CATALOGUE

Chapter 1 Product Information

1.1 Safety information and precautions

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

Danger: Danger caused by failure to operate as required, which may result in serious injury or even death;

Note: The danger caused by failure to operate as required may result in moderate or minor injuries and equipment damage;

Please read this chapter carefully when installing, debugging, and maintaining this system, and be sure to follow the safety precautions required by this chapter. Any injury and loss caused by illegal operation shall be irrelevant to the company.

1.2 Naming Convention

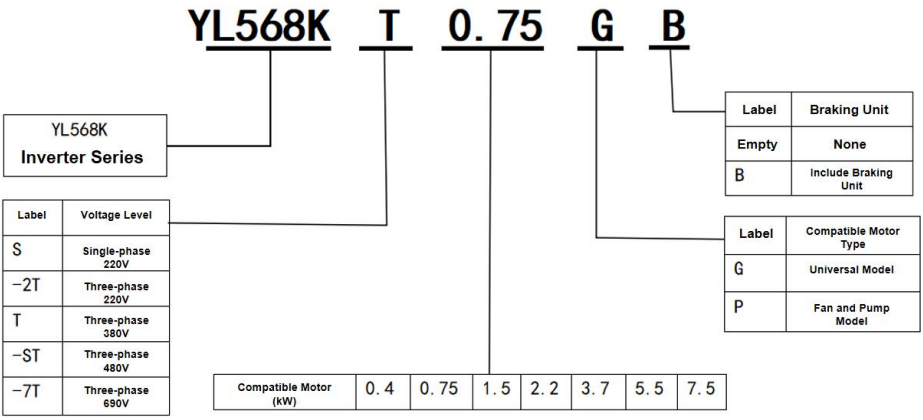
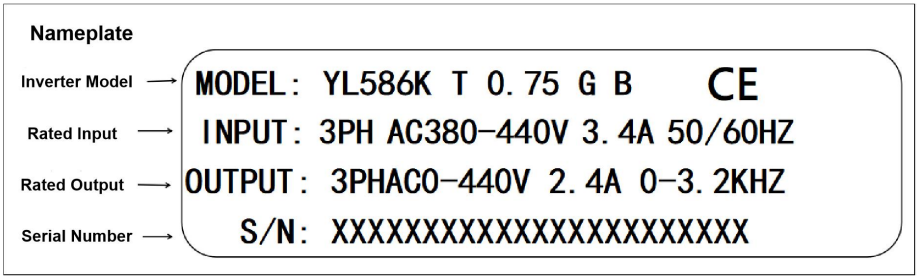


Figure 1-1 Naming Specification

1.3 Nameplate



1.4 YL586K frequency converter series specifications

Table 1-1 Model and Technical Data of YL586K Frequency Converter

Inverter model	Power capacity kVA	Input current A	Output current A	Adapt motor	
				kW	HP
Single-phase power supply: 220V, 50/60Hz					
YL586K-2S0.7GB	1.5	8.2	4.0	0.75	1
YL586K-2S1.5GB	3.0	14.0	7.0	1.5	2
YL586K-2S2.2GB	4.0	23.0	9.6	2.2	3
YL586K-2S3.7GB	5.5	31.0	17	3.7	5
Three-phase power supply: 380V, 50/60Hz					
YL586K-3T0.7GB	1.5	3.4	2.1	0.75	1
YL586K-3T1.5GB	3.0	5.0	3.8	1.5	2
YL586K-3T2.2GB	4.0	5.8	5.1	2.2	3
YL586K-3T3.7GB	5.9	10.5	9.0	3.7	5
YL586K-3T5.5GB	8.9	14.6	13.0	5.5	7.5

1.5 Product appearance diagram and dimensions of mounting hole positions

1.5.1 Product Outline Drawing

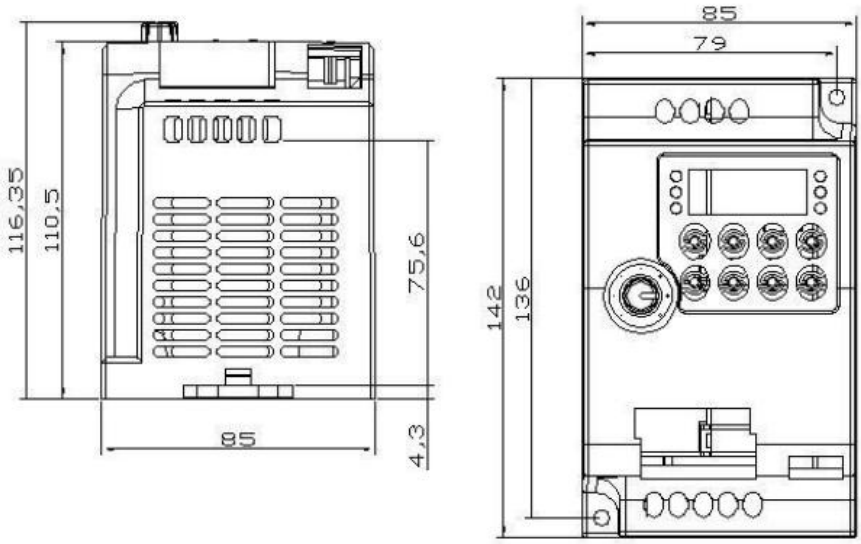


Figure 1-2 Schematic diagram of the overall dimensions and installation dimensions of the YL586K plastic structure

1.5.2 Overall dimensions of external keyboard

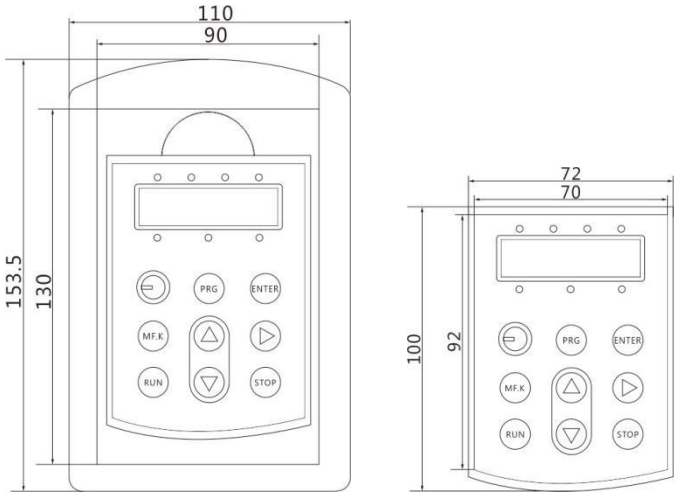


Figure 1-4 Overall dimensions of the external keyboard

1.6 Warranty instructions for frequency converters

The free warranty only refers to the frequency converter itself. Under normal use, our company is responsible for a 12-month warranty for malfunction or damage (from the date of manufacture, subject to

the barcode on the body). For repairs beyond 12 months, reasonable maintenance fees will be charged;

In the event of the following circumstances within 12 months, a certain maintenance fee shall be charged:

1) Damage to the machine caused by the user not following the instructions in the manual;

2) Damage caused by fire, flood, abnormal voltage, etc;

3) Damage caused by using the frequency converter for abnormal functions;

4) The service fees are calculated according to the manufacturer's uniform standard. If there is a contract, it will be handled according to the principle of contract priority.

Chapter 2 Electrical Installation

2.1.1 Main circuit terminals and wiring

1) Instructions for the main circuit terminals of the frequency converter:

Terminal marking	name	explain
R, S, T	Power input terminal	R, T single-phase 220V AC power supply; R, S, T are three-phase 380V AC input power supply
P+ ,PB	Brake resistance connection terminal	Connecting the braking resistor
U, V, W	Output terminal of frequency converter	Connecting a three-phase motor
⏚	Grounding terminal	Grounding terminal

2.1.2 Wiring mode of control circuit of frequency converter

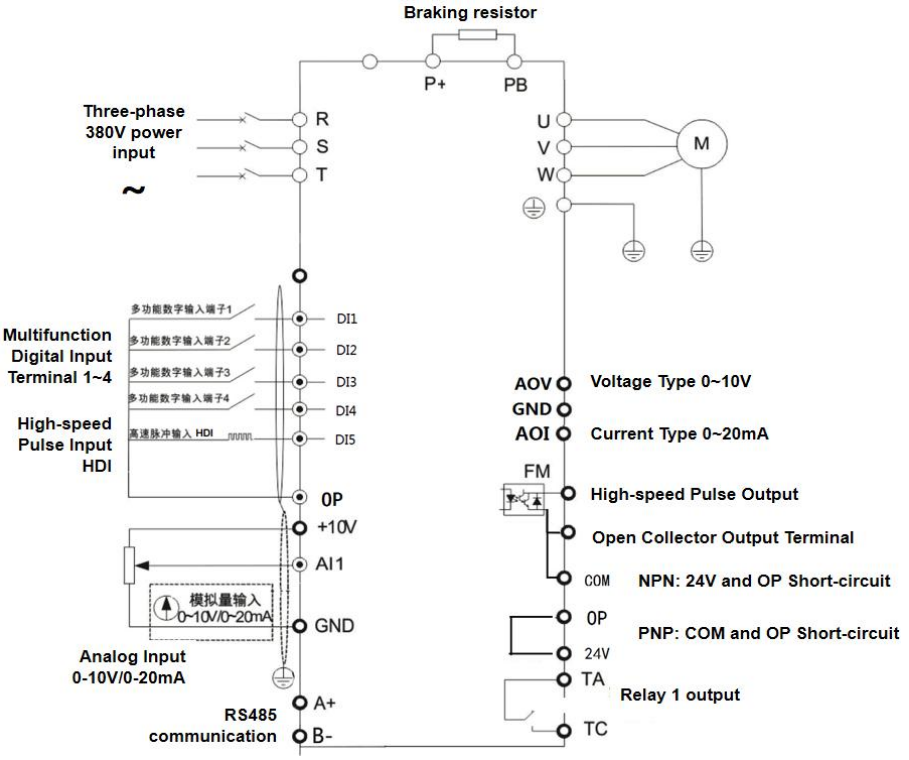


Figure 2-2 Wiring mode of frequency converter control circuit

Note: The wiring method for the control circuit of all YL586K series frequency converters is the same. The above diagram is a schematic diagram of the wiring of a three-phase 380V frequency converter. The terminal ◎ indicates the main circuit terminal, and the terminal ○ indicates the control circuit terminal.

