BONENG

AX Servo Drive(CM55) Manual

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Thank you very much for choosing Boneng AX servo drive. Please read this manual carefully before installation and using, in order to use it correctly and safely.

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1 Safety Precautions

Safety Precautions

⚠WARING

√Only qualified professionals can installation, operation,examine and repair.

√Electric shock and danger to life due to other energy sources. To check, first turn off the power,before the digital tube light goes out,any high vol inside the drive,don't touch internal terminal and circuits.

√Install in a suitable environment,else fire due to inadequate ventilation clearances,inadequate ventilation clearances can cause overheating of components with subsequent fire and smoke,this can cause severe injury or even death.

√The voltage applied to every terminal must only be the specified in the manual,otherwise it will cause damage to equipment.

√ Please wire correctly,else it will cause driver damage or personal injury.

2 Installation and wiring

2.1 Installation Environment

Installation Environment

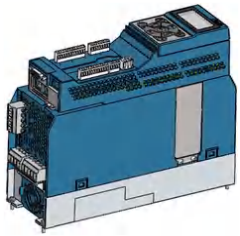
Ambient temperature	–10℃~+50℃（Not frozen）
environment humidity	Below 95% (no condensation)
Storage temperature	–40℃ ~ +70℃
surroundings	Indoor, no corrosive gas, no flammable gas, no flammable dust
altitude	Without derating: below 1000m
	With derating: 1000m~4000m
Protection level	IP20
Pollution level	Suitable for pollution degree 2 environment

2.2 Installation method

The drive should be installed vertically as shown in picture A ,the method of b,c isincorrect.

(a)

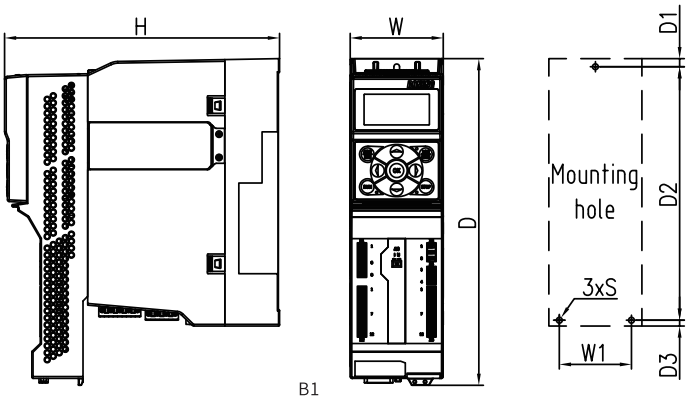
(b)



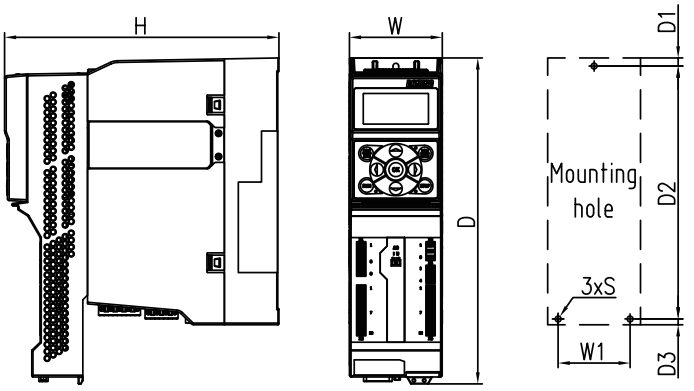
(c)

2.3 Overall dimensions and installation dimensions

(unit:mm)



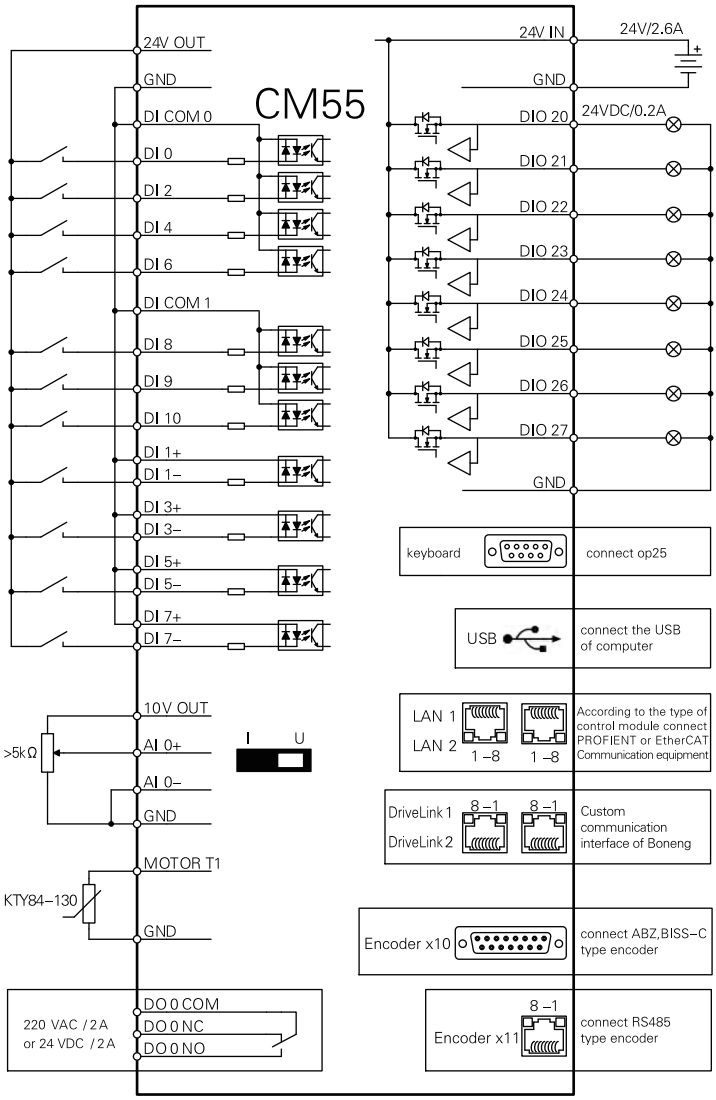
B1



B2~B6

model	W	H	D	W 1	D 1	D 2	D 3	S
B 1	80	236 .5	281	62	7	218	5	5 (Three M4 screws , Installation torque 2.5Nm)
B 2	100	236 .5	298	80	6	281	4	5 (Four M4 screws , Installation torque 2.5Nm)
B 3	140	236 .5	363	120	7	343	5	6 (Four M4 screws , Installation torque 3.5Nm)
B 4	200	268 .5	473	170	7	430	7	6 (Four M4 screws , Installation torque 6Nm)
B 6	305	388 .5	757	273	14	727	9	9 (Four M4 screws , Installation torque 9Nm)

2.4 Wiring diagram



3 Terminal technical data

FUNCTION		Technical data
Bus interface	AX–CM55–PA–PE	• support PROFFINET,DriveLink • RJ45 interface
	AX–CM55–EA–PE	• support EtherCAT,DriveLink • RJ45 interface
Power supply	Power module power supply	• DI/DO terminal as an output, an external 24v power supply is required
	External terminal power supply	• Voltage range: DC20.8V...28.8V • Max current:2.6A
output power	+24V Output	• Voltage range: DC18V...26.8V • Max current:200MA
	+10V Output	• Voltage range: DC9.5V...10.5V • Max current:40MA
	DB15 Interface encoder power supply	• Voltage : DC5V or DC24V • Max current:350MA
	RJ45 Interface encoder power supply	• Voltage : DC5V • Max current:200MA
Digital Output	11（DI0 ~ DI10）	• DI1,DI3,DI5,DI7 is no–common input • DI0,DI2,DI4,DI6 is common terminal DICOM0 • DI8,DI9,DI10 is common terminal DICOM1 • Electrical isolation • support Source and Sink mode • Voltage : DC 24V,AC 36V • "1" Signal voltage :>11v • "0" Signal voltage :<5v • 24v classical current : 4mA • Response time: 6ms(include software filtering)
Digital Output	1 relay（DO0）	• Voltage : DC 24V, AC 220V • Continuous current: 2A • switch current: 2A • contact type: 1NO1NC
Digital Input/Digital Output 8（DIO20 ~ DIO27）		• Voltage：Maximum DC30v • Current：Maximum output 200mA, 24V input typical 4mA • frequency：maximum 100 Hz • Input "1" signal voltage : >15V • Input "0" signal voltage : • <5V • Non–electrically isolated • The external power supply terminal needs to be connected to 24V
Analog Input 1（AI0）		• Differential input • DIP switching voltage and current mode • voltage type support –10v・・・+10v,0v・・・10v • current type support 0mA・・・20mA,4mA・・・20mA • current type internal resistance:250Ω • Response time: 2ms(include software filtering) • Precision: ± 1%
PT1000 2		• Are located in terminal X5 and X11 • support KTY84–130,PTC
Encoder signal input ABZ		• support 24V Single–ended signal,5Vand424v Differential signal • input freq:MAX 250KHZ • Disconnection detection: only support Differential type • max length : 5v Differential type 100m 24v open collector type 50m 24v push–pull type 100m 24v Differential type 300m
	BISS–C	• Maximum 4Mbps • Max length: 500kbps 100m
	RS 485	• Baud:2.5Mbps • Max length: 500kbps 100m
USB interface	1	• USB 2.0 • Mini–B
keyboard interface	Support OP25	• can be installed directly or externally

Note: When controlling the external equipment of the terminal, you must pay attention to the voltage and current specifications of the terminals to avoid damage to the inverter.

3.1 Plug–in terminal Signal definition

terminal	PIN	NAME
X1		DI 7+
		DI 7–
		DI 8
		DI 9
		DI 10
		DI COM 1
		24V IN
		GND

TERMINAL	PIN	NAME
X3		DO 0 COM
		DO 0 NO
		DO 0 NC

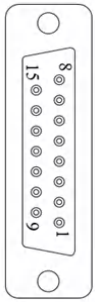
X4		DIO 20
		DIO 21
		DIO 22
		GND

X2		24V OUT
		DI COM 0
		DI 0
		DI 1+
		DI 1–
		DI 2
		DI 3+
		DI 3–
		DI 4
		DI 5+
		DI 5–
		DI 6

X5		GND
		DIO 23
		DIO 24
		DIO 25
		DIO 26
		DIO 27
		GND
		AI 0+
		AI 0–
		10V OUT
		GND
		MOTOR T1

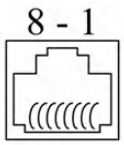
3.2 Encoder–Data–Interface Signal definition

a)Encoder–Data–Interface (x10)Signal definition



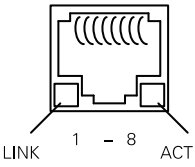
PIN	Signal description
1	BISS–C DATA+
2	BISS–C CLOCK+
3	BISS–C CLOCK–
4	Encoder power(5v or 24v)
5	Encoder power(5v or 24v)
6	Encoder power detection input
7	GND
8	BISS–C DATA–
9	Encoder power detection input ground
10	Incremental signal Z+
11	Incremental signal Z–
12	Incremental signal B–
13	Incremental signal B+
14	Incremental signal A–
15	Incremental signal A+

b)Encoder–Data–Interface (x11)Signal definition



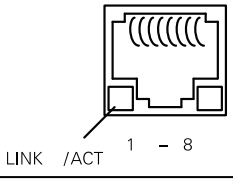
	Signal description
1	KTY84–130 or PTC input
2	KTY84–130 or PTC GND
3	—
4	RS485 signal B
5	RS485 signal A
6	—
7	Encoder power(5v)
8	GND

c)PROFINET interface signal definition



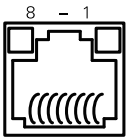
Pin	Signal description
1	receive data +
2	receive data –
3	send data +
4	common CT
5	common CT
6	send data –
7	–
8	GND

EtherCAT interface signal definition



Pin	Signal description
1	send data+
2	send data–
3	receive data+
4	common CT
5	common CT
6	receive data–
7	–
8	GND

DriveLink interface signal definition



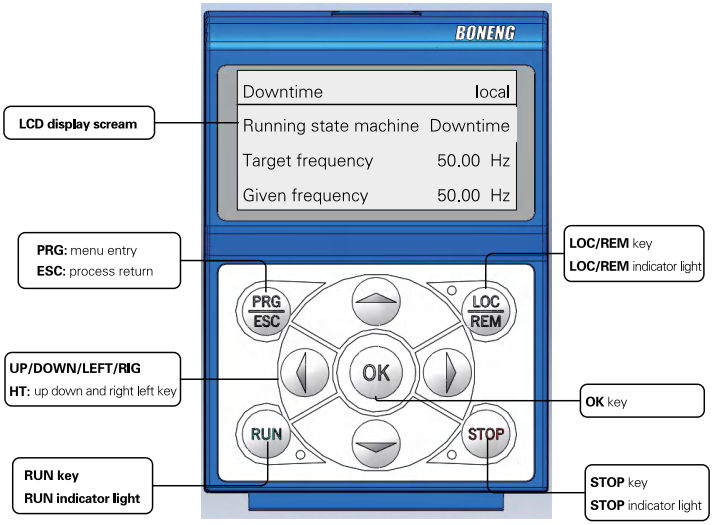
Pin	Signal description
1	CANH signal
2	CANL signal
3	–
4	–
5	–
6	–
7	–
8	GND

4 Debugging

4.1 Operation panel

- **Operation panel introduction**

Using the Operation panel can modify the function parameters of the driver,work states monitoring and operation control (start, stop)and other operations,its appearance and functional areas are shown in the following picture.



- **Key Function**

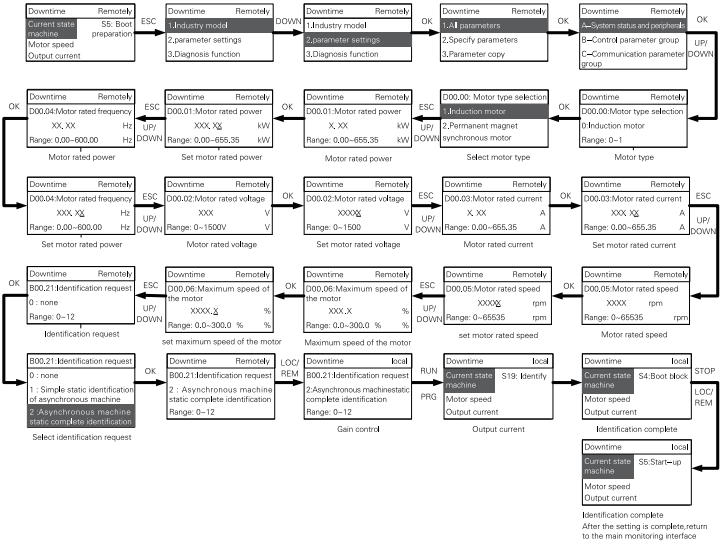
Button	Name	Function
PRG/ESC	Programming key/ Back key	Pressing this key, it will enter the function menu in main return key monitoring interface, or it will return to upper interface in other interface.
LOC/REM	Local/remote key	Getting or giving up the control of the operation panel
STOP	Stop button	Pressing this key, it will stop the drive in run status, or it will reset the fault in stop status.
RUN	Run key	This key can start or stop drive in local mode
▲	Increment key	Increase the data value or function code index
▼	Decrement key	Decrease the data value or function code index
▶	Right shift key	Pressing this key, you can circularly select the bit that you want to modify towards to right.
◀	Left shift key	Pressing this key, you can circularly select the bit that you want to modify towards to left.
OK	Enter	Pressing this key, you can enter the next menu or confirm the value that you have been modified

● **Introduction of checking and modifying the Function Code**

The operation panel of inverter changes the parameters by type of multilevel menu,and displays content by way of four line characters, it is very visual and convenient.

You can check the parameter groups circularly in turn by pressing up or down key in the parameter setting interface. pressing ok key, you can enter the parameters setting interface.

For example: Set motor parameters and perform motor parameter identification operations



4.2 The method of Motor control

Drive support VF,SVC and FVC control method,and also support different motor control,such as Asynchronous motor,Synchronous motor,servo motor and so on;it can choose by the function code B05.00.

4.2.1 Motor parameter and Parameter identification

No matter which motor control mode is selected, the basic parameters of the motor must be set accurately according to the motor nameplate before running the motor.

Function code	Name	Value scope	Default Value	Description
D00.01	Motor rated power	3.7	0.00~655.35kW	motor nameplate parameters
D00.02	Motor rated voltage	380	0~1500V	
D00.03	Motor rated current	9	0.00~655.35A	
D00.04	Motor rated frequency	50	0.0~600.00Hz	
D00.05	Motor rated speed	1440	0~65535rpm	

When choosing vector control as the motor control mode, accurate motor parameters are required. In order to obtain better motor control,need to identify the parameters of the motor.

Function code	Name	Value scope	Default Value	Description
B00.21	Identification request	0	0~3	0: none 1:Simple static identification of asynchronous motor 2： Complete static identification of asynchronous motor 3:Dynamic complete identification of asynchronous motor 11:without encoder identification of Synchronous motor 12:with encoder identification of Synchronous motor 21:Identification of zero position of motor encoder

The difference between the five parameter identification modes is shown in the following table, please choose according to the actual application:

mode	Conditions of use	Identification parameter	description
Simple static identification of asynchronous motor	Motor cannot run	stator resistance	
Complete static identification of asynchronous motor	Motor cannot run	stator resistance rotor resistance Leakage inductance Mutual inductance No-load current	Before identification, please make sure that the motor is mechanically separated from the load and there is no danger in operation; if the motor is connected to the load, the identification result may not be accurate enough
Dynamic complete identification of asynchronous motor	Motor can run		
without encoder identification of Synchronous motor	Motor can run	stator resistance D-axis inductance Q-axis inductance Motor back electromotive force	
with encoder identification of Synchronous motor	Motor can run	Encoder installation angle Encoder direction	

The steps of motor parameter identification are as follows:

1. Set the basic parameters of group D motor correctly according to the current motor selection

2. Select the parameter identification mode according to the driver control mode, system mechanical status, etc.

3. Press run to start parameter identification. If you want to stop identification in the process, press stop. After identification, the panel will display stop status

After identification, the following parameter identification results will be saved automatically. On the premise of knowing the accurate parameters of the motor,you can input the parameters manually without identification

Function code	Parameter name	Value scope	Default Value	Description
D01.00	Stator resistance of asynchronous motor	1.667	0.000~65.535ohm	Asynchronous motor parameter identification result value
D01.01	Rotor resistance of asynchronous motor	1.5	0.000~65.535ohm	
D01.02	Leakage inductance of asynchronous motor	6.54	0.00~655.35mH	
D01.03	Mutual inductance of asynchronous motor	173.4	0.00~655.35mH	
D01.10	Stator resistance of Synchronous motor	1.667	0.000~65.335	Synchronous motor parameter identification result value
D01.11	D-axis inductance of Synchronous motor	20	0.00~653.35	
D01.12	Q-axis inductance of Synchronous motor	20	0.00~653.35	
D01.13	Synchronous motor back electromotive force	300	0~65535	
D02.10	Encoder zero position angle	0	0.0~359.9	Synchronous motor with encoder identification
D02.01	Encoder direction	0	0~1	

The performance of vector control is susceptible to motor parameters. Obtaining accurate motor parameters is the key to achieving high-performance vector control. In order to obtain good driving performance and operating efficiency, the parameter of the controlled motor must be identified first, and it can be entered manually when the accurate motor parameters are known. Inaccurate motor parameters may cause the motor to malfunction.

The code description of the servo motor is as follows:

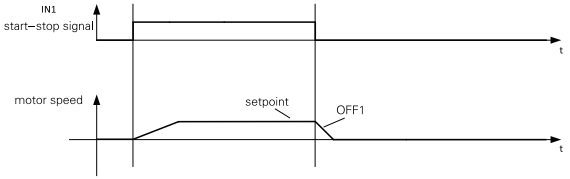
	MXC028		MXC036		MXC048		MXC063		MXC080		MXC100	
	Motor number	rated power	Motor number	rated power	Motor number	rated power	Motor number	rated power	Motor number	rated power	Motor number	rated power
Without brake	10010	0.22	10110	0.34	10210	0.85	10310	1.2	10410	2.39	10510	4.08
	10011	0.3	10111	0.47	10211	1.18	10311	1.7	10411	3.24	10511	5.03
	10012	0.42	10112	0.63	10212	1.35	10312	2.07	10412	3.98	10512	6.28
	10013	0.54	10113	0.8	10213	1.41	10313	2.05	10413	5.03	10513	6.6
	–	–	–	–	–	–	10314	2.76	–	–	10514	7.96
	–	–	–	–	–	–	10315	2.97	–	–	10515	8.8
brake	20010	0.22	20110	0.34	20210	0.85	20310	1.2	20410	2.39	20510	4.08
	20011	0.3	20111	0.47	20211	1.18	20311	1.7	20411	3.24	20511	5.03
	20012	0.42	20112	0.63	20212	1.35	20312	2.07	20412	3.98	20512	6.28
	20013	0.54	20113	0.8	20213	1.41	20313	2.05	20413	5.03	20513	6.6
	–	–	–	–	–	–	20314	2.76	–	–	20514	7.96
	–	–	–	–	–	–	20315	2.97	–	–	20515	8.8

4.3 Start-stop control

There are six kinds of start, stop and direction control of the motor through DI terminal or interconnection parameter input, corresponding to the 6 options of B01.01 control mode; in addition, it can also directly control the start and stop by communication.

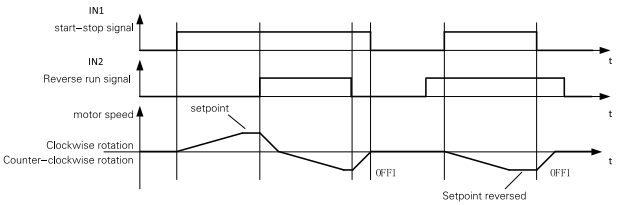
● **1. IN1 start**

IN1 control the start and stop of the motor, the rotation direction of the motor is determined by the current wiring phase sequence of the inverter output.



