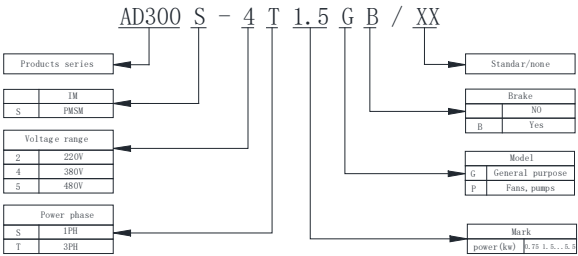
Content

Chapter 1: Product Introduction

1.1 Model description

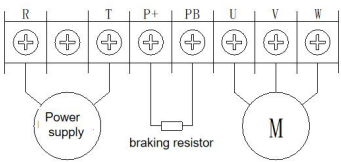


1.2 Description of the nameplate

Chapter 2: Product Installation

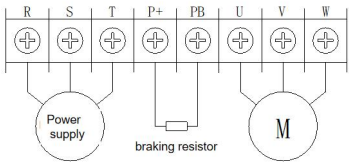
2.1 Main loop terminal wiring

2.1.1 Main loop terminal of single-phase frequency converter



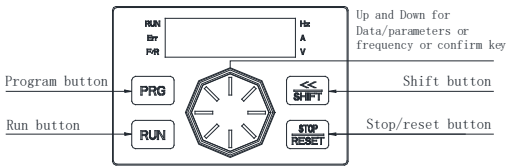
Terminal marking	Nominal name	Say clearly
R T	Single-phase power input terminal	Connect 220V power supply.
U V W	Inverter output terminal	Connecting three-phase motor
P+ PB	Brake resistor connecting terminal	Connect external braking resistor.
(⏚)	ground terminal	Inverter grounding terminal

2.1.2 Main loop terminal of the three-phase frequency converter



Terminal marking	Nominal name	Say clearly
R S T	Three-phase power supply input terminal	Connect three-phase power supply
U V W	Inverter output terminal	Connecting three-phase motor
P+ PB	Brake resistor connecting terminal	Connect external braking resistor.
(⏚)	ground terminal	Inverter grounding terminal

2.2 Description of the panel keys

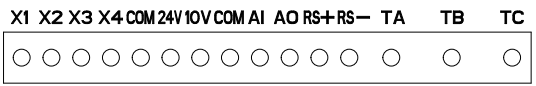


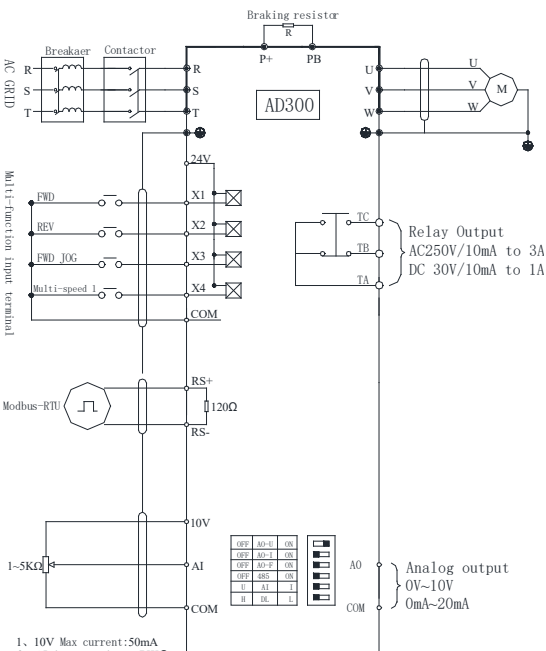
2.3 Opening size (in mm): The following three panels can be configured arbitrarily

XS-01D ★ XS-03D XS-04D★XS-01 panel can be added the holder XS-01T, the holder opening size is 80 * 121.

2.4 Control terminal and wiring diagram

2.4.1 Distribution and wiring diagram of AD 300 control terminals





2.4.2 Function description of the control terminal

Terminal symbol	Terminal name	function declaration
X1 COM	Multifunction input terminal 1	1. Optical coupling and isolation, compatible with bipolar input 2. Input impedance: 2.4 KR 3. Voltage range of level input: 9-30V
X2 COM	Multifunction input terminal 2	
X3 COM	Multifunction input terminal 3	
X4 COM	Multifunction input terminal 4	
10V COM	External 10V power supply	Provide 10V power supply to the outside, and the maximum output current: 50 mA Generally used as both ends of potentiometer, the resistance range of potentiometer is 1-5 KΩ
24V COM	External 24V power supply	Provide 24V power supply to the maximum output current: 100 mA Generally used as external sensor power supply or micro-small relay power supply
AI COM	Analog quantity input terminal	1. Input signal: DC 0~10V / 0 ~ 20 mA / 4 ~ 20 mA is determined by the dial switch AI bit of the keyboard board. 2. Input impedance: voltage signal 75 KΩ current signal: 500 Ω
AO COM	Analog quantity output terminal	Decided by the dial switch AO bit of the keyboard board. Voltage signal or current signal or frequency signal Voltage signal range: 0-10 V Current signal range: 0 ~ 20 mA Frequency signal range: 0 to 100 KHz
TA TB TC	relay output	Multifunction relay output: TA and TC normally open TA and TB normally closed Contact point drive capability: AC250V 3A / DC 30V 1A

Terminal symbol	Terminal name	function declaration
RS+ RS-	485 Communication interface	Standard with RS485 communication interface

Pull-up switch definition:

P1: A0-U Voltage signal output left: OFF right: ON

P2: A0-I current signal output left: OFF right: ON

P3: A0-F frequency signal output left: OFF right: ON

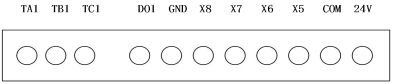
P4:485, terminal matching resistance left: OFF right: ON

P5: AI, analog input left: U / voltage, right: I / current

P6: DL reserved left: normal mode, right: burn mode

*** P6 dial switch is special for the manufacturers test, and the right side will lead to no power display.**

2.4.3 Distribution and wiring diagram of AD 300 extended terminals



(The wiring mode is the same as the local terminal mode.）

2.4.4 Extension terminal function description

Terminal symbol	Terminal name	function declaration
X5 COM	Multifunction input terminal 5	1. Optical coupling and isolation, compatible with bipolar input 2. Input impedance: 2.4 KR 3. Voltage range of level input: 9-30V
X6 COM	Multifunction input terminal 6	
X7 COM	Multifunction input terminal 7	
X8 COM	Multifunction input terminal 8	
24V COM	External 24V power supply	Provide 24V power supply to the maximum output current: 100 mA Generally used as external sensor power supply or micro-small relay power supply
DO1 COM	Open circuit collector output	Optical coupling isolation, open circuit collector output Allowable output voltage range: 0-24V Allowable output current range: 0-50 mA
TA1 TB1 TC1	relay output	Multifunction relay output: TA and TC normally open TA and TB normally closed Contact point drive capability: AC250V 3A / DC 30V 1A

2.5 Product size and installation method

2.5.1 Product size (for all AD300 series)

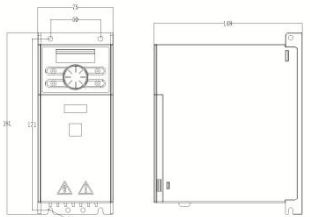


Figure 1

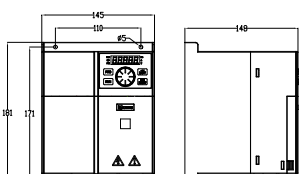
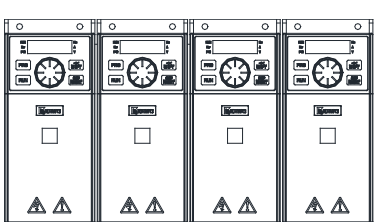
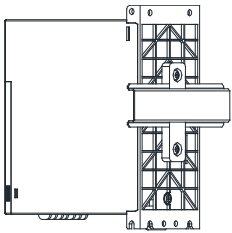


Figure 2

2.5.2 Installation method (installation side by side)



2.5.3 Installation method (Guide rail installation)



2.6 Product appearance and installation dimensions

Frequency converter model	Install the hole mm		outline dimension mm			construction bolt mm	Legend / Structure dimensions
	W1	H 1	W	H	D		
AD 300 Series single-phase 220V							
AD300-2S0.75GB AD300-2S1.5GB AD300-2S2.2GB	50	171	75	181	148	M4	Figure 1
AD 300 Series 3-phase 200V							
AD300-2T0.75GB AD300-2T1.5GB AD300-2T2.2GB	50	171	75	181	148	M4	Figure 1
AD 300 Series 3-phase 380V							
AD300-4T0.75GB AD300-4T1.5GB AD300-4T2.2GB AD300-4T3.0GB AD300-4T4.0GB AD300-4T5.5GB	50	171	75	181	148	M4	Figure 1
AD300-4T7.5GB AD300-4T11GB	110	171	145	181	148	M4	Figure 2

2. 7 Technical data

model	rated current （A）	rated voltage （VAC）	Adaptation motor （kW）
Input voltage is 220V ± 15%			
AD300-2S0.75GB	4	220	0.75
AD300-2S1.5GB	7	220	1.5
AD300-2S2.2GB	9.6	220	2.2
Input voltage is 220V ± 15%			
AD300-2T0.75GB	4	220	0.75
AD300-2T1.5GB	7	220	1.5
AD300-2T2.2GB	9.6	220	2.2
Input voltage is 380V ± 15%			
AD300-4T0.75GB	2.1	380	0.75
AD300-4T1.5GB	3.8	380	1.5
AD300-4T2.2GB	5.1	380	2.2
AD300-4T3.0GB	7.2	380	3.0
AD300-4T4.0GB	10	380	4.0
AD300-4T5.5GB	13	380	5.5
AD300-4T7.5GB	17	380	7.5
AD300-4T11GB	25	380	11

Chapter 3 Table of functional parameters

3.1 List of Functional Parameters

Function code	name	Set Range	Factory value	communication address	change
P0 Basic Function Group					
P0.00	Control mode selection	0: Speed sensorless vector control 1: V/F control	1	0xF000	★
P0.01	Run command selection	0: Operation panel 1: External terminals 2: Communication control	0	0xF001	☆
P0.02	Digital setting frequency shutdown memory selection	0: No memory 1: Memory	1	0xF002	☆
P0.03	Main frequency selection	0: Panel digital frequency setting, frequency not remembered after power failure 1: Panel digital frequency setting, frequency memory after power failure 2: Analog quantity AI 4: Panel potentiometer 5: PULSE pulse setting 6: Simple PLC 7: Multi segment instructions 8: Process PID 9: RS485 communication	4	0xF003	★
P0.04	Maximum output frequency	50.00Hz～500.00Hz	50.00 Hz	0xF004	★
P0.05	Maximum operating frequency	P0.06～P0.04	50.00 Hz	0xF005	☆
P0.06	Lower limit operating	0.00Hz～P0.05	0.00Hz	0xF006	☆

Function code	name	Set Range	Factory value	communication address	change
	frequency				
P0.07	Digital frequency setting	0.00Hz~P0.04	50.00 Hz	0xF007	☆
P0.08	Acceleration time 1	0.00s~65000s	Model determination	0xF008	☆
P0.09	Deceleration time 1	0.00s~65000s	Model determination	0xF009	☆
P0.10	Operation direction selection	0: Positive; 1: Reverse direction	0	0xF00A	☆
P0.11	carrier frequency	0.5KHz~16.0KHz	Model determination	0xF00B	☆
P0.12	Automatic carrier frequency adjustment selection	0: Not automatically adjusted; 1: Automatic adjustment	1	0xF00C	☆
P0.13	Parameter initialization	01: Restore factory parameters, excluding motor parameters 12: Clear record information	0	0xF00D	★
P0.14	Auxiliary frequency source selection	Same as P0.03 (main frequency source selection)	0	0xF00E	★
P0.15	Selection of auxiliary frequency source range during superposition	0: Relative to maximum frequency 1: Relative to main frequency source	0	0xF00F	☆
P0.16	Range of auxiliary frequency source during superposition	0%~150%	100%	0xF010	☆
P0.17	Selection of primary and secondary frequency	Position: Frequency source selection 0: Main frequency source	00	0xF011	☆

Function code	name	Set Range	Factory value	communication address	change
	superposition	1: Main auxiliary operation result (operation relationship determined by ten digits) 2: Switching between main frequency source and auxiliary frequency source 3: Switching between main frequency source and main auxiliary operation result 4: Switching between auxiliary frequency source and main auxiliary operation result 10: Frequency source main auxiliary operation relationship 0: Main+auxiliary 1: Main auxiliary 2: Maximum value of both 3: Minimum value of both			
P0.18	Run command terminal combination mode	0: Two wire type 1 1: Two wire type 2 2: Three wire type 1 3: Three wire type 2	0	0xF012	★
P0.20	Digital setting of auxiliary frequency source bias	0.00Hz～P0.04	0.00Hz	0xF014	☆
P1 start stop control group					
P1.00	Startup method	0: Direct start 1: DC brake first, then start from the starting frequency 2: Speed tracking activated	0	0xF100	☆
P1.01	Start frequency	0.00Hz～10.00Hz	0.00Hz	0xF101	☆