2.1.3 Control terminal description

The layout of the control circuit terminals is shown below:

Figure 2-3 Control Circuit Terminal Layout

2.1.4 Function description of control terminal:

Table 2-1 Function description of control terminal of YL586K frequency converter

category	Terminal symbol	Terminal name	Function Description
Power Supply	+10V-GND	External +10V power supply	Provide +10V power supply to the outside, maximum output current: 150mA (with short circuit protection) Generally used as the working power supply for external potentiometers, the potentiometer resistance range is: 1kΩ~5kΩ
	+24V- COM	External +24V power supply	Provide +24V power supply to the outside, generally used as the working power supply for digital input and output terminals, and External sensor power supply Maximum output current: 200mA
Analog input	AI1-GND	Analog input terminal 1	1. Input range: DC 0V~10V/0mA~20mA, determined by P4-39. 2. Input impedance: 22kΩ for voltage input and 500Ω for current input.
	DI1- OP	Digital input 1	1. Input impedance: 1kΩ 2. Voltage range during level input: 5V~30V In addition to the features of DI1~DI4, DI5 can also be used as a high-speed pulse input channel. Maximum input frequency: 20kHz
Digital Input	DI2- OP	Digital input 2	
	DI3- OP	Digital input 3	
	DI4- OP	Digital Input 4	
	DI5- OP	High-speed pulse	
	AOV-GND AOI -GND	Analog output 1	Output voltage range: 0V~10V Output current range: 0mA~20mA, 4~20mA (P5-23 can be selected)
	A+ B-	RS-485 communication	A+ is the differential positive input, and B- is the differential negative input
Digital output	FM- COM	High-speed pulse output	Subject to the constraint of function code P5-00 "FM terminal output mode selection" When output as a high-speed pulse, the maximum frequency is up to 20kHz; When used as an open collector output, it is the same as the DO1 specification.

	OP	External power supply terminal	When using external signals to drive DI1~DI5, the OP needs to be connected to an external power supply and disconnected from the +24V power terminal DI terminal NPN mode: 24V is short-circuited with OP, DI terminal PNP mode: COM and OP are short-circuited.
	TA -TC	Relay normally open terminal	Contact drive capability: AC250V, 3A, COSø=0.4. DC 30V, 1A

2.1.5 Wiring instructions for signal input terminals:

Due to the weak analog voltage signal being particularly susceptible to external interference, it is generally necessary to use shielded cables, and the wiring distance should be as short as possible, not exceeding 20m. In some situations where analog signals are severely interfered, filter capacitors or ferrite magnets need to be added on the analog signal source side.

Chapter 3 Operation Display

3.1 Introduction to the Operation and Display Interface

The operation panel allows for the modification of functional parameters, monitoring of the working status of the inverter, and control of the inverter's operation (starting, stopping), among other operations. Its appearance and functional areas are shown in the following diagram:

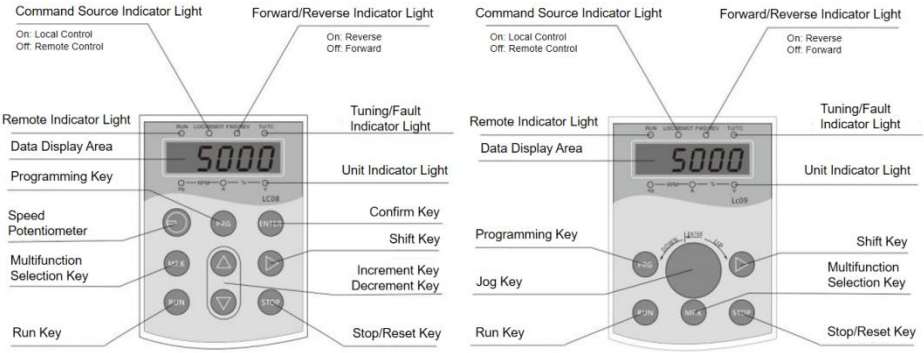


Figure 3-1 Schematic diagram of the operation panel

1) Description of function indicator:

- RUN: When the light is off, it indicates that the inverter is in a shutdown state, and when the light is on, it indicates that the inverter is in a running state.
- LOCAL/REMOTE: Keyboard operation, terminal operation, and remote operation (communication control) indicator lights:

  ○ LOCAL/REMOTE OFF:Panel Start/Stop Control

  ● LOCAL/REMOTE ON:Terminal Start/Stop Control

  ◒ LOCAL/REMOTE FLASHING:Communication Start/Stop Control

- FWD/REV: Forward and reverse rotation indicator light, the light is on to indicate that it is in the forward rotation state.
- TUNE/TC: Tune/Torque Control/Fault Indicator. When the light is on, it indicates that the system is in the torque control mode. When the light flashes slowly, it indicates that the system is in the tune mode. When the light flashes rapidly, it indicates that the system is in the fault mode.

2) Unit indicator light:

Hz	Frequency unit
A	Current unit
V	Voltage unit
RPM(Hz+A)	Speed unit
%(A+V)	percentage

3) Digital display area:

The 5-digit LED display can display the set frequency, output frequency, various monitoring data, and alarm codes.

4) Keyboard button description table

Table 3-1 Keyboard Function Table

Key	name	function
PRG	Programming keys	Enter or exit the first level menu
ENTER	Confirm button	Enter the menu screen level by level, set parameters and confirm
△	Incremental key	Increment of data or function code
▽	Decreasing key	Decrease of data or function code
▷	Shift key	In the shutdown display interface and operation display interface, the display parameters can be selected cyclically; Modifying parameters After several hours, you can select the modification bit of the parameter
RUN	Run key	In the keyboard operation mode, it is used for running operations
STOP/RES	Stop/reset	In the running state, pressing this key can be used to stop the running operation; In the fault alarm state, it can be used for Reset operation, the characteristics of this key are restricted by function code P7-02.
MF.K	Multi-function selection key	Select the function switch according to P7-01

Chapter 4: Table of Functional Parameters

4.1 Brief table of basic functional parameters

"☆": indicates that the set value of the parameter can be changed when the frequency converter is in either the shutdown or running state;
"★": indicates that the set value of this parameter cannot be changed when the inverter is in operation;
"●": indicates that the value of this parameter is the actual detection record value and cannot be changed;

Function code	name	Set Range	Factory value	attribute	DEC address
P0 group Basic parameters					
P0-01	Motor control mode	0: Sensorless vector control 2: V/F control	2	★	61441
P0-02	Command source selection	0: Panel command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashing)	0	☆	61442
P0-03	Selection of main frequency source X	0: digital setting (preset frequency P0-08, UP/DOWN can be modified, power-down memory) 1: digital setting (preset frequency P0-08, UP/DOWN can be modified, power-down memory) 2: AI1 3: AI2 local potentiometer 4: AI3 external keyboard potentiometer 5: HDI pulse setting (DI5) 6: multi-segment instruction 7: simple PLC 8: PID 9: communication setting	3	★	61443
P0-04	Selection of auxiliary frequency source Y	Same as P0-03 (main frequency source X selection)	0	★	61444
P0-05	Frequency source Y during superposition Scope selection	0: relative to the maximum frequency 1: relative to the frequency source X	0	☆	61445
P0-06	Range of frequency source Y during superposition	0% to 150%	100%	☆	61446
P0-07	Selection of frequency source superposition mode	Unit digit: frequency source selection 0: main frequency source X 1: main and auxiliary operation (operation mode determined by the tens digit) 2: switch between main frequency source X and auxiliary frequency source Y 3: switch between main frequency source X and main and auxiliary operation results 4: switch between auxiliary frequency source Y and main and auxiliary operation results Tens digit: relationship between main and auxiliary operation of frequency	00	☆	61447

