

# Y2SS3-CAN

## CANopen Bus Stepper Driver

### User Manual



Guangdong Kaifull Electronics Technology Co., Ltd.

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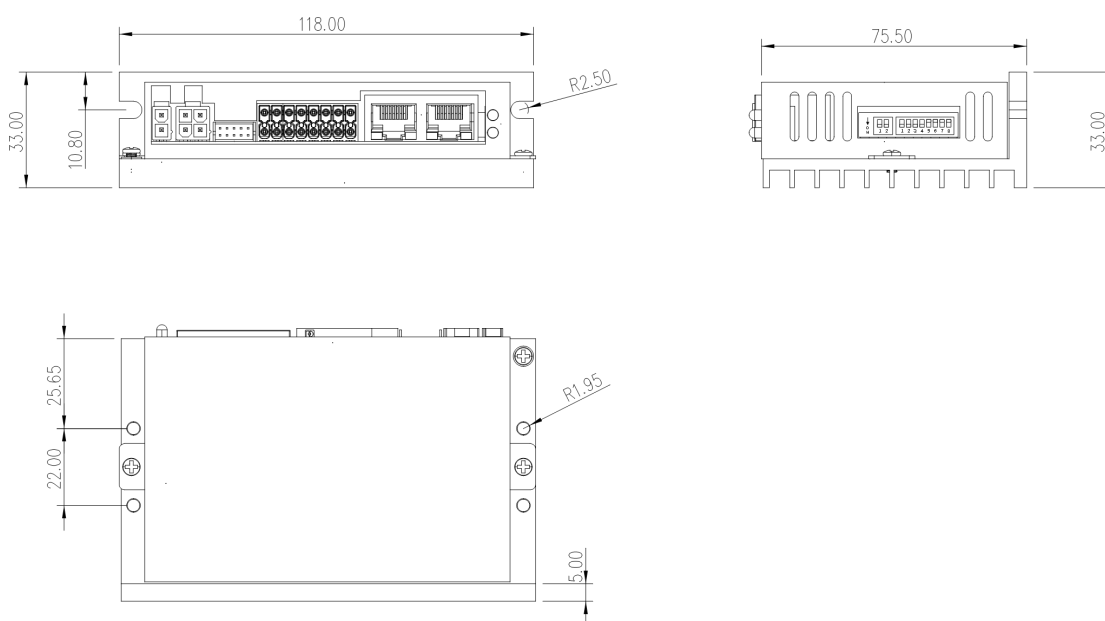
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# 1 Foreword

- Thank you for choosing Kaifull's product.
- This manual describes the use methods and safety precautions of the product.
- Please read this user manual carefully and use this product correctly and safely.
- After reading, please save it at a suitable place for easy access at any time.
- For technical support, please dial 400-960-1069 or +86-769-23033384.

## 2 Product Specifications

### 2.1 Installation Dimensions

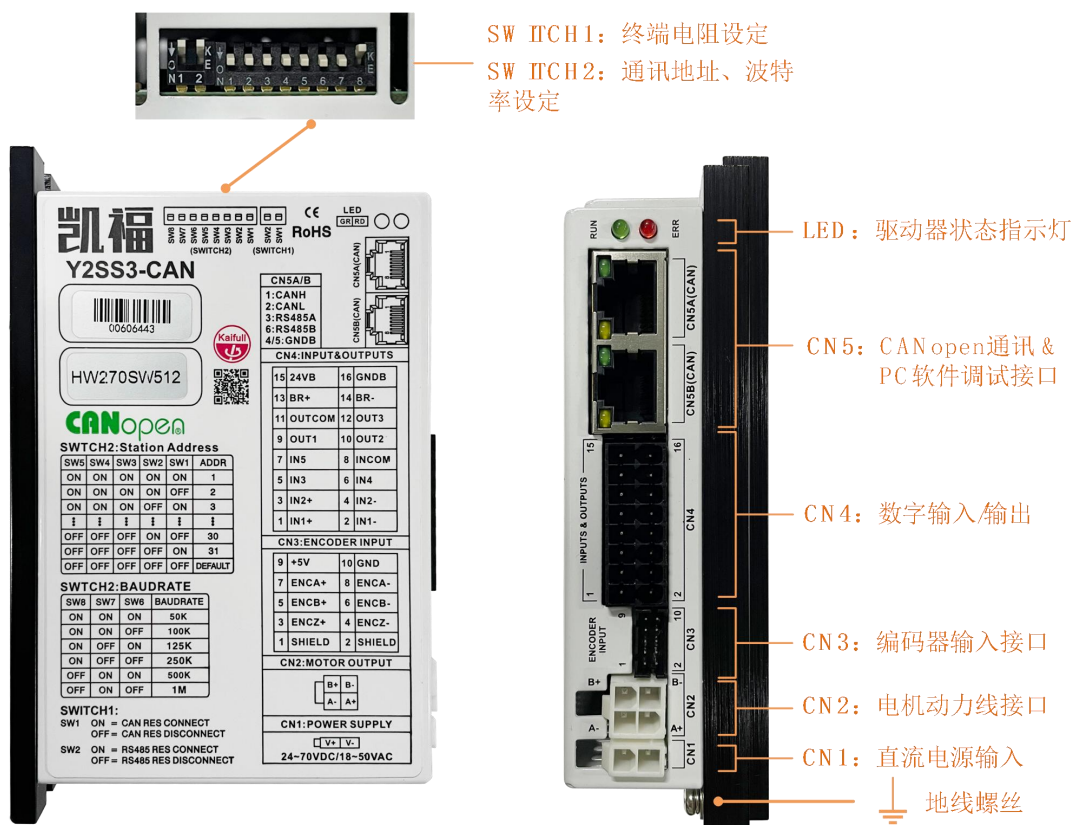


## 2.2 Electrical specifications

Electrical specifications		
Installation Dimensions	118 × 75.5 × 33 cm	
Input power	DC: 24-70V or 18-50V	
Current output	0.1-7A (peak)	
Adaptive motor	Two-phase stepper motors of size 86 and below	
Open loop/closed-loop control	Compatible with open-loop or closed-loop control; default: closed loop control	
Encoder interface	Supports up to 5000-line incremental encoders (20000 pulses/revolution)	
Control mode	CANopen bus communication control	
Communication interface	RJ45 network port	CANopen communication interface; connect to PC for parameter settings, status monitoring, etc.
Baud rate (bit/s)	Dial setting: 50K, 100K, 125K, 250K, 500K, 1M	
Control signal	Digital input signal	Differential: 3 pcs, single end: 2 pcs; opto-isolator; the common port supports 5~24VDC
	Digital output signal	3 open collector outputs; opto-isolator; maximum output 100mA@30V;
		1 brake output, maximum output 100mA@30V
Recommended service environment	Temperature	0 ~ +55 °C
	Humidity	0~ 90%RH below
	Altitude	1000 m below
	environment	No corrosive gases or dust.
		The product shall not come in contact with water and oil.
Dielectric strength	AC1.5KV between ground wires, capable of withstanding voltage for 1 minute	
Protection grade	IP20	
Weight	0.3KG	

