-stage Position Command Setting	0	Read only in run	"P6.0.00"
P6.0.02 (0x6002)	Pulse command form	0:Phase A(HDI1)+Phase B(HDI2)Quadrature Pulse, 4x Frequency 1:Pulse(HDI1)+Direction(HDI2),Positive Logic 2:Pulse(HDI1)+Direction(HDI2),Negative Logic 3:CW(HDI1)+CCW(HDI2)	0	Read only in run	"P6.0.02"
P6.0.03 (0x6003)	High-speed pulse command input ratio	1~100	1	Read only in run	"P6.0.03"
P6.0.04 (0x6004)	Step size	-9999~9999	50	Read only in run	"P6.0.04"
P6.0.05 (0x6005)	Number of position commands per motor revolution low byte * 1	Number of position commands per motor revolution low byte * 1	0	Read only in run	"P6.0.05"
P6.0.06 (0x6006)	Number of position commands per motor revolution high byte * 10000	0~65535(P/r)	0	Read only in run	"P6.0.06"
P6.0.07 (0x6007)	Electronic gear ratio 1 (numerator) low byte * 1	1~9999	1	Read only in run	"P6.0.07"
P6.0.08 (0x6008)	Electronic gear ratio 1 (numerator) high byte * 10000	0~65535	0	Read only in run	"P6.0.08"
P6.0.09	Electronic gear ratio 1	1~9999	1	Read only	"P6.0.09"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x6009)	(denominator) low byte * 1			in run	
P6.0.10 (0x600A)	Electronic gear ratio 1 (denominator) high byte * 10000	0~65535	0	Read only in run	"P6.0.10"
P6.0.12 (0x600C)	Electronic gear ratio 2 (numerator) low byte * 1	1~9999	1	Read only in run	"P6.0.12"
P6.0.13 (0x600D)	Electronic gear ratio 2 (numerator) high byte * 10000	0~65535	0	Read only in run	"P6.0.13"
P6.0.14 (0x600E)	Electronic gear ratio 2 (denominator) low byte * 1	1~9999	1	Read only in run	"P6.0.14"
P6.0.15 (0x600F)	Electronic gear ratio 2 (denominator) high byte * 10000	0~65535	0	Read only in run	"P6.0.15"
P6.0.16 (0x6010)	First-order low-pass filter time constant	0.0~6553.5(ms)	0.0	Read only in run	"P6.0.16"
P6.0.17 (0x6011)	Average filter time constant	0~128(ms)	0	Read only in run	"P6.0.17"
P6.0.18 (0x6012)	Clear action selection	0:Clear Position Deviation When Stopped 1:Clear Position Deviation When Fault Occurs 2:Clear Position Deviation via DI Input Distance Reset Signal	0	Read only in run	"P6.0.18"
P6.0.19 (0x6013)	Position loop proportional gain	0.0~100.0	20.0	Any	"P6.0.19"
P6.0.20 (0x6014)	Position loop proportional gain 2	0.0~100.0	20.0	Any	"P6.0.20"
P6.0.21 (0x6015)	Selection of Position Loop Gain Switching Condition	0:Fixed First Gain 1:DI Terminal Switching 2:Large Torque Command 3:Large Speed Command 4:Large Speed Command Change Rate 5:Speed Command High-Low Speed Threshold 6:Large Position Deviation 7:Position Command Exists 8:Positioning Completed 9:Large Actual Speed 10:Speed Command Exists + Actual Speed	0	Any	"P6.0.21"
P6.0.22 (0x6016)	Gain Switching Delay Time	0.0~1000.0(ms)	5.0	Any	"P6.0.22"
P6.0.23 (0x6017)	Gain Switching Level	0~20000	50	Any	"P6.0.23"
P6.0.24 (0x6018)	Gain Switching Lag	0~20000	30	Any	"P6.0.24"
P6.0.25 (0x6019)	Position Gain Switching Time	0.0~1000.0(ms)	3.0	Any	"P6.0.25"
P6.0.26 (0x601A)	Speed feedforward control selection	:No Speed Feedforward 1:Internal Speed Feedforward 2:Use AI1 as Speed Feedforward Input 3:Use AI2 as Speed Feedforward Input 4:Use AI3 as Speed Feedforward Input	1	Read only in run	"P6.0.26"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.0.27 (0x601B)	Speed feedforward filter time	0.000~65.535(ms)	0.000	Any	"P6.0.27"
P6.0.28 (0x601C)	Speed feedforward proportional gain	0.0~100.0(%)	0.0	Any	"P6.0.28"
P6.0.29 (0x601D)	Positioning completion output condition	0:Output When Absolute Value of Position Deviation is Less Than Positioning Completion Threshold 1:Output When Absolute Value of Position Deviation is Less Than Positioning Completion Threshold and Filtered Position Command is 0 2:Output When Absolute Value of Position Deviation is Less Than Positioning Completion Threshold and Unfiltered Position Command is 0 3:Output When Absolute Value of Position Deviation is Less Than Positioning Completion/Approach Threshold and Unfiltered Position Command is 0, Maintain Validity for at Least the Set Positioning Completion Hold Time	0	Any	"P6.0.29"
P6.0.30 (0x601E)	Positioning completion threshold	1~65535	734	Any	"P6.0.30"
P6.0.31 (0x601F)	Positioning approach threshold	1~65535	65535	Any	"P6.0.31"
P6.0.32 (0x6020)	Positioning completion window time	0~30000(ms)	1	Any	"P6.0.32"
P6.0.33 (0x6021)	Positioning completion holding time	0~30000(ms)	0	Any	"P6.0.33"
P6.0.34 (0x6022)	Interrupt fixed-length enable	0:Disable Interrupt Fixed-Length Function 1:Enable Interrupt Fixed-Length Function	0	Any	"P6.0.34"
P6.0.35 (0x6023)	Interrupt fixed-length displacement low byte * 1	-9999~9999	5000	Any	"P6.0.35"
P6.0.36 (0x6024)	Interrupt fixed-length displacement high byte * 10000	-32768~32767	0	Any	"P6.0.36"
P6.0.37 (0x6025)	Interrupt fixed-length constant speed operation speed	0~6000(rpm)	200	Any	"P6.0.37"
P6.0.38 (0x6026)	Interrupt fixed-length acceleration/deceleration time	0~65535(ms)	10	Any	"P6.0.38"
P6.0.39 (0x6027)	Fixed-length lock release signal enable	0:Disable 1:Enable	1	Any	"P6.0.39"
P6.0.40 (0x6028)	Home return enable control	0:Disable Home Return 1:Enable Home Return Function via DI Input Home Return Enable Signal 2:Enable Electrical Homing Function via DI Input Home Return Enable Signal 3:Start Home Return Immediately After Power-On 4:Perform Home Return Immediately	0	Any	"P6.0.40"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		5:Start Electrical Homing Command 6:Set Current Position as Home 7:Set DI-Triggered Position as Home			
P6.0.41 (0x6029)	Home return mode	0:Forward Homing, Both Deceleration Point and Home are Home Switch 1:Reverse Homing, Both Deceleration Point and Home are Home Switch 2:Forward Homing, Both Deceleration Point and Home are Motor Z Signal 3:Reverse Homing, Both Deceleration Point and Home are Motor Z Signal 4:Forward Homing, Deceleration Point is Home Switch, Home is Motor Z Signal 5:Reverse Homing, Deceleration Point is Home Switch, Home is Motor Z Signal 6:Forward Homing, Both Deceleration Point and Home are Forward Over-Travel Switch 7:Reverse Homing, Both Deceleration Point and Home are Reverse Over-Travel Switch 8:Forward Homing, Deceleration Point is Forward Over-Travel Switch, Home is Motor Z Signal 9:Reverse Homing, Deceleration Point is Reverse Over-Travel Switch, Home is Motor Z Signal 10:Forward Homing, Both Deceleration Point and Home are Mechanical Limit Position 11:Reverse Homing, Both Deceleration Point and Home are Mechanical Limit Position 12:Forward Homing, Deceleration Point is Mechanical Limit Position, Home is Motor Z Signal 13:Reverse Homing, Deceleration Point is Mechanical Limit Position, Home is Motor Z Signal 14:Forward Homing, Single-turn Electrical Homing 15:Reverse Homing, Single-turn Electrical Homing 16:Single-turn Nearest Homing 17:Reserved 18:Spindle Homing, Both Deceleration Point and Home are Motor Z Signal	0	Read only in run	"P6.0.41"
P6.0.42 (0x602A)	Speed for high-speed searching home switch signal	0~3000(rpm)	100	Any	"P6.0.42"
P6.0.43 (0x602B)	Speed for low-speed searching home switch signal	0~1000(rpm)	10	Any	"P6.0.43"
P6.0.44 (0x602C)	Acceleration/deceleration time when searching home	0~1000(ms)	1000	Any	"P6.0.44"
P6.0.45 (0x602D)	Time limit for home searching	0~65535(ms)	10000	Any	"P6.0.45"
P6.0.46 (0x602E)	Unit of time limit for home searching	0:1ms 1:10ms	0	Any	"P6.0.46"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		2:100ms			
P6.0.47 (0x602F)	Mechanical origin offset low byte * 1	-9999~9999	0	Any	"P6.0.47"
P6.0.48 (0x6030)	Mechanical origin offset high byte * 10000	-32768~32767	0	Any	"P6.0.48"
P6.0.49 (0x6031)	Mechanical origin offset and limit handling mode	0:Mechanical Home Offset is Coordinate After Homing, Search for Home in Reverse After Re-triggering Home Return Enable When Encountering Limit 1:Mechanical Home Offset is Relative Offset After Homing, Search for Home in Reverse After Re-triggering Home Return Enable When Encountering Limit 2:Mechanical Home Offset is Coordinate After Homing, Automatically Search for Home in Reverse When Encountering Limit 3:Mechanical Home Offset is Relative Offset After Homing, Automatically Search for Home in Reverse When Encountering Limit	0	Any	"P6.0.49"
P6.0.64 (0x6040)	Command Pulse Selection	0:Encoder Unit 1:Command Unit	0	Any	"P6.0.64"
P6.0.65 (0x6041)	Excessive Position Deviation Fault Threshold Lower Limit *1	0~9999	0	Any	"P6.0.65"
P6.0.66 (0x6042)	Excessive Position Deviation Fault Threshold Upper Limit *10000	0~65535	65535	Any	"P6.0.66"