Function code	name	Set Range	Factory value	communication address	change
P1.02	Start frequency holding time	0.0s～100.0s	0.0s	0xF102	★
P1.03	Start DC braking current	0%～100%	0	0xF103	★
P1.04	Start DC braking time	0.0s～100.0s	0.0s	0xF104	★
P1.05	Shutdown mode	0: Slow down and stop; 1: Free Parking	0	0xF105	☆
P1.06	Starting frequency of shutdown DC braking	0.00Hz to maximum frequency P0.04	0.00Hz	0xF106	☆
P1.07	Shutdown DC braking waiting time	0.0s～100.0s	0.0s	0xF107	☆
P1.08	Shutdown DC brake current	0%～100%	0	0xF108	☆
P1.09	Shutdown DC braking time	0.0s～100.0s	0.0s	0xF109	☆
P1.10	Energy consumption braking utilization rate	0%～100%	100%	0xF10A	☆
P1.11	Reverse control	0: Allow reversal; 1: Do not reverse	0	0xF10B	★
P1.12	Jogging operating frequency	0.00Hz to maximum frequency	5.00Hz	0xF10C	☆
P1.13	Tracking method	0: Shutdown frequency 1: During power frequency switching 2: Maximum frequency	0	0xF10D	★
P1.14	Tracking speed	1～100	20	0xF10E	☆
P1.15	Tracking current	50～200%	100	0xF10F	☆
P1.16	Speed tracking closed-loop current KP	0～100	20	0xF110	☆
P1.17	Speed tracking closed-loop current KI	0～100	20	0xF111	☆

Function code	name	Set Range	Factory value	communication address	change
P1.18	Speed tracking closed-loop current lower limit	0～100	20	0xF112	☆
P1.19	Speed tracking voltage rise time	0～10.0s	0.5s	0xF113	★
P1.20	Demagnetization time	0～10.0s	0.5s	0xF114	★
P1.21	Fault reset and restart method	0: Normal startup 1: Speed tracking start	0	0XF115	☆
P1.22	Minimum output frequency	0.00Hz～P1.06	0.00Hz	0XF116	☆
P1.24	Braking resistor activation time	0～65535s	0s	0XF118	☆
P1.25	Selection of overexcitation mode	0: Not effective 1: Deceleration power generation effective 2: Constant speed and deceleration power generation effective	0	0XF119	☆
P1.26	Overexcitation suppression current	0～190	100	0XF11A	☆
P1.27	Overexcitation mode gain	1.00～2.5	1.25	0XF11B	☆
P2 motor parameter group					
P2.00	GP type display	0: G-type machine 1: P-type machine	Model determination	0xF200	★
P2.01	Motor type selection	0: Ordinary asynchronous motor 1: Variable frequency asynchronous motor 2: Permanent magnet synchronous motor	0	0xF201	★
P2.02	Rated power of motor	0.1kW～1000.0kW	Model determination	0xF202	★

Function code	name	Set Range	Factory value	communication address	change
P2.03	Rated frequency of motor	0.00Hz to maximum frequency	50.00	0xF203	★
P2.04	Rated speed of motor	0rpm~65535rpm	1460rpm	0xF204	★
P2.05	Rated voltage of motor	1V~2000V	Model determination	0xF205	★
P2.06	Rated current of motor	0.1A~2000A	Model determination	0xF206	★
P2.07	Motor stator resistance	0.001Ω~65.535Ω	Model determination	0xF207	★
P2.08	Motor rotor resistance	0.001Ω~65.535Ω	Model determination	0xF208	★
P2.09	Motor leakage inductance	0.01mH~655.35mH	Model determination	0xF209	★
P2.10	Motor mutual inductance	0.1mH~6553.5mH	Model determination	0xF20A	★
P2.11	No-load Cur	0.01A~P1.03	Model determination	0xF20B	★
P2.27	Motor self-learning selection	1: Asynchronous machine static self-learning 2: Asynchronous machine rotation self-learning 3: Static self-learning with load	0	0xF21B	★

1: Static self-learning

Suitable for situations where asynchronous motors and loads are not easily detached and cannot undergo complete self-learning.

Before conducting static self-learning, it is necessary to correctly set the motor type and motor nameplate parameters P2.02-P2.06.Static self-learning, the frequency converter can obtain three

Function code	name	Set Range	Factory value	communication address	change
parameters from P2.07 to P2.09. 2: Rotating self-learning To ensure the dynamic control performance of the frequency converter, please choose rotation self-learning. At this time, the motor must be disconnected from the load and kept in an unloaded state. During the self-learning process of rotation, the frequency converter first performs static learning and then accelerates to 80% of the rated frequency of the motor according to the acceleration time P0.08. After holding for a period of time, it decelerates and stops according to the deceleration time P0.09, and ends the learning. 3: Static self-learning with load Suitable for situations where the load cannot be disconnected. After completing the rotation self-learning, check the parameter values of P2.11.This value should be 1/3 to 1/2 of the rated current of the motor (P2.06). If it is greater than this value, please manually reduce the value of P2.11 appropriately.					
P3 motor vector control parameter group					
P3.00	Speed loop proportional gain 1	1～100	30	0xF300	☆
P3.01	Speed loop integration time 1	0.01s～10.00s	0.50s	0xF301	☆
P3.02	Switching frequency 1	0.00～P3.05	5.00Hz	0xF302	☆
P3.03	Speed loop proportional gain 2	1～100	20	0xF303	☆
P3.04	Speed loop integration time 2	0.01s～10.00s	1.00s	0xF304	☆
P3.05	Switching frequency 2	P3.02～P0.04	10.00 Hz	0xF305	☆
P3.06	Slip compensation coefficient	50%～200%	100%	0xF306	☆
P3.07	Speed loop filtering time constant	0.000s～0.100s	0.000 s	0xF307	☆
P3.08	Vector control over excitation gain	0～200	64	0xF308	☆
P3.09	Torque upper limit source during speed control	0: Function code P3.10 setting 1: AI setting 2: AI2 setting	0	0xF309	☆

Function code	name	Set Range	Factory value	communication address	change
		(reserved) 3: Panel potentiometer setting 4: PULSE pulse setting 5: Communication given			
P3.10	Numerical setting of torque upper limit during speed control	0.0%~200.0%	150.0 %	0xF30A	☆
P3.11	M-axis current loop Kp	0~60000	2000	0xF30B	☆
P3.12	M-axis current loop Ki	0~60000	1300	0xF30C	☆
P3.13	T-axis current loop Kp	0~60000	2000	0xF30D	☆
P3.14	T-axis current loop Ki	0~60000	1300	0xF30E	☆
P3.15	Integral attribute of speed loop	0~1	0	0xF30F	☆
P4 V/F control parameter group					
P4.00	VF curve setting	0: Straight V/F curve 1: Multi point V/Fcurve 2: Square V/F curve 3: VF separation mode 14: VF separation mode 2	0	0xF400	★
P4.01	Torque increase	0.0%: (Automatic torque boost) 0.1% to 30.0%	Model determination	0xF401	☆
P4.02	Torque increase cut-off frequency	0.00Hz to maximum frequency	50.00 Hz	0xF402	★
P4.03	VF slip compensation gain coefficient	0.0%~200.0%	0.0%	0xF403	☆
P4.04	VF overexcitation gain	0~200	64	0xF404	☆
P4.05	VF breakpoint 1 output frequency	0.00Hz~P4.08	0.00Hz	0xF405	★

Function code	name	Set Range	Factory value	communication address	change
P4.06	VF breakpoint 1 output voltage ratio	0.0%～100.0%	0.0%	0xF406	★
P4.07	VF breakpoint 2 output frequency	P4.06～P4.10	0.00Hz	0xF407	★
P4.08	VF junction 2 output voltage ratio	0.0%～100.0%	0.0%	0xF408	★
P4.09	VF breakpoint 3 output frequency	P4.08~Rated frequency of motor	0.00Hz	0xF409	★
P4.10	VF junction 3 output voltage ratio	0.0%～100.0%	0.0%	0xF40A	★
P4.11	VF separated voltage source	0: Digital setting (P4.12) 1: AI given 3: Panel potentiometer given 4: PULSE pulse setting (X5) 5: Multi segment instruction 6: PLC 7: PID 8: Communication settings	0	0xF40B	☆
P4.12	Digital setting of voltage source for VF separation	0V~rated voltage of motor	0V	0xF40C	☆
P4.13	Voltage rise time of VF separation	0.0s～1000.0s	0.0s	0xF40D	☆
P4.14	Voltage drop time of VF separation	0.0s～1000.0s	0.0s	0xF40E	☆
P4.15	retain	0～1	0	0xF40F	★
P4.16	VF oscillation suppression	0～100	40	0xF410	☆
P4.17	Suppression mode	0～4	3	0xF411	☆
P4.18	Enable overcurrent stall	0: Do not enable 1: Enable	1	0xF412	☆

Function code	name	Set Range	Factory value	communication address	change
P4.19	Overcurrent stall protection current	100.0%～200.0%	150	0xF413	☆
P4.20	Overcurrent stall gain	0～100	10	0xF414	☆
P4.21	VF double speed overcurrent stall action current compensation coefficient	50.0%～200.0%	50	0xF415	☆
P4.22	Overpressure stall enable	0: Do not enable 1: Enable	1	0xF416	★
P4.23	Overvoltage stall protection voltage	200～2000	Model determination	0xF417	☆
P4.24	Overvoltage frequency gain	0～100	30	0xF418	☆
P4.25	Overvoltage stall suppression voltage gain	0～100	30	0xF419	☆
P4.26	Maximum rise limit frequency for overvoltage stall	0～50.00Hz	5.00Hz	0xF41A	☆
P4.27	Under voltage stall suppression mode	0: Do not enable 1: Enable 2: Reduce speed according to P8.09 deceleration time after power outage	0	0xF41B	★
P4.28	Under voltage stall KP	0～100	40	0xF41C	☆
P4.29	Under voltage stall KI	0～100	30	0xF41D	☆
P4.30	VF under voltage stall rebound judgment voltage	80.0%～100.0%	85.0%	0xF41E	★
P4.31	VF under voltage stall rebound judgment voltage time	0.0s～10.0s	0.5	0xF41F	★

Function code	name	Set Range	Factory value	communication address	change
P4.32	VF under voltage stall point	60.0% to 100.0% (standard bus voltage)	80.0%	0xF420	★
P4.33	VF slip compensation response time	0～100	5	0xF421	☆
P4.34	Maximum voltage output coefficient	100～110	100	0xF422	☆
P4.36	VF online torque compensation	0.00～1.50	1.00	0xF424	☆
P5 input terminal group					
P5.00	X1 terminal function selection	0: No functionality 1: Forward running (FWD) 2: Reverse Run (REV) 3: Three line operation control 4: Forward turning jog (FJOG) 5: Reverse Jogging (RJOG) 6: Free Parking 7: Fault reset (RESET) 8: External fault normally open input 9: Terminal UP 10: Terminal Down 11: UP/DOWN reset (terminals, keyboard) 12: Multi segment instruction terminal 1 13: Multi segment instruction terminal 2 14: Multi segment instruction terminal 3 15: Multi segment instruction terminal 4 16: Acceleration and deceleration selection terminal 1 17: Acceleration and deceleration selection terminal 2	1	0xF500	★
P5.01	X2 terminal function selection		2	0xF501	★
P5.02	X3 terminal function selection		4	0xF502	★
P5.03	X4 terminal function selection		12	0xF503	★
P5.04	X5 terminal function selection		13	0xF504	★
P5.05	X6 terminal function selection		0	0xF505	★
P5.06	X7 Terminal Function Selection		0	0xF506	★
P5.07	X8 terminal function selection		0	0xF507	★

Function code	name	Set Range	Factory value	communication address	change
		18: External fault normally closed input 19: External parking terminal (only valid for the command channel of the operation panel) 20: Frequency source switching 21: Pulse frequency input (only valid for X4) 22: Main frequency source and preset Frequency switching 23: Switching between auxiliary frequency source and preset frequency 24: Run command to switch terminals 25: PID pause 26: PID action direction takes the opposite terminal 27: PID Integral Pause Terminal 28: PID parameter switching terminal 29: Counter input 30: Counter reset 31: Length Count Input 32: Length reset 33: Timer is valid 34: Swing frequency pause 35: Counter input 36: Acceleration and deceleration are prohibited 37: DC braking command 38: Run command to switch terminal 2 39: Frequency setting effective terminal 40: Motor selection			

Function code	name	Set Range	Factory value	communication address	change
		terminal 1 41: Motor selection terminal 2 42: Switching between speed control and torque control 43: Pause operation 44: User defined fault 1 45: User defined fault 2 46: Simple PLC state reset 47: Torque control prohibited 48: Emergency stop 49: External terminal parking (stop according to deceleration time 4) 50: Deceleration DC braking 51: This run time is reset to zero 52: Do not reverse 53: Prohibition of forward rotation 54: Pause of Simple PLC Program 55: Two wire/three wire switching			
P5.10	X terminal filtering time	0.000s～10.00s	0.010s	0xF50A	☆
P5.11	Minimum Given Line AI	-10.00V～P5.13	0.20V	0xF50B	☆
P5.12	Minimum given corresponding value for line AI	-100.0%～+100.0%	0.0%	0xF50C	☆
P5.13	Line AI maximum given	P5.11～+10.00V	10.00V	0xF50D	☆
P5.14	The maximum given corresponding value for line AI	-100.0%～+100.0%	100.0%	0xF50E	☆
P5.15	AI filtering time	0.00s～10.00s	0.10s	0xF50F	☆