## 3 Wiring

### 3.1 Real product photo



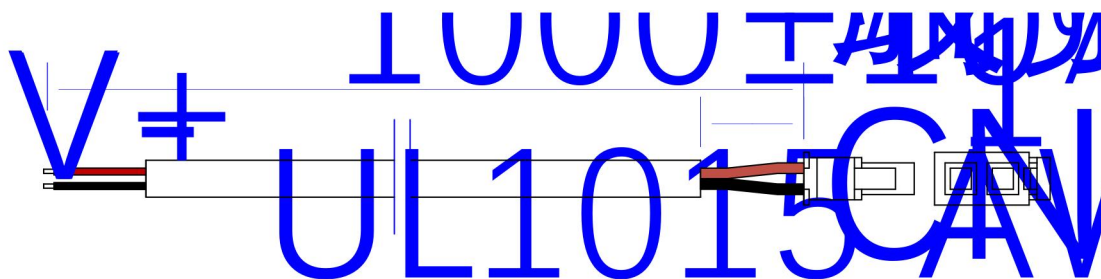
## 3.2 Wiring method

### 3.2.1 Power Connection

#### **CN1: Power connection** (24-70VDC or 18-50VAC)

CN1.1	V-	
CN1.2	V+	

The Y2SS3-CAN driver product is attached with a power connection cable with the length of 1 meter. When you connect the power supply, connect the red wire of this power cord to the switch power supply V+ and the black wire to V -.



#### ➤ **Selecting the appropriate power supply:**

The following are recommendations for selecting the power supply when using different motors:


Motor flange (MM)	Supply voltage	Supply current
20/35	24V	≥1.0A
42	24V	≥2.0A
57/60	24-36V	≥4.5A
86	36-48V	≥6A



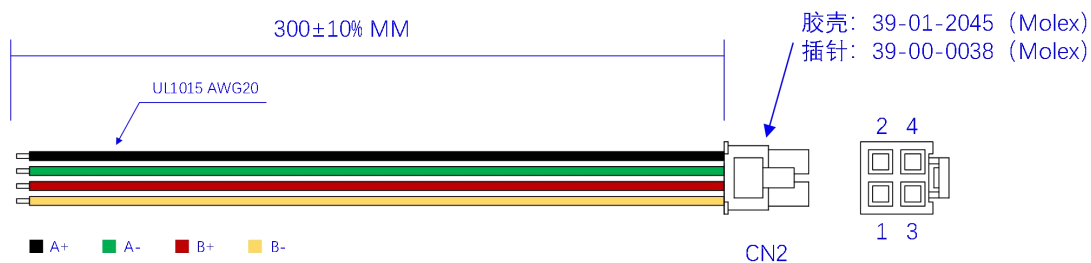
- Be careful not to connect the power supply reversely, as it may cause damage to the drive and result in no warranty coverage
- When the motor 57 and above is used and the motor is operating at a high speed, it will generate a large reverse electromotive force. At this time, use a higher-voltage power supply to improve the high-speed performance of the motor.

### 3.2.2 Motor Connection

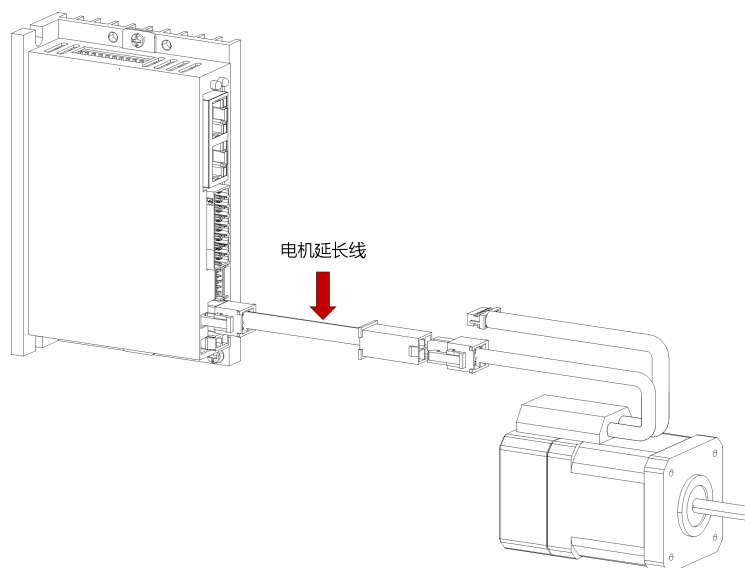
#### CN2: Motor port

CN2.1	B-	CN2.2	A+	
CN2.3	B+	CN2.4	A-	

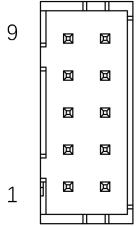
- The Y2SS3-CAN driver product is attached with a 4-core motor connection wire, with a length of 30 cm. The wire has four colors: black, green, red, and yellow, corresponding to A+, A-, B+, and B- of the driver. When you use an open-loop motor, follow the wiring instructions in the motor specification to connect the motor leads to the connecting wires.



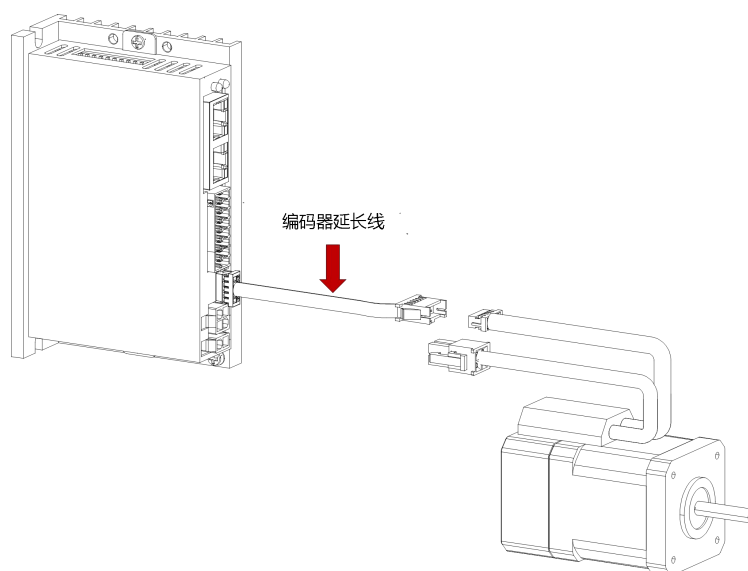
- If you use a closed-loop motor, the motor power line can be connected to the driver through the motor extension line (optional) (as shown in the figure below).