9.2.7.2. P6.1 Position Control 1

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
P6.1.00 (0x6100)	Multi-segment position operation mode	0:Single Run 1:Switch Segment Number via Multi-segment Command Terminal 2:Cycle Run Segment by Segment in Sequence 3:Sequential Run	0	Any	"P6.1.00"
P6.1.01 (0x6101)	End segment number of displacement command	1~16	1	Any	"P6.1.01"
P6.1.02 (0x6102)	Margin processing method	0:Continue Running the Unfinished Segment 1:Restart Running from Segment 1	0	Any	"P6.1.02"
P6.1.03 (0x6103)	Multi-segment Position Wait Time Precision	0:1 1:0.1 2:0.01 3:0.001	0	Any	"P6.1.03"
P6.1.04 (0x6104)	Displacement command type	0:Relative Displacement Command 1:Absolute Displacement Command	0	Any	"P6.1.04"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
	selection				
P6.1.05 (0x6105)	Sequential operation start segment selection	0~15	0	Any	"P6.1.05"
P6.1.06 (0x6106)	Movement displacement of segment 0 low byte * 1	-9999~9999	0	Any	"P6.1.06"
P6.1.07 (0x6107)	Movement displacement of segment 0 high byte * 10000	-32768~32767	0	Any	"P6.1.07"
P6.1.08 (0x6108)	Maximum operating speed of segment 0 displacement	1~10000(rpm)	200	Any	"P6.1.08"
P6.1.09 (0x6109)	Acceleration/deceleration time of segment 0 displacement	0~65535(ms)	10	Any	"P6.1.09"
P6.1.10 (0x610A)	Waiting time after completion of segment 0 displacement	0~65535(s)	0	Any	"P6.1.10"
P6.1.11 (0x610B)	Movement displacement of segment 1 low byte * 1	-9999~9999	0	Any	"P6.1.11"
P6.1.12 (0x610C)	Movement displacement of segment 1 high byte * 10000	-32768~32767	0	Any	"P6.1.12"
P6.1.13 (0x610D)	Maximum operating speed of segment 1 displacement	1~10000(rpm)	200	Any	"P6.1.13"
P6.1.14 (0x610E)	Acceleration/deceleration time of segment 1 displacement	0~65535(ms)	10	Any	"P6.1.14"
P6.1.15 (0x610F)	Waiting time after completion of segment 1 displacement	0~65535(s)	0	Any	"P6.1.15"
P6.1.16 (0x6110)	Movement displacement of segment 2 low byte * 1	-9999~9999	0	Any	"P6.1.16"
P6.1.17 (0x6111)	Movement displacement of segment 2 high byte * 10000	-32768~32767	0	Any	"P6.1.17"
P6.1.18 (0x6112)	Maximum operating speed of segment 2 displacement	1~10000(rpm)	200	Any	"P6.1.18"
P6.1.19 (0x6113)	Acceleration/deceleration time of segment 2 displacement	0~65535(ms)	10	Any	"P6.1.19"
P6.1.20	Waiting time after	0~65535(s)	0	Any	"P6.1.20"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
(0x6114)	completion of segment 2 displacement				
P6.1.21 (0x6115)	Movement displacement of segment 3 low byte * 1	-9999~9999	0	Any	"P6.1.21"
P6.1.22 (0x6116)	Movement displacement of segment 3 high byte * 10000	-32768~32767	0	Any	"P6.1.22"
P6.1.23 (0x6117)	Maximum operating speed of segment 3 displacement	1~10000(rpm)	200	Any	"P6.1.23"
P6.1.24 (0x6118)	Acceleration/deceleration time of segment 3 displacement	0~65535(ms)	10	Any	"P6.1.24"
P6.1.25 (0x6119)	Waiting time after completion of segment 3 displacement	0~65535(s)	0	Any	"P6.1.25"
P6.1.26 (0x611A)	Movement displacement of segment 4 low byte * 1	-9999~9999	0	Any	"P6.1.26"
P6.1.27 (0x611B)	Movement displacement of segment 4 high byte * 10000	-32768~32767	0	Any	"P6.1.27"
P6.1.28 (0x611C)	Maximum operating speed of segment 4 displacement	1~10000(rpm)	200	Any	"P6.1.28"
P6.1.29 (0x611D)	Acceleration/deceleration time of segment 4 displacement	0~65535(ms)	10	Any	"P6.1.29"
P6.1.30 (0x611E)	Waiting time after completion of segment 4 displacement	0~65535(s)	0	Any	"P6.1.30"
P6.1.31 (0x611F)	Movement displacement of segment 5 low byte * 1	-9999~9999	0	Any	"P6.1.31"
P6.1.32 (0x6120)	Movement displacement of segment 5 high byte * 10000	-32768~32767	0	Any	"P6.1.32"
P6.1.33 (0x6121)	Maximum operating speed of segment 5 displacement	1~10000(rpm)	200	Any	"P6.1.33"
P6.1.34 (0x6122)	Acceleration/deceleration time of segment 5 displacement	0~65535(ms)	10	Any	"P6.1.34"
P6.1.35	Waiting time after	0~65535(s)	0	Any	"P6.1.35"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
(0x6123)	completion of segment 5 displacement				
P6.1.36 (0x6124)	Movement displacement of segment 6 low byte * 1	-9999~9999	0	Any	"P6.1.36"
P6.1.37 (0x6125)	Movement displacement of segment 6 high byte * 10000	-32768~32767	0	Any	"P6.1.37"
P6.1.38 (0x6126)	Maximum operating speed of segment 6 displacement	1~10000(rpm)	200	Any	"P6.1.38"
P6.1.39 (0x6127)	Acceleration/deceleration time of segment 6 displacement	0~65535(ms)	10	Any	"P6.1.39"
P6.1.40 (0x6128)	Waiting time after completion of segment 6 displacement	0~65535(s)	0	Any	"P6.1.40"
P6.1.41 (0x6129)	Movement displacement of segment 7 low byte * 1	-9999~9999	0	Any	"P6.1.41"
P6.1.42 (0x612A)	Movement displacement of segment 7 high byte * 10000	-32768~32767	0	Any	"P6.1.42"
P6.1.43 (0x612B)	Maximum operating speed of segment 7 displacement	1~10000(rpm)	200	Any	"P6.1.43"
P6.1.44 (0x612C)	Acceleration/deceleration time of segment 7 displacement	0~65535(ms)	10	Any	"P6.1.44"
P6.1.45 (0x612D)	Waiting time after completion of segment 7 displacement	0~65535(s)	0	Any	"P6.1.45"
P6.1.46 (0x612E)	Movement displacement of segment 8 low byte * 1	-9999~9999	0	Any	"P6.1.46"
P6.1.47 (0x612F)	Movement displacement of segment 8 high byte * 10000	-32768~32767	0	Any	"P6.1.47"
P6.1.48 (0x6130)	Maximum operating speed of segment 8 displacement	1~10000(rpm)	200	Any	"P6.1.48"
P6.1.49 (0x6131)	Acceleration/deceleration time of segment 8 displacement	0~65535(ms)	10	Any	"P6.1.49"
P6.1.50	Waiting time after	0~65535(s)	0	Any	"P6.1.50"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
(0x6132)	completion of segment 8 displacement				
P6.1.51 (0x6133)	Movement displacement of segment 9 low byte * 1	-9999~9999	0	Any	"P6.1.51"
P6.1.52 (0x6134)	Movement displacement of segment 9 high byte * 10000	-32768~32767	0	Any	"P6.1.52"
P6.1.53 (0x6135)	Maximum operating speed of segment 9 displacement	1~10000(rpm)	200	Any	"P6.1.53"
P6.1.54 (0x6136)	Acceleration/deceleration time of segment 9 displacement	0~65535(ms)	10	Any	"P6.1.54"
P6.1.55 (0x6137)	Waiting time after completion of segment 9 displacement	0~65535(s)	0	Any	"P6.1.55"
P6.1.56 (0x6138)	Movement displacement of segment 10 low byte * 1	-9999~9999	0	Any	"P6.1.56"
P6.1.57 (0x6139)	Movement displacement of segment 10 high byte * 10000	-32768~32767	0	Any	"P6.1.57"
P6.1.58 (0x613A)	Maximum operating speed of segment 10 displacement	1~10000(rpm)	200	Any	"P6.1.58"
P6.1.59 (0x613B)	Acceleration/deceleration time of segment 10 displacement	0~65535(ms)	10	Any	"P6.1.59"
P6.1.60 (0x613C)	Waiting time after completion of segment 10 displacement	0~65535(s)	0	Any	"P6.1.60"
P6.1.61 (0x613D)	Movement displacement of segment 11 low byte * 1	-9999~9999	0	Any	"P6.1.61"
P6.1.62 (0x613E)	Movement displacement of segment 11 high byte * 10000	-32768~32767	0	Any	"P6.1.62"
P6.1.63 (0x613F)	Maximum operating speed of segment 11 displacement	1~10000(rpm)	200	Any	"P6.1.63"
P6.1.64 (0x6140)	Acceleration/deceleration time of segment 11 displacement	0~65535(ms)	10	Any	"P6.1.64"
P6.1.65	Waiting time after	0~65535(s)	0	Any	"P6.1.65"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
(0x6141)	completion of segment 11 displacement				
P6.1.66 (0x6142)	Movement displacement of segment 12 low byte * 1	-9999~9999	0	Any	"P6.1.66"
P6.1.67 (0x6143)	Movement displacement of segment 12 high byte * 10000	-32768~32767	0	Any	"P6.1.67"
P6.1.68 (0x6144)	Maximum operating speed of segment 12 displacement	1~10000(rpm)	200	Any	"P6.1.68"
P6.1.69 (0x6145)	Acceleration/deceleration time of segment 12 displacement	0~65535(ms)	10	Any	"P6.1.69"
P6.1.70 (0x6146)	Waiting time after completion of segment 12 displacement	0~65535(s)	0	Any	"P6.1.70"
P6.1.71 (0x6147)	Movement displacement of segment 13 low byte * 1	-9999~9999	0	Any	"P6.1.71"
P6.1.72 (0x6148)	Movement displacement of segment 13 high byte * 10000	-32768~32767	0	Any	"P6.1.72"
P6.1.73 (0x6149)	Maximum operating speed of segment 13 displacement	1~10000(rpm)	200	Any	"P6.1.73"
P6.1.74 (0x614A)	Acceleration/deceleration time of segment 13 displacement	0~65535(ms)	10	Any	"P6.1.74"
P6.1.75 (0x614B)	Waiting time after completion of segment 13 displacement	0~65535(s)	0	Any	"P6.1.75"
P6.1.76 (0x614C)	Movement displacement of segment 14 low byte * 1	-9999~9999	0	Any	"P6.1.76"
P6.1.77 (0x614D)	Movement displacement of segment 14 high byte * 10000	-32768~32767	0	Any	"P6.1.77"
P6.1.78 (0x614E)	Maximum operating speed of segment 14 displacement	1~10000(rpm)	200	Any	"P6.1.78"
P6.1.79 (0x614F)	Acceleration/deceleration time of segment 14 displacement	0~65535(ms)	10	Any	"P6.1.79"
P6.1.80	Waiting time after	0~65535(s)	0	Any	"P6.1.80"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
(0x6150)	completion of segment 14 displacement				
P6.1.81 (0x6151)	Movement displacement of segment 15 low byte * 1	-9999~9999	0	Any	"P6.1.81"
P6.1.82 (0x6152)	Movement displacement of segment 15 high byte * 10000	-32768~32767	0	Any	"P6.1.82"
P6.1.83 (0x6153)	Maximum operating speed of segment 15 displacement	1~10000(rpm)	200	Any	"P6.1.83"
P6.1.84 (0x6154)	Acceleration/deceleration time of segment 15 displacement	0~65535(ms)	10	Any	"P6.1.84"
P6.1.85 (0x6155)	Waiting time after completion of segment 15 displacement	0~65535(s)	0	Any	"P6.1.85"

9.2.7.3. P6.4 Tension Control Mode

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.4.00 (0x6400)	Tension control mode	0:Invalid 1: Tension Open-loop Torque Mode 2: Tension Open-loop Speed Mode 3: Tension Closed-loop Torque Mode	0	Any	"P6.4.00"
P6.4.01 (0x6401)	Winding/Unwinding Switching	0:Winding 1:Unwinding	0	Any	"P6.4.01"
P6.4.02 (0x6402)	Mechanical transmission ratio	0.00~300.00	10.00	Any	"P6.4.02"
P6.4.03 (0x6403)	Frequency Upper Limit Source for Torque Mode Winding & Unwinding	Ones: 0:Winding Digital Setting (P6.4.04) 1:Winding AI1 2:Winding AI2 3:Winding Keyboard Potentiometer 4:Winding Actual Linear Speed Tens: 0:Unwinding Digital Setting (P6.4.05) 1:Unwinding AI1 2:Unwinding AI2 3:Unwinding Keyboard Potentiometer 4:Unwinding Setting Reverse Tensioning	0	Any	"P6.4.03"
P6.4.04 (0x6404)	Upper limit of winding	0.00~P0.1.16(Hz)	50.00	Any	"P6.4.04"
P6.4.05 (0x6405)	Upper limit of unwinding	0.00~P0.1.16(Hz)	0.00	Any	"P6.4.05"
P6.4.06 (0x6406)	Line speed of reverse tightening during unwinding	0.0~6500.0(m/min)	0.0	Any	"P6.4.06"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.4.07 (0x6407)	Line speed input source	0:No input 1:AI1 input 2:AI2 input 3:Keyboard key positioner 4:PULSE input 5:Communication setting (1000H)	0	Any	"P6.4.07"
P6.4.08 (0x6408)	Maximum line speed	0.1~6500.0(m/min)	200.0	Any	"P6.4.08"
P6.4.09 (0x6409)	Current line speed	0.0~6500.0(m/min)	0.0	Any	"P6.4.09"
P6.4.10 (0x640A)	Minimum line speed for coil diameter calculation	0.1~1000.0(m/min)	20.0	Any	"P6.4.10"
P6.4.11 (0x640B)	CycloidMode	0:Invalid 1:Left-Right Double Limit 2:Middle Single Limit	0	Any	"P6.4.11"

