

ASB810

High protection

inverter user manual

Highly Protective Inverters



✓ Long lifespan

✓ Low failure rate

Serving for Damp and Dusty Environment

Service Life is **5 to 10 times** Longer than Regular Inverter

ASB810 HIGH PROTECTION INVERTER USER MANUAL

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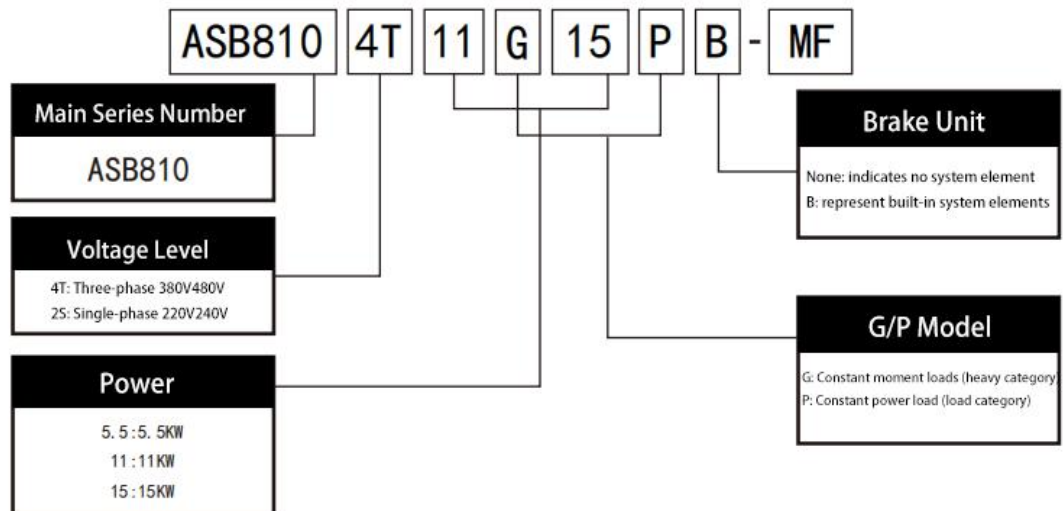
1. Model and Technical Parameters

Volume	Drive Model	Power Supply Capacity (KAV)	Input Current (A)	Output Current (A)	Motor (KW)
	Three-phase power supply: AC380~440V,50Hz/60Hz				
B1	ASB810-4T0.75G/1.5PB=MF	1.5	2.4	2.1	0.75
	ASB810-4T1.5G/2.2PB-MF	3.0	4.0	3.8	1.5
	ASB810-4T2.2G/4.0PB-MF	4.0	5.8	5.1	2.2
	ASB810-4T4.0GB-MF	5.9	10.5	9	4.0
B2	ASB810-4T4.0G/5.5PB-MF	5.9	10.5	9/13	4.0/5.5
	ASB810-4t5.5g/7.5pb-mf	8.9	14.6	13/17	5.5/7.5
	ASB810-4T7.5GB-MF	11.0	20.5	17	7.5
B3	ASB810-4t7.5g/11pb-mf	11.0	20.5	17/25	7.5/11
	ASB810-4t11g/15pb-mf	17.0	26.0	25/32	11/15
	ASB810-4T15GB-MF	21.0	35.0	32	15

Volume	Drive Model	Power Supply Capacity (KAV)	Input current (A)	Output current (A)	Motor (KW)
	Single-phase power supply: AC220~240V,50Hz/60Hz				
B1	ASB810-2S0.4GB-MF	1.4	5.4	2.3	0.4
	ASB810-2S0.75GB-MF	2.2	8.2	4	0.75
	ASB810-2S1.5GB-MF	3.7	14	7	1.5
	ASB810-2S2.2GB-MF	6.0	23	9.6	2.2

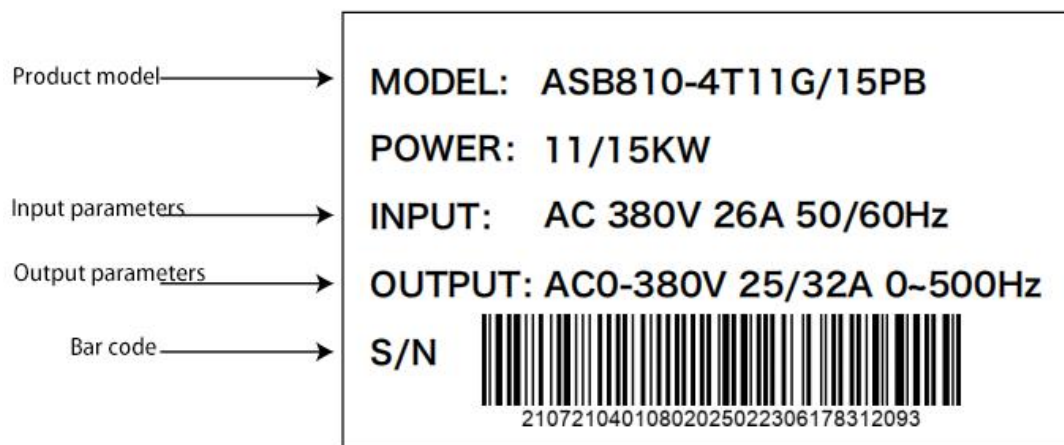
2. Product Information

2.1 Naming Rules

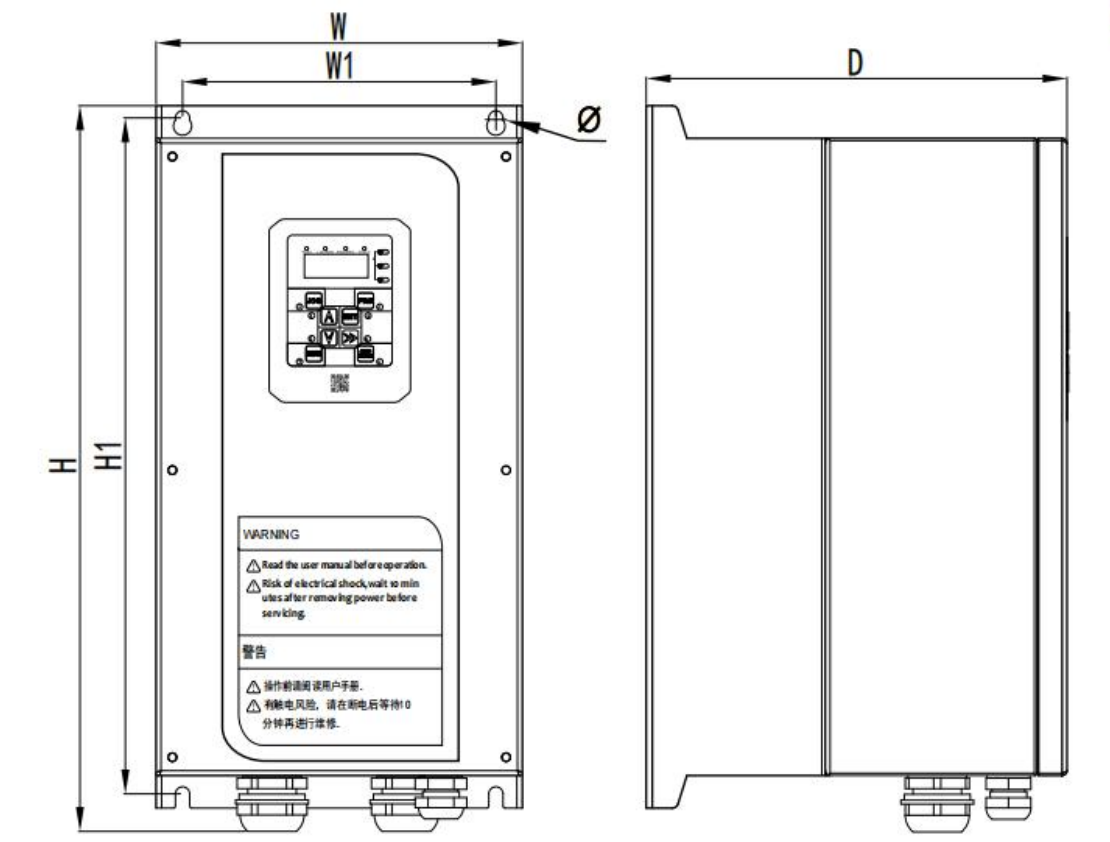


Inverter product Naming Rules

2.2 Nameplates



3. Appearance and Installation Dimensions



ASB810 Series (Unit: mm)

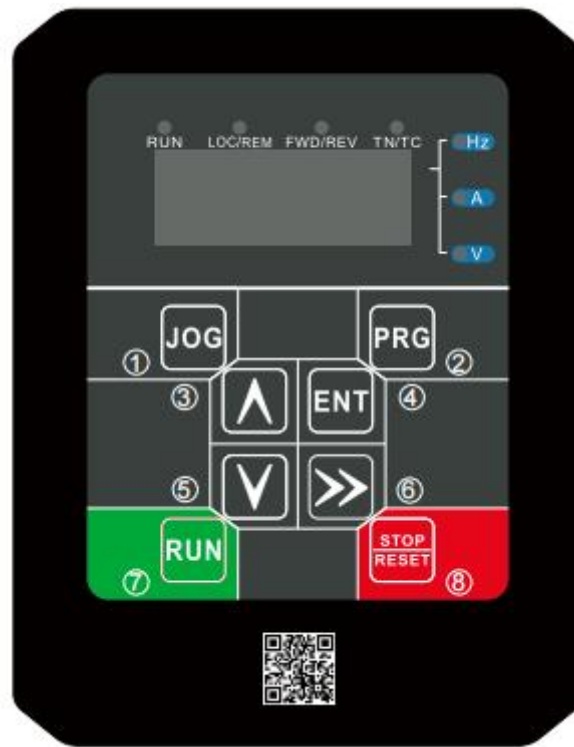
Model number	Mounting Dimensions		Exterior Dimensions			Mounting hole diameter
	W1	H1	W	H	D	Φ
B1	110	259	136	281	155	6
B2	114	267	140	289	165	6
B3	154	332	180	356	207	7

4. Operation Guidance Panel

4.1 Introduction to Operation and Display Panel

With the operation panel, you can modify the functional parameters of the frequency converter, monitor the working status of the frequency converter and control the operation of the frequency converter (start).

The external appearance and functional areas are shown in the figure below:



4.1.1 Function Indicator Light Description

- **RUN:** When the light is off, it means the inverter is in stop state, when the light is on, it means the inverter is in running state.

- **FWD/REV:** Forward and Reverse Rotation Indicator, the light is on to indicate that it is in reverse rotation.

TUNE/TC: tuning/torque control/fault indicator, light on means in torque control mode, light flashes slowly means in tuning status, a rapidly flashing lamp indicates a fault condition.