		source 0: main + auxiliary 1: main - auxiliary 2: maximum value of both 3: minimum value of both 4: main x auxiliary			
P0-08	Preset frequency	0.00Hz to maximum frequency (P0-10)	50.00Hz	☆	61448
P0-09	Running direction	0: same direction 1: opposite direction	0	☆	61449
P0-10	Maximum frequency	50.00Hz-320.00Hz (P0-22=2) 50.0Hz-3200.0Hz (P0-22=1)	50.00Hz 50.0Hz	★	61450
P0-11	Upper limit frequency source	0: P0-12 Setting 1: AI1 2: AI2 Local Potentiometer 3: AI3 External Keyboard Potentiometer 4: HDI Pulse Setting 5: Communication Setting	0	★	61451
P0-12	Upper limit frequency	Lower limit frequency P0-14 to maximum frequency P0-10	50.00Hz	☆	61452
Function code	name	Set Range	Factory value	attribute	DEC address
P0-13	Upper limit frequency offset	0.00Hz to maximum frequency P0-10	0.00Hz	☆	61453
P0-14	Lower limit frequency	0.00Hz to upper limit frequency P0-12	0.00Hz	☆	61454
P0-15	carrier frequency	0.5kHz-16.0kHz	Model determination	☆	61455
P0-16	Carrier frequency adjusts with temperature	0: No 1: Yes	1	☆	61456
P0-17	Acceleration time 1	0s～65000s (P0-19=0) 0.0s～6500.0s (P0-19=1) 0.00s～650.00s (P0-19=2)	Model determination	☆	61457
P0-18	Deceleration time 1				61458
P0-19	Acceleration and deceleration time unit	0: 1 second 1: 0.1 second 2: 0.01 second	1	★	61459
P0-21	Auxiliary frequency source during superposition bias frequency	0.00Hz to maximum frequency P0-10	0.00Hz	☆	61461
P0-22	Resolution of frequency command	1: 0.1Hz 2: 0.01Hz	2	★	61462
P0-23	Digital set frequency shutdown memory	0: No memory 1: Memory	1	☆	61463
P0-24	retain	-	1	☆	61464
P0-25	Reference frequency of acceleration and deceleration time	0: Maximum frequency (P0-10) 1: Set frequency	0	★	61465
P0-26	Reference for the frequency command UP/DOWN during operation	0: operating frequency 1: set frequency	0	★	61466
P0-27	Command source binding frequency source	Unit digit: operation panel command binding frequency source selection 0: no binding	0000	☆	61467

		1: digital set frequency 2: AI1 3: AI2 local potentiometer 4: AI3 external keyboard potentiometer 5: HDI pulse setting (DI5) 6: multi-speed 7: simple PLC 8: PID 9: communication given Tens digit: terminal command binding frequency source selection Hundreds digit: communication command binding frequency source selection Thousands digits: automatic operation binding frequency source selection			
P1 group motor parameters					
P1-00	Selection of motor type	0: Ordinary asynchronous motor 1: Variable frequency asynchronous motor	0	★	61696
P1-01	Rated power of motor	0.1-1000KW	Model determination	★	61697
P1-02	Rated voltage of motor	1 to 380V	Model determination	★	61698
P1-03	Rated current of motor	0.01 to 100.00A	Model determination	★	61699
P1-04	Rated frequency of motor	0.01Hz to maximum frequency	Model determination	★	61700
P1-05	Rated speed of motor	1 to 65535 rpm	Model determination	★	61701
P1-10	no-load current of asynchronous motor	0.01～P1-03	Tuning parameters	★	61706
P1-37	Tuning selection	0: No operation 1: Asynchronous machine static tuning 2: Asynchronous machine complete tuning 3: static tuning 2	0	★	61733
P2 group Vector parameters					
P2-00	Speed loop proportional gain 1	1~100	30	☆	61952
P2-01	Speed loop integration time 1	0.01~10.00s	0.50s	☆	61953
P2-02	Switching frequency 1	0.00~P2-05	5.00Hz	☆	61954
P2-03	Speed loop proportional gain 2	1 to 100	20	☆	61955
Function code	**name**	**Set Range**	**Factory value**	**attribute**	**DEC address**
P2-04	Speed loop integration time 2	0.01s to 10.00s	1.00s	☆	61956

P2-05	Switching frequency 2	P2-02～maximum frequency	10.00Hz	☆	61957
P2-06	Vector control slip gain	50-200%	150%	☆	61958
P2-07	Time constant of speed loop filtering	0.000 to 0.100 seconds	0.000s	☆	61959
P2-08	Vector control overexcitation gain	0-200	64	☆	61960
P2-09	Torque upper limit source under speed control mode	0: Function code P2-10 setting 1: AI1 2: AI2 3: Keyboard potentiometer 4: PULSE pulse setting 5: Communication given 6: MIN (AI1, AI2) 7: MAX (AI1, AI2) The full range of options 1-7 corresponds to P2-10	0	☆	61961
P2-10	Under speed control mode Digital setting of torque upper limit	0.0% to 200.0%	150.0%	☆	61962
P2-13	Proportional gain of excitation regulation	0 to 60000	2000	☆	61965
P2-14	Integral gain of excitation regulation	0 to 60000	1300	☆	61966
P2-15	Torque regulation proportional gain	0 to 60000	2000	☆	61967
P2-16	Integral gain of torque regulation	0-60000	1300	☆	61968
P2-17	Speed loop integral attribute	Unit digit: integral separation 0: Invalid 1: Effective	0	☆	61969
		V/F control parameters of P3 group			
P3-00	VF curve setting	0: Linear V/F 1: Multi-point V/F 2: Square V/F 3: 1.2 Power V/F 4: 1.4 Power V/F 6: 1.6 Power V/F 8: 1.8 Power V/F	0	★	62208
P3-01	Torque increase	0.0%: (automatic torque boost) 0.1-30.0%	Model determination	☆	62209
P3-02	Torque boost cut-off frequency	0.00Hz to maximum frequency	50.00Hz	★	62210
P3-03	Multi-point VF frequency point 1	0.00Hz～P3-05	0.00Hz	★	62211
P3-04	Multi-point VF voltage point 1	0.0% to 100.0%	0.0%	★	62212
P3-05	Multi-point VF frequency point 2	P3-03 to P3-07	0.00Hz	★	62213
P3-06	Multi-point VF voltage point 2	0.0% to 100.0%	0.0%	★	62214
P3-07	Multi-point VF frequency point 3	P3-05~rated frequency of motor (P1-04)	0.00Hz	★	62215
P3-08	Multi-point VF voltage point 3	0.0% to 100.0%	0.0%	★	62216
P3-09	VF slip compensation gain	0.0% to 200.0%	0.0%	☆	62217

P3-10	VF overexcitation gain	0-200	64	☆	62218
P3-11	VF oscillation suppression gain	0-100	Model determination	☆	62219
P4 group input terminal					
P4-00	DI1 terminal function selection	0: No function 1: Forward operation (FWD) 2: Reverse operation (REV) 3: Three-wire operation control 4: Forward jog (FJOG) 5: Reverse jog (RJOG) 6: Terminal UP 7: Terminal DOWN 8: Free parking 9: Fault reset (RESET) 10: Operation pause 11: External fault normally open input 12: Multi-segment command terminal 1 13: Multi-segment command terminal 2 14: Multi-segment command terminal 3 15: Multi-segment command terminal 4 16: Acceleration/deceleration time selection terminal 1 17: Acceleration/deceleration time selection terminal 2 18: Frequency source switch 19: UP/DOWN setting reset (terminal/keyboard) 20: Run command to switch terminal 1 21: Acceleration and deceleration disabled 22: PID pause 23: PLC status reset 24: Pendulum frequency pause 25: Counter input 26: Counter reset 27: Length Count Input 28: Reset length 29: Torque control disabled 30: HDI pulse frequency input (DI5) 31: Reserved 32: Immediate DC braking 33: External fault normally closed input 34: Frequency modification enabled 35: PID action direction reversal 36: External parking terminal 1 37: Operation command switching terminal 2 38: PID integral pause 39: Frequency source X and preset	1	★	62464
P4-01	Function selection of DI2 terminal		2	★	62465
P4-02	Function selection of DI3 terminal		4	★	62466
P4-03	DI4 terminal function selection		9	★	62467
P4-04	DI5 terminal function selection		12	★	62468

		frequency switch 40: Frequency source Y and preset frequency switch 43: PID parameter switch 44: User-defined fault 1 45: User-defined fault 2 46: Speed control/torque control switch 47: Emergency stop 48: External parking terminal 2 49: Deceleration DC braking 50: Reset this operation time			

Function code	name	Set Range	Factory value	attribute	DEC address
P4-10	DI filtering time	0.000s～1.000s	0.010s	☆	62474

Function code	name	Set Range		Factory value	attribute	DEC address
P4-11	Terminal command mode	0: two-wire type 1 1: two-wire type 2	2: Three-wire type 1 3: three-wire type 2	0	★	62475
P4-12	Terminal UP/DOWN change rate	0.001Hz/s to 65.535Hz/s		1.00Hz/s	☆	62476
P4-13	AI curve 1 minimum input	0.00V～P4-15		0.00V	☆	62477
P4-14	AI curve 1 minimum input corresponding setting	-100.0% to +100.0%		0.0%	☆	62478
P4-15	AI curve 1 maximum input	P4-13 to +10.00V		10.00V	☆	62479
P4-16	Maximum input corresponding setting of AI curve 1	-100.0% to +100.0%		100.0%	☆	62480
P4-17	AI1 filtering time	0.00s～10.00s		0.10s	☆	62481
P4-18	AI curve 2 minimum input	0.00V～P4-20		0.00V	☆	62482
P4-19	AI curve 2 minimum input corresponding setting	-100.0% to +100.0%		0.0%	☆	62483
P4-20	AI curve 2 maximum input	P4-18 to +10.00V		10.00V	☆	62484
P4-21	AI curve 2 maximum input corresponding setting	-100.0% to +100.0%		100.0%	☆	62485
P4-22	AI2 filtering time	0.00s～10.00s		0.10s	☆	62486
P4-23	AI curve 3 minimum input	0.00V～P4-25		0.00V	☆	62482
P4-24	AI curve 3 minimum input corresponding setting	-100.0% to +100.0%		0.0%	☆	62483
P4-25	AI curve 3 maximum input	P4-23～+10.00V		10.00V	☆	62484
P4-26	AI curve 3 maximum input corresponding setting	-100.0% to +100.0%		100.0%	☆	62485
P4-27	AI3 filtering time	0.00s to 10.00s		0.10s	☆	62486
P4-28	HDI pulse minimum input	0.00kHz～P4-30		0.00kHz	☆	62492

