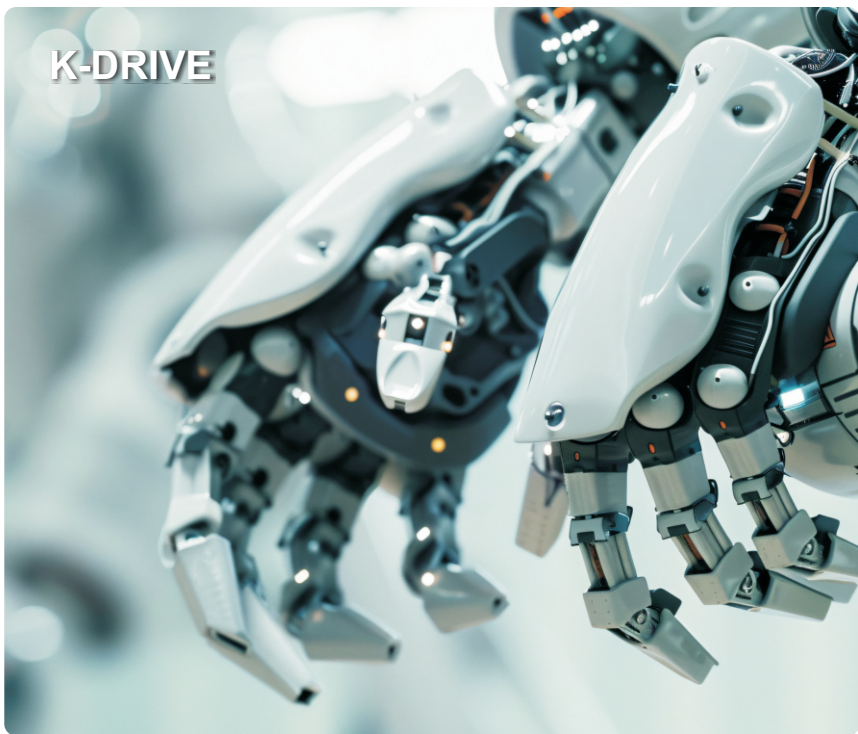


K-DRIVE



Parameter debugging manual



<http://www.keasyautomation.com>

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1. Keyboard operation and display







1.1 Keyboard function and operation



1.2 Keyboard indicator light description

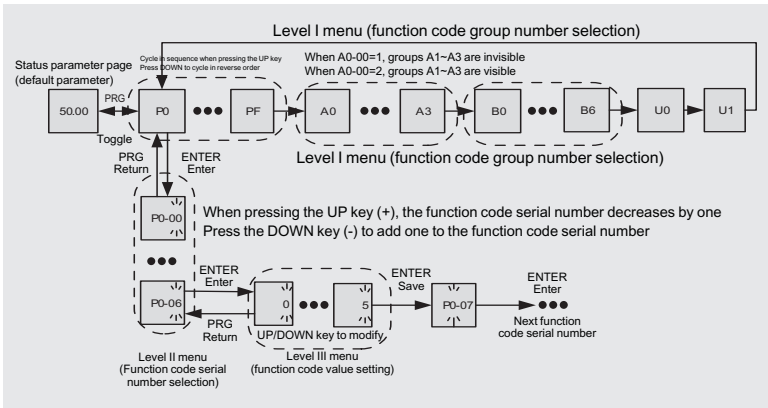
Indicator sign	Name	meaning	Color
RUN	Operating status indicator	On - the inverter is running Off - Inverter is in stop state Flashing - the inverter is in sleep state	Green
L/D/C	Control mode indicator	Off - Inverter is in keypad control mode On - the inverter is in terminal control mode Flashing-Inverter is in remote communication control mode	Red
FWD/REV	Running direction indication	Off - Forward state On - inversion state Flashing - the target frequency is opposite to the actual frequency or is in the reverse running prohibited state	Red
TUNE/TC	Tuning/Torque Control/Fault Indicator	On - torque control Flashing - Tuning\Fault status	Red

1.3 Description of keyboard buttons

Button	Name	Function Description
	Program / Escape key	Enter or exit the first-level menu, return to the upper-level menu
	Enter	Enter the menu screen step by step, set parameters to confirm
	Increment key (+)	Increment of data or function code
	Decrement key (-)	Decrement of data or function code
	Shift key	In the stop display interface and the running display interface, the display parameters can be selected cyclically. For the specific display meaning, please refer to P7-29 and P7-30; when modifying the parameters, you can select the modification bit of the parameter
	Run key	In keyboard operation mode, used to run operation
	Stop/Reset key	In the running state, pressing this key can be used to stop the running operation; in the fault alarm state, it can be used to reset the operation. The characteristics of this key are restricted by the function code P7-27.
	Jog run/Direction keys	When P7-28 is set to 0, it is the jog running button, and when P7-28 is set to 1, it is the direction button. Press this button to reverse the direction.

