EACON 易控

Professional AC Drive Manufacturer

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EC670   AC Drive for elevator

Quick Guide V1.0

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1.Preface　　　　　　　　　　　　　　　　　　　　V1.0

　　　Thank you for using the EC670 Solar Pump AC drive. This AC drive is a special AC drive made by our company for PV water supply industry, and it is also suitable for other basic applications.

　　　Please carefully read this manual before the installation in order to ensure the correct installation and operation of the AC drive, give full play to its superior performance, and ensure safety. Please keep this guide permanently for future maintenance, service and overhaul.

　　　AC drive is a precise electric and electronic product, thus for the safety of the operators and the equipment, please ensure that the installation and parameters adjustment is done by professional motor engineers and the content marked as "Danger", "Notice", etc in this manual must be read carefully. If you have any questions, please contact with the agents of our company, and our technicians are ready to serve you.

　　　The instructions are subject to change, without notice.

　　　You can contact us with any product questions through the following ways.

E-mail
overseas@eacon.cc

Official website
www.eacon.cc

EACON WeChat
Subscription

| ↯ Dangerous and wrong use may cause casualties |
| --- |

↯ Danger
●The power supply must be turned off when laying the wires. ●When the AC power supply is cut off but the indicator light of the manipulator of AC drive is still on, there is still high voltage in the AC drive which is very dangerous, please do not touch the interior circuit and components. ●Do not check the components and signals on the circuit board during operation. ●The terminal of AC drive must be grounded correctly. ●Do not refit or replace the control board and parts without permission, otherwise, there are risks such as electric shock and explosion.

! Wrong use may cause damage to AC drive or mechanical system

! Notice
●Please do not test the voltage resistance of the interior components of AC drive, as the semiconductor of AC drive is easy to be punctured and damaged by high voltage. ●Never connect the main circuit output terminals U, V, and W directly to the AC main circuit power supply. ●The circuit board of the AC drive has CMOS IC which is extremely easy to be damaged by static electricity, thus please do not touch the circuit board with your hand before taking anti-static electricity measures. ●Only the qualified motor professionals can install the driver, lay the wire, repair and maintain the AC drive. ●The scrapping of AC drive shall be treated as industrial waste and burning is strictly prohibited.

2.Mechanical dimensions of AC drive
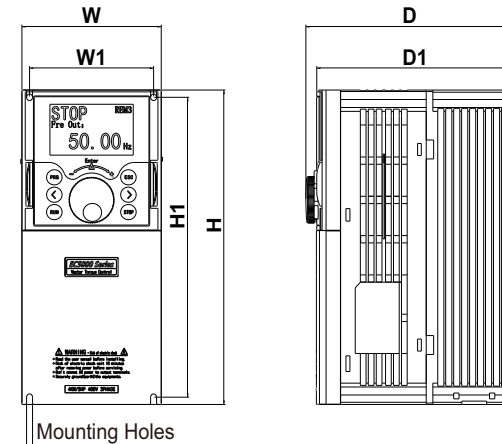
EC6211~EC6250 Enclosure Type
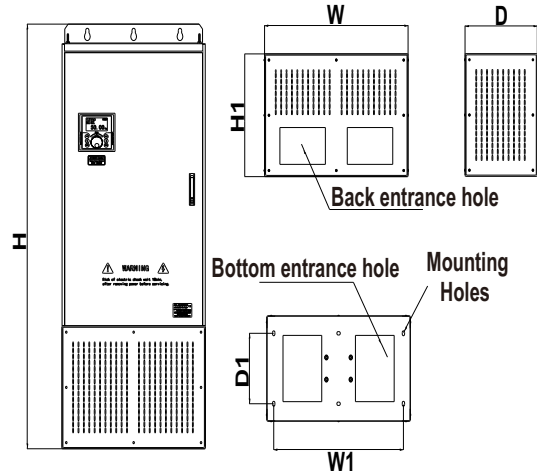
EC6060~60B0 Enclosure Type

Enclosure Type	Power segment(KW)	W (mm)	W1	H	H1	D	D1	Screw Size
EC6011	0.75-4.0Kw	105	93.5	216	206	156.7	148.8	Φ4.5
EC6020	5.5-7.5Kw	126	110	260	246	183	173.3	Φ6
EC6030	11-15Kw	153	137	341	327	203.3	193.6	Φ7
EC6040	18.5-22Kw	180	120	422.2	419.7	203.6	194	Φ9
EC6050	30-37Kw	191	120	471	450	241.1	231.6	Φ9
EC6060	45-55Kw	300	220	541	516	313.7	300	Φ11
EC6070	75-110Kw	350	270	730	705	353.7	340	Φ11
EC6080	132Kw	500	180	780	755	353.7	340	Φ11
EC6090	160-200Kw	650	210	1060	1024	413.7	400	Φ16
EC60A0	220-280Kw	750	230	1170	1128	413.7	400	Φ18
EC60B0	315-400Kw	850	275	1280	1236	463.7	450	Φ20
EC6070 PEDESTAL		352	270	1152	450	319	177	Φ14
EC6080 PEDESTAL		502	420	1200	450	319	177	Φ14
EC6090 PEDESTAL		652	570	1520	500	379	237	Φ14
EC60A0 PEDESTAL		752	670	1625	500	379	237	Φ14
EC60B0 PEDESTAL		852	770	1730	500	429	287	Φ14

3.Main Circuit Connection Functions

| Terminal	Type	Function Description
R/L1 S/L2 T/L3	Main circuit power supply input	Input end of commercial power supply
U/T1 V/T2 W/T3	AC drive output terminal	AC driver output connected with 3-phase induction motor.
⊕2 PR	External braking resistorconnection	≤30KW with braking component which is connected to terminal ⊕2, PR.To improve the brake moment of force, an external braking resistance is needed.
⊕2 ⊖	Braking unit connection	Machinery≥37KW install drive circuit without outside braking resistance component. To improve braking power, outside braking resistance and braking component is necessary(both are optional).
⊕2 ⊕1	DC reactor connection	Connect DC reactor to improve the power factor, reduce the DC bus AC pulse.
⊕	Grounding terminal	For safety and small noise, AC drive's ground terminal EG should be well grounded.

4.AC drive control terminal connections

Type	Terminal	Name	Function Description
Power supply	10V-GND	External+10V power supply	Provide +10V power supply for external unit, maximum output current: 10mA Generally, it provides power supply to external potentiometer with resistance range of 1kΩ.~5kΩ.
	24V-COM	External+24V power supply	Provide +24V power supply to external unit, generally, it provides power supply to DI/DO terminals and external sensors. Maximum output current: 200mA
	PLC	Input terminal of external power supply	Connect to +24V by default when S1~S8 need to be driven by external signal, PLC needs to be connected to external power supply and be disconnected from +24V power supply terminal.
Analog input	AI1-GND	Analog input termianl 1	1. Input voltage range: DC 0V~10V 2. Impedance: 22kΩ
	AI2-GND	Analog input termianl 2	1. Input range: DC 0V~10V/4mA-20mA, decided by selection of P5-00. 2. Impedance: 22kΩ(voltage input), 500Ω(current input)
	AI3-GND	Analog input termianl 3	
Digital input	S1-COM	Digital input 1	1. Optocoupler coupling isolation, compatible with dual polarity input 2. Impedance: 2.4kΩ 3. Voltage range for level input: 9V-30V 4. S4 can be used for high-speed pulse input. Maximum input frequency: 50kHz
	S2-COM	Digital input 2	
	S3-COM	Digital input 3	
	S4-COM	Digital input 4	
	S5-COM	Digital input 5	
	S6-COM	Digital input 6	
	S7-COM	Digital input 7	
	S8-COM	Digital input 8	

Type	Terminal	Name	Function Description
Analog output	AO1-GND	Analog output terminal 1	Voltage or current output is decided by P5-32. Output voltage range: 0V～10V Output current range: 0mA～20mA
	AO2-GND	Analog output terminal 2	
Digital output	Y3-YC	Digital output termianl 1	1.Optocoupler coupling isolation, dual polarity open collector output: 2.Output voltage range: 0～24 V 3.Output current range: 0～50 mA 4.Y4 is limited by F5-32 "HDO function enable". As high-speed pulse output, the maximum frequency is 50 kHz. When it is used as collector open circuit output, it is the same as Y3 specification. 5.Select whether YC terminal and COM terminal are electrically connected through SW1.
	Y4-YC	Digital output termianl 2	
	Y1A/Y1B/Y1C	Relay digital output 1	Contact driving capacity: 250Vac, 3A, COSØ=0.4. 30Vdc, 1A
	Y2A/Y2C	Relay digital output 2	
Commun-ication	DA,DB	RS485 interface	1. Standard RS485 communication interface; 2. Select whether to connect 120Ω termination resistor through SW2.