LOCAL/REMOT: Start/stop control mode indicator, off for panel control, long light for terminal control, blinking for pass-through.

Newsletter control.

Unit indicators: Hz for Frequency unit, A for Current unit, V for Voltage unit, RPM (Hz+A) for RPM unit, % (A+V percent).

- Digital display area: 5-digit**LED** display can show the set frequency, output frequency, various monitoring data and alarm codes.

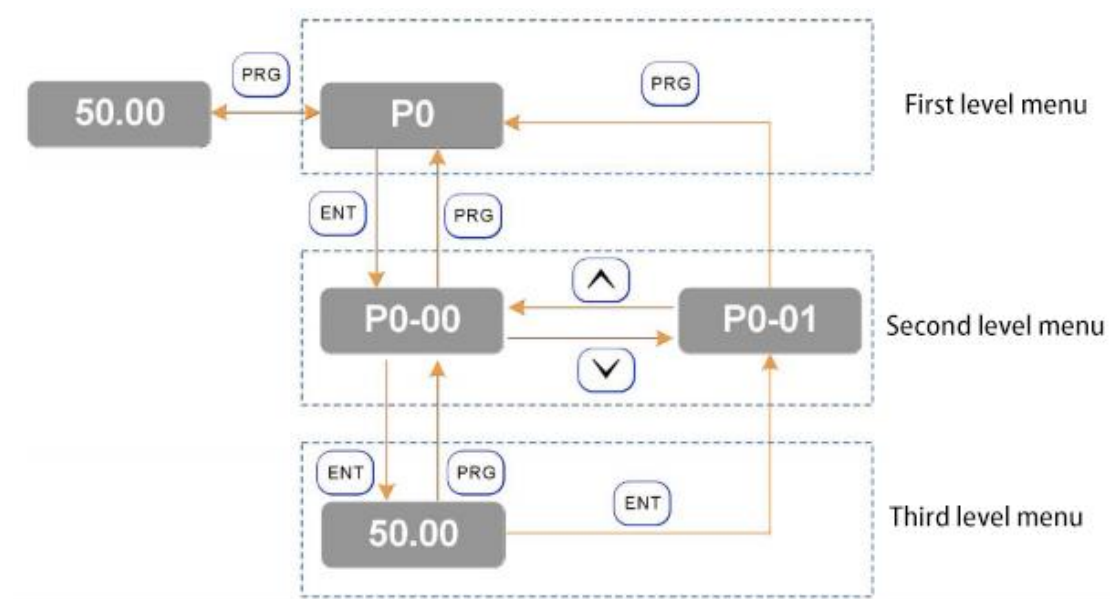
4.1.2 Keyboard Button Description Table

●●	●●	●●
PRG	Menu key	First level menu entry or exit (switching with the operation display)
ENT	Confirmation key	Step-by-step access to the menu screen and confirmation of setting parameters
●●	Incremental key	Incrementing of data or function codes
V	Decrement key	Decrement of data or function codes
SHIFT	Shift key	Cyclic selection of display parameters in the shutdown display and the run display When modifying a parameter, you can select the modification bit of the parameter;
RUN	run key (on a computer keyboard)	For running operations in keyboard mode
STOP/RESET	Stop/Reset	During the running state, press this key to stop the running operation; Fault Alarm The key can be used to reset the operation when the state is "on", the characteristics of this key are governed by function code P7-16.
JOG	multifunction selector	According to P7-01, the function switching selection can be used for: parameter display mode switching, command channel switching, forward and reverse rotation switching, forward and reverse rotation pointing operation and other functions.

4.2 Description of Function Code Viewing and Modifying Methods

The operation panel of the inverter adopts a three-level menu structure for parameter setting and other operations. The three-level menu are as follows:

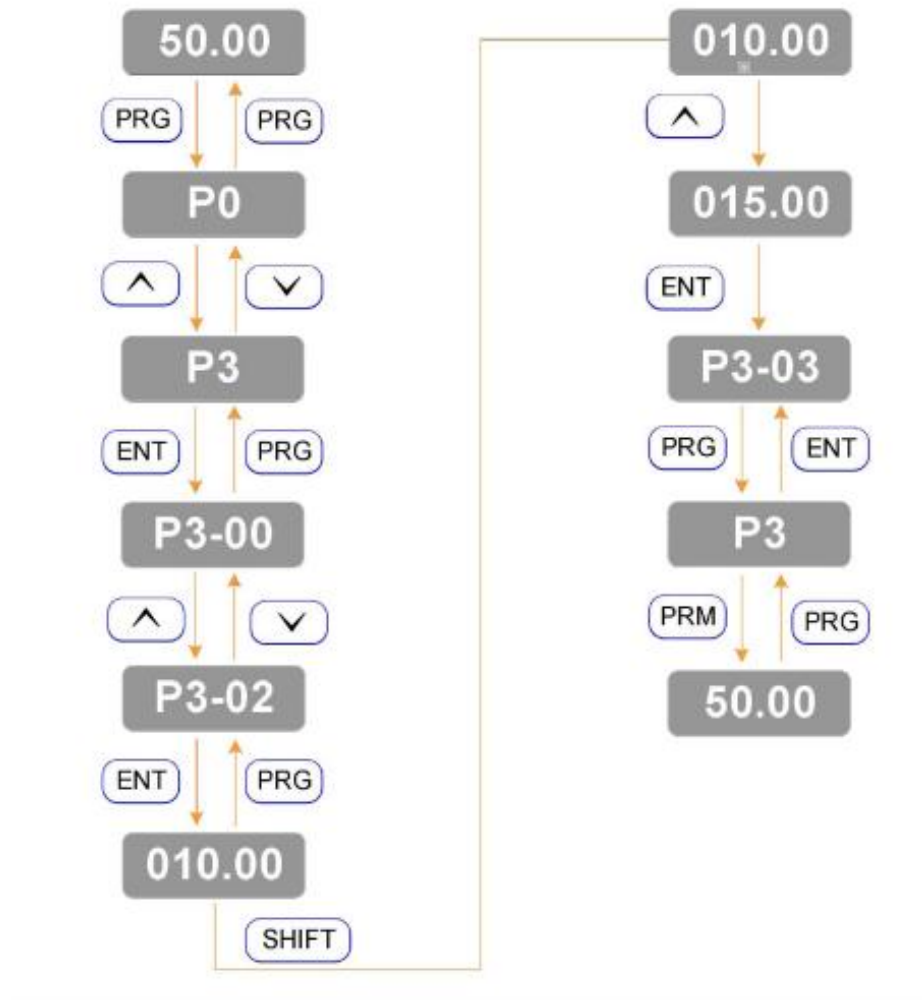
Function referenceArray (first level menu) → Function Code (second level menu) → Function Code Setting Value (third level menu). The operation flow is shown in Fig.



Three-level menu operation flow chart

Description: When operating in the three-level menu, you can press MENU or ENTER to return to the second-level menu. The difference between the two is that pressing ENTER saves the set parameters and returns to the second level menu and automatically transfers to the next function code, while pressing MENU returns to the second level menu directly without storing parameters and returns to the current function code.

Example: Example of changing the setting of function code P3-02 from 10.00Hz to 15.00Hz.
(Bold letters indicate blinking bits)



In the third level menu state, if the parameter does not have a blinking bit, it means that the function code cannot be modified, the possible reasons are:

1. This function code is a non-modifiable parameter. Such as actual detection parameters, operation record parameters, etc.
2. This function code can not be modified in the running state, and can only be modified after stopping the machine.

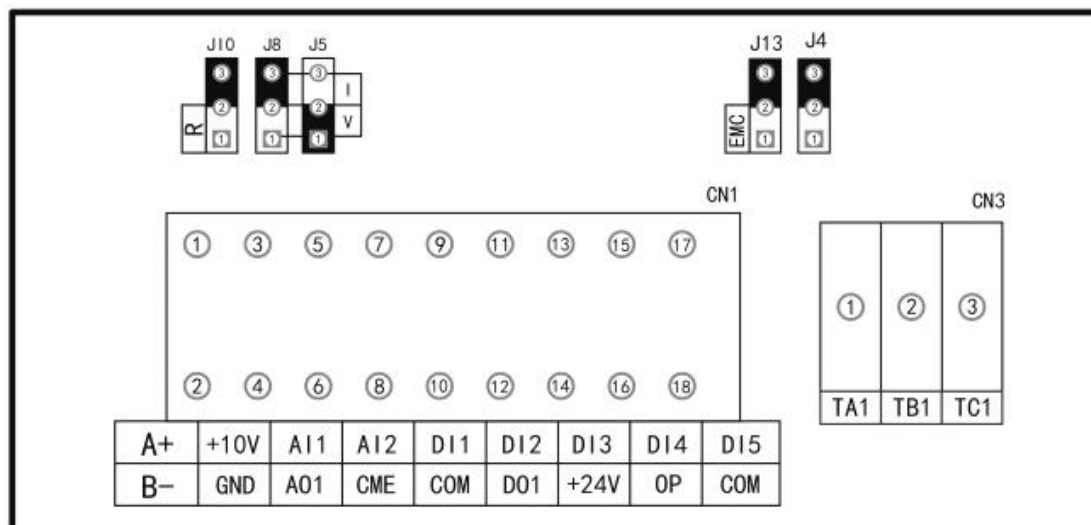
5. Macro Description of Machine Tool Application

Apply the macro, set L0-00=3, the following parameters will be updated automatically;