1.4 Instance operation

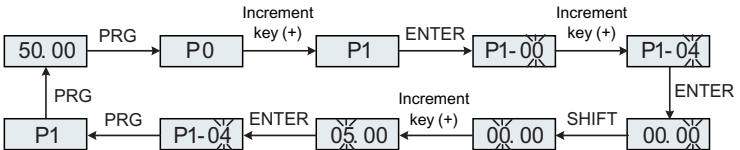
AC drives adopts three-level menu structure for parameter setting and other operations. The three-level menus respectively are: functional parameter group(first-level menu)→ function code (second- level menu)-function code setting value (third-level menu). The operation process is shown in the following figure:



Note:

When operating in the third-level menu, you can press PRG key or ENTER key to return to the second-level menu. But pressing the ENTER key will save the current parameter modification value and transfer to the next function code; while pressing the PRG key will abandon the current parameter modification.

Example: Change function code P1-04 from 0.00Hz to 5.00Hz.



2. Parameter debugging

2.1 Frequency source switching/Parameter setting

2.1.1 Switching between primary and secondary frequency sources

Frequency source switching application and remote and short-range control require two sets of frequency sources, which need to be completed with multifunctional terminals. For example, using DI1 to switch frequency sources and AI1 for remote control, the specific parameters are as follows:

Function code	Name	Description (setting range)	Factory Default	Change
P0-06	Main frequency source X selection	0: Up/Down modification frequency, no memory after shutdown 1: Up/Down modification frequency power-off memory 2: AI1 3: AI2 4: Multi-speed 5: Simple PLC 6: PID 7: Communication given 8: PULSE pulse setting 9: Up/Down modifies the frequency, and the memory is stopped when the power is turned off.	1	★
P0-07	Auxiliary frequency source Y selection	0: Up/Down modification frequency, no memory after shutdown 1: Up/Down modification frequency power-off memory 2: AI1 3: AI2 4: Multi-speed 5: Simple PLC 6: PID 7: Communication given 8: PULSE pulse setting 9: Up/Down modifies the frequency, and the memory is stopped when the power is turned off.	0	★

Function code	Name	Description (setting range)	Factory Default	Change
P0-10	Frequency source selection	<p>Ones place: frequency source selection</p> <p>0: Main frequency source X</p> <p>1: Main and auxiliary operation results (the operation relationship is determined by ten digits)</p> <p>2: Switch between main frequency source X and auxiliary frequency source Y</p> <p>3: Switch between the main frequency source X and the main and auxiliary operation results</p> <p>4: Switch between auxiliary frequency source Y and main and auxiliary operation results</p> <p>Tens place: main and auxiliary operation relationship of frequency source</p> <p>0: main + auxiliary</p> <p>1: Primary-Secondary</p> <p>2: the maximum value of the two</p> <p>3: the minimum value of the two</p>	00	☆
P5-00	D11 terminal function	18: Frequency source switching	18	★

Note: The auxiliary frequency source is valid when the terminal is valid; The primary frequency source is valid when invalid.

2.1.2 The primary frequency source X switches with the preset frequency

Function code	Name	Description (setting range)	Factory Default	Change
P0-06	Main frequency source X selection	<p>0: Up/Down modification frequency, no memory after shutdown</p> <p>1: Up/Down modification frequency power-off memory</p> <p>2: AI1</p> <p>3: AI2</p> <p>4: Multi-speed</p> <p>5: Simple PLC</p>	1	★

Function code	Name	Description (setting range)	Factory Default	Change
		6: PID 7: Communication given 8: PULSE pulse setting 9: Up/Down modifies the frequency, and the memory is stopped when the power is turned off.		
P5-00	D11 terminal function	39: Frequency source X and preset frequency switching terminal	39	★
If this terminal is valid, the frequency source X is replaced with the preset frequency (P0-11).				

2.1.3 The auxiliary frequency source Y switches with the preset frequency

Function code	Name	Description (setting range)	Factory Default	Change
P0-07	Auxiliary frequency source Y selection	0: Up/Down modification frequency, no memory after shutdown 1: Up/Down modification frequency power-off memory 2: AI1 3: AI2 4: Multi-speed 5: Simple PLC 6: PID 7: Communication given 8: PULSE pulse setting 9: Up/Down modifies the frequency, and the memory is stopped when the power is turned off.	0	★
P5-00	D11 terminal function	40: Frequency source Y and preset frequency switching terminal	40	★
If this terminal is valid, the frequency source Y is replaced with the preset frequency (P0-11).				

2.2 Multi-speed debugging

2.2.1 Multi-speed value-added meter:

K1, K2, K3, K4 represents the DI terminals of group P5, such as DI1=12, that is K1; DI2=13, that's K2; DI3=14, that's K3; DI4=15, that's K4.