5.Operation and display

5.1 LED operation panel(Factory standard panel is LED.)
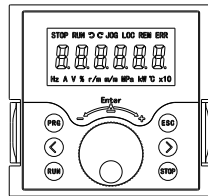
5.2 Description of LED operation panel indicators

Indicator	Description	Indicator	Description
STOP	motor STOP	RUN	motor RUN
↺	motor reverse rotation	↻	motor forward rotation
JOG	JOG state	LOC	control source as panel
REM	control mode set by the source of A03	ERR	AC drive has failure
Hz	monitoring interface is frequency	A	monitoring interface is current
V	monitoring interface is voltage	%	monitoring interface for percentage display
r/m	monitoring interface is motor speed	Kw	monitoring interface is power
MPa	monitoring interface is MPa under monitor mode setting	℃	monitoring interface is temperature

5.3 Description of Keys on the LED operation panel

Key	Function
PRG	Programming　Set parameters
＜/＞	Move left and right function keys
RUN	RUN key　　Forward RUN(FRD)
STOP	STOP key
◎	Number INCREASE/DECEREASE and ENTER key
ESC	Exit and fault reset function

6.Faults and solutions

Display	Fault name	Possible causes	Solutions
Err01	Inverter unit protection	1: The output circuit is grounded or short circuited. 2: The power cable between the motor and the AC drive is too long. 3: The power module is overheated. 4: The internal connections become loose. 5:The main control board is faulty. 6: The drive board is faulty. 7: The inverter module is faulty.	1: Eliminate external faults. 2: Install a reactor or an output filter. 3: Check the air filter and the cooling fan. 4: Connect all cables properly. 5: Seek technical support. 6: Seek technical support. 7: Seek technical support.
Err02	Overcurrent during acceleration	1: The output circuit is grounded or short circuited. 2: Motor auto-tuning is not performed. 3: The acceleration time is too short. 4: Manual torque boost or V/F curve is not appropriate. 5: The input voltage is too low. 6: The startup operation is performed on the rotating motor. 7: A sudden load is added during acceleration. 8: The AC drive model is of too small power class.	1: Eliminate external faults. 2: Perform the motor auto-tuning. 3: Increase the acceleration time. 4: Adjust the manual torque boost or V/F curve. 5: Adjust the voltage to the normal range. 6: Select rotational speed tracking restart or start the motor after it stops. 7: Remove the added load. 8: Select an AC drive of higher power class.
Err03	Overcurrent during deceleration	1: The output circuit is grounded or short circuited. 2: Motor auto-tuning is not performed. 3: The deceleration time is too short. 4: The input voltage is too low. 5: A sudden load is added during deceleration. 6: The braking unit and braking resistor are not installed.	1: Eliminate external faults. 2: Perform the motor autotuning. 3: Increase the deceleration time. 4: Adjust the voltage to the normal range. 5: Remove the added load. 6: Install the braking unit and braking resistor.

Err04	Overcurrent at constant speed	1: The output circuit is grounded or short circuited. 2: Motor auto-tuning is not performed. 3: The input voltage is too low. 4: A sudden load is added during operation. 5: The AC drive model is of too small power class.	1: Eliminate external faults. 2: Perform the motor autotuning. 3: Adjust the voltage to the normal range. 4: Remove the added load. 5: Select an AC drive of higher power class.
Err05	Overvoltage during acceleration	1: The input voltage is too high. 2: An external force drives the motor during acceleration. 3: The acceleration time is too short. 4: The braking unit and braking resistor are not installed.	1: Adjust the voltage to normal range. 2: Remove the external force or install a braking resistor. 3: Increase the acceleration time. 4: Install the braking unit and braking resistor.
Err06	Overvoltage during deceleration	1: The input voltage is too high. 2: An external force drives the motor during deceleration. 3: The deceleration time is too short. 4: The braking unit and braking resistor are not installed.	1: Adjust the voltage to normal range. 2: Remove the external force or install a braking resistor. 3: Increase the deceleration time. 4: Install the braking unit and braking resistor.
Err07	Overvoltage at constant speed	1: The input voltage is too high. 2: An external force drives the motor during running.	1: Adjust the voltage to the normal range. 2: Remove the external force or install the braking resistor.
Err08	Control power supply fault	1: The input voltage is not within the allowable range.	1: Adjust the input voltage to the allowable range.
Err09	Undervoltage	1: Instantaneous power failure occurs on the input power supply. 2: The AC drive's input voltage is not within the allowable range. 3: The DC-Bus voltage is abnormal. 4: The rectifier bridge and buffer resistor are faulty. 5: The drive board is faulty. 6: The main control board is faulty.	1: Reset the fault. 2: Adjust the voltage to the normal range. 3: Contact technical support. 4: Contact technical support. 5: Contact technical support. 6: Contact technical support.
Err10	AC drive overload	1: The load is too heavy or locked rotor occurs on the motor. 2: The AC drive model is of too small power class.	1: Reduce the load and check the motor and mechanical condition. 2: Select an AC drive of higher power class.
Err11	Motor overload	1: P9-23 is set improperly. 2: The load is too heavy or locked rotor occurs on the motor. 3: The AC drive model is of too small power class.	1: Set it correctly. 2: Reduce the load and check the motor and the mechanical condition. 3: Select an AC drive of higher power class.
Err12	Power input phase loss	1: The three-phase power input is abnormal. 2: The drive board is faulty. 3: The lightening board is faulty. 4: The main control board is faulty.	1: Eliminate external faults. 2: Seek technical support. 3: Seek technical support. 4: Seek technical support.