P4-29	HDI pulse minimum input corresponding setting	-100.0% to 100.0%	0.0%	☆	62493
P4-30	HDI pulse maximum input	P4-28 to 50.00 kHz	50.00kHz	☆	62494
P4-31	HDI pulse maximum input setting	-100.0% to 100.0%	100.0%	☆	62495
P4-32	HDI pulse filtering time	0.00s to 10.00s	0.10s	☆	62496
P4-33	AI curve selection	Unit digit: AI1 curve selection 1: curve 1 (2 points, P4-13 to P4-16) 2: curve 2 (2 points, P4-18 to P4-21) 3: curve 3 (2 points, P4-23 to P4-26) tens digit: AI2 curve selection, same as above hundreds digit: AI3 curve selection, same as above	321	☆	62497
P4-34	AI is lower than the minimum input Set selection	Unit digit: AI1 is lower than the minimum input setting selection 0: corresponding to the minimum input setting selection 1: 0.0% Tens digit: AI2 is lower than the minimum input setting selection, ditto Hundreds digit: AI3 is lower than the minimum input setting selection, ditto	000	☆	62498
P4-35	DI1 delay time	0.0s～3600.0s	0.0S	★	62499
P4-36	DI2 delay time	0.0s～3600.0s	0.0S	★	62500
P4-37	DI3 delay time	0.0s～3600.0s	0.0S	★	62501
P4-38	DI terminal valid mode selection 1	0: High level is valid 1: Low level is valid Unit digit: DI1 Tens digit: DI2 Hundreds digit: DI3 Thousands digit: DI4 Ten thousandth digit: DI5	000	★	62502
P4-39	AI1 input voltage/current selection	0: voltage input 1: Current input	0	★	62503
P5 group output terminal					
P5-00	FM terminal output mode selection	0: Pulse output (FMP) 1: Switching output (FMR)	0	☆	62720

Function code	name	Set Range	Factory value	attribute	DEC address

P5-01	**FMR output function selection**	**0: No output 1: Inverter running 2: Fault output (fault shutdown) 3: Frequency level detection FDT1 output 4: Frequency reached 5: Zero speed running (no output during shutdown) 6: Motor overload pre-alarm 7: Inverter overload pre-alarm 8: Set value reached 9: Specified value reached 11: PLC cycle completed 12: Cumulative running time reached 13: Frequency limit 14: Torque limit 15: Ready for operation 16: AI1>AI2 17: Upper frequency limit reached 18: Lower frequency limit reached (related to operation) 19: Under-voltage state output 20: Communication setting 23: Zero speed running 2 (also output during shutdown) 24: Cumulative power-on time reached 25: Frequency level detection FDT2 output 26: Frequency 1 output 27: Frequency 2 output 28: Current 1 output 29: Current 2 output 30: Timing output 31: AI1 input overrun 32: Load loss 33: Reverse running 34: Zero current state 35: Module temperature reached 36: Output current overrun 37: Lower frequency limit reached (also output during shutdown) 38: Alarm output (continue to run) 40: This running time reached 41: Fault output (for free shutdown faults and no output for under-voltage) 42: Frequency 1 <= Operating Frequency <= Frequency 2 43: Frequency 1 >= Operating Frequency >= Frequency 2 44: Frequency 1 <= set frequency <= frequency 2 45: Frequency 1 >= set frequency >= frequency 2**	**0**	☆	**62721**
P5-02	**Function selection** of **control board relay (TA-TB-TC)**		**2**	☆	**62722**
P5-04	**Reserved**		**1**	☆	**62724**

P5-06	FMP output function selection	0: Operating frequency 1: Set frequency 2: Output current 3: Output torque 4: Output power 5: Output voltage 6: HDI pulse input (100.% corresponds to 100.0kHz) 7: AI1	0	☆	62726
P5-07	AO1 output function selection	8: AI2 11: Count value 12: Communication setting 13: Motor speed 14: Output current (100.0% corresponds to 1000.0A) 15: Output voltage (100.0% corresponds to 1000.0V) 16: Reserved	0	☆	62727
Function code	name	Set Range	Factory value	attribute	DEC address
P5-09	Maximum frequency output of FMP	0.01kHz to 50.00kHz	50.00kHz	☆	62729
P5-10	AO1 zero bias coefficient	-100.0% to +100.0%	0.0%	☆	62730
P5-11	AO1 gain	-10.00 to +10.00	1.00	☆	62731
P5-17	FMR output delay time	0.0s～3600.0s	0.0s	☆	62737
P5-18	RELAY1 delay closing time	0.0s～3600.0s	0.0s	☆	62738
P5-19	RELAY1 delay off time	0.0s～3600.0s	0.0s	☆	62739
P5-23	AO1 current output selection	0:0~20 mA 1:4~20mA	0	☆	62743
		P6 group start-stop control			
P6-00	Startup method	0: Direct start 1: Speed tracking and restart 2: Pre-excitation start (AC asynchronous motor)	0	☆	62976
P6-01	Speed tracking mode	0: Start from the shutdown frequency 1: Start from zero speed 2: Start from the maximum frequency	0	★	62977
P6-02	Speed tracking speed	1 to 100	20	☆	62978
P6-03	Start frequency	0 to P0-08	0.00Hz	☆	62979
P6-04	Start frequency holding time	0.0s～100.0s	0.0s	★	62980
P6-05	Start DC braking current/ pre-excitation current	0% to 100%	0	★	62981
P6-06	Starting DC braking time/ pre-excitation time	0.0s to 100.0s	0.0s	★	62982
P6-07	Acceleration and deceleration mode	0: Linear acceleration and deceleration 1: S-curve acceleration and deceleration A 2: S-curve acceleration and deceleration B	0	★	62983
P6-08	Proportion of the initial period of the S-curve	0.0% to (100.0%-P6-09)	30.0%	★	62984
P6-09	Proportion of time at the end of S curve	0.0% to (100.0%-P6-08)	30.0%	☆	62985
P6-10	Shutdown mode	0: deceleration and parking 1: Free parking	0	☆	62986

P6-11	Starting frequency of DC braking during shutdown	0.00Hz to maximum frequency	0.00Hz	☆	62987
P6-12	Waiting time for DC braking during shutdown	0.0s～100.0s	0.0s	☆	62988
P6-13	DC braking current during shutdown	0% to 100%	0	☆	62989
P6-14	DC braking time during shutdown	0.0s to 100.0s	0.0s	☆	62990
P6-15	Brake usage rate	0% to 100%	100%	☆	62991
P7 Group Keyboard and Display					
P7-01	MF.K key function selection	0: MF K invalid 1: Switching between the operation panel command channel and the remote command channel (terminal command channel or communication command channel) 2: Switching between forward and reverse rotation 3: Forward jogging 4: Reverse jogging	0	☆	63233
Function code	name	Set Range	Factory value	attribute	DEC address
P7-02	Function of STOP/RESET key	0: Only in the keyboard operation mode, the STOP/RES key shutdown function is valid 1: In any operation mode, the STOP/RES key shutdown function is valid	1	☆	63234
P7-03	LED operation display parameter 1	0000-FFFF Bit00: Operating frequency 1 (Hz) Bit01: Set frequency (Hz) Bit02: Bus voltage (V) Bit03: Output voltage (V) Bit04: Output current (A) Bit05: Output power (kW) Bit06: Output torque (%) Bit07: DI input status Bit08: DO output status Bit09: AI1 voltage (V) Bit10: AI2 voltage (V) Bit11: AI3 panel potentiometer voltage (V) Bit12: Count value Bit14: Load speed display Bit15: PID setting	001F	☆	63235
P7-04	LED operation display parameter 2	0000-FFFF Bit00: PID feedback Bit01: PLC stage Bit02: HDI input pulse frequency (kHz) Bit03: operating frequency 2 (Hz) Bit04: remaining running time Bit05: AI1 correction voltage (V) Bit06: AI2 correction voltage (V) Bit07: panel potentiometer correction voltage (V) Bit08: linear velocity Bit09: current power-on time (Hour)	0000	☆	63236

		Bit10: current running time (Min) Bit11: HDI input pulse frequency (Hz) Bit12: communication setting value Bit13: encoder feedback speed (Hz) Bit14: main frequency X display (Hz) Bit15: auxiliary frequency Y display (Hz)			
P7-05	LED shutdown display parameters	0000-FFFF Bit00: Set frequency (Hz) Bit01: Bus voltage (V) Bit02: DI input status Bit03: DO output status Bit04: AI1 voltage (V) Bit05: AI2 voltage (V) Bit06: Panel potentiometer voltage (V) Bit07: Count value Bit08: Length value Bit09: PLC stage Bit10: Load speed Bit11: PID setting Bit12: HDI input pulse frequency (kHz)	0033	☆	63237