K4	K3	K2	K1	Frequency setting	Corresponding parameters	Mailing address
OFF	OFF	OFF	OFF	Multi-step speed 0	PC-00	FC00
OFF	OFF	OFF	ON	Multi-step speed 1	PC-01	FC01
OFF	OFF	ON	OFF	Multi-step speed 2	PC-02	FC02
OFF	OFF	ON	ON	Multi-step speed 3	PC-03	FC03
OFF	ON	OFF	OFF	Multi-step speed 4	PC-04	FC04
OFF	ON	OFF	ON	Multi-step speed 5	PC-05	FC05
OFF	ON	ON	OFF	Multi-step speed 6	PC-06	FC06
OFF	ON	ON	ON	Multi-step speed 7	PC-07	FC07
ON	OFF	OFF	OFF	Multi-step speed 8	PC-08	FC08
ON	OFF	OFF	ON	Multi-step speed 9	PC-09	FC09
ON	OFF	ON	OFF	Multi-step speed 10	PC-10	FC0A
ON	OFF	ON	ON	Multi-step speed 11	PC-11	FC0B
ON	ON	OFF	OFF	Multi-step speed 12	PC-12	FC0C
ON	ON	OFF	ON	Multi-step speed 13	PC-13	FC0D
ON	ON	ON	OFF	Multi-step speed 14	PC-14	FC0E
ON	ON	ON	ON	Multi-step speed 15	PC-15	FC0F

Remarks:

1. The multi speed setting value is calculated at 100%, which corresponds to the value of P0-14. +100% is forward rotation. -100% is a reversal;
2. If PC-53 is set to 1, the multi speed setting value will be in Hz units.

2.2.2 Multi stage speed related parameter settings

K1, K2, K3, K4 represents the DI terminals of group P5, such as DI1=12, that is K1; DI2=13, that's K2; DI3=14, that's K3; DI4=15, that's K4.

Function code	Name	Description (setting range)	Factory Default	Change
P0-06	Main frequency source X selection	4: Multi stage speed	4	★
P5-00	DI1 terminal function	12: Multi-segment command terminal 1	12	★
P5-01	DI2 terminal function	13: Multi-segment command terminal 2	13	★
P5-02	DI3 terminal function	14: Multi-segment command terminal 3	14	★
P5-03	DI4 terminal function	15: Multi-segment command terminal 4	15	★

2.2.3 Multi stage acceleration and deceleration time setting

Multiple acceleration and deceleration times can be selected, with acceleration and deceleration times of 0-3 representing:

0 acceleration and deceleration time setting parameters: P0-23, P0-24;

1. Acceleration and deceleration time setting parameters: P7-03, P7-04;

2. Acceleration and deceleration time setting parameters: P7-05, P7-06;

3. Acceleration and deceleration time setting parameters: P7-07, P7-08.

Function code	Name	Description (setting range)	Factory Default	Change
PC-19	Acceleration/deceleration time of simple PLC multi-speed 0	0 ~ 3	0	☆
PC-21	Acceleration/deceleration time of simple PLC multi-speed 1	0 ~ 3	0	☆
PC-23	Acceleration/deceleration time of simple PLC multi-speed 2	0 ~ 3	0	☆
PC-25	Acceleration/deceleration time of simple PLC multi-speed 3	0 ~ 3	0	☆
PC-27	Acceleration/deceleration time of simple PLC multi-speed 4	0 ~ 3	0	☆

Function code	Name	Description (setting range)	Factory Default	Change
PC-29	Acceleration/deceleration time of simple PLC multi-speed 5	0 ~ 3	0	☆
PC-31	Acceleration/deceleration time of simple PLC multi-speed 6	0 ~ 3	0	☆
PC-33	Acceleration/deceleration time of simple PLC multi-speed 7	0 ~ 3	0	☆
PC-35	Acceleration/deceleration time of simple PLC multi-speed 8	0 ~ 3	0	☆
PC-37	Acceleration/deceleration time of simple PLC multi-speed 9	0 ~ 3	0	☆
PC-39	Acceleration/deceleration time of simple PLC multi-speed 10	0 ~ 3	0	☆
PC-41	Acceleration/deceleration time of simple PLC multi-speed 11	0 ~ 3	0	☆
PC-43	Acceleration/deceleration time of simple PLC multi-speed 12	0 ~ 3	0	☆
PC-45	Acceleration/deceleration time of simple PLC multi-speed 13	0 ~ 3	0	☆
PC-47	Acceleration/deceleration time of simple PLC multi-speed 14	0 ~ 3	0	☆
PC-49	Acceleration/deceleration time of simple PLC multi-speed 15	0 ~ 3	0	☆

2.3 Run command source switch

2.3.1 When running a command source other than keyboard startup

2.3.1.1 Switch between terminal control startup and keyboard startup through this terminal;

Function code	Name	Description (setting range)	Factory Default	Change
This parameter can be switched to DI1 for further testing of the machine				
P0-04	Run command source	0: Operation panel running command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashes)	1	★
P5-00	DI1 terminal function	20: Run command to switch terminals	20	★
Note: When this terminal is valid, it starts the keyboard, and when it is invalid, it starts the terminal.				