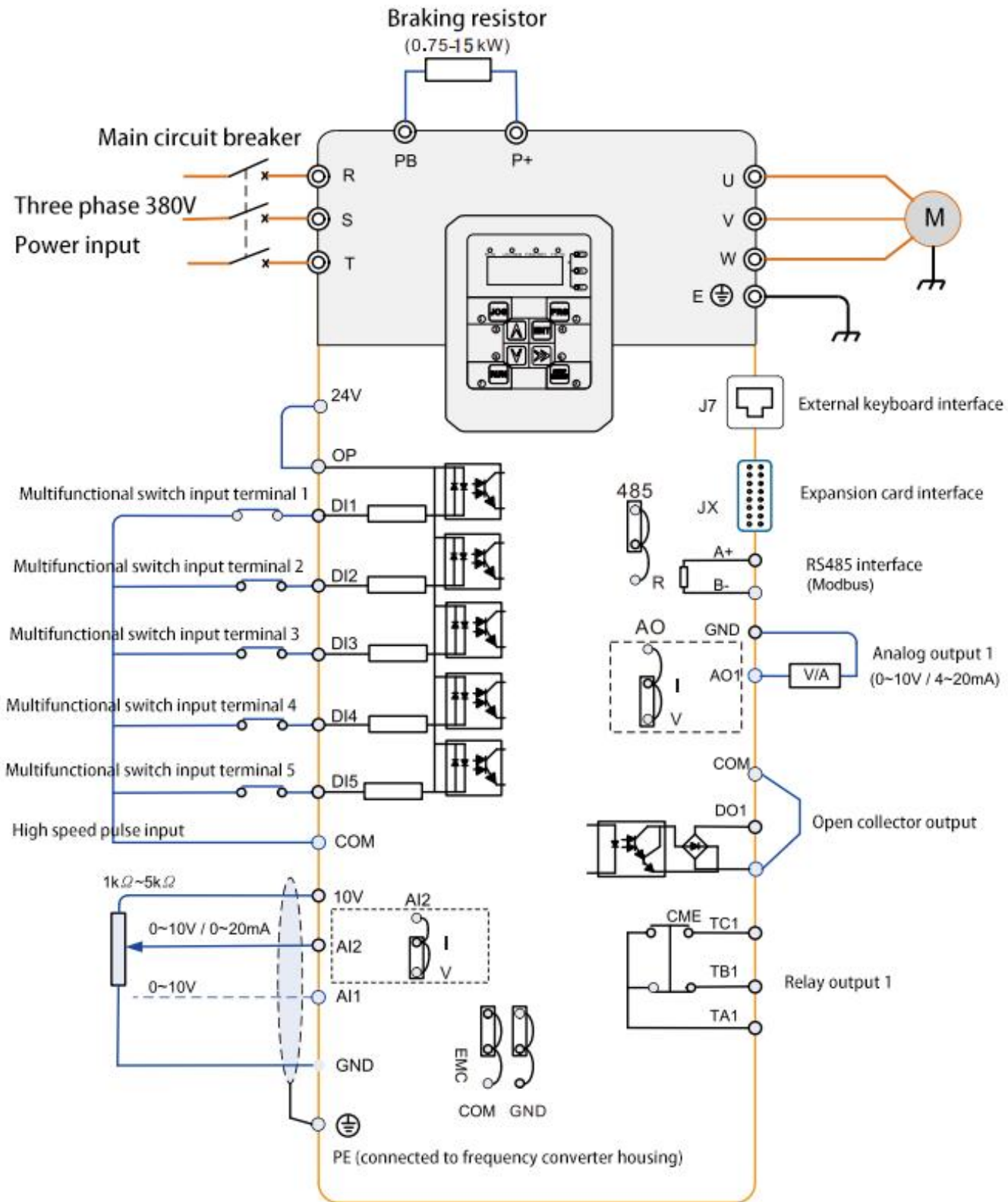
Function code	Functionality	Realm	Factory value
PO-02	command source	0~2	1 (terminal)
P0-03	frequency source	0~9	2 (AI1)
P0-17	Acceleration time 1	0.0s 6500.0s (P0-19=1)	1.5s
P0-18	Deceleration time 1	0.0s 6500.0s	1.5s
P3-09	V/F differential compensation Gain	0.0%~200%	50%

6. Wiring Instructions of Control Module

ASB810-MF



ASB810-MF



7.Parameter Tables of Basic Functions

PP-00 is set to a non-zero value, that is, the parameter protection password is set. In function parameter mode and user change parameter mode, the parameter menu can only be accessed after the password is correctly entered, and to cancel the password, PP-00 needs to be set to 0.

The parameter menu in the user-customised parameter mode is not password protected.

Groups P and H are basic function parameters, and group U is a monitoring function parameter.

The symbols in the menu are described as following:

"☆" indicates that the setting value of this parameter can be changed when the inverter is in the stop and run state;

"★" indicates that the set value of this parameter cannot be changed when the inverter is in running state;

"●" indicates that the value of this parameter is the actual test record value and cannot be changed;

"*" indicates that the parameter is a "manufacturer's parameter", only for the use of the manufacturer, prohibit the user to operate;

Function code	Name (of a thing)	Setting range	Factory value	Variation
P0 Basic Function Group				
PO-00	GP type display	1:G type (constant torque load model) 2 :P-type (fan, pump load models)	Type confirmed	●
P0-01	1st motor control method	0: Vector control without speed sensor (SVC) 1:Vector control with speed sensor (FVC) 2:V/F control	2	★

P0-02	Command Source Selection	0: Operation panel command channel (LED off) 1:Terminal command channel (LED on) 2 ;Communication command channel (LED blinking)	0	☆
PO-03	Main frequency source X selection	0:Digital setting (preset frequency P0-08 ,UP/ DOWN can be modified, no memory for power down) 1 :Digital setting (preset frequency P0-08 ,UP/ DOWN can be modified, power-down memory)2 :A113:A124 :A135:PULSE pulse setting (DI5)6:Multi-segment commands 7:Simple PLC 8:PID 9:Communicate to the given	1	★
P0-04	Auxiliary frequency source Y selection	Same as PO-03 (main frequency source X selection)	0	★
P0-05	Auxiliary frequency source Y range selection during stacking	0: relative to maximum frequency 1: relative to frequency source X	0	☆
PO-06	Auxiliary frequency source Y range when stacked	0%~150%	100%	☆
P0-07	Frequency source stack selection	Bit: Frequency source selection 0: Main frequency source X1: Main and auxiliary operation Calculation result (operation relationship is determined by ten digits) 2: Main frequency	00	☆

		Switching between source X and auxiliary frequency source Y3 :Switching between main frequency source X and main and auxiliary operation results4:Switching between auxiliary frequency source Y and main and auxiliary operations Result toggle ten: frequency source main-assist arithmetic relationship 0 : main+assist 1:main-assist 2 :both max 3:both minimum value		
P0-08	Preset Frequency	0.00Hz-maximum frequency (P0-10)	50.00 Hz	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
P0-09	Running direction	0: same direction 1: opposite direction	0	☆
P0-10	Maximum frequency	50.00Hz~500.0Hz	50.00 Hz	★
P0-11	Upper Frequency Source	0:P0-12 setting 1:A112:A123:A134:PULSE Pulse setting 5:Communication given	0	★
P0-12	Upper frequency	Lower limit frequency P0-14 - Maximum frequency P0-10	50.00 Hz	☆
P0-13	Upper Frequency Bias	0.00 Hz~Maximum Frequency PO-10	0.00Hz	☆
P0-14	Lower frequency	0.00 Hz ~ upper limit frequency PO-12	0.00Hz	☆
P0-15	Carrier frequency	0.5kHz~16.0kHz	Pending	☆
P0-16	Carrier frequency temperature adjustment	0:No 1:Yes	1	☆

P0-17	Acceleration time 1	0.00s ~ 650.00s (P0-19=2) 0.0s ~ 6500.0s(P0-19=1)0s 6500s(P0-19=0)	Type confirmed	☆
P0-18	Deceleration time 1	0.00s~65000s	Type confirmed	☆
PC-19	Acceleration and deceleration time units	0:1 sec 1:0 . 1 sec. 2:0 .01 sec.	1	★
P0-21	Auxiliary Frequency Source Bias Frequency in Stacking	0.00 Hz~maximum frequency P0-10	0.00Hz	☆
P0-22	Frequency command resolution	2:0.01Hz	2	★
P0-23	Digital set frequency stop Memory selection	0:No memory 1:Memory	1	☆
P0-24	Motor Selection	0: Motor 1 1: Motor 2	0	★
P0-25	Acceleration and deceleration time reference frequency	0:Maximum frequency (P0-10)1:Set frequency 2:100Hz	0	★
P0-26	Runtime frequency command UP/DOWN benchmarks	0:Operating frequency 1:Setting frequency	0	★

P0-27	Command Source Bundle Frequency Source	Bit: Operation panel command binding frequency source selection 0 :None Binding 1:Digital set frequency 2:A113:A124:A13 5:PULSE pulse setting (DI5) 6:Multi-segment speed 7. Simple PLC 8:PID 9:Communication given Ten positions: terminal command binding frequency source selection Hundred bits: communication command binding frequency source selection Thousands of bits: auto run bound frequency source selection	0000	☆
P0-28	Communication Expansion Card Type	0:Modbus communication card	0	☆
P1 Parameters of First Electric Motor				
P1-00	Motor type selection	0:Normal asynchronous motor 1:Inverter asynchronous motor	0	★
P1-01	Motor rated power	0.1kW-1000.0kW	Type confirmed	★
P1-02	Motor rated voltage	1V~2000V	Type confirmed	★
P1-03	Motor rated current	0.01A~655.35A (Inverter power <=) 55kW)0.1A~6553.5A (Inverter power >55kW)	Type confirmed	★
P1-04	Motor rated frequency	0.01Hz~Maximum Frequency	Type confirmed	★

P1-05	Rated motor speed	1 rpm-65535 rpm	Type confirmed	★
P1-06	Asynchronous motor stator resistance	0.001Ω~65.535Ω (Inverter power ≤ 55kW) 0.0001Ω~6.5535Ω (Inverter power > 55kW)	Tuning parameter	★

Function code	Name (of a thing)	Setting range	Factory value	Variation
P1-07	Asynchronous motor rotor resistance	0.001Q~65.535Q (Inverter power ≤ 55kW) 0.0001Q~6.5535Q (inverter power > 55kW)	Tuning parameter	★
P1-08	Leakage reactance of asynchronous motors	0.01mH~655.35mH (Inverter power ≤ 55kW) 0.001mH~65.535mH (inverter power > 55 kW)	Tuning parameter	★
P1-09	Asynchronous motor mutual inductive resistance	0.1mH~6553.5mH (Inverter power ≤ 55kW) 0.01mH~655.35mH (inverter power > 55kW)	Tuning parameter	★
P1-10	Asynchronous motor no-load current	0.01A~P1-03 (Inverter power ≤ 55kW) 0.1A~P1-03 (Inverter power > 55kW)	Tuning parameter	★
P1-27	Number of encoder lines	1~65535	1024	★
P1-28	Encoder Type	0:ABZ incremental encoder1:UVW incremental encoder2: Rotary transformer3:Sine-cosine encoder4:Wire-saving UVW encoder	0	★
P1-30	ABZ Incremental Encoder AB phase sequence	0:Forward 1:Reverse	0	★

P1-31	Encoder mounting angle	0.0~359.9°	0.0°	★
P1-32	UVW Encoder UVW Phase preface	0:Forward 1:Reverse	0	★
P1-33	UVW Encoder Bias Angle	0.0~359.9°	0.0°	★
P1-34	Rotary Transformer Pole Pairs	1-65535	1	★
P1-36	Speed Feedback PG Break Detection Time	0.0 :No action 0.1s~10.0s	0.0	★
P1-37	Tuning Options	0: no operation 1: asynchronous machine stationary tuning 2: asynchronous machine complete tuning 3: asynchronous machine stationary complete tuning	0	★
P2 Vector Control Parameters of First Electric Motor				
P2-00	Velocity loop proportional gain 1	1~100	30	☆
P2-01	Velocity loop integration time1	0.01s~10.00s	0.50s	☆
P2-02	Switching frequency 1	0.00~F2-05	5.00 Hz	☆
P2-03	Velocity loop proportional gain 2	1~100	20	☆
P2-04	Velocity loop integration time2	0.01s~10.00s	1.00s	☆
P2-05	Switching frequency 2	F2-02 ~ Maximum Frequency	10.00 Hz	☆
P2-06	Vector control differential gain	50%~200%	100%	☆