Function code	name	Set Range	Factory value	communication address	change
P5.26	PULSE minimum input	0.00KHz~P5.28	0.00KHz	0xF51A	☆
P5.27	PULSE minimum input corresponding setting	-100.0%~100.0%	0.0%	0xF51B	☆
P5.28	Maximum input of PULSE	P5.26~100.00KHz	50.00 KHz	0xF51C	☆
P5.29	Maximum input setting for PULSE	-100.0%~100.0%	100.0 %	0xF51D	☆
P5.30	PULSE filtering time	0.00s~10.00s	0.10s	0xF51E	☆
P5.31	AI curve selection	Individual position: AI curve selection 1: Curve 1 (2 points, see P5.11 to P5.14) 2: Curve 2 (2 points, see P5.16 to P5.19) 3: Curve 3 (2 points, see P5.21-P5.24) 4: Curve 4 (4 points, see H3.00~H3.07) 5: Curve 5 (4 points, see H3.08-H3.15) Tenth digit: AI2 curve selection, as above Hundred digit: Panel potentiometer curve selection, as above	H.321	0xF51F	☆
P5.32	AI below minimum input setting selection	Position: AI is lower than the minimum input setting. Select 0: The minimum input corresponds to the setting 1: 0.0% decimal: AI2 below minimum input setting selection, same as above hundred: panel potentiometer below minimum input setting selection, same as above	000	0xF520	☆

Function code	name	Set Range	Factory value	communication address	change
P5.33	X1 terminal response delay time	0.0s～3600.0s	0.0s	0xF521	★
P5.34	X2 terminal response delay time	0.0s～3600.0s	0.0s	0xF522	★
P5.35	X3 terminal response delay time	0.0s～3600.0s	0.0s	0xF523	★
P5.36	Input terminal positive and negative logic setting 1	0: Positive Logic 1: Anti logical position: X1 Ten digits: X2 Hundred digits: X3 Thousand bits: X4 million bits: X5	00000	0xF524	★
P5.37	Input terminal positive and negative logic setting 2	0: Positive Logic 1: Anti logical position: X6 Ten digits: X7 Hundred digits: X8 Thousand bits: X90000 bits: X10	00000	0xF525	★
P5.38	Minimum sampling pulse of pulse potentiometer	0～65535	0	0xF526	☆
P5.39	Minimum input corresponding setting of pulse potentiometer (percentage)	0.00～200.00	0.00	0xF527	☆
P5.40	Maximum sampling pulse number of pulse potentiometer	0～65535	500	0xF528	☆
P5.41	Maximum input corresponding setting of pulse potentiometer (percentage)	-200.0～200.00	100.01	0xF529	☆
P5.42	0-10V corresponding ratio (ordinary units)	1.07	0	0xF52A	☆

Function code	name	Set Range	Factory value	communication address	change
	0-10V corresponding ratio (wire drawing machine)				
P6 output terminal group					
P6.00	AO terminal output selection	0: Pulse output 1: Switching output 2: Analog output	0	0xF600	☆
P6.01	AO output selection	0: No output 1: Inverter in operation 2: Frequency reaching 3: Fault output (free stop fault) 4: Frequency level detection FDT1 output 5: Frequency level detection FDT2 output 6: Zero speed operation (no output when stopped) 7: Zero speed operation 2 (also output when stopped) 8: Upper limit frequency reaches 9: Lower limit frequency reaches 10: Frequency reaches 1 output 11: Frequency reaches 2 output 12: Power on time reaches 13: running time reaches 14: timed output reaches 15: set record value reaches 16: specified record value reaches 17: length reaches 18: Under voltage state output	0	0xF601	☆
P6.02	Relay output selection		3	0xF602	☆
P6.03	Extended relay output selection		0	0xF603	☆
P6.04	DO1 output selection		1	0xF604	☆
P6.07	AO output selection		0	0xF607	☆

Function code	name	Set Range	Factory value	communication address	change
		19: Motor overload warning 20: Inverter overload warning 21: Frequency limited 22: Torque limited 23: Ready for operation 24: AI>AI2 25: AI input exceeds upper and lower limits 26: The lower limit frequency has been reached (output even when stopped) 27: The current running time has arrived 28: Alarm output (all faults) 29: Fault output (free stop fault and under voltage not output) 30: Current reaches 1 output 31: Current reaches 2 output 32: Load shedding in progress 34: The module temperature has reached 35: Software overcurrent output 36: Running direction 37: Motor overheating pre alarm 38: PLC cycle completed 39: Communication Control			
P6.09	AO pulse output maximum frequency	0.01KHz～100.00KHz	50.00 KHz	0xF609	☆
P6.10	AO zero bias coefficient	-100.0%～100.0%	0.0%	0xF60A	☆

Function code	name	Set Range	Factory value	communication address	change
P6.11	AO gain	-10.00～10.00	1.00	0xF60B	☆
P6.14	AO switch output ON delay time	0.0s～3600.0s	0.0s	0xF60E	☆
P6.15	Local relay output ON delay time	0.0s～3600.0s	0.0s	0xF60F	☆
P6.16	Extended relay output ON delay time	0.0s～3600.0s	0.0s	0xF610	☆
P6.17	DO1 output ON delay time	0.0s～3600.0s	0.0s	0xF611	☆
P6.19	Effective state selection of DO output terminal	0: Positive Logic 1: Reverse logic position: FM terminal position 10: Local relay position 100: Extended relay position 1000: DO10000: DO2	00000	0xF613	☆
P6.20	AO switch output OFF delay time	0.0s～3600.0s	0.0s	0xF614	☆
P6.21	Local relay output OFF delay time	0.0s～3600.0s	0.0s	0xF615	☆
P6.22	Extended relay output OFF delay time	0.0s～3600.0s	0.0s	0xF616	☆
P6.23	DO1 output OFF delay time	0.0s～3600.0s	0.0s	0xF617	☆
P7 keyboard and display group					
P7.00	User password	0～65535	00000	0xF700	☆
P7.01	Function parameter group display selection	Position: C group monitoring display selection 0: Not displayed; 1: Display Ten digit: H group function display selection 0: Not displayed;	01	0xF701	☆

Function code	name	Set Range	Factory value	communication address	change
		1: Display			
P7.02	Personalized parameter mode selection	Individual position: User customized parameter display selection 0: Not displaying 1: Displaying Ten: User changes parameter group display selection 0: Not displaying 1: Displaying	01	0xF702	☆
P7.03	Parameter write protection	0: Parameters can be modified; 1: Parameters cannot be modified	0	0xF703	☆
P7.04	JOG key function selection	0: Invalid JOG key 1: Switch between operation panel command channel and remote command channel (terminal command channel or serial port communication command channel) 2: Switch between forward and reverse 3: Forward jog 4: Reverse jog	3	0xF704	★
P7.05	STOP key function	0: The STOP button shutdown function is only valid under keyboard control mode. 1: The STOP button shutdown function is valid under any control mode	1	0xF705	☆
P7.06	LED operation display parameter 1	Individual position: Bit0: Operating frequency Bit1: Output current Bit2: Output voltage Bit3: Load speed	3b	0xF706	☆

Function code	name	Set Range	Factory value	communication address	change
		display Ten people: Bit0: Bus voltage Bit1: Set frequency Bit2: Count value Bit3: Length value Hundreds of people: Bit0: X terminal input status Bit1: Output status of DO terminal Bit2: AI voltage Bit3: AI2 voltage Thousand positions: Bit0: AI3 voltage Bit1: PID given Bit2: Output power Bit3: Output torque			
P7.07	LED operation display parameter 2	Individual position: Bit0: Line speed Bit1: PID feedback Bit2: PLC Stage Bit3: PLUS input pulse frequency (KHz) Ten people: Bit0: Current power on time Bit1: Current running time Bit2: Remaining running time Bit3: Main frequency display Hundreds of people: Bit0: Auxiliary frequency display Bit1: Encoder feedback speed Bit2: Actual feedback speed Bit3: AI pre calibration voltage Thousand positions: Bit0: AI2 voltage before calibration Bit1: Torque setpoint	0	0xF707	☆

Function code	name	Set Range	Factory value	communication address	change
		Bit2: PLUS input frequency Bit3: Communication settings			
P7.08	LED shutdown display parameters	Individual position: Bit0: Set frequency Bit1: Bus voltage Bit2: AI voltage Bit3: AI2 voltage Ten people: Bit0: AI3 voltage Bit1: Count value Bit2: Length value Bit3: Load speed Hundreds of people: Bit0: PID given Bit1: X terminal status Bit2: DO status	3	0xF708	☆
P7.09	Load speed display coefficient	0.0001～6.5000	0.3000	0xF709	●
P7.10	Inverter module radiator temperature	0.0℃～100℃	-	0xF70A	●
P7.12	Accumulated running time	0h～65535h	-	0xF70C	●
P7.15	Number of decimal places displayed for load speed	0:0 decimal point 1: One decimal point 2: Two decimal places 3: 3 decimal places	0	0xF71E	●
P7.16	Accumulated power on time	00000 to 65535 hours	-	0xF71F	●
P7.17	Accumulated power consumption	00000 to 65535 degrees	-	0xF720	●
P8 Auxiliary Function Group					
P8.00	Acceleration and deceleration time unit	0:1 second 1:0.1 second 2:0.01 second	1	0xF800	★
P8.01	Jogging acceleration time	0.0s～6500.0s	20.0s	0xF801	☆

Function code	name	Set Range	Factory value	communication address	change
P8.02	Jogging deceleration time	0.0s～6500.0s	20.0s	0xF802	☆
P8.03	Acceleration time 2	0.0s～6500.0s	20.0s	0xF803	☆
P8.04	Deceleration time 2	0.0s～6500.0s	20.0s	0xF804	☆
P8.05	Acceleration time 3	0.0s～6500.0s	20.0s	0xF805	☆
P8.06	Deceleration time 3	0.0s～6500.0s	20.0s	0xF806	☆
P8.07	Acceleration time 4	0.0s～6500.0s	20.0s	0xF807	☆
P8.08	Deceleration time 4	0.0s～6500.0s	20.0s	0xF808	☆
P8.09	Undervoltage suppression deceleration time	0.0s～6500.0s	2.0s	0xF809	☆
P8.10	Acceleration and deceleration time reference frequency	0: Maximum frequency (P0.04) 1: Set frequency 2: 100Hz	0	0xF80A	★
P8.11	Operation prohibition frequency 1	0.00Hz to maximum frequency	0.00Hz	0xF80B	☆
P8.12	Operation prohibition frequency 2	0.00Hz to maximum frequency	0.00Hz	0xF80C	☆
P8.13	Operation prohibition frequency amplitude	0.00Hz to maximum frequency	0.01Hz	0xF80D	☆
P8.14	Frequency selection is prohibited during acceleration and deceleration	0: Invalid; 1: Effective	0	0xF80E	☆
P8.15	Acceleration time 1/2 Switching frequency point	0.00Hz to maximum frequency	0.00Hz	0xF80F	☆
P8.16	Deceleration time 1/2 Switching frequency point	0.00Hz to maximum frequency	0.00Hz	0xF810	☆

Function code	name	Set Range	Factory value	communication address	change
P8.17	Priority selection for terminal jog function	0: No priority; 1: Priority given	0	0xF811	☆
P8.18	Upper limit frequency source setting method	0: P0.05 Setting 1: AI given 3: Panel potentiometer given 4: PULSE pulse setting 5: Communication given	0	0xF812	★
P8.19	Upper frequency offset	0.00Hz to maximum frequency P0.04	0.00Hz	0xF813	☆
P8.20	Auxiliary frequency source bias frequency during superposition	0.00Hz to maximum frequency P0.04	0.00Hz	0xF814	☆
P8.21	Run time frequency instruction UP/DOWN reference	0: Operating frequency; 1: Set frequency	0	0xF815	★
P8.22	Command source bundling frequency source selection	Position: Operation panel command, bind frequency source selection 0: No binding 1: Number setting frequency 2: AI 4: Panel potentiometer 5: PULSE pulse setting (X5) 6: Multi segment speed 7: Simple PLC 8: PID 9: Communication 10: Terminal command, bind frequency source selection hundred: 485 communication command, bind frequency source selection thousand: Automatic operation,	0000	0xF816	☆

Function code	name	Set Range	Factory value	communication address	change
		bind frequency source selection			
P8.23	Terminal UP/DOWN modification rate	0.001Hz～65.535Hz	1.00Hz	0xF817	☆
P8.24	Acceleration and deceleration methods	0: Linear acceleration and deceleration; 1: S-curve acceleration and deceleration A	0	0xF818	★
P8.25	Proportion of time at the beginning of the S-curve	0.0%～(100.0%-P8.26)	30.0%	0xF819	★
P8.26	Proportion of time at the end of the S-curve	0.0%～(100.0%-P8.25)	30.0%	0xF81A	★
P8.27	Dead time of forward and reverse rotation	0.0s～3000.0s	0.0s	0xF81B	☆
P8.28	retain			0xF81C	
P8.29	Operating action below the lower limit frequency	0: Run at lower limit frequency 1: Stop 2: Run at zero speed	0	0xF81D	☆
P8.30	Selection of startup protection for power on terminals	0: Not protected; 1: Protection	0	0xF81E	☆
P8.31	Droop control	0.00Hz～10.00Hz	0.00Hz	0xF81F	☆
P8.32	FDT1 level	0.00Hz to maximum frequency	50.00 Hz	0xF820	☆
P8.33	FDT1 lag ratio	0.0%～100.0%	5.0%	0xF821	☆
P8.34	Frequency reaches the detection width	0.0% to 100.0% (maximum frequency)	0.0%	0xF822	☆
P8.35	FDT2 level	0.00Hz to maximum frequency	50.00 Hz	0xF823	☆
P8.36	FDT2 lag ratio	0.0%～100.0%	5.0%	0xF824	☆