### 3.2.3 Encoder Connection

<b>CN3: Encoder input port</b>					
CN3.1	Cable shielded wire	CN3.2	Cable shielded wire		
CN3.3	ENCZ+	CN3.4	ENCZ-		
CN3.5	ENCB+	CN3.6	ENCB-		
CN3.7	ENCA+	CN3.8	ENCA-		
CN3.9	+5V output	CN3.10	GND		

The encoder interface of the Y2SS3-CAN driver is connected to the driver through an optional motor encoder extension wire.



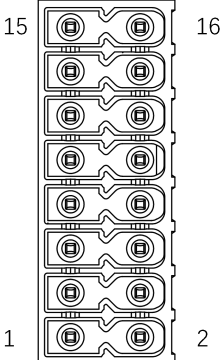
#### ➤ Accessory Information

Type	Model	Length
Motor extension wire	2103-100	1 m
	2103-300	3 m
	2103-500	5 m
Encoder extension wire	E208-100	1 m
	E208-300	3 m
	E208-500	5 m



### 3.2.4 Digital I/O connection

**CN4: Digital I/O connection** Note: The content in "[ ]" is an example of commonly used NPN type wiring method

CN4.1	IN1+	Digital input 1 positive pole	
CN4.2	IN1-	Digital input 1 negative pole	
CN4.3	IN2+	Digital input 2 positive pole [connected to+24V]	
CN4.4	IN2-	Digital input 2 negative pole [home position signal]	
CN4.5	IN3	Digital input 3 [positive limit]	
CN4.6	IN4	Digital input 4 [negative limit]	
CN4.7	IN5	Digital input 5	
CN4.8	INCOM	Digital input 3/4/5 common terminal [connected to+24V]	
CN4.9	OUT1	Digital output 1	
CN4.10	OUT2	Digital output 2	
CN4.11	OUTCOM	Digital output 1/2/3 common terminal	
CN4.12	OUT3	Digital output 3	
CN4.13	BR+	Power-off brake output 24V+[brake line+]	
CN4.14	BR-	Power-off brake output 0V [brake line -]	
CN4.15	24VB	Power-off brake supply input 24V+ [Connected to+24V]	
CN4.16	GNDB	Power-off brake supply input 0V [Connected to 0V]	

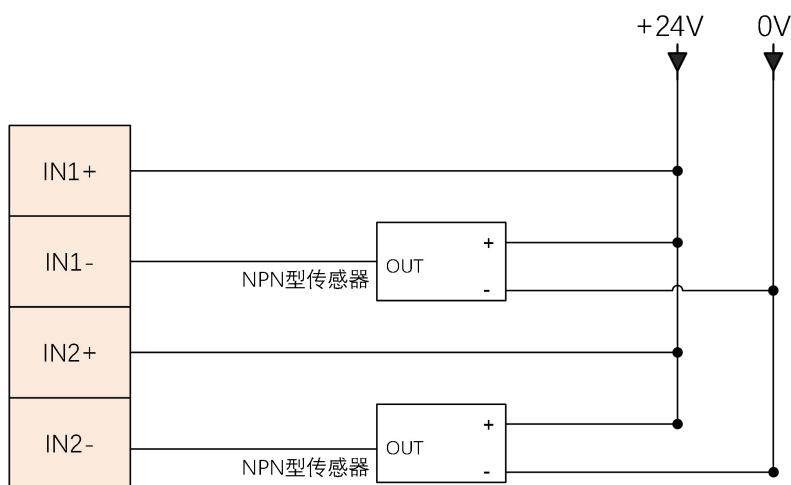
## ■ Digital input connection

Home position by default; positive and negative limits are defined as follows:

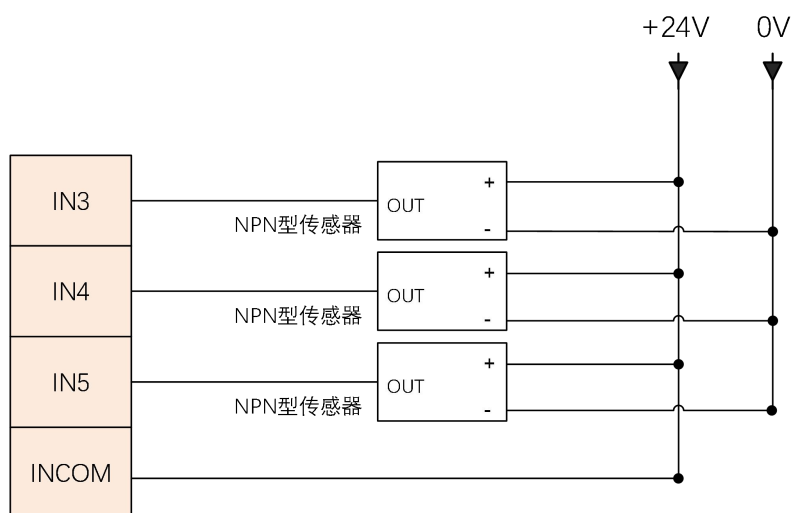
Input point	Default definition	Default polarity
IN2	Home position	Normally on
IN3	Positive pole limit	Normally on
IN4	Negative pole limit	Normally on