2.3.1.2 Switch between communication control startup and keyboard startup through this terminal;

Function code	Name	Description (setting range)	Factory Default	Change
This parameter can be switched to DI1 for further testing of the machine				
P0-04	Run command source	0: Operation panel running command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashes)	2	★
P5-00	DI1 terminal function	20: Run command to switch terminals	20	★
Note: When this terminal is valid, it starts the keyboard, and when it is invalid, communication starts				

2.3.1.3 Switch between terminal startup and communication control startup through this terminal;

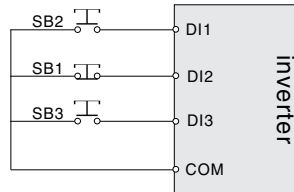
Function code	Name	Description (setting range)	Factory Default	Change
This parameter can be switched to DI1 for further testing of the machine				
P0-04	Run command source	0: Operation panel running command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashes)	1	★
P5-00	DI1 terminal function	37: Run command to switch terminals	37	★
Note: When the terminal is valid, it starts communication, and when it is invalid, the terminal starts.				

2.4 Terminal three wire system

The difference between three wire 1 and three wire 2 controls the direction of the motor, while three wire 1 controls the forward and reverse rotation of the motor through two terminals (DI1 and DI3). The three wire 2-control motor has a terminal structure (DI3) for forward and reverse rotation, with one terminal used for starting.

2.4.1 Three wire wiring: P5-11=2 Three wire 1

Button Name	Function
SB2	Forward start
SB1	Stop
SB3	Reverse start

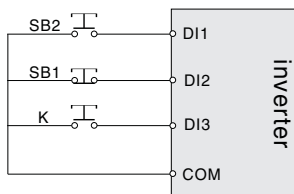


2.4.1.1 Parameter settings

Function code	Name	Description (setting range)	Factory Default	Change
P0-04	Run command source	0: Operation panel running command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashes)	1	★
P5-00	DI1 terminal function	1: Forward running (FWD), the RUN indicator light on the operation panel is on	1	★
P5-01	DI2 terminal function	3: Three line operation control	3	★
P5-02	DI3 terminal function	2: Reverse Run (RVE), FWD/REC indicator light on operation panel	2	★
P5-11	Terminal command mode	0: Two line type 1; 1: Two line type 2; 2: Three line type 1; 3: Three line type 2.	2	★

2.4.2 Three wire wiring: P5-11=3 Three wire type 2

Button Name	Function
SB2	Forward start
SB1	Stop
K direction of operation	0: Forward
	1: Reverse



2.4.2.1 Parameter settings

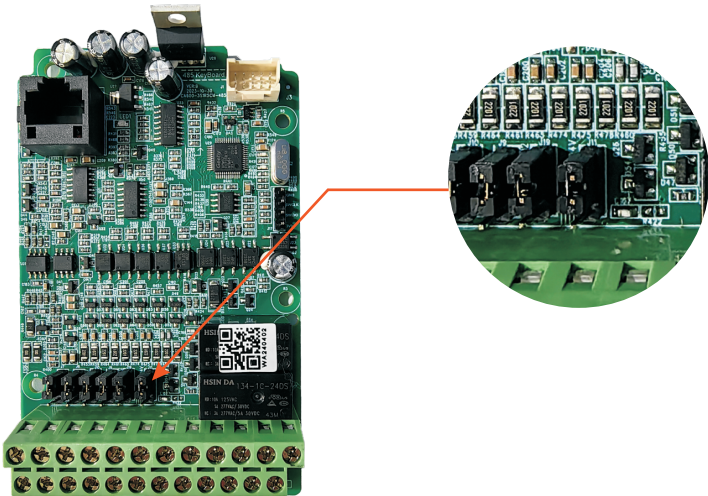
Function code	Name	Description (setting range)	Factory Default	Change
P0-04	Run command source	0: Operation panel running command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashes)	1	★
P5-00	DI1 terminal function	1: Forward running (FWD), the RUN indicator light on the operation panel is on	1	★

Function code	Name	Description (setting range)	Factory Default	Change
P5-01	DI2 terminal function	3: Three line operation control	3	★
P5-02	DI3 terminal function	2: Reverse Run (RVE), FWD/REC indicator light on operation panel	2	★
P5-11	Terminal command mode	0: Two line type 1; 1: Two line type 2; 2: Three line type 1; 3: Three line type 2.	3	★

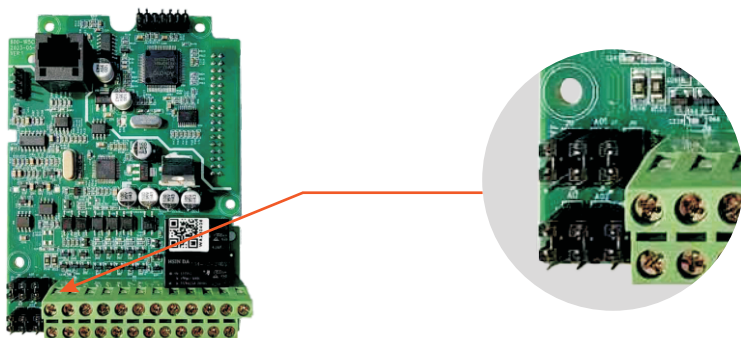
2.5 DI input terminal wiring mode: NPN, PNP