9.2.7.4. P6.5 Tension Control Coil Diameter Calculation

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.5.00 (0x6500)	Selection of coil diameter calculation method	0:Calculated by line speed 1:Calculated by thickness accumulation 2:Time Mode 3:Automatic Estimation Mode 4:Keyboard key positioner 5:PULSE input	3	Any	"P6.5.00"
P6.5.01 (0x6501)	Maximum coil diameter	0.1~3000.0(mm)	500.0	Any	"P6.5.01"
P6.5.02 (0x6502)	Reel diameter	0.1~3000.0(mm)	100.0	Any	"P6.5.02"
P6.5.03 (0x6503)	Initial coil diameter source	0:Roll Diameter 1:Initial Roll Diameter 1 2:Initial Roll Diameter 2 3:Initial Roll Diameter 3 4:AI1 input 5:AI2 input 6:Keyboard potentiometer 7:Communication setting	0	Any	"P6.5.03"
P6.5.04 (0x6504)	Initial coil diameter 1	0.1~6000.0(mm)	100.0	Any	"P6.5.04"
P6.5.05 (0x6505)	Initial coil diameter 2	0.1~6000.0(mm)	100.0	Any	"P6.5.05"
P6.5.06 (0x6506)	Initial coil diameter 3	0.1~6000.0(mm)	100.0	Any	"P6.5.06"
P6.5.07 (0x6507)	Current coil diameter value	0.1~6000.0(mm)	100.0	Any	"P6.5.07"
P6.5.08 (0x6508)	Coil diameter filtering time	0.0~100.0(s)	50.0	Any	"P6.5.08"
P6.5.09 (0x6509)	Rate of change of coil diameter	0.0~100.0(mm)	1.0	Any	"P6.5.09"
P6.5.10 (0x650A)	Limit of the direction of change of coil diameter	0:Function disabled 1:Winding prohibits decreasing, unwinding prohibits increasing	0	Any	"P6.5.10"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.5.11 (0x650B)	Coil diameter reset control	0:Not allowed during operation 1:Allowed during operation 2:Automatically resets when stopped	0	Any	"P6.5.11"
P6.5.12 (0x650C)	Number of pulses per turn	0~60000	1	Any	"P6.5.12"
P6.5.13 (0x650D)	Number of turns per layer	0~10000	1	Any	"P6.5.13"
P6.5.14 (0x650E)	Material density	0~60000	0	Any	"P6.5.14"
P6.5.15 (0x650F)	Material width	0~60000(mm)	0	Any	"P6.5.15"
P6.5.16 (0x6510)	Material thickness setting source	0:Strip material 1:Wire material	0	Any	"P6.5.16"
P6.5.17 (0x6511)	Material thickness 0	0.00~100.00(mm)	0.10	Any	"P6.5.17"
P6.5.18 (0x6512)	Material thickness 1	0.00~100.00(mm)	0.20	Any	"P6.5.18"
P6.5.19 (0x6513)	Material thickness 2	0.00~100.00(mm)	0.01	Any	"P6.5.19"
P6.5.20 (0x6514)	Material thickness 3	0.00~100.00(mm)	0.01	Any	"P6.5.20"
P6.5.21 (0x6515)	Maximum thickness	0~10000(mm)	100	Any	"P6.5.21"
P6.5.22 (0x6516)	diameterChangeTimes	0.0~1000.0(s)	1.0	Any	"P6.5.22"
P6.5.23 (0x6517)	Manual Auto Switching	0:Manual Mode 1:Auto Mode	1	Any	"P6.5.23"

9.2.7.5. P6.6 Tension Control Tension Setting

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.6.00 (0x6600)	Tension setting source	0:Digital setting 1:AI1 input 2:AI2 input 3:Keyboard key positioner 4:PULSE pulse input setting 5:Communication setting	0	Any	"P6.6.00"
P6.6.01 (0x6601)	Tension setting	0.0~100.0(%)	10.0	Any	"P6.6.01"
P6.6.02 (0x6602)	Maximum tension	0~30000	500	Any	"P6.6.02"
P6.6.03 (0x6603)	Output torque display in torque mode	0.0~200.0(%)	100.0	Any	"P6.6.03"
P6.6.04 (0x6604)	Limit adjustment of tension closed-loop control	0.0~100.0(%)	50.0	Any	"P6.6.04"
P6.6.05 (0x6605)	Torque closed-loop bias	0.0~1000.0(%)	0.0	Any	"P6.6.05"
P6.6.06 (0x6606)	Frequency acceleration time in torque mode	0.0~6500.0(s)	5.0	Any	"P6.6.06"
P6.6.07	Frequency	0.0~6500.0(s)	5.0	Any	"P6.6.07"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x6607)	deceleration time in torque mode				
P6.6.08 (0x6608)	Selection of tension taper source	0:Digital setting 1:AI1 input 2:AI2 input 3:Keyboard key positioner	0	Any	"P6.6.08"
P6.6.09 (0x6609)	Tension taper	0.0~100.0(%)	0.0	Any	"P6.6.09"
P6.6.10 (0x660A)	Taper curve	0:Curve 1:Straight line	0	Any	"P6.6.10"
P6.6.11 (0x660B)	Taper compensation correction amount	1~10000(mm)	1	Any	"P6.6.11"
P6.6.12 (0x660C)	tension taper enable	0:Taper is invalid 1:Taper is valid	1	Any	"P6.6.12"
P6.6.13 (0x660D)	Source of the setting of the external taper AO output	0:Digital setting 1:AI1 input 2:AI2 input 3:Keyboard key positioner	0	Any	"P6.6.13"
P6.6.14 (0x660E)	External taper setting	0.0~100.0(%)	100.0	Any	"P6.6.14"

9.2.7.6. P6.7 Tension Control Material Break Detection

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P6.7.00 (0x6700)	Material break detection mode	0:No detection 1:Based on frequency 2:Based on feedback position (closed-loop) 3:According to DI Pulse	0	Any	"P6.7.00"
P6.7.01 (0x6701)	Lower limit of material break detection frequency	0.01~100.00(Hz)	50.00	Any	"P6.7.01"
P6.7.02 (0x6702)	Lower limit of material break detection feedback	0.1~100.0(%)	0.0	Any	"P6.7.02"
P6.7.03 (0x6703)	Upper limit of material break detection feedback	0.0~100.0(%)	0.0	Any	"P6.7.03"
P6.7.04 (0x6704)	Delay time for material break detection judgment	0.0~20.0(s)	3.0	Any	"P6.7.04"
P6.7.05 (0x6705)	Equipment shutdown time after material break	0.0~100.0(s)	0.0	Any	"P6.7.05"
P6.7.06 (0x6706)	Pre-drive frequency gain	0.0~200.0	100.0	Any	"P6.7.06"
P6.7.07 (0x6707)	Pre-drive torque limit source	0:Set according to the output torque 1:Direct setting	50	Any	"P6.7.07"
P6.7.08 (0x6708)	Pre-drive torque gain	0~2000	0	Any	"P6.7.08"
P6.7.09 (0x6709)	Pre-drive coil diameter delay	0~65535	0	Any	"P6.7.09"
P6.7.10	Pre-drive acceleration	0~65535	0	Any	"P6.7.10"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x670A)	time				
P6.7.11 (0x670B)	Pre-drive deceleration time	0~65535	0	Any	"P6.7.11"
P6.7.12 (0x670C)	Allow pre-drive coil diameter calculation	0~65535	0	Any	"P6.7.12"
P6.7.13 (0x670D)	Coil diameter reset-free mode	0~65535	0	Any	"P6.7.13"
P6.7.14 (0x670E)	Operating DC braking setting	Ones:Braking current source 0:Invalid 1:AI1 2:AI2 3:Keyboard potentiometer Tens:Braking current gain N/2 times gain (default 3 is 1.5 times)	30	Any	"P6.7.14"

9.2.7.7. P6.8 Tension Control Friction Compensation

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
P6.8.00 (0x6800)	Upper limit of static friction compensation	0.0~100.0(%)	30.0	Any	"P6.8.00"
P6.8.01 (0x6801)	Zero speed threshold	0.0~20.0(%)	0.0	Any	"P6.8.01"
P6.8.02 (0x6802)	Static friction compensation	0.0~100.0(%)	0.0	Any	"P6.8.02"
P6.8.03 (0x6803)	Dynamic friction compensation	0.0~50.0(%)	0.0	Any	"P6.8.03"
P6.8.04 (0x6804)	High-speed friction compensation curve	0:Frequency 1:Line speed 2:Coil diameter 3:Multi-segment torque curve 4:Multi-segment frequency curve	0	Any	"P6.8.04"
P6.8.05 (0x6805)	High-speed friction compensation coefficient	-50.0~50.0(%)	0.0	Any	"P6.8.05"
P6.8.06 (0x6806)	Multi-segment friction compensation torque 1 (5%)	0.0~50.0(%)	0.0	Any	"P6.8.06"
P6.8.07 (0x6807)	Multi-segment friction compensation torque 2 (20%)	0.0~50.0(%)	0.0	Any	"P6.8.07"
P6.8.08 (0x6808)	Multi-segment friction compensation torque 3 (40%)	0.0~50.0(%)	0.0	Any	"P6.8.08"
P6.8.09 (0x6809)	Multi-segment friction compensation torque 4 (60%)	0.0~50.0(%)	0.0	Any	"P6.8.09"
P6.8.10 (0x680A)	Multi-segment friction compensation torque 5 (80%)	0.0~50.0(%)	0.0	Any	"P6.8.10"
P6.8.11 (0x680B)	Multi-segment friction compensation torque 6	0.0~50.0(%)	0.0	Any	"P6.8.11"

Function Code and Communication Address	Function Code Name	Setting Value Description	Default Value	Modification Method	Page Number
	(100%)				
P6.8.12 (0x680C)	Multi-segment friction compensation 1	0.00~P0.1.16(Hz)	0.00	Any	"P6.8.12"
P6.8.13 (0x680D)	Multi-segment friction compensation 2	0.00~P0.1.16(Hz)	0.00	Any	"P6.8.13"
P6.8.14 (0x680E)	Multi-segment friction compensation 3	0.00~P0.1.16(Hz)	0.00	Any	"P6.8.14"
P6.8.15 (0x680F)	Multi-segment friction compensation 4	0.00~P0.1.16(Hz)	0.00	Any	"P6.8.15"
P6.8.16 (0x6810)	Multi-segment friction compensation 5	0.00~P0.1.16(Hz)	0.00	Any	"P6.8.16"
P6.8.17 (0x6811)	Multi-segment friction compensation 6	0.00~P0.1.16(Hz)	0.00	Any	"P6.8.17"
P6.8.18 (0x6812)	Inertia compensation coefficient	0~10000	0	Any	"P6.8.18"
P6.8.19 (0x6813)	Acceleration inertia compensation correction	0.0~100.0(%)	100.0	Any	"P6.8.19"
P6.8.20 (0x6814)	Deceleration inertia compensation correction	0.0~100.0(%)	100.0	Any	"P6.8.20"
P6.8.21 (0x6815)	Inertia compensation exit delay	0~2	0	Any	"P6.8.21"
P6.8.22 (0x6816)	Inertia learning	0:No action 1:System mechanical inertia identification 2:Friction coefficient identification	0	Any	"P6.8.22"
P6.8.23 (0x6817)	Self-learning matrix 1	0.0~200.0(%)	0.0	Any	"P6.8.23"
P6.8.24 (0x6818)	Self-learning matrix 2	0.0~200.0(%)	0.0	Any	"P6.8.24"
P6.8.25 (0x6819)	Mechanical gain	0.00~P0.1.16(Hz)	50.0	Any	"P6.8.25"