Function code	name	Set Range	Factory value	communication address	change
P8.37	Random arrival frequency detection value 1	0.00Hz to maximum frequency	50.00 Hz	0xF825	☆
P8.38	Detection amplitude 1 at any frequency of arrival	0.0% to 100.0% (maximum frequency)	0.0%	0xF826	☆
P8.39	Random arrival frequency detection value 2	0.00Hz to maximum frequency	50.00 Hz	0xF827	☆
P8.40	Detection amplitude of 2 at any arrival frequency	0.0% to 100.0% (maximum frequency)	0.0%	0xF828	☆
P8.41	Timer function selection	0: Invalid; 1: Effective	0	0xF829	☆
P8.42	Timer time setting method	0: P8.43 Number setting 1: AI given 3: Panel potentiometer given analog input range corresponding to P8.43	0	0xF82A	☆
P8.43	Timer time value	0.0min～6500.0min	0.0min	0xF82B	☆
P8.44	Zero current detection level	0.0%～300.0%; (100.0% corresponds to the rated current of the motor, no output during shutdown)	5.0%	0xF82C	☆
P8.45	Zero current detection delay time	0.01s～600.00s	0.10s	0xF82D	☆
P8.46	Software overcurrent point	0.0% (not detected) 0.1% to 300.0% (rated current of motor)	200.0 %	0xF82E	☆
P8.47	Software overcurrent detection delay time	0.00s～600.00s	0.00s	0xF82F	☆
P8.48	Any current reaching 1	0.0% to 300.0% (rated current of motor)	100.0 %	0xF830	☆
P8.49	Any current reaching a width	0.0% to 300.0% (rated current of motor)	0.0%	0xF831	☆

Function code	name	Set Range	Factory value	communication address	change
	of 1				
P8.50	Any current reaching 2	0.0% to 300.0% (rated current of motor)	100.0%	0xF832	☆
P8.51	Any current reaching a width of 2	0.0% to 300.0% (rated current of motor)	0.0%	0xF833	☆
P8.52	Lower limit of AI input voltage protection value	0.00V～P8.53	3.00V	0xF834	☆
P8.53	AI input voltage protection upper limit	P8.52～11.00V	7.00V	0xF835	☆
P8.54	Selection of cooling fan control	0: The cooling fan runs while the motor is running. 1: The cooling fan runs continuously after being powered on	0	0xF836	☆
P8.55	The module temperature has reached	0℃～100℃	75℃	0xF837	☆
P8.56	Current running arrival time	0～65000	0	0xF8378	★
P8.57	Motor selection	0:1 motor 1: Motor No.2	0	0xF839	★
P8.58	Output power coefficient	0.0%～200.0%	100.0%	0xF83A	☆
P8.59	Dynamic S-curve overshoot denominator coefficient	1～100	10	0xF83B	★
P8.60	Output current coefficient	95.0%～105.0%	100.0%	0xF83C	☆
P8.61	Emergency deceleration time	0.0s～6553.5s	10.0s	0xF83D	☆
P8.62	Speed display mode selection	0: Mode 1 Shutdown displays the target speed, and operation displays the current target operating speed (speed is related	2	0xF83E	☆

Function code	name	Set Range	Factory value	communication address	change
		to the P7.09 display coefficient) 1: Mode 2 Display the actual operating speed of the motor 2: Mode 3 Display the target operating speed of the motor			
P9 PID Function Group					
P9.00	PID given channel selection	0: Quantitative digital setting (function code P9.01) 1: AI given 3: Panel potentiometer given 4: PULSE pulse setting (X5) 5: Communication given	0	0xF900	☆
P9.01	PID quantitative numerical setting	0.0%~100.0%	50.0%	0xF901	☆
P9.02	PID feedback channel selection	0: Analog AI (reserved) 2: Reserved 4: Pulse Setting (X5) 5: Communication Given	0	0xF902	☆
P9.03	PID regulation characteristics	0: Positive characteristic 1: Inverse characteristic	0	0xF903	☆
P9.04	PID given feedback range	0~65535	1000	0xF904	☆
P9.05	Proportional gain P1	0.0~100.0	20.0	0xF905	☆
P9.06	Integral time I1	0.01s~10.00s	2.00s	0xF906	☆
P9.07	Differential time D1	0.000s~10.000s	0.000s	0xF907	☆

Function code	name	Set Range	Factory value	communication address	change
P9.08	PID inversion cut-off frequency	0.00 to maximum frequency	0.00Hz	0xF908	☆
P9.09	PID deviation limit	0.0%～100.0%	0.0%	0xF909	☆
P9.10	PID differential limiting	0.00%～100.00%	0.10%	0xF90A	☆
P9.11	PID given change time	0.00～650.00s	0.00s	0xF90B	☆
P9.12	PID feedback filtering time	0.00～60.00s	0.00s	0xF90C	☆
P9.13	PID output filtering time	0.00～60.00s	0.00s	0xF90D	☆
P9.15	Proportional gain P2	0.0～100.0	20.0	0xF90F	☆
P9.16	Integral time I2	0.01s～10.00s	2.00s	0xF910	☆
P9.17	Differential time D2	0.000s～10.000s	0.000s	0xF911	☆
P9.18	PID parameter switching conditions	0: Do not switch 1: Terminal 2: Automatically switch according to deviation	0	0xF912	☆
P9.19	PID parameter switching deviation 1	0.0%～PA.20	20.0%	0xF913	☆
P9.20	PID parameter switching deviation 2	PA.19～100.0%	80.0%	0xF914	☆
P9.21	PID initial value	0.0%～100.0%	0.0%	0xF915	☆
P9.22	PID initial value retention time	0.00～650.00s	0.00s	0xF916	☆
P9.23	Maximum positive deviation between two outputs	0.00%～100.00%	1.00%	0xF917	☆
P9.24	Maximum reverse deviation of two outputs	0.00%～100.00%	1.00%	0xF918	☆

Function code	name	Set Range	Factory value	communication address	change
P9.25	PID integral attribute	Unit:IntegralSeparation 0: Invalid; 1: Valid ten digits: Output to the limit, whether to stop integrating 0: Continue integrating; 1: Stop accumulating points	00	0xF919	☆
P9.26	PID feedback loss detection value	0.0%: Feedback loss of 0.1% to 100.0% without judgment	20.0%	0xF91A	☆
P9.27	PID feedback loss detection time	0.0s～20.0s	1.0s	0xF91B	☆
P9.28	PID shutdown calculation	0: Shutdown without calculation; 1: Calculation during shutdown	1	0xF91C	☆
P9.29	Wake up frequency	Sleep frequency (P9.31) to maximum frequency (P0.04)	0.00Hz	0xF91D	☆
P9.30	Wake up delay time	0.0s～6500.0s	0.0s	0xF91E	☆
P9.31	Sleep frequency	0.00Hz to wake-up frequency (P9.29)	0.00Hz	0xF91F	☆
P9.32	Sleep delay time	0.0s～6500.0s	0.0s	0xF920	☆
P9.33	Wake up definition function selection	0: Defined by frequency value (P9.29) 1: Defined as a percentage (P9.34)	0	0xF921	☆
P9.34	Wake up threshold	0.0%～100.0%	0.0	0xF922	☆
P9.35	Sleep definition function selection	0: Defined by frequency value (P9.31) 1: Defined as a percentage (P9.36)	0	0xF923	☆
P9.36	Sleep threshold	0.0～200.0%	101%	0xF924	☆

Function code	name	Set Range	Factory value	communication address	change
PA multi-stage instructions, PLC operation group					
PA.00	Multi segment instruction 1	-100.0% to 100.0% (100.0% corresponds to a maximum frequency of P0.04)	5.0%	0xFA00	☆
PA.01	Multi segment instruction 2	-100.0%～100.0%	10.0%	0xFA01	☆
PA.02	Multi segment instruction 3	-100.0%～100.0%	15.0%	0xFA02	☆
PA.03	Multi segment instruction 4	-100.0%～100.0%	20.0%	0xFA03	☆
PA.04	Multi segment instruction 5	-100.0%～100.0%	25.0%	0xFA04	☆
PA.05	Multi segment instruction 6	-100.0%～100.0%	30.0%	0xFA05	☆
PA.06	Multi segment instruction 7	-100.0%～100.0%	35.0%	0xFA06	☆
PA.07	Multi segment instruction 8	-100.0%～100.0%	40.0%	0xFA07	☆
PA.08	Multi segment instruction 9	-100.0%～100.0%	45.0%	0xFA08	☆
PA.09	Multi segment instruction 10	-100.0%～100.0%	50.0%	0xFA09	☆
PA.10	Multi segment instruction 11	-100.0%～100.0%	55.0%	0xFA0A	☆
PA.11	Multi segment instruction 12	-100.0%～100.0%	60.0%	0xFA0B	☆
PA.12	Multi segment instruction 13	-100.0%～100.0%	65.0%	0xFA0C	☆
PA.13	Multi segment instruction 14	-100.0%～100.0%	70.0%	0xFA0D	☆
PA.14	Multi segment instruction 15	-100.0%～100.0%	75.0%	0xFA0E	☆
PA.15	Multi segment instruction 16	-100.0%～100.0%	80.0%	0xFA0F	☆
PA.16	PLC operation mode	0: Shutdown at the end of a single run	0	0xFA10	☆

Function code	name	Set Range	Factory value	communication address	change
		1: Maintain the final value at the end of a single run 2: Loop continuously			
PA.17	PLC power failure memory selection during operation	One: 0: power does not memory; 1: power loss memory ten place: 0: stop without memory; 1: Stop memory	00	0xFA11	☆
PA.18	PLC first stage running time	0.0s(h)～6500.0s(h)	0.0s(h)	0xFA12	☆
PA.19	Selection of acceleration and deceleration time for the first stage of PLC	0～3	0	0xFA13	☆
PA.20	PLC second stage running time	0.0s(h)～6500.0s(h)	0.0s(h)	0xFA14	☆
PA.21	PLC second stage acceleration and deceleration time selection	0～3	0	0xFA15	☆
PA.22	PLC third stage running time	0.0s(h)～6500.0s(h)	0.0s(h)	0xFA16	☆
PA.23	PLC third stage acceleration and deceleration time selection	0～3	0	0xFA17	☆
PA.24	PLC fourth stage running time	0.0s(h)～6500.0s(h)	0.0s(h)	0xFA18	☆
PA.25	PLC fourth stage acceleration and deceleration time selection	0～3	0	0xFA19	☆
PA.26	PLC 5th running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA1A	☆
PA.27	PLC 5th segment acceleration and deceleration time selection	0～3	0	0xFA1B	☆
PA.28	PLC 6th operating time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA1C	☆

Function code	name	Set Range	Factory value	communication address	change
PA.29	Selection of Acceleration and Deceleration Time for PLC Stage 6	0～3	0	0xFA1D	☆
PA.30	PLC 7th running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA1E	☆
PA.31	PLC 7th segment acceleration and deceleration time selection	0～3	0	0xFA1F	☆
PA.32	PLC 8th segment running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA20	☆
PA.33	PLC 8th segment acceleration and deceleration time selection	0～3	0	0xFA21	☆
PA.34	PLC 9th running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA22	☆
PA.35	PLC 9th segment acceleration and deceleration time selection	0～3	0	0xFA23	☆
PA.36	PLC 10th running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA24	☆
PA.37	Selection of acceleration and deceleration time for the 10th stage of PLC	0～3	0	0xFA25	☆
PA.38	PLC 11th segment running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA26	☆
PA.39	PLC 11th segment acceleration and deceleration time selection	0～3	0	0xFA27	☆
PA.40	PLC 12th segment running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA28	☆
PA.41	PLC 12th segment acceleration and	0～3	0	0xFA29	☆

Function code	name	Set Range	Factory value	communication address	change
	deceleration time selection				
PA.42	PLC 13th running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA2A	☆
PA.43	PLC 13th segment acceleration and deceleration time selection	0～3	0	0xFA2B	☆
PA.44	PLC 14th segment running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA2C	☆
PA.45	PLC 14th segment acceleration and deceleration time selection	0～3	0	0xFA2D	☆
PA.46	PLC 15th running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA2E	☆
PA.47	PLC 15th segment acceleration and deceleration time selection	0～3	0	0xFA2F	☆
PA.48	PLC 16th segment running time	0.0s(h)～6553.5s(h)	0.0s(h)	0xFA30	☆
PA.49	PLC 16th segment acceleration and deceleration time selection	0～3	0	0xFA31	☆
PA.50	PLC operating time unit	0: s (seconds); 1: H (hours)	0	0xFA32	☆
PA.51	Multiple segment instruction 1 is given frequency selection	0: Function code PA.00 given 1: AI given 3: Panel potentiometer given 4: PULSE pulse given 5: PID given 6: Digital set frequency given, UP/DOWN can be modified	0	0xFA33	☆

Function code	name	Set Range	Factory value	communication address	change
PA.52	Power Down Up/Down Save Selection	0: Do not save 1: Save	1	0xFA34	☆
PA.53	Enable the given frequency for terminal Up/Down shutdown	0: Invalid 1: Effective	0	0xFA35	☆
Pb swing frequency, fixed length, and counting array					
Pb.00	Swing frequency setting method	0: relative to the center frequency 1: relative to the maximum frequency	0	0xFB00	☆
Pb.01	Swing frequency amplitude	0.0%~100.0%	0.0%	0xFB01	☆
Pb.02	Jumping frequency amplitude	0.0%~50.0%	0.0%	0xFB02	☆
Pb.03	Oscillation frequency cycle	0.1s~3000.0s	10.0s	0xFB03	☆
Pb.04	Rise time of triangular wave in oscillation frequency	0.1%~100.0%	50.0%	0xFB04	☆
Pb.05	Set length	0m~65535m	1000 m	0xFB05	☆
Pb.06	Actual length	0m~65535m	0m	0xFB06	☆
Pb.07	Pulse per meter, unit: 0.1	0.1~6553.5	100.0	0xFB07	☆
Pb.08	Set the count value	1~65535	1000	0xFB08	☆
Pb.09	Specify the count value	1~65535	1000	0xFB09	☆
PC Fault and Protection Group					
PC.00	Selection of motor overload protection	0: Prohibited; 1: Allow	1	0xFC00	☆