2.5.1 DI terminal jumper cap position

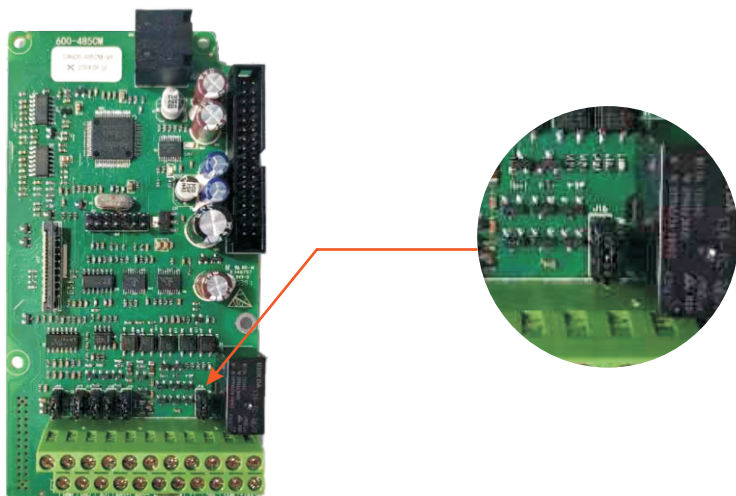
The positions of the NPN and PNP jumper caps on the 3S machine control board are NPN for screen printing+24V and PNP for PLC short circuiting, and PNP for screen printing PLC and COM short circuiting.



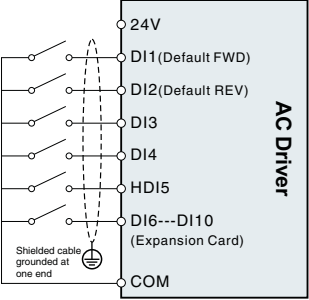
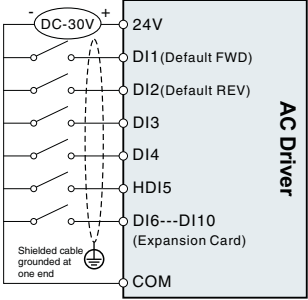
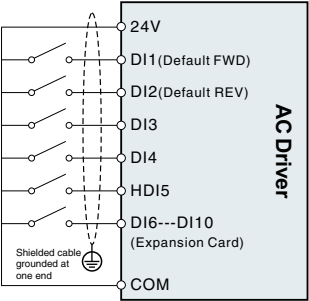
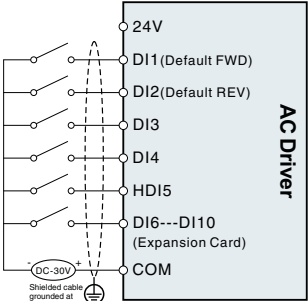
Position of NPN and PNP jumper caps for control boards below 4T2.2KW with 2.2KW:



4T4KW and above, including the NPN and PNP jumper cap positions on the 4KW machine control board. The short circuit between screen printing+24V and PLC is NPN, while the short circuit between screen printing PLC and COM is PNP:



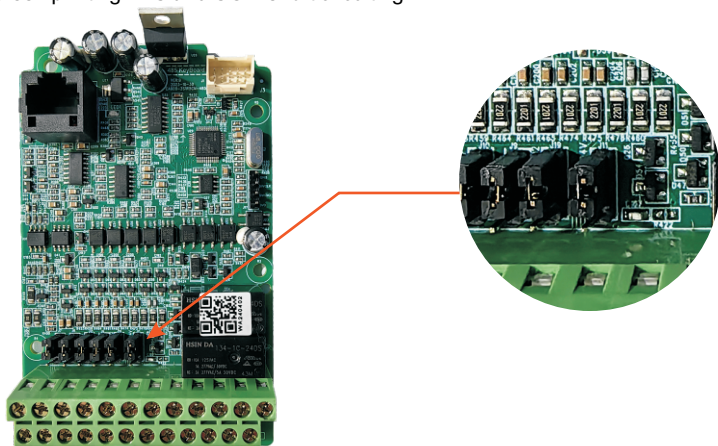
2.5.2 DI terminal wiring diagram

Not using external power supply NPN mode	Using external power supply NPN mode
<p>DI wiring mode 1 (factory default wiring mode): When the DI DIP switch is in NPN mode, no external power supply is used</p> 	<p>DI wiring mode 2 : Use an external power supply when the DI DIP switch is in NPN mode</p> 
Not using external power supply PNP mode	Using external power supply PNP mode
<p>DI wiring mode 3 : No external power supply is used when the DI DIP switch is in PNP mode</p> 	<p>DI wiring mode 4 : Use an external power supply when the DI DIP switch is in PNP mode</p> 