Err13	Power output phase loss	1: The cable connecting the AC drive and the motor is faulty. 2: The AC drive's three-phase outputs are unbalanced when the motor is running. 3: The drive board is faulty. 4: The module is faulty.	1: Eliminate external faults. 2: Check whether the motor three-phase winding is normal. 3: Seek technical support. 4: Seek technical support.
Err14	Module overheat	1: The ambient temperature is too high. 2: The air filter is blocked. 3: The fan is damaged. 4: The thermally sensitive resistor of the module is damaged. 5: The inverter module is damaged.	1: Lower the ambient temperature. 2: Clean the air filter. 3: Replace the damaged fan. 4: Replace the damaged thermally sensitive resistor. 5: Replace the inverter module.
Err15	External equipment fault	1: External fault signal is input via S.	1:Reset the operation.
Err16	Communication fault	1: The host computer is in abnormal state. 2: The communication cable is faulty. 3: The communication parameters in group PB are set improperly.	1: Check the cabling of host computer. 2: Check the communication cabling. 3: Set the communication parameters properly.
Err17	Contactor faul	1: The drive board and power supply are faulty. 2: The contactor is faulty.	1: Replace the faulty drive board or power supply board. 2: Replace the faulty contactor.
Err18	Current detection fault	1: The HALL device is faulty. 2: The drive board is faulty.	1: Replace the faulty HALL device. 2: Replace the faulty drive board.
Err19	Motor auto-tuning fault	1: The motor parameters are not set according to the nameplate. 2: The motor auto-tuning times out.	1: Set the motor parameters according to the nameplate properly. 2: Check the cable connecting the AC drive and the motor.
Err20	Encoder fault	1: The encoder type is incorrect. 2: The cable connection of the encoder is incorrect. 3: The encoder is damaged. 4: The PG card is faulty.	1: Set the encoder type correctly based on the actual situation. 2: Eliminate external faults. 3: Replace the damaged encoder. 4: Replace the faulty PG card.
Err21	EEPROM readwrite fault	1: The EEPROM chip is damaged.	1: Replace the main control panel.
Err22	AC drive hardware fault	1: Overvoltage exists. 2: Overcurrent exists.	1: Handle based on over-voltage. 2: Handle based on over-current.
Err23	Short circuit to ground	1: The motor is short circuited to the ground.	1: Replace the cable or motor.
Err24	Running time reached	1: Accumulative running time reaches setting.	1: Clear the record through the parameter initialization function.
Err25	User-defined fault 1	1: The user-defined fault 1 signal is input via DI.	1: Reset the operation.
Err26	User-defined fault 2		

Err27	power-on time reached	1: Accumulative power-ontime reaches the setting.	1: Clear the record through the parameter initialization function.
Err28	Load becoming 0	1: The AC drive running current is lower than P9-38.	1: Check that the load is disconnected or the setting of P9-38 and P9-39 is correct.
Err29	PID feedback lost during running	1: The PID feedback is lower than the setting of PA-27.	1: Check the PID feedback signal or set PA-27 to a proper value.
Err30	Pulse-by-pulse current limit fault	1: The load is too heavy or lockedrotor occurs on the motor. 2: The AC drive model is of too small power class.	1: Reduce the load and check the motor and mechanical condition. 2: Select the AC drive of higher power class.
Err31	Too large speed deviation	1: The encoder parameters are set incorrectly. 2: The motor auto-tuning is not performed. 3: P9-42 and P9-43 are set incorrectly.	1: Set the encoder parameters properly. 2: Perform the motor autotuning. 3: Set F9-69 and F9-70 correctly based on the actual situation.
Err32	Motor over-speed	1: The encoder parameters are set incorrectly. 2: The motor auto-tuning is not performed. 3: P9-40 and P9-41 are set incorrectly	1: Set the encoder parameters properly. 2: Perform the motor autotuning. 3: Set P9-40 and P9-41 correctly based on the actual situation.
Err33	Motor overheat	1: The cabling of the temperature sensor becomes loose. 2: The motor temperature is too high.	1: Check the temperature sensor cabling and eliminate the cabling fault. 2: Lower the carrier frequency or adopt other heat radiation measures.
Err34	Initial position fault	1: The motor parameters are not set based on the actual situation.	1: Check the motor para-meters are set correctly and whether the setting of rated current is too small.

7.Function Code Table

AO Basic parameter group				
Function Code	Parameter Name	Setting Range	Default	Address
A0-00	Motor control mode	0~2 0: Voltage/Frequency (V/F)control (direction LED on) 1: Sensorless flux vector control(SFVC) (direction LED blinking) 2: Closed-loop vector control(CLVC) (direction LED fast blinking)	0	1000H
A0-01	Command source selection	0~4 0: Operation panel control (LOC LED on) 1: Terminal control (REM LED on) 2: RS485 Communication control (REM LED blinking) 3.PV Auto-control (LOC REM on) 4: Terminal switchover (REM LOC LED blinking)	4	1001H
A0-02	Main frequency source X selection	0~12 0: Digital setting P0-08 1: AI1 2: AI2 3: AI3 4: Pulse setting(HDI) 5: Communication setting 6: UP/DW setting 7: PID 8: Simple PLC 9: Reserved 10: Reserved 11: Option card 12: Terminal switchover	0	1002H
A0-03	Maximum frequency	0.00~50.00Hz The maximum frequency limit allowed by the frequency converter is also the acceleration and deceleration time reference.	50.00Hz	1003H
A0-04	Preset main frequency	0.01~Maximum output frequency	50.00Hz	1004H
A0-05	Acceleration time1	0.1~30.0s	3s	1005H
A0-06	Deceleration time1	0.1~30.0s	2s	1006H
A0-07	Rotation direction	0000~0011 BIT0: 0: Same direction 1: Reverse direction BIT1: 0: Reverse enable 1: Reverse disable	0	1007H
A0-08	Carrier frequency	1.0~15.0KHz If the carrier frequency is set higher than the factory value, it will cause the temperature rise of the converter radiator to increase. At this time, the user needs to use the converter derating, otherwise the converter will have the danger of overheating alarm.	By type	1008H
A0-09	Restore default settings	0~65535 0~1: No function 2: Reset err mesage 3~6: Resv 7: Reset—User data 10: Back up current user parameters 210: Restore user backup parameters	0~210	1009H

A1 Start stop and frequency parameter group

Function Code	Parameter Name	Setting Range	Default	Address
A1-00	Start mode	0~2 0: Direct start 1: start DC break restart 2: Rotational speed tracking	1	1100H
A1-01	Minimum output frequency	0.00~5.00Hz Define the minimum output frequency of the AC driver. When it is less than this frequency, the AC driver outputs 0.00hz.	0.00Hz	1101H
A1-02	Startup DC braking current	0~150% When DC braking, the braking current sent by converter to motor. This value is based on the rated output current of the frequency converter. Only when [A1-00] is selected as "1", it will have DC braking function when starting.	70%	1102H
A1-03	Startup DC braking time	0.0~5.0s The duration of DC braking current at start-up, and no DC braking process at braking time of 0.0s.	0.8s	1103H
A1-04	Initial frequency of stop DC braking	0.00~5.00Hz When the frequency converter decelerates to this frequency, it will stop the output and start the DC braking function; when it stops, it will start the DC braking function when the output frequency is less than the start frequency of DC braking.	0.00Hz	1104H
A1-05	Stop DC braking current	0~150% It refers to the braking current sent by the converter to the motor during DC braking. This value is based on the rated output current of the frequency converter.	70%	1105H
A1-06	Stop DC braking time	0.0~5.0s The duration of DC braking current when stopping. When the braking time is 0.0s, there is no DC braking process, that is, DC braking function is invalid.	1.0s	1106H
A1-07	Start mb delay	0.00~5.00s Delay time of closing mechanical holding brake after deceleration to stop (holding brake coil is de energized)	0.2s	1107H
A1-08	Stop mb delay	0.00~5.00s Delay time of closing mechanical holding brake after deceleration to stop (holding brake coil is de energized)	0.3s	1108H
A1-09	Pre open door freq	0.0~50.0Hz When the frequency is lower than this parameter at constant speed or deceleration, the multifunction node outputs the enable signal.	7.00Hz	1109H
A1-10	Acceleration/ Deceleration mode	0~1 LED BIT0: Acceleration/Deceleration time base frequency 0: 50.00Hz 1: Maximum frequency LED BIT1: S-curve sel 0: Linear acceleration/deceleration 1: S-curve acceleration/deceleration	1	110AH
A1-11	S-curve start of Acceleration segment	0.01~20.00s Set the s-word characteristic time at 4 places to reduce the vibration when the machine starts / stops. After setting the s-word characteristic time, the acceleration and deceleration time will only extend 1/2 of the s-word characteristic time at the beginning and the end.	1.50	110BH
A1-12	S-curve end of Acceleration segment		1	110CH
A1-13	S-curve start of Deceleration segment		1	110DH
A1-14	S-curve end of Deceleration segment		1	110EH
A1-15	Reference 1	0~Maximum output frequency Multi segment instructions can be used in three situations: As frequency source, voltage source separated from VF and setting source of process PID As a frequency source, it is the percentage of relative maximum frequency: As a VF separated voltage source, it is the percentage of rated voltage relative to the motor; As a PID given, it is originally a relative value, and as a PID set source, it does not need dimensional conversion. Multi segment instructions need to be selected according to different states of multi-functional digital S. please refer to P4 group for details.	5Hz	110FH
A1-16	Reference 2		0Hz	1110H
A1-17	Reference 3		15Hz	1111H
A1-18	Reference 4		0Hz	1112H
A1-19	Reference 5		50Hz	1113H
A1-20	Reference 6		0Hz	1114H
A1-21	Reference 7		0Hz	1115H
A1-22	Reference 8		0Hz	1116H
A1-23	Reference 9		0Hz	1117H
A1-24	Reference 10		0Hz	1118H
A1-25	Reference 11		0Hz	1119H
A1-26	Reference 12		0Hz	111AH
A1-27	Reference 13		0Hz	111BH
A1-28	Reference 14		0Hz	111CH
A1-29	Reference 15		0Hz	111DH