Function code	name	Set Range	Factory value	communication address	change
PC.01	Motor overload protection gain	0.20～10.00	1.00	0xFC01	☆
PC.02	Motor overload warning coefficient	50%～100%	80%	0xFC02	☆
PC.03	Voltage threshold for opening the braking unit	200～2000	Model determination	0xFC03	☆
PC.04	retain	0	0	0	☆
PC.05	User defined overload threshold	0.0%～200.0%	200.0%	0xFC05	☆
PC.06	User defined overload detection time	0.0s～1000.0s	60.0s	0xFC06	☆
PC.07	Selection of short-circuit protection for power on to ground	0: Invalid 1: Effective	0	0xFC07	☆
PC.08	Number of automatic fault resets	0～200	0	0xFC08	☆
PC.09	Fault DO action selection during automatic fault reset	0: No action 1: Action	0	0xFC09	☆
PC.10	Automatic fault reset interval time	0.1s～100.0s	1.0s	0xFC0A	☆
PC.11	Input phase loss protection	0: Prohibit 1: Allow	1	0xFC0B	★
PC.12	Output phase loss protection	0: Prohibit 1: Allow	1	0xFC0C	★
PC.13	First fault type	0: No fault 1: Acceleration overcurrent (E001) 2: Deceleration overcurrent (E002) 3: Constant speed overcurrent (E003) 4: Acceleration	—	0xFC0D	●
PC.14	Second fault type		—	0xFC0E	●
PC.15	Third (most recent) fault type		—	0xFC0F	●

Function code	name	Set Range	Factory value	communication address	change
		overvoltage (E004) 5: Deceleration overvoltage (E005) 6: Constant speed overvoltage (E006) 7: Control power supply fault (E007) 8: Undervoltage fault (E008) 9: Inverter unit fault (E009) 10: Input phase loss (E010) 11: Output phase loss (E011) 12: Motor to ground short circuit fault (E012) 13: Inverter hardware failure (E013) 14: Inverter overload (E014) 15: Motor overload (E015) 16: Module overheating (E016) 17: Parameter read/write abnormality (E017) 18: External fault (E018) 19: Run time reached (E019) 20: Power on time reached (E020) 21: Current detection fault (E021) 22: Motor overheating (E022) 23: Abnormal contactor (E023) 24: Communication abnormality (E024) 25: Encoder/PG card malfunction (E025) 26: Motor learning			

Function code	name	Set Range	Factory value	communication address	change
		fault (E026) 27: Initial position error (E027) 28: Fast current limiting timeout fault (E028) 29: Motor overspeed (E029) 30: Excessive speed deviation (E030) 31: Switching motor during operation (E031) 32: Load shedding (E032) 33: PID feedback loss during runtime (E033) 35: User defined fault 1 (E035) 36: User defined fault 2 (E036) 38: Motor overheating (E038) 41: Brake resistor short circuit (E041) 44: SVC stall fault (E044) 65: Motor operating current overload (E065)			
PC.16	Operating frequency during the third malfunction	-	—	0xFC10	●
PC.17	Current during the third fault	—	—	0xFC11	●
PC.18	Bus voltage during the third fault	—	—	0xFC12	●
PC.19	Input terminal status during the third malfunction	—	—	0xFC13	●
PC.20	Output terminal status during the third fault	—	—	0xFC14	●

Function code	name	Set Range	Factory value	communication address	change
PC.21	The status of the frequency converter during the third malfunction	—	—	0xFC15	●
PC.22	Time of the third malfunction (counted from the start of this power on)	—	—	0xFC16	●
PC.23	Time of the third malfunction (counted from runtime)	—	—	0xFC17	●
PC.24	Operating frequency during the second malfunction	—	—	0xFC18	●
PC.25	Current during the second fault	—	—	0xFC19	●
PC.26	Bus voltage during the second fault	—	—	0xFC1A	●
PC.27	Input terminal status during the second malfunction	—	—	0xFC1B	●
PC.28	Output terminal status during the second fault	—	—	0xFC1C	●
PC.29	The status of the frequency converter during the second malfunction	—	—	0xFC1D	●
PC.30	The time of the second malfunction (counted from the start of this power on)	—	—	0xFC1E	●
PC.31	Time of the second malfunction (counted from	—	—	0xFC1F	●

Function code	name	Set Range	Factory value	communication address	change
	runtime)				
PC.32	Operating frequency during the first malfunction	—	—	0xFC20	●
PC.33	Current during the first malfunction	—	—	0xFC21	●
PC.34	Bus voltage during the first malfunction	—	—	0xFC22	●
PC.35	Input terminal status during the first malfunction	—	—	0xFC23	●
PC.36	Output terminal status during the first malfunction	—	—	0xFC24	●
PC.37	The status of the frequency converter during the first malfunction	—	—	0xFC25	●
PC.38	The time of the first malfunction (counted from the start of this power on)	—	—	0xFC26	●
PC.39	The time of the first malfunction (counted from runtime)	—	—	0xFC27	●
PC.40	Protection action selection 1 in case of malfunction	1: Free Parking 2: Slow down and stop (stop according to function code) 3: Continue running Position: Input phase loss (E010) Ten digits: Output phase loss (E011) Hundred digit: Inverter overload (E014) Thousand bit: Motor overload (E015)	0	0xFC28	☆

Function code	name	Set Range	Factory value	communication address	change
		Ten thousand: Overheating of radiator (E016)			
PC.41	Protection action selection 2 in case of malfunction	1: Free Parking 2: Slow down and stop (stop according to function code) 3: Continue running Bit: EEPROM read/write fault (E017) Tenth digit: External fault (E018) Hundred digit: Run time reached (E019) Thousand bit: Power on time reached (E020) Ten thousand positions: motor overheating (E022)	0	0xFC29	☆
PC.42	Protection action selection 3 in case of malfunction	1: Free Parking 2: Slow down and stop (stop according to function code) 3: Continue running Individual bit: Communication timeout (E024) Tenth digit: Wave by wave current limiting fault (E028) Hundred position: Motor overspeed (E029) Thousand bit: Excessive speed deviation (E030) Ten thousand: Load drop fault (E032)	0	0xFC2A	☆
PC.43	Protection action selection 4 in case of malfunction	1: Free Parking 2: Slow down and stop (stop according to function code) 3: Continue running Bit: PID feedback lost during runtime (E033) Ten digits: User	0	0xFC2B	☆

Function code	name	Set Range	Factory value	communication address	change
		defined fault 1 (E035) Hundred digit: User defined fault 2 (E036) Thousand positions: reserved Ten thousand positions: motor overheating (E038)			
PC.45	retain	0～2	0	0xFC2D	☆
PC.46	retain	0～100.0%	90.0%	0xFC2E	☆
PC.47	retain	0～100.00s	0.5s	0xFC2F	☆
PC.48	retain	0～100.0%	80.0%	0xFC30	☆
PC.49	Load drop protection selection	0～1	0	0xFC31	☆
PC.50	Load drop detection level	0～100.0	10.0%	0xFC32	☆
PC.51	Load drop detection time	0～60.0s	1.0s	0xFC33	☆
PC.52	Speed detection value	0～50.0%	20.0%	0xFC34	☆
PC.53	Speed detection time	0～60.0s	1.0s	0xFC35	☆
PC.54	Detection value for excessive speed deviation	0～50.0%	20.0%	0xFC36	☆
PC.55	Detection time for excessive speed deviation	0～60.0s	5.0s	0xFC37	☆
PC.56	Abnormal backup frequency setting	0～100.0%	100.0 %	0xFC38	☆
PC.57	Motor temperature sensor type	0: None 1：PT100 2：PT1000	0	0xFC39	★
PC.58	Motor overheat protection threshold	0～200℃	110℃	0xFC3A	★

Function code	name	Set Range	Factory value	communication address	change
PC.59	Motor overheating warning threshold	0～200℃	90℃	0xFC3B	★
PC.60	Continue operating frequency selection in case of malfunction	0: Run at the current operating frequency 1: Run at the set frequency 2: Operate at the upper limit frequency 3: Operate at the lower limit frequency 4: Operate at the backup frequency in case of abnormalities	0	0xFC3C	☆
PC.61	Wave by wave current limiting enable	0: Do not enable 1: Enable	1	0xFC3D	★
PC.62	Undervoltage point setting	100.0～400.0V	Model related	0xFC3E	☆
PC.63	Overvoltage point setting	200.0～1200.0V	Model related	0xFC3F	☆
Pd communication parameter group					
Pd.01	Baud rate	1：600BPS 2：1200BPS 3：2400BPS 4：4800BPS 5：9600BPS 6：19200BPS 7：38400BPS 8：57600BPS	5	0xFD01	☆
Pd.02	data format	0: No parity (8. N-2) 1: Even parity (8. E-1) 2: Odd parity (8. O-1) 3: No parity (8. N-1)	0	0xFD02	☆
Pd.03	Local address	1～247; 0 is the broadcast address	1	0xFD03	☆
Pd.04	Response delay	0ms～20ms	2	0xFD04	☆
Pd.05	Communication timeout	0.0 (invalid);0.1s～60.0s	0.0	0xFD05	☆

Function code	name	Set Range	Factory value	communication address	change
Pd.06	Data transmission format selection	0: Non standard MODBUS protocol 1: Standard MODBUS protocol	1	0xFD06	☆
Pd.07	Communication reading current resolution	0:0.01A (power less than 55KW) 1：0.1A	0	0xFD07	☆
Pd.08	Communication master-slave mode	Individual position: 0: W relative detection enabled (backend invalid) 1: Relative detection of W is invalid (valid in the background) Ten people: 0: Invalid backend 1: Backend effective	00	0xFD08	☆
H0 Torque Control Parameter Group					
H0.00	Speed/torque control mode	0: Speed control; 1: Torque control	0	0xA000	★
H0.01	Drive torque upper limit source	0: Number given 1 (H0.03). The range below corresponds to the upper limit of the driving torque (H0.03). 1: AI given 3: Panel potentiometer given 4: PULSE pulse given 5: Communication given	0	0xA001	★
H0.03	Upper limit digital setting of driving torque	-200.0%～200.0%	150.0 %	0xA003	☆
H0.04	Torque filtering time	0～10.00s	0.00s	0xA004	☆
H0.05	Maximum frequency of forward torque control	0.00Hz to maximum frequency	50.00 Hz	0xA005	☆
H0.06	Maximum frequency of reverse torque	0.00Hz to maximum frequency	50.00 Hz	0xA006	☆

Function code	name	Set Range	Factory value	communication address	change
	control				
H0.07	Torque control acceleration time	0.00s~65000s	0.00s	0xA007	☆
H0.08	Torque control deceleration time	0.00s~65000s	0.00s	0xA008	☆
H1 virtual DI, virtual DO parameter group					
H1.00	VDI1 terminal function selection	0-55 (same as P5.00)	0	0xA100	★
H1.01	VDI2 terminal function selection	0-55 (same as P5.00)	0	0xA101	★
H1.02	VDI3 terminal function selection	0-55 (same as P5.00)	0	0xA102	★
H1.03	VDI4 terminal function selection	0-55 (same as P5.00)	0	0xA103	★
H1.04	VDI5 terminal function selection	0-55 (same as P5.00)	0	0xA104	★
H1.05	VDI terminal valid status source	0: Internal connection with virtual DOx 1: Function code H1.06 setting Position: VDI1 Tenth digit: VDI2 Hundred digit: VDI3 Thousand positions: VDI4 10000 positions: VDI5	0	0xA105	★
H1.06	VDI terminal function code setting valid status	0: VDI terminal is invalid 1: VDI terminal is valid Position: VDI1 Tenth digit: VDI2 Hundred digit: VDI3 Thousand positions: VDI4 10000 positions: VDI5	0	0xA106	☆
H1.07	AI terminal function selection (as DI)	0-55 (same as P5.00)	0	0xA107	★
H1.10	AI as effective	Individual position:	0	0xA10A	☆

Function code	name	Set Range	Factory value	communication address	change
	state selection for DI	0: AI is invalid for DI 1: AI is effective as DI			
H1.11	Virtual VDO1 output selection	0-42 (same as P6.04)	0	0xA10B	☆
H1.12	Virtual VDO2 output selection	0-42 (same as P6.04)	0	0xA10C	☆
H1.13	Virtual VDO3 output selection	0-42 (same as P6.04)	0	0xA10D	☆
H1.14	Virtual VDO4 output selection	0-42 (same as P6.04)	0	0xA10E	☆
H1.15	Virtual VDO5 output selection	0-42 (same as P6.04)	0	0xA10F	☆
H1.16	VDO1 delay time	0～3600.0s	0	0xA110	☆
H1.17	VDO2 delay time	0～3600.0s	0	0xA111	☆
H1.18	VDO3 delay time	0～3600.0s	0	0xA112	☆
H1.19	VDO4 delay time	0～3600.0s	0	0xA113	☆
H1.20	VDO5 delay time	0～3600.0s	0	0xA114	☆
H1.21	VDO output terminal effective state selection	0: VDO output is invalid 1: VDO output is valid Position: VDO1 Tenth digit: VDO2 Hundred digit: VDO3 Thousand positions: VDO4 10000 positions: VDO5	0	0xA115	☆
H2 Second Motor Parameter Group					
H2.01	Motor type selection	0: Ordinary asynchronous motor 1: Variable frequency asynchronous motor	0	0xA201	★
H2.02	Rated power of motor	0.1kW～1000.0kW	Model determinati	0xA202	★