### • Connecting NPN type sensor

#### ➤ IN1、IN2:

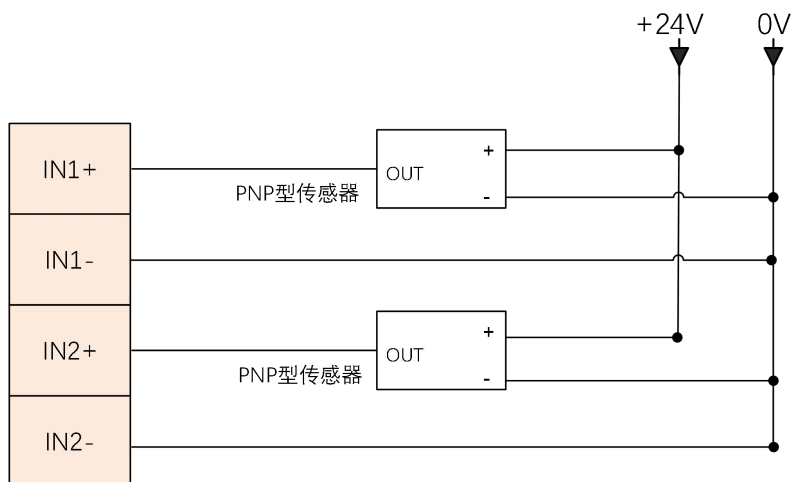


#### ➤ IN3、IN4、IN5:

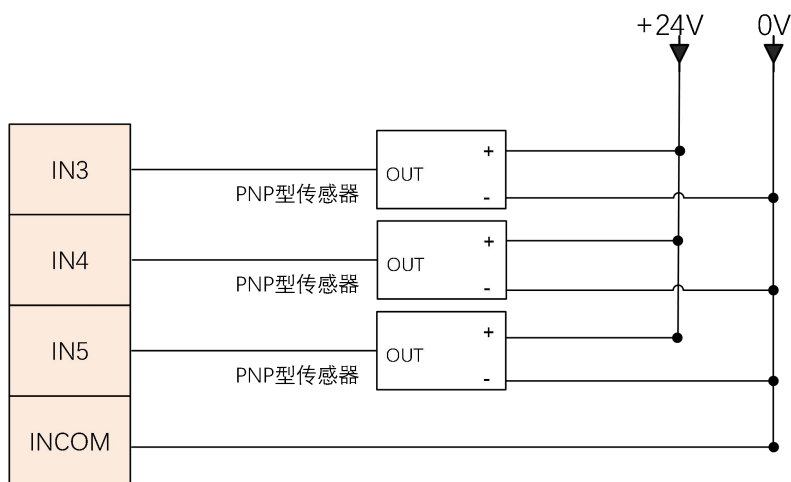


- Connecting PNP type sensor

➤ IN1、IN2:



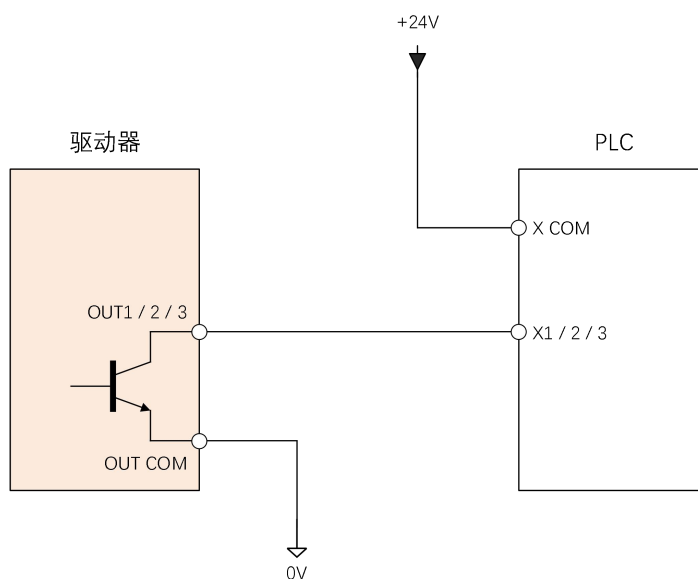
➤ IN3、IN4、IN5:



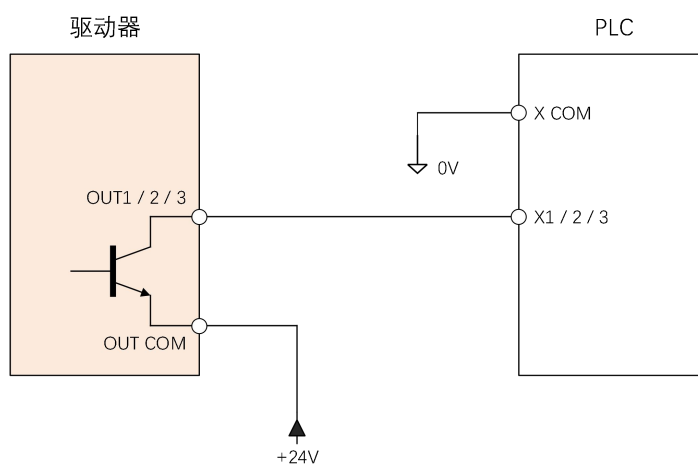
## ■ Digital Output Connection

The output interface of Y2SS3 CAN is an open drain output, and the output level depends on the connection of the output common terminal OUTCOM.

- Common anode:



- Common cathode:

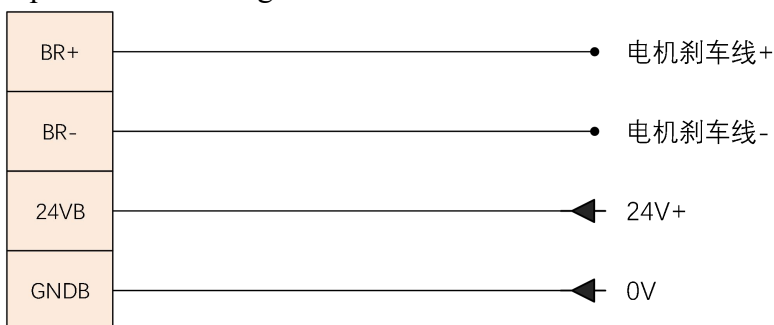


## ■ Brake output wiring

A power brake is an electromagnetic brake device installed at the tail end of a stepper motor. A stepper motor with a brake is commonly used on mechanisms that move vertically. It can provide holding force in the event of sudden loss of equipment power to prevent the vertical mechanism from falling due to its own gravity.

The Y2SS3-CAN driver is provided with an automatic control brake function, which can turn on the brake at the moment when the motor is enabled, and can also turn off the brake at the moment when the driver has an error alarm and the motor is disabled. Users do not need to manually control it.