A2 Terminal IO parameter group

Function Code	Parameter Name	Setting Range	Default	Address
A2-00	S1 terminal function	0~56 0: No function 1: Forward RUN (FWD) 2: Reverse RUN (REV) 3: Three-line control 4: Forward JOG (FJOG) 5: Reverse JOG (RJOG)	1	1200H
A2-01	S2 terminal function		3	1201H

A2-02	S3 terminal function	6: Coast to stop 7: Emergency stop 8: Fault reset (RESET) 9: Normally open (NO) input of external fault 10: Terminal UP 11: Terminal DOWN 12: UP and DOWN setting clear (terminal, operation panel) 13: Speed control/Torque control switchover	2	1202H
A2-03	S4 terminal function	14: Torque control prohibited 15: Speed search start enable 16: Multi-reference terminal 1 17: Multi-reference terminal 2 18: Multi-reference terminal 3 19: Multi-reference terminal 4 20: Terminal 1 for acceleration/deceleration time selection	16	1203H
A2-04	S5 terminal function	21: Terminal 2 for acceleration/deceleration time selection 22: Acceleration/Deceleration prohibited 23: PID ctrl diaable 24: PID pause 25: PID integral pause 26: Reverse PID action direction 27: PID parameter switchover	17	1204H
A2-05	S6 terminal function	28: PID target value switchover terminal1 29: PID target value switchover terminal2 30: PID target value switchover terminal3 31: PID feedback value switchover terminal1 32: PID feedback value switchover terminal2 33: PID feedback value switchover terminal3 34: PLC pause 35: PLC status reset 36: Swing enable 37: Swing pause	18	1205H
A2-06	S7 terminal function	38: Swing reset 39: Frequency source switchover terminal1 40: Frequency source switchover terminal2 41: Frequency source switchover terminal3 42: Frequency source switchover terminal4 43: Command source switchover terminal 1 44: Command source switchover terminal 2 45: Counter input	19	1206H
A2-07	S8 terminal function	47: Length count input 48: Length reset 49: Immediate DC braking 50: terminal pre flux 51: User-defined fault1 52: User-defined fault2 53: UPS mode active	53	1207H
A2-08	Characteristic selection of terminals S1-4	0000～1111 LED-Bits0: S1 terminal 0: effective closing 1: effective opening LED-Bits1: S2 terminal 0: effective closing 1: effective opening LED-Bits2: S3 terminal 0: effective closing 1: effective opening LED-Bits3: S4 terminal 0: effective closing 1: effective opening	0000	1208H

A2-09	S1-S4 terminal filtering time	0.00～60.00s This parameter is defined as the size of filtering the input signal to eliminate the interference signal. The longer the filtering time is, the stronger the anti-interference ability is, but the slower the response speed is; the shorter the filtering time is, the weaker the anti-interference ability is, but the faster the response speed is.	0.10s	1209H
A2-10	Characteristic selection of terminals S5-8	0000～1111 LED-Bits0: S5 terminal 0: effective closing 1: effective opening LED-Bits1: S6 terminal 0: effective closing 1: effective opening LED-Bits2: S7 terminal 0: effective closing 1: effective opening LED-Bits3: S8 terminal 0: effective closing 1: effective openin	0000	120AH
A2-11	S5-S8 terminal filtering time	0.00～60.00s Same as P4-08	0.10s	120BH
A2-12	Terminal control operation mode	0～3 0: the terminal with two-wire system 1 terminal set as 1 is in forward running, terminal set as 2 is in reverse running, 1: the terminal with two-wire system 2 terminal set as 1 is in starts running, terminal set as 2 is switch forward and reverse 2:the terminal with three-wire system 1 terminal set as 1 is in forward running, terminal set as 2 is in reverse running, terminal set as 3 is stop running, 3: the terminal with three-wire system 2 terminal set to 1 starts running, terminal set as 2 is switch forward and reverse, terminal set as 3 is stop running,	3	120CH
A2-13	Y1 terminal function	0～39 0 : No output 1 : AC drive Forward running 2 : AC drive Reverse running 3 : Fault output1 (no output at auto reset period) 4 : Fault output2 (output at auto reset period) 5 : Ready for RUN 6 : Frequency reached 7 : Frequency-level detection FDT1 output 8 : Frequency-level detection FDT2 output 9 : Frequency upper limit reached 10: Frequency lower limit reached 11: Current 1 reached 12: Current 2 reached 13: Zero current state	37	120DH

A2-14	Y2 terminal function	14: Software current limit exceeded 15: Torque limited 16: Motor overload pre-warning 17: AC drive overload pre-warning 18: Zero-speed running (no output at stop) 19: Acceleration runing 20: Deceleration runing 21: Dc breaking 22: PLC step complete	36	120EH
A2-15	Y3 terminal function	23: PLC cycle complete 24: Resv 25: Accumulative running time reached 26: Timing reached 27: Designated count value reached 28: Set count value reached 29: AI1 input limit exceeded 30: Module temperature reached 31: Fan runing	5	120FH
A2-16	Y4 terminal function	32: From com do1 33、From com do2 34: From com do3 35: From com do4 36: Output uvw contactor enable 37: Mechanical brake contactor enable 38: Pre open door enable	5	1210H

A3 Communication parameter group

Function Code	Parameter Name	Setting Range	Default	Address
A3-00	Address	1~247	1	1300H
A3-01	Baud rate sel	0~8	5	1301H
A3-02	Data format	0~5	3	1302H
A3-03		0~7	3	1303H
A3-04	Communication response delay	0.000~0.500	0.000s	1304H
A3-05	Communication response delay	0.1~100.0	1.0s	1305H
A3-06	Transmission response processing	0~1	0	1306H

A4 Holding brake and UPS parameter group

Function Code	Parameter Name	Setting Range	Default	Address
A4-00	Lift control mode	0000~0011 LED-Bits0: 0: Lift control disable 1: Lift control enable LED-Bits1: 0: UPS active change direction mb disable 1: UPS active change direction mb enable LED-Bits2: reserve LED-Bits3: reserve	0110	1400H