P2-07	Velocity loop filter time constant	0.000s~1.00s	0.050s	☆
P2-17	Speed ring points properties		0	☆
P2-20	Over-modulation voltage factor	100%~110%	105%	☆
P2-21	Constant power area torque coefficient	50%~200%	100%	☆
P3 Control Parameters				
P3-00	V/F curve setting	0:Linear V/F 1:Multi-point V/F2:Square V/F31.2 Sub-V/F4: 1.4 Sub-V/F6: 1.6 Sub-V/F8: 1.8 Sub-V/F9: Reserved 10:V/F Full Separation Mode 11:V/F semi-split mode	0	★

Function code	Name (of a thing)	Setting range	Factory value	Variation
P3-01	Torque increase	0.0% (auto torque boost) 0.1%30.0%	Type confirmed	☆
P3-02	Torque boost cut-off frequency	0.00Hz-maximum frequency	50.00 Hz	★
P3-03	Multi-point V/F frequency point 1	0.00 Hz~P3-05	0.00Hz	★
P3-04	Multi-point V/F voltage point 1	0.0%~100.0%	0.0%	★
P3-05	Multi-point V/F frequency point 2	P3-03-P3-07	0.00Hz	★
P3-06	Multi-point V/F voltage point 2	0.0%~100.0%	0.0%	★
P3-07	Multi-point V/F frequency point 3	P3-05 ~ motor rated frequency (P1-04)	0.00Hz	★

P3-08	Multi-point V/F voltage point 3	0.0%~100.0%	0.0%	★
P3-09	V/F Differential Compensation Gain	0.0%~200.0%	0.0%	☆
P3-10	V/F Overexcitation Gain	0~200	64	☆
P3-11	V/F oscillation suppression gain	0~100	Type confirmed	☆
P3-13	V/F separated voltage source	0:Digital setting (P3-14) 1:A112:A123:A13 4:PULSE pulse setting (DI5) 5:Multi-segment instruction 6:Simple PLC 7:PID 8:Communication given Note: 100 .0 % corresponds to the rated motor voltage.	0	☆
P3-14	V/F Separate voltage digits Setting	0V ~ motor rated voltage	0V	☆
P3-15	Voltage rise time for V/F separation	0.0s~1000.0s Note: Indicates the time for 0V to change to the rated voltage of the motor	0.0s	☆
P3-16	Voltage deceleration for V/F separation Time	0.0s~1000.0s Note: Indicates the time for 0V to change to the rated voltage of the motor	0.0s	☆
P3-17	V/F split stop mode	0 : Frequency/voltage independently reduced to 0 1:Voltage decreases to 0 and then frequency decreases again	0	☆
P3-18	Divergence compensation time constant	0.1s~10.00s	0.50s	☆
P3-19	Online torque compensation gain	80%~150%	100%	☆
P4 Input Terminals				

P4-00	DI1 terminal sub-function selection	0:No function 1:Positive rotation to run FWD or run	1	★
P4-01	DI2 terminal sub-function selection	command 2 :Reverse running REV or forward and reverse running direction	4	★
P4-02	DI3 terminal sub-function selection	(Note: When set to 1 or 2, it needs to be used in conjunction with P4-11. For details, please refer to Function Code	9	★
P4-03	DI4 terminal sub-function selection	Parameter Explanation) 3:3-wire operation control FJOG 5: Reverse Jogging	12	★
P4-04	DI5 terminal sub-function selection	RJOG 6: Terminal UP 7: Terminal DOWN 8 : Free stop 9: Fault reset (RESET) 10	13	★
P4-05	DI6 terminal sub-function selection	:Running pause 11:External fault normally open input 12:Multi-segment command terminal 1	0	★
P4-06	DI7 terminal sub-function selection	13:Multi-segment command terminal 2 14:Multi-segment command terminal 3 15:Multi-segment command terminal 4 16:Acceleration and deceleration time	0	★
P4-07	DI8 terminal sub-function selection	selection terminal 1 17:Acceleration and deceleration time selection terminal 2 18:Frequency source	0	★
P4-08	DI9 terminal sub-function selection	switch modes or data streams 19:UP/DOWN setting clearing (terminal, keypad)	0	★
P4-09	DI10 terminal sub-function selection		0	★

Function code	Name (of a thing)	Setting range	Factory value	Variation
		20:Control command switching terminal 1 21:Acceleration/deceleration prohibition 22:PID pause 23:PLC status reset 24:Pendulum pause 25:Counter input 26:Counting 27:Length counter input 28:Length reset 29:Torque control inhibit 30:PULSE frequency input (valid only for DI5) 31:Reserved 32:Immediate DC braking 33:External fault normally closed input 34:Frequency modification enable 35:PID direction reversal 36:External stop terminal 1 37:Control command switching terminal 2 38:PID integral pause 39:Switching between frequency source X and preset frequency 40:Frequency source Y and preset frequency switching 41: Motor selection terminal 1 42: Motor selection terminal 2 43: PID parameter switching 44: User-defined fault 1 45: User-defined faults 2 46:Speed control/torque control switchover 47:Emergency stop 48:External stop terminal 2 49:Deceleration DC brake 50:Zeroing of this run time 51:Two-wire/three-wire switching 52-59:Reserved		
P4-10	DI digital input terminal filtering Time	0.000s~1.000s	0.010s	☆

P4-11	Terminal command method	0:2-wire 1 2:3-wire 1 1:Two-wire 2 3:Three-wire 2	0	★
P4-12	Terminal UP/DOWN Change Rate	0.001 Hz/s~65.535 Hz/s	1.00 Hz/s	☆
P4-13	Analogue input curve 1 minimum input	0.00V~P4-15	0.00V	☆
P4-14	Analogue input curve 1 minimum Input corresponding setting	-100.0%~+100.0%	0.0%	☆
P4-15	Analogue input curve 1 maximum input	P4-13~+10.00V	10.00V	☆
P4-16	Analogue input curve 1 maximum Input corresponding setting	-100.0%~+100.0%	100.0%	☆
P4-17	All filter time	0.00s~10.00s	0.10s	☆
P4-18	Analogue Input Curve 2 Minimum Input	0.00V~P4-20	0.00V	☆
P4-19	Analogue input curve 2 minimum input correspondence setting	-100.0%~+100.0%	0.0%	☆
P4-20	Analogue input curve 2 maximum input	P4-18~+10.00V	10.00V	☆
P4-21	Analogue input curve 2 maximum input correspondence setting	-100.0% to +100.0%	100.0%	☆

P4-22	A12 filter time	0.00s~10.00s	0.10s	☆
P4-23	Analogue input curve 3 minimum input	-10.00V~P4-25	0.5V	☆

Function code	Name (of a thing)	Setting range	Factory value	Variati on
P4-24	Analogue input curve 3 minimum input correspondence setting	-100.0%~+100.0%	0.0%	☆
P4-25	Analogue input curve 3 maximum input	P4-23~+10.00V	6.6V	☆
P4-26	Analogue input curve 3 maximum input correspondence setting	-100.0%~+100.0%	100.0%	☆
P4-27	A13 filter time	0.00s~10.00s	0.50s	☆
P4-28	PULSE minimum input	0.00kHz-P4-30	0.00kHz	☆
P4-29	PULSE minimum input correspondence setting	-100.0% to 100.0%	0.0%	☆
P4-30	PULSE maximum input	P4-28~100.00kHz	50.00kHz	☆
P4-31	PULSE maximum input setting	-100.0% to 100.0%	100.0%	☆
P4-32	PULSE filter time	0.00s~10.00s	0.10s	☆

P4-33	Analogue input curve selection	Single digit: A11 curve selection 1: Curve 1 (2 points, see P4-13~P4-16) 2: Curve 2 (2 points, see P4-18 to P4-21) 3: Curve 3 (2 points, see P4-23 to P4-26) 4; Curve 4 (4 points, see H6-00 to H6-07) 5: Curve 5 (4 points, see H6-08 to H6-15) Tenth position: A12 curve selection, same as above Hundred: A13 curve selection, ditto	321	☆
P4-34	Analogue input below minimum input setting selection	Position: A11 below minimum input setting selection 0:Corresponds to minimum input setting 1:0 . 0 % Tenth position: A12 is below the minimum input setting selection, ibid HUNDREDS: A13 is below the minimum input setting selection, ibid	000	☆
P4-35	DI1 delay time	0.0s~3600.0s	0.0s	★
P4-36	DI2 delay time	0.0s~3600.05	0.0s	★
P4-37	DI3 delay time	0.0s~3600.0s	0.0s	★
P4-38	DI Digital input terminal active mode selection 1	0 :High level valid 1:Low level valid Bit: DI1 Tenth: DI2 Hundredth: DI3 Thousandth: DI4 Million Bit: DI5	00000	★
P4-39	DI digital input terminal Sub active mode selection 2	0 :High level active 1:Low level active Bit: DI6 Tenth Digit: DI7 Hundredth Digit: DI8 Thousandth Digit: DI9 Million Bit: DI10	00000	★

P5 Output Terminal				
P5-00	FM and AO2 terminal outputs mode selection	Bit: FM terminal function selection 0 :Pulse output 1 :Switching output (TA2-TB2-TC2) Ten positions: AO2 terminal function selection 0 :Analogue output 1:Switching output (TA3-TB3-TC3)	00	☆
P5-01	Relay output function selection (TA2-TB2-TC2)	0:No output 1:Inverter in operation 2:Fault output (fault for free stop) 3:Frequency level detection	0	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
P5-02	Control board relay function options (TA1-TB1-TC1)	FDT1 output 4 ;Frequency reaches 5 ;Zero-speed operation is in progress (no output during shutdown) 6:Motor overload pre-warning 7 :Inverter overload pre-warning 8:Setting value reaches 9	2	☆
P5-03	Relay output function selection (TA3-TB3-TC3)	: Specified notation value reaches 10: Length reaches 11: PLC cycle	0	☆
P5-04	DO1 output function selection	Ring Completion 12: Accumulated Runtime Reached 13: Frequency Limit in Progress	1	☆
P5-05	Expansion card DO2 output option	14:Torque limit in progress 15:Ready to run 16. A11>A12 17: Upper limit frequency reached 18: Lower limit frequency reached (operation related) 19: Undervoltage status output 20: Communication setting 21: Positioning complete (reserved) 22: Positioning Proximity (reserved) 23: In zero-speed operation2 (also during shutdown) Output) 24: Cumulative power-up time up to 25: Frequency Level detection FDT2 output 26: Frequency 1 arrives at output 27: Frequency 2 arrives at output 28: Current 1 arrives at output 29: Current 2 arrives at output 30: Timing arrives at output 31 :A11 input overrun 32: Load shedding in progress 33: Reverse operation in progress 34: Zero current state 35: Module temperature arrives 36: Output current overrun 37: Lower frequency limit arrives (stop) machine also outputs) 38:Alarm output (all faults) 39:Motor overtemperature pre Alarm 40: Current run time reached 41:	4	☆