Function code	name	Set Range	Factory value	attribute	DEC address
P7-06	Load speed display coefficient	0.0001 to 6.5000	1.0000	☆	63238
P7-07	Temperature of the radiator of the inverter module	0.0℃～100.0℃	-	●	63239
P7-09	Accumulated running time	0h to 65535h	-	☆	63241
P7-12	The number of decimal places displayed for the load speed	0: 0 decimal places 1: 1 decimal places 2: 2 decimal places 3: 3 decimal places	1	☆	63244
P7-13	Accumulated power-on time	0-65535h	-	●	63245
P7-14	Accumulated power consumption	0-65535 degrees	-	●	63246
		P8 group auxiliary function			
P8-00	Jogging operation frequency	0.00Hz to maximum frequency	6.00Hz	☆	63488
P8-01	Jog acceleration time	0.0s～6500.0s	20.0s	☆	63489
P8-02	Jog deceleration time	0.0s～6500.0s	20.0s	☆	63490
P8-03	Acceleration time 2	0.0s～6500.0s	Model determination	☆	63491
P8-04	Deceleration time 2	0.0s to 6500.0s	Model determination	☆	63492
P8-05	Acceleration time 3	0.0s～6500.0s	Model determination	☆	63493
P8-06	Deceleration time 3	0.0s to 6500.0s	Model determination	☆	63494
P8-07	Acceleration time 4	0.0s～6500.0s	Model determination	☆	63495

P8-08	Deceleration time 4	0.0s～6500.0s	Model determination	☆	63496
P8-09	Jump frequency 1	0.00Hz to maximum frequency	0.00Hz	☆	63497
P8-10	Jump frequency 2	0.00Hz to maximum frequency	0.00Hz	☆	63498
P8-14	The set frequency is lower than the lower limit frequency Operation mode	0: Run at the lower limit frequency 1: Shutdown 2: Run at zero speed	0	☆	63502
P8-15	Droop control	0.00Hz to 10.00Hz	0.00Hz	☆	63503
P8-16	Set the cumulative power-on arrival time	0h～65000h	0h	☆	63504
P8-17	Set the cumulative operation arrival time	0h to 65000h	0h	☆	63505
P8-18	Start protection selection	0: No protection 1: Protection	0	☆	63506
P8-19	Frequency detection value (FDT1)	0.00Hz to the maximum frequency	50.00Hz	☆	63507
P8-20	Frequency detection lag value	0.0% to 100.0% (FDT1 level)	5.0%	☆	63508
P8-21	Frequency detection width	0.0% to 100.0% (maximum frequency)	0.0%	☆	63509
P8-25	Acceleration time 1 and Acceleration time 2 switching frequency point	0.00Hz to maximum frequency	0.00Hz	☆	63513
P8-26	Deceleration time 1 and Deceleration time 2 switching frequency point	0.00Hz to maximum frequency	0.00Hz	☆	63514
P8-27	Terminal jog priority	0: invalid 1: valid	0	☆	63515
P8-28	Frequency detection value (FDT2)	0.00Hz to maximum frequency	50.00Hz	☆	63516
P8-29	Frequency detection lag value	0.0% to 100.0% (FDT2 level)	5.0%	☆	63517
P8-30	Any arrival frequency detection value 1	0.00Hz to maximum frequency	50.00Hz	☆	63518
P8-31	Arbitrary arrival frequency detection width 1	0.0% to 100.0% (maximum frequency)	0.0%	☆	63519
P8-32	Arbitrary arrival frequency detection value 2	0.00Hz to maximum frequency	50.00Hz	☆	63520
P8-33	Arbitrary arrival frequency detection width 2	0.0% to 100.0% (maximum frequency)	0.0%	☆	63521
P8-34	Zero current detection level	0.0% to 300.0%	5.0%	☆	63522
P8-35	Zero current detection delay time	0.01s to 600.00s	0.10s	☆	63523
P8-36	Output current exceeds the limit	0.0% (not tested)	200.0%	☆	63524
P8-37	Output current over-limit detection delay time	0.00s～600.00s	0.00s	☆	63525
P8-38	Arbitrary arrival current 1	0.0% to 300.0% (rated current of motor)	100.0%	☆	63526
P8-39	Arbitrary reach current 1 width	0.0% to 300.0% (rated current of motor)	0.0%	☆	63527
P8-40	Arbitrary reaching current 2	0.0% to 300.0% (rated current of motor)	100.0%	☆	63528
P8-41	Arbitrary arrival current 2 width	0.0% to 300.0% (rated current of motor)	0.0%	☆	63529

Function code	name	Set Range	Factory value	attribute	DEC address
P8-42	Timing function selection	0: invalid 1: valid	0	☆	63530
P8-43	Selection of scheduled running time	0: P8-44 Setting 1: AI12: AI23 : AI3 *Note:* The *analog input range corresponds* to *P8-44*	0	☆	63531
P8-44	Scheduled running time	0.0Min～6500.0Min	0.0Min	☆	63532
P8-45	AI1 input voltage protection value lower limit	0.00V～P8-46	3.10V	☆	63533
P8-46	AI1 input voltage protection value upper limit	P8-45～10.00V	6.80V	☆	63534
P8-47	Module temperature reaches	0℃～100℃	75℃	☆	63535
P8-48	Fan control (motherboard FAN socket)	0: Fan is running during operation 1: Fan is always running	0	☆	63536
P8-49	Wake up frequency	Sleep frequency (P8-51) to maximum frequency (P0-10)	0.00Hz	☆	63537
P8-50	Wake-up delay time	0.0s～6500.0s	0.0s	☆	63538
P8-51	Sleep frequency	0.00Hz~wake-up frequency (P8-49)	0.00Hz	☆	63539
P8-52	Sleep delay time	0.0s～6500.0s	0.0s	☆	63540
P8-53	Setting of arrival time for this operation	0.0Min～6500.0Min	0.0Min	☆	63541
		P9 Group Fault and Protection			
P9-00	Selection of motor overload protection	0: Forbidden 1: Allowed	1	☆	63744
P9-01	Motor overload protection gain	0.20-10.00	1.00	☆	63745
P9-02	Motor overload warning coefficient	50% to 100%	80%	☆	63746
P9-03	overpressure stall gain	0 to 100	0	☆	63747
P9-04	Overvoltage stall action voltage	200.0～2000.0V 220V: 380V 380V: 760V	Model determination	☆	63748
P9-05	gain of excess loss and speed reduction	0 to 100	20	☆	63749
P9-06	Overcurrent and speed-down protection current	100% to 200%	150%	☆	63750
P9-07	Selection of power-on short circuit protection to ground	0: invalid 1: valid	1	☆	63751
P9-08	Energy-consuming braking action voltage	200.0-2000.0V	220V:360V 380V:700V	☆	63752
P9-09	Automatic fault reset times	0~20	0	☆	63753
P9-10	Fault DO action selection during automatic fault reset	0: No action 1: Action	0	☆	63754
P9-11	Automatic reset interval for faults	0.1s to 100.0s	1.0s	☆	63755
P9-12	Input the selection of phase loss protection	0: Forbidden 1: Allowed	0	☆	63756
P9-13	Output phase loss protection selection	0: Forbidden 1: Allowed	1	☆	63757

P9-14	First fault type	0: No fault 1: Reserved 2: Acceleration overcurrent 3: Deceleration overcurrent 4: Constant speed overcurrent 5: Acceleration overvoltage 6: Deceleration overvoltage 7: Constant speed overvoltage 8: Buffer resistance overload 9: Under voltage 10: Inverter overload 11: Motor overload 12: Input phase loss 13: Output phase loss 14: Module overheating 15: External fault 16: Communication abnormality 17: Contactor abnormality 18: Current detection abnormality 19: Motor tuning abnormality 20: Reserved 21: Parameter read-write abnormality 22: Inverter hardware abnormality 23: Motor short circuit to ground 24: Reserved 25: Reserved 26: Running time reached 27: User-defined fault 1 28: User-defined fault 2 29: Power-on time reached 30: Load loss 31: PID feedback loss during operation 40: Fast current limiting timeout 41: Switching motor during operation 42: Excessive speed deviation 43: Motor overspeed 45: Reserved 51: Reserved	--	●	63758
P9-15	Second fault type		--	●	63759
P9-16	Third (most recent) fault type		--	●	63760