A4-01	Ups run freq lmt	0~100%-hz Operating frequency in UPS mode	6Hz	1401H
A4-02	Ups acc time	1.0~10.0s Acceleration time in UPS mode	3.0s	1402H
A4-03	Ups dec time	1.0~10.0s Deceleration time in UPS mode	2.0s	1403H
A4-04	Ups dir check freq	1.00~20.00Hz Refer to the maximum frequency	5.00Hz	1404H
A4-05	Ups direction check frequency delay	0~10.0s The maintenance time of detecting torque direction frequency during UPS mode startup acceleration	1.0	1405H
A4-06	Ups dir check torque lmt	1.0~10.0% During the acceleration process of UPS mode startup, the maximum value of forward torque is detected. If the value is exceeded, the direction of operation will be switched	5.0%	1406H
A4-07	Ups dir check refe torque filter time	0.01~1.00s Current output torque is collected in normal operation mode for reference of direction identification when switching into UPS mode. This value is the filtering time when collecting torque.	0.05s	1407H
A4-08	Ups mode torque lmt	50~150% The maximum value of forward torque during UPS mode operation. When the value is exceeded, the output frequency will be reduced	150%	1408H
A4-09	Ups mode Uu val	50~100%-Voltage 100% = undervoltage value in 350vdc UPS mode	160V	1409H
A4-10	Ups Torque record value	(-150)~150% only read Output torque value collected in normal operation mode	/	140AH
A4-11	Ups direction record value	Only reay Operation direction of acquisition in normal operation mode	/	140BH
A4-12	Ups dir change dc break time	0~10.0 DC braking time when torque exceeds the maximum value of a4-09 forward torque during startup acceleration in UPS mode	2.0s	140CH
A4-13	Ups dir change dc break current	0~150% DC braking current in reverse direction when torque exceeds a4-09 maximum forward torque during UPS mode startup acceleration	50%	140DH

A5 Motor parameters and vector control parameters group

Function Code	Parameter Name	Setting Range	Default	Address
A5-00	Auto-tuning selection	0~3 In order to obtain better VF or vector control performance, it is necessary to tune the motor parameters, and the accuracy of	0	1500H

A5-00	Auto-tuning selection	Of the adjustment results is closely related to the correct setting of the motor nameplate parameters. 0: No auto-tuning 1: Asynchronous motor static auto-tuning 2: Asynchronous motor complete auto-tuning 3: Asynchronous motor static complete auto-tuning	0	1500H
A5-01	Motor type selection	0～2 0: Common asynchronous motor 1: Variable frequency asynchronous motor 2: Permanent magnetic synchronous motor	0	1501H
A5-02	Rated motor power	0.1kW～1000.0kW Set motor rating	By type	1502H
A5-03	Rated motor voltage	1V～2000V Set motor rated voltage	By type	1503H
A5-04	Rated motor current	A5-11～By type 0.01A ～ 655.35a (Ac Drive < = 55kW) 0.1A ～ 6553.5a (Ac Drive > 55kW)	By type	1504H
A5-05	Rated motor frequency	0.01Hz～Maximum frequency Set motor rated frequency	By type	1505H
A5-06	Rated motor rotational speed	1rpm～65535rpm Set motor rated speed	By type	1506H
A5-07	Stator resistance (asynchronous motor)	By type 0.001Ω～65.535Ω (Ac Drive < = 55kW) 0.0001Ω～6.5535Ω (Ac Drive > 55kW)	By type	1507H
A5-08	Rotor resistance (asynchronous motor)		By type	1508H
A5-09	Leakage inductive reactance (asynchronous motor)	By type 0.01mh～655.35mh(Ac Drive< = 55kW) 0.001mh～65.535mh(Ac Drive> 55kW)	By type	1509H
A5-10	Mutual inductive reactance (asynchronous motor)		By type	150AH
A5-11	No-load current (asynchronous motor)	By type 0.01A～p1-04 (Ac Drive< = 55kW) 0.1A～p1-04 (Ac Drive> 55kW)	By type	150BH
A5-12	Encoder type	0000～0214 LED Bit-0: Encoder type 0: ABZ incremental encoder 1: UVW incremental encoder 2: Resolver 3: SIN/COS encoder 4: Wire-saving UVW encoder	0000	150CH

A5-12	Encoder type	LED Bit-1: ABZ incremental encoder phase sequence 0: Forward 1: Reserve LED Bit-2: UVW encoder phase sequence 0: Forward 1: Reserve LED Bit-3:Encoder input source 0: local PG, 1: extended PG 2: HDI pulse input		0000	150CH
A5-13	Encoder pulses per revolution	0～60000		1024	150DH
A5-14	Vector control mode	0000～0001 LED Bit-0:07 SFVC optimization mode selection 0: No optimization 1: Optimization mode 1 2: Optimization mode 2 LED Bit-1:reserved LED Bit-2:reserved LED Bit-3:reserved		0002	150EH
A5-15	Speed loop proportional gain 1	1～100	It is only valid for vector control and invalid for VF control. Running at different frequencies, different PI parameters of speed loop can be selected. When the operating frequency is less than the switching frequency 1, the PI adjustment parameters of the speed loop are p2-01 and p2-02. When the operating frequency is greater than the switching frequency 2, the PI adjustment parameters of the speed loop are p2-04 and p2-05. The PI parameters of speed loop between switching frequency 1 and switching frequency 2 are linear switching of two groups of PI parameters. By setting the proportional coefficient and integral time of the speed regulator, the dynamic response characteristics of the vector control can be adjusted. The dynamic response of the speed loop can be accelerated by increasing the proportional gain and reducing the integration time. However, if the proportional gain is too large or the integration time is too small, the system may oscillate.	30	150FH
A5-16	Speed loop integral time 1	0.01s ～ 10.00s		0.50s	1510H
A5-17	Switchover frequency 1	0.00 ～ P2-05		5.00Hz	1511H
A5-18	Speed loop proportional gain 2	1～100		20	1512H
A5-19	Speed loop integral time 2	0.01s ～ 10.00s		1.00s	1513H
A5-20	Switchover frequency 2	P2-03 ～ Maximum output frequency		10.00Hz	1514H
A5-21	Vector control slip gain	30%～200% For the speed sensorless vector control, this parameter is used to adjust the speed stability accuracy of the motor. When the speed of the motor is low when it is loaded, this parameter will be increased, and vice versa. For vector control with speed sensor, this parameter can adjust the output current of inverter under the same load.		100%	1515H

Function Code	Parameter Name	Setting Range	Default	Address
A5-22	Time constant of speed loop filter	0.050s～1.000s This parameter is used to filter the torque command. Generally, there is no need to adjust. When the speed fluctuates or the vibration of the motor is large, the filtering time can be increased properly. If the motor vibrates, the parameter should be reduced properly.	0.010	1516H
A5-23	Vector control overexcitation gain	0～200 During the deceleration process of frequency converter, the over-excitation control can restrain the rise of bus voltage and avoid over-voltage fault. The larger the over-excitation gain, the stronger the suppression effect.	64	1517H
A5-24	Torque upper limit source in speed control mod	0～7 0: P2-11 1: AI1 2: AI2 3: AI3 4: Pulse setting (HDI) 5: Communication setting 6: MIN(AI1,AI2) 7: MAX(AI1,AI2) 1-7 Full scale correspondence of optionsP2-11	0	1518H
A5-25	Digital setting of torque upper limit in speed control mod	0.0%～200.0% Digital setting of torque upper limit in speed control mode	150.0%	1519H
A5-26	Excitation adjustment proportional gain	0～60000 The current loop PI parameter of vector control can be obtained automatically after the asynchronous machine is fully tuned or the synchronous machine is no-load tuned, which generally does not need to be modified. If the current loop PI gain setting is too large, the whole control loop may oscillate. Therefore, when the current oscillation or torque fluctuation is large, the PI proportional gain or integral gain can be reduced manually.	2000	151AH
A5-27	Excitation adjustment integral gain		1300	151BH
A5-28	Torque adjustment proportional gain		2000	151CH
A5-29	Torque adjustment integral gain		1300	151DH
A5-30	Speed loop integral property	0～1 0: invalid 1: valid	0	151FH