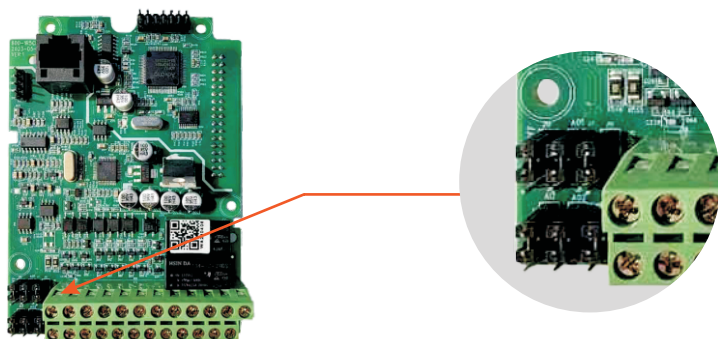
2.6 PID constant pressure water supply debugging

2.6.1 DI terminal jumper cap position

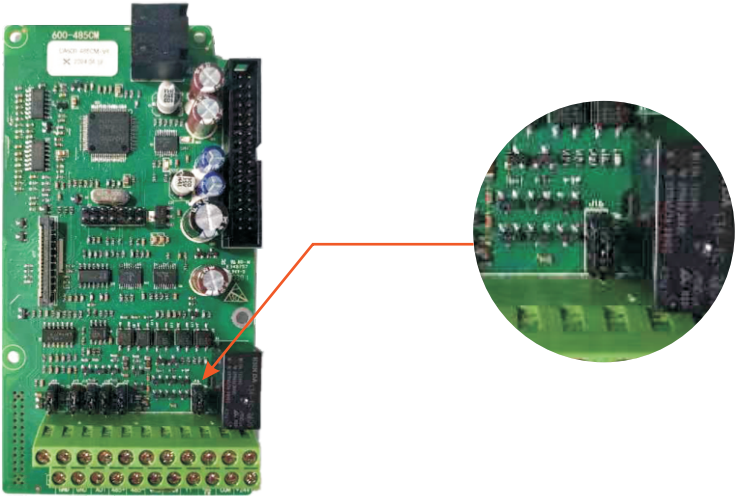
The positions of the NPN and PNP jumper caps on the 3S machine control board are NPN for screen printing+24V and PNP for PLC short circuiting, and PNP for screen printing PLC and COM short circuiting.



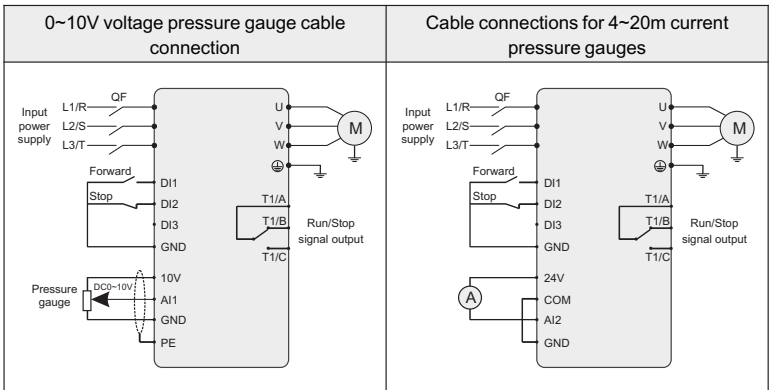
Position of NPN and PNP jumper caps for control boards below 4T2.2KW with 2.2KW:



4T4KW and above, including the NPN and PNP jumper cap positions on the 4KW machine control board. The short circuit between screen printing+24V and PLC is NPN, while the short circuit between screen printing PLC and COM is PNP:



2.6.2 Pressure sensor wiring method



2.6.3 Parameter setting

The above chart sets parameters for column, three-wire system, terminal start stop, fault output, voltage type pressure gauge.

Function code	Name	Description (setting range)	Factory Default	Change
The following parameters can be based on customer requirements				
P0-04	Run command source	0: Operation panel running command channel (LED off) 1: Terminal command channel (LED on) 2: Communication command channel (LED flashes)	1	★
P0-06	Main frequency source X selection	0: Up/Down modification frequency, no memory after shutdown 1: Up/Down modification frequency power-off memory 2: AI1 3: AI2 4: Multi-speed 5: Simple PLC 6: PID 7: Communication given 8: PULSE pulse setting 9: Up/Down modifies the frequency, and the memory is stopped when the power is turned off.	9	★
P5-00	DI1 terminal function	1: Forward the operation panel is on	1	★
P5-01	DI2 terminal function	3: Three line operation control	3	★
P5-11	Terminal command mode	2: Three-wire type 1	2	★
P6-00	Relay output selection (TA/TB/TC)	2: Fault output	2	★
PID Constant voltage parameter				
PA-01	PID digital setting	Set the pressure the client needs	30%	☆
PA-03	PID feedback source	0: AI1 1: AI2 2: AI1-AI2 3: Communication given	0	☆