9.2.8. P8 Group Fault Record

9.2.8.1. P8.0 Fault Record Overview

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.0.00 (0x8000)	Fault Record 1 (Last Time)	0:No Fault 1:Constant Overcurrent 2:Accelerated Overcurrent 3:Decelerated Overcurrent 4:Constant Overvoltage 5:Accelerated Overvoltage 6:Decelerated Overvoltage 7:Module Fault 8:Undervoltage 9:Frequency inverter Overload 10:Motor Overload 11:Input Default Phase 12:Output Default Phase 13:External Fault 14:Communication Abnormity 15:Frequency inverter Overheat 16:Frequency inverter Hardware Fault	0.0	Read only	"P8.0.00"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		17:Motor-to-ground Short Circuit 18:Motor Identification Error 19:Motor Off-load 20:PID Feedback Loss 21:User Customerized Fault 1 22:User Customerized Fault 2 23:Power-on Time Reached 24:Running Time Reached 25:Encoder Fault 26:Parameter Read-Write Abnormity 27:Motor Overheat 28:Larger Speed Deviation 29:Motor Overspeed 30:Initial Position Error 31:Current Test Fault 32:Contactor 33:Abnormity of Current Test 34:Fast Current-limiting Timeout 35:Motor Switch at Running 36:24V Power Fault 37:Driving power supply fault 38:Output short circuit 39:Reserve 40:Buffer Resistance Fault			
P8.0.01 (0x8001)	Fault Record 2	Same as above	0.0	Read only	"P8.0.01"
P8.0.02 (0x8002)	Fault Record 3	Same as above	0.0	Read only	"P8.0.02"
P8.0.03 (0x8003)	Fault Record 4	Same as above	0.0	Read only	"P8.0.03"
P8.0.04 (0x8004)	Fault Record 5	Same as above	0.0	Read only	"P8.0.04"
P8.0.05 (0x8005)	Fault Record 6	Same as above	0.0	Read only	"P8.0.05"
P8.0.06 (0x8006)	Fault Record 7	Same as above	0.0	Read only	"P8.0.06"
P8.0.07 (0x8007)	Fault Record 8	Same as above	0.0	Read only	"P8.0.07"
P8.0.08 (0x8008)	Running Time 1 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.08"
P8.0.09 (0x8009)	Running Time 2 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.09"
P8.0.10 (0x800A)	Running Time 3 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.10"
P8.0.11 (0x800B)	Running Time 4 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.11"
P8.0.12 (0x800C)	Running Time 5 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.12"
P8.0.13 (0x800D)	Running Time 6 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.13"
P8.0.14 (0x800E)	Running Time 7 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.14"
P8.0.15 (0x800F)	Running Time 8 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.0.15"

9.2.8.2. P8.1 Fault Record 1 (Last Time Detailed Information)

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.1.00 (0x8100)	Fault record 1 master code (Last Time)	Same as P8.0.00	0	Read only	"P8.1.00"
P8.1.01 (0x8101)	Fault record 1 Subcode (Last Time)	0~9	0	Read only	"P8.1.01"
P8.1.02 (0x8102)	Fault Frequency 1	0.00~655.35(Hz)	0.00	Read only	"P8.1.02"
P8.1.03	Fault Current 1	0.00~655.35(A)	0.00	Read only	"P8.1.03"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x8103)					
P8.1.04 (0x8104)	Bus line voltage 1 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.1.04"
P8.1.05 (0x8105)	Input Terminal State 1 when at fault	0~9999	0	Read only	"P8.1.05"
P8.1.06 (0x8106)	Output Terminal State 1 when at fault	0~9999	0	Read only	"P8.1.06"
P8.1.07 (0x8107)	Frequency inverter State 1 when at fault	0~65535	0	Read only	"P8.1.07"
P8.1.08 (0x8108)	Power-on Time 1 when at fault	0~65535(min)	0	Read only	"P8.1.08"
P8.1.09 (0x8109)	Running Time 1 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.1.09"
P8.1.10 (0x810A)	Module Temperature 1	0~999(℃)	0	Read only	"P8.1.10"
P8.1.11 (0x810B)	Frequency Decimal Point 1 at Fault	1~2	2	Read only	"P8.1.11"
P8.1.12 (0x810C)	Current Decimal Point 1 at Fault	1~2	2	Read only	"P8.1.12"

9.2.8.3. P8.2 Fault Record 2

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.2.00 (0x8200)	Fault record 2 master code	Same as P8.0.00	0	Read only	"P8.2.00"
P8.2.01 (0x8201)	Fault record 1 Subcode	0~9	0	Read only	"P8.2.01"
P8.2.02 (0x8202)	Fault Frequency 2	0.00~655.35(Hz)	0.00	Read only	"P8.2.02"
P8.2.03 (0x8203)	Fault Current 2	0.00~655.35(A)	0.00	Read only	"P8.2.03"
P8.2.04 (0x8204)	Bus line voltage 2 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.2.04"
P8.2.05 (0x8205)	Input Terminal State 2 when at fault	0~9999	0	Read only	"P8.2.05"
P8.2.06 (0x8206)	Output Terminal State 2 when at fault	0~9999	0	Read only	"P8.2.06"
P8.2.07 (0x8207)	Frequency inverter State 2 when at fault	0~65535	0	Read only	"P8.2.07"
P8.2.08 (0x8208)	Power-on Time 2 when at fault	0~65535(min)	0	Read only	"P8.2.08"
P8.2.09 (0x8209)	Running Time 2 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.2.09"
P8.2.10 (0x820A)	Module Temperature 2	0~999(℃)	0	Read only	"P8.2.10"
P8.2.11 (0x820B)	Frequency Decimal Point 2 at Fault	1~2	2	Read only	"P8.2.11"
P8.2.12 (0x820C)	Current Decimal Point 2 at Fault	1~2	2	Read only	"P8.2.12"

9.2.8.4. P8.3 Fault Record 3

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.3.00 (0x8300)	Fault record 3 master code	Same as P8.0.00	0	Read only	"P8.3.00"
P8.3.01	Fault record 3	0~9	0	Read only	"P8.3.01"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x8301)	Subcode				
P8.3.02 (0x8302)	Fault Frequency 3	0.00~655.35(Hz)	0.00	Read only	"P8.3.02"
P8.3.03 (0x8303)	Fault Current 3	0.00~655.35(A)	0.00	Read only	"P8.3.03"
P8.3.04 (0x8304)	Bus line voltage 3 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.3.04"
P8.3.05 (0x8305)	Input Terminal State 3 when at fault	0~9999	0	Read only	"P8.3.05"
P8.3.06 (0x8306)	Output Terminal State 3 when at fault	0~9999	0	Read only	"P8.3.06"
P8.3.07 (0x8307)	Frequency inverter State 3 when at fault	0~65535	0	Read only	"P8.3.07"
P8.3.08 (0x8308)	Power-on Time 3 when at fault	0~65535(min)	0	Read only	"P8.3.08"
P8.3.09 (0x8309)	Running Time 3 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.3.09"
P8.3.10 (0x830A)	Module Temperature 3	0~999(℃)	0	Read only	"P8.3.10"
P8.3.11 (0x830B)	Frequency Decimal Point 3 at Fault	1~2	2	Read only	"P8.3.11"
P8.3.12 (0x830C)	Current Decimal Point 3 at Fault	1~2	2	Read only	"P8.3.12"

9.2.8.5. P8.4 Fault Record 4

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.4.00 (0x8400)	Fault record 4 master code	Same as P8.0.00	0	Read only	"P8.4.00"
P8.4.01 (0x8401)	Fault record 4 Subcode	0~9	0	Read only	"P8.4.01"
P8.4.02 (0x8402)	Fault Frequency 4	0.00~655.35(Hz)	0.00	Read only	"P8.4.02"
P8.4.03 (0x8403)	Fault Current 4	0.00~655.35(A)	0.00	Read only	"P8.4.03"
P8.4.04 (0x8404)	Bus line voltage 4 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.4.04"
P8.4.05 (0x8405)	Input Terminal State 4 when at fault	0~9999	0	Read only	"P8.4.05"
P8.4.06 (0x8406)	Output Terminal State 4 when at fault	0~9999	0	Read only	"P8.4.06"
P8.4.07 (0x8407)	Frequency inverter State 4 when at fault	0~65535	0	Read only	"P8.4.07"
P8.4.08 (0x8408)	Power-on Time 4 when at fault	0~65535(min)	0	Read only	"P8.4.08"
P8.4.09 (0x8409)	Running Time 4 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.4.09"
P8.4.10 (0x840A)	Module Temperature 4	0~999(℃)	0	Read only	"P8.4.10"
P8.4.11 (0x840B)	Frequency Decimal Point 4 at Fault	1~2	2	Read only	"P8.4.11"
P8.4.12 (0x840C)	Current Decimal Point 4 at Fault	1~2	2	Read only	"P8.4.12"

9.2.8.6. P8.5 Fault Record 5

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.5.00 (0x8500)	Fault record 5 master code	Same as P8.0.00	0	Read only	"P8.5.00"
P8.5.01 (0x8501)	Fault record 5 Subcode	0~9	0	Read only	"P8.5.01"
P8.5.02 (0x8502)	Fault Frequency 5	0.00~655.35(Hz)	0.00	Read only	"P8.5.02"
P8.5.03 (0x8503)	Fault Current 5	0.00~655.35(A)	0.00	Read only	"P8.5.03"
P8.5.04 (0x8504)	Bus line voltage 5 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.5.04"
P8.5.05 (0x8505)	Input Terminal State 5 when at fault	0~9999	0	Read only	"P8.5.05"
P8.5.06 (0x8506)	Output Terminal State 5 when at fault	0~9999	0	Read only	"P8.5.06"
P8.5.07 (0x8507)	Frequency inverter State 5 when at fault	0~65535	0	Read only	"P8.5.07"
P8.5.08 (0x8508)	Power-on Time 5 when at fault	0~65535(min)	0	Read only	"P8.5.08"
P8.5.09 (0x8509)	Running Time 5 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.5.09"
P8.5.10 (0x850A)	Module Temperature 5	0~999(℃)	0	Read only	"P8.5.10"
P8.5.11 (0x850B)	Frequency Decimal Point 5 at Fault	1~2	2	Read only	"P8.5.11"
P8.5.12 (0x850C)	Current Decimal Point 5 at Fault	1~2	2	Read only	"P8.5.12"

9.2.8.7. P8.6 Fault Record 6

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.6.00 (0x8600)	Fault record 6 master code	Same as P8.0.00	0	Read only	"P8.6.00"
P8.6.01 (0x8601)	Fault record 6 Subcode	0~9	0	Read only	"P8.6.01"
P8.6.02 (0x8602)	Fault Frequency 6	0.00~655.35(Hz)	0.00	Read only	"P8.6.02"
P8.6.03 (0x8603)	Fault Current 6	0.00~655.35(A)	0.00	Read only	"P8.6.03"
P8.6.04 (0x8604)	Bus line voltage 6 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.6.04"
P8.6.05 (0x8605)	Input Terminal State 6 when at fault	0~9999	0	Read only	"P8.6.05"
P8.6.06 (0x8606)	Output Terminal State 6 when at fault	0~9999	0	Read only	"P8.6.06"
P8.6.07 (0x8607)	Frequency inverter State 6 when at fault	0~65535	0	Read only	"P8.6.07"
P8.6.08 (0x8608)	Power-on Time 6 when at fault	0~65535(min)	0	Read only	"P8.6.08"
P8.6.09 (0x8609)	Running Time 6 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.6.09"
P8.6.10 (0x860A)	Module Temperature 6	0~999(℃)	0	Read only	"P8.6.10"
P8.6.11 (0x860B)	Frequency Decimal Point 6 at Fault	1~2	2	Read only	"P8.6.11"
P8.6.12 (0x860C)	Current Decimal Point 6 at Fault	1~2	2	Read only	"P8.6.12"