A6 Optimization function parameter group

Function Code	Parameter Name	Setting Range	Default	Address
A6-00	Carrier frequency characteristic selection	0000～0A11 LED Bit-0: 0:temperature independent 1: temperature related	0000	1600H

A6-00	Carrier frequency characteristic selection	LED Bit-1: 0:Asynchronous modulation 1: Synchronous modulation LED Bit-2: 0:Random PWM invalid 1 - A:Random PWM valid LED Bit-3: 0:reserved	0000	1600H
A6-01	DPWM switchover frequency upper limit	0～15.00Hz	12.00Hz	1601H
A6-02	Cooling fan control	0～1 0: shutdown fan stops, operation related to temperature 1: shutdown is related to temperature, and operation means operation	1	1602H
A6-03	Braking Start Voltage	0.0～2000.0 braking Start Voltage	690.0V	1603H
A6-04	Overvoltage threshold	200.0～2500.0V Set the Overvoltage threshold	810.0V	1604H
A6-05	Undervoltage threshold	200.0～2500.0V Set the Overvoltage threshold	350.0V	1605H

A7 Display and maintenance parameter group

Function Code	Parameter Name	Setting Range	Default	Address
A7-00	Parameter and key lock selection	0000～0023 LED Bit-0: 0: not locked" 1: function parameter locking 2: function parameters and key locking (except run / stop) 3: the function parameters and keys are fully locked LED Bit-1: close the display of P parameter group 1: display of P parameter group LED Bit-2: reserved LED Bit-3: reserved	0	1700H
A7-01	Copy of function parameters	0～2 0: read in data to keyboard 1: proofread data 2: write keyboard data to frequency converter		1701H
A7-02	Display speed factor	0.000～50.000	1.000	1702H
A7-03	LED run display	0000～BBBB LED Bit-0: the first group displays LED Bit-1: the second group displays LED Bit-2: the third group displays LED Bit-3: the fourth group displays 0: given frequency 1: output frequency 2: output current	4210	1703H

A7-04	LED stop display	3: input voltage 4: output voltage 5: mechanical speed 6: set torque 7: output torque 8: PID dosing 9: PID feedback value a: output power B: bus voltage	3210	1704H
A7-05	Multi function expansion card selection	0～7	0	1705H
A7-06	Keyboard display item selection	0000～0111 "Led bits: LCD keyboard display language Set LCD keyboard display language, only valid when using LCD keyboard. 0: Chinese 1: English Led 10 bit: output frequency display selection 0: target frequency displays the target frequency of the current control motor. 1: the synchronous frequency shows the output frequency after converter operation. Led hundreds: mechanical speed display selection 0: target speed displays the target speed of the current control motor. 1: the actual speed shows the motor speed actually detected by the frequency converter. Led thousands: reserved "	1	1706H
A7-07	Accumulated power on days	0～65535	/	1707H
A7-08	Accumulated power on hours	0.0～24.	/	1708H
A7-09	Accumulated running days	0～65535	/	1709H
A7-10	Accumulated running hours	0.0～24.0	/	170AH
A7-11	Accumulated power consumption 10000 kWh	0～655355*10000KW	/	170BH
A7-12	Cumulative power consumption measurement	0～9999KW	/	170CH
A7-13	Inverter status before power off	0000～0011 Bits: 0: stop 1: run tens: 0: forward 1: reverse hundreds: reserved thousands: reserved	/	170DH
A7-14	Module temperature reached	0～100℃ When the inverter radiator temperature reaches this temperature, the inverter multi-function y outputs the "module temperature reaches" on signal.	/	170EH

A8 Protection function parameter group				
Function Code	Parameter Name	Setting Range	Default	Address
A8-00	Protection function selection 1	0000～1111 LED BIT1: Motor overload protection selection 0: Disabled 1: Enabled LED BIT2: Short-circuit to ground upon power-on 0: Disabled 1: Enabled LED BIT3: Input phase loss protection selection 0: Disabled 1: Enabled LED BIT4: Output phase loss protection selection 0: Disabled 1: Enabled RESTART	1011	1800H
A8-01	Protection function selection 2	0000～0411 LED Bit-0: output load loss protection selection 0: invalid 1: deceleration 2: deceleration shutdown LED Bit-1:: instantaneous power failure action selection 0: invalid 1: valid LED Bit-2:: continue operation frequency in case of failure select 0 to operate at current operation frequency 1 to operate at set frequency 2 operate at the upper limit frequency and 3 operate at the lower limit frequency 4 operation at abnormal standby frequency LED Bit-3: reserved	0000	1801H
A8-02	Fault auto reset times	0～20 0: no automatic reset function is turned off, only manual reset is allowed. 1-20: enable this function, 1-20 is the number of times of self recovery after failure (defined as the maximum number of times of self recovery after each failure)	0	1802H
A8-03	Time interval of fault auto reset	0.1～100.0s The waiting time from the fault of frequency converter to each reset.	1.0s	1803H
A8-04	1st fault type	0～99 0 -- ERROR_NONE 1 -- ERROR_INVERTER_UNIT 2 -- ERROR_OC_ACC_SPEED 3 -- ERROR_OC_DEC_SPEED 4 -- ERROR_OC_CONST_SPEED 5 -- ERROR_OV_ACC_SPEED 6 -- ERROR_OV_DEC_SPEED 7 -- ERROR_OV_CONST_SPEED 8 -- ERROR_BUFFER_RES 9 -- ERROR_UV 10 -- ERROR_OL_INVERTER 11 -- ERROR_OL_MOTOR	Only read	1804H

A8-05	2nd fault type	0~150% 12 -- ERROR_LOSE_PHASE_INPUT 13 -- ERROR_LOSE_PHASE_OUTPUT 14 -- ERROR_OT_IGBT 15 -- ERROR_EXTERNAL 16 -- ERROR_COM_TIMEOUT 17 -- ERROR_CONTACTOR 18 -- ERROR_CURRENT_SAMPLE 19 -- ERROR_TUNE 20 -- ERROR_ENCODER1 21 -- ERROR_EEPROM 22 -- ERROR_22 23 -- ERROR_MOTOR_SHORT_TO_GND 24 -- ERROR_24 25 -- ERROR_25	Only read	1805H
A8-06	3rd (latest) fault type	26 -- ERROR_RUN_TIME_OVER 27 -- ERROR_USER_1 28 -- ERROR_USER_2 29 -- ERROR_POWER_UP_TIME_OVER 30 -- ERROR_LOSE_LOAD 31 -- ERROR_FDB_LOSE 32 -- ERROR_COM_1 40 -- ERROR_CBC 41 -- ERROR_SWITCH_MOTOR_WHEN_RUN 42 -- ERROR_DEV 43 -- ERROR_OS 45 -- ERROR_MOTOR_OT 51 -- ERROR_INIT_POSITION 52 -- ERROR_SPEED_DETECT 53 -- ERROR_UVW_FDB	Only read	1806H
A8-07	Frequency upon 1st fault	Only read 0.00~maximum frequency	Only read	1807H
A8-08	Current upon 1st fault	Only read	Only read	1808H
A8-09	Bus voltage upon 1rd fault	Only read	Only read	1809H
A8-10	S terminal status upon 1st fault	Only read See input terminal status diagram	Only read	180AH
A8-11	Y terminal status upon 1st fault	Only read See input terminal status diagram	Only read	180BH
A8-12	AC drive status upon 1rd fault	Only read LED BIT0: Direction of running 0: FWD 1: REV LED BIT1: running state 0: STOP 1: CONST 2: ACC 3: DEC LED BIT2: RESV LED BIT3: RESV	Only read	180CH
A8-13	Power-on time upon 1rd fault	Only read Power-on time upon 1rd fault	Only read	180DH
A8-14	Running time upon 1rd fault	Only read Running time upon 1rd fault	Only read	180EH
A8-15	Frequency upon 2st fault	Only read Frequency upon 2st fault	Only read	180FH
A8-16	Current upon 2st fault	Only read Current upon 2st fault	Only read	1810H
A8-17	Bus voltage upon 2st fault	Only read Bus voltage upon 2rd fault	Only read	1811H