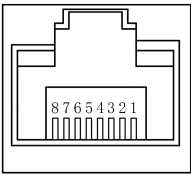
- Example of brake wiring:



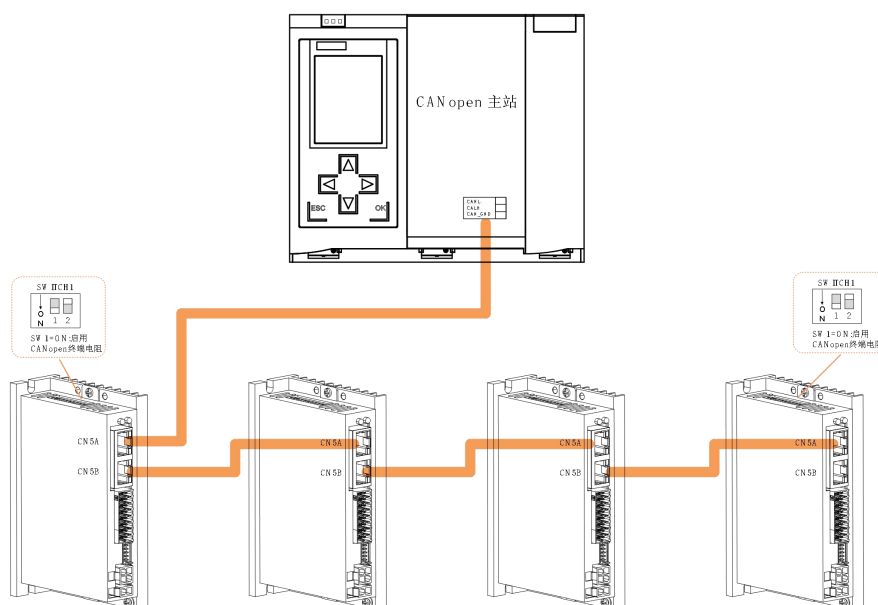
- Users need to prepare a 24V power supply to power "24VB" and "GNDB"
- The maximum output of the brake output port is 500mA@30V , and it can drive the brake device without being connected to a relay
- It is recommended to use cables of 0.3mm<sup>2</sup> and above

### 3.2.5 Communication connection

CN5 is the driver CANopen communication interface and the PC debugging software interface (connected to RS485). The pins of CN5A and CN5B are connected in parallel internally, and their pins are defined as follows:

 CN 5A / B	Pin	Definition	Description
	1	CANH	CANopen communication port
	2	CANL	
	3	RS485+	485 communication+
	4	CAN_GND	CANopen communication ground wire
	5	RS_GND	485 communication ground wire
	6	RS485-	485 communication-
	7	hold	-
	8	hold	-

- CANopen communication topology diagram:

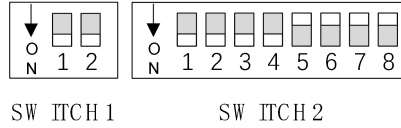


To ensure the quality and stability of CANopen communication signal transmission, you need to connect a 120 ohm terminal resistor between the CANH and CANL of the bus starting node and the last node. The function of terminal resistor is to suppress signal reflection and interference, and the starting and ending nodes are usually located at both ends of the bus and are most susceptible to signal reflection and interference, and other intermediate nodes usually do not need to be connected to terminal resistors.

Y2SS3-CAN is in a built-in terminal resistor design, does not need to be connected externally, and is set using SW1 of the top SWITCH1. For terminal resistance setting, please refer to the relevant instructions in "[Terminal Resistance Setting](#)" below.

## 4 Parameter Setting

The dial switches SWITCH1 and SWITCH2 on the top of Y2SS3-CAN are used to set terminal resistance, slave address, baud rate and other parameters



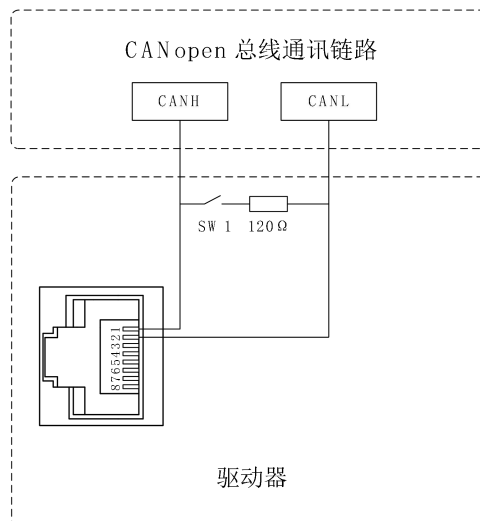
SWITCH1	SW1				SW2			
	CANopen communication terminal resistor				RS485 communication terminal resistor			
SWITCH2	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
	Slave station address				Baud rate			

### 4.1 Terminal resistance setting

The dial SWITCH1 is used to set the terminal resistance. **If the device uses Y2SS3-CAN as the starting or ending node, SW1 needs to be set to ON; otherwise, it needs to be set to OFF.**

SWITCH1	SW1	=ON, the CANopen communication terminal resistor is enabled
		=OFF, CANopen communication terminal resistor is disabled
	SW2	=ON, RS485 communication terminal resistor is enabled
		=OFF, RS485 communication terminal resistor is disabled

Internal terminal resistor connection diagram:



## 4.2 Slave station address setting

The SW1-SW5 of the dial SWITCH2 are used to set the address of the driver's slave station. It supports connecting up to 31 slave stations.

SW5	SW4	SW3	SW2	SW1	Slave station address
ON	ON	ON	ON	ON	1
ON	ON	ON	ON	OFF	2
ON	ON	ON	OFF	ON	3
ON	ON	ON	OFF	OFF	4
ON	ON	OFF	ON	ON	5
ON	ON	OFF	ON	OFF	6
ON	ON	OFF	OFF	ON	7
ON	ON	OFF	OFF	OFF	8
ON	OFF	ON	ON	ON	9
ON	OFF	ON	ON	OFF	10
ON	OFF	ON	OFF	ON	11
ON	OFF	ON	OFF	OFF	12
ON	OFF	OFF	ON	ON	13
ON	OFF	OFF	ON	OFF	14
ON	OFF	OFF	OFF	ON	15
ON	OFF	OFF	OFF	OFF	16
OFF	ON	ON	ON	ON	17
OFF	ON	ON	ON	OFF	18
OFF	ON	ON	OFF	ON	19
OFF	ON	ON	OFF	OFF	20
OFF	ON	OFF	ON	ON	21
OFF	ON	OFF	ON	OFF	22
OFF	ON	OFF	OFF	ON	23
OFF	ON	OFF	OFF	OFF	24
OFF	OFF	ON	ON	ON	25
OFF	OFF	ON	ON	OFF	26
OFF	OFF	ON	OFF	ON	27
OFF	OFF	ON	OFF	OFF	28
OFF	OFF	OFF	ON	ON	29
OFF	OFF	OFF	ON	OFF	30
OFF	OFF	OFF	OFF	ON	31
OFF	OFF	OFF	OFF	OFF	DEFAULT



### 4.3 Baud rate setting

The SW6-SW8 of the dial SWITCH2 are used to set the communication baud rate of the driver CANopen, in bit/s.