		Non-undervoltage fault output (free stop fault)		
P5-06	FMP output function selection	0:Operating frequency 1:Setting frequency 2:Output current 3 :Output torque (absolute value of torque) 4:Output power 5:Output voltage 6 :PULSE input (100.0% corresponds to 100.0kHz) 7:A11 8:A12 9:A13 (Expansion card) 10:Length 11:Memory value 12:Communication setting 13:Motor revolution Speed 14: Output current (100.0% corresponds to 1000.0A) 15:Output voltage(100.0% corresponds to 1000.0V) 16:Output torque(actual value of torque)	0	☆
P5-07	AO1 output function selection		0	☆
P5-08	AO2 output function selection		1	☆
P5-09	FMP output maximum frequency	0.01kHz~100.00 kHz	50.00kHz	☆
P5-10	AO1 zero bias factor	-100.0% to +100.0%	0.0%	☆
P5-11	AO1 gain	-10.00~+10.00	1.00	☆
P5-12	AO2 zero bias factor	-100.0% to +100.0%	0.0%	☆
P5-13	AO2 gain	-10.00~+10.00	1.00	☆
P5-17	PMR output delay time	0.0s~3600.0s	0.0s	☆
P5-18	TA1-TB1-TC1 Output Delay Time	0.0s~3600.0s	0.0s	☆
P5-19	TA2-TC2 output delay times	0.0s~3600.0s	0.0s	☆
P5-20	DO1 output delay time	0.0s~3600.0s	0.0s	☆
P5-21	DO2 output delay time	0.0s~3600.0s	0.0s	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
P5-22	DO output terminal active state selection	0:Positive Logic 1:Anti Logic Bit: FMR Tenth position: TA1-TB1-TC1 Hundredth position: TA3-TB3-TC3 Thousandth position: DO1 (TA2-TB2-TC2) Ten thousandth position: DO2	00000	☆
P6 Start and Stop Control				
P6-00	Activation method	0:Direct start 1:Speed tracking restart 2 :Pre-excitation start (AC asynchronous machine)	0	☆
P6-01	Rotation speed tracking method	0:From stop frequency 1:From zero speed 2:From the most Large Frequency Start3 : Start at current frequency,	0	★

		motor direction can be detected, V/F control is effective.		
P6-02	RPM tracking fast and slow	1~100	20	☆
P6-03	Start-up frequency	0.00 Hz~10.00 Hz	0.00Hz	☆
P6-04	Start-up frequency hold time	0.0s~100.0s	0.0s	★
P6-05	Starting DC braking current / pre-excitation current	0%~100%	0%	★
P6-06	Start DC braking time / pre-excitation time	0.0s~100.0s	0.0s	★
P6-07	Acceleration and deceleration mode	0:Linear acceleration/deceleration 1:S-curve acceleration/deceleration A 2:S-curve acceleration/deceleration B	0	★
P6-08	Proportion of time at the beginning of the S-curve	0.0 % to (100.0 %-P6-09)	30.0%	★
P6-09	Proportion of time at the end of the S-curve	0.0 % to (100.0 %-P6-08)	30.0%	★
P6-10	Shutdown mode	0:Deceleration stop 1: Free stop	0	☆
P6-11	Start of DC braking for shutdown Frequency	0.00Hz-maximum frequency	0.00Hz	☆
P6-12	Shutdown DC braking wait time	0.0s~100.0s	0.0s	☆
P6-13	Stopping DC braking current	0%~180%	0%	☆
P6-14	Stopping DC braking time	0.0s~100.0s	0.0s	☆
P6-15	Brake utilisation rate	0%~100%	100%	☆
P6-16	Brake resistor voltage switch-on point	200.0~2000.0V	Type confirmed	☆
P6-18	Speed tracking current size	30%~200%	Type confirmed	★
P7 Keyboard and Monitor				
P7-00	Reservation	0	0	●
P7-01	JOG/QUICK key function Selection	0:Menu mode switching 1:Operation panel command channel and Remote command channel (terminal command channel or communication command channel) switching 2 :Forward and reverse switching 3:Forward pointing 4:Reverse pointing	0	★
P7-02	STOP/RESET key function (usually used in the negative) have the possibility of	0: STOP/RESET key Stop function is effective only in the keyboard operation mode. 1:The STOP/RESET key stop function is valid in any operation mode.	1	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
P7-03	LED operating display parameter 1	0000~FFFF Bit00: Operation frequency1 (Hz) Bit01: Setting frequency(Hz) Bit02: Bus voltage(V) Bit03: Output voltage(V) Bit04: Output current(A) Bit05: Output power(kW) Bit06: Output torque(%) Bit07: DI input state Bit08: DO output state Bit09: A11 voltage(V) Bit10: A12 voltage (V) Bit11: A13 voltage (V) Bit12: Count value Bit13. Length value Bit14: Load speed display Bit15: PID setting order	1F	☆

P7-04	LED operating display parameter 2	0000~FFFF Bit00:PID feedback Bit01:PLC order Segment Bit02: PULSE Input Pulse Frequency (kHz) Bit03: Running frequency2 (Hz) Bit04: Remaining running time Bit05:Al1 voltage before correction(V) Bit06:Al2 voltage before correction(V) Bit07:Al3 voltage before correction(V) Bit08:Line speed Bit09: Current power-up time(Hour) Bit10:Current running time(Min) Bit11:PULSE output Incoming pulse frequency (Hz) Bit12: Communication set value Bit13:Encoder feedback speed(Hz) Bit14:Main frequency X display(Hz) Bit15:Auxiliary frequency Y display(Hz)	0	☆
P7-05	LED stop display parameters	0000~FFFF Bit00: Setting frequency (Hz) Bit01: Bus voltage (V) Bit02: DI input status Bit03: DO output status Bit04: Al1 voltage (V) Bit05: Al2 voltage (V) Bit06: Al3 voltage (V) Bit07: Count value Bit08: Length value Bit09: PLC section Bit10: Load speed Bit11: PID setting Bit12:PULSE input pulse frequency(kHz)	33	☆
P7-06	Load Speed Display Factor	0.0001~6.5000	1.0000	☆
P7-07	Inverter module heat sink temperature	0.0°C~100.0°C	—	
P7-08	Rectifier Bridge Heat Sink Temperature	0.0°C~100.0°C	—	
P7-09	Cumulative running time	0 h~65535h	—	●
P7-10	product number	—	—	mono
P7-11	software version number	—	—	●
P7-12	Load speed display decimal check numbers	20:0 decimal places 21: 1 decimal place 22:2 decimal places 23:3 decimal places	21	☆
P7-13	Cumulative power-up time	0 h~65535h	—	●
P7-14	Cumulative power consumption	0 kW~65535 degrees	—	●
P7-17	The second row of LEDs shows the parameters	0- 160: Operating frequency 1 (Hz) 1:Setting frequency(Hz)2:Bus voltage(V) 3: Output voltage (V)4: Output current (A) 5:Output power(KW)6:Output torque(%) 7: DI digital input terminal input status 8: DO output status 9: Al1 voltage (V) 10: Al2 voltage (V) 11: Al3 voltage (V) 12: Count value 13: Length value 14: Load speed display 15: PID setting 16: PID feedback	4	☆

Function code	Name (of a thing)	Setting range	Manufacturer's value	Variation
P8 Parameters of Auxiliary Functions				
P8-00	Tap operation frequency	0.00 Hz~Maximum Frequency	2.00Hz	☆
P8-01	Tap acceleration time	0.0s~6500.0s	20.0s	☆
P8-02	Tap deceleration time	0.0s~6500.0s	20.0s	☆
P8-03	Acceleration time 2	0.0s~6500.0s	Type confirmed	☆
P8-04	Deceleration time 2	0.0s~6500.0s	Type confirmed	☆
P8-05	Acceleration time 3	0.0s~6500.0s	Type confirmed	☆
P8-06	Deceleration time 3	0.0s~6500.0s	Type confirmed	☆
P8-07	Acceleration time 4	0.0s~6500.0s	Type confirmed	☆
P8-08	Deceleration time 4	0.0s~6500.0s	Type confirmed	☆
P8-09	Jump Frequency 1	0.00 Hz - maximum frequency	0.00Hz	☆
P8-10	Jump Frequency 2	0.00Hz~Maximum Frequency	0.00Hz	☆
P8-11	hopping frequency amplitude	0.00 Hz to maximum frequency	0.00Hz	☆
P8-12	Forward and reverse dead time	0.0s~3000.0s	0.0s	☆
P8-13	Reverse Control Enable	0 : Allow 1 : Prohibit	0	☆
P8-14	Set frequency below lower limit Frequency operation mode	0:Run at lower frequency limit 1:Shutdown 2:Zero speed operation	0	☆
P8-15	sag control	0.00 Hz~10.00 Hz	0.00Hz	☆
P8-16	Sets the cumulative power-up arrival time	0 h~65000h	0h	☆
P8-17	Setting the cumulative runtime arrival time	0 h~65000 h	0h	☆
P8-18	Startup Protection Selection	0 : not protected 1 : protected	0	☆
P8-19	Frequency detection value (FDT1)	0.00Hz-maximum frequency	50.00 Hz	☆
P8-20	Frequency detection hysteresis value (FDT1)	0 .0%~100 .0% (FDT1 level)	5.0 %	☆
P8-21	Frequency Reach Detection Width	0.0% to 100.0% (maximum frequency)	0.0 %	☆
P8-22	Jumping during acceleration and deceleration Frequency validity	0:Invalid 1:Valid	0 0	☆
P8-25	Acceleration time 1 and acceleration time 2 Switching frequency points	0.00Hz~Maximum Frequency	0.00Hz	☆