A8-18	S terminal status upon 2st fault	Only read S terminal status upon 2st fault	Only read	1812H
A8-19	Y terminal status upon 2st fault	Only read Y terminal status upon 2st fault	Only read	1813H
A8-20	AC drive status upon 2rd fault	Only read AC drive status upon 2rd fault	Only read	1814H
A8-21	Power-on time upon 2rd fault	Only read Power-on time upon 2rd fault	Only read	1815H
A8-22	Running time upon 2rd fault	Only read Running time upon 2rd fault	Only read	1816H
A8-23	Frequency upon 3st fault	Only read Frequency upon 3st fault	Only read	1817H
A8-24	Current upon 3st fault	Only read Current upon 3st fault	Only read	1818H
A8-25	Bus voltage upon 3rd fault	Only read Bus voltage upon 3rd fault	Only read	1819H
A8-26	S terminal status upon 3st fault	Only read S terminal status upon 3st fault	Only read	181AH
A8-27	Y terminal status upon 3st fault	Only read Y terminal status upon 3st fault	Only read	181BH
A8-28	AC drive status upon 3rd fault	Only read AC drive status upon 3rd fault	Only read	181CH
A8-29	Power-on time upon 3rd fault	Only read Power-on time upon 3rd fault	Only read	181DH
A8-30	Running time upon 3rd fault	Only read Running time upon 3rd fault	Only read	181EH
A8-31	Motor overload protection gain	0.20~10.00 "The frequency converter judges whether the motor is overloaded according to the inverse time limit curve of motor overload protection. P9-33 = overload multiple × overload time / 2.2 (overload time: minute) "	1.00	181FH
A8-32	Motor overload warning coefficient	50%~100% This function is used to give a warning signal to the control system through y before the motor overload fault protection. The early warning coefficient is used to determine the degree of early warning before motor overload protection. The larger the value is, the smaller the alert advance is.	80%	1820H
A8-33	ZeroLoad det. Lvl.	0.0%~100.0%	If the load shedding protection function is effective, when the output current of the frequency converter is less than the load shedding detection level p9-38 and the duration is greater than the load shedding detection time p9-39, the output frequency of the frequency converter will automatically reduce to 7% of the rated frequency.	10.0%	1821H
A8-34	ZeroLoad det. T	0.0s~60.0s		1.0s	1822H

A8-35	Protection action selection 1	0000~2222 Led bit0: motor overload (err11) action selection 0: free stop, fault alarm 1: emergency stop, fault alarm 2: only warning, converter continues to operate Led bit1: input phase loss (err12) action selection Same as Led bit0 Led bit2: output phase loss (err13) action selection Same as Led bit0 Led bit3: external fault (err15) action select Same as Led bit0	0	1823H
A8-36	Protection action selection 2	0000~3123 Led bit0: abnormal communication (err16) action selection Same as p9-50 bits Led bit1: encoder failure (err20) action selection 0: free stop, fault alarm 1: emergency stop, fault alarm 2: switch to VF, continue operation Led bit2: function code reading and writing abnormal (err21) action selection 0: free stop, fault alarm 1: emergency stop, fault report Led bit3: motor overheating (err25) action select Same as Led bit0	0	1824H
A8-37	Protection action selection 3	0000~2222 Led bit0: user defined fault 1 (err27) action selection Same as p9-50 bits Led bit0: user defined fault 2 (err28) action selection Same place Led bit0: power on time arrival (err29) action selection Same place Led bit0: load loss (err30) action selection 0: emergency stop, fault alarm 1: emergency stop, fault alarm 2: directly jump to 7% of the rated frequency of the motor to continue operation, and automatically return to the set frequency operation if no load is dropped	0	1825H
A8-38	Protection action selection 4	0000~2222 Led bit0: loss of PID feedback during operation (err31) action selection Same as P9-50 bits Led bit1: excessive speed deviation (err42) action selection	0	1826H

A8-38	Protection action selection 4	Same as Led bit0 Led bit2: motor over speed (err43) action selection Same as Led bit0 Led bit3: initial position error (err51) action selection Same as Led bit0	0	1826H
A8-39	Protection action selection 5	0000~0002 "Led bits: speed feedback error (err52) action selection Same as P9-50 bits Led tens: reserved Led hundreds: reserved Led thousands: reserved "	0	1827H

U Monitoring parameter group

Function Code	Parameter Name	Setting Range	Default	Address
PU-00	AC drive status	Only read BIT0=Runing BIT1=0:fwd 1:rev BIO2=ready BIT3=fault BIT4=jog BIT5=pre alarm BIT6=atuo tuning BIT7-15=NC	Only read	2100H
PU-01	AC drive fault type	Only read Err00 -- ERROR_NONE Err01 -- ERROR_INVERTER_UNIT Err02 -- ERROR_OC_ACC_SPEED Err03 -- ERROR_OC_DEC_SPEED Err04 -- ERROR_OC_CONST_SPEED Err05 -- ERROR_OV_ACC_SPEED Err06 -- ERROR_OV_DEC_SPEED Err07 -- ERROR_OV_CONST_SPEED Err08 -- ERROR_BUFFER_RES Err09 -- ERROR_UV Err10 -- ERROR_OL_INVERTER Err11 -- ERROR_OL_MOTOR Err12 -- ERROR_LOSE_PHASE_INPUT Err13 -- ERROR_LOSE_PHASE_OUTPUT Err14 -- ERROR_OT_IGBT Err15 -- ERROR_EXTERNAL Err16 -- ERROR_COMM Err17 -- ERROR_CONTACTOR Err18 -- ERROR_CURRENT_SAMPLE Err19 -- ERROR_TUNE Err20 -- ERROR_ENCODER1 Err21 -- ERROR_EEPROM Err22 -- ERROR_22 Err23 -- ERROR_MOTOR_SHORT_TO_GND Err24 -- ERROR_24 Err25 -- ERROR_25 Err26 -- ERROR_RUN_TIME_OVER Err27 -- ERROR_USER_1 Err28 -- ERROR_USER_2 Err29 -- ERROR_POWER_UP_TIME_OVER Err30 -- ERROR_LOSE_LOAD	U00.3=1	2101H

PU-02	AC drive pre warning type	Err31 -- ERROR_FDB_LOSE Err32 -- ERROR_COM_EF0 Err40 -- ERROR_CBC Err41 -- ERROR_SWITCH_MOTOR_WHEN_RUN Err42 -- ERROR_DEV Err43 -- ERROR_OS Err45 -- ERROR_MOTOR_OT Err51 -- ERROR_INIT_POSITION Err52 -- ERROR_SPEED_DETECT Err53 -- ERROR_UVW_FDB	U00.5=1	2102H
PU-03 ~ PU-04	Reserved	Only read		2103H ~ 2104H
PU-05 ~ PU-15	Reserved	Only read		2105H ~ 210FH
PU-16	Set frequency	Only read		2110H
PU-17	Output frequency	Only read		2111H
PU-18	Output current	Only read		2112H
PU-19	Input voltage	Only read		2113H
PU-20	Output voltage	Only read		2114H
PU-21	Mechanical speed	Only read		2115H
PU-22	Bus voltage	Only read		2116H
PU-23	Output power	Only read		2117H
PU-24	Target torque	Only read		2118H
PU-25	Output torque	Only read		2119H
PU-26	PID setting	Only read		211AH
PU-27	PID feedback	Only read		211BH
PU-28	Ai1 input value	Only read		211CH
PU-29	Ai2 input value	Only read		211DH
PU-30	HDI input value	Only read		211EH
PU-31	Counter count value	Only read		211FH
PU-32	Ai3 input value	Only read		2120H
PU-33	Input terminal X status	Only read		2121H
PU-34	Output terminal Y statusinput value	Only read		2122H
PU-35	Ao1 output value	Only read		2123H
PU-36	Ao2 output value	Only read		2124H
PU-37	HDO output value	Only read		2125H
PU-38	Reserved	Only read		2126H