Function code	name	Set Range	Factory value	attribute	DEC address
P9-17	Frequency at the third (latest) fault	--	--	●	63761
P9-18	Current during the third (most recent) fault	--	--	●	63762
P9-19	Bus voltage during the third (most recent) fault	--	--	●	63763
P9-20	Input terminal status during the third (most recent) fault	--	--	●	63764
P9-21	Output terminal status during the third (most	--	--	●	63765

	recent) fault				
P9-22	State of the frequency converter during the third (most recent) fault	--	--	●	63766
P9-23	Power-on time during the third (most recent) fault	--	--	●	63767
P9-24	Running time at the third (latest) fault	--	--	●	63768
P9-27	Frequency during the second fault	--	--	●	63771
P9-28	Current during the second fault	--	--	●	63772
P9-29	Bus voltage during the second fault	--	--	●	63773
P9-30	Input terminal status during the second fault	--	--	●	63774
P9-31	Output terminal status during the second fault	--	--	●	63775
P9-32	Status of the frequency converter during the second fault	--	--	●	63776
P9-33	Power-on time during the second fault	--	--	●	63777
Function code	**name**	**Set Range**	**Factory value**	**attribute**	**DEC address**
P9-34	Running time at the second fault	--	--	●	63778
P9-37	Frequency at the first fault	--	--	●	63781
P9-38	Current during the first fault	--	--	●	63782
P9-39	Bus voltage during the first fault	--	--	●	63783
P9-40	Input terminal status during the first fault	--	--	●	63784
P9-41	Output terminal status during the first fault	--	--	●	63785
P9-42	The state of the frequency converter during the first fault	--	--	●	63786
P9-43	Power-on time during the first fault	--	--	●	63787
P9-44	Running time during the first failure	--	--	●	63788
P9-47	Fault protection action selection 1	Unit digit: motor overload (11) 0: free stop 1: stop by stopping mode 2: continue running Tens digit: input phase loss (12) Hundred digit: output phase loss (13) Thousand digit: external fault (15) Ten thousand digit: communication exception (16)	00000	☆	63791
P9-54	Select the frequency to continue operating in case of failure	0: Run at the current operating frequency 1: Run at the set frequency	0	☆	63798

		2: Run at the upper limit frequency 3: Run at the lower limit frequency 4: Run at the abnormal standby frequency			
P9-55	Abnormal standby frequency	60.0%～100.0% (100.0% corresponds to the maximum frequency P0-10)	100.0%	☆	63799
P9-59	Selection of instantaneous power failure action	0: invalid 1: deceleration 2: deceleration and stop	0	☆	63803
P9-60	Judgment voltage for instantaneous stop action	P9-62 to 100.0%	100.0%	☆	63804
P9-61	Judgment time for voltage recovery after instantaneous power failure	0.00s～100.00s	0.50s	☆	63805
P9-62	Judgment voltage for instantaneous power failure action	60.0% to 100.0% (Standard bus voltage)	80.0%	☆	63806
P9-63	Selection of load protection	0: invalid 1: valid	0	☆	63807
P9-64	Load loss detection level	0.0 to 100.0%	10.0%	☆	63808
P9-65	Load loss detection time	0.0-60.0s	1.0s	☆	63809
		PID function of PA group			
PA-00	PID given source	0: PA-01 Setting 1: AI1 2: AI2 Local Potentiometer 3: AI3 External Keyboard Potentiometer 4: HDI Input Pulse Setting (DI5) 5: Communication Setting 6: Multi-Segment Instruction Setting	0	☆	64000
PA-01	PID value given	0.0 to 100.0%	50.0%	☆	64001
PA-02	PID feedback source	0: AI1 1: AI2 local potentiometer 2: AI3 external keyboard potentiometer 3: AI1-AI2 4: HDI input pulse setting (DI5) 5: communication setting 6: AI1+AI2 7: MAX (|AI1|, |AI2|) 8: MIN (|AI1|, |AI2|)	0	☆	64002
Function code	name	Set Range	Factory value	attribute	DEC address
PA-03	PID action direction	0: positive effect 1: negative effect	0	☆	64003
PA-04	PID given feedback range	0-65535	1000	☆	64004
PA-05	Proportional gain KP1	0.0 to 100.0	20.0	☆	64005
PA-06	Integration time Ti1	0.01-10.00s	2.00s	☆	64006
PA-07	Differential time Td1	0.000-10.000s	0.000s	☆	64007
PA-08	PID Inversion Cutoff Frequency	0.00-maximum frequency	2.00Hz	☆	64008
PA-09	PID deviation limit	0.0 to 100.0%	0.0%	☆	64009
PA-10	PID differential limit	0.00 to 100.00%	0.10%	☆	64010
PA-11	PID given change time	0.00 to 650.00 seconds	0.00s	☆	64011

PA-12	PID feedback filtering time	0.00 to 60.00 seconds	0.00s	☆	64012
PA-13	PID output filtering time	0.00 to 60.00 seconds	0.00s	☆	64013
PA-15	Proportional gain KP2	0.0 to 100.0	20.0	☆	64015
PA-16	Integration time Ti2	0.01s～10.00s	2.00s	☆	64016
PA-17	Differential time Td2	0.000s to 10.000s	0.000s	☆	64017
PA-18	Switching conditions of PID parameters	0: Do not switch 1: Switch through the DI terminal 2: Switch automatically according to the deviation	0	☆	64018
PA-19	PID parameter switching deviation 1	0.0% to PA-20	20.0%	☆	64019
PA-20	PID parameter switching deviation 2	PA-19～100.0%	80.0%	☆	64020
PA-21	PID initial value	0.0 to 100.0%	0.0%	☆	64021
PA-22	PID initial value holding time	0.00-650.00s	0.00s	☆	64022
PA-23	The maximum positive deviation of the two outputs	0.00-100.00%	1.00%	☆	64023
PA-24	Maximum value of the two output deviation reversals	0.00 to 100.00%	1.00%	☆	64024
PA-25	PID integral attribute	Unit digit: Integral separation 0: Invalid 1: Valid Tens digit: Whether to stop integrating after outputting to the limit value 0: Continue integrating 1: Stop integrating	00	☆	64025
PA-26	PID feedback loss detection value	0.0%: No feedback loss is judged between 0.1 and 100.0%	0.0%	☆	64026
PA-27	PID feedback loss detection time	0.0s to 20.0s	0.0s	☆	64027
PA-28	PID shutdown operation	0: stop calculation during shutdown 1: calculate during shutdown	1	☆	64028
Pb group: swing frequency, fixed length and counting					
Pb-00	Setting method of pendulum frequency	0: relative to the center frequency 1: relative to the maximum frequency	0	☆	64256
Pb-01	Swing frequency amplitude	0.0 to 100.0%	0.0%	☆	64257
Pb-02	sudden frequency amplitude	0.0 to 50.0%	0.0%	☆	64258
Pb-03	Oscillation frequency cycle	0.1 to 3000.0 seconds	10.0s	☆	64259
Pb-04	Rise time of triangular wave of pendulum frequency	0.1 to 100.0%	50.0%	☆	64260
Pb-05	Set length	0 to 65535 m	1000m	☆	64261
Pb-06	Actual length	0 to 65535 m	0m	☆	64262
Pb-07	Pulse per meter	0.1 to 6553.5	100.0	☆	64263
Pb-08	Set the count value	1 to 65535	1000	☆	64264
Pb-09	Specify the count value	1 to 65535	1000	☆	64265
Pc group Multi-segment instruction and simple PLC					
PC-00	Multi-segment instruction 0	-100.0% to 100.0%	0.0%	☆	64512
PC-01	Multi-segment instruction 1	-100.0% to 100.0%	0.0%	☆	64513
PC-02	Multi-segment instruction 2	-100.0% to 100.0%	0.0%	☆	64514

PC-03	Multi-segment instruction 3	-100.0% to 100.0%	0.0%	☆	64515
Function code	**name**	**Set Range**	**Factory value**	**attribute**	**DEC address**
PC-04	Multi-segment instruction 4	-100.0% to 100.0%	0.0%	☆	64516
PC-05	Multi-segment instruction 5	-100.0% to 100.0%	0.0%	☆	64517
PC-06	Multi-segment instruction 6	-100.0% to 100.0%	0.0%	☆	64518
PC-07	Multi-segment instruction 7	-100.0% to 100.0%	0.0%	☆	64519
PC-16	Simple PLC operation mode	0: stop after single operation 1: keep the final value after single operation 2: keep cycling	0	☆	64528
PC-17	Easy PLC power-down memory selection	Unit digit: power-down memory selection 0: no memory on power-down 1: power-down memory Ten digit: shutdown memory selection 0: no memory on shutdown 1: shutdown memory	00	☆	64529
PC-18	Simple PLC0 segment running time	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64530
PC-19	Simple PLC0 segment Selection of acceleration and deceleration time	0~3	0	☆	64531
PC-20	Simple PLC1 segment running time	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64532
PC-21	Simple PLC1 segment Selection of acceleration and deceleration time	0~3	0	☆	64533
PC-22	Simple PLC 2-segment runtime	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64534
PC-23	Simple PLC2 segment Selection of acceleration and deceleration time	0~3	0	☆	64535
PC-24	Simple PLC 3-segment runtime	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64536
PC-25	Simple PLC3 segment Selection of acceleration and deceleration time	0~3	0	☆	64537
PC-26	Simple PLC 4-segment running time	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64538
PC-27	Simple PLC4 segment Selection of acceleration and deceleration time	0~3	0	☆	64539
PC-28	Simple PLC 5-segment runtime	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64540
PC-29	Simple PLC 5-segment Selection of acceleration and deceleration time	0~3	0	☆	64541
PC-30	Simple PLC 6-segment running time	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64542
PC-31	Simple PLC 6-segment Selection of acceleration	0~3	0	☆	64543