9.2.8.8. P8.7 Fault Record 7

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.7.00 (0x8700)	Fault record 7 master code	Same as P8.0.00	0	Read only	"P8.7.00"
P8.7.01 (0x8701)	Fault record 7 Subcode	0~9	0	Read only	"P8.7.01"
P8.7.02 (0x8702)	Fault Frequency 7	0.00~655.35(Hz)	0.00	Read only	"P8.7.02"
P8.7.03 (0x8703)	Fault Current 7	0.00~655.35(A)	0.00	Read only	"P8.7.03"
P8.7.04 (0x8704)	Bus line voltage 7 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.7.04"
P8.7.05 (0x8705)	Input Terminal State 7 when at fault	0~9999	0	Read only	"P8.7.05"
P8.7.06 (0x8706)	Output Terminal State 7 when at fault	0~9999	0	Read only	"P8.7.06"
P8.7.07 (0x8707)	Frequency inverter State 7 when at fault	0~65535	0	Read only	"P8.7.07"
P8.7.08 (0x8708)	Power-on Time 7 when at fault	0~65535(min)	0	Read only	"P8.7.08"
P8.7.09 (0x8709)	Running Time 7 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.7.09"
P8.7.10 (0x870A)	Module Temperature 7	0~999(℃)	0	Read only	"P8.7.10"
P8.7.11 (0x870B)	Frequency Decimal Point 7 at Fault	1~2	2	Read only	"P8.7.11"
P8.7.12 (0x870C)	Current Decimal Point 7 at Fault	1~2	2	Read only	"P8.7.12"

9.2.8.9. P8.8 Fault Record 8

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P8.8.00 (0x8800)	Fault record 8 master code	Same as P8.0.00	0	Read only	"P8.8.00"
P8.8.01 (0x8801)	Fault record 8 Subcode	0~9	0	Read only	"P8.8.01"
P8.8.02 (0x8802)	Fault Frequency 8	0.00~655.35(Hz)	0.00	Read only	"P8.8.02"
P8.8.03 (0x8803)	Fault Current 8	0.00~655.35(A)	0.00	Read only	"P8.8.03"
P8.8.04 (0x8804)	Bus line voltage 8 when at Fault	0.0~6553.5(V)	0.0	Read only	"P8.8.04"
P8.8.05 (0x8805)	Input Terminal State 8 when at fault	0~9999	0	Read only	"P8.8.05"
P8.8.06 (0x8806)	Output Terminal State 8 when at fault	0~9999	0	Read only	"P8.8.06"
P8.8.07 (0x8807)	Frequency inverter State 8 when at fault	0~65535	0	Read only	"P8.8.07"
P8.8.08 (0x8808)	Power-on Time 8 when at fault	0~65535(min)	0	Read only	"P8.8.08"
P8.8.09 (0x8809)	Running Time 8 when at fault	0.0~6553.5(min)	0.0	Read only	"P8.8.09"
P8.8.10 (0x880A)	Module Temperature 8	0~999(℃)	0	Read only	"P8.8.10"
P8.8.11 (0x880B)	Frequency Decimal Point 8 at Fault	1~2	2	Read only	"P8.8.11"
P8.8.12 (0x880C)	Current Decimal Point 8 at Fault	1~2	2	Read only	"P8.8.12"

9.2.9. P9 Group Monitoring Group and Special Addresses

9.2.9.1. P9.0 Monitoring Parameters

9.2 Appendix II: Parameter List

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P9.0.00 (0x9000)	Running Frequency	0.00~655.35(Hz)	0.00	Read only	"P9.0.00"
P9.0.01 (0x9001)	Reference frequency	0.00~655.35(Hz)	0.00	Read only	"P9.0.01"
P9.0.02 (0x9002)	Output Current	Output current when the frequency inverter runs .01A（inverter Power＜75kW） 0.1A（inverter Power≥75kW）	0.00	Read only	"P9.0.02"
P9.0.03 (0x9003)	Output Voltage	Output current when the frequency inverter runs	0	Read only	"P9.0.03"
P9.0.04 (0x9004)	Bus Voltage	Voltage on DC Bus of the frequency inverter	0.0	Read only	"P9.0.04"
P9.0.05 (0x9005)	Output Torque	When the frequency inverter runs, the output torque is the percentage of rated torque of the motor	0.0	Read only	"P9.0.05"
P9.0.06 (0x9006)	Output Power	Output frequency when the frequency inverter runs	0.0	Read only	"P9.0.06"
P9.0.07 (0x9007)	Input Terminal Status	Check whether the input terminal has signal input	0	Read only	"P9.0.07"
P9.0.08 (0x9008)	Output Terminal Status	Check whether the output terminal has signal output	0	Read only	"P9.0.08"
P9.0.09 (0x9009)	AI1 Voltage	Check the voltage between AI1 and GND	0.00	Read only	"P9.0.09"
P9.0.10 (0x900A)	AI2 Voltage	Check the voltage between AI2 and GND	0.00	Read only	"P9.0.10"
P9.0.11 (0x900B)	Custom Display Value	Display coefficient P5.0.15 and the value after conversion of Decimal PoInt P5.0.16 through customerization	0.00	Read only	"P9.0.11"
P9.0.12 (0x900C)	Actual Counting Value	View actual counting value of the frequency inverter for counting function	0	Read only	"P9.0.12"
P9.0.13 (0x900D)	Actual Length Value	View actual counting value of the frequency inverter for fixed-length function	0	Read only	"P9.0.13"
P9.0.14 (0x900E)	PID Reference	Product of PID reference value and PID reference feedback quantity	0.0	Read only	"P9.0.14"
P9.0.15 (0x900F)	PID Feedback	Product of PID feedback value and PID reference feedback rang	0.0	Read only	"P9.0.15"
P9.0.16 (0x9010)	Impulse frequency	View the frequency of PULSE Impulse Input	0.00	Read only	"P9.0.16"
P9.0.17 (0x9011)	Feedback Speed	-327.68~327.67(Hz)	0.00	Read only	"P9.0.17"
P9.0.18 (0x9012)	PLC Phase	Display which stage the Simple PLC runs at	0	Read only	"P9.0.18"
P9.0.19 (0x9013)	Voltage before AI1 Correction	Voltage between AI1 and GND before AI1 correction	0.000	Read only	"P9.0.19"
P9.0.20 (0x9014)	Voltage before AI2 Correction	Voltage between AI2 and GND before AI2 correction	0.000	Read only	"P9.0.20"
P9.0.21 (0x9015)	Line Speed	The linear velocity of high-speed pulse sampling is equal to the number of pulses collected per minute divided by the number of pulses per meter.	0	Read only	"P9.0.21"
P9.0.22 (0x9016)	Current Power-on Time	Length of current power-on time	0	Read only	"P9.0.22"
P9.0.23 (0x9017)	Current Running Time	Length of current running time	0.0	Read only	"P9.0.23"
P9.0.24 (0x9018)	Residual Running Time	Residual running time at Timing Function of P3.1.00	0.0	Read only	"P9.0.24"
P9.0.25 (0x9019)	Frequency of Frequency Source A	View the frequency given by Frequency A	0.00	Read only	"P9.0.25"
P9.0.26 (0x901A)	Frequency of Frequency Source B	View the frequency given by Frequency B	0.00	Read only	"P9.0.26"
P9.0.27 (0x901B)	Communication Set value	The value set by corresponding communication address A001 is the percentage of the highest frequency	0.00	Read only	"P9.0.27"
P9.0.28 (0x901C)	Impulse frequency	View the frequency of PULSE Impulse Input	0	Read only	"P9.0.28"
P9.0.29 (0x901D)	Encoder Feedback Speed	Actual running frequency of the motor from feedback of the encoder	0.00	Read only	"P9.0.29"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P9.0.30 (0x901E)	Actual Distance Value	View actual distance value of the distance value of the frequency inverter	0.0	Read only	"P9.0.30"
P9.0.31 (0x901F)	Voltage before AI3 Correction	Voltage between AI3 and GND before AI3 correction	0.000	Read only	"P9.0.31"
P9.0.32 (0x9020)	Reserved	0~65535	0	Read only	"P9.0.32"
P9.0.33 (0x9021)	Reserved	0.0~6553.5	0.0	Read only	"P9.0.33"
P9.0.34 (0x9022)	Motor temperature	Real-time detection of motor temperature	0	Read only	"P9.0.34"
P9.0.35 (0x9023)	Target Torque	-3276.8~3276.7(%)	0.0	Read only	"P9.0.35"
P9.0.36 (0x9024)	Resolver Encoder Position	0~65535	0	Read only	"P9.0.36"
P9.0.37 (0x9025)	Power Factor Angle	-3276.8~3276.7(℃)	0.0	Read only	"P9.0.37"
P9.0.38 (0x9026)	Power Factor	-1.000~1.000	0.000	Read only	"P9.0.38"
P9.0.39 (0x9027)	AI3 Voltage	Check the voltage between AI3 and GND	0.00	Read only	"P9.0.39"
P9.0.40 (0x9028)	Output Voltage Value of V/F Separation	0~65535(V)	0	Read only	"P9.0.40"
P9.0.41 (0x9029)	Output Target Voltage Value of V/F Separation	0~65535(V)	0	Read only	"P9.0.41"
P9.0.42 (0x902A)	Reserved	0~65535	0	Read only	"P9.0.42"
P9.0.43 (0x902B)	Reserved	0~65535	0	Read only	"P9.0.43"
P9.0.44 (0x902C)	Reserved	0~65535	0	Read only	"P9.0.44"
P9.0.45 (0x902D)	Reserved	0~65535	0	Read only	"P9.0.45"
P9.0.46 (0x902E)	Operation Result 1	Check the value of operation result 1	0	Read only	"P9.0.46"
P9.0.47 (0x902F)	Operation Result 2	Check the value of operation result 2	0	Read only	"P9.0.47"
P9.0.48 (0x9030)	Operation Result 3	Check the value of operation result 3	0	Read only	"P9.0.48"
P9.0.49 (0x9031)	Operation Result 4	Check the value of operation result 4	0	Read only	"P9.0.49"
P9.0.50 (0x9032)	User Standby Monitoring Value 1	Check the value of user special function	0	Read only	"P9.0.50"
P9.0.51 (0x9033)	User Standby Monitoring Value 2	Check the value of user special function	0	Read only	"P9.0.51"
P9.0.52 (0x9034)	User Standby Monitoring Value 3	Check the value of user special function	0	Read only	"P9.0.52"
P9.0.53 (0x9035)	User Standby Monitoring Value 4	Check the value of user special function	0	Read only	"P9.0.53"
P9.0.54 (0x9036)	User Standby Monitoring Value 5	Check the value of user special function	0	Read only	"P9.0.54"
P9.0.55 (0x9037)	Reserved	0.0~6553.5	0.0	Read only	"P9.0.55"
P9.0.56 (0x9038)	Reserved	0.0~6553.5	0.0	Read only	"P9.0.56"
P9.0.57 (0x9039)	Reserved	0.0~6553.5	0.0	Read only	"P9.0.57"
P9.0.58 (0x903A)	Z signal counter	0~65535	0	Read only	"P9.0.58"
P9.0.59 (0x903B)	Reserved	0.00~327.67(%)	0.00	Read only	"P9.0.59"
P9.0.60 (0x903C)	Reserved	0.00~327.67(%)	0.00	Read only	"P9.0.60"
P9.0.61 (0x903D)	Inverter Running Status	0~65535	0	Read only	"P9.0.61"
P9.0.62 (0x903E)	Reserved	0~65535	0	Read only	"P9.0.62"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P9.0.63 (0x903F)	Analog AO1 Output Voltage Value	0.00~11.00(V)	0.00	Read only	"P9.0.63"
P9.0.64 (0x9040)	Analog AO2 Output Voltage Value	0.00~11.00(V)	0.00	Read only	"P9.0.64"
P9.0.65 (0x9041)	Reserved	0~65535	0	Read only	"P9.0.65"
P9.0.66 (0x9042)	Timing 1 Running time	0.0~6553.5	0.0	Read only	"P9.0.66"
P9.0.67 (0x9043)	Timing 2 Running time	0.0~6553.5	0.0	Read only	"P9.0.67"
P9.0.68 (0x9044)	Set revolving speed	Set revolving speed of inverter	0	Read only	"P9.0.68"
P9.0.69 (0x9045)	Running speed	Output revolving speed while inverter is running	0	Read only	"P9.0.69"
P9.0.70 (0x9046)	The DI input is 16 bits high	0~65535	0	Read only	"P9.0.70"
P9.0.71 (0x9047)	The DO input is 16 bits high	0~65535	0	Read only	"P9.0.71"
P9.0.72 (0x9048)	Actual Maximum Current Percentage	0.0~500.0(%)	180.0	Read only	"P9.0.72"
P9.0.73 (0x9049)	Actual carrier	0.1~100.0(kHz)	6.0	Read only	"P9.0.73"
P9.0.74 (0x904A)	Inverter Real-Time Overload Ratio	0.00~200.00(%)	0.00	Read only	"P9.0.74"
P9.0.75 (0x904B)	Motor Real-Time Overload Ratio	0.00~200.00(%)	0.00	Read only	"P9.0.75"