Function code	name	Set Range	Factory value	communication address	change
			on		
H2.03	Rated frequency of motor	0.00Hz to maximum frequency	50.00 Hz	0xA203	★
H2.04	Rated speed of motor	0rpm~65535rpm	1460rpm	0xA204	★
H2.05	Rated voltage of motor	0V~2000V	Model determination	0xA205	★
H2.06	Rated current of motor	0.1A~2000A	Model determination	0xA206	★
H2.07	Motor stator resistance	0.001Ω~65.535Ω	Model determination	0xA207	★
H2.08	Motor rotor resistance	0.001Ω~65.535Ω	Model determination	0xA208	★
H2.09	Motor leakage inductance	0.01mH~655.35mH	Model determination	0xA209	★
H2.10	Motor mutual inductance	0.1mH~6553.5mH	Model determination	0xA20A	★
H2.11	No-load Cur	0.01A~P2.06	Model determination	0xA20B	★
H2.12	Synchronous machine stator resistance	0.001Ω~65.535Ω	Model determination	0xA20C	★
H2.13	Synchronous machine D-axis inductance	0.01mH~655.35mH	Model determination	0xA20D	★
H2.14	Synchronous machine Q-axis	0.01mH~655.35mH	Model deter	0xA20E	★

Function code	name	Set Range	Factory value	communication address	change
	inductance		mination		
H2.16	Synchronous machine back electromotive force	0.1V～6553.5V	Model determination	0xA210	★
H2.18	Number of encoder pulses	1～65535	1024	0xA212	★
H2.19	Speed fbk sel	0: ABZ incremental encoder 4: Rotating Transformer	0	0xA213	★
H2.21	ABZ encoder phase sequence	0: Forward 1: Reverse	0	0xA215	★
H2.22	Encoder installation angle	0～359.9°	0	0xA216	★
H2.23	UVW signal direction	0～1	0	0xA217	★
H2.24	UVW signal zero position angle	0～359.9°	0	0xA218	★
H2.25	Twisted polar logarithm	1～65535	1	0xA219	★
H2.26	PG disconnection enable	0～100	0	0xA21A	★
H2.27	Motor self-learning selection	1: Static self-learning 2: Rotating self-learning 3: Static learning with load	0	0xA21B	★
H2.40	Speed loop proportional gain 1	1～100	30	0xA228	☆
H2.41	Speed loop integration time 1	0.01s～10.00s	0.50s	0xA229	☆
H2.42	Switching frequency 1	0.00～P3.05	5.00Hz	0xA22A	☆
H2.43	Speed loop proportional gain 2	1～100	20	0xA22B	☆

Function code	name	Set Range	Factory value	communication address	change
H2.44	Speed loop integration time 2	0.01s～10.00s	1.00s	0xA22C	☆
H2.45	Switching frequency 2	P3.02～P0.04	10.00 Hz	0xA22D	☆
H2.46	Slip compensation coefficient	50%～200%	100%	0xA22E	☆
H2.47	Speed loop filtering time constant	0.000s～0.100s	0.000 s	0xA22F	☆
H2.48	Vector control over excitation gain	0～200	64	0xA230	☆
H2.49	Selection of torque upper limit source during speed control	0: Function code P3.10 setting 1: AI setting 2: AI2 setting 3: Panel potentiometer setting 4: PULSE pulse setting 5: Communication given	0	0xA231	☆
H2.50	Numerical setting of torque upper limit during speed control	0.0%～200.0%	150.0 %	0xA232	☆
H2.51	M-axis current loop Kp	0～60000	2000	0xA233	☆
H2.52	M-axis current loop Ki	0～60000	1300	0xA234	☆
H2.53	T-axis current loop Kp	0～60000	2000	0xA235	☆
H2.54	T-axis current loop Ki	0～60000	1300	0xA236	☆
H2.55	Separation of velocity cycle product and classification (individual bits)	0～1	0	0xA237	☆
H2.56	Enable power generation limitation	0: Invalid 1: Fully effective 2:Constantspeedeffective	0	0xA238	☆

Function code	name	Set Range	Factory value	communication address	change
		3:Decelerationeffective			
H2.57	Upper limit of power generation	0.0%~200.0%	0.0%	0xA239	☆
H2.64	Speed control torque upper limit source	0: Function codesetting 1: AI setting 2: AI2 setting 3: AI3 setting 4: PULSE pulse setting 5: Communication settings 6：MIN(|AI|, |AI2|) 7：MAX(|AI|, |AI2|) 8: Distinguish the power generation function code given when generating electric power	0	0xA240	★
H2.65	Speed control torque upper limit digital setting	0.0%~200.0%	150.0 %	0xA241	☆
H2.66	Selection of control mode for the second motor	0: Speed sensorless vector control 1: V/F control 2: Vector control with speed sensor	0 1	0xA242	★
H2.67	Selection of acceleration and deceleration time for the second motor	0/1: Acceleration and deceleration time 1 P0.08 Acceleration time 1 P0.09 Deceleration time 1 2: Acceleration and deceleration time 2 P8.03 Acceleration Time 2 P8.04 Deceleration time 2 3: Acceleration and deceleration time 3 P8.05 Acceleration Time 3 P8.06 Deceleration time 3 4: Acceleration and	0	0xA243	☆

Function code	name	Set Range	Factory value	communication address	change
		deceleration time 4 P8.07 Acceleration Time 4 P8.08 Deceleration time 4			
H2.68	Torque increase	0.0%: (Automatic torque boost) 0.1%~30.0%	Model determination	0xA244	☆
H2.70	VF oscillation suppression gain	0~100	40	0xA246	☆
H3 multi-point AI curve parameter group					
H3.00	AI Curve 4 Minimum Input	-10.00V~H3.02	0.00V	0xA300	☆
H3.01	AI curve 4 minimum input corresponding setting	-100.0%~+100.0%	0.0%	0xA301	☆
H3.02	AI curve 4 fold point 1 input	H3.00~H3.04	3.00V	0xA302	☆
H3.03	AI curve 4 fold point 1 input corresponding setting	-100.0%~+100.0%	30.00 %	0xA303	☆
H3.04	AI curve 4 fold point 2 input	H3.02~H3.06	6.00V	0xA304	☆
H3.05	AI curve 4 fold point 2 input corresponding settings	-100.0%~+100.0%	60.00 %	0xA305	☆
H3.06	AI Curve 4 Maximum Input	H3.04~+10.00V	10.00 V	0xA306	☆
H3.07	AI curve 4 maximum input corresponding setting	-100.0%~+100.0%	100.0 %	0xA307	☆
H3.08	AI Curve 5 Minimum Input	-10.00V~H3.10	0.00V	0xA308	☆
H3.09	AI curve 5 minimum input corresponding	-100.0%~+100.0%	0.0%	0xA309	☆

Function code	name	Set Range	Factory value	communication address	change
	setting				
H3.10	AI curve 5 fold point 1 input	H3.08～H3.12	3.00V	0xA30A	☆
H3.11	AI curve 5 fold point 1 input corresponding setting	-100.0%～+100.0%	30.00 %	0xA30B	☆
H3.12	AI curve 5 fold point 2 input	H3.10～H3.14	6.00V	0xA30C	☆
H3.13	AI curve 5 fold point 2 input corresponding settings	-100.0%～+100.0%	60.00 %	0xA30D	☆
H3.14	AI curve 5 maximum input	H3.12～+10.00V	10.00 V	0xA30E	☆
H3.15	AI curve 5 maximum input corresponding setting	-100.0%～+100.0%	100.0 %	0xA30F	☆
H7 AI and AO calibration parameter group					
H7.00	AI measured voltage 1	-10.000～10.000V	Factory calibration	0xA700	☆
H7.01	AI displays voltage 1	-10.000～10.000V	Factory calibration	0xA701	☆
H7.02	AI measured voltage 2	-10.000～10.000V	Factory calibration	0xA702	☆
H7.03	AI displays voltage 2	-10.000～10.000V	Factory calibration	0xA703	☆
H7.12	AO target voltage 1	-10.000～10.000V	Factory calibration	0xA70C	☆

Function code	name	Set Range	Factory value	communication address	change
H7.13	AO measured voltage 1	-10.000～10.000V	Factory calibration	0xA70D	☆
H7.14	AO target voltage 2	-10.000～10.000V	Factory calibration	0xA70E	☆
H7.15	AO measured voltage 2	-10.000～10.000V	Factory calibration	0xA70F	☆
HA Vector Parameter Optimization Group					
HA.00	Low speed carrier frequency setting	0.0KHz～8.0KHz	2.0KHz	0xAA00	☆
HA.01	Low speed DC braking limit frequency threshold	0.00Hz～5.00Hz	0.30Hz	0xAA01	☆
HC Control Optimization Parameter Group					
HC.00	DPWM switching upper limit frequency	0.00hz to maximum frequency (P0.04)	12.00 hz	0xAC00	☆
HC.01	modulation mode	0: Asynchronous modulation 1: Synchronous modulation	0	0xAC01	☆
HC.02	Dead zone compensation mode selection	0: Dead zone compensation is invalid 1: Dead zone compensation is effective	1	0xAC02	☆
HC.03	Random PWM	0～10	0	0xAC03	☆
HC.04	Overmodulation coefficient	0～110	100	0xAC04	☆
HC.05	Energy saving control	0～1	0	0xAC05	★

The **symbol explanations in** the **functional parameter table** are **as follows:**
☆ ": This parameter can be modified both during the operation and shutdown

of the frequency converter;
★ ": indicates that the parameter cannot be modified when the frequency converter is in operation;
● ": This parameter cannot be changed under any circumstances and is for reference only.
***P0.00** Asynchronous machine defaults to 1, synchronous machine defaults to 0
P2.01 Asynchronous machine defaults to 0, synchronous machine defaults to 2

3.2 List of Monitoring Parameters

Function code	name	The smallest unit	postal address
CO monitoring parameter group			
C0.00	Operating frequency (Hz)	0.01Hz	5000H
C0.01	Output current (A)	0.01A	5001H
C0.02	Output voltage (V)	1V	5002H
C0.03	Load speed display	1	5003H
C0.04	Bus voltage (V)	0.1V	5004H
C0.05	Set frequency (Hz)	0.01Hz	5005H
C0.06	Count value	1	5006H
C0.07	Length value	1	5007H
C0.08	X terminal status	1	5008H
C0.09	DO output status	1	5009H
C0.10	AI voltage (V)	0.01V	500AH
C0.11	AI2 voltage (V)	0.01V	500BH
C0.12	AI3 voltage (V)	0.01V	500CH
C0.13	PID setting	1	500DH
C0.14	Output power (Kw)	0.1Kw	500EH
C0.15	Output torque (%)	0.1%	500FH
C0.16	Linear velocity	1m/Min	5010H
C0.17	PID feedback	1	5011H
C0.18	PLC stage	1	5012H
C0.19	PULSE input pulse frequency (Hz)	0.01KHz	5013H
C0.20	Current power on time	1Min	5014H

C0.21	Current running time	0.1Min	5015H
C0.22	Remaining running time	0.1Min	5016H
C0.23	Main frequency display	0.01Hz	5017H
C0.24	Auxiliary frequency display	0.01Hz	5018H
C0.25	Feedback speed (unit: 0.1Hz)	0.1Hz	5019H
C0.26	Encoder feedback speed	0.01Hz	501AH
C0.27	AI pre calibration voltage	0.001V	501BH
C0.28	AI2 pre calibration voltage	0.001V	501CH
C0.29	Torque setpoint	0.01%	501DH
C0.30	PULSE input pulse frequency	1Hz	501EH
C0.31	Communication settings	0.01%	501FH
C0.32	Operating status of frequency converter	1: Forward rotation 2: Reverse 3: Stop it 4: Tuning 5: Fault	5020H
CO.34	Motor temperature	1℃	5022H
C0.35	AI3 pre calibration voltage	0.001V	5023H
C0.36	Rotating position	1	5024H
C0.37	Power factor angle	0.1°	5025H
C0.38	ABZ position	1	5026H
C0.39	VF separation target voltage	1V	5027H
C0.40	VF separation output voltage	1V	5028H
C0.41	DI input intuitive display	1	5029H
C0.42	DO input intuitive display	1	502AH
C0.43	Visual display of DI function status	1	502BH
C0.44	Visual display of DO function status	1	502CH

C0.45	Fault information	1	502DH
C0.46	Inverter module heat sink temperature	1℃	502EH
C0.49	Motor serial number	1	5031H
CO.55	Process card PT1 channel temperature value	1℃	5037H
CO.56	Process card PT2 channel temperature value	1℃	5038H
CO.57	Process card PT3 channel temperature value	1℃	5039H
C0.58	Z-signal counter	1	503AH
CO.60	AI2 pressure feedback	0.1kPa	503CH
C0.61	Operating status of frequency converter	bit0~bitl: 0: Shutdown 1: Forward rotation 2: Reverse Bit2~bit3: 0: Constant speed 1: Acceleration 2: Slow down	503DH
CO.62	Current malfunction	1	503EH
CO.65	Torque upper limit	0.1%	5041H
CO.71	Communication card output current display	0.1A	5047H
C0.75	View torque limit mode	0: Normal 1: Limit torque	504BH
C0.76	Accumulated low power consumption fc	0.1KW	504CH
C0.77	Accumulated power consumption fc high	1KW	504DH
C0.78	Linear velocity	1m/min	504EH