Function code	Name	Description (setting range)	Factory Default	Change
		4: PULSE given 5: AI1+AI2 6: MAX(AI1 , AI2) 7: MIN(AI1 , AI2)		
PA-04	PID action direction	0: Forward action 1: Reverse action	0	☆
PA-05	PID setting feedback range	0 ~ 65535	1000	☆
PID wake up function				
B6-00	Hibernate selection	0: The sleep function is invalid 1: Digital input terminal DI controls sleep function 2: The sleep function is controlled by the PID setting value and feedback value 3: Control the sleep function according to the operating frequency	0	☆
B6-01	Sleep frequency	0.00Hz ~ P0-14	40Hz	☆
B6-02	Sleep delay	0.0s ~ 3600.0s	20.0s	☆
B6-03	Wake-up difference	0.0% ~ 100.0% When B6-00=3, the unit becomes Hz	10.0%	☆

2.7 Induction motor vector control parameter debugging

2.7.1 Asynchronous motor vector parameter Settings

Function code	Name	Description (setting range)	Factory Default	Change
P0-03	Motor control method	Ones place: motor control mode selection 1: Open loop vector control (speed sensorless vector) 2: VF Control 3: Closed loop vector (with speed sensor vector) Tens place: motor type selection 0: Asynchronous motor 1: Synchronous motor	1	★

Function code	Name	Description (setting range)	Factory Default	Change
P0-14	Maximum output frequency	When P0-20=1, the adjustable range is 50.0Hz ~ 1200.0Hz; When P0-20=2, the adjustable range is 50.00Hz ~ 600.00Hz;	50.00Hz	★
P0-16	Upper limit frequency	Lower limit frequency P0-18 ~ maximum frequency P0-14	50.00Hz	☆
P4-01	Motor 1 rated power	0.1kw ~ 1000.0kw	Model is determined	★
P4-02	Motor 1 rated voltage	1V ~ 1500V	380V	★
P4-03	Motor 1 Number of motor poles	2 to 64	Model is determined	○
P4-04	Motor 1 rated current	0.01A ~ 600.00A(Motor rated power<=30.0KW) 0.1A ~ 6000.0A(Motor rated power>30.0KW)	P4-01 OK	★
P4-05	Motor 1 rated frequency	0.01Hz ~ P0-14	50.00 Hz	★
P4-06	Motor 1 rated speed	0rpm ~ 60000rpm	P4-01 OK	★
P4-07	Motor 1 no-load current	0.01A ~ P4-04 (Motor rated power<=30.0KW) 0.1A ~ P4-04 (Motor rated power>30.0KW)	Model is determined	★

2.7.2 Motor static self-learning

When the motor self-learning, P0-04=0, the parameter must be set to 0.

Set parameter P4-00=1 Static self-learning, press ENTER to confirm, at this time, the keyboard displays:



Then press the RUN key on the keyboard panel, the inverter will drive the motor acceleration and deceleration, positive and negative rotation, and the running indicator light will be on to identify the running duration of about 2 minutes. When the above display information disappears, it will return to the normal parameter display state, indicating that the tuning is completed.

2.7.3 Motor dynamic self-learning

When the motor self-learning, P0-04=0, the parameter must be set to 0.

The motor must be completely disconnected from the load, and in the case of power failure, the motor is separated from the load part mechanically, so that the motor can rotate freely without load.

Set parameter P4-00=2 Dynamic self-learning, press ENTER to confirm, at this time, the keyboard displays:



Then press the RUN key on the keyboard panel, the inverter will drive the motor acceleration and deceleration, positive and negative rotation, and the running indicator light will be on to identify the running duration of about 2 minutes. When the above display information disappears, it will return to the normal parameter display state, indicating that the tuning is completed.

2.7.4 Vector increasing torque parameter

Function code	Name	Description (setting range)	Factory Default	Change
P3-21	Electric torque upper limit	0.0% ~ 200.0%	150.0%	☆
P3-24	Low-speed magnetizing current of synchronous motor	0.0% ~ 50.0%	25.0%	★

2.8 Permanent magnet synchronous motor vector debugging

2.8.1 Vector parameter settings for permanent magnet synchronous motors

Function code	Name	Description (setting range)	Factory Default	Change
P0-03	Motor control method	Units: Motor control mode selection 1: Open loop vector control (no speed sensor vector) Ten: Motor type selection 1: synchronous motor	11	★

Function code	Name	Description (setting range)	Factory Default	Change
P0-14	Maximum output frequency	Motor name plate setting		
P0-16	Upper limit frequency	Motor name plate setting		
P4-01	Motor 1 rated power	Motor name plate setting		Must set
P4-02	Motor 1 rated voltage	Motor name plate setting		Must set
P4-03	Motor 1 Number of motor poles	No parameters need to be set	No setup required	No setup required
P4-04	Motor 1 rated current	Motor name plate setting		Must set
P4-05	Motor 1 rated frequency	Motor name plate setting		Must set
P4-06	Motor 1 rated speed	Motor name plate setting		Must set
P4-20	Synchronous motor back EMF	Motor name plate setting		Must set

2.8.2 Motor static self-learning

When the motor self-learning, P0-04=0, the parameter must be set to 0.

Set parameter P4-00=1 Static self-learning, press ENTER to confirm, at this time, the keyboard displays:



Then press the RUN key on the keyboard panel, the inverter will drive the motor acceleration and deceleration, positive and negative rotation, and the running indicator light will be on to identify the running duration of about 2 minutes. When the above display information disappears, it will return to the normal parameter display state, indicating that the tuning is completed.

2.8.3 Motor dynamic self-learning

When the motor self-learning, P0-04=0, the parameter must be set to 0.

The motor must be completely disconnected from the load, and in the case of power failure, the motor is separated from the load part mechanically, so that the motor can rotate freely without load.

Set parameter P4-00=2 Dynamic self-learning, press ENTER to confirm, at this time, the keyboard displays:



Then press the RUN key on the keyboard panel, the inverter will drive the motor acceleration and deceleration, positive and negative rotation, and the running indicator light will be on to identify the running duration of about 2 minutes. When the above display information disappears, it will return to the normal parameter display state, indicating that the tuning is completed.

2.8.4 Vector increasing torque parameter

Function code	Name	Description (setting range)	Factory Default	Change
P3-21	Electric torque upper limit	0.0% ~ 200.0%	150.0%	The greater the value, the greater the output torque
P3-24	Low-speed magnetizing current of synchronous motor	0.0% ~ 50.0%	25.0%	At low speeds, the higher the value, the greater the output torque

2.9 High speed motor parameter setting

Function code	Name	Description (setting range)	Factory Default	Change
P0-03	Motor control method	2: V/F control	2	
P0-14	Maximum output frequency	Motor actual frequency setting		
P0-16	Upper limit frequency	Motor actual frequency setting		
P4-01	Motor 1 rated power	Motor name plate setting		Must set
P4-02	Motor 1 rated voltage	Motor name plate setting		Must set
P4-04	Motor 1 rated current	Motor name plate setting		Must set
P4-05	Motor 1 rated frequency	Motor name plate setting		Must set

Function code	Name	Description (setting range)	Factory Default	Change
P4-06	Motor 1 rated speed	Motor name plate setting		Must set
P2-09	Slip Compensation Coefficient	0.0% ~ 200.0%	0	☆
P2-11	Oscillation suppression gain	0 ~ 100	0	☆

3.0 Master/slave control parameter Settings

Two or more frequency converter control motor operation requirements speed synchronization, there are three control methods, one master slave control, the second pulse control, the third host AO analog output to the slave analog input as a frequency source.

3.0.1 Communication 485 master/slave control

Wiring: The 485 communication lines of two frequency converters are connected.

3.0.1.1 Host frequency converter parameter setting:

Function code	Name	Description (setting range)	Factory Default	Change
B4-00	Master-slave control enable selection:	0: Disable 1: Enable	1	★
B4-01	Master-slave selection:	0: Host 1: Slave	0	★
B4-02	Host sending frequency selection:	0: Running frequency 1: Target frequency	0	★

3.0.1.2 Slave inverter parameter setting

Function code	Name	Description (setting range)	Factory Default	Change
P0-04	Run command source	2: The communication command is given	2	★
P0-06	Main frequency source X selection	7: Communication given	7	★
P8-02	Communication address	0 ~ 247 (0 is the broadcast address)	2	☆

Function code	Name	Description (setting range)	Factory Default	Change
B4-00	Master-slave control enable selection:	0: Disable 1: Enable	1	★
B4-01	Master-slave selection:	0: Host 1: Slave	1	★
B4-03	Select the slave from the host command source	0: Do not follow 1: Follow	1	★

When the main drive runs, the slave drive will follow the main drive and run at the same frequency.

3.0.2 FM pulse master/slave control

3.0.2.1 Connection mode

The FM pulse output of the host inverter is the frequency of the HDI pulse input of the slave inverter. Connection: FM terminal of host inverter is connected to HDI terminal of slave inverter, COM terminal of host is connected to COM terminal of slave machine. Host FM/AO2 jumper cap needs to jump to FM. The DI1 terminal of the host connects to the slave DI1, and the COM of the host connects to the COM of the slave.

3.0.2.2 Host frequency converter parameter setting:

P0-04=1, terminal control:

P5-00=1, positive rotation

P6-04=0, pulse output

P6-11=1, set the frequency

Slave inverter parameter setting:

P0-04=1, terminal control

P0-06=8, pulse given frequency

P5-00=1, positive rotation

P5-04=33, pulse frequency input

The host inverter AO1 outputs to the slave inverter AI1 input as a frequency source. Wiring: the host inverter AO1 terminal is connected to the slave inverter AI1 terminal, the host inverter GND is connected to the slave inverter GND, the host DI1 terminal is connected to the slave DI1, and the host COM is connected to the slave COM.

Host frequency converter parameter setting:

P0-04=1, terminal control

P5-00=1, positive rotation

P6-09=1, set the frequency

Slave inverter parameter setting:

P0-04=1, terminal control

P0-06=2,AI1 given frequency

P5-00=1, positive rotation

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