P8-26	Deceleration time 1 and Deceleration time 2 Switching frequency points	0.00Hz~Maximum Frequency	0.00Hz	☆
P8-27	Terminal Tap Priority	0; not valid 1: valid	0	☆
P8-28	Frequency Detection Value (FDT2)	0.00 Hz - maximum frequency	50.00 Hz	☆
P8-29	Frequency detection lag	0.0%~100.0% (FDT2 level)	5.0 %	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
P8-30	Arbitrary Arrival Frequency Detection Value 1	0.00Hz~Maximum Frequency	50.00 Hz	☆
P8-31	Arbitrary arrival frequency detection Width1	0.0% to 100.0% (maximum frequency)	0.0%	☆
P8-32	Arbitrary Arrival Frequency Detection Value 2	0.00Hz~Maximum Frequency	50.00 Hz	☆
P8-33	Arbitrary arrival frequency detection Width2	0.0% to 100.0% (maximum frequency)	0.0%	☆
P8-34	Zero current detection level	0.0%~300.0% 100.0% corresponds to rated motor current	5.0%	☆
P8-35	Zero current detection delay time section of a room or lateral space between two pairs of pillars	0.01s~600.00s	0.10s	☆
P8-36	Output current overrun	0.0 % (non-detectable) 0 . 1%300 . 0% (motor rated current)	200.0%	☆
P8-37	Output current overrun detection latency	0.00s~600.00s	0.00s	☆
P8-38	Arbitrary arrival current1	0.0%~300.0% (motor rated current)	100.0%	☆
P8-39	Arbitrary arrival current1 width	0.0%~300.0% (motor rated current)	0.0%	☆
P8-40	Arbitrary arrival current2	0.0%~300.0% (motor rated current)	100.0%	☆
P8-41	Arbitrary arrival current2 width	0.0%~300.0% (motor rated current)	0.0%	☆
P8-42	Timer function selection	0 : Invalid 1 : Valid	0	☆
P8-43	Timed runtime selection	0:P8 - 44 Setting 1:A112:A123:A13 The analogue input range corresponds to P8-44.	0	☆
P8-44	Timed Runtime	0.0Min-6500.0Min	0.0 Min	☆
P8-45	A11 input voltage protection value Lower limit	0.00V~P8-46	3.10V	☆
P8-46	A11 input voltage protection value Upper limit	P8-45~10.00V	6.80V	☆
P8-47	Module temperature reaches	0 °C~100 °C	75°C	☆
P8-48	Cooling Fan Control	0:Fan running during operation 1:Fan running all the time When the temperature exceeds 40 degrees, the fan continues to run in the shutdown state.	0	☆
P8-53	Arrival time for this run preferences	0.0Min~6500.0Min	0.0 Min	☆
P9 Malfunctions and Protections				
P9-00	Motor overload protection	0 : Disable 1 : Allow	1	☆

	options			
P9-01	Motor overload protection gain	0.20~10.00	1.00	☆
P9-02	Motor overload warning factor	50%~100%	80%	☆
P9-03	Overvoltage stall gain	0~100	30	☆
P9-04	Overvoltage stall protection voltage	200~2000	760	☆
P9-05	Overspeed loss gain	0~100	20	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
P9-06	Over current loss speed protection current	50-200%	150%	☆
P9-07	Power-on short circuit protection to ground Selection	0 : Invalid 1 : Valid	1	☆
P9-08	V/F Weak Magnetic Region Multiplier Current Limiting Coefficient	50%~300%	200%	☆
P9-09	Failure auto reset times	0~20	0	☆
P9-10	During fault auto reset Fault DO action selection	0;No action 1:Action	0	☆
P9-11	Fault Auto-Reset Interval Time	0.1s~100.0s	1.0s	☆
P9-12	Input phase loss/contactorsuction protection selection	Single digit: Input phase loss protection selection Tenth digit: Contactor suction Protection selection 0: Prohibited 1; Allowed	11	☆
P9-13	Output out-of-phase protection selection	0 : Disable 1 : Allow	1	☆
P9-14	Type of first failure	0:No fault 1:Reserved		●
P9-15	Second failure type	2:Acceleration overcurrent 3:Deceleration overcurrent 4:Constant speed overcurrent 5:Acceleration overvoltage 6:Deceleration overvoltage 7:Constant speed overvoltage 8:Snubber resistor overload 9:Undervoltage 10:Inverter overload 11:Motor overload 12:Input phase loss	-	●

P9-16	Third (most recent) Failure type	13:Output phase loss 14:Module overheat 15:External fault 16:Passage Signal Abnormal 17:Contactor Abnormal 18: Current Detection Abnormal 19: Motor tuning abnormality 20: Encoder/PG card abnormality 21:Parameter read/write abnormality 22:Inverter hardware abnormality 23 ; Motor shorted to ground 24:Reserved 25:Reserved 26. Runtime reached 27: User-defined fault 1 28. User-defined fault 229:Power-up time reached 30:Load loss 31:Loss of PID feedback during operation 40:Fast current limit Timeout 41:Motor switching during operation 42:Excessive speed deviation 43:Motor overspeed 45:Motor overtemperature 51:Initial position error		
P9-17	Third (most recent) Frequency at fault		-	*
P9-18	Current at third (most recent) failure	-		mono
P9-19	Busbar voltage at third (most recent) fault			●
P9-20	Input terminal status at third (most recent) failure	-		●
P9-21	Output terminal status at third (latest) failure		-	mono
P9-22	Inverter status at the time of the third (most recent) failure	-	-	●
P9-23	Third (most recent) power-up time at failure	-		●

Function code	Name (of a thing)	Setting range	Factory value	Variation
P9-24	Runtime at third (most recent) failure		-	mono

P9-27	Frequency at second failure			vassal state during the Zhou Dynasty (1066-221 BC) in modern day Shandong Province
P9-28	Current at second fault		-	●
P9-29	Busbar on second fault input voltage		-	
P9-30	Input terminal status at second fault	-	-	clause
P9-31	Output at second fault Terminal status		-	*
P9-32	Inverter status at second fault		-	
P9-33	Power-up time at second failure	-		
P9-34	Running time at second failure			
P9-37	Frequency at first failure		-	clause
P9-38	Current at first fault	-		
P9-39	Busbar voltage at first fault		-	
P9-40	Input terminal status at first fault	-		
P9-41	Output terminal status at first fault	-		
P9-42	Inverter status at first fault	-		●
P9-43	Power-up time at first failure		-	●
P9-44	Running time at first failure			
P9-47	Fail-safe action selection 1	Digit: Motor overload (11) 0: Free stop 1: Stop as per stopping mode 2: Continue running Digit: Input Out-of-phase (12) hundredths: Output out-of-phase (13) thousandths: External fault (15) 10,000 bits: communication abnormality (16)	00000	☆
P9-48	Fail-safe action selection 2	Position: Encoder/PG card exception (20) 0: Free stop Tenth digit: Function code read/write exception (21)0 : Free parking 1: Shutdown by stopping mode Hundred digits: Retained thousand digits: Motor overheating (25) Ten thousand digits; Running time reached (26)	00000	☆

P9-49	Fail-safe action selection 3	digits: user-defined fault 1(27)0 : free parking 1 :Stop by stopping 2 :Continue operation Ten digits: with the User-defined fault 2 (28) 0; free stop 1; stop in stop mode 2 :continue operation Hundredths: power-up time reached (29)0: free parking 1:Stop as per stopping mode 2 :Continue to run Thousand positions: drop	00000	☆
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Function code	Name (of a thing)	Setting range	Factory value	Variation
		Load(30)0 ; Free stop 1: Deceleration stop 2 :Decelerate to 7% of the rated frequency of the motor and continue operation. line, automatically return to the set frequency operation when no load loss 10,000 bits: PID feedback lost during operation (31) 0: free stop 1: stop in stop mode 2: continue operation		
P9-50	Fail-safe action selection 4	Single digit: excessive speed deviation (42) 0: free parking 1:Stop by stopping 2 :Continue to run Ten positions: Electricity Machine overspeed (43) Hundredths: initial position error (51)	00000	☆
P9-54	Continued operation in case of failure Frequency selection	0:Run at the current operating frequency 1:Run at the set frequency Row 2: Operate at upper limit frequency 3: Operate at lower limit frequency 4: Operate at abnormal standby frequency	0	☆
P9-55	Abnormal Standby Frequency	00.0% to 100.0% (100.0% corresponds to maximum frequency P0 -10)	100.0%	☆
P9-56	Motor Temperature Sensor Type	0:No temperature sensor1:PT1002:PT1000	0	☆
P9-57	Motor overheating protection threshold	0 C-200 r	110°C	☆
P9-58	Motor overheating pre-alarm valve value	0 °C~200 °C	90°C	☆
P9-59	Instantaneous blackout action selection	0:Invalid 1:Deceleration 2:Deceleration stop	0	☆
P9-60	Momentary stop action pause judgement Voltage	80.0 % to 100.0 %	85.0%	☆
P9-61	Instantaneous outage voltage return Judgement time	0.00s~100.00s	0.50s	☆
P9-62	Instantaneous blackout action judgement voltage	60.0% to 100.0% (standard bus voltage)	80.0%	☆
P9-63	Load shedding protection options	0;Invalid 1:Valid	0	☆
P9-64	Dropout detection level	0.0~100.0 %	10.0%	☆
P9-65	Load Drop Comb Measurement Time	0.0-60.0s	1.0s	☆
P9-67	Over speed detection value	0.0% to 50.0% (maximum frequency)	20.0%	☆
P9-68	Over-speed detection time	00s=60.08	1.0s	☆

P9-69	Excessive speed deviation detection value	0.0% to 50.0% (maximum frequency)	20.0%	☆
P9-70	Excessive speed deviation detection Time	0.0s~60.0s	5.0s	☆
P9-74	V/F Overvoltage Suppression Rising Frequency	5.Hz~50 Hz	5Hz	☆
PA PID				
PA-00	PID given source	0:PA-01 setting 1:AI12:AI23:AI34:PULSE Pulse setting (DI5) 5:Communication given 6:Multi-segment instruction given 7:Keypad encoder	0	☆
PA-01	PID value given	0.0%~100.0%	50.0%	☆
PA-02	PID Feedback Source	0:AI1 1:AI22:AI33:AI1-AI24 :PULSE Pulse setting (DI5) 5:Communication given 6:AI1+AI2	0	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
		7:MAX(AI1 , AI2)8 :MIN(AI1 , AI2)		
PA-03	Direction of PID action	0:positive 1:negative	0	☆
PA-04	PID Feedback Range	0~65535	100	☆
PA-05	Proportional gain Kp	0.0~100 .0	20.0	☆
PA-06	Integration time Ti 1	0.01s~10.00s	2.00s	☆
PA-07	Differential time Td 1	0.000s~10.000s	0.000s	☆
PA-08	PID inversion cut-off frequency	0.00~Maximum Frequency	0.00Hz	☆
PA-09	PID Deviation Limit	0.0%~100.0%	0.0%	☆
PA-10	PID differential limiting	0.00%~100.00%	0.10%	☆
PA-11	PID given change time	0.00~650.00s	0.00s	☆
PA-12	PID feedback filtering time	0.00~60.00s	0.00s	☆
PA-13	PID output filter time	0.00~60.00s	0.00s	☆
PA-14	reservation			☆
PA-15	Proportional gain Kp2	0.0~100.0	20.0	☆
PA-16	Integration time Ti2	0.01s~10.00s	2.00s	☆
PA-17	Differential time Td2	0.000s~10.000s	0.000s	☆
PA-18	PID parameter switching conditions	0: No switching 1: Switching via DI terminal 2: Automatic switching according to deviation	0	☆
PA-19	PID parameter switching deviation1	0.0% - PA-20	20.0%	☆
PA-20	PID parameter switching deviation2	PA-19 ~ 100.0%	80.0%	☆
PA-21	PID initial value	0.0%~100 .0%	0.0%	☆
PA-22	PID initial value holding time	0.00~650 .00s	0.00s	☆
PA-23	Deviation of the two outputs towards the maximum value	0.00%~100.00%	1.00%	☆
PA-24	Maximum value of two output deviations in reverse direction	0.00%~100.00%	1.00%	☆
PA-25	PID Integral Properties	Individual: Separation of Points 0:Invalid 1:Valid Tenth position: Whether to stop after the output reaches the limit value Integral 0: Continue Integral 1: Stop Integral	00	☆
PA-26	PID feedback loss detection value	0.0%: no judgement feedback lost 0.1% to 100 .0%	0.0%	☆