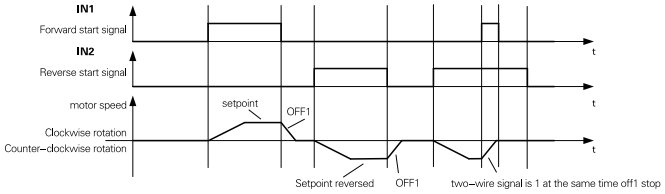
● **2. IN1 start IN2 Direction of rotation**

IN1 control start or stop IN2 control the direction of rotation



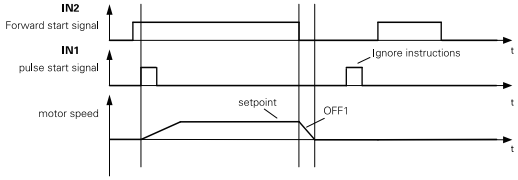
● **3. IN1Forward start IN2 Reverse start**

IN1 control Forward start and stop,IN2 control Reverse start and stop



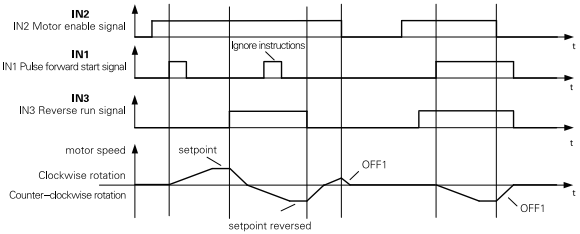
● **4. IN1P start IN2 stop**

IN1 control Forward start and stop,IN2 control Reverse start and stop



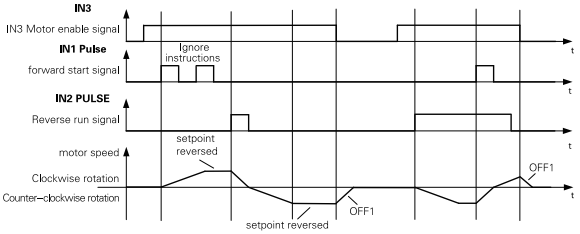
● **5. IN1P start IN2 stop IN3 Direction of rotation**

IN2 receive the low level motor start is prohibited ; IN2 receive high level, IN1 receive pulse motor start. IN3 receive high level speed reversal



● **6. IN1P Forward start IN2P Reverse start IN3 Enable**

IN3 receive the low level motor start is prohibited ; IN3 receive high level, IN1 receive pulse motor Forward start. IN2 receive high level speed reversal



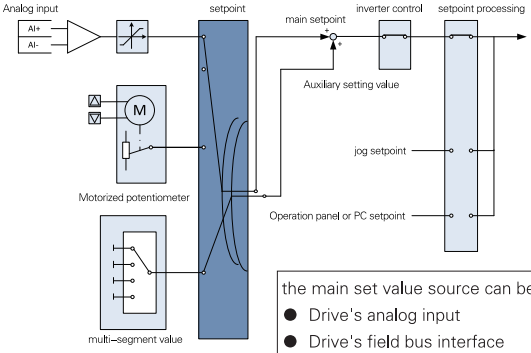
The relevant setting parameters are as follows

function code	parameter name	Factory default	setting range	description
B01.01	Terminal control command 1 method	3	0~6	Terminal control command 1 setting
B01.02	Terminal control command 1 input IN1	2	0~10	
B01.03	Terminal control command 1 input IN2	3	0~10	
B01.03	Terminal control command 1 input IN3	0	0~10	

if b01.00 set 1(Terminal control command 1),Related setting parameter reference b01.06-b01.10

4.4 Rotation speed setpoint

AX Servo Driver use B02.00 to select the speed setting source;The main set value is mostly the target speed of the given motor



the main set value source can be :

- Drive's analog input
- Drive's field bus interface
- Drive's internal potentiometer
- Driver's multi-segment value
- Interconnect to P group parameters

The above source can also be the source of auxiliary setting value or additional setting value

4.5 position setpoint

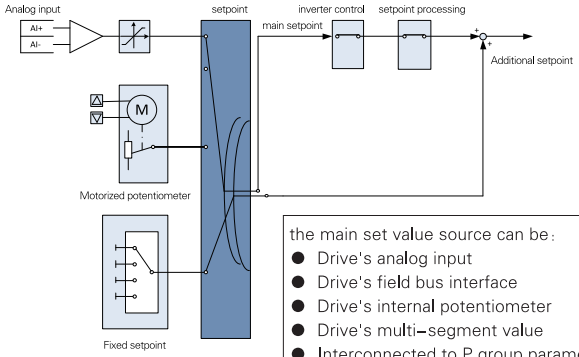
AX Servo Driver use G00.00 to select the sposition setpoint source;The main setpoint is mostly sets the position under position control.

the main setpoint can be::

- Multi-stage setpoint (See Group G04 for related parameters)
- Actual position setpoint(See Group G00 for related parameters)

4.6 Torque setpoint

AX Servo Driver use B02.03 to select the torque sepoint source;The main setpoint is mostly sets the torque setpoint under torque control



the main set value source can be:

- Drive's analog input
- Drive's field bus interface
- Drive's internal potentiometer
- Drive's multi-segment value
- Interconnected to P group parameters

The above source can also be the source of auxiliary setting value or additional setting value

5 Function code

Function code	Name	Value scope	Default Value	unit	Communication address
A00 group：status monitoring and setting					
A00.00	Current state machine	0~29	0	–	0x2000
A00.01	Target Frequency	–327.68~327.67	0	Hz	0x2001
A00.02	Current Frequency	–327.68~327.67	0	Hz	0x2002
A00.03	Output Frequency	–327.68~327.67	0	Hz	0x2003
A00.04	Target speed	–32768~32767	0	rpm	0x2004
A00.05	Current speed	–32768~32767	0	rpm	0x2005
A00.06	Motor speed	–32768~32767	0	rpm	0x2006
A00.07	Output voltage	0~1000	0	V	0x2007
A00.08	Output current	0.00~655.35	0	A	0x2008
A00.09	Output power	0.00~655.35	0	kW	0x2009
A00.10	Setting torque	–300.0~300.0	0	%	0x200a
A00.11	Output torque	–300.0~300.0	0	%	0x200b
A00.14	DC link voltage	0~1000.0	0	V	0x200e
A00.15	Radiator temperature	–40~150	0	℃	0x200f
A00.16	DI status	0x0000~0xFFFF	0x0000	–	0x2010
A00.17	DO status	0x0000~0xFFFF	0x0000	–	0x2011
A00.18	Rectifier bridge temperature	0~120	0	℃	0x2012
A00.19	Synchronize frequency	–327.68~327.67	0	Hz	0x2013
A00.20	Encoder frequency	–327.68~327.67	0	Hz	0x2014
A00.41	Boot display selection 1	0–40 Equivalent parameters' index of A0.00–A0.40 Easy to differentiate the state parameters in monitoring screen	1	–	0x2029
A00.42	Boot display selection 2	0–40 Equivalent parameters' index of A0.00–A0.40 Easy to differentiate the state parameters in monitoring screen	3	–	0x202a
A00.43	Boot display selection 3	0–40 Equivalent parameters' index of A0.00–A0.40 Easy to differentiate the state parameters in monitoring screen	8	–	0x202b
A00.44	Boot display selection 4	0–40 Equivalent parameters' index of A0.00–A0.40 Easy to differentiate the state parameters in monitoring screen	11	–	0x202c
A00.45	Boot display selection 5	0–40 Equivalent parameters' index of A0.00–A0.40 Easy to differentiate the state parameters in monitoring screen	14	–	0x202d
A00.46	Boot display selection 6	0–40 Equivalent parameters' index of A0.00–A0.40 Easy to differentiate the state parameters in monitoring screen	15	–	0x202e

Function code	Name	Value scope	Default Value	unit	Communication address
A01 group : Faults and warnings					
A01.00	Current fault code 1	0~51	0	–	0x2100
A01.01	Current fault code 1 Subcode	0~65535	0	–	0x2101
A01.02	Current fault code 2	0~51	0	–	0x2102
A01.03	Current fault code 2 Subcode	0~65535	0	–	0x2103
A01.04	Current fault code 3	0~51	0	–	0x2104
A01.05	Current fault code 3 Subcode	0~65535	0	–	0x2105
A01.06	Current fault code 4	0~51	0	–	0x2106
A01.07	Current fault code 4 Subcode	0~65535	0	–	0x2107
A01.08	Current fault code 5	0~51	0	–	0x2108
A01.09	Current fault code 5 Subcode	0~65535	0	–	0x2109
A01.10	Current fault code 6	0~51	0	–	0x210a
A01.11	Current fault code 6 Subcode	0~65535	0	–	0x210b
A01.12	Current warning code 1	0~51	0	–	0x210c
A01.13	Current fault code 1 Subcode	0~65535	0	–	0x210d
A01.14	Current warning code 2	0~51	0	–	0x210e
A01.15	Current fault code 2 Subcode	0~65535	0	–	0x210f
A01.16	Current warning code 3	0~51	0	–	0x2110
A01.17	Current fault code 3 Subcode	0~65535	0	–	0x2111
A01.18	Current warning code 4	0~51	0	–	0x2112
A01.19	Current fault code 4 Subcode	0~65535	0	–	0x2113
A01.20	Current warning code 5	0~51	0	–	0x2114
A01.21	Current fault code 5 Subcode	0~65535	0	–	0x2115
A01.22	Current warning code 6	0~51	0	–	0x2116
A01.23	Current fault code 6 Subcode	0~65535	0	–	0x2117
A02 group : Drive information and setting					
A02.00	CM–ARM Software Version	0.00~655.35	0	–	0x2200
A02.01	CM–FPGA Version Number	0.00~655.35	0	–	0x2201
A02.02	PM–DSP Software Version	0.00~655.35	0	–	0x2202
A02.03	PM–FPGA Version Number	0.00~655.35	0	–	0x2203
A02.04	PM rated power of power unit	0.00~655.35	0	kW	0x2204
A02.05	PM rated voltage of power unit	0~65535	0	V	0x2205
A02.06	PM rated CUR of power unit	0.00~655.35	0	A	0x2206
A02.07	FUNC code version number	0.00~655.35	0	–	0x2207
A02.08	CM release time	0x0000~0xFFFF	0x0000	–	0x2208
A02.09	Speed loop version number	0.00~655.35	0	–	0x2209
A02.10	CM board number	0x0000~0xFFFF	0x0000	–	0x220a
A02.11	Platform version number	0.00~655.35	0	–	0x220b

Function code	Name	Value scope	Default Value	unit	Communication address
A03 group : Protecting and setting the power module					
A03.08	Set carrier Frequency	0 : 1 KHz 1 : 2 KHz 2 : 4 KHz 3 : 6 KHz 4 : 8 KHz	2	–	0x2308
A03.09	Load mode selection	0:Light load 1:Overload	0	–	0x2309
A03.13	Switching frequency of DPWM	1 .00 ~ 60 .00	8	Hz	0x230d
A03.16	Dead–time compensate selection	0 : No 1 : Dead–time COMP method1 2 : Dead–time COMP method2	1	–	0x2310
A03.17	Wave–by–wave current limit enable	0 : No 1 : Yes	1	–	0x2311
A03.18	Wave–by–wave current limiting ratio	0 : No 1 : Yes	100	%	0x2312
A03.19	Loss detection of input phase	0 : No 1 : Yes	0	–	0x2313
A03.20	Braking resistor action point	600 .0 ~ 800 .0	700	V	0x2314
A03.21	Software under–voltage point	85 ~ 150	100	%	0x2315

Function code	Name	Value scope	Default Value	unit	Communication address
A04 group : System application and environment setting					
A04.00	Parameter reset mode	0:Ineffective 1:Partial PARM restore factory1 (Model PARM、motor PARM not restore) 2:Partial PARM restore factory2 Motor PARM not restore) 3:Restore all PARMs to factory 4:Clear record PARMs	0	–	0x2400
A04.01	Parameter reset	0:No 1:Yes	0	–	0x2401
A04.02	Parameter access level	0:Common PARM 1:Extended PARM 2:Expert PARM 3:Manufacturer PARM	0	–	0x2402
A04.03	Manufacturer password	0~65535	0	–	0x2403
A04.04	User password	0~65535	0	–	0x2404
A04.05	Sourece of motor selection	0:00 1:01 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:reserve Others : Binary interconnect parameters	0	–	0x2405
A04.06	Source1 of motor selection Motor SEL	0:00 1:01 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:reserveOthers:Binary interconnection of parameters	0	–	0x2406
A04.10	Disable control of panel	0: Disable invalid 1: Disable valid	0	–	0x240a
A04.11	User latch password	0~65535	0	–	0x240b
A04.14	Drive drive mode selection	0:Frequency conversion mode 1:Servo mode	0	–	0x240e
A04.16		0~29199	0	–	0x2410

Function code	Name	Value scope	Default Value	unit	Communication address
A05 group : Digital input					
A05.00	DI physical state value	0x0000~0xFFFF	0x0000	–	0x2500
A05.02	DI processed state value	0x0000~0xFFFF	0x0000	–	0x2502
A05.03	DI input filter cycle	0~10	0	–	0x2503
A05.04	DI forced function selection	0x0000~0xFFFF	0x0000	–	0x2504
A05.06	DI forced selective value	0x0000~0xFFFF	0x0000	–	0x2506
A05.08	DI0 turn–on delay	0.00~655.35	0	s	0x2508
A05.09	DI0 turn–off delay	0.00~655.35	0	s	0x2509
A05.10	DI1 turn–on delay	0.00~655.35	0	s	0x250a
A05.11	DI1 turn–off delay	0.00~655.35	0	s	0x250b
A05.12	DI2 turn–on delay	0.00~655.35	0	s	0x250c
A05.13	DI2 turn–off delay	0.00~655.35	0	s	0x250d
A05.14	DI3 turn–on delay	0.00~655.35	0	s	0x250e
A05.15	DI3 turn–off delay	0.00~655.35	0	s	0x250f
A05.16	DI4 turn–on delay	0.00~655.35	0	s	0x2510
A05.17	DI4 turn–off delay	0.00~655.35	0	s	0x2511
A05.18	DI5 turn–on delay	0.00~655.35	0	s	0x2512
A05.19	DI5 turn–off delay	0.00~655.35	0	s	0x2513
A05.20	DI6 turn–on delay	0.00~655.35	0	s	0x2514
A05.21	DI6 turn–off delay	0.00~655.35	0	s	0x2515
A05.22	DI7 turn–on delay	0.00~655.35	0	s	0x2516
A05.23	DI7 turn–off delay	0.00~655.35	0	s	0x2517
A05.24	DI8 turn–on delay	0.00~655.35	0	s	0x2518
A05.25	DI8 turn–off delay	0.00~655.35	0	s	0x2519
A05.26	DI9 turn–on delay	0.00~655.35	0	s	0x251a
A05.27	DI9 turn–off delay	0.00~655.35	0	s	0x251b

Function code	Name	Value scope	Default Value	unit	Communication address
A06 group : Digital output					
A06.00	State value of DO signal source	0x0000~0xFFFF	0x0000	–	0x2600
A06.01	State value of processed DO	0x0000~0xFFFF	0x0000	–	0x2601
A06.02	Output selection of DO0 function	0:Low level 1:High level 2:Running ready 3:Run permission 4:Running 5:Comparison arrived 6:Negative speed 7:Zero speed operation 8:Overspeed 9:Warning 10:Fault Others:Binary interconnection of parameters	4	–	0x2602
A06.09	DO0 turn–on delay	0.00~655.35	0	s	0x2609
A06.10	DO0 turn–off delay	0.00~655.35	0	s	0x260a
A07 group : Analog input					
A07.00	AI0 input value	–20.000~20.000	0	–	0x2700
A07.01	AI0 input ratio	–600.00~600.00	0	%	0x2701
A07.04	AI0 type	0: –10~10 V 1: 0~10 V 2: –20~20 mA 3: 0~20 mA 4: 4~20 mA	0	–	0x2704
A07.06	AI0 min input value of curve	–20.000~20.000	–10	–	0x2706
A07.07	AI0 min input ratio of curve	–600.00~600.00	–100	%	0x2707
A07.08	AI0 max input value of curve	–20.000~20.000	10	–	0x2708
A07.09	AI0 max input ratio of curve	–20.000~20.000	100	%	0x2709
A07.14	Selecting lower limit of AI	0:Minimum input ratio 1:0.0%	0	–	0x270e
A07.15	AI0 filtering time	0~10000	10	ms	0x270f
A07.17	AI0 denoising threshold	0.0~20.0	0	%	0x2711
A07.19	AI zero–crossing threshold	0.0~1.0	0.5	%	0x2713
A07.20	AI0 breakage detection threshold	0.000~4.000	0	mA	0x2714
A07.22	AI0 breakage detection delay	0.00~1.00	0	s	0x2716
A07.24	AI breakage detection enable	0:no 1:yes	0	–	0x2718

Function code	Name	Value scope	Default Value	unit	Communication address
A10 group : Bidirectional Digital Input/Output					
A10.00	DIO20 functions configuration	0: Digital input 1: Digital output	0	–	0x2a00
A10.01	DIO21 functions configuration	0: Digital input 1: Digital output	0	–	0x2a01
A10.02	DIO22 functions configuration	0: Digital input 1: Digital output	0	–	0x2a02
A10.03	DIO23 functions configuration	0: Digital input 1: Digital output	0	–	0x2a03
A10.04	DIO24 functions configuration	0: Digital input 1: Digital output	0	–	0x2a04
A10.05	DIO25 functions configuration	0: Digital input 1: Digital output	0	–	0x2a05
A10.06	DIO26 functions configuration	0: Digital input 1: Digital output	0	–	0x2a06
A10.07	DIO27 functions configuration	0: Digital input 1: Digital output	0	–	0x2a07
A10.10	DIO as the physical state value of DI	0x0000~0xFFFF	0x0000	–	0x2a0a
A10.11	DIO as the state value after DI processing	0x0000~0xFFFF	0x0000	–	0x2a0b
A10.12	DIO as DI forced function selection	0x0000~0xFFFF	0x0000	–	0x2a0c
A10.13	DIO as DI forced value	0x0000~0xFFFF	0x0000	–	0x2a0d
A10.14	DIO20 as DO signal source selection	0:Low level 1:High level 2:Running ready 3:Run permission 4:Running 5:Comparison arrived 6:Negative speed 7:Zero speed operation 8:Overspeed 9:Warning 10:Fault Others:Binary interconnection of parameters	0	–	0x2a0e
A10.15	DIO21 as DO signal source selection		0	–	0x2a0f
A10.16	DIO22 as DO signal source selection		0	–	0x2a10
A10.17	DIO23 as DO signal source selection		0	–	0x2a11
A10.18	DIO24 as DO signal source selection		0	–	0x2a12
A10.19	DIO25 as DO signal source selection		0	–	0x2a13
A10.20	DIO26 as DO signal source selection		0	–	0x2a14
A10.21	DIO27 as DO signal source selection		0	–	0x2a15
A10.24	DIO as DO signal source status value	0x0000~0xFFFF	0x0000	–	0x2a18
A10.25	DIO as the state value after DO processing	0x0000~0xFFFF	0x0000	–	0x2a19
A10.26	DIO20 turn-on delay TIME	0.00~655.35	0	s	0x2a1a
A10.27	DIO20 turn-off delay TIME	0.00~655.35	0	s	0x2a1b
A10.28	DIO21 turn-on delay TIME	0.00~655.35	0	s	0x2a1c
A10.29	DIO21 turn-off delay TIME	0.00~655.35	0	s	0x2a1d
A10.30	DIO22 turn-on delay TIME	0.00~655.35	0	s	0x2a1e
A10.31	DIO22 turn-off delay TIME	0.00~655.35	0	s	0x2a1f
A10.32	DIO23 turn-on delay TIME	0.00~655.35	0	s	0x2a20
A10.33	DIO23 turn-off delay TIME	0.00~655.35	0	s	0x2a21
A10.34	DIO24 turn-on delay TIME	0.00~655.35	0	s	0x2a22
A10.35	DIO24 turn-off delay TIME	0.00~655.35	0	s	0x2a23

Function code	Name	Value scope	Default Value	unit	Communication address
A10 group : Bidirectional Digital Input/Output					
A10.36	DIO25 turn-on delay TIME	0.00~655.35	0	s	0x2a24
A10.37	DIO25 turn-off delay TIME	0.00~655.35	0	s	0x2a25
A10.38	DIO26 turn-on delay TIME	0.00~655.35	0	s	0x2a26
A10.39	DIO26 turn-off delay TIME	0.00~655.35	0	s	0x2a27
A10.40	DIO27 turn-on delay TIME	0.00~655.35	0	s	0x2a28
A10.41	DIO27 turn-off delay TIME	0.00~655.35	0	s	0x2a29

Function code	Name	Value scope	Default Value	unit	Communication address
B00 group : System control command settings					
B00.00	Source of start–stop control command	0:Terminal control module 1:Custom control module	0	–	0x3000
B00.01	Custom OFF1 source	0:Ineffective 1:Reserve 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection of parameters	0	–	0x3001
B00.02	Custom OFF2 source 1	0:Effective 1:Ineffective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve	1	–	0x3002
B00.03	Custom OFF3 source1	Others:Binary interconnection of parameters	1	–	0x3003
B00.04	Custom run allowed source	0:run not allowed 1:run allowed 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection of parameters	1	–	0x3004

Function code	Name	Value scope	Default Value	unit	Communication address
B00 group : System control command settings					
B00.05	Custom fault reset source 1	0:Ineffective 1:Effective	0	–	0x3005
B00.06	Custom speed command reverse source	2:DI0 3:DI1 4:DI2 5:DI3	0	–	0x3006
B00.07	Costom JOG1 source	6:DI4 7:DI5 8:DI6	0	–	0x3007
B00.08	Costom JOG2 source	9:DI7 10:Reserve Others:Binary interconnection of parameters	0	–	0x3008
B00.09	OFF2 source2	0:Ineffective 1:Effective 2:DI0	1	–	0x3009
B00.10	OFF2 source3	3:DI1 4:DI2 5:DI3	1	–	0x300a
B00.11	OFF3 source2	6:DI4 7:DI5 8:DI6 9:DI7	1	–	0x300b
B00.12	OFF3 source3	10:Reserve Others:Binary interconnection of parameters	1	–	0x300c
B00.13	Fault reset source2	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4	0	–	0x300d
B00.14	Fault reset source3	7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection of parameters	0	–	0x300e

Function code	Name	Value scope	Default Value	unit	Communication address
B00 group : System control command settings					
B00.15	Prohibition source of Ramp function generator(RFG)	0:Effective 1:Ineffective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	1	–	0x300f
B00.16	Suspension source of Ramp function generator(RFG)	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 11:Reserve Others:Binary interconnection parameters	1	–	0x3010
B00.17	Given 0 source of Ramp function generato(RFG)	0:Effective 1:Ineffective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 12:Reserve Others:Binary interconnection parameters	1	–	0x3011

Function code	Name	Value scope	Default Value	unit	Communication address
B00 group : System control command settings					
B00.21	Identification request	0:None 1:Simple identification for Asynchronous motor 2:Static identification for Asynchronous motor 3:Rotating identification for Asynchronous motor 11：Synchronous machine no-load zero position recognition 12：Synchronous machine loaded zero position recognition 20：Moments of inertia recognition 21：Encoder zero point correction	0	–	0x3015
B00.22	JOG mode selection	0:Speed jog 1:Position jog	0	–	0x3016

Function code	Name	Value scope	Default Value	unit	Communication address
B01 group : Terminal control module					
B01.00	Terminal control command 1/2 selection	0:Terminal control command 1 1:Terminal control command 2 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others :Binary interconnect parameters	0	–	0x3100
B01.01	Terminal control command 1 mode	0:Ineffective 1:IN1 start up 2:IN1 start up，IN2 direction 3:IN1 forward start,IN2 reverse sta 4:IN1P start up，IN2 stop 5:IN1P start up，IN2 stop，IN3 direction 6:IN1P forward start，IN2P reverse start，IN3 stop	3	–	0x3101
B01.03	Terminal control command 1 input IN1	0:Ineffective 1:Reserve 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	2	–	0x3103
B01.04	Terminal control command 1 input IN2		3	–	0x3104
B01.05	Terminal control command 1 input IN3		0	–	0x3105
B01.06	Terminal control command 2 mode	0:Ineffective 1:IN1 start up 2:IN1 start up,IN2 direction 3:IN1 forward start,IN2 4:IN1P start up,IN2 stop 5:IN1P start up,IN2 stop,IN3 direction 6:IN1P forward start,IN2P reverse start , IN3 stop	3	–	0x3106

Function code	Name	Value scope	Default Value	unit	Communication address
B01 group : Terminal control module					
B01.08	Terminal control command 2 input IN1	0:Ineffective 1:Reserve 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	2	–	0x3108
B01.09	Terminal control command 2 input IN2		3	–	0x3109
B01.10	Terminal control command 2 input IN3		0	–	0x310a
B01.11	Terminal control module JOG1 source		0	–	0x310b
B01.12	Terminal control module JOG2 source		0	–	0x310c

Function code	Name	Value scope	Default Value	unit	Communication address
Group B02: Command source settings					
B02.00	Speed control main setting selection	0:00 1:Multi-stage setting 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A-PZD2 10:Bus adapter B-PZD2 Others:Analog interconnection parameters	1	-	0x3200
B02.01	Speed control secondary setting selection		0	-	0x3201
B02.02	Additional speed given		0	-	0x3202
B02.03	Torque control torque setting selection	0:00 1:Multi-stage setting 2 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A-PZD3 10:Bus adapter B-PZD3 Others:Analog interconnection parameters	0	-	0x3203
B02.04	Torque control torque reference ramp time	0~10.00	0	s	0x3204
B02.05	Torque control torque reference filter time	0~10.00	0	s	0x3205
B02.06	Torque control forward speed limit source	0:0 1:Multi-stage setting 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A-PZD2 10:Bus adapter B-PZD2 Others:Analog interconnection parameters	2101	-	0x3206
B02.07	Torque control reverse speed limit source		2105	-	0x3207
B02.08	Torque control speed limit value ramp time	0~10.00	0	s	0x3208
B02.09	Additional torque reference 1 selection	0:00 1:Digital setting Others:Analog interconnection parameters	0	-	0x3209
B02.10	Additional torque reference 1 digital setting	-400.0~400.0	0	%	0x320a
B02.11	Additional torque reference 2	0:00 Others:Analog interconnection parameters	0	-	0x320b
B03 group : Other command source settings					
B03.00	JOG1 given settings	0:00 1:Multi-stage setting 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A-PZD2 10:Bus adapter B-PZD2 Others:Analog interconnection parameters	1	-	0x3300
B03.01	JOG2 given settings		0	-	0x3301
B03.02	JOG acceleration time	0.0~1000.0	10	s	0x3302
B03.03	JOG deceleration time	0.0~1000.0	10	s	0x3303