Chapter 4: Fault diagnosis and handling methods

Fault code description and countermeasures

Fault code	Fault name	Possible cause	processing method
E001	Accelerate over current	1. The acceleration time is too short 2. Output grounding or short circuit 3. No motor under the vector control mode 4. Mutation load during acceleration 5. Excessive manual torque increase or improper V / F curve setting 6. Low voltage 7. The selection of frequency converter is too small	1. Accelerated acceleration time 2. Check the insulation of the motor and the cables. 3. Identify the parameters of the motor 4. Check the load 5. Reduce the torque increase value or modify the V / F curve value 6. Check the power supply voltage or check the bus bar voltage value 7. Choose the frequency converter with a larger power level
E002	Slow down over current	1. The deceleration time is too short 2. Output grounding or short circuit 3. No motor under the vector control mode 4. There is a mutation load during the deceleration process 5. Excessive manual torque rise or improper V / F curve setting 6. Low voltage	1. Longer deceleration time 2. Check the insulation of the motor and the cables. 3. Identify the parameters of the motor 4. Check the load 5. Reduce the torque increase value or modify the V / F curve value 6. Check the power supply voltage or check the bus bar voltage value
E003	Constant speed over current	1. Output grounding or short circuit 2. No motor under the vector control mode 3. There is a mutation load during the operation 4. Low voltage 5. The selection of	1. Check the insulation of the motor and the cables. 2. Identify the parameters of the motor 3. Check the load 4. Check the power supply voltage or check the bus bar voltage

Fault code	Fault name	Possible cause	processing method
		frequency converter is too small	5. Choose the frequency converter with a larger power level
E004	Accelerated overvoltage	1. The input voltage is too high 2. The acceleration time is too short 3. There is an external force dragging the motor in the acceleration process 4. No brake unit and brake resistance are installed	1. Adjust the voltage to the normal range 2. Increase the acceleration time 3. Check the load 4. Install the brake unit and the brake resistance
E005	Slow down over voltage	1. The input voltage is too high 2. The acceleration time is too short 3. There is an external force to drag the motor for operation during the acceleration process 4. No brake unit and brake resistance are installed	1. Adjust the voltage to the normal range 2. Increase the acceleration time 3. Check the load 4. Install the brake unit and the brake resistance
E006	Constant speed overvoltage	1. The input voltage is too high 2. There is an external force dragging the motor during the operation process	1. Adjust the voltage to the normal voltage 2. Adjust the load or install the brake unit and the brake resistance
E007	Control power failure	1. The input voltage is not within the range specified in the specification 2. The relay does not suck	1. Adjust the voltage within the normal range
E008	Underpressure failure	1. Low input voltage or poor contact contact 2. Bus voltage is abnormal 3. The relay or contactor do not engage 4. Abnormal control board	1. Check the input power supply voltage 2. Check the bus voltage value 3. Seek technical support or replace the contactor 4. Seek technical support

Fault code	Fault name	Possible cause	processing method
E009	Inverter unit failure	1. Short circuit of frequency converter 2. The wiring between the frequency converter and the motor is too long 3. Overheating of modules 4. Module damage 5. Exception of drive	1. Check the insulation of the motor and cable, disconnect the motor cable to check if the fault remains. 2. Install the output reactor 3. Seek technical support 4. Seek technical support
E010	Input the missing phase	1. Three-phase input power supply is phase deficiency 2. Drive board is abnormal	1. Check the power supply 2. Seek technical support
E011	Output lack of phase	1. The lead from the frequency converter to the motor is abnormal 2. Unbalanced three-phase output or phase deficiency of the frequency converter 3. Drive board is abnormal 4. Abnormal module	1. Check the motors and cables 2. Seek technical support 3. Seek technical support 4. Seek technical support
E012	Short circuit to ground	1: Motor is short-circuit to the ground 2: Misactions	1: Check the motor and the cable 2: PC.07 is set to 0, close the function
E013	Frequency converter hardware failure	1. There is an overflow situation 2. There is an overpressure situation	1. Overcurrent fault processing 2. Handle the overvoltage fault
E014	Frequency converter overload	1. Excessive load or motor blockage 2. The selection of the frequency converter is too small 3. The motor is not self-learned	1. Check the load and mechanical conditions 2. Replace the frequency converter with a large power level 3. Change the control mode to V/F(PO.00=1) and start again. Or to rotate the motor from self-learning.

Fault code	Fault name	Possible cause	processing method
E015	Motor overload	1. Whether the protection parameter PC.01 is appropriate 2. Excessive load or motor blockage 3. The selection of the frequency converter is too small	1. Set the parameters correctly 2. Check the load and mechanical conditions 3. Replace the frequency converter with a large power level
E016	The module overheating	1. The ambient temperature is too high 2. The air duct is blocked 3. The fan is damaged 4. Damaged module superheating device	1. Improve the ambient temperature 2. Clean the air duct 3. Replace the fan 4. Seek technical support
E017	Memory failure	The storage chip is damaged	Seek technical support
E018	External equipment failure	Enter the signal of the external failure through the multifunctional digital terminal X	Reset the operation
E019	continue to have		Please contact the dealer
E020	continue to have		Please contact the dealer
E021	Current detection failure	1. Current Hall detects the damage 2. Drive board failure	1. Check whether the Hall sensor and the plug cable are loose 2. Seek technical support
E022	Overheating fault of motor	1. Motor temperature is too high 2. Motor temperature sensor fault	1. Increase the load frequency or heat dissipate the motor 2. Check the motor temperature sensor and the wiring
E023	Contactor failure	1. Contactor is abnormal 2. The drive plate and the power supply are abnormal	1. Replace the contactor 2. Seek technical support
E024	Communication failure	1. The upper computer is abnormal 2. The communication line is abnormal 3. Communication	1. Check the upper computer and the connection 2. Check the communication line

Fault code	Fault name	Possible cause	processing method
		parameter group is not set correctly	3. Set the parameters correctly
E025	Encoder failure	1. Encoder model does not match 2. Encoder connection error 3. Encoder is damaged 4. The PG card is abnormal	1. Set the encoder parameters correctly 2. Check the connection 3. Change the encoder 4. Replace the PG card
E026	Motor identificatio n failure	1. Improper setting of the motor parameters 2. Parameter identification time is too long	1. Reset the motor parameters 2. Check whether the frequency converter is well connected to the motor
E027	Initial location failure	The deviation from the actual motor parameters is too large	Reconfirm whether the motor parameters are correct, and focus on whether the rated current is small
E028	Rapid flow limit failure	1. Excessive load or motor blockage 2. The selection of the frequency converter is too small 3. The motor is not self-learned	1. Check the motor and the load 2. Self-identify the motor parameters 3. Change the control mode to V/F(PO.00=1) and start again. Or to rotate the motor from self-learning.
E029	Motor overspeed hitch	1. Encoder parameters are not set correctly 2. Parameter identification was not performed 3. Unreasonable setting of the motor overspeed parameters	1. Reset the encoder parameters 2. Identify the parameters of the motor 3. Set the parameters reasonably
E030	Excessive speed deviation and large fault	1. Encoder parameters are not set correctly 2. Parameter identification was not performed 3. Unreasonable setting of the motor overspeed parameters	1. Reset the encoder parameters 2. Identify the parameters of the motor 3. Set the parameters reasonably

Fault code	Fault name	Possible cause	processing method
E031	Motor switching fault during operation	There is a switching motor behavior during the operation	Switch the motor after the inverter is stopped
E032	The load failure	The operating current of the frequency converter is less than the value set by PC.50	Verify that the motor is out of the frequency converter and check the parameter settings
E033	Run-time PID feedback loss fault	The PID feedback is less than the P9.26 setting value	Check the feedback signals or set the parameters reasonably
E034	continue to have		
E035	User-defined 1 fault	Enter the signal of the user-defined fault 1 through the multifunctional terminal X Enter the signal of the user-defined fault 1 through the virtual function terminal IO	Run in reset
E036	User-defined 2 fault	1. Enter the signal of the user-defined fault 1 through the multifunctional terminal X 2. Enter the signal of the user-defined fault 1 through the virtual function terminal IO	Run in reset
E037	continue to have		
E045	AEMF identificatio n AY	1. Motor parameters are set correctly 2. P2.16 reverse EMF is wrongly set during static identification 3. Abnormal inF	1. Set the motor parameters correctly, especially the rated frequency and rated speed 2. Check whether P2.16

Fault code	Fault name	Possible cause	processing method
		identification during dynamic identification 4. Demagnetization occurs in the motor 5. The motor reverse electromotive force is indeed too large or too small	settings is too big or too small and modify 3. Check whether the motor is completely no-load during the dynamic identification process, and whether the motor rotates to 40% of the rated speed of the motor. If the motor fails to rotate to 40% of the rated speed of the motor due to the load connected to the identification process, it needs to remove the load and identify again 4. Check whether the motor is demagnetized 5. If you confirm that the motor reaction electromotive force is large or small, you can press the "STOP" key to reset this warning and continue the next operation
E065	User-defined overload threshold value	1. The actual output current is greater than the set value of PC.05	1. Reset operation

Appendix A: AD series brake resistance selection table

Frequency converter model	Recommended power of the brake resistance	Brake resistance The resistance value is recommended	Brake unit
Single phase 220V			
AD300-2S0.75GB	80W	≥150Ω	Standard built-in
AD300-2S1.5GB	100W	≥100Ω	
AD300-2S2.2GB	100W	≥70Ω	
Three phase 380V			
AD300-4T0.75GB	150W	≥300Ω	Standard built-in
AD300-4T1.5GB	150W	≥220Ω	
AD300-4T2.2GB	250W	≥200Ω	
AD300-4T3.0GB	300W	≥150Ω	
AD300-4T4.0GB	300W	≥130Ω	
AD300-4T5.5GB	400W	≥90Ω	
AD300-4T7.5GB	500W	≥43Ω	
AD300-4T11GB	800W	≥32Ω	

Appendix B: Communication data address definition and Modbus communication protocol

AD series frequency converter supports Modbus communication protocol, through which the upper computer can control, monitor and modify the functional parameters. AD series communication data can be divided into functional code data and non-functional code data, the latter includes running command, running state, running parameters, alarm information, etc.

1.1 AD functional code data

Function code data is the important setting parameters of frequency converter, and the functional parameters of AD series group P and group H.as follows:

AD series Functional code data	P group (Literacy is available.)	P0、P 1、P 2、P 3、P 4、P 5、P 6、P 7、P 8、P 9、P A、Pb、P C、Pd、P E、P F
	H group (Literacy is available.)	H0、H 1、H 2、H 3、H 4、H 5、H 6、H 7、H 8、H 9、HA、H B、 H C、H D、H E、H F

The function code data mailing address is defined as follows:

1) When the functional code data is read for the communication

For the functional code data of P 0 ~ PF and H 0 ~ HF groups, the higher communication address is directly the functional group number, and the lower 16 functional code is directly the serial number in the functional group. The examples are as follows:

P 0.10 function parameter, whose communication address is F0 0A H, where F0H represents the P0 group function parameter and 0 AH represents the hexadecheal data format of the function number 16 in the function group.

H C. 0 5 function parameters, whose mailing address is AC0 5, where ACH represents the function parameters of the HC group, and 0 5H represents the hexadecimal data format of the serial number 5 of the function code in the function group.

2) When the functional code data is written for the communication

For the function code data of P 0 ~ PF group, its communication address is 16 points high, and according to whether EEPROM is written, it is 00~0F or F0~FF. 16 points low is directly the serial number of the function code in the function group. The examples are as follows:

● Write the function parameter P0.10

Without writing to the EEPROM, the mailing address is 00 0 AH

When EEPROM needs to write, its mailing address is F0 0AH

For the data of the P 0 ~ PF group of function code, its communication address is 16 years high, and according to whether EEPROM needs to be written, it is divided into P 0 ~ PF or H 0 ~ HF, and 16 percent low is directly the serial number of the function code in the function group. Examples are as follows:

● Write the function parameters H C. 0 5

When writing to the EEPROM is not required, the mailing address is 1 C0 5H

When EEPROM needs to write, its mailing address is AC0 5 H 0

1.2 The AD series of non-functional code data

Non-functional code data	status data (read only)	Monitoring parameters, fault description of frequency converter and operating status of frequency converter
	controlling parameter (write only)	Control command, communication set point, digital output terminal control, analog output AO1 control, analog output AO2 control, high-speed pulse (FMP) output control, and parameter initialization

1) Status data

The status data is divided into group C monitoring parameters, frequency converter fault description, and frequency converter operating status

● Group C parameter monitoring parameters

The description of monitoring data of Group C is described in Chapter 5 and Chapter 6, and their address is defined as follows:

C0~C3, its high mailing address 16 is 50~53, the lower 16 is the serial number of monitoring parameters in the group, as follows: C 0.11, its mailing address is 5 00 BH.

● Fault description of the frequency converter

When reading the fault description of the converter, the communication address is fixed to 31 00H, and the upper computer can obtain the current fault code of the converter by reading the address data. The description of the fault code is defined in Chapter 5 PC. 13 function code.

● Operating status of the frequency converter

When communication reads the operating state of the inverter, the communication address is fixed to 3000H. By reading the address data, the upper computer can obtain the operating state information of the current frequency of the converter, which is defined as follows:

Operating address of inverter converter	Read the state word definition
3000H	1: Is running
	2: Reverse operation
	3: Downtime
	4: Tune
	5: Failure

2) Control parameters

Control parameters are divided into control command, digital output terminal control, analog output AO1 control, analog output AO2 control, and high-speed pulse (FMP) output control.

● control command

When P0.01 (command source) is selected as 2: communication control, the upper computer can control the start and stop of the inverter through the communication address. The control command is defined as follows:

Control the command mailing address	Command function
2000H	1: Is running
	2: Reverse operation
	3: Positive point movement
	4: Reverse point movement
	5: Slow down
	6: Free shutdown
	7: Fault reset

● communication set value

Communication Setpoint In the main user AD series, the frequency source, torque upper limit source, VF separation voltage source, PID given source, PID feedback source are selected as the given data of communication given timing. Its mailing address is 4 000H, and when the host computer sets the mailing address value, the data range is-10000~10000, corresponding to the relative given value of-100.00%~100.00%.