PA-27	PID feedback loss detection time	0.0s~20.0s	0.0s	☆
PA-28	PID stopping operation	0;No operation during shutdown1;Operation during shutdown	0	☆
Pb Swing Frequency, Fixed Length and Counting				
Pb-00	Oscillation Frequency Setting Method	0 :Relative to the centre frequency1:Relative to the maximum frequency	0	☆
Pb-01	swing amplitude	0.0%~100.0%	0.0%	☆
Pb-02	Burst frequency amplitude	0.0%~50.0%	0.0%	☆

Function code	Name	Setting range	Factory value	Variation
Pb-03	oscillation period	0.1s~3000.0s	10.0s	☆
Pb-04	Triangular wave rise of the pendulum frequency Time	0.1%~100.0%	50.0%	☆
Pb-05	Setting length	0 m-65535m	1000m	☆
Pb-06	Actual length	0 m-65535m	0m	☆
Pb-07	Pulses per metre	0.1 to 6553.5	100 .0	☆
Pb-08	Setting the count value	1~65535	1000	☆
Pb-09	Specify the count value	1~65535	1000	☆
PC Multi Segment Instruction PLC				
PC-00	Multi-segment instruction 0	-100.0% to 100.0 %	0.0 %	☆
PC-01	Multi-segment instruction 1	-100.0 %t to 100.0 %	0.0%	☆
PC-02	Multi-segment instruction 2	-100.0 % to 100.0%	0.0%	☆
PC-03	Multi-segment instruction 3	-100.0% to 100.0%	0.0 %	☆
PC-04	Multi-segment instruction 4	-100.0% to 100.0%	0.0 %	☆
PC-05	Multi-segment instruction 5	-100.0 %to 100.0%	0.0 %	☆
PC-06	Multi-segment instruction 6	-100.0%to 100.0%	0.0 %	☆
PC-07	Multi-segment instruction 7	-100.0% to 100.0%	0.0%	☆
PC-08	Multi-segment instruction 8	-100.0% to 100.0 %	0.0 %	☆
PC-09	Multi-segment instruction 9	-100.0%to 100.0%	0.0%	☆
PC-10	Multi-segment instruction 10	-100.0%to 100.0%	0.0 %t	☆
PC-11	Multi-segment instruction 11	-100.0%-100.0 %	0.0 %	☆
PC-12	Multi-segment instruction 12	-100.0%to 100.0 %	0.0%	☆
PC-13	Multi-segment instruction 13	-100.0% to 100.0 %	0.0 %	☆
PC-14	Multi-segment instruction 14	-100.0%-100.0%	0.0%t	☆
PC-15	Multi-segment instruction 15	-100.0% to 100.0%	0.0 %	☆
PC-16	Simple PLC operation method	0:Single run end stop 1:Single run end hold End 2:Always cycle	0	☆

PC-17	Simple PLC power-down memory selection	Bit: Power down memory selection 0:Power down no memory 1:Power down Electricity memory ten digits: shutdown memory selection 0 :shutdown no memory 1;shutdown memory	00	☆
PC-18	Simple PLC Section 0 Run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-19	Simple PLC 0th acceleration/deceleration time selection	0~3	0	☆
PC-20	Simple PLC 1st run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-21	Simple PLC Section 1 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-22	Simple PLC segment 2 operation	0.0s(h)~6553.5s(h)	0.0s(h)	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
PC-23	Simple PLC 2nd stage acceleration/deceleration time selection	0~3	0	☆
PC-24	Simplified PLC Section 3 Run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-25	Simple PLC Section 3 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-26	Simple PLC segment 4 operation Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-27	Simple PLC Section 4 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-28	Simple PLC Section 5 Run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-29	Simple PLC Section 5 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-30	Simple PLC Section 6 Operation Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-31	Simple PLC Section 6 Acceleration and Deceleration Time Selection	0~3	0	☆

PC-32	Simple PLC segment 7 operation Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-33	Simple PLC Section 7 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-34	Simple PLC Section 8 Run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-35	Simple PLC Section 8 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-36	Simple PLC Section 9 Run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-37	Simple PLC Section 9 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-38	Simple PLC Section 10 Run Time	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-39	Simple PLC Section 10 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-40	Simple PLC Section 11 Runtime	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-41	Simple PLC Section 11 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-42	Simple PLC Section 12 Runtime	0.0s(h)~6553.5s(h)	0.0s(h)	☆
PC-43	Simple PLC Section 12 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-44	Simple PLC Section 13 Runtime	0.0s(h)~6553.5s(h)	0.0s(h)	☆

Function code	Name (of a thing)	Setting range	Factory value	Variation
PC-45	Simple PLC Section 13 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-46	Simple PLC Section 14 Runtime	0.0s(h)~6553.5s(h)	0.0s(h)	☆

PC-47	Simple PLC Section 14 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-48	Simple PLC Section 15 Runtime	0.0s(h)-6553.5s(h)	0.0s(h)	☆
PC-49	Simple PLC Section 15 Acceleration and Deceleration Time Selection	0~3	0	☆
PC-50	Simple PLC runtime Unit	0:s (seconds) 1:h (hours)	0	☆
PC-51	Multi-segment instruction 0 given way	0:Function code PC-00 given 1:AI12:AI23:AI3 4:PULSE pulse 5:PID 6:Preset frequency (PO-08) given, UP/DOWN can be modified	0	☆
Pd Telecommunication Parameters				
Pd-00	baud	Bit; MODBUS 0:300BPS 1:600BPS 2:1200bps 3:2400bps 4:4800bps 5 9600bps6: 19200bps7:38400bps 8. 57600BPS 9 : 115200BPS Ten bits : ProPibus-DP 0:115200BPs 1:208300BPs 2:256000BPs 3:512000Bps Hundred bits : reserved Thousand bits: CANlink baud rate 0:201:502:100 3:1254:2505:5006:1M	5005	☆
Pd-01	data format	0:No parity (8-N-2) 1:Even parity (8-E-1) 2:Odd parity (8-O-1) 3:8-N-1	0	☆
Pd-02	local address	1~247 ,0 is broadcast address		☆
Pd-03	latency of reply	0 ms~20 ms	2	☆
Pd-04	communication timeout	0.0(invalid),0.1s~60.0s	0.0	☆
Pd-05	Data transfer format selection	Digits: MODBUS 0 :Non-standard MODBUS protocol 1:Standard MODBUS protocol Ten digits: ProPibus-DP 0 :PFO1 format 1 :PFO2 format 2 :PFO3 format 3 :PFO5 format	31	☆

Pd-06	Communication reading current resolution	0:0.01A 1:0.1A	0	☆
Pd-08	Canlink communication timeout	0.0s :Invalid 0.1~60.0s	0	☆
PP Function Code Management				
PP-00	user password	0~65535	0	☆
PP-01	Parameter initialisation	0 :No operation 01:Restore factory parameters, excluding motor parameters 02:Clear logging information 04:Restore user backups parameters 501:Backup user's current parameters	0	★
PP-02	Functional parameter group display selection	Digit: U group display selection 0: no display 1: display	11	★

function code	name (of a thing)	Scope	factory value	variation
		Tenth digit: Group A display selection 0: no display 1: display		
PP-03	Personalised parameter group display options	First digit: user customised parameter group display selection 0:not display 1 :display Tenth digit: user change parameter group display selection 0:not display 1:display	00	☆
PP-04	Function Code Modification Properties	0:Modifiable1;Not Modifiable	0	☆
PP-05	Model Setting	1:G-type machine 2:P-type machine	1	★
H0 Torque Control Parameters				
H0-00	Speed/torque control method Selection	0;Speed control 1:Torque control	0	★
H0-01	Torque setting source selection in torque control mode	0:Digital setting 1(H0-03)1:A112:A12 3:A134 : PULSE pulse 5:Communication given 6: MIN(A11,A12) 7:MAX(A11,A12) (Full scale of 1-7 options, corresponding to HO-03 digital setting)	0	★
H0-03	Digital setting of torque in torque control mode	-200.0 % to 200.0 %	150.0 %	☆
H0-05	Torque Control Forward Maximum Frequency	0.00Hz-maximum frequency	50.00 Hz	☆
H0-06	Torque Control Reverse Maximum Frequency	0.00 Hz - maximum frequency	50.00 Hz	☆
H0-07	Torque controlled acceleration time	0.00s~65000s	0.00s	☆
H0-08	Torque controlled deceleration time	0.00s~6500.0s	0.00s	☆
H5 Control Optimization Parameters				
H5-00	DPWM switching upper frequency hasty	0.00 Hz~15.00 Hz	8.00 Hz	☆

H5-01	PWM modulation mode	0:Asynchronous modulation 1:Synchronous modulation	0	☆
H5-02	Deadband compensation mode selection	0:No compensation 1:Compensation mode 12:Compensation mode 2	1	☆
H5-03	Random PWM depth	0 :Random PWM invalid 1~10: PWM carrier frequency random (of a speech etc) profundity	0	☆
H5-04	Fast Current Limit Enable	0:not enable 1 :enable	1	☆
H5-05	Current Detection Compensation	0~100	0	☆
H5-06	Undervoltage point setting	60.0 % to 140.0 %	350	☆
H5-07	SVC optimisation mode selection	0:No optimisation 1:Optimisation mode 12:Optimisation mode 2	2	☆
H5-08	Dead time adjustment	100%~200%	150 %	☆
H5-09	Overpressure point setting	200.0V~2000.0V	Type conformed	☆
H6 Analog Input Setting				
H6-00	Analogue input curve 4 Minimum input	-10 .00V~H6-02	0.00V	☆
H6-01	Analogue Input Curve 4 Minimum Input Correspondence Setting	-100.0 % to +100.0 %	0.0 %	☆
H6-02	Analogue Input Curve 4 Inflection Point 1 Input	H6-00~H6-04	3.00V	☆