	and deceleration time				
PC-32	Simple PLC 7-segment running time	0.0s (h) to 6553.5s (h)	0.0s(h)	☆	64544
PC-33	Simple PLC 7-segment Selection of acceleration and deceleration time	0~3	0	☆	64545
PC-50	Simple PLC operation Time unit	0: s (second) 1: h (hour)	0	☆	64562
PC-51	Multi-segment instruction 0 given mode	0: Function code PC-00 is given 1: AI1 2: AI2 The local potentiometer 3: AI3 The external keyboard potentiometer 4: HDI Input pulse 5: PID 6: Preset frequency (P0-08) is given, and UP/DOWN can be modified	0	☆	64563
Pd group communication parameters					
Function code	name	Set Range	Factory value	attribute	DEC address
Pd-00	Baud rate	0: 300BPS 1: 600BPS 2: 1200BPS 3: 2400BPS 4: 4800BPS 5: 9600BPS 6: 19200BPS 7: 38400BPS 8: 57600BPS	5	☆	64768
Pd-01	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)	3	☆	64769
Pd-02	Local address	1 to 247	1	☆	64770
Pd-03	Response delay	0-20ms	2	☆	64771
Pd-04	Communication timeout	0.0 (invalid), 0.1s-60.0s	0.0	☆	64772
Pd-05	Selection of data transmission format	Unit digit: MODBUS 0: non-standard MODBUS protocol 1: standard MODBUS protocol	1	☆	64773
Pd-06	Communication read current resolution	0: 0.01A 1: 0.1A	0	☆	64774
Pd-07	retain	-	0	☆	64775
PP group function code management					
PP-00	User password	0-65535	00000	☆	7936
PP-01	Parameter initialization	0: No operation 01: Restore factory parameters, excluding motor parameters 02: Clear recorded information 03: Restore factory parameters, including motor parameters	000	★	7937
PP-02	Display and selection of functional parameter group	Unit digit: U group display selection 0: not display 1: display Tens digit: A group display selection 0: not display 1: display	11	★	7938
PP-04	Modify the attribute of function code	0: modifiable 1: not modifiable	0	☆	7940
Group A5 Control optimization parameters					

A5-00	DPWM switching upper limit frequency	0.00Hz to 15.00Hz	12.00Hz	☆	42240
A5-01	PWM modulation mode	0: asynchronous modulation 1: synchronous modulation	0	☆	42241
A5-02	Selection of dead zone compensation mode	0 : No compensation 1: Compensation mode 12: Compensation mode 2	1	☆	42242
A5-03	Random PWM depth	0 : Random PWM is invalid 1-10: Random depth of PWM carrier frequency	0	☆	42243
A5-04	Fast current limiting enable	0: Disable 1: Enable	1	☆	42244
A5-05	Current detection compensation	0 to 100	5	☆	42245
A5-06	Under-voltage point setting	60.0-140.0%	100.0%	☆	42246
A5-07	Selection of SVC optimization mode	0: No optimization 1: Optimization mode 1 2: Optimization mode 2	1	☆	42247
A5-08	Adjustment of dead time	100-200%	150%	☆	42248
A5-09	Overvoltage point setting	200.0-2500.0V	Model selection	★	42249

Function code	name	Set Range	Factory value	attribute	DEC address
Group U0 Monitoring Parameter Table					
U0-00	Operating frequency (Hz)	--	0.01Hz	●	28672
U0-01	Set frequency (Hz)	--	0.01Hz	●	28673
U0-02	Bus voltage (V)	--	0.1V	●	28674
U0-03	Output voltage (V)	--	1V	●	28675
U0-04	Output current (A)	--	0.01A	●	28676
U0-05	Output power (kW)	--	0.1kW	●	28677
U0-06	Output torque (%)	--	0.1%	●	28678
U0-07	DI input status	--	1	●	28679
U0-08	DO output status	--	1	●	28680
U0-09	AI1 voltage (V)	--	0.01V	●	28681
U0-10	AI2 voltage (V)	--	0.01V	●	28682
U0-11	AI3 panel potentiometer voltage	--	0.01V	●	28683
U0-12	Count value	--	1	●	28684
U0-13	Length value	--	1	●	28685

U0-14	Load speed display	--	1	●	28686
U0-15	PID setting	--	1	●	28687
U0-16	PID feedback	--	1	●	28688
U0-17	PLC stage	--	1	●	28689
U0-18	HDI input pulse frequency (Hz)	--	0.01kHz	●	28690
U0-19	Feedback speed (unit: 0.1Hz)	--	0.1Hz	●	28691
U0-20	Remaining running time	--	0.1Min	●	28692
U0-21	AI1 voltage before correction	--	0.001V	●	28693
U0-22	Voltage before AI2 correction	--	0.001V	●	28694
U0-23	Voltage before panel potentiometer calibration	--	0.001V	●	28695
U0-24	Linear velocity	--	1m/Min	●	28696
U0-25	Current power-on time	--	1Min	●	28697
U0-26	Current running time	--	0.1Min	●	28698
U0-27	HDI input pulse frequency	--	1Hz	●	28699
U0-28	Communication settings	--	0.01%	●	28700
U0-30	Main frequency X display	--	0.01Hz	●	28702
U0-31	Auxiliary frequency Y display	--	0.01Hz	●	28703
U0-32	View any memory address value	--	1	●	28704
Function code	name	Set Range	Factory value	attribute	DEC address
U0-35	Target torque (%)	--	0.1%	●	28707
U0-37	Power factor angle	--	0.1°	●	28709
U0-39	retain	--	1V	●	28711
U0-40	retain	--	1V	●	28712
U0-41	Intuitive display of DI input status	--	1	●	28713
U0-42	DO input status is visually displayed	--	1	●	28714
U0-43	Intuitive display of DI function status 1 (Function 01-40)	--	1	●	28715
U0-44	Intuitive display of DI function status 2 (Function 41-80)	--	1	●	28716
U0-45	Fault information	--	1	●	28717
U0-59	Set frequency (%)	--	0.01%	●	28731
U0-60	Operating frequency (%)	--	0.01%	●	28732
U0-61	Status of frequency converter	--	1	●	28733

U0-62	**Current fault code**	**--**	**1**	**●**	**28734**
U0-65	**Torque upper limit**	**--**	**0.1%**	**●**	**28737**

Chapter 5: Fault Diagnosis and Countermeasures

5.1 Fault alarm and countermeasures

The YL586K frequency converter has a total of 24 warning messages and protection functions. Once a fault occurs, the protection function will activate, the frequency converter will stop outputting, the frequency converter fault relay contact will activate, and a fault code will be displayed on the frequency converter display panel. Before seeking service, users can first conduct self-inspection by following the tips in this section, analyze the cause of the failure, and find a solution. If the reason is within the dotted box, please seek service and contact the agent of the inverter you purchased or directly contact our company.

Err22 is a hardware overcurrent or overvoltage signal among the 21 warning messages. In most cases, Err22 alarms are caused by hardware overvoltage faults.

Fault name	fault code	Troubleshooting of the cause of the failure	Troubleshooting measures
Inverter unit protect	Err01	1. The output circuit of the frequency converter is short-circuited 2. The wiring between the motor and the frequency converter is too long 3. Module overheating 4. The internal wiring of the frequency converter is loose 5. The main control board is abnormal 6. The drive board is abnormal 7. The inverter module is abnormal	1. Eliminate peripheral faults 2. Install a reactor or output filter 3. Check whether the air duct is blocked and the fan is working properly Work regularly and eliminate existing problems 4. Plug in all the connecting wires 5. Seek technical support 6. Seek technical support 7. Seek technical support
accelerated overcurrent	Err02	1. The output circuit of the frequency converter is grounded or short-circuited 2. The control method is vectorial and no parameter identification is performed 3. The acceleration time is too short 4. Manual torque boosting or V/F curve is not suitable 5. The voltage is low 6. Start the rotating motor 7. Sudden load during acceleration 8. The selected frequency converter is too small	1. Eliminate peripheral faults 2. Identify the parameters of the motor 3. Increase the acceleration time 4. Adjust the manual lifting torque or V/F curve 5. Adjust the voltage to the normal range 6. Choose to start the speed tracking or wait for the motor to stop Restart later 7. Cancel the sudden load 8. Select a frequency converter with a higher power rating
Deceleration overcurrent	Err03	1. The output circuit of the frequency converter has a grounding or short circuit 2. The control method is vector and no parameter identification is performed 3. The deceleration time is too short 4. The voltage is low 5. Sudden load during deceleration 6. No brake unit or brake resistor is installed	1. Eliminate peripheral faults 2. Identify the parameters of the motor 3. Increase the deceleration time 4. Adjust the voltage to the normal range 5. Cancel the sudden load 6. Install brake unit and resistor
constant speed overcurrent	Err04	1. The output circuit of the frequency converter has a grounding or short circuit 2. The control method is vector and no parameter identification is performed 3. Low voltage 4. Is there a sudden load during operation 5. The selected frequency converter is too small	1. Eliminate peripheral faults 2. Identify the parameters of the motor 3. Adjust the voltage to the normal range 4. Cancel the sudden load 5. Select a frequency converter with a higher power rating
accelerated overvoltage	Err05	1. The input voltage is too high 2. There is external force dragging the motor during acceleration 3. The acceleration time is too short	1. Adjust the voltage to the normal range 2. Cancel the additional power or install a braking resistor 3. Increase the acceleration time