9.2.9.2. P9.3 A0 and B0 Parameter Address Mapping

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P9.3.00 (0x9300)	Operation Command(Valid when P0.1.06=2)	0:No command 1:Forward Run 2:Reverse Run 3:Forward Jogging 4:Reverse Jogging 5:Free Stop 6:Shutdown By Speed Reduction 7:Fault Rest 8:Reserved	0	Any	"P9.3.00"
P9.3.01 (0x9301)	Frequency command or upper limit frequency percentage	-100.00~100.00(%)	0.00	Any	"P9.3.01"
P9.3.02 (0x9302)	Multi-functional output terminal	0~65535	0	Any	"P9.3.02"
P9.3.03 (0x9303)	AO1 Output（Valid when P2.3.00=12）	0.0~100.0(%)	0.0	Any	"P9.3.03"
P9.3.04 (0x9304)	AO2 Output(Valid when P2.3.01=12)	0.0~100.0(%)	0.0	Any	"P9.3.04"
P9.3.05 (0x9305)	HDO Output(Valid when P2.1.00=0 and P2.1.13=12)	0.0~100.0(%)	0.0	Any	"P9.3.05"
P9.3.06 (0x9306)	Maximum Frequency Setting(Valid when P0.1.17=5)	-100.00~100.00(%)	0.00	Any	"P9.3.06"
P9.3.07 (0x9307)	Torque upper limit setting	-100.00~100.00(%)	0.00	Any	"P9.3.07"
P9.3.08 (0x9308)	VF separation voltage setpoint(Valid when P4.2.09=5)	-100.00~100.00(%)	0.00	Any	"P9.3.08"
P9.3.10 (0x930A)	PID Setting(Valid when P3.1.00=5)	-3276.7~P3.1.04(Mpa)	0.0	Any	"P9.3.10"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
P9.3.11 (0x930B)	PID Feedback(PID Feedback source active when communication is present)	-3276.7~P3.1.04(Mpa)	0.0	Any	"P9.3.11"
P9.3.12 (0x930C)	Communication designation under master-slave communication	32768~32767	0	Any	"P9.3.12"
P9.3.38 (0x9326)	External pull keyboard analog frequency	0.00~P7.9.37(Hz)	0.00	Any	"P9.3.38"
P9.3.39 (0x9327)	Expansion card Software Version	0~65535	0	Any	"P9.3.39"
P9.3.40 (0x9328)	write-back Expansion card Error code	0~9	0	Any	"P9.3.40"
P9.3.41 (0x9329)	Real-time frequency under the keyboard	0.00~P7.9.37(Hz)	50.00	Any	"P9.3.41"
P9.3.42 (0x932A)	The version number of the pull-out keyboard software	0.00~655.35	0.00	Any	"P9.3.42"
P9.3.43 (0x932B)	Communicate in keyboard mode to run commands	0:No command 1:Forward Run 2:Reverse Run 3:Forward Jogging 4:Reverse Jogging 5:Free Stop 6:Shutdown By Speed Reduction 7:Fault Rest 8:Reserved 9:Forward and Reverse Switch 10:Command source selection 11:Jog to cancel	0	Any	"P9.3.43"
P9.3.44 (0x932C)	Mapping 0xA100	0~65535	0	Any	"P9.3.44"
P9.3.45 (0x932D)	Mapping 0xA101	0~65535	0	Any	"P9.3.45"
P9.3.46 (0x932E)	Mapping 0xA102	0~65535	0	Any	"P9.3.46"
P9.3.47 (0x932F)	Mapping 0xA103	0~65535	0	Any	"P9.3.47"
P9.3.48 (0x9330)	Mapping 0xA104	0~65535	0	Any	"P9.3.48"
P9.3.49 (0x9331)	Mapping 0xA200	0~65535	0	Any	"P9.3.49"
P9.3.50 (0x9332)	Mapping 0xB000	0~65535	0	Read only	"P9.3.50"
P9.3.51 (0x9333)	Fault Master Code (Mapping 0xB001)	0~65535	0	Read only	"P9.3.51"
P9.3.52 (0x9334)	Fault Code	0.0~6553.5	0.0	Read only	"P9.3.52"
P9.3.90 (0x935A)	Mapping 0xB040	Ones:Show fire mode 0:No 1:Yes 2~9:Reserved Tens:Fire mode level 0:Reserved 1:Level 0 2:Level 2 3:Level 3 4~9:Reserved Hundreds:Reserved Thousands:Reserved Ten Hundreds:Reserved	0	Read only	"P9.3.90"
P9.3.91 (0x935B)	Current Error level	0~8	0	Read only	"P9.3.91"
P9.3.92	Current Motor Serial	1~4	1	Read only	"P9.3.92"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
(0x935C)	Number				
P9.3.93 (0x935D)	Mutual inductance units	0:mH	0	Read only	"P9.3.93"
P9.3.94 (0x935E)	Leakage inductance and DQ axis inductance resolution	2:0.01 3:0.001	2	Read only	"P9.3.94"
P9.3.95 (0x935F)	Mutual inductance resolution	1:0.1 2:0.01	1	Read only	"P9.3.95"
P9.3.96 (0x9360)	Resistance resolution	3:0.001 4:0.0001	3	Read only	"P9.3.96"
P9.3.97 (0x9361)	Current resolution	1:0.1 2:0.01	2	Read only	"P9.3.97"
P9.3.98 (0x9362)	Inverter indicator status 1	Bit00~Bit01:S lamp 0:Off 1:On 2:flicker 3:Reserved Bit02~Bit03:P lamp 0:Off 1:On 2:flicker 3:Reserved Bit04~Bit05:T lamp 0:Off 1:On 2:flicker 3:Reserved Bit06~Bit07:Basic Mode Lamp 0:Off 1:On 2:flicker 3:Reserved Bit08~Bit09:User Mode Lamp 0:Off 1:On 2:flicker 3:Reserved Bit10~Bit11:Verification Mode Lamp 0:Off 1:On 2:flicker 3:Reserved Bit12~Bit13:Reserved 0:Off 1:On 2:flicker 3:Reserved Bit14~Bit15:Master-slave communication indicator light 0:Off 1:On 2:flicker 3:Reserved	0	Read only	"P9.3.98"
P9.3.99 (0x9363)	Inverter indicator status 0	Bit00~Bit01:FWD lamp 0:Off 1:On 2:flicker 3:Reserved Bit02~Bit03:REV lamp 0:Off 1:On 2:flicker 3:Reserved Bit04~Bit05:LOC lamp 0:Off 1:On 2:flicker 3:Reserved Bit06~Bit07:JOG lamp 0:Off	0	Read only	"P9.3.99"

Function code and Communication address	Function code name	Setting value description	Default Value	Modification method	Page number
		1:On 2:flicker 3:Reserved Bit08~Bit09:TUNE lamp 0:Off 1:On 2:flicker 3:Reserved Bit10~Bit11:WARN lamp 0:Off 1:On 2:flicker 3:Reserved Bit12~Bit13:RUN lamp 0:Off 1:On 2:flicker 3:Reserved Bit14~Bit15:STOP lamp 0:Off 1:On 2:flicker 3:Reserved			

9.3. Appendix III: Faults and Troubleshooting

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er01.1	Hardware overcurrent in constant speed 1	When the inverter is running at constant speed, the output current exceeds the overcurrent value	Check whether the output loop of the inverter is shorted; Check if the input voltage is low; Check if there is a mutation in the load; Perform parameter identification or improve low-frequency torque compensation; Check whether the rated power of the motor or inverter is large enough;	Check whether the output loop of the inverter is shorted; Check if the input voltage is low; Check if there is a mutation in the load; Perform parameter identification or improve low-frequency torque compensation; Check whether the rated power of the motor or inverter is large enough;
Er01.2	Constant speed software overcurrent	When the inverter is running at constant speed, the output current exceeds the overcurrent value	Check whether the output loop of the inverter is shorted; Check if the input voltage is low; Check if there is a mutation in the load; Perform parameter identification or improve low-frequency torque compensation; Check whether the rated power of the motor or inverter is large enough;	Check whether the output loop of the inverter is shorted; Check if the input voltage is low; Check if there is a mutation in the load; Perform parameter identification or improve low-frequency torque compensation; Check whether the rated power of the motor or inverter is large enough;
Er01.3	Hardware overcurrent in constant speed 2	When the inverter is running at constant speed, the output current exceeds the overcurrent value	Check whether the output loop of the inverter is shorted; Check if the input voltage is low; Check if there is a mutation in the load; Perform parameter identification or improve low-frequency torque compensation; Check whether the rated power of the motor or inverter is large enough;	Check whether the output loop of the inverter is shorted; Check if the input voltage is low; Check if there is a mutation in the load; Perform parameter identification or improve low-frequency torque compensation; Check whether the rated power of the motor or inverter is large enough;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er02.1	Hardware overcurrent in acceleration 1	When the inverter is accelerated and running, the output current exceeds the overcurrent value	Check whether the motor and circuit are short-circuited, grounded or too long; Check if the input voltage is low Check whether the motor is dragged to run by external force in the process of deceleration; Perform parameter identification or improve low-frequency torque compensation or adjust the V/F curve; Check if there is a mutation in the load; Check whether to choose speed tracking or wait for the motor to stop before starting; Check whether the rated power of the motor or inverter is large enough	Check whether the motor and circuit are short-circuited, grounded or too long; Check if the input voltage is low Check whether the motor is dragged to run by external force in the process of deceleration; Perform parameter identification or improve low-frequency torque compensation or adjust the V/F curve; Check if there is a mutation in the load; Check whether to choose speed tracking or wait for the motor to stop before starting; Check whether the rated power of the motor or inverter is large enough
Er02.2	Software overcurrent in acceleration	When the inverter is accelerated and running, the output current exceeds the overcurrent value	Check whether the motor and circuit are short-circuited, grounded or too long; Check if the input voltage is low Check whether the motor is dragged to run by external force in the process of deceleration; Perform parameter identification or improve low-frequency torque compensation or adjust the V/F curve; Check if there is a mutation in the load; Check whether to choose speed tracking or wait for the motor to stop before starting; Check whether the rated power of the motor or inverter is large enough	Check whether the motor and circuit are short-circuited, grounded or too long; Check if the input voltage is low Check whether the motor is dragged to run by external force in the process of deceleration; Perform parameter identification or improve low-frequency torque compensation or adjust the V/F curve; Check if there is a mutation in the load; Check whether to choose speed tracking or wait for the motor to stop before starting; Check whether the rated power of the motor or inverter is large enough