Function code	Name	Value scope	Default Value	unit	Communication address
B03 group : Other command source settings					
B03.04	Electric potentiometer function	0:No 1:Power-off clear	1	-	0x3304
B03.05	Electric potentiometer initial value	-600.0~600.0	0	%	0x3305
B03.06	Electric potentiometer ramp time	0.0~1000.0	10	s	0x3306
B03.07	Electric potentiometer minimum value	-600.0~600.0	0	%	0x3307
B03.08	Electric potentiometer Maximum value	-600.0~600.0	100	%	0x3308
B03.09	Electric potentiometer increased source selection	0:00 1:01 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5	0	-	0x3309
B03.10	Electric potentiometer descent source selection	8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	0	-	0x330a
B03.11	Multisegment given value	-600.0~600.0	0	%	0x330b
B03.12	Multisegment given value choice 1	0:00 1:01 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	0	-	0x330c
B03.13	Multisegment given value choice 2		0	-	0x330d
B03.14	Multisegment given value choice 3		0	-	0x330e
B03.15	Multisegment given value choice 4		0	-	0x330f
B03.16	Multisegment given value 1	-600.0~600.0	10	%	0x3310
B03.17	Multisegment given value 2	-600.0~600.0	20	%	0x3311
B03.18	Multisegment given value 3	-600.0~600.0	30	%	0x3312
B03.19	Multisegment given value 4	-600.0~600.0	-10	%	0x3313
B03.20	Multisegment given value 5	-600.0~600.0	-20	%	0x3314
B03.21	Multisegment given value 6	-600.0~600.0	-30	%	0x3315
B03.22	Multisegment given value 7	-600.0~600.0	0	%	0x3316
B03.23	Multisegment given value 8	-600.0~600.0	0	%	0x3317
B03.24	Multisegment given value 9	-600.0~600.0	0	%	0x3318
B03.25	Multisegment given value 10	-600.0~600.0	0	%	0x3319
B03.26	Multisegment given value 11	-600.0~600.0	0	%	0x331a
B03.27	Multisegment given value 12	-600.0~600.0	0	%	0x331b
B03.28	Multisegment given value 13	-600.0~600.0	0	%	0x331c
B03.29	Multisegment given value 14	-600.0~600.0	0	%	0x331d
B03.30	Multisegment given value 15	-600.0~600.0	0	%	0x331e
B03.31	Multisegment given value 16	-600.0~600.0	0	%	0x331f

Function code	Name	Value scope	Default Value	unit	Communication address
B04 group : Ramp function generator					
B04.00	RFG Ramp time selection 1	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	0	–	0x3400
B04.01	RFG Ramp time selection 2		0	–	0x3401
B04.02	Ramp 1 acceleration time	0.0~1000.0	5	s	0x3402
B04.03	Ramp 1 deceleration time	0.0~1000.0	5	s	0x3403
B04.04	Ramp 2 acceleration time	0.0~1000.0	5	s	0x3404
B04.05	Ramp 2 deceleration time	0.0~1000.0	5	s	0x3405
B04.06	Ramp 3 acceleration time	0.0~1000.0	5	s	0x3406
B04.07	Ramp 3 deceleration time	0.0~1000.0	5	s	0x3407
B04.08	Ramp 4 acceleration time	0.0~1000.0	5	s	0x3408
B04.09	Ramp 4 deceleration time	0.0~1000.0	5	s	0x3409
B04.10	S curve 1 starting time	0.00~20.00	0	s	0x340a
B04.11	S curve 1 end time	0.00~20.00	0	s	0x340b
B04.12	S curve 2 starting time	0.00~20.00	0	s	0x340c
B04.13	S curve 2 end time	0.00~20.00	0	s	0x340d
B04.14	S curve 3 starting time	0.00~20.00	0	s	0x340e
B04.15	S curve 3 end time	0.00~20.00	0	s	0x340f
B04.16	S curve 4 starting time	0.00~20.00	0	s	0x3410
B04.17	S curve 4 end time	0.00~20.00	0	s	0x3411
B04.18	Low speed acceleration time gain	1.0~10.0	1	–	0x3412
B04.19	Low speed judgment value	0.0~100.0	0	%	0x3413
B04.20	RFG forced output enable	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	0	–	0x3414
B04.21	RFG forced set point	0:00 Others: Analog interconnection parameters	0	–	0x3415
B04.22	RFG start delay time	0.0~1000.0	0	s	0x3416
B04.23	RFG output filter time	0.00~10.00	0	s	0x3417

Function code	Name	Value scope	Default Value	unit	Communication address
B04 group : Ramp function generator					
B04.26	RFG Ramp time selection 3	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	0	–	0x341a
B04.28	Ramp 5 acceleration time	0.0~1000.0	5	s	0x341c
B04.29	Ramp 5 acceleration time	0.0~1000.0	5	s	0x341d
B04.30	Ramp 6 acceleration time	0.0~1000.0	5	s	0x341e
B04.31	Ramp 6 acceleration time	0.0~1000.0	5	s	0x341f
B04.32	Ramp 7 acceleration time	0.0~1000.0	5	s	0x3420
B04.33	Ramp 7 acceleration time	0.0~1000.0	5	s	0x3421
B04.34	Ramp 8 acceleration time	0.0~1000.0	5	s	0x3422
B04.35	Ramp 8 acceleration time	0.0~1000.0	5	s	0x3423

Function code	Name	Value scope	Default Value	unit	Communication address
B05 group : Motor control selection					
B05.00	Motor control mode	0:VF 1:SVC 2:FVC	0	–	0x3500
B05.01	System control mode	0:Speed control 1:Torque control 2:Position control	0	–	0x3501
B05.02	Positive speed allowed	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	1	–	0x3502
B05.03	Negative speed allowed		1	–	0x3503
B05.04	Motor starting mode	0:Direct start 1:Pre-excitation start 2:Speed tracking start 3:DC brake start	0	–	0x3504
B05.06	Pre-excitation time setting	0.00~100.00	0	s	0x3506
B05.08	Digital setting of pre-excitation current	10.0 ~ 200.0	100	%	0x3508
B05.09	DC braking current	0.0 ~ 100.0	50	%	0x3509
B05.10	DC braking time at start-up	0.00~100.00	0	s	0x350a
B05.11	DC braking time at stop	0.00~100.00	0	s	0x350b
B05.12	DC braking starting speed at stop	0~3000	0	rpm	0x350c
B05.13	Speed tracking mode	0:Speed tracking off 1:Search from shutdown frequency 2:Search from rated frequency 3:Search from maximum frequency	0	–	0x350d
B05.14	Speed tracking search time	0.0~120.0	25	s	0x350e
B05.15	Speed tracking current percentage	0~100	50	%	0x350f
B05.16	Speed tracking minimum frequency limitation	0.00~50.00	2	Hz	0x3510
B05.17	Speed tracking switching waiting time	0~60000	250	ms	0x3511
B05.29	Zero speed judgement value	0~3000	30	rpm	0x351d
B05.30	Zero speed shutdown delay time	0.00~100.00	0	s	0x351e
B05.32	OFF1 stop mode	0:Free shutdown 1:Deceleration shutdown	1	–	0x3520
B05.33	OFF3 downtime	0.0~1000.0	10	s	0x3521
B05.34	OFF3 stop mode	0:Deceleration shutdown 1:Maximum capacity shutdown(RESV)	0	–	0x3522
B05.35	Operation allowed stop mode	0:Mode OFF1 shutdown 1:Mode OFF2 shutdown 2:Mode OFF3 shutdown	0	–	0x3523

Function code	Name	Value scope	Default Value	unit	Communication address
B06 group：Motor control limit and protection					
B06.00	Lower limit of jump frequency 1	0.0~B06.01	0	%	0x3600
B06.01	Upper limit of jump frequency 1	B06.00~B06.02	0	%	0x3601
B06.02	Lower limit of jump frequency 2	B06.01~B06.03	0	%	0x3602
B06.03	Upper limit of jump frequency 2	B06.02~600.0	0	%	0x3603
B06.04	Forward limit speed	0.0~600.0	100	%	0x3604
B06.05	Reverse limit speed	-600.0~0.0	-100	%	0x3605
B06.06	Forward speed limit selection	0:00 1:600.0% 2:AI0 6:Multi-segment value SET 7:Motorized potentiometer 9:Bus adapterA-PZD2 10:Bus adapterB-PZD2 Others:Analog interconnection parameters	1	-	0x3606
B06.07	Negative speed limit selection		1	-	0x3607
B06.08	Torque upper limit given digital setting	0.0~400.0	200	%	0x3608
B06.09	Torque lower limit given digital setting	-400.0~0.0	-200	%	0x3609
B06.10	Torque upper limit selection	0:00 1:400.0% 2:AI0 6:Multi-segment value SET 7:Motorized potentiometer 9:Bus adapterA-PZD2 10:Bus adapterB-PZD2 Others:Analog interconnection parameters	1	-	0x360a
B06.11	Torque lower limit selection		1	-	0x360b
B06.12	Vector control torque limitation	0.0~300.0	180	%	0x360c
B06.13	Torque limitation before opening brake	0.0~200.0	180	%	0x360d
B06.25	Selection of motor overload software protection	0:No 1:Yes	0	-	0x3619
B06.26	Motor overload software protection gain	20~1000	100	%	0x361a
B06.27	Motor overload warning coefficient	50 ~ 100	80	%	0x361b
B06.28	Overspeed detection value	0.0 ~ 50.0	20	%	0x361c
B06.29	Overspeed detection time	0.0:Non-detection 0.1S ~ 60.0S	0	s	0x361d
B06.30	Excessive speed deviation detection value	0.0 ~ 100.0	20	%	0x361e
B06.31	Excessive speed deviation detection time	0.0:Non-detection 0.1s ~ 600.0s	0	s	0x361f
B06.32	Comparison value reachese detection value	0.0 ~ 600.0	100	%	0x3620
B06.33	Comparison value reachese detection hysteresis value	0.0 ~ B06.32	3	%	0x3621
B06.34	Comparison value reachese detection time	0.0:Non-detection 0.1s ~ 600.0s	3	s	0x3622
B06.37	Outpue phase loss detection	0:No 1:Yes	1	-	0x3625
B06.39	Motor temperature detection method	0:Prohibit detection 1:KTY84	0	-	0x3627
B06.40	Motor over temperature protection value	0~300	130	℃	0x3628
B06.41	Motor temperature over temperature warning value	0~300	110	℃	0x3629
B06.59	Stall detection time 1	0~5000	500	ms	0x363b
B06.60	Stall detection time 2	0~5000	500	ms	0x363c
B06.61	Vector stall detection coefficient	0~100	20	%	0x363d
B06.62	SVC control mode	0:Control mode 1 1:Control mode 2	0	-	0x363e
B06.63	FVC control mode	0:Control mode 1 1:Control mode 2	0	-	0x363f
B06.64	Slip compensation coefficient of vector control	50~200	100	%	0x3640

Function code	Name	Value scope	Default Value	unit	Communication address
B07 group：VF control					
B07.00	VF mode selection	0:VF curve 1:VF separate	0	–	0x3700
B07.01	VF curve selection	0:Line VF 1:Multipoint VF 2:Square V/F 3:1.5 power V/F	0	–	0x3701
B07.02	frequency point 1 of multipoint VF curve	0.0 ~ B07.04	2	Hz	0x3702
B07.03	Voltage point 1 of multipoint VF curve	0.0 ~ B07.05	20	V	0x3703
B07.04	frequency point 2 of multipoint VF curve	B07.02 ~ B07.06	20	Hz	0x3704
B07.05	Voltage point 2 of multipoint VF curve	B07.03 ~ B07.07	152	V	0x3705
B07.06	frequency point 3 of multipoint VF curve	B07.04~D00.04	40	Hz	0x3706
B07.07	Voltage point 3 of multipoint VF curve	B07.05 ~ D00.02	304	V	0x3707
B07.08	VF separation voltage given	0:00 1:100.0% 2:AI0 6:Multi-segment value SET 7:Motorized potentiometer 9:Bus adapterA-PZD2 10:Bus adapterB-PZD2 Others:Analog interconnection parameters	0	–	0x3708
B07.09	VF separation voltage change time	0.0 ~ 1000.0	10	s	0x3709
B07.10	Imax control enable	0:Ineffective 1:Effective	1	–	0x370a
B07.11	Imax control gain	0 ~ 100	30	%	0x370b
B07.12	Imax inhibition point	0 ~ 200	150	%	0x370c
B07.13	VF torque lifting mode	0:Not enabled 1:Manual 2:AUTO	1	–	0x370d
B07.15	VF manual acceleration torque lifting	0 ~ 250	1	%	0x370f
B07.16	VF torque lifting cut-off frequency	0.00~50.00	50	Hz	0x3710
B07.17	VF slip compensation coefficient	0.0 ~ 300.0	0	%	0x3711
B07.20	VF oscillation suppression mode	0:Ineffective 1:Effective	1	–	0x3714
B07.21	VF oscillation suppression gain	0 ~ 500	10	%	0x3715
B07.24	VF overexcitation gain	0 ~ 200.0	0	%	0x3718
B07.28	Vdc_max control switch	0:No 1:Yes	0	–	0x371c
B07.29	Vdc_max voltage regulation gain coefficient	115~150	125	%	0x371d
B07.34	Vdc_min control switch	0:No 1:Yes	0	–	0x3722
B07.35	Vdc_min voltage regulation gain coefficient	65~100	85	%	0x3723

Function code	Name	Value scope	Default Value	unit	Communication address
B08 group：Speed regulator					
B08.00	Motor vector control setting speed filter time	0~10000	0	ms	0x3800
B08.01	Motor vector control feedback speed filter time	0~10000	0	ms	0x3801
B08.02	Speed loop low speed Kp	0.0~100.0	10	–	0x3802
B08.03	Speed loop low speed Ti	0.10~10.00	1	s	0x3803
B08.04	Speed loop high speed Kp	0.0~10.00	10	–	0x3804
B08.05	Speed loop high speed Ti	0.10~10.00	2	s	0x3805
B08.11	Speed loop switching low frequency	0.00~B08.12	5	Hz	0x380b
B08.12	Speed loop switching high frequency	B08.11~40.00	10	Hz	0x380c
B08.13	Speed loop switching high frequency correction factor	0.0~400.0	100	%	0x380d
B08.25	Encoder feedback speed filtering time	0~1000	2	ms	0x3819
B08.26	Estimated speed loop filtering time	0~1000	35	ms	0x381a
B09 group：Current regulator					
B09.00	Actual proportional of current loop	0.000~10.000	0.001	–	0x3900
B09.01	Actual integration time of current loop	0~10000	0	ms	0x3901
B10 group：Control parameters of synchronous motor					
B10.00	Pole position identification of synchronous motor	0:Method 0 1:Method 1 2:Method 2 3:Method 3 4:Method 4	1	–	0x3a00
B10.01	Pole position identification current of synchronous motor	0~100	50	–	0x3a01
B10.02	Calculation methods of magnetic pole position of synchronous motor	0:Method 0 1:Method 1	0	–	0x3a02
B10.03	Forced initial position enable	0:OFF 1:Enable 1 2:Enable 2	0	–	0x3a03
B10.04	Z signal correction enable	0:OFF 1:ON	1	–	0x3a04
B10.05	DQ axis inductance discrimination method	0~65535	0	–	0x3a05
B10.06	Field weakening factor	0~65535	1200	–	0x3a06
B10.07	Synchronous motor IF current	0~65535	30	–	0x3a07
B10.08	Synchronous motor IF/VF selection	0~65535	0	–	0x3a08
B10.09	Flux linkage amplitude compensation coefficient	0~65535	100	–	0x3a09
B10.10	Flux link estimation cut-off frequency	0.00~50.00	10	Hz	0x3a0a
B10.11	Synchronous machine decoupling coefficient	0~65535	100	–	0x3a0b
B10.12	Synchronous motor debug parameters 12	0~65535	100	–	0x3a0c
B10.13	Synchronous motor debug parameters 13	0~65535	100	–	0x3a0d
B10.14	Synchronous motor debug parameters 14	0~65535	30	–	0x3a0e
B10.15	Synchronous motor debug parameters 15	0~65535	40	–	0x3a0f
B10.16	Synchronous motor debug parameters 16	0~65535	100	–	0x3a10
B10.17	Synchronous motor debug parameters 17	0~65535	100	–	0x3a11
B10.18	Synchronous motor debug parameters 18	0~65535	100	–	0x3a12

Function code	Name	Value scope	Default Value	unit	Communication address
B11 group :Motor model and others					
B11.00	Characteristic-specific parameter 0	0~65535	0	–	0x3b00
B11.01	Characteristic-specific parameter 1	0~65535	100	–	0x3b01
B11.02	Characteristic-specific parameter 2	0~65535	30	–	0x3b02
B11.03	Characteristic-specific parameter 3	0~65535	500	–	0x3b03
B11.04	Characteristic-specific parameter 4	0~65535	0	–	0x3b04
B11.05	Characteristic-specific parameter 5	0~65535	0	–	0x3b05
B11.06	Characteristic-specific parameter 6	0~65535	15	–	0x3b06
B11.07	Characteristic-specific parameter 7	0~65535	2000	–	0x3b07
B11.08	Characteristic-specific parameter 8	0~65535	0	–	0x3b08
B11.09	Characteristic-specific parameter 9	0~65535	50	–	0x3b09
B11.10	Characteristic-specific parameter 10	0~65535	50	–	0x3b0a
B11.11	Characteristic-specific parameter 11	0~65535	1000	–	0x3b0b
B11.12	Characteristic-specific parameter 12	0~65535	220	–	0x3b0c
B11.13	Characteristic-specific parameter 13	0~65535	221	–	0x3b0d
B11.14	Characteristic-specific parameter 14	0~65535	222	–	0x3b0e
B11.15	Characteristic-specific parameter 15	0~65535	223	–	0x3b0f
B11.16	Characteristic-specific parameter 16	0~65535	80	–	0x3b10
B11.17	Characteristic-specific parameter 17	0~65535	1200	–	0x3b11
B11.18	Characteristic-specific parameter 18	0~65535	800	–	0x3b12
B11.19	Characteristic-specific parameter 19	0~65535	1	–	0x3b13
B11.20	Characteristic-specific parameter 20	0~65535	100	–	0x3b14
B11.21	Characteristic-specific parameter 21	0~65535	0	–	0x3b15
B11.22	Characteristic-specific parameter 22	0~65535	0	–	0x3b16
B11.23	Characteristic-specific parameter 23	0~65535	300	–	0x3b17
B11.24	Characteristic-specific parameter 24	0~65535	300	–	0x3b18
B11.25	Characteristic-specific parameter 25	0~65535	1	–	0x3b19
B11.26	Characteristic-specific parameter 26	0~65535	0	–	0x3b1a
B11.27	Characteristic-specific parameter 27	0~65535	200	–	0x3b1b
B11.28	Characteristic-specific parameter 28	0~65535	0	–	0x3b1c
B11.29	Characteristic-specific parameter 29	0~65535	0	–	0x3b1d
B11.30	Characteristic-specific parameter 30	0~65535	100	–	0x3b1e
B11.31	Characteristic-specific parameter 31	0~65535	5	–	0x3b1f
B11.32	Characteristic-specific parameter 32	0~65535	3	–	0x3b20
B11.33	Characteristic-specific parameter 33	0~65535	0	–	0x3b21
B11.34	Characteristic-specific parameter 34	0~65535	500	–	0x3b22
B11.35	Characteristic-specific parameter 35	0~65535	50	–	0x3b23
B11.36	Characteristic-specific parameter 36	0~65535	0	–	0x3b24
B11.37	Characteristic-specific parameter 37	0~65535	100	–	0x3b25
B11.38	Characteristic-specific parameter 38	0~65535	70	–	0x3b26
B11.39	Characteristic-specific parameter 39	0~65535	0	–	0x3b27
B11.40	Characteristic-specific parameter 40	0~65535	60	–	0x3b28
B11.41	Characteristic-specific parameter 41	0~65535	20	–	0x3b29
B11.42	Characteristic-specific parameter 42	0~65535	5000	–	0x3b2a
B11.43	Characteristic-specific parameter 43	0~65535	500	–	0x3b2b
B11.44	Characteristic-specific parameter 44	0~65535	1500	–	0x3b2c
B11.45	Characteristic-specific parameter 45	0~65535	1500	–	0x3b2d
B11.46	Characteristic-specific parameter 46	0~65535	50	–	0x3b2e
B11.47	Characteristic-specific parameter 47	0~65535	1500	–	0x3b2f
B11.48	Characteristic-specific parameter 48	0~65535	1500	–	0x3b30
B11.49	Characteristic-specific parameter 49	0~65535	250	–	0x3b31
B11.50	Characteristic-specific parameter 50	0~65535	0	–	0x3b32

Function code	Name	Value scope	Default Value	unit	Communication address
B11 group :Motor model and others					
B11.51	Characteristic-specific parameter 51	0~65535	150	–	0x3b33
B11.52	Characteristic-specific parameter 52	0~65535	0	–	0x3b34
B11.53	Characteristic-specific parameter 53	0~65535	0	–	0x3b35
B11.54	Characteristic-specific parameter 54	0~65535	0	–	0x3b36
B11.55	Characteristic-specific parameter 55	0~65535	0	–	0x3b37
B11.56	Characteristic-specific parameter 56	0~65535	0	–	0x3b38
B11.57	Characteristic-specific parameter 57	0~65535	0	–	0x3b39
B11.58	Characteristic-specific parameter 58	0~65535	0	–	0x3b3a
B11.59	Characteristic-specific parameter 59	0~65535	0	–	0x3b3b
B11.60	Characteristic-specific parameter 60	0~65535	0	–	0x3b3c
B11.61	Characteristic-specific parameter 61	0~65535	0	–	0x3b3d
B11.62	Characteristic-specific parameter 62	0~65535	0	–	0x3b3e
B11.63	Characteristic-specific parameter 63	0~65535	0	–	0x3b3f
B11.64	Characteristic-specific parameter 64	0~65535	0	–	0x3b40
B11.65	Characteristic-specific parameter 65	0~65535	0	–	0x3b41
B11.66	Characteristic-specific parameter 66	0~65535	0	–	0x3b42
B11.67	Characteristic-specific parameter 67	0~65535	0	–	0x3b43
B11.68	Characteristic-specific parameter 68	0~65535	0	–	0x3b44
B11.69	Characteristic-specific parameter 69	0~65535	0	–	0x3b45
B11.70	Characteristic-specific parameter 70	0~65535	0	–	0x3b46
B11.71	Characteristic-specific parameter 71	0~65535	0	–	0x3b47
B11.72	Characteristic-specific parameter 72	0~65535	0	–	0x3b48
B11.73	Characteristic-specific parameter 73	0~65535	0	–	0x3b49
B11.74	Characteristic-specific parameter 74	0~65535	0	–	0x3b4a
B11.75	Characteristic-specific parameter 75	0~65535	0	–	0x3b4b
B11.76	Characteristic-specific parameter 76	0~65535	0	–	0x3b4c
B11.77	Characteristic-specific parameter 77	0~65535	0	–	0x3b4d
B11.78	Characteristic-specific parameter 78	0~65535	0	–	0x3b4e
B11.79	Characteristic-specific parameter 79	0~65535	0	–	0x3b4f
B11.80	Characteristic-specific parameter 80	0~65535	0	–	0x3b50
B11.81	Characteristic-specific parameter 81	0~65535	0	–	0x3b51
B11.82	Characteristic-specific parameter 82	0~65535	0	–	0x3b52
B11.83	Characteristic-specific parameter 83	0~65535	0	–	0x3b53
B11.84	Characteristic-specific parameter 84	0~65535	0	–	0x3b54
B11.89	PM monitoring parameter 1 selection	0~34	0	–	0x3b59
B11.90	PM monitoring parameter 2 selection	0~34	1	–	0x3b5a
B11.91	PM monitoring parameter 3 selection	0~34	2	–	0x3b5b
B11.92	PM monitoring parameter 4 selection	0~34	3	–	0x3b5c
B11.93	CM and PM interactive data monitoring options 1	0~511	0	–	0x3b5d
B11.94	CM and PM interactive data monitoring options 2	0~511	269	–	0x3b5e
B11.95	CM and PM interactive data monitoring options 3	0~511	270	–	0x3b5f
B11.96	CM and PM interactive data monitoring options 4	0~511	271	–	0x3b60