8.Summary Table of Monitoring Parameters

Function code	Name (of a thing)	Setting range	Factory value	Variation
H6-03	Analogue Input Curve 4 Inflection Point 1 Input Corresponding Setting	-100.0 % to +100.0 %	30.0 %	☆
H6-04	Analogue input curve 4 inflection points 2 inputs	H6-02~H6-06	6.00V	☆
H6-05	Analogue Input Curve 4 Inflection Point 2 Input Corresponding Setting	100.0 % - +100.0 %	60.0 %	☆
H6-06	Analogue input curve 4 Maximum input	H6-06 to +10.00V	10.00V	☆
H6-07	Analogue Input Curve 4 Maximum Input Correspondence Setting	-100.0 % to +100.0 %	100.0 %	☆
H6-08	Analogue input curve 5 Minimum input	-10.00V~H6-10	-10.00V	☆

H6-09	Analogue Input Curve 5 Minimum Input Correspondence Setting	-100.0 % to +100.0 %	-100.0 %	☆
H6-10	Analogue input curve 5 inflection Point 1 input	H6-08~H6-12	-3.00V	☆
H6-11	Analogue input curve 5 turns Point 1 input corresponding setting	-100.0 % to +100.0 %	30.0 %	☆
H6-12	Analogue input curve 5 inflection Point 2 input	H6-10~H6-14	3.00V	☆
H6-13	Analogue input curve 5 turns Point 2 input corresponding setting	-100.0 % to +100.0 %	30.0 %	☆
H6-14	Analogue Input Curve 5 Maximum Input	H6-12~+10.00V	10.00V	☆
H6-15	Analogue Input Curve 5 Maximum Input Correspondence Setting	-100.0 % to +100.0 %	100.0 %	☆
H6-24	A11 sets the jump point	-100.0 % to 100.0 %	0.0 %	☆
H6-25	A11 sets the jump range	0.0%~100.0%	0.5 %	☆
H6-26	A12 sets the jump point	-100.0 % to 100.0 %	0.0 %	☆
H6-27	A12 sets the jump range	0.0%~100.0%	0.5 %	☆
H6-28	A13 sets the jump point	-100.0 % to 100.0 %	0.0 %	☆
H6-29	A13 sets the jump range	0.0%~100.0%	0.5 %	☆
H9 Sleep Wake-up Function Parameters				
H9-00	Hibernate call on	0:Hibernate function is invalid control hibernate function 1:By PID set value and feedback value 2:Controlling the hibernation function according to the operating frequency	0	☆
H9-01	Sleeping frequency	0.00Hz~P0-10	20.00 Hz	☆
H9-02	sleep delay	0.0s~3600.0s	5.0s	☆
H9-03	wake-up value	0.0%~100.0%	60.0 %	☆
H9-04	wake-up delay	0.0s~3600.0	3.0s	☆
H9-05	Pressure setting	0.0 bar~H9-06	3.0 bar	☆
H9-06	Sensor range	Range: 0.0~600.0 bar	10.0bar	☆

Function code	Name (of a thing)	Smallest unit	Function code	Name (of a thing)	Smallest unit
U0-00	Operating frequency (Hz)	0.01Hz	U0-21	V1 voltage before correction	0.001V
U0-01	Setting frequency (Hz)	0.01Hz	U0-22	V2 voltage before correction	0.001V

U0-02	Busbar voltage (V)	0.1V	U0-23	V3 Voltage before correction	0.001V
U0-03	Output Voltage (V)	1V	U0-24	linear velocity	1m/Min
U0-04	Output current (A)	0.01A	U0-26	Current Runtime	0.1Min
U0-05	Output power (kW)	0.1kW	U0-27	PULSE Input Pulse Frequency	1Hz
U0-06	Output torque (%)	0.1%	U0-28	Communication Setpoint	0.01 %
U0-07	S Input State	1	U0-30	Mains frequency X display	0.01Hz
U0-08	DO output status	1	U0-31	Auxiliary frequency Y display	0.01Hz
U0-09	V1 voltage (V)	0.01V	U0-32	View any memory address value	1
U0-10	V2 Voltage (V)	0.01V	U0-35	Target torque (%)	0.1%
U0-11	V3 voltage (V)	0.01V	U0-39	V/F separation target voltage	1V
U0-12	numerical value	1	U0-40	V/F Split Output Voltage	1V
U0-13	length value	1	U0-41	S Digital Input Terminal Input Status Intuitive Display	1
U0-14	Load speed display	1	U0-42	Visualisation of DO input status	1
U0-15	PID Setting	1	U0-59	Setting frequency (%)	0.01 %
U0-16	PID feedback	1	U0-60	Operating frequency (%)	0.01 %
U0-17	PLC stage		U0-61	Inverter status	1
U0-18	PULSE Input Pulse Frequency (Hz)	0.01kHz	U0-62	current fault	
U0-19	Feedback speed (unit) 0.1Hz)	0.1Hz			
U0-20	Remaining running time	0.1Min			

9. List of Information Failures

Fault name	Trouble code	Fault name	Trouble code
Inverter unit protection	Err01	Motor tuning faults	Err19
Acceleration overcurrent	Err02	code disc failure	Err20
Deceleration overcurrent	Err03	EEPROM read/write failure	Err21

Fault name	Trouble code	Fault name	Trouble code
Constant speed overcurrent	Err04	Inverter hardware failure	Err22
Acceleration overvoltage	Err05	short-circuit fault to ground	Err23
Deceleration overvoltage	Err06	Cumulative running time to reach failure	Err26
Constant speed overvoltage	Err07	User-defined fault 1	Err27
Control power failure	Err08	User-defined fault 1	Err27
Undervoltage fault	Err09	User-defined fault 2	Err28
Frequency converter overload	Err10	Cumulative power-up time to reach fault	Err29
Motor overload	Err11	unloading fault	Err30

Input out of phase	Err12	Runtime PID feedback loss fault	Err31
Output out of phase	Err13	Wave-by-wave current limiting faults	Err40
Module overheating	Err14	Switching motor failure during operation	Err41
External equipment failure	Err15	Excessive speed deviation fault	Err42
malfunction of communications	Err16	Motor overspeed fault	Err43
Contactor failure	Err17	Motor over-temperature fault	Err45
Current Detection Fault	Err18	Initial position error	Err51

10. Definition of Telecommunication Addresses

Function Code Parameters section:

The group number and parameter serial number combination of the current communication operation function code is used as the communication address:

High Byte: PO~FF (Group P), HO~AF (Group A), 70~7F (Group U) Low Byte: 00~FF

For example: P3-12, the address is F30C; Note: PF group: parameters can neither be read nor changed; U group: parameters can only be read but not changed.

Some parameters can not be changed when the inverter is in running state; some parameters can not be changed no matter what state the inverter is in; to change the function code parameters, pay attention to the range, unit, and description of the parameters.

In addition, since frequent storage of **EEPROM** reduces the service life of **EEPROM**, some function codes can be changed **in RAM** without storing them in the communication mode.

If the parameter is group F, the function can be realised by turning the high F bit of the function code address to 0. If it is a group A parameter, the function can be realised by turning the high A of the function code address to 4. The corresponding function code address is expressed as follows: High byte: 00~0F (group F), 40~4F (group A) Low byte: 00~FF

For example:

Function code P3-12 is not stored in EEPROM, the address is 030C; Function code H0-05 is not stored in EEPROM, the address is 4005; this address means that you can only write to the RAM, but not read, and it is an invalid address when reading. For all parameters, the command code 07H can also be used to realise the function.

Shutdown/Operation Parameters section:

Parameter address	Parameter Description	Parameter address	Parameter Description
1000H	Communication set value (-10000~10000) (decimal)	100C	A13 Voltage
1001H	operating frequency	100D	Count Input
1002H	busbar voltage	100E	Length value input
1003H	output voltage	101F	Load speed
1004H	Output Current	1010	PID Setting
1005H	output power	1011	PID feedback
1006H	Output torque	1012	PLC Steps
1007H	running speed	1013	PULSE Input Pulse Frequency in 0.01kHz

1008H	DI input flag	1014	Feedback speed in 0.1Hz
1009H	DO output flag	1015	Remaining running time
100AH	AI1 voltage	1016	AI1 voltage before correction
100BH	AI2 voltage	1017	AI2 voltage before correction

Awareness:

The communication setting value is a percentage of the relative value, 10000 corresponds to 100.00%, -10000 corresponds to -100.00%. The percentage is the percentage of the maximum frequency (PO-10) for frequency scale data, and the percentage is P2-10, H2-48 (the upper limit of the second motor torque digital setting) for torque scale data.

Control command input to inverter: (write only)

Command Word Address	Command Function
2000H	0001: Positive operation
	0002: Reverse run
	0003: Positive rotation
	0004: Reversal of point movement
	0005: Free stops
	0006: Deceleration stop
	0007: Fault reset

Read inverter status: (read only)

status word address	status word function
3000H	0001: Positive operation
	0002: Reverse run
	0003: Downtime

Parameter lock password verification: (if return to 8888H, that means the password verification passed)

password address	Enter the contents of the password
1P00H	*****

Digital output terminal control (write only)

command address	Order content
2001H	BIT0:DO1 output control BIT1:DO2 output control BIT2: RELAY1 output control BIT3: RELAY2 output control BIT4: FMR output control BIT5:VDO1 BIT6:VDO2 BIT7:VDO3 BIT8:VDO4 BIT9:VDO5

Analogue output AO1 control: (Write only)

command address	Order content
2002H	0~7 FFF means 0 %~100%.

Warranty Agreement

1. This product warranty period of eighteen months (to the body of the bar code information shall prevail), the warranty period in accordance with the instructions for normal use. In case of product failure or damage, our company is responsible for free maintenance.
2. During the warranty period, a repair fee will be charged for damages caused by
 - A. Damage to the machine caused by errors in use and unauthorised repairs or modifications.
 - B. Damage to machinery due to fire, flood, voltage abnormality, other acts of God, secondary disasters, etc.
 - C. Hardware damage due to human drop and transport after purchase;
 - D. Damage to the machine caused by not operating according to the user manual provided by our company;
 - E. Failure and damage caused by obstacles other than machines (e.g. external equipment factors)
3. When the product malfunctions or is damaged, please fill in the contents of the "Product Warranty Card" correctly and in detail.
4. Maintenance Fee. All charges will be in accordance with the latest adjusted Maintenance Price List of our company.
5. This warranty card will not be reissued under normal circumstances, please make sure you keep this card and present it to the maintenance personnel at the time of warranty.
6. If there is any problem in the service process, please contact our agent or our company in time.

Warranty Card

Customer Information	Unit Address:	
	Unit Name: Postcode:	Contact Person:
		Contact number:
Product Information	Product Model:	
	Body barcode (paste here).	
	Agent Name:	
Fault Information	(When and what to repair). Maintenance man:	



Scan the code to view the electronic version of the manual