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er02.3	Hardware overcurrent in acceleration 2	When the inverter is accelerated and running, the output current exceeds the overcurrent value	Check whether the motor and circuit are short-circuited, grounded or too long; Check if the input voltage is low Check whether the motor is dragged to run by external force in the process of deceleration; Perform parameter identification or improve low-frequency torque compensation or adjust the V/F curve; Check if there is a mutation in the load; Check whether to choose speed tracking or wait for the motor to stop before starting; Check whether the rated power of the motor or inverter is large enough	Check whether the motor and circuit are short-circuited, grounded or too long; Check if the input voltage is low Check whether the motor is dragged to run by external force in the process of deceleration; Perform parameter identification or improve low-frequency torque compensation or adjust the V/F curve; Check if there is a mutation in the load; Check whether to choose speed tracking or wait for the motor to stop before starting; Check whether the rated power of the motor or inverter is large enough
Er03.1	Hardware overcurrent in deceleration 1	When the inverter is decelerating, the output current exceeds the overcurrent value	Check whether the motor and circuit are short-circuited, grounded or too long; Perform parameter identification; Delay the deceleration time; Check if the input voltage is low; Check if there is a mutation in the load; Install brake unit and brake resistor;	Check whether the motor and circuit are short-circuited, grounded or too long; Perform parameter identification; Delay the deceleration time; Check if the input voltage is low; Check if there is a mutation in the load; Install brake unit and brake resistor;
Er03.2	Software overcurrent during deceleration	When the inverter is decelerating, the output current exceeds the overcurrent value	Check whether the motor and circuit are short-circuited, grounded or too long; Perform parameter identification; Delay the deceleration time; Check if the input voltage is low; Check if there is a mutation in the load; Install brake unit and brake resistor;	Check whether the motor and circuit are short-circuited, grounded or too long; Perform parameter identification; Delay the deceleration time; Check if the input voltage is low; Check if there is a mutation in the load; Install brake unit and brake resistor;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er03.3	Hardware overcurrent during deceleration 2	When the inverter is decelerating, the output current exceeds the overcurrent value	Check whether the motor and circuit are short-circuited, grounded or too long; Perform parameter identification; Delay the deceleration time; Check if the input voltage is low; Check if there is a mutation in the load; Install brake unit and brake resistor;	Check whether the motor and circuit are short-circuited, grounded or too long; Perform parameter identification; Delay the deceleration time; Check if the input voltage is low; Check if there is a mutation in the load; Install brake unit and brake resistor;
Er04.2	Over-voltage at constant speed	When the inverter operates at a constant speed, the DC voltage of the main circuit exceeds the set value. S1 Class: 240V S2/T2 Class: 400V T4 Class: 810V T5 Class: 820V T6 Class: 1350V	Check whether the input voltage is too high; Check whether the Bus line voltage display is normal; Check whether the motor is dragged to run by external force in the running process;	Check whether the input voltage is too high; Check whether the Bus line voltage display is normal; Check whether the motor is dragged to run by external force in the running process;
Er05.2	Over-voltage at acceleration	When the Variable frequency drive is in acceleration operation, the DC voltage of the Main Circuit exceeds the set value. S1 Class: 240V S2/T2 Class: 400V T4 Class: 810V T5 Class: 820V T6 Class: 1350V	Check whether the input voltage is too high; Check whether the input voltage is too high; Check whether the Bus line voltage display is normal; Check whether the motor is dragged to run by external force in the process of deceleration; Install additional brake unit and brake resistance;	Check whether the input voltage is too high; Check whether the input voltage is too high; Check whether the Bus line voltage display is normal; Check whether the motor is dragged to run by external force in the process of deceleration; Install additional brake unit and brake resistance;
Er06.2	Err06 Over-voltage at deceleration	When the Variable frequency drive is in deceleration operation, the DC voltage of the Main Circuit exceeds the set value. S1 Class: 240V S2/T2 Class: 400V T4 Class: 810V T5 Class: 820V T6 Class: 1350V	Check whether the input voltage is too high; Check whether the Bus line voltage display is normal; Delay the deceleration time; Check whether the motor is dragged to run by external force in the process of deceleration; Install additional brake unit and brake resistance;	Check whether the input voltage is too high; Check whether the Bus line voltage display is normal; Delay the deceleration time; Check whether the motor is dragged to run by external force in the process of deceleration; Install additional brake unit and brake resistance;
Er08.1	Under-voltage	During operation, the DC main circuit voltage is insufficient. Detected DC Undervoltage Value: S1 Class: 100V S2/T2 Class: 200V T4 Class: 350V T5 Class: 350V T6 Class: 650V	Check the lines of supply power contact well; Check whether the incoming voltage is within regulated scope; Check whether there is momentary interruption; Check whether the display of the Bus line voltage is normal; Check whether the setting bridge and charge resistance are normal;	Check the lines of supply power contact well; Check whether the incoming voltage is within regulated scope; Check whether there is momentary interruption; Check whether the display of the Bus line voltage is normal; Check whether the setting bridge and charge resistance are normal;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er09.1	Inverter single-phase current overload	The single-phase current of the inverter exceeds the allowable overload current	See if the machine is stuck or reduce the motor load; Replace with a higher-power inverter	See if the machine is stuck or reduce the motor load; Replace with a higher-power inverter
Er09.2	Inverter output current overload	The output current of the inverter exceeds the allowable overload current	See if the machine is stuck or reduce the motor load; Replace with a higher-power inverter	See if the machine is stuck or reduce the motor load; Replace with a higher-power inverter
Er10.1	Motor overload	Motor and current exceed the rated current	Check the protection parameter P5.1.05 Reference of the motor is proper; Check whether the motor is in locked-rotor conditions or the load to motor needs to be reduced; Correctly preset the rated current of the motor; Replace the frequency inverter with larger power;	Check the protection parameter P5.1.05 Reference of the motor is proper; Check whether the motor is in locked-rotor conditions or the load to motor needs to be reduced; Correctly preset the rated current of the motor; Replace the frequency inverter with larger power;
Er11.1	Input phase loss hardware protection (18.5kW and above)	Error of missing phase or unbalanced three phases	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support
Er11.2	Input phase loss software protection	Error of missing phase or unbalanced three phases	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support
Er11.3	Input phase loss, R-phase hardware protection (15kW and below)	Error of missing phase or unbalanced three phases	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support
Er11.4	Input phase loss, S-phase hardware protection (15kW and below)	Error of missing phase or unbalanced three phases	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support
Er11.5	Input phase loss, T-phase hardware protection (15kW and below)	Error of missing phase or unbalanced three phases	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er11.6	Input phase loss, two-phase loss or three-phase loss hardware protection	Error of missing phase or unbalanced three phases	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support	Check main circuit voltage whether it is missing phase or unbalanced three phases Check whether the connecting terminal is loosing. Seek technical support
Er12.1	The output is out of phase during normal operation	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.2	The output is out of phase during abnormal operation	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.3	Output phase loss when the output frequency is low	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.4	Output phase loss when the feedback frequency is low	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.5	Asynchronous motor vector control output current is small	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.6	The output is out of phase when the stator resistor is identified	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.7	Output phase loss when the position of the magnetic pole of the synchronizer is identified	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er12.8	Phase loss detected in V/W output during pre-operation	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er12.9	Phase loss detected in U phase or three-phase output during pre-operation	Output Default Failure or 9-phase Imbalance Fault	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support	Check whether the output circuit has output default failure or 3-phase imbalance fault Check whether the wiring terminals are loose Seek technical support
Er13.1	External fault terminal normally open	Fault caused by External Control Circuits	Check the signal input circuit of external fault Reset Run	Check the signal input circuit of external fault Reset Run
Er13.2	External fault terminal normally closed	Fault caused by External Control Circuits	Check the signal input circuit of external fault Reset Run	Check the signal input circuit of external fault Reset Run
Er14.1	Extension card communication exception	There is an abnormal communication between the frequency converter and the device with a CPU expansion card or other devices.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er14.2	Extension card communication exception	There is an abnormal communication between the frequency converter and the device with a CPU expansion card or other devices.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er14.3	Extension card communication exception	There is an abnormal communication between the expansion card with a CPU and other devices.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er15.1	Frequency inverter Overheat	Radiator temperature ≥ oh Test Value (about 80℃,to temperature switch)	Check the running state of the fan and ventilation state Check whether the surrounding temperature is too high and the cooling measures are required to be taken; Check whether the thermistor or temperature switch is damaged; Clear the dirt on the exterior of radiator and air intake;	Check the running state of the fan and ventilation state Check whether the surrounding temperature is too high and the cooling measures are required to be taken; Check whether the thermistor or temperature switch is damaged; Clear the dirt on the exterior of radiator and air intake;
Er17.1	Motor-to-ground short circuit	Motor-to-ground short circuit	Check whether the output line or motor of the frequency inverter has ground short circuit	Check whether the output line or motor of the frequency inverter has ground short circuit
Er18.1	There is no encoder feedback in the on-board identification of the synchronizer	When conducting the parameter identification, the fault occurs in motor	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er18.2	The encoder fluctuates greatly in the on-board identification of the synchronous machine	When conducting the parameter identification, the fault occurs in motor	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;
Er18.3	The current is too small when the resistance of the rotor of the asynchronous machine is identified	When conducting the parameter identification, the fault occurs in motor	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;
Er18.4	Trigger the CBC when identifying	When conducting the parameter identification, the fault occurs in motor	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;	Check whether the motor parameter is consistent with the nameplate of the motor Whether the frequency inverter and main cable of the motor are connected well;
Er19.1	Motor Off-load	The operating current of the inverter is less than the value of the drop-off current P5.5.06 and lasts for P5.5.07	Check whether the load is detached; Check whether the values set by the parameters P5.5.06 and P5.5.07 meet the actual operating conditions;	Check whether the load is detached; Check whether the values set by the parameters P5.5.06 and P5.5.07 meet the actual operating conditions;
Er20.1	PID Feedback Loss	The PID feedback value is less than the value of P3.1.18 and lasts for P3.1.19	Check whether the PID feedback signal is normal; Check whether the values set by the parameters P3.1.18 and P3.1.19 meet the actual operating conditions;	Check whether the PID feedback signal is normal; Check whether the values set by the parameters P3.1.18 and P3.1.19 meet the actual operating conditions;
Er21.1	User-Defined Fault 1	Fault 1 Signal given by the users through multi-functional terminals or PLC Programming Function	Check whether the User-Defined Fault 1 is removed and then run after reset;	Check whether the User-Defined Fault 1 is removed and then run after reset;
Er22.1	User-Defined Fault 2	Fault 2 Signal given by the users through multi-functional terminals or PLC Programming Function	Check whether the User-Defined Fault 2 is removed and then run after reset;	Check whether the User-Defined Fault 2 is removed and then run after reset;
Er23.1	Accumulative Power-on Time Reached	Refer to the time given by accumulative power-on Time Reached P3.4.00 of the frequency inverter	Use the parameter initialization function to clear the record information	Use the parameter initialization function to clear the record information
Er24.1	Accumulative Running Time Reached	Refer to the time given by accumulative power-on Time Reached P3.4.01 of the frequency inverter	Use the parameter initialization function to clear the record information	Use the parameter initialization function to clear the record information
Er25.1	Encoder failure: ABZ signal error during no-load identification of the synchronizer	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er25.2	Encoder failure: UVW signal error during no-load identification of the synchronizer	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er25.3	Encoder failure: The Z signal is lost during no-load identification of the synchronizer	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er25.4	Encoder failure: the UVW signal is wrong when the synchronizer is on-load identification	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er25.5	Encoder failure: The number of encoder lines is wrong when the synchronous machine is loaded with identification	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er25.6	Encoder failure: During normal operation, the angle error is large when the Z signal arrives.	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er25.7	Encoder failure: Encoder error during dynamic identification of asynchronous motor	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er25.8	Encoder failure: UVW encoder error	The frequency inverter is unable to identify the data of the encoder	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;	Check whether the type of the encoder matches Check whether the wiring connection of the encoder is correct Check whether the encoder or PG card is damaged;
Er26.1	Parameter read and write exception: single write timeout	Parameter read and write exception	Replace the control board; Contact the manufacturer to deal with;	Replace the control board; Contact the manufacturer to deal with;
Er26.2	Parameter read and write exception: single read timeout	Parameter read and write exception	Replace the control board; Contact the manufacturer to deal with;	Replace the control board; Contact the manufacturer to deal with;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er26.3	Parameter read and write exception: read and write timeout	Parameter read and write exception	Replace the control board; Contact the manufacturer to deal with;	Replace the control board; Contact the manufacturer to deal with;
Er26.4	Parameter read and write exception: the number of write function codes exceeds the limit	Parameter read and write exception	Replace the control board; Contact the manufacturer to deal with;	Replace the control board; Contact the manufacturer to deal with;
Er26.5	Parameter reading and writing exception: manufacturer program error	Parameter read and write exception	Replace the control board; Contact the manufacturer to deal with;	Replace the control board; Contact the manufacturer to deal with;
Er27.1	Motor Overheat	Test on excessive temperature of the motor	Check whether the temperature of the motor is too high; Check whether the temperature sensor is damaged or its wirings are loose;	Check whether the temperature of the motor is too high; Check whether the temperature sensor is damaged or its wirings are loose;
Er28.1	Larger Speed Deviation	Refer to the value of speed deviation larger than P5.3.05 and duration of P5.3.06	Check whether the parameters of the encoder is set correctly; Check whether P5.3.05 and P5.3.06 are set rationally; Check whether the motor parameter identification has been conducted;	Check whether the parameters of the encoder is set correctly; Check whether P5.3.05 and P5.3.06 are set rationally; Check whether the motor parameter identification has been conducted;
Er29.1	Motor Overspeed	Refer to the value of speed deviation larger than P5.3.03 and duration of P5.3.04	Check whether the parameters of the encoder is set correctly; Check whether P5.3.03 and P5.3.04 are set rationally; Check whether the motor parameter identification has been conducted;	Check whether the parameters of the encoder is set correctly; Check whether P5.3.03 and P5.3.04 are set rationally; Check whether the motor parameter identification has been conducted;
Er30.1	Initial Position Error	Large deviation between motor parameters and actual parameters	Check whether the motor parameters are correct, especially for rated current of the motor;	Check whether the motor parameters are correct, especially for rated current of the motor;
Er31.1	Abnormal U-phase current	Circuit fault after current test	Check whether the Hall device has defaults; Check whether the circuit has fault after test of the driver board; Check whether the driver board has fault;	Check whether the Hall device has defaults; Check whether the circuit has fault after test of the driver board; Check whether the driver board has fault;
Er31.2	Abnormal V-phase current	Circuit fault after current test	Check whether the Hall device has defaults; Check whether the circuit has fault after test of the driver board; Check whether the driver board has fault;	Check whether the Hall device has defaults; Check whether the circuit has fault after test of the driver board; Check whether the driver board has fault;
Er34.1	U-phase current quickly limits the current and times out first	The running current of the frequency inverter continues to be larger, which exceeds allowable current–limit time	Check whether the load is too large or is stalled; Check whether the size of the frequency inverter is too small;	Check whether the load is too large or is stalled; Check whether the size of the frequency inverter is too small;