Function code	Name	Value scope	Default Value	unit	Communication address
C00 group：Fieldbus adapter A					
C00.00	Bus adapter supporting bus type	0:None 4:PROFINET 5:EtherCAT	0	–	0x4000
C00.02	PZD output 1	0:00 Others:Analog interconnection parameters	0	–	0x4002
C00.03	PZD output 2	0:00 Others:Analog interconnection parameters	0	–	0x4003
C00.04	PZD output 3	0:00 Others:Analog interconnection parameters	0	–	0x4004
C00.05	PZD output 4	0:00 Others:Analog interconnection parameters	0	–	0x4005
C00.06	PZD output 5	0:00 Others:Analog interconnection parameters	0	–	0x4006
C00.07	PZD output 6	0:00 Others:Analog interconnection parameters	0	–	0x4007
C00.08	PZD output 7	0:00 Others:Analog interconnection parameters	0	–	0x4008
C00.09	PZD output 8	0:00 Others:Analog interconnection parameters	0	–	0x4009
C00.10	PZD output 9	0:00 Others:Analog interconnection parameters	0	–	0x400a
C00.11	PZD output 10	0:00 Others:Analog interconnection parameters	0	–	0x400b
C00.12	PZD output 11	0:00 Others:Analog interconnection parameters	0	–	0x400c
C00.13	PZD output 12	0:00 Others:Analog interconnection parameters	0	–	0x400d
C00.14	PZD output 13	0:00 Others:Analog interconnection parameters	0	–	0x400e
C00.15	PZD output 14	0:00 Others:Analog interconnection parameters	0	–	0x400f
C00.16	PZD output 15	0:00 Others:Analog interconnection parameters	0	–	0x4010
C00.17	PZD output 16	0:00 Others:Analog interconnection parameters	0	–	0x4011
C00.18	PZD output 1 communication basic value	0~65535	0	–	0x4012
C00.19	PZD output 2 communication basic value	0~65535	0	–	0x4013
C00.20	PZD output 3 communication basic value	0~65535	0	–	0x4014
C00.21	PZD output 4 communication basic value	0~65535	0	–	0x4015
C00.22	PZD output 5 communication basic value	0~65535	0	–	0x4016
C00.23	PZD output 6 communication basic value	0~65535	0	–	0x4017
C00.24	PZD output 7 communication basic value	0~65535	0	–	0x4018
C00.25	PZD output 8 communication basic value	0~65535	0	–	0x4019
C00.26	PZD output 9 communication basic value	0~65535	0	–	0x401a
C00.27	PZD output 10 communication basic value	0~65535	0	–	0x401b
C00.28	PZD output 11 communication basic value	0~65535	0	–	0x401c
C00.29	PZD output 12 communication basic value	0~65535	0	–	0x401d
C00.30	PZD output 13 communication basic value	0~65535	0	–	0x401e
C00.31	PZD output 14 communication basic value	0~65535	0	–	0x401f
C00.32	PZD output 15 communication basic value	0~65535	0	–	0x4020
C00.33	PZD output 16 communication basic value	0~65535	0	–	0x4021

Function code	Name	Value scope	Default Value	unit	Communication address
C00 group：Fieldbus adapter A					
C00.34	PZD input 1 communication basic value	0~65535	0	–	0x4022
C00.35	PZD input 2 communication basic value	0~65535	0	–	0x4023
C00.36	PZD input 3 communication basic value	0~65535	0	–	0x4024
C00.37	PZD input 4 communication basic value	0~65535	0	–	0x4025
C00.38	PZD input 5 communication basic value	0~65535	0	–	0x4026
C00.39	PZD input 6 communication basic value	0~65535	0	–	0x4027
C00.40	PZD input 7 communication basic value	0~65535	0	–	0x4028
C00.41	PZD input 8 communication basic value	0~65535	0	–	0x4029
C00.42	PZD input 9 communication basic value	0~65535	0	–	0x402a
C00.43	PZD input 10 communication basic value	0~65535	0	–	0x402b
C00.44	PZD input 11 communication basic value	0~65535	0	–	0x402c
C00.45	PZD input 12 communication basic value	0~65535	0	–	0x402d
C00.46	PZD input 13 communication basic value	0~65535	0	–	0x402e
C00.47	PZD input 14 communication basic value	0~65535	0	–	0x402f
C00.48	PZD input 15 communication basic value	0~65535	0	–	0x4030
C00.49	PZD input 16 communication basic value	0~65535	0	–	0x4031
C00.50	PZD output 1 data presentation	0x0000~0xFFFF	0x0000	–	0x4032
C00.51	PZD output 2 data presentation	0x0000~0xFFFF	0x0000	–	0x4033
C00.52	PZD output 3 data presentation	0x0000~0xFFFF	0x0000	–	0x4034
C00.53	PZD output 4 data presentation	0x0000~0xFFFF	0x0000	–	0x4035
C00.54	PZD output 5 data presentation	0x0000~0xFFFF	0x0000	–	0x4036
C00.55	PZD output 6 data presentation	0x0000~0xFFFF	0x0000	–	0x4037
C00.56	PZD output 7 data presentation	0x0000~0xFFFF	0x0000	–	0x4038
C00.57	PZD output 8 data presentation	0x0000~0xFFFF	0x0000	–	0x4039
C00.58	PZD output 9 data presentation	0x0000~0xFFFF	0x0000	–	0x403a
C00.59	PZD output 10 data presentation	0x0000~0xFFFF	0x0000	–	0x403b
C00.60	PZD output 11 data presentation	0x0000~0xFFFF	0x0000	–	0x403c
C00.61	PZD output 12 data presentation	0x0000~0xFFFF	0x0000	–	0x403d
C00.62	PZD output 13 data presentation	0x0000~0xFFFF	0x0000	–	0x403e
C00.63	PZD output 14 data presentation	0x0000~0xFFFF	0x0000	–	0x403f
C00.64	PZD output 15 data presentation	0x0000~0xFFFF	0x0000	–	0x4040
C00.65	PZD output 16 data presentation	0x0000~0xFFFF	0x0000	–	0x4041
C00.66	PZD input 1 data presentation	0x0000~0xFFFF	0x0000	–	0x4042
C00.67	PZD input 2 data presentation	0x0000~0xFFFF	0x0000	–	0x4043
C00.68	PZD input 3 data presentation	0x0000~0xFFFF	0x0000	–	0x4044
C00.69	PZD input 4 data presentation	0x0000~0xFFFF	0x0000	–	0x4045
C00.70	PZD input 5 data presentation	0x0000~0xFFFF	0x0000	–	0x4046
C00.71	PZD input 6 data presentation	0x0000~0xFFFF	0x0000	–	0x4047
C00.72	PZD input 7 data presentation	0x0000~0xFFFF	0x0000	–	0x4048
C00.73	PZD input 8 data presentation	0x0000~0xFFFF	0x0000	–	0x4049
C00.74	PZD input 9 data presentation	0x0000~0xFFFF	0x0000	–	0x404a
C00.75	PZD input 10 data presentation	0x0000~0xFFFF	0x0000	–	0x404b
C00.76	PZD input 11 data presentation	0x0000~0xFFFF	0x0000	–	0x404c
C00.77	PZD input 12 data presentation	0x0000~0xFFFF	0x0000	–	0x404d
C00.78	PZD input 13 data presentation	0x0000~0xFFFF	0x0000	–	0x404e
C00.79	PZD input 14 data presentation	0x0000~0xFFFF	0x0000	–	0x404f
C00.80	PZD input 15 data presentation	0x0000~0xFFFF	0x0000	–	0x4050
C00.81	PZD input 16 data presentation	0x0000~0xFFFF	0x0000	–	0x4051

Function code	Name	Value scope	Default Value	unit	Communication address
C05 Group:PROFINET communication settings					
C05.00	Set telegram type	0:Invalid telegram 1:Standard telegram1, PZD–2/2 2:Standard telegram7, PZD–2/6 3:Standard telegram9, PZD–4/4 4:SIEMENS telegram 111, PZD–12/12 5:SIEMENS telegram 352, PZD–6/6	1	–	0x4500
C05.01	Communication status	0:No communication established 1:AR established 2:Process data communication 3:Burning 4:The telegram type does not match 5:Received data verification failed 6:Send data verification failed 7:Communication loss 8:AR establish error 9:Restoring factory setting parameters	0	–	0x4501
C05.38	Actual IP address 1	0~255	0	–	0x4526
C05.39	Actual IP address 2	0~255	0	–	0x4527
C05.40	Actual IP address 3	0~255	0	–	0x4528
C05.41	Actual IP address 4	0~255	0	–	0x4529
C05.42	Actual subnet mask 1	0~255	0	–	0x452a
C05.43	Actual subnet mask 2	0~255	0	–	0x452b
C05.44	Actual subnet mask 3	0~255	0	–	0x452c
C05.45	Actual subnet mask 4	0~255	0	–	0x452d
C05.46	Actual gateway address 1	0~255	0	–	0x452e
C05.47	Actual gateway address 2	0~255	0	–	0x452f
C05.48	Actual gateway address 3	0~255	0	–	0x4530
C05.49	Actual gateway address 4	0~255	0	–	0x4531
C05.50	Actual MAC address 1	0x0000~0xFFFF	0x0000	–	0x4532
C05.51	Actual MAC address 2	0x0000~0xFFFF	0x0000	–	0x4533
C05.52	Actual MAC address 3	0x0000~0xFFFF	0x0000	–	0x4534
C06 group:EtherCAT communication settings					
C06.00	EtherCAD Slave site name	0~65535	0	–	0x4600
C06.01	EtherCAD Slave site alias	0~65535	0	–	0x4601
C06.02	EtherCAD Synchronization interrupt loss allowed number of times	4~20	4	–	0x4602
C06.03	EtherCAD synchronization detection mechanism	0:NO enable 1:enable	0	–	0x4603

Function code	Name	Value scope	Default Value	unit	Communication address
C08 group: BENBUS communication settings					
C08.00	DriveLink function	0:Close 1:Enable	0	–	0x4800
C08.03	DriveLink node address	1~8	1	–	0x4803
C08.12	Sending cycle	2~65535	2	ms	0x480c
C08.14	Send data 1	0:Invalid other:Analog interconnection parameters	0	–	0x480e
C08.15	Send data 1 scale factor	–600.0~600.0	100	%	0x480f
C08.16	Send data 2	0:Invalid other:Analog interconnection parameters	0	–	0x4810
C08.17	Send data 2 scale factor	–600.0~600.0	100	%	0x4811
C08.18	Send data 3	0:Invalid other:Analog interconnection parameters	0	–	0x4812
C08.19	Send data 3 scale factor	–600.0~600.0	100	%	0x4813
C08.20	Send data 4	0:Invalid other:Analog interconnection parameters	0	–	0x4814
C08.21	Send data 4 scale factor	–600.0~600.0	100	%	0x4815
C08.22	Send data 5	0:Invalid other:Analog interconnection parameters	0	–	0x4816
C08.23	Send data 5 scale factor	–600.0~600.0	100	%	0x4817
C08.24	Send data 6	0:Invalid other:Analog interconnection parameters	0	–	0x4818
C08.25	Send data 6 scale factor	–600.0~600.0	100	%	0x4819
C08.26	Send data 7	0:Invalid other:Analog interconnection parameters	0	–	0x481a
C08.27	Send data 7 scale factor	–600.0~600.0	100	%	0x481b
C08.28	Send data 8	0:Invalid other:Analog interconnection parameters	0	–	0x481c
C08.29	Send data 8 scale factor	–600.0~600.0	100	%	0x481d
C08.31	Receive data timeout setting	0.00~655.35	2	s	0x481f
C08.32	Receive data 1 node selection	0: Invalid 1:1 node 2:2 node 3:3 node 4:4 node 5:5 node 6:6 node 7:7 node 8:8 node	0	–	0x4820
C08.33	Receive data 1 data selection	0:the first data 1:the second data 2:the third data 3:the fourth data 4:the fifth data 5:the sixth data 6:the seventh data 7:the Eighth data	0	–	0x4821
C08.34	Receive data 1 scale factor	–600.0~600.0	100	%	0x4822
C08.35	Receive data 2 node selection	0~8	0	–	0x4823
C08.36	Receive data 2 data selection	0~7	0	–	0x4824
C08.37	Receive data 2 scale factor	–600.0~600.0	100	%	0x4825
C08.38	Receive data 3 node selection	0~8	0	–	0x4826

Function code	Name	Value scope	Default Value	unit	Communication address
C08 group: BENBUS communication settings					
C08.39	Receive data 3 data selection	0~7	0	–	0x4827
C08.40	Receive data 3 scale factor	–600.0~600.0	100	%	0x4828
C08.41	Receive data 4 node selection	0~8	0	–	0x4829
C08.42	Receive data 4 data selection	0~7	0	–	0x482a
C08.43	Receive data 4 scale factor	–600.0~600.0	100	%	0x482b
C08.44	Receive data 5 node selection	0~8	0	–	0x482c
C08.45	Receive data 5 data selection	0~7	0	–	0x482d
C08.46	Receive data 5 scale factor	–600.0~600.0	100	%	0x482e
C08.47	Receive data 6 node selection	0~8	0	–	0x482f
C08.48	Receive data 6 data selection	0~7	0	–	0x4830
C08.49	Receive data 6 scale factor	–600.0~600.0	100	%	0x4831
C08.50	Receive data 7 node selection	0~8	0	–	0x4832
C08.51	Receive data 7 data selection	0~7	0	–	0x4833
C08.52	Receive data 7 scale factor	–600.0~600.0	100	%	0x4834
C08.53	Receive data 8 node selection	0~8	0	–	0x4835
C08.54	Receive data 8 data selection	0~7	0	–	0x4836
C08.55	Receive data 8 scale factor	–600.0~600.0	100	%	0x4837
D00 group：motor 0 basic parameters					
D00.00	Motor type seletion	0:Induction motor 1:Permanent magnet synchronous motor	0	–	0x5000
D00.01	Motor rated power	0.00~655.35	2.2	kW	0x5001
D00.02	Motor rated voltage	0~1500	380	V	0x5002
D00.03	Motor rated current	0.00~655.35	5.1	A	0x5003
D00.04	Motor rated frequency	0.0~600.00	50	Hz	0x5004
D00.05	Motor rated speed	0~65535	1400	rpm	0x5005
D00.06	Motor maximum speed	0.0~600.0	100	%	0x5006
D00.07	Motor minimum speed	0.0~600.0	0	%	0x5007
D00.08	Motor maximum current	0.0~600.0	100	%	0x5008
D00.09	Number of pole pairs	1~64	2	–	0x5009
D00.10	Motor rated torque	0.01~655.35	0.01	N.m	0x500a
D00.11	Motor minimum torque	0.01~655.35	0.1	N.m	0x500b
D00.16	Motor control method	0:VF 1:SVC 2:FVC	0	–	0x5010
D01 group：motor 0 identification parameters					
D01.00	Asynchronous motor stator resistance	0.000~65.535	3.248	Ω	0x5100
D01.01	Asynchronous motor rotor resistance	0.000~65.535	2.923	Ω	0x5101
D01.02	Asynchronous motor leakage inductance	0.00~655.35	12.13	mH	0x5102
D01.03	Asynchronous motor mutual inductance	0.0~6553.5	228.1	mH	0x5103
D01.04	Asynchronous motor no-load current	0.00~655.35	3.06	A	0x5104
D01.10	Synchronous motor stator resistance	0.000~65.535	1.667	Ω	0x510a
D01.11	Synchronous motor Q axis inductance Lq	0.00~655.35	2	mH	0x510b
D01.12	Synchronous motor D axis inductance Lq	0.00~655.35	2	mH	0x510c
D01.13	Synchronous motor back Electromotive force	0~1000	261	V	0x510d

Function code	Name	Value scope	Default Value	unit	Communication address
D02 group：motor 0 encoder parameters					
D02.00	Encoder type	0:Invalid type 1:Normal ABZ encoder(DB15) 4:BISS-CCommunication encoder (1222) 5:RS485 Communication encoder (1623)	0	–	0x5200
D02.01	Input AB phase sequence	0:Forward 1:Reverse	0	–	0x5201
D02.04	Incremental encoder lines	0~65535	2500	–	0x5204
D02.10	Encoder zero position angle	0.0~359.9	0	°	0x520a
D02.17	Encoder power selection	0:5V 1:24V	0	–	0x5211
D03 group：motor 1 basic parameters					
D03.00	Motor type seletion	0:Induction motor 1:Permanent magnet synchronous motor	0	–	0x5300
D03.01	Motor rated power	0.00~655.35	2.2	kW	0x5301
D03.02	Motor rated voltage	0~1500	380	V	0x5302
D03.03	Motor rated current	0.00~655.35	5.1	A	0x5303
D03.04	Motor rated frequency	0.0~600.00	50	Hz	0x5304
D03.05	Motor rated speed	0~65535	1400	rpm	0x5305
D03.06	Motor maximum speed	0.0~600.0	100	%	0x5306
D03.07	Motor minimum speed	0.0~600.0	0	%	0x5307
D03.08	Motor maximum current	0.0~600.0	100	%	0x5308
D03.09	Number of pole pairs	1~64	2	–	0x5309
D03.10	Motor rated torque	0.01~655.35	0.01	N.m	0x530a
D03.11	Motor maximum torque	0.01~655.35	0.1	N.m	0x530b
D03.16	Motor control method	0:VF 1:SVC 2:FVC	0	–	0x5310
D04 group：motor 1 identification parameters					
D04.00	Asynchronous motor stator resistance	0.000~65.535	3.248	Ω	0x5400
D04.01	Asynchronous motor rotor resistance	0.000~65.535	2.923	Ω	0x5401
D04.02	Asynchronous motor leakage inductance	0.00~655.35	12.13	mH	0x5402
D04.03	Asynchronous motor mutual inductance	0.0~6553.5	228.1	mH	0x5403
D04.04	Asynchronous motor no-load current	0.00~655.35	3.06	A	0x5404
D04.10	Synchronous motor stator resistance	0.000~65.535	1.667	Ω	0x540a
D04.11	Synchronous motor Q axis inductance Lq	0.00~655.35	2	mH	0x540b
D04.12	Synchronous motor D axis inductance Lq	0.00~655.35	2	mH	0x540c
D04.13	Synchronous motor back Electromotive force	0~1000	261	V	0x540d
D05 group：motor 1 encoder parameters					
D05.00	Encoder type	0:Invalid type 1:Normal ABZ encoder(DB15) 4:BISS-CCommunication encoder (1222) 5:RS485 Communication encoder (1623)	0	–	0x5500
D05.01	Input AB phase sequence	0:Forward 1:Reverse	0	–	0x5501
D05.04	Incremental encoder lines	0~65535	2500	–	0x5504
D05.10	Encoder zero position angle	0.0~359.9	0	°	0x550a
D05.17	Encoder power selection	0:5V 1:24V	0	–	0x5511

Function code	Name	Value scope	Default Value	unit	Communication address
D06 group：motor 2 basic parameters					
D06.00	Motor type seletion	0:Induction motor 1:Permanent magnet synchronous motor	0	–	0x5600
D06.01	Motor rated power	0.00~655.35	2.2	kW	0x5601
D06.02	Motor rated voltage	0~1500	380	V	0x5602
D06.03	Motor rated current	0.00~655.35	5.1	A	0x5603
D06.04	Motor rated frequency	0.0~600.00	50	Hz	0x5604
D06.05	Motor rated speed	0~65535	1400	rpm	0x5605
D06.06	Motor maximum speed	0.0~600.0	100	%	0x5606
D06.07	Motor minimum speed	0.0~600.0	0	%	0x5607
D06.08	Motor maximum current	0.0~600.0	100	%	0x5608
D06.09	Number of pole pairs	1~64	2	–	0x5609
D06.10	Motor rated torque	0.01~655.35	0.01	N.m	0x560a
D06.11	motor maximum torque	0.01~655.35	0.1	N.m	0x560b
D06.16	Motor control method	0:VF 1:SVC 2:FVC	0	–	0x5610
D07 group：motor 2 identification parameters					
D07.00	Asynchronous motor stator resistance	0.000~65.535	3.248	Ω	0x5700
D07.01	Asynchronous motor rotor resistance	0.000~65.535	2.923	Ω	0x5701
D07.02	Asynchronous motor leakage inductance	0.00~655.35	12.13	mH	0x5702
D07.03	Asynchronous motor mutual inductance	0.0~6553.5	228.1	mH	0x5703
D07.04	Asynchronous motor no-load current	0.00~655.35	3.06	A	0x5704
D07.10	Synchronous motor stator resistance	0.000~65.535	1.667	Ω	0x570a
D07.11	Synchronous motor Q axis inductance Lq	0.00~655.35	2	mH	0x570b
D07.12	Synchronous motor D axis inductance Lq	0.00~655.35	2	mH	0x570c
D07.13	Synchronous motor back Electromotive force	0~1000	261	V	0x570d
D08 group：motor 2 encoder parameters					
D08.00	Encoder type	0:Invalid type 1:Normal ABZ encoder(DB15) 4:BISS-CCommunication encoder (1222) 5:RS485 Communication encoder (1623)	0	–	0x5800
D08.01	Input AB phase sequence	0:Forward 1:Reverse	0	–	0x5801
D08.04	Incremental encoder lines	0~65535	2500	–	0x5804
D08.10	Encoder zero position angle	0.0~359.9	0	°	0x580a
D08.17	Encoder power selection	0:5V 1:24V	0	–	0x5811

Function code	Name	Value scope	Default Value	unit	Communication address
D09 group：motor 3 basic parameters					
D09.00	Motor type seletion	0:Induction motor 1:Permanent magnet synchronous motor	0	–	0x5900
D09.01	Motor rated power	0.00~655.35	2.2	kW	0x5901
D09.02	Motor rated voltage	0~1500	380	V	0x5902
D09.03	Motor rated current	0.00~655.35	5.1	A	0x5903
D09.04	Motor rated frequency	0.0~600.00	50	Hz	0x5904
D09.05	Motor rated speed	0~65535	1400	rpm	0x5905
D09.06	Motor maximum speed	0.0~600.0	100	%	0x5906
D09.07	Motor minimum speed	0.0~600.0	0	%	0x5907
D09.08	Motor maximum current	0.0~600.0	100	%	0x5908
D09.09	Number of pole pairs	1~64	2	–	0x5909
D09.10	Motor rated torque	0.01~655.35	0.01	N.m	0x590a
D09.11	motor maximum torque	0.01~655.35	0.1	N.m	0x590b
D09.16	Motor control method	0:VF 1:SVC 2:FVC	0	–	0x5910
D10 group：motor 3 identification parameters					
D10.00	Asynchronous motor stator resistance	0.000~65.535	3.248	Ω	0x5a00
D10.01	Asynchronous motor rotor resistance	0.000~65.535	2.923	Ω	0x5a01
D10.02	Asynchronous motor leakage inductance	0.00~655.35	12.13	mH	0x5a02
D10.03	Asynchronous motor mutual inductance	0.0~6553.5	228.1	mH	0x5a03
D10.04	Asynchronous motor no-load current	0.00~655.35	3.06	A	0x5a04
D10.10	Synchronous motor stator resistance	0.000~65.535	1.667	Ω	0x5a0a
D10.11	Synchronous motor Q axis inductance Lq	0.00~655.35	2	mH	0x5a0b
D10.12	Synchronous motor D axis inductance Lq	0.00~655.35	2	mH	0x5a0c
D10.13	Synchronous motor back Electromotive force	0~1000	261	V	0x5a0d
D11 group：motor 3 encoder parameters					
D11.00	Encoder type	0:Invalid type 1:Normal ABZ encoder(DB15) 4:BISS-CCommunication encoder (1222) 5:RS485 Communication encoder (1623)	0	–	0x5b00
D11.01	Input AB phase sequence	0:Forward 1:Reverse	0	–	0x5b01
D11.04	Incremental encoder lines	0~65535	2500	–	0x5b04
D11.10	Encoder zero position angle	0.0~359.9	0	°	0x5b0a
D11.17	Encoder power selection	0:5V 1:24V	0	–	0x5b11

Function code	Name	Value scope	Default Value	unit	Communication address
E00 grouop：fault handling					
E00.00	External fault 1 source	0:Ineffective 1:Reserve 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve Others:Binary interconnection parameters	0	–	0x6000
E00.01	External fault 2 source		0	–	0x6001
E00.02	External warning 1 source		0	–	0x6002
E00.03	External warning 2 source		0	–	0x6003
E00.03	External warning		0	–	0x6003
E00.10	Automatic fault reset function	0:Ineffective 1:Effective	0	–	0x600a
E00.11	reset time of failure reset number	0.0~3600.0	180	s	0x600b
E00.12	Failure reset interval	0.0~600.0	30	s	0x600c
E00.13	Fault reset times	0~5	5	–	0x600d
E00.14	Non-resetable exception code 1	0~51	0	–	0x600e
E00.15	Non-resetable exception code 2	0~51	0	–	0x600f
E00.16	Non-resetable exception code 3	0~51	0	–	0x6010
E00.23	Restart after automatic reset	0:Ineffective 1:Effective	0	–	0x6017
E00.24	Source of exception allowed to restart	0:Specified exception code allows restart 1:Specified exception code does not allow restart	0	–	0x6018
E00.25	Specified exception code 1	0~51	0	–	0x6019
E00.26	Specified exception code 2	0~51	0	–	0x601a
E00.27	Specified exception code 3	0~51	0	–	0x601b
E00.28	Specified exception code 4	0~51	0	–	0x601c
E00.29	Specified exception code 5	0~51	0	–	0x601d
E00.36	Exception level modification exception code1	0~51	0	–	0x6024
E00.37	Exception level of exception code1	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6025
E00.38	Exception level modification exception code2	0~51	0	–	0x6026
E00.39	Exception level of exception code2	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6027
E00.40	Exception level modification exception code3	0~51	0	–	0x6028
E00.41	Exception level of exception code3	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6029
E00.42	Exception level modification exception code4	0~51	0	–	0x602a