Communication setpoint address	Command content
4000H	-10000-10000 indicates-100.00%~100.00%

● Digital output terminal control

When the digital output terminal function is selected as 39: communication control, the upper terminal computer can control the inverter digital output terminal through the communication address, defined as follows:

The digital output terminal controls the mailing address	Command content
2003H	BIT 0: DO 1 output control BIT 1: DO 2 output control BIT 2: RELAY1 output control BIT 3: RELAY2 output control BIT 4: FMR output control BIT5： VDO1 BIT6： VDO2 BIT7： VDO3 BIT8： VDO4 BIT9： VDO5

● Analog output AO1, AO2, high-speed pulse output FM control

When the analog output is AO1 and AO2, and the high speed pulse output FM output function is selected as 12: When the communication setting, the upper computer computer can control the inverter analog output and high speed pulse output through the communication address, which is defined as follows:

Output control mailing address		Command content
AO1	2001H	0 ~ 7 FFF indicates between 0% and 100%
AO2	2002H	
FMP	2004H	

● Parameter initialization

This function is required when the parameter initialization of the inverter is required through the upper computer.

If P0.13 (user password) is not 0, the password needs to be verified through communication first. After the verification passes, the upper computer initializes the parameters within 30 seconds.

The communication address for user password verification is F700 H. If the correct user password is directly written to the address, the address for parameter initialization is F00D, and the data content is defined as follows:

The parameter initializes the mailing address	Command function
F00DH	1: Restore the factory parameters
	2: Clear record information
	201: To restore the user backup parameters
	5: Backup the users current parameters

AD series frequency converter provides RS485 communication interface and supports Modbus-RTU slave communication protocol. Users can realize centralized control through the computer or PLC, set the inverter operation command through the communication protocol, modify or read the function code parameters, and read the working state and fault information of the frequency converter.

1.3 Agreement Content

The serial communication protocol defines the information content and usage format transmitted in the serial communication. This includes: host polling (or broadcast) format; host coding method, including: required action function code, transmission data and error check. The response of the slave also adopts the same structure, including: action confirmation, return data and error verification, etc. If the slave has an error while receiving the information, or cannot complete the action required by the host, it will organize a failure information and feed it back to the host in response.

1) Application mode

The frequency converter is connected to the "single-master and multi-slave" PC / PLC control network with RS485 bus, serving as the communication slave.

2) Bus structure

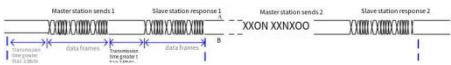
● topology structure

Single-host multi-slave system. Each communication device in the network has a unique station address, in which one device is used as the communication host (often flat PC host, PLC, HMI, etc.), actively initiate communication, read or write parameters on the slave, while other devices are for the communication slave, in response to the hosts inquiry or communication operation of the host. Only one device can send the data at the same time, while the other devices are in the receiving state.

The setting range of the slave address is 1~247,0 is the broadcast communication address. The slave address in the network must be unique.

● Communication transmission mode

Asynchronous serial, semi-duplex transmission mode. In the process of serial asynchronous communication, the data sends one frame of data at a time in the form of a message. It is agreed in the MODBUS-RTU protocol that when the idle time without data on the communication data line is greater than the transmission time of 3.5 Byte, the start of a new communication frame is indicated.



The built-in communication protocol of AD series inverter is Modbus-RTU slave communication protocol, which can respond to the "query / command" of the host, or make corresponding actions according to the "query / command" of the host, and communicate the data response.

The host can refer to a personal computer (PC), industrial control equipment or programmable logic controller (PLC), etc. The host can not only communicate to a slave alone, but also release broadcast information to all the lower slave. For the separate access query / command of the host, the visited slave returns a reply frame; for the broadcast information, the host needs no feedback response to the host.

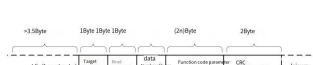
1.4 Communication data structure

The Modbus protocol communication data format of AD series frequency converter is as follows. frequency converter only supports reading or write Word parameters, the corresponding communication read command is Ox 03; write command is 0x06, and no byte or bit reading is supported:

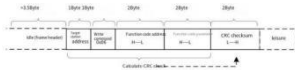
The main station reads the command frame

In theory, the upper computer can read several consecutive function codes at a time (that is, n can be up to 12), but it should be noted that it can not cross the last function code of this function code group, otherwise the reply will be wrong.

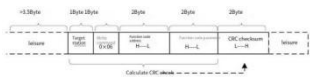
Read the response frame from the station



The main station writes the command frame



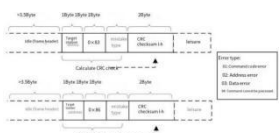
Write the answer frame from the station



If the communication frame error is detected by the machine, or causes unsuccessful reading and writing due to other reasons, the error frame will be answered.

From the station to read the answer error frame

From the station write answer error frame



1) Description of the data frame field:

Frame-head, START	More than 3.5 characters of the transfer time is idle
Deliver the machine address to the ADR	Address address range: 1 ~ 247; 0 = Broadcast address
command code CMD	03: Read the slave parameters; 06: Write the slave parameters
Function code address H	The parameter address inside the inverter is indicated in 16 decimal system; it is divided into functional codes and non-functional codes (such as running status parameters, running commands, etc.). See the address definition for details. When transmitting, high bytes are in front and low bytes are back.
Function code address L	
The number of functional codes, H	If the number of functional codes read in this frame is 1 indicates that 1 functional code is read. When transmitting, high bytes are in front and low bytes are back. This agreement can only rewrite one function code at a time, without this field.
The number of functional codes, L	
data H	Answer data, or data to be written, is transmitted with high bytes earlier and low bytes later.
data L	
CRC CHK Low level	Detection value: CRC16 check value. When transmitting, low bytes are in front and high bytes are back. The calculation method is described in this section of the CRC calibration for details.
CRC CHK High level	
END	At 3.5 characters

2) CRC calibration mode:

The CRC (Cyclical Redundancy Check) uses the RTU frame format, and the message includes an error detection domain based on the CRC method. The CRC domain detects the content of the entire message. The CRC domain is two bytes containing a binary value of 16 bits. It is calculated by the transmission device and then added to the message. The receiving device recalculates the CRC that has received the message and compares the value in the received CRC domain, and if the two CRC values are not equal, the transmission error occurs.

CRC is done by first saving 0xFFFF and then calling a process to process the continuous 8-bit bytes in the message with the value in the current register.

Only the 8 Bit data in each character is valid for the CRC, and both the start and stop bits and the parity bits are invalid.
During CRC generation, each 8-bit character is different from the register content or (XOR) separately, and the result is moved towards the lowest effective bit, and the highest effective bit is filled with 0. The LSB was extracted for detection, not performed if LSB was 1, register alone and preset values were different, or if LSB was 0. The entire procedure was repeated 8 times. After the last digit (8th digit) is completed, the next 8-bit byte is separately different from the current value of the register. The value in the final register is the CRC value after all bytes in the message.
When CRC is added to the message, low bytes join first, then high bytes. The CRC simple functions are as follows:

```
unsigned int crc_chk_value（unsigned char *data_value,unsigned char length）
{
        unsigned int crc_value=0xFFFF;
        int i;
        while（length--） {
                crc_value^=*data_value++;
                for（i=0;i<8;i++） {
                        if（crc_value&0x0001）
                        {
                                crc_value=（crc_value>>1)^0xa001;
                        }
                        else
                        {
                                crc_value=crc_value>>1;
                        }
                }
        }
        return（crc_value）;
}
```

1.5 Function code parameter address marking rules
Address definition of communication parameters, read and write functional code parameters (some function codes cannot be changed, only for the manufacturer or monitoring).
Represent the rule with the function code group number and the reference code as the parameter address:
High-level bytes: F0~FF (Group P), H 0 ~ HF (Group H), 50~ 53 (Group C)
Low Bytes: 00 to FF
For example, for the range function code P 3.12, the access address of the function code is expressed as 0 xF 30 C;
pay attention to:
● PF group: neither read parameters nor change parameters;
● Group C: Read only, do not changing the parameters.

Some parameters cannot be changed when the frequency converter is in operation; some parameters cannot be changed; change the function code parameters, note the parameter range, units, and relevant instructions.

Function code group number	Communication access address	Communication fies the function code address in RAM
From the P 0 to the PE group	0xF000 ～ 0xFEFF	0x0000 ～ 0x0EFF
From the H 0 to the HF group	0xA000 ～ 0xA F FF	0x1000 ～ 0x 1F FF
Group C0	0x5000 ～ 0x 5 0FF	

Note that because EEPROM is frequently stored, it will reduce the service life of EEPROM, so some function codes are not stored in communication mode, just change the value in RAM.
If it is a P group parameter, to achieve this function, as long as the high F of the function code address into 0.
If it is a group H parameter, to achieve this function, as long as the high A of the function code address into 1 can be achieved.
The corresponding function code address is indicated as follows:
High bytes: 00~0F (P), 10~ 1 F (H)
Low Bytes: 00 to FF
in compliance with:
Function code P 3.12 is not stored in EEPROM, and the address is 030C;
Function code H 0.05 is not stored in EEPROM, and the address is 1 005;
This address means that can only write RAM, can not read the action, read, invalid address.
For all the parameters, this function can also be implemented using the command code 07H.

1) Monitoring parameters and their communication access address: (read-only)

order number	Monitor the content	Communication read address
0	running frequency (Hz)	5000H
1	output (A)	5001H
2	output voltage (V)	5002H
3	Load speed is shown	5003H
4	busbar voltage (V)	5004H
5	Set Frequency (Hz)	5005H
6	count value	5006H
7	Length value	5007H
8	X input mode	5008H
9	DO output state	5009H
10	AI Voltage (V)	500AH
11	AI2 Voltage (V)	500BH
12	Panel potentiometer voltage (V)	500CH
13	PID setting	500DH
14	output power (kW)	500EH
15	output torque (%)	500FH
16	linear velocity	5010H
17	PID feedback	5011H
18	PLC stage	5012H
19	PULSE Input pulse frequency (Hz)	5013H
20	Current power time	5014H
21	Current run time	5015H
22	The remaining running time	5016H
23	The primary frequency is shown	5017H

24	Auxiliary frequency display	5018H
25	Feedback speed (in 0.1Hz)	5019H
26	Encoder feedback speed	501AH
27	AI pre before voltage	501BH
28	AI2 pre front voltage	501CH
29	The torque is given as a setpoint	501DH
30	The PULSE input pulse frequency	501EH
31	Communication set value	501FH
32	Motor temperature value	5022H

pay attention to:

● The communication set point is the percentage of the relative value, with 10000 corresponding to 100.00% and-10000 corresponding to-100.00%.

● For the data of the frequency dimension, the percentage is the percentage of the relative maximum frequency (P0.04); for the data of the torque dimension, the percentage is P3. 10 and H2-37 (the torque upper limit number is set, corresponding to the first and second motors respectively).

2) Enter the control command to the frequency converter: (write only)

Command word address	Command function
2000H	0001: Forward turn operation
	0002: reverse operation
	0003: Positive turning point movement
	0004: reverse point movement
	000 5: deceleration stop
	000 6: Free shutdown
	000 7: Fault is reset

3) Read the inverter status: (read-only)

status word address	State word function
3000H	0001: Forward turn operation
	0002: reverse operation
	0003: shut down

4) Parameter lock password check: (if the return is 8888H, that means the password check has passed)

Password address	Enter the contents of the password
F700H	*****

5) Control of digital output terminal: (write only)

command address	Command content
2003H	BIT 0: DO 1 output control BIT 1: DO 2 output control BIT 2: RELAY1 output control BIT 3: RELAY2 output control BIT 4: FMR output control BIT5： VDO1 BIT6： VDO2 BIT7： VDO3 BIT8： VDO4 BIT9： VDO5

6) Analog output AO1 control: (write only)

command address	Command content
2001H	0 ~ 7 FFF indicates between 0% and 100%

7) Analog output AO2 control: (write only)

command address	Command content
2002H	0 ~ 7 FFF indicates between 0% and 100%

8) Pulse (PULSE) output control: (write only)

command address	Command content
2004H	0 ~ 7 FFF indicates between 0% and 100%

Fault information address	Inverter fault information	
3100H	0000: No fault 0001: E001 accelerates the overcurrent 0002: E002 deceleration overflow 0003: E003 constant speed overcurrent 0004: E004 accelerated overpressure 0005: E005 deceleration overvoltage 0006: E006 Constant voltage 0007: E007 control power supply failure 0008: E008 Under-voltage fault 000A: E010 input missing phase 000B: E011 output phase out 000C: E012 short circuit to the ground 000E: E014 inverter overload 000F: E015 motor overload 0010: The E016 module is overheated 0011: E017 memory failure 0012: E018 External equipment failure 0015: E021 Current detection fault	0016: E022 motor overheating fault 0017: E023 contactor fault 0018: E024 communication fault 0019: E0250 encoder is faulty 001A: E026 Motor identification fault 001B: E027 Initial position failure 001C: E028 Hardware overcurrent protection OO 1 D: E029 motor over-speed fault OO 1 E: E030 speed deviation OO 20: E032 load drop fault OO 21: PID feedback is lost at the E033 run OO 23: E035 User custom fault 1 OO 24: E036 User custom fault 2 0041: E065 User-defined overload fault 0042: E066: Over-temperature fault of the first temperature channel of the process card 0043: E067: Over-temperature fault of the second temperature channel of the process card 0044: E068: Over-temperature fault of the third temperature channel of the process card

9) Fault description of the frequency converter: