Content

Thank you for purchasing the AD300 series Mini AC drive（VFD variable speed drive）developed by SHENZHEN KEWOELECTRIC TECHNOLOGY CO., LTD
The AD300 AC drive is new developed a small size vector control AC drive.It is very good for installing small and narrow size machine.

It has following key function.
1. Built in VF, Vector control
2. Independent air duct for good ventilation
3. Built in circuit
4. Short circuit power to the ground does not blow up when switch on.
5. Built in RS485 communication

Perfect performance, multiple function parameters, that can meet lots of application requirement, such as crane, textile, paper-making, wiredrawing, machine tool, packing, food, fan and pump.etc.

**Please take more attention for bellow items:**
WARNING – To reduce the risk of injury, do not permit children to use this product unless they are closely
supervised at all times.
WARNING – To reduce the risk of electric shock, replace damaged cord immediately.
WARNING – It must be assured that all grounding connections are properly made and that the resistances do meet local codes or requirements

Chapter 1 Product Introduction

1.1 Model Description

$$\underline{AD300}\ \underline{S}\ -\ \underline{4}\ \underline{T}\ \underline{1.5}\ \underline{G}\ \underline{B}\ /\ \underline{XX}$$

Products series

IM	
S	PMSM

Voltage range	
2	220V
4	380V
5	480V

Power phase	
S	1PH
T	3PH

Standar/none

Brake	
	NO
B	Yes

Model	
G	General purpose
P	Fans, pumps

Mark	
power(kw)	0.75 1.5...5.5
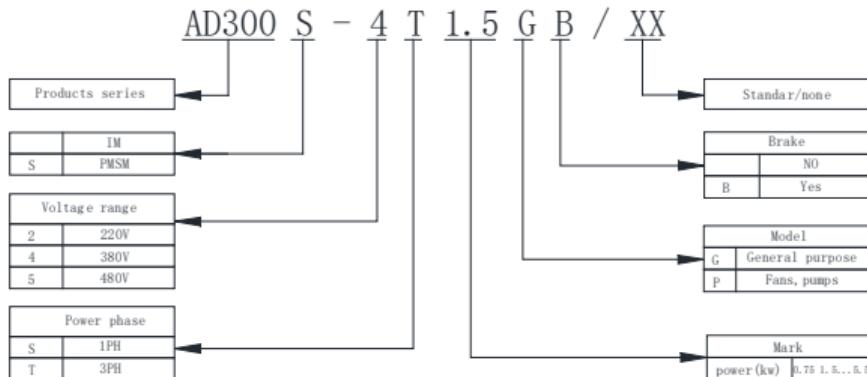
1.2 Nameplate description

Model ——
SN ——
Rated power ——
Input ——
Output ——
Software V ——

AD300-4T2.2GB   **KEWO**

S/N:20071640043420   ((CE

POWER :2.2KW   **IP20**

INPUT :AC 3PH 380V±15% 50/60Hz

OUTPUT:AC 3PH 0～380V 0～600Hz 5.1A

C82.63_000.00   C82.51_000.00

SHENZHEN KEWO ELECTRIC TECHNOLOGY CO.,LTD.

MADE IN CHINA
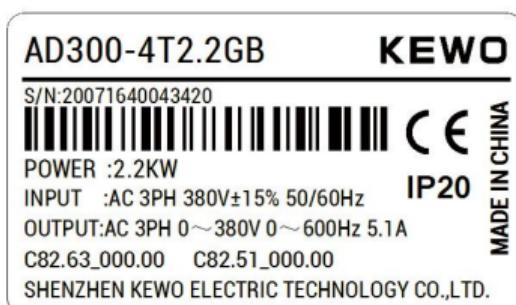
1.2 Models number
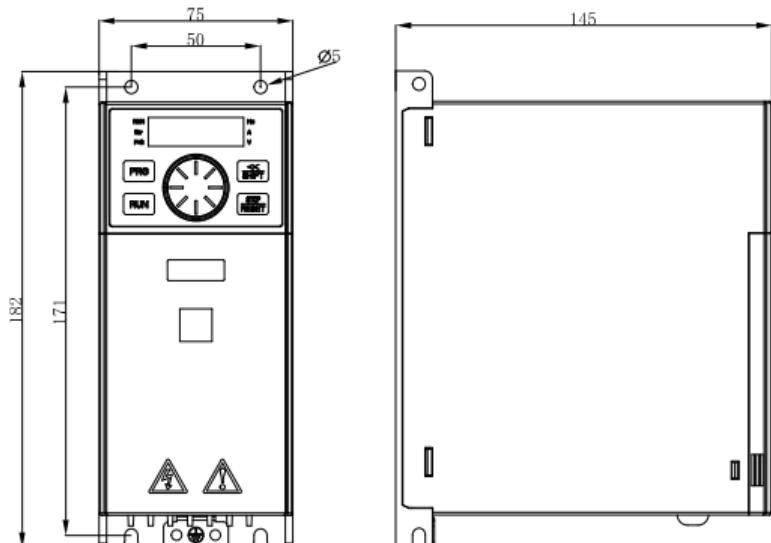
S N	Models	Rate current (A)	Voltage	Rated Power (kw) pumps	Size
220V±15% Input, 0-V (Max input)					
1	AD300-2S-0.75G	4A	220V	0.75	182*145*75
2	AD300-2S-1.5G	7A	220V	1.5	182*145*75
3	AD300-2S-2.2G	9.6A	220V	2.2	182*145*75
380V±15% Input, 0-V (Max input)					
1	AD300-4T-0.75G	2.1A	380	0.75	182*145*75
2	AD300-4T-1.5G	3.8A	380	1.5	182*145*75
3	AD300-4T-2.2G	5.1A	380	2.2	182*145*75
4	AD300-4T-3.0G	7.2A	380	3.0	182*145*75
5	AD300-4T-4.0G	10A	380	4.0	182*145*75
6	AD300-4T-5.5G	13A	380	5.5	182*145*75

Chapter 2 Product Installation

2.1 Main circuit terminal wiring

2.1.1 Single-phase inverter main circuit terminals
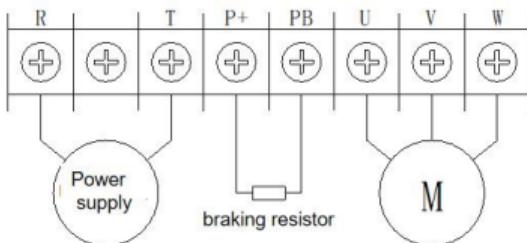
2.1.2 3 phase main circuit loop connection
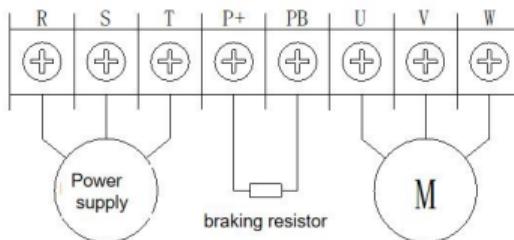
Terminals	Description
R T	Connect single phase power supply
U V W	Connect 3 phase motor
P+, PB	Connect braking resistor
PE	Inverter connect to ground

Note: When the power supply is single-phase input, the power supply is connected to R/T.

When the power supply is three-phase input, the power supply is connected to R/S/T

2.2 Control panel (keypad) button description

Program button | PRG

Run button | RUN

RUN
ERR
F/R

Hz
A
V

Up and Down for
Data/parameters or
frequency or confirm key

Shift button | ≪ SHIFT

Stop/reset button | STOP RESET
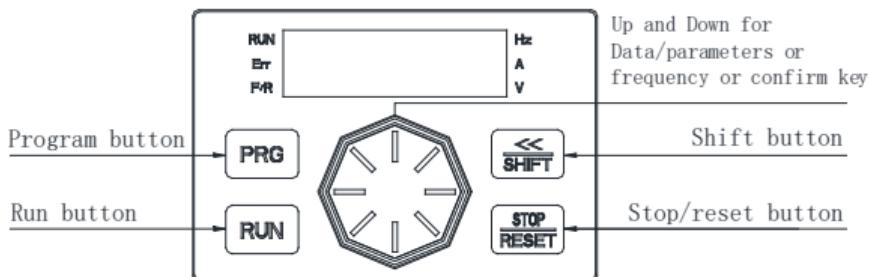
2.3 The size of the external remote control panel   (mm)

The 3 following three panels can be configured in option.
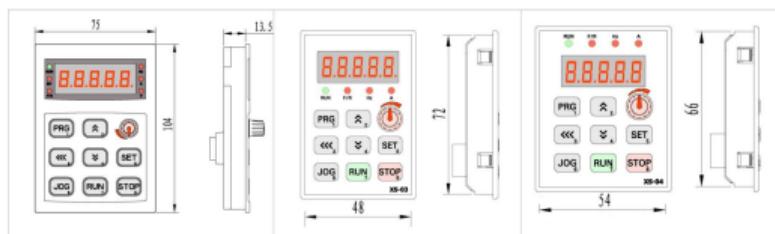
XS-01D ★   XS-03D   XS-04D

★There are keypad holder for XS-01 holder, the installation size for holder is 80*121.

2.4 Control terminal circuit loop and connection

2.4.1 .The layout of control terminals and wiring

X1	X2	X3	X4	COM	24V	10V	COM	AI	AO	RS+	RS-	TA	TB	TC
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

Braking resistor
R

P+ PB

AC GRID

Breakaer Contactor

R — R
S — S
T — T

AD300

U — U
V — V
W — W
M

24V

Multi-function input terminal

FWD — X1
REV — X2
FWD_JOG — X3
Multi-speed 1 — X4
COM

Relay Output
AC250V/10mA to 3A
DC 30V/10mA to 1A

TC
TB
TA

Modbus-RTU

RS+
120Ω
RS-

10V

1~5KΩ

AI

COM

OFF	AO-U	ON
OFF	AO-I	ON
OFF	AO-F	ON
OFF	485	ON
U	AI	I
H	DL	L

AO
COM

Analog output
0V~10V
0mA~20mA

1、10V Max current:50mA
2、AI inner resistor:75KΩ

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2.4.2 Control terminal function description

Mark	Terminals	Function description
X1 COM	Multiple function input terminals 1	1. Optocoupler isolation, compatible with bipolar input 2. Input impedance: 2.4KR 3. Voltage range when level input: 9-30V
X2 COM	Multiple function input terminals 2	
X3 COM	Multiple function input terminals 3	
X4 COM	Multiple function input terminals 4	
10V COM	10V voltage power supply	Provide 10V power supply, maximum output current: 50mA Generally used to power up for potentiometer, the resistance range of the potentiometer is 1-5KΩ
24V COM	24V voltage power supply	Provide 24V power supply, maximum output current: 100mA Generally used as external sensor power supply or micro relay power supply
AI COM	Analog input terminal	1. Input signal: DC $0 \sim 10V/0 \sim 20mA /4 \sim 20mA$ is determined by the dial switch AI position of the keyboard board. 2. Input impedance: voltage signal 75KΩ, current signal: 500Ω
AO COM	Analog output terminal	Determined by the AO position of the DIP switch on the keyboard board. Voltage signal or current signal or frequency signal Voltage signal range: $0 \sim 10V$ Current signal range: $0 \sim 20mA$ Frequency signal range: $0 \sim 100KHz$
TA TB TC	Relay output	Multifunctional relay output: TA and TC normally open TA and TB normally closed Contact drive capacity: AC250V 3A /DC 30V 1A
RS+ RS-	485	Standard built in RS485

Mark	Terminals	Function description
	communication interface	communication interface

```
DIP switch defined:
P1: AO-U Voltage signal    L: OFF        R: ON
P2: AO-I Current signal    L: OFF        R: ON
P3: AO-F Frequency output  L: OFF        R: ON
P4: 485  Built resistor    L: OFF        R: ON
P5: AI   Analog input      L: U/voltage  R: I/Current
P6: DL   Reserve           L:Normal      R: burn in mode
```
* The P6 DIP switch is dedicated to the manufacturer's test. If it is
incorrectly dialed to the right, it will cause no display after power on.

Chapter 3 Function Parameter Table

☆": It means that the parameter can be modified when the inverter is running or stopped;

"★": It means that this parameter cannot be modified when the inverter is running;

"●": It means that the parameter cannot be changed under any circumstances and is for reference only

Code	Name	Setting range	Factory value	communication address	change
P0.00	Control mode selection	0: Open loop sensor less vector control 1: V/F control	1	0xF000	★
P0.01	Running command reference	0: Keypad (operation panel) 1: External terminal 2: RS485 communication	0	0xF001	☆
P0.02	Memory of digital setting frequency upon power failure	0: Not memorize 1: memorize	1	0xF002	☆
P0.03	Main frequency reference source X Selection	0: Keypad digital frequency setting, not save after power failure 1: keypad digital frequency setting, memorized frequency after power failure.	1	0xF003	★

Code	Name	Setting range	Factory value	communication address	change
		2: Analog AI1 （-10v-10v） 3: Analog AI2 （0-10v/4-20mA） 4: Keypad potentiometer 5: PULSE trains frequency reference 6: Simple PLC 7: Multiple step command reference 8. Proccess-PID 9: RS485 communication			
P0.04	Maximum frequency	50.00Hz～4000.00Hz	50.00Hz	0xF004	★
P0.05	Upper limit frequency	P0.06～P0.04	50.00Hz	0xF005	★
P0.06	Lower limit frequency	0.00Hz～P0.05	0.00Hz	0xF006	☆
P0.07	Digital frequency reference	0.00Hz～P0.04	50.00Hz	0xF007	☆
P0.08	Acceleration time 1	0.00s～65000s	default	0xF008	☆
P0.09	Deceleration time 1	0.00s～65000s	Default	0xF009	☆
P0.10	Rotation direction	0: Forward; 1: reverse	0	0xF00A	☆
P0.11	Carrier frequency	0.5kHz～16.0kHz	Default	0xF00B	☆
P0.12	Carrier frequency auto adjust select	0: Not auto adjust; 1: Auto adjust	1	0xF00C	☆
P0.13	Parameters restore	0: No operation	0	0xF00D	★

Code	Name	Setting range	Factory value	communication address	change
		1: Restore factory settings except motor parameters 2: Clear records			
P0.14	Auxiliary frequency source Y selection	As same as P0.03 (main frequency source reference)	0	0xF00E	★
P0.15	Auxiliary frequency source selection Y when operation	0: Relative to maximum frequency (P0.04) 1: Relative to main frequency X (P0.03)	0	0xF00F	☆
P0.16	Range of auxiliary frequency source Y selection when operation	0%～150%	100%	0xF010	☆
P0.17	Frequency source operation (X, Y) selection	Unit's digit：frequency source selection 0: Main frequency source 1: Arithmetic result of main and auxiliary operation (arithmetic relationship operation depends on ten's digit) 2: Switchover	00	0xF011	☆

Code	Name	Setting range	Factory value	communication address	change
		between main frequency X source and auxiliary source Y 3: Switchover between main source X and arithmetic operation between of main and auxiliary source. 4: Switchover between auxiliary source and arithmetic operation between of main X and auxiliary source Y Ten's digit : The arithmetic operation relationship between main and auxiliary. 0: main + auxiliary 1: main – auxiliary 2: Biggest one among two 3: Smallest one among two			
P0.18	Running terminals command mode	0: two lines 1 1: two lines 2	0	0xF012	★

Code	Name	Setting range	Factory value	communication address	change
		2: tree lines 1 3: threes lines 2			
P1.00	Startup mode	0: Start directly 1: DC brake first and start from starting frequency 2: Start with speed tracking	0	0xF100	☆
P1.01	Starting frequency	0.00Hz～10.00Hz	0.00Hz	0xF101	☆
P1.02	Starting frequency holding time	0.0s～100.0s	0.0s	0xF102	★
P1.03	Startup DC braking current	0%～100%	0%	0xF103	★
P1.04	Startup DC braking time	0.0s～100.0s	0.0s	0xF104	★
P1.05	Stop mode	0:Deceleration: 1：Free stop	0	0xF105	☆
P1.06	Initial frequency of stop DC braking	0.00Hz～maximum P0.04	0.00Hz	0xF106	☆
P1.07	Waiting time of stop DC braking	0.0s～100.0s	0.0s	0xF107	☆
P1.08	Stop DC braking current	0%～100%	0%	0xF108	☆
P1.09	Stop DC braking time	0.0s～100.0s	0.0s	0xF109	☆
P1.10	Brake use ratio	0%～100%	100%	0xF10A	☆
P1.11	Reverse running control	0: allow run in reverse, 1: reverse is forbidden	0	0xF10B	★
P1.12	Jog running frequency	0.00Hz～maximum frequency	5.00Hz	0xF10C	☆

Code	Name	Setting range	Factory value	communication address	change
P1.13	Speed tracking mode	0: speed tracking from stop frequency 1: S0peed tracking from AC power frequency (50/60hz) 3: Speed tracking from Maximum frequency	0	0xF10D	
P1.14	The speed of speed tracking	1~100	20	0xF10E	
P1.15	The current of speed tracking	50% to 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	☆
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	★
Description: P2.01 asynchronous machine defaults to 0 and 2.					
P2.00	G/P type indicator	0: G type 1: P type	Default	0xF200	●
P2.01	Motor type selection	0: Ordinary asynchronous motor 1: Variable frequency asynchronous motor	0	0xF201	★

Code	Name	Setting range	Factory value	communication address	change
		2: Permanent magnet synchronous motor			
P2.02	Motor rated power	0.1kW~1000.0kW	Default	0xF202	★
P2.03	Motor rated frequency	0.00Hz~maximum frequency	50.00Hz	0xF203	★
P2.04	Motor rated speed	0rpm~65535rpm	1460rpm	0xF204	★
P2.05	Motor rated voltage	0V~2000V	Default	0xF205	★
P2.06	Motor rated current	0.1A~2000A	Default	0xF206	★
P2.07	Motor Stator resistance	0.001Ω~65.535Ω	Default	0xF207	★
P2.08	Motor rotor resistance	0.001Ω~65.535Ω	Default	0xF208	★
P2.09	Motor Motor leakage inductance	0.01mH~655.35mH	Default	0xF209	★
P2.10	Motor mutual inductance	0.1mH~6553.5mH	Default	0xF20A	★
P2.11	Motor no-load current	0.01A~P2.06	Default	0xF20B	★
P2.12	Synchronous motor stator resistance	0.001Ω~65.535Ω	Default	0xF20C	★
P2.13	Synchronous machine D axis inductance	0.01mH~655.35mH	Default	0xF20D	★
P2.14	Synchronous machine Q axis inductance	0.01mH~655.35mH	Default	0xF20E	★

Code	Name	Setting range	Factory value	communication address	change
P2.16	Synchronous Back EMF	0.1V～6553.5V	Default	0xF210	★
P2.19	Encoder type	0：ABZ increase encoder 1：Rotary transformer resolver	0	0xF213	★
P2.25	Poles of resolver	1～65535	1	0xF219	★
P2.27	Motor auto tuning	1:Static auto tuning 2:Rotating tuning (complete tuning) 3: Static auto tuning with load 11: Static auto tuning with load for PMSM 12: Rotation tuning with no load for PMSM	0	0xF21B	★
P2.31	Current amplitude during low speed operation in VVC control mode	100	0		
P2.35	Filter time constant	139	0		
P2.36	Shock inhibition gain	190	0		
P2.37	Low speed closed loop current	1	0		
P2.38	VVC control mode start current amplitude	120	0		
P3 motor vector control parameter group					

Code	Name	Setting range	Factory value	communication address	change
P3.00	Speed loop proportional gain 1	1～100	30	0xF300	☆
P3.01	Speed loop integral 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 integral time 2	0.01s～10.00s	1.00s	0xF304	☆
P3.05	Switching frequency 2	P3.02～P0.04	10.00Hz	0xF305	☆
P3.06	Slip compensation coefficient	50%～200%	100%	0xF306	☆
P3.07	Speed loop filter time constant	0.000s～0.100s	0.000s	0xF307	☆
P3.08	Vector control over excitation gain	0～200	64	0xF308	☆
P3.09	Upper limit of torque source selection in speed control mode	0：set by P3.10 function code 1：AI1 setting 2：AI2 setting 3：Potentiometer of keypad 4：PULSE train setting 5：communication	0	0xF309	☆
P3.10	Upper limit of torque digital setting in speed control mode	0.0%～200.0%	150.0%	0xF30A	☆
P3.11	M axis current loop Kp	0～60000	2000	0xF30B	☆

Code	Name	Setting range	Factory value	communication address	change
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	Speed loop integral properties	0～1	0	0xF30F	☆
P3.28	Do not find the position of the magnetic pole	1	0		
The P4 V / F control parameter group					
P4.00	VF curve setting	0: Linear V / F curve 1: Multi-point V / F curve 2: Square V / F curve 3: VF separation mode 1 4: VF separation mode 2	0	0xF400	★
P4.01	Torque boost	0.0%: （auto torque boost ） 0.1%～30.0%	0.0%	0xF401	☆
P4.02	Torque boost cut-off frequency	0.00Hz～maximum	50.00Hz	0xF402	★
P4.03	VF Slip compensation gain coefficient	0.0%～200.0%	0.0%	0xF403	☆
P4.04	VF over excitation gain	0～200	64	0xF404	☆
P4.05	VF vertex point 1	0.00Hz～P4.07	0.00Hz	0xF405	★

Code	Name	Setting range	Factory value	communication address	change
	output frequency				
P4.06	VF vertex point 1 output voltage proportional	0.0%～100.0%	0.0%	0xF406	★
P4.07	VF vertex point 2 output frequency	P4.05～P4.09	0.00Hz	0xF407	★
P4.08	VF vertex point 2 output voltage proportional	0.0%～100.0%	0.0%	0xF408	★
P4.09	VF vertex point 3 output frequency	P4.07～motor rated frequency	0.00Hz	0xF409	★
P4.10	VF vertex point 3 output voltage proportional	0.0%～100.0%	0.0%	0xF40A	★
P4.11	The voltage source selection when VF isolated	0: digital reference（P4.13） 1：AI1 reference 2：AI2reference 3：keypad potentiometer reference 4：PULSE train reference（X5）	0	0xF40B	☆
P4.12	The voltage source setting when VF isolated	0V～motor rated voltage	0V	0xF40C	☆
P4.13	The voltage ramp up time when VF isolated	0.0s～1000.0s	0.0s	0xF40D	☆
P4.14	Voltage drop time when VF separation	0.0s～1000.0s	0.02	0xF40E	☆
P4.15	Zero speed current setting in	0: Have current when	0.0s	0xF40F	☆

Code	Name	Setting range	Factory value	communication address	change
	vector control	0 speed, 1: No current			
P4.16	VF oscillation suppression gain	0~100	0	0xF410	☆
P4.17	VF oscillation suppression mode	0~4	3	0xF411	★
P4.18	Overcurrent stall enable	0: Disable 1: Enable	1	0xF412	★
P4.19	Protection current when over current stall protection	100%~200%	150%	0xF413	☆
P4.20	Gain of over current stall protection	0~100	20	0xF414	☆
P4.21	Current compensation coefficient VF double speed over current stall protection	50%~200%	50	0xF415	☆
P4.22	Over voltage stall protection	0: Not able 1: Enable	1	0xF416	★
P4.23	Protection voltage when over voltage stall	200~2000	Default	0xF417	☆
P4.24	ain over voltage	0~100	30	0xF418	☆
P4.25	Overvoltage stall suppression voltage gain	0~100	30	0xF419	☆
P4.26	Overvoltage stall maximum rise limit frequency	0~50.00Hz	5.00Hz	0xF41A	☆
P4.27	Under voltage stall suppression mode	0: Not enabled 1: enabled 2: Decelerate according to P8.09 deceleration	0	0xF41B	★

Code	Name	Setting range	Factory value	communication address	change
		time after power off			
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 rise back judgment voltage	80.0%～100.0%	85.0%	0xF41E	★
P4.31	VF under voltage stall rise back judgment voltage time	0.0s～10.0s	0.5	0xF41F	★
P4.32	VF under voltage stall point	60.0%～100.0%（DC bus standard voltage）	80.0%	0xF420	★
P4.33	VF slip compensation response time	0～100	5	0xF421	☆
P4.36	VF online torque compensation	0.00～1.50	1.00	0xF424	☆
P5 Input terminal group					
P5.00	X1 terminals function define	0：No operation	1	0xF500	★
P5.01	X2 terminals function define	1：forward running（FWD）	2	0xF501	★
P5.02	X3 terminals function define	2：Reverse running（REV）	4	0xF502	★
P5.03	X4 terminals function define	3：3 lines control mode	12	0xF503	★
P5.04	X5 terminals function define	4：Jog forward（FJOG）	13	0xF504	★
P5.05	X6 terminals function define (extension)	5：Reverse forward（RJOG）	0	0xF505	★
P5.06	X7 terminals function define	6：Free stop	0	0xF506	★

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Code	Name	Setting range	Factory value	communication address	change
	(extension)	7: Fault reset（RESET）			
P5.07	X 8 terminals function define (extension)	8: Normal open input of	0	0xF507	★
P5.08	X 9 terminals function define (extension)	external fault 9: Terminal UP 10: Terminal	0	0xF508	★
P5.09	X 10 terminals function define (extension)	DOWN 11: UP/DOWN reset （Terminal, keypad） 12: Multiple step terminals 1 13: Multiple step terminals 2 14: Multiple step terminals 3 15: Multiple step terminals 4 16: Acceleration/ deceleration selection terminals 1 17: Acceleration/ deceleration selection terminals 2 18: Normal close input of external fault 19: Stop by external terminals (only valid for	0	0xF509	★

Code	Name	Setting range	Factory value	communication address	change
		running command by keypad) 20：Frequency reference source switch 21: X5 pulse trains input 22: Switch between main frequency and preset frequency reference 23: Switch between auxiliary frequency and preset frequency reference 24: Running command switch terminal 25: PID pause 26: PID action direction change for reverse 27: PID integral pause 28: PID parameters switch terminal. 29: Counter input 30: Counter reset 31: length			

Code	Name	Setting range	Factory value	communication address	change
		counting input 32: length reset 33: Counter enable 34: Swing frequency pause 36: Accel/decel. forbidden 37: DC brake command 38: run command switch terminal 2 39: frequency reference activate terminal 40: Motor select terminal 1 41: speed/torque control 2 42: Speed control / torque control switching 43: Run pause 44: User-defined fault 1 45: User-defined fault 2 46: Simple PLC status reset 47: Torque			

Code	Name	Setting range	Factory value	communication address	change
		control is prohibited 48: Emergency stop 49: External terminal stops (stops at deceleration time 4, external terminal stops) 50: Deceleration DC braking 52: Reverse is prohibited 53: Prohibition of forward rotation 54: Simple PLC program pause			
P5.10	X terminal filter time	0.000s~1.000s	0.010s	0xF50A	☆
P5.11	Line AI1 minimum setting	-10.00V~P5.13	0.20V	0xF50B	☆
P5.12	Corresponding value of line AI1 minimum setting	-100.0%~+100.0%	0.0%	0xF50C	☆
P5.13	Line AI1 maximum setting	P5.11~+10.00V	10.00V	0xF50D	☆
P5.14	Corresponding value of line AI1 maximum setting	-100.0%~+100.0%	100.0%	0xF50E	☆
P5.15	AI1 filter time	0.00s~10.00s	0.10s	0xF50F	☆
P5.16	Line AI2 minimum setting	0.00V~P5.18	0.20V	0xF510	☆
P5.17	Corresponding value of line AI2	-100.0%~+100.0%	0.0%	0xF511	☆

Code	Name	Setting range	Factory value	communication address	change
	minimum setting				
P5.18	Line AI2 maximum setting	P5.16~+10.00V	10.00V	0xF512	☆
P5.19	Corresponding value of line AI2 maximum setting	-100.0%~+100.0%	100.0%	0xF513	☆
P5.20	AI2 filter time	0.00s~10.00s	0.10s	0xF514	☆
P5.21	Minimum value reference of potentiometer keypad	0.00V~P5.23	0.20V	0xF515	☆
P5.22	Corresponding value of minimum value reference of potentiometer keypad	-100.0%~+100.0%	0.0%	0xF516	☆
P5.23	Maximum value reference of potentiometer keypad	P5.21~+10.00V	10.00V	0xF517	☆
P5.24	Corresponding value of maximum value reference of potentiometer keypad	-100.0%~+100.0%	100.0%	0xF518	☆
P5.25	Filter time of potentiometer	0.00s~10.00s	0.10s	0xF519	☆
P5.26	PULSE minimum input	0.00kHz~P5.28	0.00kHz	0xF51A	☆
P5.27	Corresponding value of PULSE minimum input	-100.0%~100.0%	0.0%	0xF51B	☆
P5.28	PULSE maximum input	P5.26~100.00kHz	50.00kHz	0xF51C	☆
P5.29	P Corresponding value of PULSE maximum input	-100.0%~100.0%	100.0%	0xF51D	☆
P5.30	PULSE filter time	0.00s~10.00s	0.10s	0xF51E	☆
P5.32	AI less than	Unit's digit：	000	0xF520	☆

Code	Name	Setting range	Factory value	communication address	change
	minimum input setting selection	AI1 less than minimum input setting selection 0: Corresponding setting for minimum input 1L 0.0% Ten's digit: AI2 less than minimum input setting selection, as same as above Hundred's digit: potentiometer of keypad less than minimum input selection, as above.			
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/negative logic setting 1	0: Positive logic 1: Negative logic Unit digit: X1 Ten digit: X2 Hundred's digit：X3	00000	0xF524	★

Code	Name	Setting range	Factory value	communication address	change
		Thousand digit: X4 Ten thousand digit: X5			
P5.37	Input terminal positive/negative logic setting 7	0: Positive logic 1: Negative logic Unit digit: X1 Ten digit: X2 Hundred 's digit: X3 Thousand digit: X4 Ten thousand digit: X5		0xF525	
P5.42	0-10V (ordinary units) 0-10V (drawing machine)	1.07			
The P6 output terminal group					
P6.00	FM terminal output selection	0: Pulse train output 1: Digital output	0	0xF600	☆
P6.01	FM terminal digital output selection	0: No output 1: Frequency running	0	0xF601	☆
P6.02	Local relay output	2: frequency reach	3	0xF602	☆
P6.03	Expansion relay output	3: Fault output (free stop fault) 4: Frequency level detect	0	0xF603	☆
P6.04	DO1 output selection	FDT 1 output 5: Frequency level detect	1	0xF604	☆
P6.05	Expansion output2	FDT 2 output 6: 0 speed	4	0xF605	☆

Code	Name	Setting range	Factory value	communication address	change
		running（no output when free stop） 7: 0 speed running 2 （stop with output） 8：upper limit frequency reach 9：lower limit frequency reach 10: frequency reach 1 output 11: frequency reach 2 output 12: power on time reach 13: Running time reach 14: preset timing reach 15: setting counter arrive 16: Programmed counter arrive 17: Length arrive 18: under voltage status output 19: motor overload pre-alarm 20: frequency overload pre-alarm 21: frequency under limit			

Code	Name	Setting range	Factory value	communication address	change
		22: torque under limit			
		23: standby for running			
		24: AI1>AI2			
		25: AI1 input out of upper and lower limit			
		26: lower frequency arrive (stop with output)			
		27: this running time arrive			
		28: warning output（for all faults ）			
		29: Fault output（free stop fault and without output when under voltage）			
		30: current arrive 1 output			
		31: current arrive 2 output			
		32: load missing			
		34: module temperature reach			
		35: over current of software output			
		36: running direction			

Code	Name	Setting range	Factory value	communication address	change
		37: motor overheat pre-alarm 38: PLC circle running finish			
P6.06	FM pulse train output selection	0: running frequency 1: setting frequency 2: current output 3: torque output 4: power output 5: Output voltage 6: PULSE trains input (100.% corresponding to 100.0kHz) 7: AI1 8: AI2 9: Reverse	0	0xF606	☆
P6.07	AO1 output selection	10: length 11: count value 12: communication setting 13: motor running speed	0	0xF607	☆
P6.08	Expansion A02 output selection	14: output current (100.0% corresponding to 1000.0A) 15: Output voltage (100.0% corresponding	1	0xF608	☆

Code	Name	Setting range	Factory value	communication address	change
		to 1000.0V) 16: output torque（rated torque）			
P6.09	FM pulse trains output maximum frequency	0.01kHz～100.00kHz	50.00kHz	0xF609	☆
P6.10	AO1 zero offset	-100.0%～100.0%	0.0%	0xF60A	☆
P6.11	AO1 gain	-10.00～10.00	1.00	0xF60B	☆
P6.12	Expansion A02 zero offset coefficient	-100.0%～100.0%	0.0%	0xF60C	☆
P6.13	Expansion card A02 gain	-10.00～10.00	1.00	0xF60D	☆
P6.14	FM digital 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	Expansion relay output ON relay time	0.0s～3600.0s	0.0s	0xF610	☆
P6.17	DO1 output ON delay time	0.0s～3600.0s	0.0s	0xF611	☆
P6.18	DO2 output ON delay time	0.0s～3600.0s	0.0s	0xF612	☆
P6.19	DO output terminal valid status selection	0: positive logic；1：negative logic unit digit：FM terminal Ten digit: local relay Hundred digit: expansion relay Thousand digit：DO1 Ten thousand	00000	0xF613	☆

Code	Name	Setting range	Factory value	communication address	change
		digit：DO2			
P6.20	FM digital 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	Expansion relay output OFF relay time	0.0s～3600.0s	0.0s	0xF616	☆
P6.23	DO1 output OFF delay time	0.0s～3600.0s	0.0s	0xF617	☆
P6.24	DO2 output OFF delay time	0.0s～3600.0s	0.0s	0xF618	☆
P7 Keyboard and display group					
P7.00	User password	0～65535	0	0xF700	☆
P7.01	Function code group display selection	Digit: C group monitor display select 0：no display； 1：display Ten digit: H function code display select 0：no display； 1：display	01	0xF701	☆
P7.03	Parameters write protection	0: parameters modify is allowable, 1: parameters modify forbidden	0	0xF703	☆
P7.04	JOG key function selection	0: JOG key invalid 1: switching between of keypad and remote communication (between terminals and remote	3	0xF704	★

Code	Name	Setting range	Factory value	communication address	change
		communication) 2: switch forward and reverse 3: forward jog 4: reverse jog			
P7.05	STOP key function	0: Stop key is valid only on keypad control mode 1 : Stop key is valid in any control mode	1	0xF705	☆
P7.06	LED parameters display 1 on running	Unit Digit： Bit0：Running frequency Bit1：Output current Bit2：Output voltage Bit3：Machine speed Ten digit： Bit0：DC bus voltage Bit1：Frequency reference Bit2：Count value Bit3：Length Hundred digit： Bit0：X terminals input status Bit1：DO terminals output status Bit2：AI1 voltage	003b	0xF706	☆

Code	Name	Setting range	Factory value	communication address	change
		Bit3: AI2 voltage Thousand digit: Bit0: Reserve Bit1: PID reference Bit2: Power output Bit3: Torque output			
P7.07	LED parameters display 2 on running	Unit digit: Bit0: linear speed Bit1: PID feedback Bit2: PLC circle running Bit3: PLUSE trains input (KHz) Ten digit: Bit0: current power on time Bit1: current running time Bit2: The remaining run time Bit3: main frequency Hundred digit: Bit0: auxiliary frequency Bit1: Encoder feedback speed Bit2: actual feedback speed Bit3: AI1	0	0xF707	☆

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Code	Name	Setting range	Factory value	communication address	change
		voltage before correction Hundred unit: Bit0: AI2 voltage before correction Bit1: torque reference value Bit2: PLUSE input frequency Bit3: communication reference			
P7.08	LED display parameters at stop	Unit digit: Bit0: frequency reference Bit1: DC bus voltage Bit2: AI1 voltage Bit3: AI2 voltage Ten digit: Bit0: Torque reference Bit1: Counter value Bit2: Length value Bit3: machine speed Hundred digit: Bit0: PID reference Bit1: X terminal status Bit2: DO status	3	0xF708	☆
P7.09	Machine load	0.0001~	0.300	0xF709	●

Code	Name	Setting range	Factory value	communication address	change
	display coefficient	6.5000			
P7.10	Heat sink of AC Drive temperature	0.0℃～100℃	-	0xF70A	●
P7.12	Accumulative total running time	0h～65535h	-	0xF70C	●
P7.15	Machine load speed display number of decimal point	0：0 decimal point 1：1 decimal point 2：2 decimal point 3：3 decimal point	0	0xF70E	●
P7.16	Cumulative time of power on time	00000～65535 hour	-	0xF70F	●
P7.16	Cumulative power consumption	00000～65535kwh		0xF710	
The P8 auxiliary function group					
P8.00	The unit of acceleration/deceleration time	0：1s 1：0.1s 2：0.01s	1	0xF800	★
P8.01	Jog acceleration time	0.0s～6500.0s	20.0s	0xF801	☆
P8.02	Jog 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	☆
P8.10	Reference	0: maximum	0	0xF80A	★

Code	Name	Setting range	Factory value	communication address	change
	frequency of acceleration/deceleration time	frequency (P0.04) 1：frequency reference 2：100Hz			
P8.11	Jumping frequency 1	0.00Hz～ maximum frequency	0.00Hz	0xF80B	☆
P8.12	Jumping frequency 2	0.00Hz～ maximum frequency	0.00Hz	0xF80C	☆
P8.13	Jumping frequency range	0.00Hz～ maximum frequency	0.01Hz	0xF80D	☆
P8.14	Frequency selecting is forbidden during acceleration/deceleration	0： invalid 1： valid	0	0xF80E	☆
P8.15	1/2 of acceleration time frequency switch point	0.00Hz～ maximum frequency	0.00Hz	0xF80F	☆
P8.16	1/2 of deceleration time frequency switch point	0.00Hz～ maximum frequency	0.00Hz	0xF810	☆
P8.17	Terminal jog function priority selection	0： not priority ； 1： priority	0	0xF811	☆
P8.18	Upper limit frequency source reference mode	0：P0.05 reference 1：AI1 reference 2：AI2 reference 3：potentiometer of keypad 4：PULSE trains	0	0xF812	★

Code	Name	Setting range	Factory value	communication address	change
		setting 5：communication setting			
P8.19	Upper limit frequency offset	0.00Hz～maximum P0.04	0.00Hz	0xF813	☆
P8.20	Auxiliary frequency source offset when superposition	0.00Hz～maximum P0.04	0.00Hz	0xF814	☆
P8.21	Frequency standard of UP/DOWN during running	0：running frequency 1：frequency reference setting	0	0xF815	★
P8.22	Command source, combination of frequency source selection	Unit digit: with keypad control, combination of frequency source selection 0: no combination 1: digital setting 2: AI1 3: AI2 4: potentiometer of keypad 5: PULSE trains（X5） 6: multiple step speed 7: Simple PLC 8: PID 9: communication	0000	0xF816	☆

Code	Name	Setting range	Factory value	communication address	change
		Ten digit: terminal command, combination frequency source selection Hundred digit: RS485 communication command, combination frequency source selection., Thousand digit: auto running, combination frequency source selection			
P8.23	Terminals UP/DOWN charge rate	0.001Hz～65.535Hz	1.00Hz	0xF817	☆
P8.24	accelerate/ decelerate mode	0：accelerate/ decelerate with straight line；1：S curve accelerate/ decelerate A	0	0xF818	★
P8.25	S curve time scale of starting step	0.0%～(100.0%-P8.26)	30.0%	0xF819	★
P8.26	S curve time scale of close step	0.0%～(100.0%-P8.25)	30.0%	0xF81A	★
P8.27	Forward/ reverse dead zoon time	0.0s～3000.0s	0.0s	0xF81B	☆
P8.28	Frequency less	0.0～600.0S	0.0S	0xF81C	☆

Code	Name	Setting range	Factory value	communication address	change
	than lower limit frequency stop delay time				
P8.29	Running mode selection when frequency less than lower limit frequency	0: running as lower limit frequency 1: stop 2: zero speed running	0	0xF81D	☆
P8.30	terminal start when power on protection select	0: not protection；1: protection	0	0xF81E	☆
P8.31	Drop control	0.00Hz～10.00Hz	0.00Hz	0xF81F	☆
P8.32	FDT1 level	0.00Hz～maximum frequency	50.00Hz	0xF820	☆
P8.33	FDT 1 lag value	0.0%～100.0%	5.0%	0xF821	☆
P8.34	Frequency arrival detecting range	0.0%～100.0%（maximum）	0.0%	0xF822	☆
P8.35	FDT2 level	0.00Hz～maximum frequency	50.00Hz	0xF823	☆
P8.36	FDT2 lag value	0.0%～100.0%	5.0%	0xF824	☆
P8.37	Any arrival frequency detecting value 1	0.00Hz～maximum frequency	50.00Hz	0xF825	☆
P8.38	Any frequency arrival detecting range 1	0.0%～100.0%（maximum frequency）	0.0%	0xF826	☆
P8.39	Any arrival frequency detecting value 2	0.00Hz～maximum frequency	50.00Hz	0xF827	☆
P8.40	Any frequency arrival detecting range 2	0.0%～100.0%（maximum frequency）	0.0%	0xF828	☆
P8.41	Reverse			0xF829	
P8.42	Time of timer setting method	0: P8.43 digital set 1：AI1	0	0xF82A	☆

Code	Name	Setting range	Factory value	communication address	change
		reference 2: AI2 reference 3: potentiometer of keypad Range of analog input corresponding to P8.43			
P8.43	Time value of timer	0.0min～6500.0min	0.0min	0xF82B	☆
P8.44	Zero current detect level	0.0%～300.0%: (100.0% corresponding to motor rated current, stop without output)	5.0%	0xF82C	☆
P8.45	Zero current detect delay time	0.01s～600.00s	0.10s	0xF82D	☆
P8.46	over current set point by software	0.0%（no detect）0.1%～300.0% （motor rated current）	200.0%	0xF82E	☆
P8.47	Over current detect delay time by software	0.00s～600.00s	0.00s	0xF82F	☆
P8.48	Any current arrival 1	0.0%～300.0%(motor rated current)	100.0%	0xF830	☆
P8.49	Range of any current arrival 1	0.0%～300.0%(motor rated current)	0.0%	0xF831	☆
P8.50	Any current arrival 2	0.0%～300.0%(motor rated current)	100.0%	0xF832	☆
P8.51	Range of any	0.0%～	0.0%	0xF833	☆

Code	Name	Setting range	Factory value	communication address	change
	current arrival 2	300.0%(motor rated current)			
P8.52	AI1 input voltage lower limit protection	0.00V~P8.53	3.00V	0xF834	☆
P8.53	AI1 input voltage upper limit protection	P8.52~11.00V	7.00V	0xF835	☆
P8.54	Cooling fan control	0：Fans working on run 1: Fans working once power on	0	0xF836	☆
P8.55	Module temperature arrival	0℃~100℃	75℃	0xF837	☆
P8.56	Current running arrival time	0.0min~6500.0min	0.0min	0xF8378	☆
P8.57	Motor selection	0: motor 1；1: motor 2	0	0xF839	★
P9 PID Functional group					
P9.00	PID reference	0: digital set （P9.01） 1：AI1 2：AI2 3: potentiometer of keypad 4：PULSE trains （X5） 5: communication	0	0xF900	☆
P9.01	PID reference value set	0.0%~100.0%	50.0%	0xF901	☆
P9.02	PID feedback value	0：analog AI1 1：analog AI2 2：reserve 3：AI1-AI2	0	0xF902	☆

Code	Name	Setting range	Factory value	communication address	change
		4：PULSE train（X5） 5：communication 6：AI1+AI2 7：MAX(|AI1|,|AI2|) 8：MIN(|AI1|,|AI2|)			
P9.03	PID adjust property	0：positive： 1：negative	0	0xF903	☆
P9.04	PID reference 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	derivative time D1	0.000s～10.000s	0.000s	0xF907	☆
P9.08	PID inversion cut of frequency for reverse	0.00～maximum frequency	2.00HZ	0xF908	☆
P9.09	PID limit deviation	0.0%～100.0%	0.0%	0xF909	☆
P9.10	PID differential amplitude limiting	0.00%～100.00%	0.10%	0xF90A	☆
P9.11	PID reference change time	0.00～650.00s	0.00s	0xF90B	☆
P9.12	PID feedback filter time	0.00～60.00s	0.00s	0xF90C	☆
P9.13	PID output filter 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	derivative time D2	0.000s～10.000s	0.000s	0xF911	☆
P9.18	PID parameters switchover condition	0：No switch 1：Terminals 2：Switchover according to	0	0xF912	☆

Code	Name	Setting range	Factory value	communication address	change
		deviation			
P9.19	PID parameters switchover deviation 1	0.0%～PA.20	20.0%	0xF913	☆
P9.20	PID parameters switchover deviation 2	PA.19～100.0%	80.0%	0xF914	☆
P9.21	PID starting value	0.0%～100.0%	0.0%	0xF915	☆
P9.22	PID starting value holding time	0.00～650.00s	0.00s	0xF916	☆
P9.23	Positive maximum between twice deviation output	0.00%～100.00%	1.00%	0xF917	☆
P9.24	Negative maximum between twice deviation output	0.00%～100.00%	1.00%	0xF918	☆
P9.25	PID integral property	Unit digit: integral separation 0：invalid; 1：valid Ten digit: if stop integral calculating when output reach to limit 0：continue; 1：stop	00	0xF919	☆
P9.26	PID feedback loss detect value	0.0%：no detect for loss 0.1%～100.0％	0.0%	0xF91A	☆
P9.27	PID feedback loss detect time	0.0s～20.0s	0.0s	0xF91B	☆
P9.28	PID stop calculating	0: stop without calculating, 1: stop and calculating	0	0xF91C	☆

Code	Name	Setting range	Factory value	communication address	change
P9.29	wake up frequency	Sleeping frequency (P9.31)～maximum (P0.10)	0.00Hz	0xF91D	☆
P9.30	Wake up delay time	0.0s～6500.0s	0.0s	0xF91E	☆
P9.31	sleeping frequency	0.00Hz～wake frequency (P9.29)	0.00Hz	0xF91F	☆
P9.32	Sleeping delay time	0.0s～6500.0s	0.0s	0xF920	☆
P9.33	Wake up function define	0: As frequency (P9.29) 1: As percentage (P9.34)	0	0xF921	☆
P9.34	Wake up value	0.0%～100.0%	0.0%	0xF922	☆
P9.35	Sleep definition function selection	0: As frequency (P9.31) 1: As percentage (P9.36)	0	0xF923	☆
P9.36	Sleep threshold	0.0%～200.0%	101%	0xF924	☆

Code	Name	Setting range	Default		PR
PA Multiple step command, PLC running group					
PA.00	Multi-step speed 1	-100.0% ~ 100.0% (100.0% corresponding to P0.04)	5.0%	0xFA00	☆
PA.01	Multi-step speed 2	-100.0% ~ 100.0%	10.0%	0xFA01	☆
PA.02	Multi-step speed 3	-100.0% ~ 100.0%	15.0%	0xFA02	☆
PA.03	Multi-step	-100.0% ~ 100.0%	20.0%	0xFA03	☆

	speed 4				
PA.04	Multi-step speed 5	-100.0% ~ 100.0%	25.0%	0xFA04	☆
PA.05	Multi-step speed 6	-100.0% ~ 100.0%	30.0%	0xFA05	☆
PA.06	Multi-step speed 7	-100.0% ~ 100.0%	35.0%	0xFA06	☆
PA.07	Multi-step speed 8	-100.0% ~ 100.0%	40.0%	0xFA07	☆
PA.08	Multi-step speed 9	-100.0% ~ 100.0%	45.0%	0xFA08	☆
PA.09	Multi-step speed 10	-100.0% ~ 100.0%	50.0%	0xFA09	☆
PA.10	Multi-step speed 11	-100.0% ~ 100.0%	55.0%	0xFA0A	☆
PA.11	Multi-step speed 12	-100.0% ~ 100.0%	60.0%	0xFA0B	☆
PA.12	Multi-step speed 13	-100.0% ~ 100.0%	65.0%	0xFA0C	☆
PA.13	Multi-step speed 14	-100.0% ~ 100.0%	70.0%	0xFA0D	☆
PA.14	Multi-step speed 15	-100.0% ~ 100.0%	75.0%	0xFA0E	☆
PA.15	Multi-step speed 16	-100.0% ~ 100.0%	80.0%	0xFA0F	☆
PA.16	PLC running mode	0：Stop when single circle running finish 1：Keep final value when single circle running finish 2：continue circle running	0	0xFA10	☆
PA.17	PLC running Power-off memory select	Unit digit： 0：no memory when power off； 1：power-off memory Ten digit： 0：no memory when stop； 1: stop memory	00	0xFA11	☆
PA.18	PLC 1st step running time	0.0s(h) ~ 6500.0s(h)	0.0s(h)	0xFA12	☆

PA.19	PLC 1st acceleration/ deceleration time select	0 ~ 3	0	0xFA13	☆
PA.20	PLC 2nd step running time	0.0s(h) ~ 6500.0s(h)	0.0s(h)	0xFA14	☆
PA.21	PLC 2nd acceleration/ deceleration time select	0 ~ 3	0	0xFA15	☆
PA.22	PLC 3rd step running time	0.0s(h) ~ 6500.0s(h)	0.0s(h)	0xFA16	☆
PA.23	PLC 3rd acceleration/ deceleration time select	0 ~ 3	0	0xFA17	☆
PA.24	PLC 4th step running time	0.0s(h) ~ 6500.0s(h)	0.0s(h)	0xFA18	☆
PA.25	PLC 4th acceleration/ deceleration time select	0 ~ 3	0	0xFA19	☆
PA.26	PLC 5th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA1A	☆
PA.27	PLC 5th acceleration/ deceleration time select	0 ~ 3	0	0xFA1B	☆
PA.28	PLC 6th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA1C	☆
PA.29	PLC 6th acceleration/ deceleration time select	0 ~ 3	0	0xFA1D	☆
PA.30	PLC 7th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA1E	☆
PA.31	PLC 7th acceleration/ deceleration time select	0 ~ 3	0	0xFA1F	☆
PA.32	PLC 8th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA20	☆

PA.33	PLC 8th acceleration/ deceleration time select	0 ~ 3	0	0xFA21	☆
PA.34	PLC 9th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA22	☆
PA.35	PLC 9th acceleration/ deceleration time select	0 ~ 3	0	0xFA23	☆
PA.36	PLC 10th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA24	☆
PA.37	PLC 10th acceleration/ deceleration time select	0 ~ 3	0	0xFA25	☆
PA.38	PLC 11th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA26	☆
PA.39	PLC 11th acceleration/ deceleration time select	0 ~ 3	0	0xFA27	☆
PA.40	PLC 12th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA28	☆
PA.41	PLC 12th acceleration/ deceleration time select	0 ~ 3	0	0xFA29	☆
PA.42	PLC 13th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA2A	☆
PA.43	PLC 13th acceleration/ deceleration time select	0 ~ 3	0	0xFA2B	☆
PA.44	PLC 14th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA2C	☆
PA.45	PLC 14th acceleration/ deceleration time select	0 ~ 3	0	0xFA2D	☆
PA.46	PLC 15th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA2E	☆

PA.47	PLC 15th acceleration/ deceleration time select	0 ~ 3	0	0xFA2F	☆
PA.48	PLC 16th step running time	0.0s(h) ~ 6553.5s(h)	0.0s(h)	0xFA30	☆
PA.49	PLC 16th acceleration/ deceleration time select	0 ~ 3	0	0xFA31	☆
PA.50	PLC running time unit	0: s (second) ； 1: h (hour)	0	0xFA32	☆
PA.51	Multiple step command 1 frequency reference	0： function code PA.00 reference 1： AI1 2： AI2 3: potentiometer keypad 4： PULSE trains 5： PID reference 6： digit reference，UP/DOWN is changeable	0	0xFA33	☆
PA.52	Up/Down save when shut down	0: no save, 1: save		0xFA34	
Pb swing frequency, fixed length , counter					
Pb.00	Swing frequency setting mode	0： corresponding to center frequency 1： corresponding to maximum frequency	0	0xFB00	☆
Pb.01	Swing frequency range	0.0% ~ 100.0%	0.0%	0xFB01	☆
Pb.02	Suddenly jump frequency range	0.0% ~ 50.0%	0.0%	0xFB02	☆
Pb.03	Swing frequency period	0.1s ~ 3000.0s	10.0s	0xFB03	☆
Pb.04	Delta wave rise time of swing	0.1% ~ 100.0%	50.0%	0xFB04	☆

		frequency				
Pb.05	length set	0m ~ 65535m	1000m	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	count value setting	1 ~ 65535	1000	0xFB08	☆
Pb.09	Assign of count value	1 ~ 65535	1000	0xFB09	☆
PC Fault and protection group						
PC.00	Motor overload protection	0：forbidden； 1：allow	1	0xFC00	☆
PC.01	Motor overload protection gain	0.20 ~ 10.00	1.00	0xFC01	☆
PC.02	Motor overload pre-alarm coefficient	50% ~ 100%	80%	0xFC02	☆
PC.03	The DC braking if activate value	200 ~ 2000	Defaults	0xFC03	
PC.04	Reserve			0	☆
PC.05	User-defined overload threshold	0.0% ~ 200.0%	200.0%	0xFC05	☆
PC.06	User-defined overload checkout time	0.0s ~ 1000.0s	60.0s	0xFC06	☆
PC.08	Fault automatic reset times	0 ~ 20	0	0xFC08	☆
PC.09	Fault DO action selection when fault automatic reset period	0：on action 1：action	0	0xFC09	☆
PC.10	Interval time of fault automatic reset	0.1s ~ 100.0s	1.0s	0xFC0A	☆
PC.11	Input power phase missing protection	0：disable 1：enable	1	0xFC0B	★
PC.12	Output power phase missing protection	0：disable 1：enable	1	0xFC0C	

PC.13	The 1st fault type	0: no fault 1: over current on acceleration (E001) 2: over current on deceleration (E002) 3: over current on fixed speed (E003) 4: over voltage on acceleration (E004) 5 : over voltage on deceleration (E005) 6: over voltage on fixed speed (E006) 7: control power fault (E007) 8: under voltage fault (E008) 9: AC Drive unit fault (E009) 10: input power phase missing (E010) 11: output power phase missing (E011) 12: motor to ground short circuit fault (E012) 13: reserve 14: AC Drive overload E014) 15: motor overload (E015) 16: module overheat (E016) 17: parameters write/read abnormal (E017) 18: external fault (E018) 19: running time arrival E019) 20: power on time arrival (E020) 21: current detect	-	0xFC0D	●
PC.14	The 2nd fault type		-	0xFC0E	●
PC.15	The 3rd (latest one) fault type		-	0xFC0F	●

		fault (E021) 22：motor over temperature （E022) 23：contactor abnormal (E023) 24：communication fault (E024) 25：encoder /PG fault （E025) 26：motor auto tuning fault (E026) 27：initial position fault （E027) 28: hardware over current protection （E028) 29: motor over speed （E029) 30: speed deviation is big （E030) 31: reserve 32: Load missing (E032) 33:PID feedback missing (033)			
PC.16	Running frequency on the 3rd fault	-	-	0xFC10	●
PC.17	Current on the 3rd fault	-	-	0xFC11	●
PC.18	DC bus voltage on 3rd fault	-	-	0xFC12	●
PC.19	Input terminal status on 3rd fault	-	-	0xFC13	●
PC.20	Output terminal status on 3rd fault	-	-	0xFC14	●
PC.21	Frequency AC Drive status on 3rd fault	-	-	0xFC15	●
PC.22	Time of the 3rd fault (Timing	-	-	0xFC16	●

	from current time)				
PC.23	Time of the 3rd fault (timing from start running)	-	-	0xFC17	●
PC.24	Running frequency on the 2nd fault	-	-	0xFC18	●
PC.25	Current on the 2nd fault	-	-	0xFC19	●
PC.26	DC bus voltage on 2nd fault	-	-	0xFC1A	●
PC.27	Input terminal status on 2nd fault	-	-	0xFC1B	●
PC.28	Output terminal status on 2nd fault	-	-	0xFC1C	●
PC.29	Frequency AC Drive status on 2nd fault	-	-	0xFC1D	●
PC.30	Time of the 2nd fault (Timing from current time)	-	-	0xFC1E	●
PC.31	Time of the 2nd fault (timing from start running)	-	-	0xFC1F	●
PC.32	Running frequency on the 1st fault	-	-	0xFC20	●
PC.33	Current on the 1st fault	-	-	0xFC21	●
PC.34	DC bus voltage on 1st fault	-	-	0xFC22	●
PC.35	Input terminal status on 1st fault	-	-	0xFC23	●
PC.36	Output terminal status	-	-	0xFC24	●

	on 1st fault				
PC.37	Frequency AC Drive status on 1st fault	-	-	0xFC25	●
PC.38	Time of the 1st fault (Timing from current time)	-	-	0xFC26	●
PC.39	Time of the 1st fault (timing from start running)	-	-	0xFC27	●
PC.45	Action selection at instantaneous power failure	0: Invalid 1: Decelerate 2: Decelerate to stop		0xFC2D	
PC.46	Action pause judging voltage at instantaneous power failure	PC.48 ~ 100.0%		0xFC2E	
PC.47	Voltage rise again judging time at instantaneous power failure	0.0 ~ 100.0S		0xFC2F	
PC.48	Action judging voltage at instantaneous power failure	60.0% ~ 100.0%	80.0%	0xFC30	☆
PC.49	Protection of load loss	0:Disable 1: Enable	0	0xFC31	☆
PC.50	Detection level of load loss	0.0 ~ 100.0%	10.0%	0xFC32	☆
PC.51	Detection time of load Loss	0.0 ~ 60.0S	0.0	0xFC33	☆
PC.52	Over-speed detection value	0.0 ~ 50.0%（P0.04 value）	20.0%	0xFC34	☆
PC.53	Over-speed detection time	0.0 ~ 60.0S	5.0S	0xFC35	☆
PC.54	Detection value	0.0 ~ 50.0%（P0.04	20.0%	0xFC36	☆

	of too large speed deviation	value)			
PC.55	Detection time of too large speed deviation	0.0 ~ 60.0S	0.0S	0xFC37	☆
PC.56	Reserve			0xFC38	
PC.57	Motor temperature sensor type	0:No temperature sensor 1:PT100 2:PT1000	0	0xFC39	☆
PC.58	Motor overheat protection value	0.0℃ ~ 200℃	110℃	0xFC3A	☆
PC.59	Motor overheat pre-alarm value	0.0℃ ~ 200℃	90℃	0xFC3B	☆
PC.60	Reserve			0xFC3C	
PC.61	Quick current limit	0: Disable 1: Enable	1	0xFC3D	☆
PC.62	Under voltage point setting	100.0 ~ 400.0V	Default	0xFC3E	☆
PC.63	Over voltage point setting	200.0 ~ 1200.0V	Default	0xFC3F	☆
Pd communication parameters group					
Pd.01	Selection of communication Baud rate	1：600BPS 2：1200BPS 3：2400BPS 4：4800BPS 5：9600BPS 6：19200BPS 7：38400BPS 8：57600BPS 9：115200BPS	5	0xFD01	☆
Pd.02	Format of data	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 take as for 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	☆
Pd.06	Data transfer format selection	0：non standard MODBUS Protocol 1：standard MODBUS Protocol	1	0xFD06	☆
Pd.07	Communication reading current resolution	0：0.01A(Less than 55KW) 1：0.1A	0	0xFD07	☆
H0　Torque control parameters group					
H0.00	Torque control mode	0:Disable ; 1:Enable	0	0xA000	★
H0.01	Torque reference selection	0: digital of keypad reference (H0,03) The maximum range corresponding torque upper limit (H0.03) 1： analog AI1 reference 2： analog AI2 reference 3： potentiometer of keypad 4： PULSE trains reference 5： communication 6： minimum between of (AI1,AI2) 7： maximum between of (AI1,AI2)	0	0xA001	★
H0.03	torque reference by digital set	-200.0% ~ 200.0%	150.0%	0xA003	☆
H0.05	Maximum frequency in forward under torque control	0.00Hz ~ maximum frequency	50.00Hz	0xA004	☆
H0.06	Maximum frequency in reverse under torque control	0.00Hz ~ maximum frequency	50.00Hz	0xA005	☆

H0.07	Acceleration time of torque control	0.00s ~ 65000s	0.00s	0xA006	☆
H0.08	Deceleration time of torque control	0.00s ~ 65000s	0.00s	0xA007	☆
H3 Multi-point AI curve parameter group					
H1.00	VDI1 Terminal function selection	0 ~ 55	0	0xA100	★
H1.01	VDI2 Terminal function selection	0 ~ 55	0	0xA101	★
H1.02	VDI3 Terminal function selection	0 ~ 55	0	0xA102	★
H1.03	VDI4 Terminal function selection	0 ~ 55	0	0xA103	★
H1.04	VDI5T Terminal function selection	0 ~ 55	0	0xA104	★
H1.05	VDI source of terminal valid state	0 ~ 22222	0	0xA105	★
H1.06	VDI Terminal function code setting valid state	0 ~ 11111	0	0xA106	☆
H1.07	AI1 Terminal function selection (as DI)	0 ~ 55	0	0xA107	★
H1.08	AI2 Terminal function selection (as DI)	0 ~ 55	0	0xA108	★
H1.09	AI3 Terminal function selection (as DI)	0 ~ 55	0	0xA109	★
H1.10	AI select as DI	0 ~ 111	0	0xA10A	☆

	valid state				
H1.11	Virtual VDO1 output selection	0 ~ 42	0	0xA10B	☆
H1.12	Virtual VDO2 output selection	0 ~ 42	0	0xA10C	☆
H1.13	Virtual VDO3 output selection	0 ~ 42	0	0xA10D	☆
H1.14	Virtual VDO4 output selection	0 ~ 42	0	0xA10E	☆
H1.15	Virtual VDO5 output selection	0 ~ 42	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 valid state selection	0 ~ 11111	0	0xA115	☆
H3 Multiple points AI curve parameters group.					
H3.00	AI curve 4 minimum input	-10.00V ~ H3.02	0.00V	0xA300	☆
H3.01	AI curve 4 minimum input corresponding value	-100.0% ~ +100.0%	0.0%	0xA301	☆
H3.02	AI curve 4 break point 1 input	H3.00 ~ H3.04	3.00V	0xA302	☆
H3.03	AI curve 4 break point 1	-100.0% ~ +100.0%	30.00%	0xA303	☆

	input corresponding value				
H3.04	AI curve 4 break point 2 input	H3.02 ~ H3.06	6.00V	0xA304	☆
H3.05	AI curve 4 break point 2 input corresponding value	-100.0% ~ +100.0%	60.00%	0xA305	☆
H3.06	AI curve 4 maximum input	H3.04 ~ +10.00V	10.00V	0xA306	☆
H3.07	AI curve 4 maximum input corresponding value	-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 value	-100.0% ~ +100.0%	0.0%	0xA309	☆
H3.10	AI curve 5 break point 1 input	H3.08 ~ H3.12	3.00V	0xA30A	☆
H3.11	AI curve 5 break point 1 input corresponding value	-100.0% ~ +100.0%	30.00%	0xA30B	☆
H3.12	AI curve 5 break point 2 input	H3.10 ~ H3.14	6.00V	0xA30C	☆
H3.13	AI curve 5 break point 2 input corresponding value	-100.0% ~ +100.0%	60.00%	0xA30D	☆
H3.14	AI curve 5 maximum input	H3.12 ~ +10.00V	10.00V	0xA30E	☆

H3.15	AI curve 5 maximum input corresponding value	-100.0% ~ +100.0%	100.0%	0xA30F	☆
H7 AI, AO Calibration parameter group					
H7.00	AI1 Measured voltage1	-10.000 ~ 10.000V	Factory calibration	0xA700	☆
H7.01	AI1 Display voltage 1	-10.000 ~ 10.000V	Factory calibration	0xA701	☆
H7.02	AI1 Measured voltage2	-10.000 ~ 10.000V	Factory calibration	0xA702	☆
H7.03	AI1 Display voltage 2	-10.000 ~ 10.000V	Factory calibration	0xA703	☆
H7.04	AI2 Measured voltage1	-10.000 ~ 10.000V	Factory calibration	0xA704	☆
H7.05	AI2 Display voltage 1	-10.000 ~ 10.000V	Factory calibration	0xA705	☆
H7.06	AI2 Measured voltage 2	-10.000 ~ 10.000V	Factory calibration	0xA706	☆
H7.07	AI2 Display voltage 2	-10.000 ~ 10.000V	Factory calibration	0xA707	☆
H7.08	AI3 Measured voltage 1	-10.000 ~ 10.000V	2.000V	0xA708	☆
H7.09	AI3 Display voltage 1	-10.000 ~ 10.000V	2.000V	0xA709	☆
H7.10	AI3 Measured voltage 2	-10.000 ~ 10.000V	8.000V	0xA70A	☆
H7.11	AI3 Display voltage 2	-10.000 ~ 10.000V	8.000V	0xA70B	☆
H7.12	AO1 Target voltage 1	-10.000 ~ 10.000V	2.000V	0xA70C	☆
H7.13	AO1 Measured voltage 1	-10.000 ~ 10.000V	2.000V	0xA70D	☆
H7.14	AO1 Target voltage 2	-10.000 ~ 10.000V	8.000V	0xA70E	☆
H7.15	AO1 Measured voltage 2	-10.000 ~ 10.000V	8.000V	0xA70F	☆
H7.16	AO2 Target voltage 1	-10.000 ~ 10.000V	2.000V	0xA710	☆
H7.17	AO2 Measured voltage 1	-10.000 ~ 10.000V	2.000V	0xA711	☆
H7.18	AO2 Target	-10.000 ~ 10.000V	8.000V	0xA712	☆

	voltage 2				
H7.19	AO2 Measured voltage 2	-10.000 ~ 10.000V	8.000V	0xA713	☆
HC Control optimization parameter group					
HC.00	DPWM Switch upper limit frequency	0.00hz ~ Max frequency (P0.04)	12.00hz	0xAC00	☆
HC.01	Modulation method	0 ~ 1	0	0xAC01	☆
HC.02	Dead zone compensation mode selection	0 ~ 2	1	0xAC02	☆
HC.03	Random PWM	0 ~ 10	0	0xAC03	☆
HC.04	Energy saving control enable	0 ~ 1	0	0xAC04	☆
HC.05	Dead time adjustment	0 ~ 200	60	0xAC05	★
HC.06	Maximum voltage output coefficient	100 ~ 110	100	0xAC06	☆
HC.07	Weakness coefficient	50 ~ 200	100	0xAC07	☆

Chartper 4 Monitoring code group

Function code	name	Minimum 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	one	5003H
C0.04	Bus voltage (v)	0.1V	5004H
C0.05	Set frequency (Hz)	0.01Hz	5005H
C0.06	count value	one	5006H
C0.07	Length value	one	5007H
C0.08	X terminal status	one	5008H
C0.09	DO output state	one	5009H
C0.10	AI1 voltage (v)	0.01V	500AH
C0.11	AI2 voltage (v)	0.01V	500BH
C0.12	Panel potentiometer voltage	1 ℃	500CH
C0.13	PID setting	one	500DH
C0.14	Output power (Kw)	0.1Kw	500EH
C0.15	Output torque (%)	0.1%	500FH
C0.16	line speed	1m/Min	5010H
C0.17	PID feedback	one	5011H
C0.18	PLC stage	one	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	AI1 pre-correction voltage	0.001V	501BH
C0.28	AI2 pre-correction voltage	0.001V	501CH
C0.29	Torque given value	0.01%	501DH
C0.30	PULSE input pulse frequency	1Hz	501EH
CO.34	Motor temperature	1 ℃	5022H
C0.35	AI3 pre-correction voltage	0.001V	5023H
C0.36	Spinning position	one	5024H
C0.37	Power factor angle	0.1°	5025H

C0.38	ABZ position	one	5026H
C0.39	VF separation target voltage	1V	5027H
C0.40	VF separation output voltage	1V	5028H
C0.41	DI input visual display	one	5029H
C0.42	DO input visual display	one	502AH
C0.43	Visual DIsplay of di function status	one	502BH
C0.44	Visual display of DO function status	one	502CH
C0.45	Fault information	one	502DH
C0.46	Inverter module radiator temperature	1 ℃	502EH
C0.49	Motor serial number	one	5031H
CO.55	Temperature value of PT1 channel of process card	1 ℃	5037H
CO.56	Temperature value of PT2 channel of process card	1 ℃	5038H
CO.57	Temperature value of PT3 channel of process card	1 ℃	5039H
C0.58	Z signal counter	one	503AH
C0.61	Operating state of	bit0~bitl:	20541

	frequency converter	0: Stop 1: Forward rotation 2: Reverse rotation Bit2~bit3: 0: constant speed 1: acceleration 2: deceleration	
CO.60	AI2 pressure feedback	0.1kPa	503CH
CO.61	Operating state of frequency converter	one	20541
CO.62	Current fault	one	20542
CO.65	Upper limit of torque	0.1%	20545
C0.68	Inverter status	Bit0: Run/Stop Bitl: forward/reverse Bit2: Is the frequency converter faulty? Bit3: frequency arrival Bit4: Communication is normal. Bit5: The frequency converter control quantity is communication control. Bit6: The control life of frequency converter is now communication control. Bit7: speed control/torque	20548

		control Bit8: bit15 fault code	
CO.69	running frequency	0.01HZ	20549
CO.70	Running speed	1RPM	20550
CO.71	Communication card output current display	0.1A	20551

Chapter 5 Fault Diagnosis and Treatment Methods

Fault code description and countermeasures

Fault code	Fault name	Possible cause	Solution
E001	Accelerating over current	1. The acceleration time is too short 2. The output of the inverter is grounded or short-circuited 3. There is no parameter identification of the motor in the vector control mode 4. There is sudden load during acceleration 5. Manual torque increase is too large or V/F curve setting is improper 6. Low voltage 7. Partial selection of inverter	1. Increased acceleration time 2.Check the insulation of the motor and the cable. 3. Identify the parameters of the motor 4. Check the load 5. Reduce the torque boost value or modify the V/F curve value 6. Check the power supply voltage or view the bus voltage value 7. Choose a frequency converter with a higher power rating
E002	Deceleration overcurrent	1. Deceleration time is too short 2. The output of the inverter is grounded or short-circuited 3. There is no parameter identification of the motor in the vector control mode 4. There is sudden load during deceleration 5. Excessive manual torque rise or	1. Increase the deceleration time 2.Check the insulation of the motor and the cable. 3. Identify the parameters of the motor 4. Check the load 5. Reduce the torque boost value or modify the V/F curve value 6. Check the power supply voltage or view the bus voltage value

Fault code	Fault name	Possible cause	Solution
		improper V/F curve setting 6. Low voltage	
E003	Over current during constant speed	1. The output of the inverter is grounded or short-circuited 2. There is no parameter identification of the motor in the vector control mode 3. There is sudden load during operation 4. Low voltage 5. The inverter selection is too small	1.Check the insulation of the motor and the cable. 2. Identify the parameters of the motor 3. Check the load 4. Check the power supply voltage or view the bus voltage 5. Choose a frequency converter with a higher power rating
E004	Acceleration over voltage	1. The input voltage is too high 2. The acceleration time is too short 3. There is an external force that drives the motor to run during acceleration 4. There is no additional braking unit and braking resistor	1. Adjust the voltage to the normal range 2. Increase acceleration time 3. Check the load 4. Install braking unit and braking resistor
E005	Deceleration overvoltage	1. The input voltage is too high 2. The acceleration time is too short 3. There is an external force that drives the motor to run during acceleration 4. No braking unit and braking resistor	1. Adjust the voltage to the normal range 2. Increase acceleration time 3. Check the load 4. Install braking unit and braking resistor

Fault code	Fault name	Possible cause	Solution
E006	Constant speed overvoltage	1. The input voltage is too high 2. There is external force driving the motor during operation	1. Adjust the voltage to normal voltage 2. Adjust the load or install a braking unit and braking resistor
E007	Control power failure	1.The input voltage is not within the specified range 2.The relay does not suck	Adjust the voltage to within the normal range
E008	Undervoltage fault	1.Low input voltage or poor contact 2.The bus voltage is abnormal 3.The relay or contactor does not pull in 4.The control board is abnormal	1. Check the input power voltage 2. Check the bus voltage value 3. Seek technical support or replace the contactor 4. Seek technical support
E009	Inverter unit failure	1. The output of the inverter is short-circuited 2. The wiring between the inverter and the motor is too long 3. The iGBT module is overheated 4. The iGBT module is damaged 5. Drive exception	1.Check the insulation of the motor and cable, disconnect the motor wire to see if the fault remains. 2.Install output reactor 3.Seek technical support 4.Seek technical support
E010	Input phase loss	1. Three-phase input power lack of phase 2. The drive board is abnormal	1.Check the power supply 2.Seek technical support

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Fault code	Fault name	Possible cause	Solution
E011	Output phase loss	1.The lead from the inverter to the motor is abnormal 2.Inverter output three-phase unbalanced or lack of phase 3.The drive board is abnormal 4. Module exception	1. Check the motor and cables 2.To seek technical support 3.To seek technical support 4.To seek technical support
E012	Short to ground	1.Motor short circuit to ground 2.Malfunction	1.Check the motor and cable 2.PC.07 is set to 0, the function is closed
E013	Inverter hardware failure	1.Over current issue possibility 2. Over voltage issue possibility	1.Refer to fault treatment of overcurrent 2.Refer to fault treatment of over voltage
E014	Inverter overload	1. The load is too large or the motor is blocked 2. The rated power of inverter selection is too small 3. The motor haven't motor auto tuning	1.Check the load and mechanical conditions 2. Replace the inverter with a higher power rating 3. Change the control mode to V/F (PO.00=1) and restart. Or perform auto auto tuning
E015	Motor overload	1. Whether the protection parameter PC.01 is set properly 2. The load is too large or the motor is blocked 3. The inverter selection is too small	1. Set the parameters correctly 2. Check the load and mechanical conditions 3. Replace the inverter with a higher power rating

Fault code	Fault name	Possible cause	Solution
E016	iGBT Module overheating	1. The ambient temperature is too high 2. The air duct is blocked 3. The fan is damaged 4. The module is overheated and the device is damaged	1. Improve the ambient temperature 2. Clean the air duct 3. Replace the fan 4. Seek technical support
E017	Memory failure	Memory chip is damaged	Seek technical support
E018	External device failure	Input external fault signal through multifunctional digital terminal X	Reset to run
E019	Keep		Please contact the dealer
E020	Keep		Please contact the dealer
E021	Current detection failure	1. Current Hall detection damage 2. Driver board failure	1. Check whether the Hall sensor and the plug wire are loose 2. Seek technical support
E022	Motor overheating fault	1. Motor temperature is too high 2. Motor temperature sensor failure	1. Increase the carrier frequency or heat the motor 2. Check the motor temperature sensor and wiring
E023	Contactor failure	1. The contactor is abnormal 2. The drive board and power supply are abnormal	1. Replace the contactor 2. Seek technical support
E024	communication fail	1. The upper computer is abnormal 2. The communication line is abnormal	1. Check the host computer and connection 2. Check the

Fault code	Fault name	Possible cause	Solution
		3. The communication parameter group is set incorrectly	communication line 3. Set the parameters correctly
E025	Encoder failure	1. Encoder model does not match 2. Encoder connection error 3. The encoder is damaged 4. PG card is abnormal	1. Set the encoder parameters correctly 2. Check the connection 3. Replace the encoder 4. Replace PG card
E026	Motor identification failure	1. Improper setting of motor parameters 2. Parameter recognition time is too long	1. Reset the motor parameters 2. Check if the inverter is connected to the motor
E027	Initial position failure	The difference between motor parameters and actual deviation is too large	Reconfirm whether the motor parameters are correct, and focus on whether the rated current is set to small
E028	Fast current limit fault	1. The load is too large or the motor is blocked 2. The inverter selection is too small 3. The motor is not self-learning	1. Check the motor and load 2.perform motor auto tuning. 3.Change the control mode to V/F (PO.00=1) and restart. Or perform motor auto tuning on the motor.
E029	Motor overspeed fault	1.Encoder parameter setting is incorrect 2.No parameter identification 3.The motor overspeed parameter setting is unreasonable	1.Reset the encoder parameters 2.Identify the parameters of the motor 3.Set the parameters reasonably
E030	Excessive speed deviation fault	1.Encoder parameter setting is incorrect 2.No parameter identification	1.Reset the encoder parameters 2.Identify the parameters of the

Fault code	Fault name	Possible cause	Solution
		3.The motor overspeed parameter setting is unreasonable	motor 3. Set the parameters reasonably
E031	Motor switching failure during operation	Switch motor behavior during running	Switch the motor after the inverter stops
E032	Missing load fault	The running current of the inverter is less than the value set by PC.50	The running current of the inverter is less than the value set by PC.50
E033	PID feedback loss failure during operation	PID feedback is less than the set value of P9.26	Check the feedback signal or set the parameters reasonably
E035	User-defined fault 1	Input the signal of user-defined fault 1 through the multi-function terminal X Input user-defined fault 1 signal through virtual function terminal IO	Reset to run
E036	User-defined fault 1	1. Input the signal of user-defined fault 1 through the multi-function terminal X 2. Input the signal of user-defined fault 1 through the virtual function terminal IO	Reset to run
E037	Reserve		
E045	AEMF identification AY	1. Motor parameters are not set correctly 2. P2.16 reverse EMF is wrongly set during	1. Set the motor parameters correctly, especially the rated frequency and the rated

Fault code	Fault name	Possible cause	Solution
		static identification 3. Abnormal inF identification during dynamic identification 4. Demagnetization occurs in the motor 5. The motor reverse electric momentum is indeed large or small	rotation speed 2. Check whether P2.16 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 it 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