Function code	Name	Value scope	Default Value	unit	Communication address
E00 grouop：fault handling					
E00.43	Exception level of exception code4	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x602b
E00.44	Exception level modification exception code5	0~51	0	–	0x602c
E00.45	Exception level of exception code5	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x602d
E00.46	Exception level modification exception code6	0~51	0	–	0x602e
E00.47	Exception level of exception code6	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x602f
E00.48	Exception level modification exception code7	0~51	0	–	0x6030
E00.49	Exception level of exception code7	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6031
E00.50	Exception level modification exception code8	0~51	0	–	0x6032
E00.51	Exception level of exception code8	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6033
E00.52	Exception level modification exception code9	0~51	0	–	0x6034
E00.53	Exception level of exception code9	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6035
E00.54	Exception level modification exception code10	0~51	0	–	0x6036
E00.55	Exception level of exception code10	0:Free stop 1:Emergency stop 2:Stop mode shutdown 3:warning 4:No exception handling	0	–	0x6037

Function code	Name	Value scope	Default Value	unit	Communication address
E01 group：Latest fault and fault data records					
E01.00	Fault code 1	0~51	0	–	0x6100
E01.01	Fault code 1 subcode	1~16	0	–	0x6101
E01.02	Fault code 2	0~51	0	–	0x6102
E01.03	Fault code 2 subcode	1~16	0	–	0x6103
E01.04	Fault code 3	0~51	0	–	0x6104
E01.05	Fault code 3 subcode	1~16	0	–	0x6105
E01.06	Fault code 4	0~51	0	–	0x6106
E01.07	Fault code 4 subcode	1~16	0	–	0x6107
E01.08	Fault code 5	0~51	0	–	0x6108
E01.09	Fault code 5 subcode	1~16	0	–	0x6109
E01.10	Fault code 6	0~51	0	–	0x610a
E01.11	Fault code 6 subcode	1~16	0	–	0x610b
E01.12	Fault speed	–300.00~300.00	0	Hz	0x610c
E01.13	Fault current	0.0~6553.5	0	A	0x610d
E01.14	Fault DC–link voltage	0.0~800.0	0	V	0x610e
E01.15	Fault output torque	–300.0~300.0	0	%	0x610f
E01.16	Fault control word 1	0x0000~0xFFFF	0x0000	–	0x6110
E01.17	Fault control word 2	0x0000~0xFFFF	0x0000	–	0x6111
E01.18	Fault state word 1	0x0000~0xFFFF	0x0000	–	0x6112
E01.19	Fault state word 2	0x0000~0xFFFF	0x0000	–	0x6113
E01.20	Fault state machine	0~29	0	–	0x6114
E01.21	Fault temperature	0~300	0	℃	0x6115
E01.22	Fault output voltage	0~6553.5	0	V	0x6116
E01.23	Fault PM state word	0x0000~0xFFFF	0x0000	℃	0x6117
E02 group：Previous fault and fault data records					
E02.00	Fault code 1	0~51	0	–	0x6200
E02.01	Fault code 1 subcode	1~16	0	–	0x6201
E02.02	Fault code 2	0~51	0	–	0x6202
E02.03	Fault code 2 subcode	1~16	0	–	0x6203
E02.04	Fault code 3	0~51	0	–	0x6204
E02.05	Fault code 3 subcode	1~16	0	–	0x6205
E02.06	Fault code 4	0~51	0	–	0x6206
E02.07	Fault code 4 subcode	1~16	0	–	0x6207
E02.08	Fault code 5	0~51	0	–	0x6208
E02.09	Fault code 5 subcode	1~16	0	–	0x6209
E02.10	Fault code 6	0~51	0	–	0x620a
E02.11	Fault code 6 subcode	1~16	0	–	0x620b
E02.12	Fault speed	–300.00~300.00	0	Hz	0x620c
E02.13	Fault current	0.0~6553.5	0	A	0x620d
E02.14	Fault DC–link voltage	0.0~800.0	0	V	0x620e
E02.15	Fault output torque	–300.0~300.0	0	%	0x620f
E02.16	Fault control word1	0x0000~0xFFFF	0x00	–	0x6210
E02.17	Fault control word2	0x0000~0xFFFF	0x00	–	0x6211
E02.18	Fault state word1	0x0000~0xFFFF	0x00	–	0x6212
E02.19	Fault state word2	0x0000~0xFFFF	0x00	–	0x6213
E02.20	Fault state machine	0~29	0	–	0x6214
E02.21	Fault temperature	0~300	0	℃	0x6215
E02.22	Fault output voltage	0~6553.5	0	V	0x6216
E02.23	Fault PM status word	0x0000~0xFFFF	0x00	℃	0x6217

Function code	Name	Value scope	Default Value	unit	Communication address
E03 group：Previous two faults and fault data records					
E03.00	Fault code 1	0~51	0	–	0x6300
E03.01	Fault code 1 subcode	1~16	0	–	0x6301
E03.02	Fault code 2	0~51	0	–	0x6302
E03.03	Fault code 2 subcode	1~16	0	–	0x6303
E03.04	Fault code 3	0~51	0	–	0x6304
E03.05	Fault code 3 subcode	1~16	0	–	0x6305
E03.06	Fault code 4	0~51	0	–	0x6306
E03.07	Fault code 4 subcode	1~16	0	–	0x6307
E03.08	Fault code 5	0~51	0	–	0x6308
E03.09	Fault code 5 subcode	1~16	0	–	0x6309
E03.10	Fault code 6	0~51	0	–	0x630a
E03.11	Fault code 6 subcode	1~16	0	–	0x630b
E03.12	Fault speed	–300.00~300.00	0	Hz	0x630c
E03.13	Fault current	0.0~6553.5	0	A	0x630d
E03.14	Fault DC–link voltage	0.0~800.0	0	V	0x630e
E03.15	Fault output torque	–300.0~300.0	0	%	0x630f
E03.16	Fault control word1	0x0000~0xFFFF	0x00	–	0x6310
E03.17	Fault control word2	0x0000~0xFFFF	0x00	–	0x6311
E03.18	Fault status word1	0x0000~0xFFFF	0x00	–	0x6312
E03.19	Fault status word2	0x0000~0xFFFF	0x00	–	0x6313
E03.20	Fault status machine	0~29	0	–	0x6314
E03.21	Fault temperature	0~300	0	℃	0x6315
E03.22	Fault output voltage	0~6553.5	0	V	0x6316
E03.23	Fault PM state word	0x0000~0xFFFF	0x00	℃	0x6317
E04 group：Previous three faults and fault data records					
E04.00	Fault code 1	0~51	0	–	0x6400
E04.01	Fault code 1 subcode	1~16	0	–	0x6401
E04.02	Fault code 2	0~51	0	–	0x6402
E04.03	Fault code 2 subcode	1~16	0	–	0x6403
E04.04	Fault code 3	0~51	0	–	0x6404
E04.05	Fault code 3 subcode	1~16	0	–	0x6405
E04.06	Fault code 4	0~51	0	–	0x6406
E04.07	Fault code 4 subcode	1~16	0	–	0x6407
E04.08	Fault code 5	0~51	0	–	0x6408
E04.09	Fault code 5 subcode	1~16	0	–	0x6409
E04.10	Fault code 6	0~51	0	–	0x640a
E04.11	Fault code 6 subcode	1~16	0	–	0x640b
E04.12	Fault speed	–300.00~300.00	0	Hz	0x640c
E04.13	Fault current	0.0~6553.5	0	A	0x640d
E04.14	Fault DC–link voltage	0.0~800.0	0	V	0x640e
E04.15	Fault output torque	–300.0~300.0	0	%	0x640f
E04.16	Fault control word1	0x0000~0xFFFF	0x00	–	0x6410
E04.17	Fault control word2	0x0000~0xFFFF	0x00	–	0x6411
E04.18	Fault state word1	0x0000~0xFFFF	0x00	–	0x6412
E04.19	Fault state word2	0x0000~0xFFFF	0x00	–	0x6413
E04.20	Fault state machine	0~29	0	–	0x6414
E04.21	Fault temperature	0~300	0	℃	0x6415
E04.22	Fault output voltage	0~6553.5	0	V	0x6416
E04.23	Fault PM state word	0x0000~0xFFFF	0x00	℃	0x6417

Function code	Name	Value scope	Default Value	unit	Communication address
E05 group：Previous four faults and fault data records					
E05.00	Fault code 1	0~51	0	–	0x6500
E05.01	Fault code 1 subcode	1~16	0	–	0x6501
E05.02	Fault code 2	0~51	0	–	0x6502
E05.03	Fault code 2 subcode	1~16	0	–	0x6503
E05.04	Fault code 3	0~51	0	–	0x6504
E05.05	Fault code 3 subcode	1~16	0	–	0x6505
E05.06	Fault code 4	0~51	0	–	0x6506
E05.07	Fault code 4 subcode	1~16	0	–	0x6507
E05.08	Fault code 5	0~51	0	–	0x6508
E05.09	Fault code 5 subcode	1~16	0	–	0x6509
E05.10	Fault code 6	0~51	0	–	0x650a
E05.11	Fault code 6 subcode	1~16	0	–	0x650b
E05.12	Fault speed	–300.00~300.00	0	Hz	0x650c
E05.13	Fault current	0.0~6553.5	0	A	0x650d
E05.14	Fault DC–link voltage	0.0~800.0	0	V	0x650e
E05.15	Fault output torque	–300.0~300.0	0	%	0x650f
E05.16	Fault control word1	0x0000~0xFFFF	0x00	–	0x6510
E05.17	Fault control word2	0x0000~0xFFFF	0x00	–	0x6511
E05.18	Fault state word1	0x0000~0xFFFF	0x00	–	0x6512
E05.19	Fault state word2	0x0000~0xFFFF	0x00	–	0x6513
E05.20	Fault state machine	0~29	0	–	0x6514
E05.21	Fault temperature	0~300	0	℃	0x6515
E05.22	Fault output voltage	0~6553.5	0	V	0x6516
E05.23	Fault PM state word	0x0000~0xFFFF	0x00	℃	0x6517
E06 group：Previous five faults and fault data records					
E06.00	Fault code 1	0~51	0	–	0x6600
E06.01	Fault code 1 subcode	1~16	0	–	0x6601
E06.02	Fault code 2	0~51	0	–	0x6602
E06.03	Fault code 2 subcode	1~16	0	–	0x6603
E06.04	Fault code 3	0~51	0	–	0x6604
E06.05	Fault code 3 subcode	1~16	0	–	0x6605
E06.06	Fault code 4	0~51	0	–	0x6606
E06.07	Fault code 4 subcode	1~16	0	–	0x6607
E06.08	Fault code 5	0~51	0	–	0x6608
E06.09	Fault code 5 subcode	1~16	0	–	0x6609
E06.10	Fault code 6	0~51	0	–	0x660a
E06.11	Fault code 6 subcode	1~16	0	–	0x660b
E06.12	Fault speed	–300.00~300.00	0	Hz	0x660c
E06.13	Fault current	0.0~6553.5	0	A	0x660d
E06.14	Fault DC–link voltage	0.0~800.0	0	V	0x660e
E06.15	Fault output torque	–300.0~300.0	0	%	0x660f
E06.16	Fault control word1	0x0000~0xFFFF	0x00	–	0x6610
E06.17	Fault control word2	0x0000~0xFFFF	0x00	–	0x6611
E06.18	Fault state word1	0x0000~0xFFFF	0x00	–	0x6612
E06.19	Fault state word2	0x0000~0xFFFF	0x00	–	0x6613
E06.20	Fault state machine	0~29	0	–	0x6614
E06.21	Fault temperature	0~300	0	℃	0x6615
E06.22	Fault output voltage	0~6553.5	0	V	0x6616
E06.23	Fault PM state word	0x0000~0xFFFF	0x00	℃	0x6617

Function code	Name	Value scope	Default Value	unit	Communication address
E07 group：Lastest warning excerption code record					
E07.00	Fault code 1	0~51	0	–	0x6700
E07.01	Fault code 1 subcode	1~16	0	–	0x6701
E07.02	Fault code 2	0~51	0	–	0x6702
E07.03	Fault code 2 subcode	1~16	0	–	0x6703
E07.04	Fault code 3	0~51	0	–	0x6704
E07.05	Fault code 3 subcode	1~16	0	–	0x6705
E07.06	Fault code 4	0~51	0	–	0x6706
E07.07	Fault code 4 subcode	1~16	0	–	0x6707
E07.08	Fault code 5	0~51	0	–	0x6708
E07.09	Fault code 5 subcode	1~16	0	–	0x6709
E07.10	Fault code 6	0~51	0	–	0x670a
E07.11	Fault code 6 subcode	1~16	0	–	0x670b

Function code	Name	Value scope	Default Value	unit	Communication address
F00 group：Logic operation module					
F00.00	Logic "AND" module A Input 1	1:Invalid other:Binary interconnection parameters	0	–	0x7000
F00.01	Logic "AND" module A Input 2		0	–	0x7001
F00.02	Logic "AND" module A Input 3		0	–	0x7002
F00.03	Logic "AND" module A Input 4		0	–	0x7003
F00.05	Logic "AND" module B Input 1	1:Invalid other:Binary interconnection parameters	0	–	0x7005
F00.06	Logic "AND" module B Input 2		0	–	0x7006
F00.07	Logic "AND" module B Input 3		0	–	0x7007
F00.08	Logic "AND" module B Input 4		0	–	0x7008
F00.10	Logic "AND" module C Input 1	1:Invalid other:Binary interconnection parameters	0	–	0x700a
F00.11	Logic "AND" module C Input 2		0	–	0x700b
F00.12	Logic "AND" module C Input 3		0	–	0x700c
F00.13	Logic "AND" module C Input 4		0	–	0x700d
F00.15	Logic "AND" module D Input 1	1:Invalid other:Binary interconnection parameters	0	–	0x700f
F00.16	Logic "AND" module D Input 2		0	–	0x7010
F00.17	Logic "AND" module D Input 3		0	–	0x7011
F00.18	Logic "AND" module D Input 4		0	–	0x7012
F00.20	Logic "NOT" module A Input	0:Invalid other:Binary interconnection parameters	0	–	0x7014
F00.22	Logic "NOT" module B Input		0	–	0x7016
F00.24	Logic "NOT" module C Input		0	–	0x7018
F00.26	Logic "NOT" module D Input		0	–	0x701a
F00.28	Logic "NOT" module E Input		0	–	0x701c
F00.30	Logic "NOT" module F Input		0	–	0x701e
F00.32	Logic "NOT" module G Input		0	–	0x7020
F00.34	Logic "NOT" module H Input		0	–	0x7022
F00.36	Logic "OR" module A Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x7024
F00.37	Logic "OR" module A Input 2		0	–	0x7025
F00.38	Logic "OR" module A Input 3		0	–	0x7026
F00.39	Logic "OR" module A Input 4		0	–	0x7027
F00.41	Logic "OR" module B Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x7029
F00.42	Logic "OR" module B Input 2		0	–	0x702a
F00.43	Logic "OR" module B Input 3		0	–	0x702b
F00.44	Logic "OR" module B Input 4		0	–	0x702c
F00.46	Logic "OR" module C Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x702e
F00.47	Logic "OR" module C Input 2		0	–	0x702f
F00.48	Logic "OR" module C Input 3		0	–	0x7030
F00.49	Logic "OR" module C Input 4		0	–	0x7031
F00.51	Logic "OR" module D Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x7033
F00.52	Logic "OR" module D Input 2		0	–	0x7034
F00.53	Logic "OR" module D Input 3		0	–	0x7035
F00.54	Logic "OR" module D Input 4		0	–	0x7036
F00.56	Logic "XOR" module A Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x7038
F00.57	Logic "XOR" module A Input 2		0	–	0x7039
F00.58	Logic "XOR" module A Input 3		0	–	0x703a
F00.59	Logic "XOR" module A Input 4		0	–	0x703b
F00.61	Logic "XOR" module B Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x703d
F00.62	Logic "XOR" module B Input 2		0	–	0x703e
F00.63	Logic "XOR" module B Input 3		0	–	0x703f
F00.64	Logic "XOR" module B Input 4		0	–	0x7040
F00.66	Logic "XOR" module C Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x7042
F00.67	Logic "XOR" module C Input 2		0	–	0x7043
F00.68	Logic "XOR" module C Input 3		0	–	0x7044
F00.69	Logic "XOR" module C Input 4		0	–	0x7045

Function code	Name	Value scope	Default Value	unit	Communication address
F00 group：Logic operation module					
F00.71	Logic "XOR" module D Input 1	0:Invalid other:Binary interconnection parameters	0	–	0x7047
F00.72	Logic "XOR" module D Input 2		0	–	0x7048
F00.73	Logic "XOR" module D Input 3		0	–	0x7049
F00.74	Logic "XOR" module D Input 4		0	–	0x704a
F00.76	Logic Delay Module A Input	0:Invalid other:Binary interconnection parameters	0	–	0x704c
F00.77	Logic Delay Module A function select	0:ON delay 1:OFF delay 2:Double-side delay	0	–	0x704d
F00.78	Logic Delay Module A delay time(N*2ms)	0~10000	0	–	0x704e
F00.79	Logic Delay Module B Input	0:Invalid other:Binary interconnection parameters	0	–	0x704f
F00.80	Logic Delay Module B function select	0:ON delay 1:OFF delay 2:Double-side delay	0	–	0x7050
F00.81	Logic Delay Module B delay time(N*2ms)	0~10000	0	–	0x7051
F00.82	Logic Delay Module C Input	0:Invalid other:Binary interconnection parameters	0	–	0x7052
F00.83	Logic Delay Module C function select	0:ON delay 1:OFF delay 2:Double-side delay	0	–	0x7053
F00.84	Logic Delay Module C delay time(N*2ms)	0~10000	0	–	0x7054
F00.85	Logic Delay Module D Input	0:Invalid other:Binary interconnection parameters	0	–	0x7055
F00.86	Logic Delay Module D function select	0:ON delay 1:OFF delay 2:Double-side delay	0	–	0x7056
F00.87	Logic Delay Module D delay time(N*2ms)	0~10000	0	–	0x7057
F00.88	Command source of free pulse A	0:Invalid other:Binary interconnection parameters	0	–	0x7058
F00.89	High duration of free pulse A	0~10000	0	–	0x7059
F00.90	Command source of free pulse B	0:Invalid other:Binary interconnection parameters	0	–	0x705a
F00.91	High duration of free pulse B	0~10000	0	–	0x705b

Function code	Name	Value scope	Default Value	unit	Communication address
F01 group：Arthmetic Operation Module					
F01.00	Addition module A Input 1	0:00 other:Analog interconnection parameters	0	–	0x7100
F01.01	Addition module A Input 2		0	–	0x7101
F01.02	Addition module A Input 3		0	–	0x7102
F01.03	Addition module A Input 4		0	–	0x7103
F01.05	Addition module B Input 1	0:00 other:Analog interconnection parameters	0	–	0x7105
F01.06	Addition module B Input 2		0	–	0x7106
F01.07	Addition module B Input 3		0	–	0x7107
F01.08	Addition module B Input 4		0	–	0x7108
F01.10	Addition module C Input 1	0:00 other:Analog interconnection parameters	0	–	0x710a
F01.11	Addition module C Input 2		0	–	0x710b
F01.12	Addition module C Input 3		0	–	0x710c
F01.13	Addition module C Input 4		0	–	0x710d
F01.15	Subtraction module A input 1	0:00 other:Analog interconnection parameters	0	–	0x710f
F01.16	Subtraction module A input 2		0	–	0x7110
F01.18	Subtraction module B input 1	0:00 other:Analog interconnection parameters	0	–	0x7112
F01.19	Subtraction module B input 2		0	–	0x7113
F01.21	Multiplication module A Input 1	0:01 other:Analog interconnection parameters	0	–	0x7115
F01.22	Multiplication module A Input 2		0	–	0x7116
F01.23	Multiplication module A Input 3		0	–	0x7117
F01.24	Multiplication module A Input 4		0	–	0x7118
F01.26	Multiplication module B Input 1	0:01 other:Analog interconnection parameters	0	–	0x711a
F01.27	Multiplication module B Input 2		0	–	0x711b
F01.28	Multiplication module B Input 3		0	–	0x711c
F01.29	Multiplication module B Input 4		0	–	0x711d
F01.31	Division module A divdor input	0:01 other:Analog interconnection parameters	0	–	0x711f
F01.32	Division module A dividend input		0	–	0x7120
F01.34	Division module B divdor input	0:01 other:Analog interconnection parameters	0	–	0x7122
F01.35	Division module B dividend input		0	–	0x7123
F01.37	Absolute value module A Input	0:00 other:Analog interconnection parameters	0	–	0x7125
F01.39	Absolute value module B Input		0	–	0x7127
F01.41	Comparison module A Input 1	0:01 other:Analog interconnection parameters	0	–	0x7129
F01.42	Comparison module A Input 2		0	–	0x712a
F01.44	Comparison module B Input 1		0	–	0x712c
F01.45	Comparison module B Input 2		0	–	0x712d
F01.47	Limit module A Input	0:01 other:Analog interconnection parameters	0	–	0x712f
F01.48	Limit module A upper limit selection		0	–	0x7130
F01.49	Limit module A lower limit selection		0	–	0x7131
F01.51	Limit module B Input	0:01 other:Analog interconnection parameters	0	–	0x7133
F01.52	Limit module B upper limit selection		0	–	0x7134
F01.53	Limit module B lower limit setect		0	–	0x7135
F01.55	First–order low–pass filter module A Input	0:01 other:Analog interconnection parameters	0	–	0x7137
F01.56	Filter time of First–order low–pass filter module A (N*2ms)	0~20000	0	–	0x7138
F01.57	First–order low–pass filter module A sample processing time	1~20	2	–	0x7139
F01.58	First–order low–pass filter module B Input	0:00 other:Analog interconnection parameters	0	–	0x713a
F01.59	Filter time of First–order low–pass filter module B (N*2ms)	0~20000	0	–	0x713b
F01.60	First–order low–pass filter module B sample processing time	1~20	2	–	0x713c

Function code	Name	Value scope	Default Value	unit	Communication address
F01 group：Arthmetic Operation Module					
F01.61	command source 1 of Data selector A	0:00 1:01 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binary interconnection parameter	0	–	0x713d
F01.62	command source 2 of Data selector A		0	–	0x713e
F01.63	data source 1 of Data selector A	0:00 1:Multi–segment setting value 1 2:AI0 6:Multi–segment value given 7:Motorized potentiometer 9:Bus adapter A–PZD2 10:Bus adapter B–PZD2 other:Analog interconnection parameters	0	–	0x713f
F01.64	data source 2 of Data selector A		0	–	0x7140
F01.65	data source 3 of Data selector A		0	–	0x7141
F01.66	data source 4 of Data selector A		0	–	0x7142
F01.67	command source 1 of Data selector B	0:00 1:01 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binary interconnection parameter	0	–	0x7143
F01.68	command source 2 of Data selector B		0	–	0x7144
F01.69	data source 1 of Data selector B	0:00 1:Multi–segment setting value 1 2:AI0 6:Multi–segment value given 7:Motorized potentiometer 9:Bus adapter A–PZD2 10:Bus adapter B–PZD2 other:Analog interconnection parameters	0	–	0x7145
F01.70	data source 2 of Data selector B		0	–	0x7146
F01.71	data source 3 of Data selector B		0	–	0x7147
F01.72	data source 4 of Data selector B		0	–	0x7148
F01.73	Comparator module C input 1	0:00 other:Analog interconnection parameters	0	–	0x7149
F01.74	Comparator module C input 2		0	–	0x714a
F01.76	Comparator module D input 1		0	–	0x714c
F01.77	Comparator module D input 2		0	–	0x714d

Function code	Name	Value scope	Default Value	unit	Communication address
F02 group：Word bit conversion module					
F02.00	Word to bit function A Input select	0:00 other:Analog interconnection parameters	0	–	0x7200
F02.02	Word to bit function B Input select		0	–	0x7202
F02.04	Word to bit function C Input select		0	–	0x7204
F02.06	Word to bit function D Input select		0	–	0x7206
F02.08	Bit to word function A–Bit00 select	0:00 other:Analog interconnection parameters	0	–	0x7208
F02.09	Bit to word function A–Bit01 select	0:00 other:Analog interconnection parameters	0	–	0x7209
F02.10	Bit to word function A–Bit02 select	0:00 other:Analog interconnection parameters	0	–	0x720a
F02.11	Bit to word function A–Bit03 select	0:00 other:Analog interconnection parameters	0	–	0x720b
F02.12	Bit to word function A–Bit04 select	0:00 other:Analog interconnection parameters	0	–	0x720c
F02.13	Bit to word function A–Bit05 select	0:00 other:Analog interconnection parameters	0	–	0x720d
F02.14	Bit to word function A–Bit06 select	0:00 other:Analog interconnection parameters	0	–	0x720e
F02.15	Bit to word function A–Bit07 select	0:00 other:Analog interconnection parameters	0	–	0x720f
F02.16	Bit to word function A–Bit08 select	0:00 other:Analog interconnection parameters	0	–	0x7210
F02.17	Bit to word function A–Bit09 select	0:00 other:Analog interconnection parameters	0	–	0x7211
F02.18	Bit to word function A–Bit10 select	0:00 other:Analog interconnection parameters	0	–	0x7212
F02.19	Bit to word function A–Bit11 select	0:00 other:Analog interconnection parameters	0	–	0x7213
F02.20	Bit to word function A–Bit12 select	0:00 other:Analog interconnection parameters	0	–	0x7214
F02.21	Bit to word function A–Bit13 select	0:00 other:Analog interconnection parameters	0	–	0x7215
F02.22	Bit to word function A–Bit14 select	0:00 other:Analog interconnection parameters	0	–	0x7216
F02.23	Bit to word function A–Bit15 select	0:00 other:Analog interconnection parameters	0	–	0x7217
F02.25	Bit to word function B–Bit00 select	0:00 other:Analog interconnection parameters	0	–	0x7219
F02.26	Bit to word function B–Bit01 select	0:00 other:Analog interconnection parameters	0	–	0x721a
F02.27	Bit to wordfunction B–Bit02 select	0:00 other:Analog interconnection parameters	0	–	0x721b
F02.28	Bit to word function B–Bit03 select	0:00 other:Analog interconnection parameters	0	–	0x721c
F02.29	Bit to word function B–Bit04 select	0:00 other:Analog interconnection parameters	0	–	0x721d
F02.30	Bit to word function B–Bit05 select	0:00 other:Analog interconnection parameters	0	–	0x721e
F02.31	Bit to word function B–Bit06 select	0:00 other:Analog interconnection parameters	0	–	0x721f

Function code	Name	Value scope	Default Value	unit	Communication address
F02 group：Word bit conversion module					
F02.32	Bit to word function B–Bit07 select	0:00 other:Binary interconnection parameters	0	–	0x7220
F02.33	Bit to word function B–Bit08 select	0:00 other:Binary interconnection parameters	0	–	0x7221
F02.34	Bit to word function B–Bit09 select	0:00 other:Binary interconnection parameters	0	–	0x7222
F02.35	Bit to word function B–Bit10 select	0:00 other:Binary interconnection parameters	0	–	0x7223
F02.36	Bit to word function B–Bit11 select	0:00 other:Binary interconnection parameters	0	–	0x7224
F02.37	Bit to word function B–Bit12 select	0:00 other:Binary interconnection parameters	0	–	0x7225
F02.38	Bit to word function B–Bit13 select	0:00 other:Binary interconnection parameters	0	–	0x7226
F02.39	Bit to word function B–Bit14 select	0:00 other:Binary interconnection parameters	0	–	0x7227
F02.40	Bit to word function B–Bit15 select	0:00 other:Binary interconnection parameters	0	–	0x7228
F02.42	Bit to word function C–Bit00 select	0:00 other:Binary interconnection parameters	0	–	0x722a
F02.43	Bit to word function C–Bit01 select	0:00 other:Binary interconnection parameters	0	–	0x722b
F02.44	Bit to word function C–Bit02 select	0:00 other:Binary interconnection parameters	0	–	0x722c
F02.45	Bit to word function C–Bit03 select	0:00 other:Binary interconnection parameters	0	–	0x722d
F02.46	Bit to word function C–Bit04 select	0:00 other:Binary interconnection parameters	0	–	0x722e
F02.47	Bit to word function C–Bit05 select	0:00 other:Binary interconnection parameters	0	–	0x722f
F02.48	Bit to word function C–Bit06 select	0:00 other:Binary interconnection parameters	0	–	0x7230
F02.49	Bit to word function C–Bit07 select	0:00 other:Binary interconnection parameters	0	–	0x7231
F02.50	Bit to word function C–Bit08 select	0:00 other:Binary interconnection parameters	0	–	0x7232
F02.51	Bit to word function C–Bit09 select	0:00 other:Binary interconnection parameters	0	–	0x7233
F02.52	Bit to word function C–Bit10 select	0:00 other:Binary interconnection parameters	0	–	0x7234
F02.53	Bit to word function C–Bit11 select	0:00 other:Binary interconnection parameters	0	–	0x7235
F02.54	Bit to word function C–Bit12 select	0:00 other:Binary interconnection parameters	0	–	0x7236
F02.55	Bit to word function C–Bit13 select	0:00 other:Binary interconnection parameters	0	–	0x7237
F02.56	Bit to word function C–Bit14 select	0:00 other:Binary interconnection parameters	0	–	0x7238
F02.57	Bit to word function C–Bit15 select	0:00 other:Binary interconnection parameters	0	–	0x7239

Function code	Name	Value scope	Default Value	unit	Communication address
F02 group：Word bit conversion module					
F02.59	Bit to word function D–Bit00 select	0:00 other:Binary interconnection parameters	0	–	0x723b
F02.60	Bit to word function D–Bit01 select	0:00 other:Binary interconnection parameters	0	–	0x723c
F02.61	Bit to word function D–Bit02 select	0:00 other:Binary interconnection parameters	0	–	0x723d
F02.62	Bit to word function D–Bit03 select	0:00 other:Binary interconnection parameters	0	–	0x723e
F02.63	Bit to word function D–Bit04 select	0:00 other:Binary interconnection parameters	0	–	0x723f
F02.64	Bit to word function D–Bit05 select	0:00 other:Binary interconnection parameters	0	–	0x7240
F02.65	Bit to word function D–Bit06 select	0:00 other:Binary interconnection parameters	0	–	0x7241
F02.66	Bit to word function D–Bit07 select	0:00 other:Binary interconnection parameters	0	–	0x7242
F02.67	Bit to word function D–Bit08 select	0:00 other:Binary interconnection parameters	0	–	0x7243
F02.68	Bit to word function D–Bit09 select	0:00 other:Binary interconnection parameters	0	–	0x7244
F02.69	Bit to word function D–Bit10 select	0:00 other:Binary interconnection parameters	0	–	0x7245
F02.70	Bit to word function D–Bit11 select	0:00 other:Binary interconnection parameters	0	–	0x7246
F02.71	Bit to word function D–Bit12 select	0:00 other:Binary interconnection parameters	0	–	0x7247
F02.72	Bit to word function D–Bit13 select	0:00 other:Binary interconnection parameters	0	–	0x7248
F02.73	Bit to word function D–Bit14 select	0:00 other:Binary interconnection parameters	0	–	0x7249
F02.74	Bit to word function D–Bit15 select	0:00 other:Binary interconnection parameters	0	–	0x724a
F02.76	Word to double word function A low word input select	0:00 other:Binary interconnection parameters	0	–	0x724c
F02.77	Word to double word function A high word input select		0	–	0x724d
F02.78	Word to double word function B low word input select	0:00 other:Binary interconnection parameters	0	–	0x724e
F02.79	Word to double word function B high word input select		0	–	0x724f

Function code	Name	Value scope	Default Value	unit	Communication address
F03 group：Process PID module					
F03.00	Effective signal of PID function	0:Invalid 1:Valid 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binary interconnection parameters	0	–	0x7300
F03.01	Enable signal of PID function		0	–	0x7301
F03.02	Direction of PID	0:Positive 1:Negative	0	–	0x7302
F03.03	PID sampling calculate	1~20	2	–	0x7303
F03.04	PID given source	0:F03.05 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Motorized potentiometer 9:Bus adapter A-PZD2 10:Bus adapter B-PZD2 other:Analog interconnection parameters	0	–	0x7304
F03.05	PID value given	-600.0~600.0	0	%	0x7305
F03.06	PID given freeze enable	0:Invalid 1:Valid 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binary interconnection parameters	0	–	0x7306
F03.07	PID given filter time	0~60000	0	ms	0x7307
F03.08	PID feedback source	0:00 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	–	0x7308
F03.09	PID feedback filter time	0~60000	0	ms	0x7309

Function code	Name	Value scope	Default Value	unit	Communication address
F03 group：Process PID module					
F03.10	PID deviation additional given	0:00 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	–	0x730a
F03.11	Proportional gain KP	0.00~125.00	1	–	0x730b
F03.12	Proportional gain coefficient	0:100.0% 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	–	0x730c
F03.13	Integral time Ti	0~60000	10	ms	0x730d
F03.14	Integral time coefficient	0:100.0% 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	–	0x730e
F03.17	Initial value of PID output integral	0:100.0% 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Motorized potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	–	0x7311
F03.19	PID integral component forced enable	0:Invalid 1:Valid 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binary interconnection parameter	0	–	0x7313

Function code	Name	Value scope	Default Value	unit	Communication address
F03 group：Process PID module					
F03.20	PID integral component forced value	0:00 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Motorized potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	-	0x7314
F03.21	PID output limit	0.0~600.0	100	%	0x7315
F03.22	PID output upper limit source	0:00 1:Multi-segment setting value 1 2:AI0 6:Multi-segment value given 7:Electric potentiometer 9:Bus adapter A process data2 10:Bus adapter B process data 2 other:Analog interconnection parameters	0	-	0x7316
F03.23	PID output lower limit source		0	-	0x7317
F03.24	PID output limit up/down time	0.00~100.00	0	s	0x7318
F03.25	PID deviation dead zone enable	0:Forbid 1:Enable	0	-	0x7319
F03.26	PID deviation dead zone range	0.0~100.0	0	%	0x731a
F03.27	PID feedback loss detection value	0.0~100.0	0	%	0x731b
F03.28	PID feedback loss detection value	0.0~60.0	0	s	0x731c

Function code	Name	Value scope	Default Value	unit	Communication address
F03 group：Process PID module					
F04.00	Holding brake function selection	0:No holding brake 1:Holding brake without detection information 2:Holding brake with detection information	0	–	0x7400
F04.01	Brake opening working time	0.00~10.00	0	s	0x7401
F04.02	Brake closing working time	0.00~10.00	0	s	0x7402
F04.03	Brake open command source	0:Invalid 1:Valid 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binector parameters	1102	–	0x7403
F04.04	Brake open comparison source	0:00 other:connertor parameters	2311	–	0x7404
F04.05	Brake open comparison threshold	0.0~200.0%	2	%	0x7405
F04.06	Brake opening delay time	0.00~10.00s	0	s	0x7406
F04.07	Brake closing speed threshold	1.0~200.0%	1	%	0x7407
F04.08	Brake closing delay time	0.00~10.00s	0	s	0x7408
F04.09	Forced brake closing command source	0:Invalid 1:Valid 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:Reserve other:Binector parameters	0	–	0x7409
F04.11	Source of brake closing feedback point		0	–	0x740b
F04.12	Source of brake closing comparison value	0:00 other:connertor parameters	2311	–	0x740c
F04.13	Brake opening motor current comparison threshold	1.0~200.0	50	%	0x740d
F04.14	Brake relay drive power selection	0:5V 1:12V 2:24V	2	–	0x740e
F04.15	Brake opening speed pause time	0.0~60.0	45	mA	0x740f
F04.16	Brake closing speed pause time	0.00~10.00	0.5	s	0x7410
F04.17	Brake opening speed pause time	0.00~10.00	0.5	s	0x7411

Function code	Name	Value scope	Default Value	unit	Communication address
G00 groupe : Position control parameters					
G00.00	Position reference source	0:00 1:Reserve 2:Multi-position reference 3:Actual position reference	2	–	0x8000
G00.01	Position reference direction selection	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:DI8 Others:Binary interconnection parameters	1	–	0x8001
G00.02	Time constant of moving average filter	0.0~128.0	0	ms	0x8002
G00.03	Position reference first-order low-pass filter time	0.0~6553.5ms	0	ms	0x8003
G00.04	Number of position reference for one motor rotation	0~1048576P/r	0	p/r	0x8004
G00.05	Number of position reference for one motor rotation	0~1048576P/r	0	p/r	0x8005
G00.06	Electronic gear ratio1(Numerator)	1~1073741824P/r	1	p/r	0x8006
G00.08	Electronic gear ratio1(Denominator)	1~1073741824P/r	1	p/r	0x8008
G00.19	Position reference input prohibition source	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:DI8 Others:Binary interconnection parameters	0	–	0x8013
G00.20	Position reference clear action selection	0:Clearing position deviation after servo off1 at stop 1:Clearing position deviation on fault. 2:Position deviation clear commmand clear position deviation	0	–	0x8014
G00.21	Position reference clear command source selection	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:DI8 Others:Binary interconnection parameters	0	–	0x8015
G00.22	Motor rotation direction selection	0:Take the CCW direction as the forward direction 1:Take the CW direction as the forward direction	0	–	0x8016

Function code	Name	Value scope	Default Value	unit	Communication address
G00 groupe : Position control parameters					
G00.24	Output condition of positioning completed/near signal	0: Absolute value of position deviation is smaller than setting of G00.25 1: Absolute value of position deviation is smaller than setting of G00.25 and position reference after filter is 0 2: Absolute value of position deviation is smaller than setting of G00.25 and position reference is 0 3: Absolute value of position deviation is smaller than setting of G00.25 and position reference is 0, positioning completed/near signal holding time determined by G00.28	0	–	0x8018
G00.25	Position deviation threshold of positioning completed	1~65535P/r	1000	p/r	0x8019
G00.27	Time threshold of positioning completed	0~30000ms	1	ms	0x801b
G00.28	Positioning completed holding time	0~30000ms	1	ms	0x801c
G00.43	Home enable switch	0:The home function is disabled. 1:G00.44 enable the home function. 2:Reserve 3:Home is executed after POWER ON 4:Home is immediately executed now.	0	–	0x802b
G00.44	Home command source selection	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:DI8 Others:Binary interconnection parameters	0	–	0x802c
G00.45	Home mode	0:Reset positive,both the deceleration point and the home are the home switch. 1:Reset negative,both the deceleration point and the home are the home switch 6:Reset positive,the deceleration point ,and the home is positive limit switch signal source 7:Reset negative,the deceleration point ,and the home is negative limit switch signal source	0	–	0x802d
G00.46	The speed for homing at high speed	0~3000rpm	100	rpm	0x802e
G00.47	The speed for homing at low speed	0~1000rpm	10	rpm	0x802f
G00.48	Homing acceleration and deceleration time	0~1000ms	1000	ms	0x8030
G00.49	Duration limit of homing	0~65535ms	65535	ms	0x8031
G00.50	Home offset	–1073741824~1073741824	0	p	0x8032
G00.52	Home offset and process method of triggering limit switch	0:The mechanical home offset is the coordinate after the home,find the origin point in the reverse after reaching limit re–trigger the origin point return enable. 1:The mechanical origin point deviation is the refer deviation after the origin point return,find the origin point in the reverse after reaching limit re–trigger the origin point return enable. 2:The mechanical origin point deviation is the coordinate after the origin point return,reaching limit automatic reverse find zero 3:The mechanical origin point deviation is the refer deviation after the origin point return,reaching limit automatic reverse find zero	2	–	0x8034

Function code	Name	Value scope	Default Value	unit	Communication address
G00 groupe : Position control parameters					
G00.53	Home switch source selection	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:DI8 Others:Binary interconnection parameters	0	–	0x8035
G00.55	Positive limit switch command source selection		0	–	0x8037
G00.56	Negative limit switch command source selection		0	–	0x8038
G00.57	Actual shift directive type	0:relative position 1:absolute position	0	–	0x8039
G00.58	Actual shift directive source selection	0:00 1:Direct setpoint(G00.59) 2:Others:Analog interconnection parameters	0	–	0x803a
G00.59	Actual shift directive direct setpoint	–1073741824~1073741824	0	um	0x803b
G00.61	Actual shift maximum speed source selection	0:100.0% 1:Multi–stage setting 1 2:A10 6:Multi–segment value given 7:Electric potentiometer 9:Bus adapter A process data 2 10:Bus adapter B process data 2 Others:Analog interconnection parameters	0	–	0x803d
G00.62	Actual shift acceleration and deceleration time	0~65535	10	ms	0x803e
G00.63	New position directive status source selection	0:Ineffective 1:Effective 2:DI0 3:DI1 4:DI2 5:DI3 6:DI4 7:DI5 8:DI6 9:DI7 10:DI8	0	–	0x803f
G00.64	Actual position directive update command source selection	Others:Binary interconnection parameters	0	–	0x8040

Function code	Name	Value scope	Default Value	unit	Communication address
G01 GROUP: Servo gain parameters					
G01.00	1st position loop gain	0.0~2000.0Hz	40	Hz	0x8100
G01.01	1st speed loop gain	0.1~2000.0Hz	25	Hz	0x8101
G01.02	1st time constant of speed loop integration	0.15~512.00ms	31.83	ms	0x8102
G01.13	Load Moment of inertia ratio	0.00~120.00	0	–	0x810d
G01.19	Speed feedforward source selection	0:No Speed feedback 1:Internal speed pre-control 2:AI0 9:Bus adapter A process data 2 10:Bus adapter A process data 2 Others: Analog interconnection parameters	0	–	0x8113
G01.20	Speed feedforwad Smoothing time parameter	0.00~64.00ms	0.5	ms	0x8114
G01.21	Speed feedforward gain	0.0~100.0%	0	%	0x8115
G01.22	Torque feedforward selecting	0:no torque pre-control 1:Internal torque pre-control	0	–	0x8116
G01.23	Torque feedforward Smoothing time parameter	0.00~64.00ms	1	ms	0x8117
G01.24	Torque feedforward gain	0.00~64.00ms	0	%	0x8118
G01.31	PDFF control coefficient	0.0~100.0%	0	%	0x811f
G01.32	Torque smoothing time constant	0.00~30.00ms	0	ms	0x8120
G02 GROUP: Automatic adjustment of parameters					
G02.00	Automatic gain tuning mode selection	0:Parameter auto-tuning is invalid, manually adjust the parameters 1:Parameter self-tuning standard mode, rigid meter automatically adjusts gain parameters	1	–	0x8200
G02.01	stiffness level selection	0~31	17	–	0x8201
G02.04	inertia auto-tuning enable	0:No enable 1:enable	0	–	0x8204
G02.16	1st notch frequency	50~4000Hz	4000	Hz	0x8210
G02.17	1st notch width level	0~20	2	–	0x8211
G02.18	1st notch damping leve	0~99	25	–	0x8212
G02.19	2nd notch frequency	50~4000Hz	4000	Hz	0x8213
G02.20	2nd notch width level	0~20	2	–	0x8214
G02.21	2nd notch damping leve	0~99	25	–	0x8215
G02.22	3rd notch frequency	50~4000Hz	4000	Hz	0x8216
G02.23	3rd notch width level	0~20	2	–	0x8217
G02.24	3rd notch damping leve	0~99	25	–	0x8218
G02.28	Notch resonance frequency identification result	0~4000Hz	4000	Hz	0x821c
G02.31	disturbing torque compensation gain	-100.0%~100.0%	4000	–	0x821f
G02.32	Time constant of torque disturbance observer filter	0.00~25.00ms	10	ms	0x8220

Function code	Name	Value scope	Default Value	unit	Communication address
G03 GGROUP: Servo specific function parameters					
G03.11	threshold of position deviation	1~1000p	5	p	0x830b
G03.13	soft limit switch	0:software is not enable 1:software is enable	0	–	0x830d
G03.14	Soft limit maximum value	–2147483648~2147483647	2.1E+09	p	0x830e
G03.16	Soft limit minimum value	–2147483648~2147483647	–2E+09	p	0x8310
G03.20	JOG1 position step	0~1	10000	p	0x8314
G03.22	JOG1 maximum velocity	0~1	200	rpm	0x8316
G03.23	JOG1 acceleration and deceleration time	0~1	10	ms	0x8317
G03.24	JOG2 position step	0~1	10000	p	0x8318
G03.26	JOG2 maximum velocity	0~1	200	rpm	0x831a
G03.27	JOG2 acceleration and deceleration time	0~1	10	ms	0x831b
G03.31	EPOS maximum speed	0~1	30000	1000LU/min	0x831f
G03.33	EPOS maximum acceleration	0~1	100	1000LU/s2	0x8321
G03.35	EPOS maximum deceleration	0~1	100	1000LU/s2	0x8323

Function code	Name	Value scope	Default Value	unit	Communication address
G04 GROUP: Multi-position function parameters					
G04.00	Multi-position running mode	0:Stop at the end of a single run（G04.05 Select the number of segments） 1:Cyclic run(G04.05Select the number of segments) 2:Multisegment position given value choice and switch run 3:Run in sequence(G04.05Select the number of segments)	0	–	0x8400
G04.01	1st position reference source selection	0:00 1:01 2:DI0 3:DI1 4:DI2 5: DI3 6: DI4 7: DI5 8: DI6 9: DI7 10: Reserve Others:Binary interconnection parameters	0	–	0x8401
G04.02	2nd position reference source selection		0	–	0x8402
G04.03	3rd position reference source selection		0	–	0x8403
G04.04	4th position reference source selection		0	–	0x8404
G04.05	Number of displacement references in multi position mode selection	1~16	1	–	0x8405
G04.06	margin processing method	0：Continue to run unfinished segments 1：The first restart	0	–	0x8406
G04.07	waiting time unit	0:ms 1:s	0	–	0x8407
G04.08	Displacement reference type	0：Relative displacement command 1：Absolute displacement command	0	–	0x8408
G04.09	start position of sequential running	0~16	0	–	0x8409
G04.10	Displacement 1	–1073741824~1073741824(commandunit)	10000	p	0x840a
G04.12	Maximum speed of displacement 1	1~6000rpm	200	rpm	0x840c
G04.13	Acceleration/Deceleration time of displacement 1	0~65535ms(s)	10	–	0x840d
G04.14	Waiting time after displacement 1	0~10000ms(s)	10	–	0x840e
G04.15	Displacement 2	–1073741824~1073741824(commandunit)	10000	p	0x840f
G04.17	Maximum speed of displacement 2	1~6000rpm	200	rpm	0x8411
G04.18	Acceleration/Deceleration time of displacement 2	0~65535ms(s)	10	–	0x8412
G04.19	Waiting time after displacement 2	0~10000ms(s)	10	–	0x8413
G04.20	Displacement 3	–1073741824~1073741824(commandunit)	10000	p	0x8414
G04.22	Maximum speed of displacement 3	1~6000rpm	200	rpm	0x8416
G04.23	Acceleration/Deceleration time of displacement 3	0~65535ms(s)	10	–	0x8417
G04.24	Waiting time after displacement 3	0~10000ms(s)	10	–	0x8418
G04.25	Displacement 4	–1073741824~1073741824(commandunit)	10000	p	0x8419
G04.27	Maximum speed of displacement 4	1~6000rpm	200	rpm	0x841b
G04.28	Acceleration/Deceleration time of displacement 4	0~65535ms(s)	10	–	0x841c
G04.29	Waiting time after displacement 4	0~10000ms(s)	10	–	0x841d
G04.30	Displacement 5	–1073741824~1073741824(commandunit)	10000	p	0x841e
G04.32	Maximum speed of displacement 5	1~6000rpm	200	rpm	0x8420
G04.33	Acceleration/Deceleration time of displacement 5	0~65535ms(s)	10	–	0x8421
G04.34	Waiting time after displacement 5	0~10000ms(s)	10	–	0x8422
G04.35	Displacement 6	–1073741824~1073741824(commandunit)	10000	p	0x8423
G04.37	Maximum speed of displacement 6	1~6000rpm	200	rpm	0x8425
G04.38	Acceleration/Deceleration time of displacement 6	0~65535ms(s)	10	–	0x8426
G04.39	Waiting time after displacement 6	0~10000ms(s)	10	–	0x8427
G04.40	Displacement 7	–1073741824~1073741824(commandunit)	10000	p	0x8428
G04.42	Maximum speed of displacement 7	1~6000rpm	200	rpm	0x842a
G04.43	Acceleration/Deceleration time of displacement 7	0~65535ms(s)	10	–	0x842b
G04.44	Waiting time after displacement 7	0~10000ms(s)	10	–	0x842c

Function code	Name	Value scope	Default Value	unit	Communication address
G04 GROUP: Multi-position function parameters					
G04.45	Displacement 8	-1073741824~1073741824(command unit)	10000	p	0x842d
G04.47	Maximum speed of displacement 8	1~6000rpm	200	rpm	0x842f
G04.48	Acceleration/Deceleration time of displacement 8	0~65535ms(s)	10	-	0x8430
G04.49	Waiting time after displacement 8	0~10000ms(s)	10	-	0x8431
G04.50	Displacement 9	-1073741824~1073741824(command unit)	10000	p	0x8432
G04.52	Maximum speed of displacement 9	1~6000rpm	200	rpm	0x8434
G04.53	Acceleration/Deceleration time of displacement 9	0~65535ms(s)	10	-	0x8435
G04.54	Waiting time after displacement 9	0~10000ms(s)	10	-	0x8436
G04.55	Displacement 10	-1073741824~1073741824(command unit)	10000	p	0x8437
G04.57	Maximum speed of displacement 10	1~6000rpm	200	rpm	0x8439
G04.58	Acceleration/Deceleration time of displacement 10	0~65535ms(s)	10	-	0x843a
G04.59	Waiting time after displacement 10	0~10000ms(s)	10	-	0x843b
G04.60	Displacement 11	-1073741824~1073741824(command unit)	10000	p	0x843c
G04.62	Maximum speed of displacement 11	1~6000rpm	200	rpm	0x843e
G04.63	Acceleration/Deceleration time of displacement 11	0~65535ms(s)	10	-	0x843f
G04.64	Waiting time after displacement 11	0~10000ms(s)	10	-	0x8440
G04.65	Displacement 12	-1073741824~1073741824(command unit)	10000	p	0x8441
G04.67	Maximum speed of displacement 12	1~6000rpm	200	rpm	0x8443
G04.68	Acceleration/Deceleration time of displacement 12	0~65535ms(s)	10	-	0x8444
G04.69	Waiting time after displacement 12	0~10000ms(s)	10	-	0x8445
G04.70	Displacement 13	-1073741824~1073741824(command unit)	10000	p	0x8446
G04.72	Maximum speed of displacement 13	1~6000rpm	200	rpm	0x8448
G04.73	Acceleration/Deceleration time of displacement 13	0~65535ms(s)	10	-	0x8449
G04.74	Waiting time after displacement 13	0~10000ms(s)	10	-	0x844a
G04.75	Displacement 14	-1073741824~1073741824(command unit)	10000	p	0x844b
G04.77	Maximum speed of displacement 14	1~6000rpm	200	rpm	0x844d
G04.78	Acceleration/Deceleration time of displacement 14	0~65535ms(s)	10	-	0x844e
G04.79	Waiting time after displacement 14	0~10000ms(s)	10	-	0x844f
G04.80	Displacement 15	-1073741824~1073741824(command unit)	10000	p	0x8450
G04.82	Maximum speed of displacement 15	1~6000rpm	200	rpm	0x8452
G04.83	Acceleration/Deceleration time of displacement 15	0~65535ms(s)	10	-	0x8453
G04.84	Waiting time after displacement 15	0~10000ms(s)	10	-	0x8454
G04.85	Displacement 16	-1073741824~1073741824(command unit)	10000	p	0x8455
G04.87	Maximum speed of displacement 16	1~6000rpm	200	rpm	0x8457
G04.88	Acceleration/Deceleration time of displacement 16	0~65535ms(s)	10	-	0x8458
G04.89	Waiting time after displacement 16	0~10000ms(s)	10	-	0x8459
G04.90	Multi-position enable source selection	0:00 1:01 2:DI0 3:DI1 4:DI2 5: DI3 6: DI4 7: DI5 8: DI6 9: DI7 10: Reserve Others:Binary interconnection parameters	0	-	0x845a

Function code	Name	Value scope	Default Value	unit	Communication address
G05: Full closed loop function parameters					
G05.00	Encoder feedback mode	0:Motor internal encoder 1:Ordinary ABZ encoder(DB125) 4:BISS-C communication encoder(1222) 5:RS485 communication encoder（1623）	0	–	0x8500
G05.01	External encoder using method	0:Use in standard running direction 1:Use in reverse running direction	0	–	0x8501
G05.02	External position sensor measuring step	1~65535	1000	nm	0x8502

Function code	Name	Value scope	Default Value	unit	Communication address
P00 group:Binary interconnect parameters (hardware status)					
P00.00	Logic 0	0	0	–	0xe000
P00.01	Logic 1	1	1	–	0xe001
P00.02	Multifunctional digital input DI0	0~1	0	–	0xe002
P00.03	Multifunctional digital input DI1	0~1	0	–	0xe003
P00.04	Multifunctional digital input DI2	0~1	0	–	0xe004
P00.05	Multifunctional digital input DI3	0~1	0	–	0xe005
P00.06	Multifunctional digital input DI4	0~1	0	–	0xe006
P00.07	Multifunctional digital input DI5	0~1	0	–	0xe007
P00.08	Multifunctional digital input DI6	0~1	0	–	0xe008
P00.09	Multifunctional digital input DI7	0~1	0	–	0xe009
P00.10	Multifunctional digital input DI8	0~1	0	–	0xe00a
P00.11	Multifunctional digital input DI9	0~1	0	–	0xe00b
P00.12	Multifunctional digital input DI10	0~1	0	–	0xe00c
P00.23	Multi-function digital input DI0 inverted	0~1	0	–	0xe017
P00.24	Multi-function digital input DI1 inverted	0~1	0	–	0xe018
P00.25	Multi-function digital input DI2 inverted	0~1	0	–	0xe019
P00.26	Multi-function digital input DI3 inverted	0~1	0	–	0xe01a
P00.27	Multi-function digital input DI4 inverted	0~1	0	–	0xe01b
P00.28	Multi-function digital input DI5 inverted	0~1	0	–	0xe01c
P00.29	Multi-function digital input DI6 inverted	0~1	0	–	0xe01d
P00.30	Multi-function digital input DI7 inverted	0~1	0	–	0xe01e
P00.31	Multi-function digital input DI8 inverted	0~1	0	–	0xe01f
P00.32	Multi-function digital input DI9 inverted	0~1	0	–	0xe020
P00.33	Multi-function digital input DI10 inverted	0~1	0	–	0xe021
P00.50	Multifunctional digital output DO0	0~1	0	–	0xe032
P00.51	Multifunctional digital output DO1	0~1	0	–	0xe033
P00.52	Multifunctional digital output DO2	0~1	0	–	0xe034
P00.53	Multifunctional digital output DO3	0~1	0	–	0xe035
P00.57	Multifunctional digital output DO0 is inverted	0~1	0	–	0xe039
P00.58	Multifunctional digital output DO1 is inverted	0~1	0	–	0xe03a
P00.59	Multifunctional digital output DO2 is inverted	0~1	0	–	0xe03b
P00.60	Multifunctional digital output DO3 is inverted	0~1	0	–	0xe03c
P00.64	The bidirectional terminal terminal DIO20 input signal	0	0	–	0xe040
P00.65	The bidirectional terminal terminal DIO21 input signal	0	0	–	0xe041
P00.66	The bidirectional terminal terminal DIO22 input signal	0	0	–	0xe042
P00.67	The bidirectional terminal terminal DIO23 input signal	0	0	–	0xe043
P00.68	The bidirectional terminal terminal DIO24 input signal	0	0	–	0xe044
P00.69	The bidirectional terminal terminal DIO25 input signal	0	0	–	0xe045
P00.70	The bidirectional terminal terminal DIO26 input signal	0	0	–	0xe046
P00.71	The bidirectional terminal terminal DIO27 input signal	0	0	–	0xe047
P00.72	The bidirectional terminal terminal DIO20 output signal	0	0	–	0xe048
P00.73	The bidirectional terminal terminal DIO21 output signal	0	0	–	0xe049
P00.74	The bidirectional terminal terminal DIO22 output signal	0	0	–	0xe04a
P00.75	The bidirectional terminal terminal DIO23 output signal	0	0	–	0xe04b
P00.76	The bidirectional terminal terminal DIO24 output signal	0	0	–	0xe04c
P00.77	The bidirectional terminal terminal DIO25 output signal	0	0	–	0xe04d
P00.78	The bidirectional terminal terminal DIO26 output signal	0	0	–	0xe04e
P00.79	The bidirectional terminal terminal DIO27 output signal	0	0	–	0xe04f
P00.80	The input signal of the bidirectional terminal DIO20 is inverted	0	0	–	0xe050
P00.81	The input signal of the bidirectional terminal DIO21 is inverted	0	0	–	0xe051
P00.82	The input signal of the bidirectional terminal DIO22 is inverted	0	0	–	0xe052
P00.83	The input signal of the bidirectional terminal DIO23 is inverted	0	0	–	0xe053

Function code	Name	Value scope	Default Value	unit	Communication address
P00 group:Binary interconnect parameters (hardware status)					
P00.84	The input signal of the bidirectional terminal DIO24 is inverted	0	0	–	0xe054
P00.85	The input signal of the bidirectional terminal DIO25 is inverted	0	0	–	0xe055
P00.86	The input signal of the bidirectional terminal DIO26 is inverted	0	0	–	0xe056
P00.87	The input signal of the bidirectional terminal DIO27 is inverted	0	0	–	0xe057
P00.88	The output signal of the bidirectional terminal DIO20 is inverted	0	0	–	0xe058
P00.89	The output signal of the bidirectional terminal DIO21 is inverted	0	0	–	0xe059
P00.90	The output signal of the bidirectional terminal DIO22 is inverted	0	0	–	0xe05a
P00.91	The output signal of the bidirectional terminal DIO23 is inverted	0	0	–	0xe05b
P00.92	The output signal of the bidirectional terminal DIO24 is inverted	0	0	–	0xe05c
P00.93	The output signal of the bidirectional terminal DIO25 is inverted	0	0	–	0xe05d
P00.94	The output signal of the bidirectional terminal DIO26 is inverted	0	0	–	0xe05e
P00.95	The output signal of the bidirectional terminal DIO27 is inverted	0	0	–	0xe05f

Function code	Name	Value scope	Default Value	unit	Communication address
P01 group :Binary interconnection parameters (system control word and status)					
P01.00	Ready for startup	0~1	0	–	0xe100
P01.01	Ready for run	0~1	0	–	0xe101
P01.02	run	0~1	0	–	0xe102
P01.03	fault active	0~1	0	–	0xe103
P01.04	OFF2 is invalid	0~1	0	–	0xe104
P01.05	OFF3 is invalid	0~1	0	–	0xe105
P01.06	boot blocking	0~1	0	–	0xe106
P01.07	alarm activation	0~1	0	–	0xe107
P01.08	set speed reached	0~1	0	–	0xe108
P01.09	comparison value reached	0~1	0	–	0xe109
P01.11	holding brake open	0~1	0	–	0xe10b
P01.12	Forward speed	0~1	0	–	0xe10c
P01.13	IGBT operation	0~1	0	–	0xe10d
P01.14	Jog operation valid	0~1	0	–	0xe10e
P01.15	Pre-excitation start	0~1	0	–	0xe10f
P01.16	DC brake on	0~1	0	–	0xe110
P01.17	Speed tracking start	0~1	0	–	0xe111
P01.18	effective torque control	0~1	0	–	0xe112
P01.20	power on is not ready	0~1	0	–	0xe114
P01.21	not ready for operation	0~1	0	–	0xe115
P01.22	not running	0~1	0	–	0xe116
P01.23	no fault	0~1	0	–	0xe117
P01.24	OFF2 is valid	0~1	0	–	0xe118
P01.25	OFF3 is valid	0~1	0	–	0xe119
P01.26	power on is not blocked	0~1	0	–	0xe11a
P01.27	no alarm	0~1	0	–	0xe11b
P01.28	set speed not reached	0~1	0	–	0xe11c
P01.29	comparison value not reached	0~1	0	–	0xe11d
P01.31	holding brake closing	0~1	0	–	0xe11f
P01.32	speed negative	0~1	0	–	0xe120
P01.33	IGBT block	0~1	0	–	0xe121
P01.34	Jog operation is invalid	0~1	0	–	0xe122
P01.35	Pre excitation completed	0~1	0	–	0xe123
P01.36	end of DC braking	0~1	0	–	0xe124
P01.37	Speed tracking completed	0~1	0	–	0xe125
P01.41	RFG output inhibit	0~1	0	–	0xe129
P01.42	RFG pause	0~1	0	–	0xe12a
P01.43	RFG input inhibit	0~1	0	–	0xe12b
P01.44	RFG acceleration	0~1	0	–	0xe12c
P01.45	RFG deceleration	0~1	0	–	0xe12d
P01.46	RFG constant speed	0~1	0	–	0xe12e
P01.48	Vdc_min activation	0~1	0	–	0xe130
P01.49	Vdc_max activation	0~1	0	–	0xe131
P01.58	holding brake opened	0~1	0	–	0xe13a
P01.59	holding brake closed	0~1	0	–	0xe13b
P01.60	holding brake cannot be opened	0~1	0	–	0xe13c
P01.61	holding brake cannot be closed	0~1	0	–	0xe13d
P01.62	motor Pre-overload status	0~1	0	–	0xe13e
P01.63	zero speed given operation	0~1	0	–	0xe13f
P01.64	DC bus live mark	0~1	0	–	0xe140
P01.65	motor speed is zero	0~1	0	–	0xe141
P01.66	PID function takes effect	0~1	0	–	0xe142

Function code	Name	Value scope	Default Value	unit	Communication address
P01 group :Binary interconnection parameters (system control word and status)					
P01.67	PID operation enable	0~1	0	–	0xe143
P01.68	PID action direction	0~1	0	–	0xe144
P01.69	PID reference freeze enable	0~1	0	–	0xe145
P01.70	PID integral component forced enable	0~1	0	–	0xe146
P01.71	PID deviation dead zone enable	0~1	0	–	0xe147
P01.72	PID saturation	0~1	0	–	0xe148
P01.73	motor over temperature protection mark	0~1	0	–	0xe149
P01.74	motor over temperature warning sign	0~1	0	–	0xe14a
P01.75	motor selection bit0	0~1	0	–	0xe14b
P01.76	motor selection bit1	0~1	0	–	0xe14c
P01.77	RFG select bit0	0~1	0	–	0xe14d
P01.78	RFG select bit1	0~1	0	–	0xe14e
P01.79	multi segment given selection 1	0~1	0	–	0xe14f
P01.80	multi segment given selection 2	0~1	0	–	0xe150
P01.81	multi segment given selection 3	0~1	0	–	0xe151
P01.82	multi segment given selection 4	0~1	0	–	0xe152
P01.83	Process PID feedback disconnection mark	0~1	0	–	0xe153
P01.84	Brake control feedback flag	0	0	–	0xe154
P01.85	RFG operation flag	0	0	–	0xe155

Function code	Name	Value scope	Default Value	unit	Communication address
P02 group : Binary interconnection parameters (FBA and fault flag)					
P02.00	bus adapter A.PZD1.0	0~1	0	–	0xe200
P02.01	bus adapter A.PZD1.1	0~1	0	–	0xe201
P02.02	bus adapter A.PZD1.2	0~1	0	–	0xe202
P02.03	bus adapter A.PZD1.3	0~1	0	–	0xe203
P02.04	bus adapter A.PZD1.4	0~1	0	–	0xe204
P02.05	bus adapter A.PZD1.5	0~1	0	–	0xe205
P02.06	bus adapter A.PZD1.6	0~1	0	–	0xe206
P02.07	bus adapter A.PZD1.7	0~1	0	–	0xe207
P02.08	bus adapter A.PZD1.8	0~1	0	–	0xe208
P02.09	bus adapter A.PZD1.8	0~1	0	–	0xe209
P02.10	bus adapter A.PZD1.10	0~1	0	–	0xe20a
P02.11	bus adapter A.PZD1.11	0~1	0	–	0xe20b
P02.12	bus adapter A.PZD1.12	0~1	0	–	0xe20c
P02.13	bus adapter A.PZD1.13	0~1	0	–	0xe20d
P02.14	bus adapter A.PZD1.14	0~1	0	–	0xe20e
P02.15	bus adapter A.PZD1.15	0~1	0	–	0xe20f
P02.50	DriveLink.PZD1.0	0~1	0	–	0xe232
P02.51	DriveLink.PZD1.1	0~1	0	–	0xe233
P02.52	DriveLink.PZD1.2	0~1	0	–	0xe234
P02.53	DriveLink.PZD1.3	0~1	0	–	0xe235
P02.54	DriveLink.PZD1.4	0~1	0	–	0xe236
P02.55	DriveLink.PZD1.5	0~1	0	–	0xe237
P02.56	DriveLink.PZD1.6	0~1	0	–	0xe238
P02.57	DriveLink.PZD1.7	0~1	0	–	0xe239
P02.58	DriveLink.PZD1.8	0~1	0	–	0xe23a
P02.59	DriveLink.PZD1.9	0~1	0	–	0xe23b
P02.60	DriveLink.PZD1.10	0~1	0	–	0xe23c
P02.61	DriveLink.PZD1.11	0~1	0	–	0xe23d
P02.62	DriveLink.PZD1.12	0~1	0	–	0xe23e
P02.63	DriveLink.PZD1.13	0~1	0	–	0xe23f
P02.64	DriveLink.PZD1.14	0~1	0	–	0xe240
P02.65	DriveLink.PZD1.15	0~1	0	–	0xe241

Function code	Name	Value scope	Default Value	unit	Communication address
P03 group :Binary interconnection parameters (free function module 1)					
P03.00	Logic and module A output	0~1	0	–	0xe300
P03.01	Logic and module B output	0~1	0	–	0xe301
P03.02	Logic and module C output	0~1	0	–	0xe302
P03.03	Logic and module D output	0~1	0	–	0xe303
P03.04	Logic non module A output	0~1	0	–	0xe304
P03.05	Logic non module B output	0~1	0	–	0xe305
P03.06	Logic non module C output	0~1	0	–	0xe306
P03.07	Logic non module D output	0~1	0	–	0xe307
P03.08	Logic non module E output	0~1	0	–	0xe308
P03.09	Logic non module F output	0~1	0	–	0xe309
P03.10	Logic non module G output	0~1	0	–	0xe30a
P03.11	Logic non module output 8	0~1	0	–	0xe30b
P03.12	Logic "OR" module A output	0~1	0	–	0xe30c
P03.13	Logic "OR" module B output	0~1	0	–	0xe30d
P03.14	Logic "OR" module C output	0~1	0	–	0xe30e
P03.15	Logic "OR" module D output	0~1	0	–	0xe30f
P03.16	Logic "XOR" module A output	0~1	0	–	0xe310
P03.17	Logic "XOR" module B output	0~1	0	–	0xe311
P03.18	Logic "XOR" module C output	0~1	0	–	0xe312
P03.19	Logic "XOR" module D output	0~1	0	–	0xe313
P03.20	Logic delay module A output	0~1	0	–	0xe314
P03.21	Logic delay module B output	0~1	0	–	0xe315
P03.22	Logic delay module C output	0~1	0	–	0xe316
P03.23	Logic delay module D output	0~1	0	–	0xe317
P03.24	Comparison module A is larger then flag	0~1	0	–	0xe318
P03.25	Comparison module A equals flag	0~1	0	–	0xe319
P03.26	Comparison modulee A smaller than flag	0~1	0	–	0xe31a
P03.27	Comparison module B is larger then flag	0~1	0	–	0xe31b
P03.28	Comparison module B equals flag	0~1	0	–	0xe31c
P03.29	Comparison module B smaller than flag	0~1	0	–	0xe31d
P03.30	Division module A dividend equals 0	0~1	0	–	0xe31e
P03.31	Division module B dividend equals 1	0~1	0	–	0xe31f
P03.32	Absolute value module A Input symbol	0~1	0	–	0xe320
P03.33	Absolute value module B Input symbol	0~1	0	–	0xe321
P03.34	Absolute value module A overflow flag	0~1	0	–	0xe322
P03.35	Absolute value module B overflow flag	0~1	0	–	0xe323
P03.36	Addition module A overflow flag	0~1	0	–	0xe324
P03.37	Addition module B overflow flag	0~1	0	–	0xe325
P03.38	Addition module C overflow flag	0~1	0	–	0xe326
P03.39	Subtraction module A overflow flag	0~1	0	–	0xe327
P03.40	Subtraction module B overflow flag	0~1	0	–	0xe328
P03.41	Multiplication module A overflow flag	0~1	0	–	0xe329
P03.42	Multiplication module B overflow flag	0~1	0	–	0xe32a
P03.43	Division module A overflow flag	0~1	0	–	0xe32b
P03.44	Division module A overflow flag	0~1	0	–	0xe32c
P03.45	Free pulse A output	0~1	0	–	0xe32d
P03.46	Free pulse B output	0~1	0	–	0xe32e
P03.47	Comparison module C is larger then flag	0~1	0	–	0xe32f
P03.48	Comparison module C equals flag	0~1	0	–	0xe330
P03.49	Comparison module C smaller than flag	0~1	0	–	0xe331
P03.50	Comparison module D is larger then flag	0~1	0	–	0xe332
P03.51	Comparison module D equals flag	0~1	0	–	0xe333
P03.52	Comparison module D smaller than flag	0~1	0	–	0xe334

Function code	Name	Value scope	Default Value	unit	Communication address
P04 group：Binary interconnection parameters（Free function module 2）					
P04.00	Word to bit function A output bit0	0~1	0	–	0xe400
P04.01	Word to bit function A output bit1	0~1	0	–	0xe401
P04.02	Word to bit function A output bit2	0~1	0	–	0xe402
P04.03	Word to bit function A output bit3	0~1	0	–	0xe403
P04.04	Word to bit function A output bit4	0~1	0	–	0xe404
P04.05	Word to bit function A output bit5	0~1	0	–	0xe405
P04.06	Word to bit function A output bit6	0~1	0	–	0xe406
P04.07	Word to bit function A output bit7	0~1	0	–	0xe407
P04.08	Word to bit function A output bit8	0~1	0	–	0xe408
P04.09	Word to bit function A output bit9	0~1	0	–	0xe409
P04.10	Word to bit function A output bit10	0~1	0	–	0xe40a
P04.11	Word to bit function A output bit11	0~1	0	–	0xe40b
P04.12	Word to bit function A output bit12	0~1	0	–	0xe40c
P04.13	Word to bit function A output bit13	0~1	0	–	0xe40d
P04.14	Word to bit function A output bit14	0~1	0	–	0xe40e
P04.15	Word to bit function A output bit15	0~1	0	–	0xe40f
P04.16	Word to bit function B output bit0	0~1	0	–	0xe410
P04.17	Word to bit function B output bit1	0~1	0	–	0xe411
P04.18	Word to bit function B output bit2	0~1	0	–	0xe412
P04.19	Word to bit function B output bit3	0~1	0	–	0xe413
P04.20	Word to bit function B output bit4	0~1	0	–	0xe414
P04.21	Word to bit function B output bit5	0~1	0	–	0xe415
P04.22	Word to bit function B output bit6	0~1	0	–	0xe416
P04.23	Word to bit function B output bit7	0~1	0	–	0xe417
P04.24	Word to bit function B output bit8	0~1	0	–	0xe418
P04.25	Word to bit function B output bit9	0~1	0	–	0xe419
P04.26	Word to bit function B output bit10	0~1	0	–	0xe41a
P04.27	Word to bit function B output bit11	0~1	0	–	0xe41b
P04.28	Word to bit function B output bit12	0~1	0	–	0xe41c
P04.29	Word to bit function B output bit13	0~1	0	–	0xe41d
P04.30	Word to bit function B output bit14	0~1	0	–	0xe41e
P04.31	Word to bit function B output bit15	0~1	0	–	0xe41f
P04.32	Word to bit function C output bit0	0~1	0	–	0xe420
P04.33	Word to bit function C output bit1	0~1	0	–	0xe421
P04.34	Word to bit function C output bit2	0~1	0	–	0xe422
P04.35	Word to bit function C output bit3	0~1	0	–	0xe423
P04.36	Word to bit function C output bit4	0~1	0	–	0xe424
P04.37	Word to bit function C output bit5	0~1	0	–	0xe425
P04.38	Word to bit function C output bit6	0~1	0	–	0xe426
P04.39	Word to bit function C output bit7	0~1	0	–	0xe427
P04.40	Word to bit function C output bit8	0~1	0	–	0xe428
P04.41	Word to bit function C output bit9	0~1	0	–	0xe429
P04.42	Word to bit function C output bit10	0~1	0	–	0xe42a
P04.43	Word to bit function C output bit11	0~1	0	–	0xe42b
P04.44	Word to bit function C output bit12	0~1	0	–	0xe42c
P04.45	Word to bit function C output bit13	0~1	0	–	0xe42d
P04.46	Word to bit function C output bit14	0~1	0	–	0xe42e
P04.47	Word to bit function C output bit15	0~1	0	–	0xe42f
P04.48	Word to bit function D output bit0	0~1	0	–	0xe430
P04.49	Word to bit function D output bit1	0~1	0	–	0xe431
P04.50	Word to bit function D output bit2	0~1	0	–	0xe432

Function code	Name	Value scope	Default Value	unit	Communication address
P04 group：Binary interconnection parameters（Free function module 2）					
P04.51	Word to bit function D output bit3	0~1	0	–	0xe433
P04.52	Word to bit function D output bit4	0~1	0	–	0xe434
P04.53	Word to bit function D output bit5	0~1	0	–	0xe435
P04.54	Word to bit function D output bit6	0~1	0	–	0xe436
P04.55	Word to bit function D output bit7	0~1	0	–	0xe437
P04.56	Word to bit function D output bit8	0~1	0	–	0xe438
P04.57	Word to bit function D output bit9	0~1	0	–	0xe439
P04.58	Word to bit function D output bit10	0~1	0	–	0xe43a
P04.59	Word to bit function D output bit11	0~1	0	–	0xe43b
P04.60	Word to bit function D output bit12	0~1	0	–	0xe43c
P04.61	Word to bit function D output bit13	0~1	0	–	0xe43d
P04.62	Word to bit function D output bit14	0~1	0	–	0xe43e
P04.63	Word to bit function D output bit15	0~1	0	–	0xe43f

Function code	Name	Value scope	Default Value	unit	Communication address
P06 group：Analog interconnection parameters（running state and peripheral）					
P06.00	Current state machine	–32768~32767	0	–	0xe600
P06.01	Target frequency	–32768~32767	0	–	0xe601
P06.02	Given frequency	–32768~32767	0	–	0xe602
P06.03	Output frequency	–32768~32767	0	–	0xe603
P06.04	Target speed	–32768~32767	0	–	0xe604
P06.05	Given speed	–32768~32767	0	–	0xe605
P06.06	Motor speed	–32768~32767	0	–	0xe606
P06.07	Output voltage	–32768~32767	0	–	0xe607
P06.08	Output current	–32768~32767	0	–	0xe608
P06.09	Output power	–32768~32767	0	–	0xe609
P06.10	Given torque	–32768~32767	0	–	0xe60a
P06.11	Output torque	–32768~32767	0	–	0xe60b
P06.12	Torque current	–32768~32767	0	–	0xe60c
P06.13	Excitation current	–32768~32767	0	–	0xe60d
P06.14	DC–link voltage	–32768~32767	0	–	0xe60e
P06.15	Raduiator temperature	–32768~32767	0	–	0xe60f
P06.16	Encoder feedback frequency	–32768~32767	0	–	0xe610
P06.17	VF separation voltage given	–32768~32767	0	–	0xe611
P06.18	Motor temperature	–32768~32767	0	–	0xe612
P06.30	Conversion result of analog input AI0	–32768~32767	0	–	0xe61e
P06.34	Output value of control board AO0	–32768~32767	0	–	0xe622
P06.35	Output value of control board AO1	–32768~32767	0	–	0xe623
P06.36	physical state of input DI	–32768~32767	0	–	0xe624

Function code	Name	Value scope	Default Value	unit	Communication address
P07 group：Analog interconnection parameters（communication）					
P07.00	Bus adapter A.PZD1	0~65535	0	–	0xe700
P07.01	Bus adapter A.PZD2	0~65535	0	–	0xe701
P07.02	Bus adapter A.PZD3	0~65535	0	–	0xe702
P07.03	Bus adapter A.PZD4	0~65535	0	–	0xe703
P07.04	Bus adapter A.PZD5	0~65535	0	–	0xe704
P07.05	Bus adapter A.PZD6	0~65535	0	–	0xe705
P07.06	Bus adapter A.PZD7	0~65535	0	–	0xe706
P07.07	Bus adapter A.PZD8	0~65535	0	–	0xe707
P07.08	Bus adapter A.PZD9	0~65535	0	–	0xe708
P07.09	Bus adapter A.PZD10	0~65535	0	–	0xe709
P07.10	Bus adapter A.PZD11	0~65535	0	–	0xe70a
P07.11	Bus adapter A.PZD12	0~65535	0	–	0xe70b
P07.12	Bus adapter A.PZD13	0~65535	0	–	0xe70c
P07.13	Bus adapter A.PZD14	0~65535	0	–	0xe70d
P07.14	Bus adapter A.PZD15	0~65535	0	–	0xe70e
P07.15	Bus adapter A.PZD16	0~65535	0	–	0xe70f
P07.37	Bus adapter A.PKW0	0~65535	0	–	0xe725
P07.38	Bus adapter A.PKW1	0~65535	0	–	0xe726
P07.39	Bus adapter A.PKW2	0~65535	0	–	0xe727
P07.40	Bus adapter A.PKW3	0~65535	0	–	0xe728
P07.50	DriveLink.PZD1	0~65535	0	–	0xe732
P07.51	DriveLink.PZD2	0~65535	0	–	0xe733
P07.52	DriveLink.PZD3	0~65535	0	–	0xe734
P07.53	DriveLink.PZD4	0~65535	0	–	0xe735
P07.54	DriveLink.PZD5	0~65535	0	–	0xe736
P07.55	DriveLink.PZD6	0~65535	0	–	0xe737
P07.56	DriveLink.PZD7	0~65535	0	–	0xe738
P07.57	DriveLink.PZD8	0~65535	0	–	0xe739

Function code	Name	Value scope	Default Value	unit	Communication address
P08 group：Analog interconnection parameters（Free function module）					
P08.00	Addition module A output	–32768~32767	0	–	0xe800
P08.01	Addition module B output	–32768~32767	0	–	0xe801
P08.02	Addition module C output	–32768~32767	0	–	0xe802
P08.04	Subtraction module A output	–32768~32767	0	–	0xe804
P08.05	Subtraction module B output	–32768~32767	0	–	0xe805
P08.08	Multiplication module A output	–32768~32767	0	–	0xe808
P08.09	Multiplication module B output	–32768~32767	0	–	0xe809
P08.12	Division module A output	–32768~32767	0	–	0xe80c
P08.13	Division module A quotient	–32768~32767	0	–	0xe80d
P08.14	Division module A remainder	–32768~32767	0	–	0xe80e
P08.15	Division module B output	–32768~32767	0	–	0xe80f
P08.16	Division module B quotient	–32768~32767	0	–	0xe810
P08.17	Division module B remainder	–32768~32767	0	–	0xe811
P08.24	Absolute value module A output	0~65535	0	–	0xe818
P08.25	Absolute value module B output	0~65535	0	–	0xe819
P08.26	Absolute value module C output	0~65535	0	–	0xe81a
P08.27	Absolute value module D output	0~65535	0	–	0xe81b
P08.28	Limit moudle A output	–32768~32767	0	–	0xe81c
P08.29	Limit moudle B output	–32768~32767	0	–	0xe81d
P08.32	First order low pass filter module A output	–32768~32767	0	–	0xe820
P08.33	First order low pass filter module B output	–32768~32767	0	–	0xe821
P08.36	Bit to word function A output	–32768~32767	0	–	0xe824
P08.37	Bit to word function B output	–32768~32767	0	–	0xe825
P08.38	Bit to word function C output	–32768~32767	0	–	0xe826
P08.39	Bit to word function D output	–32768~32767	0	–	0xe827
P08.41	Data selector A output	–32768~32767	0	–	0xe829
P08.42	Data selector B output	–32768~32767	0	–	0xe82a
P09 group：Analog interconnection parameters（Process application）					
P09.00	Process PID output（After limiting）	–32768~32767	0	–	0xe900
P09.01	Process PID output（before limiting）	–32768~32767	0	–	0xe901
P09.02	Process PID proportional output	–32768~32767	0	–	0xe902
P09.03	Process PID integral output	–32768~32767	0	–	0xe903
P09.04	Process PID differential output	–32768~32767	0	–	0xe904
P09.05	Process PID given value	–32768~32767	0	–	0xe905
P09.06	Process PID feedback value	–32768~32767	0	–	0xe906
P09.07	Process PID deviation value	–32768~32767	0	–	0xe907
P09.08	Process PID deviation value before adde	–32768~32767	0	–	0xe908
P09.20	Simply PLC output	–32768~32767	0	–	0xe914
P10 group：Analog interconnection parameters(Manufacturer parameters)					
P11 group：Analog interconnection parameters（Function system internal variables）					
P11.00	Fixed value 0%	–32768~32767	0	–	0xeb00
P11.01	Fixed value 100%	–32768~32767	0	–	0xeb01
P11.02	Fixed value 200%	–32768~32767	0	–	0xeb02
P11.03	Fixed value 400%	–32768~32767	0	–	0xeb03
P11.04	Fixed value 600%	–32768~32767	0	–	0xeb04
P11.05	Fixed value –100%	–32768~32767	0	–	0xeb05
P11.06	Fixed value –200%	–32768~32767	0	–	0xeb06
P11.07	Fixed value –400%	–32768~32767	0	–	0xeb07
P11.08	Fixed value –600%	–32768~32767	0	–	0xeb08
P12 group：Analog interconnection parameters（Manufacturer parameters）					

Function code	Name	Value scope	Default Value	unit	Communication address
P13 group：Analog interconnection parameters（system setting and feedback）					
P13.00	Motor actual speed	–32768~32767	0	–	0xed00
P13.01	Motor final setting speed	–32768~32767	0	–	0xed01
P13.02	Main speed given	–32768~32767	0	–	0xed02
P13.03	Auxiliary speed given	–32768~32767	0	–	0xed03
P13.04	Speed given before forward / reverse limi	–32768~32767	0	–	0xed04
P13.05	Speed given before limiting	–32768~32767	0	–	0xed05
P13.06	Speed given after limiting	–32768~32767	0	–	0xed06
P13.07	Speed given after minimum speed limit	–32768~32767	0	–	0xed07
P13.08	RFG input speed given	–32768~32767	0	–	0xed08
P13.09	RFG output speed given	–32768~32767	0	–	0xed09
P13.10	Additional speed given	–32768~32767	0	–	0xed0a
P13.11	CM given speed	–32768~32767	0	–	0xed0b
P13.12	RFG module input value	–32768~32767	0	–	0xed0c
P13.15	Positive maximum speed	–32768~32767	0	–	0xed0f
P13.16	Reverse maximum speed	–32768~32767	0	–	0xed10
P13.17	Encoder feedback speed	–32768~32767	0	–	0xed11
P13.22	Electric potentiometer output	–32768~32767	0	–	0xed16
P13.23	Multi segment given selection output	–32768~32767	0	–	0xed17
P13.24	Multi segment given value 1	–32768~32767	0	–	0xed18
P13.25	Multi segment given value 2	–32768~32767	0	–	0xed19
P13.26	Multi segment given value 3	–32768~32767	0	–	0xed1a
P13.27	Multi segment given value 4	–32768~32767	0	–	0xed1b
P13.28	Multi segment given value 5	–32768~32767	0	–	0xed1c
P13.29	Multi segment given value 6	–32768~32767	0	–	0xed1d
P13.30	Multi segment given value 7	–32768~32767	0	–	0xed1e
P13.31	Multi segment given value 8	–32768~32767	0	–	0xed1f
P13.32	Multi segment given value 9	–32768~32767	0	–	0xed20
P13.33	Multi segment given value 10	–32768~32767	0	–	0xed21
P13.34	Multi segment given value 11	–32768~32767	0	–	0xed22
P13.35	Multi segment given value 12	–32768~32767	0	–	0xed23
P13.36	Multi segment given value 13	–32768~32767	0	–	0xed24
P13.37	Multi segment given value 14	–32768~32767	0	–	0xed25
P13.38	Multi segment given value 15	–32768~32767	0	–	0xed26
P13.39	Multi segment given value 16	–32768~32767	0	–	0xed27
P13.41	Torque given value	–32768~32767	0	–	0xed29
P13.42	extra torque given value	–32768~32767	0	–	0xed2a
P13.43	Torque control speed upper limit	–32768~32767	0	–	0xed2b
P13.44	Torque control speed lower limit	–32768~32767	0	–	0xed2c

Function code	Name	Value scope	Default Value	unit	Communication address
P14group：（Analog interconnection parameters（Servo monitoring variables）					
P14.00	Motor actual speed	−2147483648~2147483647	0	–	0xee00
P14.02	Speed command	−2147483648~2147483647	0	–	0xee02
P14.04	Absolute position cumulative counter is low	−2147483648~2147483647	0	–	0xee04
P14.06	Absolute position cumulative counter is high	−2147483648~2147483647	0	–	0xee06
P14.08	Position command counter low	−2147483648~2147483647	0	–	0xee08
P14.10	Position command counter high	−2147483648~2147483647	0	–	0xee0a
P14.12	Feedback pulse counter low	−2147483648~2147483647	0	–	0xee0c
P14.14	Feedback pulse counter high	−2147483648~2147483647	0	–	0xee0e
P14.16	Position deviation counter low	−2147483648~2147483647	0	–	0xee10
P14.18	Corresponding speed of position command	−2147483648~2147483647	0	–	0xee12
P14.20	Eectronic gear ratio front input instruction counter	−2147483648~2147483647	0	–	0xee14
P14.22	CM Monitoring data	−2147483648~2147483647	0	–	0xee16
P14.24	Maximum forward speed under position control	−2147483648~2147483647	0	–	0xee18
P14.26	Maximum reverse speed under position control	−2147483648~2147483647	0	–	0xee1a
P14.28	Speed pre−control output value	−2147483648~2147483647	0	–	0xee1c
P14.30	Position loop P calculated output value	−2147483648~2147483647	0	–	0xee1e
P14.32	Total output value of position loop(Actual value)	−2147483648~2147483647	0	–	0xee20
P14.34	Numerator of electronic gear ratio	−2147483648~2147483647	0	–	0xee22
P14.36	denominator of electronic gear ratio	−2147483648~2147483647	0	–	0xee24
P14.62	Double word module A output value	−2147483648~2147483647	0	–	0xee3e
P14.64	Double word module B output value	−2147483648~2147483647	0	–	0xee40
P15 group：Analog interconnection parameters（Servo monitoring variables）					
P15.00	Position loop given increment	−32768~32767	0	–	0xef00
P15.01	Position loop feedback increment	−32768~32767	0	–	0xef01

6 Fault

number	Name	Error sub-code	Explanation	Remedy
1	Overcurrent	1	U phase overcurrent	Check the following: 1.If the power cable is broken 2. Power cables for short-circuit fault 3.Increase the acceleration ramp 4. V/f control operation: decrease the torque compensation value 5.motor stops and then start 6. Reduce or remove the load 7.Vector control operation: the parameter identification operates correctly 8.contact the after sale or manufacture for technical support
		2	V phase overcurrent	
		4	W phase overcurrent	
		8	Brake overcurrent	
		15	software overcurrent	
2	Overvoltage	1	DC-link overvoltage during fast detection operation	1. Check the device supply voltage 2. Increase the acceleration ramp time 3.add brake resistor or brake module 4. contact the after sale or manufacture for technical support
		2	DC-link overvoltage during slow detection operation	
3	Undervoltage	1	DC-link undervoltage	1. Check the device supply voltage 2.Check if the line supply transient breakdown 3. contact the after sale or manufacture for technical support
4	Inrush resistor over-temperature	1	Inrush resistor over-temperature	1.check if repeat the power on operation multi-times 2. contact the after sale or manufacture for technical support
5	Inverter overload	1	Inverter overload	1.check the inverter selection is suitable or exchange a larger capacity inverter 2. V/f control operation: decrease the torque compensation value 3. Vector control operation: decrease the torque limitation value 4.check if there is an overload situation or motor holding brake is locked. 5. Vector control operation: check the parameter self-learn operates correctly 6.closed-loop control with encoder operation, please confirm the encoder direction and parameter identification are all right. 7. contact the after sale or manufacture for technical support
6	Motor overload	1	Motor overload	1.Confirm the motor load is not too large 2.Vector control operation: the parameter self-learn operates correctly 3..closed-loop control with encoder operation, please confirm the encoder direction and parameter identification are all right. 4.check if there is an overload situation or motor holding brake is locked. 5. Please confirm that the parameter configuration follows the motor type plate correctly 6.Contact the after sale or manufacture for technical support

number	Name	Error sub-code	Explanation	Remedy
7	Input line phase lack	1	Line phase lack detection	1. Make sure that the power line cable is connected properly 2.Contact the after sale or manufacture for technical support
8	Output line phase lack	1	Output U phase lack	1.Please check the power line cable is connected properly 2.Make sure the motor runs smoothly and steadily 3. Contact the after sale or manufacture for technical support
		2	Output V phase lack	
		3	Output W phase lack	
		4	FVC control output lack	
		5	Stator resistor identification output lack	
		6	3-phase unbalance	
9	Inverter over-temperature	1	Inverter over-temperature	1.Make sure that if the environment temperature is too high 2.Make sure that if the fan runs properly. 3. Make sure that wind tunnel of the heat sink is not blocked. 4. Contact the after sale or manufacture for technical support
10	PWM wave fault	1	U phase wave fault	1.Shut off the inverter and restart it, if the fault is still exist, please contact the after sale or manufacture for technical support
		2	V phase wave fault	
		4	W phase wave fault	
11	Current zero shift detection fault	1	U phase zero shift is too large	1.PM fault, contact the after sale or manufacture for technical support
		2	V phase zero shift is too large	
12	Ground fault	1	U phase overcurrent ground fault	1. Check the corresponding output phase if there is a short-circuit to ground situation 2.. Check if the power cable is broken 3.Contact the after sale or manufacture for technical support
		2	V phase overcurrent ground fault	
		4	W phase overcurrent ground fault	
		5	overcurrent ground fault	
		6	overvoltage ground fault	
13	Motor tuning fault	1	Dynamic motor tuning fault	1.Please confirm that the parameter identification follows the motor type plate correctly 2. Contact the after sale or manufacture for technical support
		2	static motor tuning fault	
14	Motor tuning fault	1	Encoder is not connected during closed-loop dynamic coordination	1.Please check whether the encoder connection is correct 2.Please check whether the encoder wiring is reliable 3.Please check whether the encoder related parameters are correct 4.Please check whether the encoder power supply is selected correctly 5. Contact the after sale or manufacture for technical support
		2	Encoder speed measurement does not match during dynamic closed-loop coordination	
		3	Encoder disconnection during closed loop operation	

number	Name	Error sub-code	Explanation	Remedy
15	Vector speed loss fault	1	Speed is forced reverse	1.Please confirm that the parameter configuration follows the motor type plate correctly 2.Check the motor parameter self-learn operation is done 3.Please check the parameter setting of the speed loss is correct 4.Contact the after sale or manufacture for technical support
		2	Speed loss is too large	
16	FPGA data read and write error	1	FPGA data read and write error in initialization process	1.PM fault, shut off the inverter and restart it, if the fault is still exist, please contact the after sale or manufacture for technical support
17	Drive power fault	1	Driver power supply voltage is too low	1. Contact the after sale or manufacture for technical support
18	First-class power fault	1	24V power supply voltage of the first class is too low	1. Contact the after sale or manufacture for technical support
19	CM and PM communication fault	1	CM no ask	1.Please confirm CM release mechanism is locked. 2. Contact the after sale or manufacture for technical support
		2		
		3		
		4		
20	PM-EEPROM fault	1	PM module EEPROM fault	1.Contact the after sale or manufacture for technical support
22	Wave current limit fault	1	Increase acceleration time	1.Contact the after sale or manufacture for technical support
23	Rectifier over temperature	1	Reduce output power	1.Contact the after sale or manufacture for technical support
24	STO fault	1	STOA and STOB are low level	1.Please check if the STOA or STOB switch is triggered 2.Please check if the STOA or STOB wiring is reliable 3.Please check if the STOA or STOB power supply is normal 4.Contact the after sale or manufacture for technical support
		2	STOB is low level	
		3	STOA is low level	
		4	STOA and STOB are high level	
25	PM-SPI read and write address out of range	1	read address out of range	1. Replace the PM unit 2. Contact the after sale or manufacture for technical support
		2		
		3	write address out of range	
26	Servo initial position error	1	uvwEncoder initial position detection error	1.Confirm whether the encoder wiring is normal 2.Confirm whether the encoder setting type is consistent with the actual 3. Contact the after sale or manufacture for technical support
		2	Absolute encoder communication is abnormal	
		3	Absolute encoder initial position correction	
		4	Absolute encoder initial position detection timeout	
		5	Zero point correction of absolute encoder Data read and write error	
		6	Absolute encoder initial position correction failed	

number	Name	Error sub-code	Explanation	Remedy
33	Inverter pre overload	1	Inverter pre overload alarm	1.Please confirm whether the motor nameplate parameter settings are correct 2.Please confirm whether you have done the motor parameter self-learning operation 3. Please check whether the parameters related to the stall are reasonable 4. Contact the after sale or manufacture for technical support
34	Motor pre overload	1	Motor pre overload alarm	
35	Communication abnormal	1	Background software abnormally disconnection during stating process	1.Please confirm the inverter communication cable connect correctly 2.Contact the after sale or manufacture for technical support
		2	Operation panel software abnormally disconnection during stating process	1.Please confirm the operation panel communication cable connect correctly 2.Contact the after sale or manufacture for technical support
37	Motor speed over limitation	1	Motor speed over maximum limitation	1.Please confirm the parameter configuration of the speed over limitation is correct 2.Contact the after sale or manufacture for technical support
38	Motor speed deviation is too large	1	Motor actual speed has too large deviation compare to setting speed	1.Please confirm the parameter configuration of the speed deviation is correct 2.Contact the after sale or manufacture for technical support
40	PID feedback missing	1	PID feedback sampling value missing	1.Please confirm the feedback signal 2.Contact the after sale or manufacture for technical support
41	External fault	1	External fault 1	1.Check the external input signal
		2	External fault 2	
42	External alarm	1	External alarm 1	
		2	External alarm 2	
43	Pre-drive failure	1	No DC-link voltage is detected after the run order is given	1.Please confirm the line supply voltage is correct 2.Contact the after sale or manufacture for technical support
45	Brake control abnormal	1	Brake open abnormally	1.Please confirm the line supply voltage is correct 2.Contact the after sale or manufacture for technical support
		2	Brake close abnormally	

number	Name	Error sub-code	Explanation	Remedy
46	CM voltage abnormal	1	PM 24V voltage is too large	1.Please confirm the external supply voltage is correct 2.Contact the after sale or manufacture for technical support
		2	External 24V voltage is too large	
		3	External 24V or PM 24V voltage is too low	
		4	3.3V voltage is too large	
		5	3.3V voltage is too low	
		6	Brake relay short circuit	1.Confirm whether the impedance of the brake relay is greater than 450Ω 2.Check whether the brake relay is short-circuited 3.Contact the after sale or manufacture for technical support
47	Motor over temperature	1	Motor over temperature	1.Reduce the load of motor 2.Check the environment temperature 3.Check the senor layout and connection 4.Contact the after sale or manufacture for technical support
48	Motor over temperature alarm	1	Motor over temperature alarm	
49	AI input line broken	1	AI1 4~20mA input line broken	1.Check the line layout is not disconnected 2.Check the signal voltage 3.Contact the after sale or manufacture for technical support
		2	AI2 4~20mA input line broken	
50	Fan alarm of the capacitor side	1	Fan line broken of the capacitor side	1.Check the fan line of the capacitor side is not disconnected. 2.The fan of the capacitor side is broken, Contact the manufacture for exchanging
51	CM-EEPROM fault	1	CM-EEPROM fault	1.Cut off the inverter and restart. 2.Contact the after sale or manufacture for technical support
52	Return to reference point abnormal	1	Return to origin timeout	1. Check the wiring of the origin switch 2.Lengthen the detection value of the origin return time and timeout time 3. Contact the after sale or manufacture for technical support
		2	Origin switch not found	

7. Others

The product will be continuously improved, and the parameters and content may be revised back. If necessary, please log in to the Boneng official website www.boneng.com to download the latest information or contact the manufacturer.

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