		4. No brake unit or brake resistor is installed	4. Installing brake unit and resistance
deceleration overvoltage	Err06	1. The input voltage is too high 2. There is external force dragging the motor during acceleration 3. The deceleration time is too short 4. No brake unit and brake resistor are installed	1. Adjust the voltage to the normal range 2. Cancel the additional power or install braking resistance 3. Increase the acceleration time 4. Installing brake unit and resistance
constant speed overvoltage	Err07	1. The input voltage is too high 2. There is external force dragging the motor during operation	1. Adjust the voltage to the normal range 2. Cancel the additional power or install a braking resistor
Fault name	fault code	Troubleshooting of fault causes	Troubleshooting measures
Control power supply fault	Err08	1. The input voltage is not within the range specified in the specification	1. Adjust the voltage to the range required by the specifications
Undervoltage fault	Err09	1. Instantaneous power failure 2. The input voltage of the frequency converter is not within the range required by the specifications 3. The voltage of the busbar is abnormal 4. The rectifier bridge and buffer resistance are abnormal 5. The drive board is abnormal 6. Control board is abnormal	1. Reset fault 2. Adjust the voltage to the normal range 3. Seek technical support 4. Seek technical support 5. Seek technical support 6. Seek technical support
Overload of frequency converter	Err10	1. Whether the load is too large or the motor is locked-rotor 2. The selection of frequency converter is too small	Reduce the load and check the motor and mechanical conditions 2. Select a frequency converter with a higher power rating
motor overload	Err11	1. Whether the motor protection parameter P9-01 is set appropriately 2. Whether the load is too large or the motor is locked-rotor 3. The selected frequency converter is too small	1. Set this parameter correctly Reduce the load and check the motor and mechanical conditions 3. Select a frequency converter with a higher power rating
Input phase loss	Err12	1. The three-phase input power supply is abnormal 2. The drive board is abnormal 3. Abnormal lightning protection plate 4. The main control board is abnormal	1. Check and eliminate the problems in the peripheral circuits 2. Seek technical support 3. Seek technical support 4. Seek technical support
Output phase loss	Err13	1. The lead wire from the frequency converter to the motor is abnormal 2. The three-phase output of the frequency converter is unbalanced during the operation of the motor 3. The drive board is abnormal 4. Module exception	1. Eliminate peripheral faults 2. Check whether the three-phase winding of the motor is normal and eliminate the fault 3. Seek technical support 4. Seek technical support
Module overheating	Err14	1. The ambient temperature is too high 2. Air duct is blocked 3. The fan is damaged 4. The module thermistor is damaged 5. The inverter module is damaged	1. Reduce the ambient temperature 2. Clean the air duct 3. Replace the fan 4. Replace the thermistor 5. Replace the inverter module
peripheral fault	Err15	1. Multi-function terminal DI inputs external fault signals 2. Virtual IO function inputs external fault signals	1. Reset operation 2. Reset operation
Communication malfunction	Err16	1. The upper computer is not working properly 2. The communication line is not functioning properly 3. Reserved	1. Check the wiring of the upper computer 2. Check the communication connection line 3. Set the type of communication

		4. The communication parameter PD group is not set correctly	expansion card correctly 4. Set the communication parameters correctly
Contactor fault	Err17	1. The drive board and power supply are not functioning properly 2. The contactor is not functioning properly	1. Replace the drive board or power board 2. Replace the contactor
Current detection fault	Err18	1. Check the Hall device for abnormality 2. The drive board is abnormal	Replace the Hall device 2. Replace the drive board
Motor tuning fault	Err19	1. The motor parameters are not set according to the nameplate 2. Parameter identification process timed out	1. Set the motor parameters correctly according to the nameplate 2. Check the lead wire from the frequency converter to the motor
EEPROM Read/write malfunction	Err21	1. EEPROM chip is damaged	1. Replace the main control board
Fault name	fault code	Troubleshooting of the cause of the failure	Troubleshooting measures
Frequency converter Hardware malfunction	Err22	1. There is overpressure 2. There is overcurrent	1. Handle it as an overvoltage fault 2. Handle it as an overcurrent fault
Short circuit to ground fault	Err23	1. The motor is short-circuited to the ground	1. Replace the cable or motor
The cumulative running time reaches the fault	Err26	1. The accumulated running time reaches the set value	1. Use the parameter initialization function to clear the record information
User-defined Fault 1	Err27	1. Input the signal of user-defined fault 1 through the multi-function terminal DI 2. Input the signal of user-defined fault 1 through the virtual IO function	1. Reset operation 2. Reset operation
User-defined Fault 2	Err28	1. Input the signal of user-defined fault 2 through the multi-function terminal DI 2. Input the signal of user-defined fault 2 through the virtual IO function	1. Reset operation 2. Reset operation
The accumulated power-on time reaches the fault	Err29	1. The accumulated power-on time reaches the set value	1. Use the parameter initialization function to clear the record information
Load shedding fault	Err30	1. The operating current of the frequency converter is less than P9-64	1. Confirm whether the load is disconnected or whether the parameter settings of P9-64 and P9-65 are consistent with the actual operating conditions
PID feedback is lost during operation fault	Err31	1. PID feedback is less than the set value of PA-26	1. Check the PID feedback signal or set PA-26 to a suitable value
Wave by wave current limiting fault	Err40	1. Whether the load is too large or the motor is locked-rotor 2. The selected frequency converter is too small	Reduce the load and check the motor and mechanical conditions 2. Select a frequency converter with a higher power rating
Switching motor fault during operation	Err41	1. Change through the terminal during the operation of the frequency converter Current motor selection	1. Switch the motor after the frequency converter is stopped

Motor overheating fault	Err45	1. The temperature sensor wiring is loose 2. The motor temperature is too high	1. Inspect the temperature sensor wiring and rectify any faults 2. Reduce the carrier frequency or take other cooling measures to dissipate heat from the motor
initial position error	Err51	1. The motor parameters deviate too much from the actual values	1. Reconfirm whether the motor parameters are correct, and focus on whether the rated current is set too low

5.2 Common faults and their handling methods

The following fault conditions may be encountered during the use of the frequency converter. Please refer to the following methods for simple fault analysis:

Table 4-1 Common Faults and Troubleshooting Methods

Serial number	Fault phenomenon	Possible reasons	resolvent
1	No display when powered on	The voltage of the power grid is either absent or too low; The switching power supply on the drive board of the frequency converter has a fault; The rectifier bridge is damaged; The buffer resistance of the frequency converter is damaged; Control board, keyboard, keyboard cable failure; The connection between the control board, drive board, and keyboard is broken;	Check the input power supply; Seeking services from manufacturers; Check the bus voltage; Seeking services from manufacturers; Replace the keyboard cable or contact the manufacturer; Seeking for manufacturer services;
2	Power on and repeat display [ ]	The connection between the drive board and the control board is in poor contact; The control board related devices are damaged; The voltage of the power grid is too low; The drive board switch power supply has a problem;	Reseat the motherboard pin header; Seeking for the service of the manufacturer; Check the grid voltage; Seeking services from manufacturers;
3	Power on display "Err23" alarm	The motor or output line is short-circuited to the ground; The frequency converter is damaged;	Use a megger to measure the insulation of the motor and output line; Seeking for manufacturer's service;
4	Power-on display is normal, and after operation, it displays "[ ]" and immediately shuts down	The fan is damaged or blocked; The peripheral control terminal wiring has a short circuit;	Replace the fan; Eliminate external short-circuit fault; Seeking for manufacturer's service;
5	Err14 is reported frequently (Module overheating) Fault	The carrier frequency setting is too high. The fan is damaged or the air duct is blocked. The internal components of the frequency converter are damaged (thermocouple or other)	Decrease the carrier frequency (P0-15). Replace the fan and clean the air duct. Seek the service of the manufacturer.

6	After the frequency converter is running Motor does not rotate	The motor cable is not properly connected; The parameter setting of the frequency converter is incorrect (motor parameter); Poor contact between the drive board and the control board; Driver board fault;	Reconfirm the connection between the frequency converter and the motor; Replace the motor or clear the mechanical fault; Check and reset the motor parameters;
7	The frequency converter frequently reports overcurrent and overvoltage faults.	The motor parameters are not set correctly; The acceleration and deceleration time is not appropriate; Load fluctuation;	Reset the motor parameters or perform motor Tuning; Set the appropriate acceleration and deceleration time; Seeking services from manufacturers;
8	Power on display 	The relevant components on the control board are damaged;	Replace the control board;

Chapter 6 Warranty Agreement

1）The warranty period of this product is 12 months (subject to the barcode information on the body), and it is used normally according to the instruction manual during the warranty period
If the product malfunctions or is damaged, our company will provide free maintenance.

2) During the warranty period, a certain amount of maintenance fees will be charged for damage caused by the following reasons:

A. Machine damage caused by errors in use and unauthorized repairs and modifications;
B. Machine damage caused by fire, flood, abnormal voltage, other natural disasters, and secondary disasters;
C. Hardware damage caused by human fall and transportation after purchase;
D. Machine damage caused by not following the user manual provided by our company;
E. Failure and damage caused by obstacles other than the machine (such as external equipment factors);

3) When the product malfunctions or is damaged, please fill in the details of the Product Warranty Card correctly and thoroughly.

4) The maintenance fees shall be charged in accordance with our company's latest adjusted "Maintenance Price List".

5) This warranty card is not reissued under normal circumstances. Please be sure to keep this card and present it to the repair personnel during the warranty period.

6) If there are any problems during the service process, please contact our agent or our company in a timely manner.

Changzhou Economic Development Zone Henglin Yalang Electric Appliance Factory

Customer Service Hotline: 15995088641
Website: https://czyalang.1688.com/