PU-39	Module temperature	Only read		2127H
PU-40	Output excitation	Only read		2128H
PU-41	Power factor angle	Only read		2129H
PU-42	Power on time	Only read		212AH
PU-43	Power on operation time	Only read		212BH
PU-44	Accumulated time	Only read		212CH
PU-45	AC drive running status	Only read		212DH
PU-46	Maximum current	Only read		212EH
PU-47	Maximum EDC	Only read		212FH
PU-48	Maximum temperature	Only read		2130H
PU-49	Minimum EDC	Only read		2131H
PU-50	AC drive power level	Only read		2132H
PU-51	Rated voltage of AC drive	Only read		2133H
PU-52	Rated current of AC drive	Only read		2134H
PU-53	Application Control Software version	Only read		2135H
PU-54	Motor Control Software version	Only read		2136H
PU-55	Communication frequency setting	Only read		2137H
PU-56	Main frequency X display	Only read		2138H
PU-57	Auxiliary frequency Y display	Only read		2139H
PU-58	Remaining running time	Only read		213AH
PU-59	Target voltage upon V/F separation	Only read		213BH
PU-60	Output voltage upon V/F separation	Only read		213CH
PU-61	Encoder feedback speed	Only read		213DH
PU-62	Linear speed	Only read		213EH
PU-63	Synchronous motor rotor position	Only read		213FH
PU-64	Resolver position	Only read		2140H

PU-65	ABZ position	Only read		2141H
PU-66	Phase Z counter	Only read		2142H
PU-67	P2P Communication Sent Value	Only read		2143H
PU-68	P2P Communication Receive Value	Only read		2144H
PU-69	Motor temperature	Only read		2145H
PU-70	Reserved	Only read		2146H

Communication operation control command

Parameter Name	Setting Range	Default	Address
Communication operation control command	0000～FFFF		2000H
Communication Set value of frequency	0～-Maximum frequency		2001H
Communication upper limit frequency	0～100.0%		2002H
Communication PID setting value	0～100.0%		2003H
Communication PID feedback value	0～100.0%		2004H
Communication AO1 output value setting	0～100.0%		2005H
Communication AO2 output value setting	0～100.0%		2006H
Communication HDO output value setting	0～100.0%		2007H
Setting of communication output voltage value	0～100.0%		2008H
Communication torque setting	0～100.0%		2009H
Maximum frequency of communication torque forward rotation			200AH
Maximum frequency of communication torque reversal			200BH

8. Standard wiring diagram
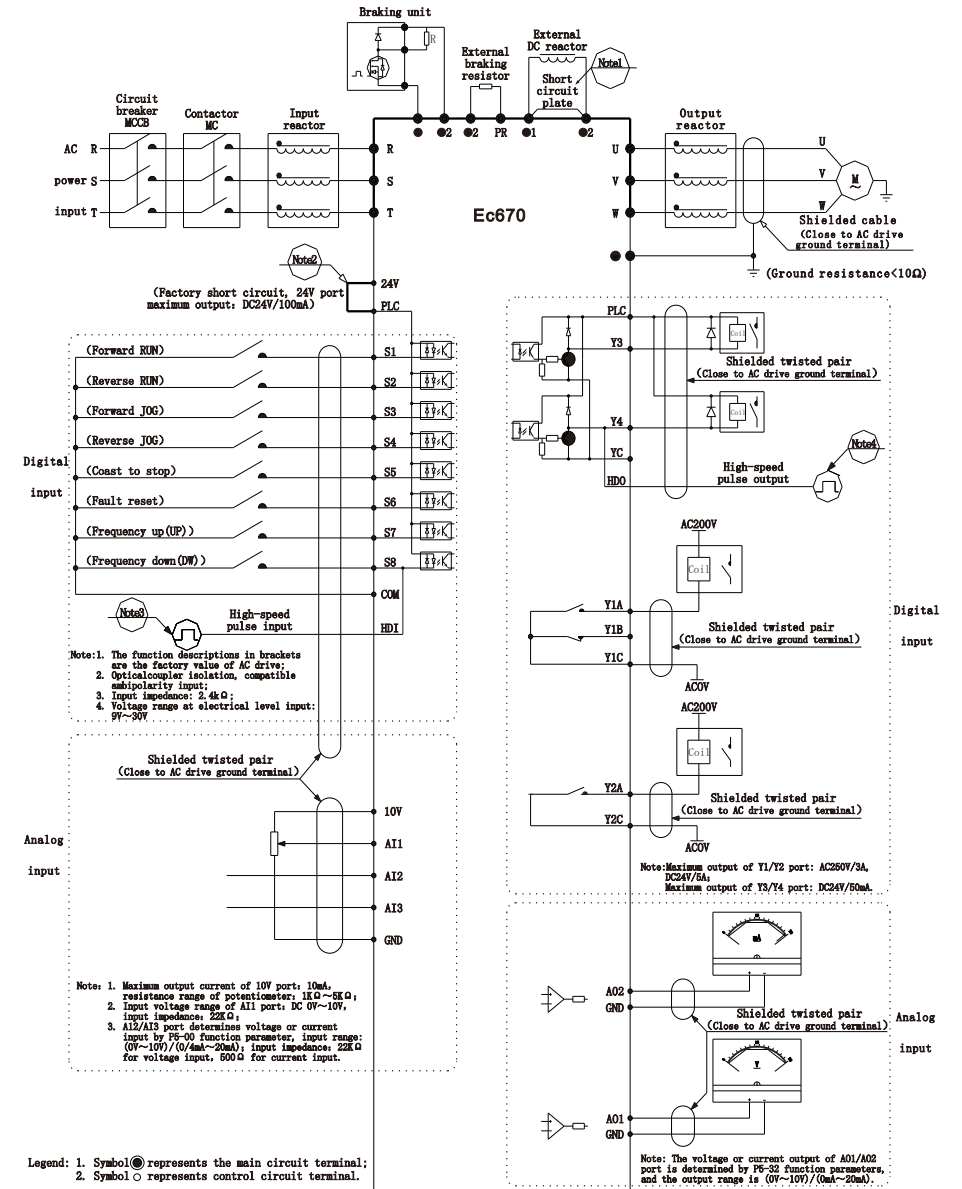
Note：1、When installing DC reactor, be sure to remove the short connector between terminals⊕1 and⊕2；

2、The internal power supply (24V port) or external power supply (PLC port) can be selected for S1～S8 port bias voltage, and the factory value 24V port and PLC port are short circuited;

3、Port S8 is restricted by function parameter P5-00, which can be used as high-speed pulse input channel with maximum input frequency of 50KHz;

4、Port Y4 is restricted by function parameter P5-32, which can be used as high-speed pulse input channel with maximum input frequency of 50KHz.

9. Warranty Service

EACON

Manufacturer of high quality inverter

Warranty Card

User Name			
User Address			
User Contact		Tel	
Specification		Number	
Distributor			
Contacts		Date of delivery	

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