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er34.2	Fast current limiting of V-phase current, timeout first	The running current of the frequency inverter continues to be larger, which exceeds allowable current–limit time	Check whether the load is too large or is stalled; Check whether the size of the frequency inverter is too small;	Check whether the load is too large or is stalled; Check whether the size of the frequency inverter is too small;
Er34.3	W-phase current, fast current limit, timeout first	The running current of the frequency inverter continues to be larger, which exceeds allowable current–limit time	Check whether the load is too large or is stalled; Check whether the size of the frequency inverter is too small;	Check whether the load is too large or is stalled; Check whether the size of the frequency inverter is too small;
Er35.1	Multi-motor control failure: switch motor during operation	Conduct motor switch in the running process of the frequency inverter	After the inverter is shut down, the motor switching operation is performed	After the inverter is shut down, the motor switching operation is performed
Er35.2	Multi-motor control failure: there is more than 1 motor cut in	The DI input shows that multiple motors are cut in	Check if multiple motors are entering Check if there is a problem with the DI input	Check if multiple motors are entering Check if there is a problem with the DI input
Er35.3	Multi-motor control failure: multi-encoder type setting error	Encoder type setting error	When P2.9.10 is not 0, check whether P2.6.00 and P2.9.00 have both selected the same value	When P2.9.10 is not 0, check whether P2.6.00 and P2.9.00 have both selected the same value
Er38.1	Output short circuit, overcurrent, hardware interrupt	3-phase output inter-phase short circuit	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer
Er38.2	Output short circuit CBC software query	3-phase output inter-phase short circuit	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer
Er38.3	Output short circuit, CBC hardware interrupt	3-phase output inter-phase short circuit	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer
Er38.4	Output phase loss detection in progress before running,Output short circuit, overcurrent, hardware interrupt	3-phase output inter-phase short circuit	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer
Er38.5	Output phase loss detection in progress before running,Output short circuit CBC software query	3-phase output inter-phase short circuit	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer
Er38.6	Output phase loss detection in progress before running,Output short circuit, CBC hardware interrupt	3-phase output inter-phase short circuit	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer	Check the insulation of the motor cable and the insulation of the motor body If the motor is not connected and the fault is reported, then contact the manufacturer

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er39.1	Brake tube short circuit during zero drift detection	Brake tube short circuit	Contact the manufacturer	Contact the manufacturer
Er39.2	When the brake tube is not enabled, the brake tube is shorted	Brake tube short circuit	Contact the manufacturer	Contact the manufacturer
Er39.3	Brake pipe short circuit hardware failure	Brake tube short circuit	Contact the manufacturer	Contact the manufacturer
Er40.1	Buffer resistor overload fault	The Bus line voltage fluctuates strongly	Check whether the power-on buffer contactor is normal Check the incoming voltage fluctuation	Check whether the power-on buffer contactor is normal Check the incoming voltage fluctuation
Er41.1	Relay hardware failure continues to be high	Power-on relay hardware detects faults	Contact the manufacturer	Contact the manufacturer
Er41.2	Relay hardware failure PWM wave	Power-on relay hardware detects faults	Contact the manufacturer	Contact the manufacturer
Er42.1	Logic error when identifying the position of the magnetic pole of the synchronizer 1	A BUG occurred while the program was running	Contact the manufacturer	Contact the manufacturer
Er42.2	Logic error when identifying the position of the magnetic pole of the synchronizer 2	A BUG occurred while the program was running	Contact the manufacturer	Contact the manufacturer
Er43.1	Industrial frequency conversion switching phase sequence error	Power input frequency and operating frequency are inconsistent	Check the operating direction and power frequency phase sequence	Check the operating direction and power frequency phase sequence
Er43.2	Industrial frequency conversion switching, long switching time	Did not switch successfully for a long time	Does the target frequency deviate from the grid frequency by more than the value set in P3.5.01? Are P3.5.02 and P3.5.03 improperly set? Contact the manufacturer	Does the target frequency deviate from the grid frequency by more than the value set in P3.5.01? Are P3.5.02 and P3.5..03 unreasonably set? Contact the manufacturer
Er44.1	The running command is not set in keyboard mode, the parameters are recognized	Unreasonable setting of parameter identification	Please set P0.1.06 as the keyboard control first	Please set P0.1.06 as the keyboard control first
Er44.2	The motor type and parameter identification setting parameters are inconsistent	The motor type is not set correctly	Properly configure the motor type and identification method. For example, when P1.0.00 is set to 2 (synchronous motor), P1.0.17 should select the asynchronous motor identification method (1 or 2), rather than being configured as synchronous motor identification methods 11 or 12.	Properly configure the motor type and identification method. For example, when P1.0.00 is set to 2 (synchronous motor), P1.0.17 should select the asynchronous motor identification method (1 or 2), rather than being configured as synchronous motor identification methods 11 or 12.

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er44.3	Unreasonable setting of motor selection and parameter identification function code	The motor selection setting is wrong	Configure corresponding motor x identification and motor x parameter identification. For example, if P0.1.32 is selected for Motor 2, and instead of setting P1.2.17, P1.0.17 is set for parameter identification, this fault will be reported.	Configure corresponding motor x identification and motor x parameter identification. For example, if P0.1.32 is selected for Motor 2, and instead of setting P1.2.17, P1.0.17 is set for parameter identification, this fault will be reported.
Er44.4	The setting of the carrier wave in vector control is not reasonable.	The carrier wave setting is incorrect.	Under vector control, when the target frequency is relatively high, if the carrier frequency setting is too low, it is necessary to increase the value of P0.6.06. The value of P0.6.06 should be greater than the product of the target frequency and the value of P0.6.14. For example, if the target frequency is 1000 Hz and the value of P0.6.14 is set to 8.0, then the value of P0.6.06 should be set to at least above 8.0 KHz. Otherwise, a fault will be reported.	Under vector control, when the target frequency is relatively high, if the carrier frequency setting is too low, it is necessary to increase the value of P0.6.06. The value of P0.6.06 should be greater than the product of the target frequency and the value of P0.6.14. For example, if the target frequency is 1000 Hz and the value of P0.6.14 is set to 8.0, then the value of P0.6.06 should be set to at least above 8.0 KHz. Otherwise, a fault will be reported.
Er45.1	Torque Overload Fault	The output current reaches the value specified in P5.1.12 and continues for a duration specified in P5.1.13	Under vector control, has parameter idenntification been performed? Is the load too heavy? Is the selection appropriate? Are the parameters set appropriately?	Under vector control, has parameter idenntification been performed? Is the load too heavy? Is the selection appropriate? Are the parameters set appropriately?
Er46.1	Stall Detection and Protection	The output current reaches the current limit while the feedback frequency becomes stationary and is less than the value specified in P5.1.15, and continues for a duration specified in P5.1.16	Under vector control, has parameter idenntification been performed? Is the load too heavy? Is the selection appropriate? Are the parameters set appropriately?	Under vector control, has parameter idenntification been performed? Is the load too heavy? Is the selection appropriate? Are the parameters set appropriately?
Er47.1	The RS485 communication of this machine is abnormal.	The communication between the frequency converter and other devices is abnormal.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er47.2	The RS485 communication of this machine is abnormal.	The communication between the frequency converter and other devices is abnormal.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent

Fault Code	Fault Name	Cause	Confirmation Method	Solution
Er48.1	The network port communication is abnormal.	The communication between the frequency converter and other devices is abnormal.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er48.2	The network port communication is abnormal.	The communication between the frequency converter and other devices is abnormal.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er49.1	Type-C communication is abnormal.	The communication between the frequency converter and other devices is abnormal.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent
Er49.2	Type-C communication is abnormal.	The communication between the frequency converter and other devices is abnormal.	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent	Check external communication lines The upper computer doesn't work normally The setting for communication parameter is not correct The communication protocol is inconsistent

Documentation

Warranty Card						
User	User Name					
	User Address					
	Contact Person		Telephone		Fax	
	Machine Model		Machine Code			
Agent/ Distributor	Supplier					
	Contact Person		Telephone		Date of Supply	

Warranty Terms

The warranty provisions for our company's products shall be executed in accordance with the "Quality Assurance" section of the User Manual.

1.The warranty period for this product is 18 months from the date of factory shipment of the barcode.
Under normal use, repairs will be provided upon presentation of the warranty card and product barcode.

2.Faults arising from the following causes shall be subject to chargeable repairs even within the warranty period:

2-1.Issues resulting from incorrect operation, or unauthorized repair or modification;
2-2.Issues arising from use of this product beyond the prescribed standard specifications;
2-3.Damage caused by dropping or improper handling after purchase;
2-4.Device aging or malfunction caused by adverse environmental conditions;
2-5.Damage resulting from earthquakes, fire, floods, lightning strikes, abnormal voltage, or other natural disasters;
2-6.Damage occurring during transportation (Note: the transportation method is designated by the customer, and the company assists in handling the transfer procedures of the goods);
2-7.Damage to or illegibility of the brand, trademark, serial number, nameplate, or other manufacturer's markings;
2-8.Failure to pay the full amount as agreed upon in the purchase contract;
2-9.Failure to provide an objective and accurate description of installation, wiring, operation, maintenance, or other usage conditions to the company's service unit.

3.All products manufactured by our company are entitled to paid lifetime service.

Certificate of Conformity

Inspector: _____

Manufacture Date: _____

Factory Shipment Number: _____

This product has passed inspection and is approved for factory shipment.

Product Service Card

Attention: To ensure the safety of personnel, equipment, and property, and to fully utilize the superior performance of this product, please read the product user manual thoroughly before use. Comply with all instructions during handling, installation, commissioning, operation, and maintenance.

Declaration

The detailed user manual can be obtained by scanning the QR code:

May 2026