The baud rate setting of the driver should be consistent with the baud rate setting of the PLC communication. Otherwise, the communication cannot proceed.

SW8	SW7	SW6	Baud rate
ON	ON	ON	50K
ON	ON	OFF	100K
ON	OFF	ON	125K
ON	OFF	OFF	250K
OFF	ON	ON	500K
OFF	ON	OFF	1M

## 5 CANopen Communication

### 5.1 Operation Mode

The operation mode of the driver is set by the object 6060h (Modes of operation), and the current operation mode is viewed through 6061h.

Operation Mode	6060h value
Position control mode (PP)	1
Speed control mode (PV)	3
Homing mode (HM)	6

### 5.2 Associated objects

In each operation mode, the addresses of main associated objects are as follows:

#### 5.2.1 Mode 1: Position control mode (PP)

Object address	Object name	Data type	Access attribute
0x6040	Controlword	UINT16	Write only
0x6041	Statusword	UINT16	Read only
0x6060	Mode of operation	INT8	Write only
0x6061	Mode of operation display	INT8	Read only
0x607A	Target position	INT32	Read/Write
0x6081	Profile velocity	UINT32	Read/Write
0x6083	Profile acceleration	UINT32	Read/Write
0x6084	Profile deceleration	UINT32	Read/Write

### 5.2.2 Mode 2: Speed control mode (PV)

Object address	Object name	Data type	Access attribute
0x6040	Controlword	UINT16	Write only
0x6041	Statusword	UINT16	Read only
0x6060	Mode of operation	INT8	Write only
0x6061	Mode of operation display	INT8	Read only
0x6083	Profile acceleration	UINT32	Read/Write
0x6084	Profile deceleration	UINT32	Read/Write
0x60FF	Target Velocity	INT32	Read/Write

### 5.2.3 Mode 6: Homing mode (HM)

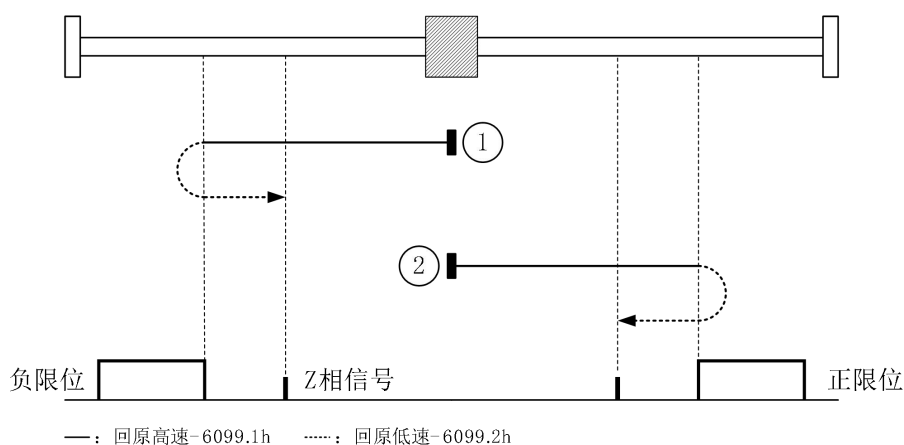
Object address	Object name	Data type	Access attribute
0x6040	Controlword	UINT16	Write only
0x6041	Statusword	UINT16	Read only
0x6060	Mode of operation	INT8	Write only
0x6061	Mode of operation display	INT8	Read only
0x6098	Homing method	INT8	Read/Write
0x6099.1	Homing Velocity (fast)	UINT32	Read/Write
0x6099.2	Homing Velocity (slow)	UINT32	Read/Write
0x609A	Homing acceleration	UINT32	Read/Write
0x607C	Homing offset	INT32	Read/Write
0x60FD	Digital Inputs	UINT32	Read/Write

## 5.3 Homing method

When the operating mode of the driver is in the Homing mode (HM), the motor's homing path is planned internally by the driver after the homing method is set through object 6098h (Homing method).

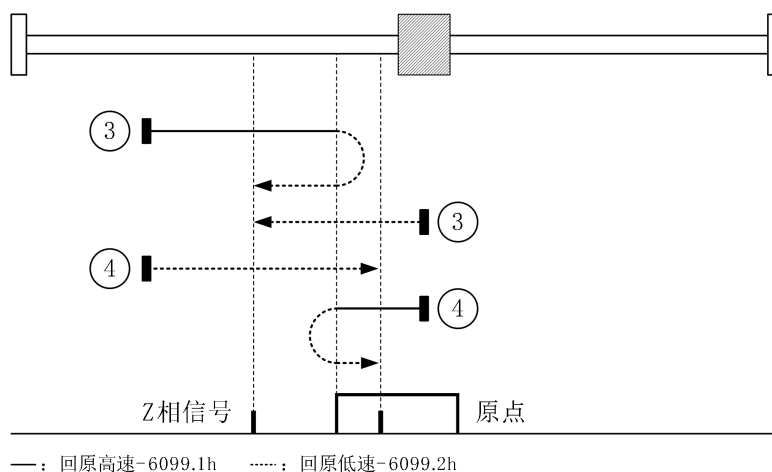
### • Methods 1, 2

Homing method	Signal used	Home position
Method 1	Negative limit, phase Z signal	Phase Z signal
Method 2	Positive limit, phase Z signal	Phase Z signal



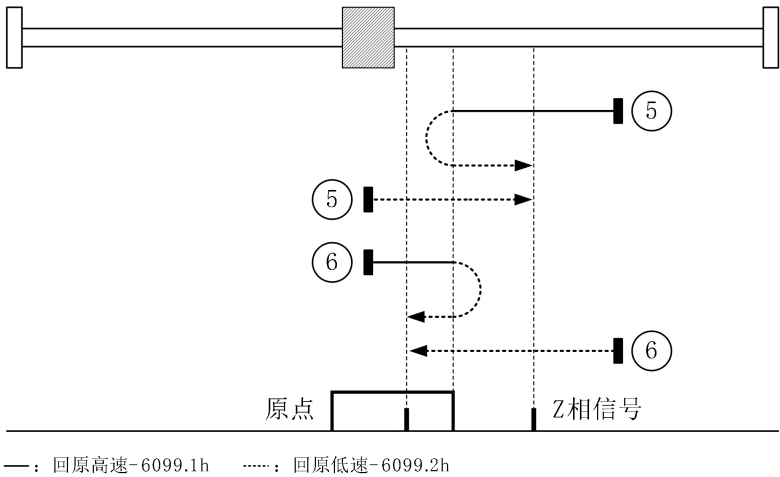
### • Methods 3, 4

Homing method	Signal used	Home position
Method 3	Home position, phase Z signal	Phase Z signal
Method 4	Home position, phase Z signal	Phase Z signal



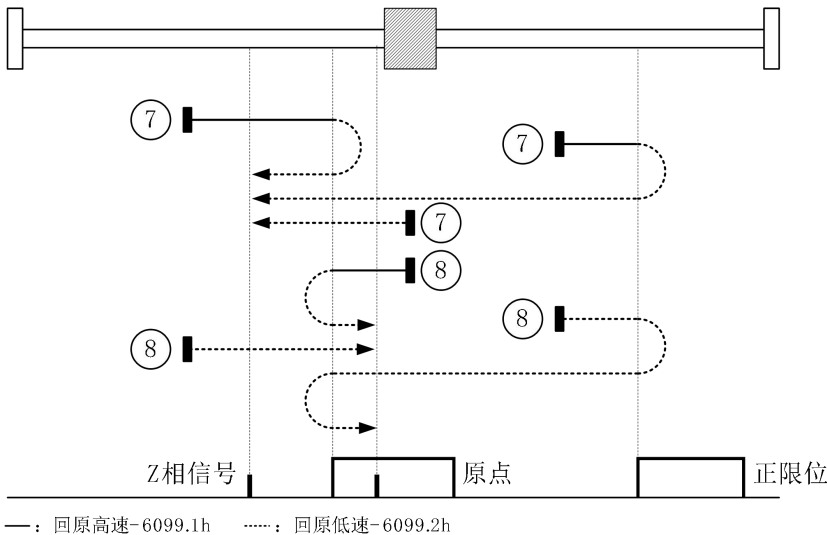
• **Methods 5, 6**

Homing method	Signal used	Home position
Method 5	Home position, phase Z signal	Phase Z signal
Method 6	Home position, phase Z signal	Phase Z signal



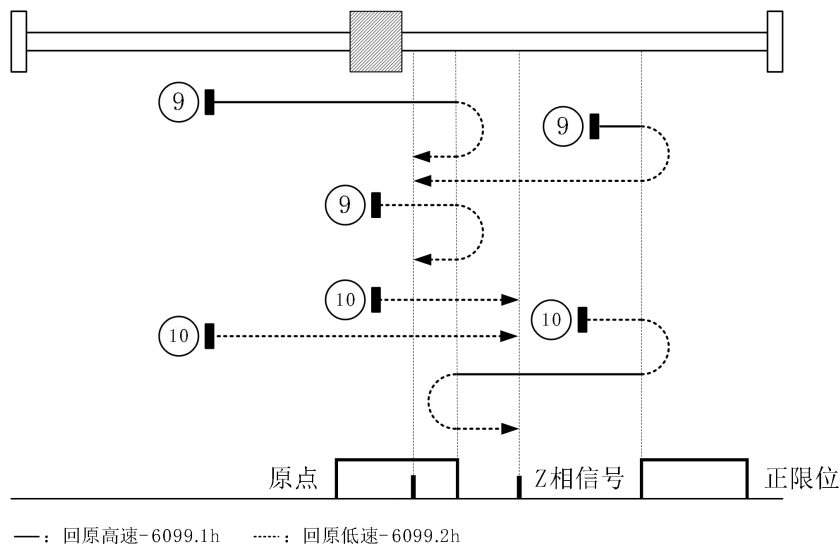
• **Methods 7, 8**

Homing method	Signal used	Home position
Method 7	Home position, positive limit, phase Z signal	Phase Z signal
Method 8	Home position, positive limit, phase Z signal	Phase Z signal



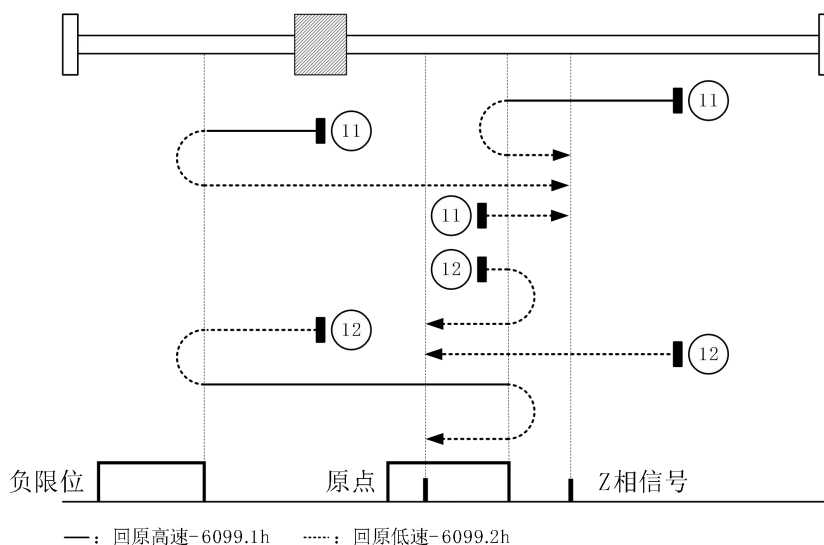
## • Methods 9, 10

Homing method	Signal used	Home position
Method 9	Home position, positive limit, phase Z signal	Phase Z signal
Method 10	Home position, positive limit, phase Z signal	Phase Z signal



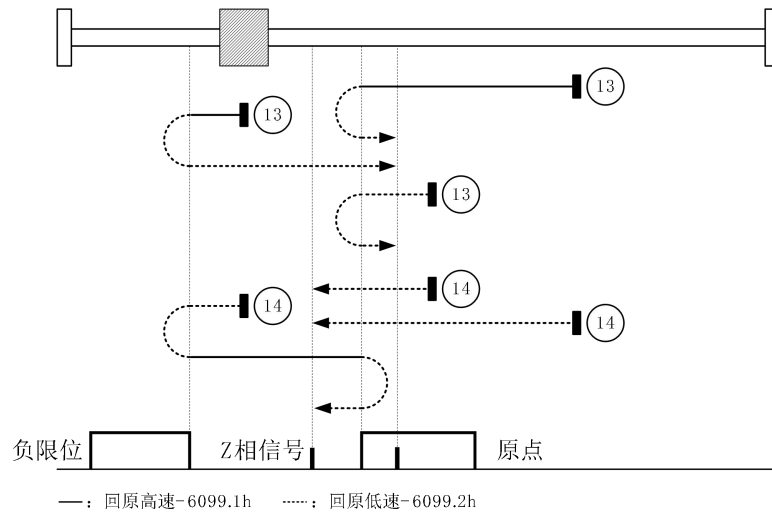
## • Methods 11, 12

Homing method	Signal used	Home position
Method 11	Home position, negative limit, phase Z signal	Phase Z signal
Method 12	Home position, negative limit, phase Z signal	Phase Z signal



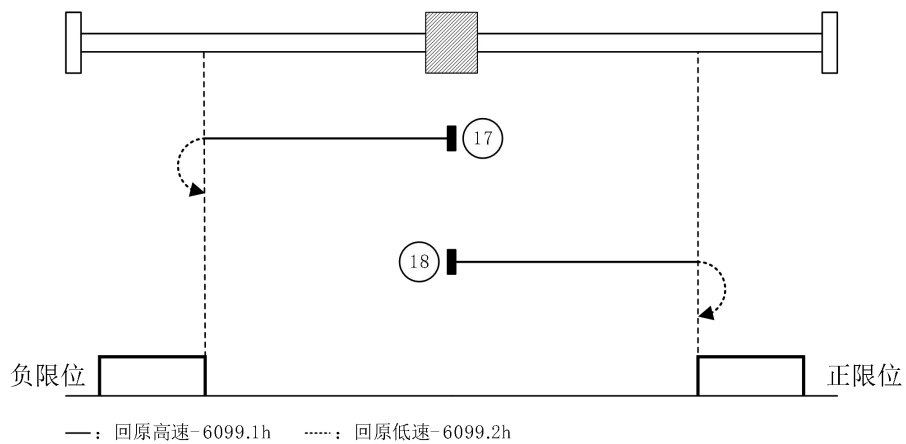
• **Methods 13, 14**

Homing method	Signal used	Home position
Method 13	Home position, negative limit, phase Z signal	Phase Z signal
Method 14	Home position, negative limit, phase Z signal	Phase Z signal



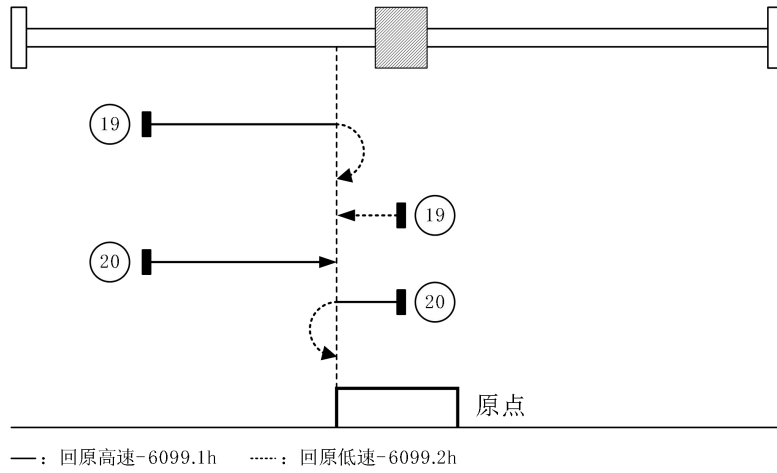
• **Methods 17, 18**

Homing method	Signal used	Home position
Method 17	Negative limit	Negative limit falling edge
Method 18	Positive limit	Positive limit falling edge



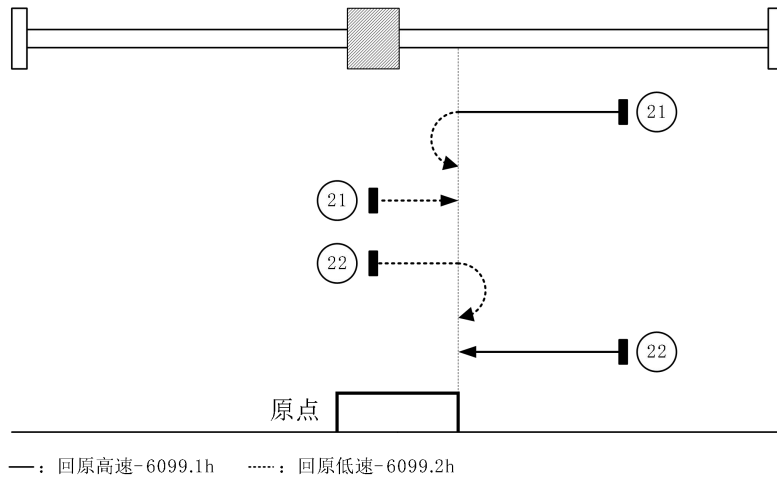
• **Methods 19, 20**

Homing method	Signal used	Home position
Method 19	Home position	Home position falling edge
Method 20	Home position	Home position rising edge



• **Methods 21 and 22**

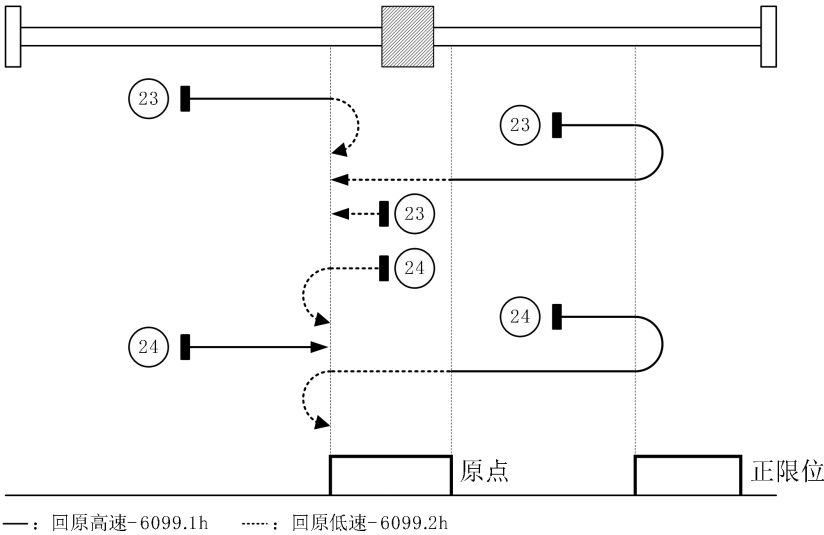
Homing method	Signal used	Home position
Method 21	Home position	Home position falling edge
Method 22	Home position	Home position rising edge





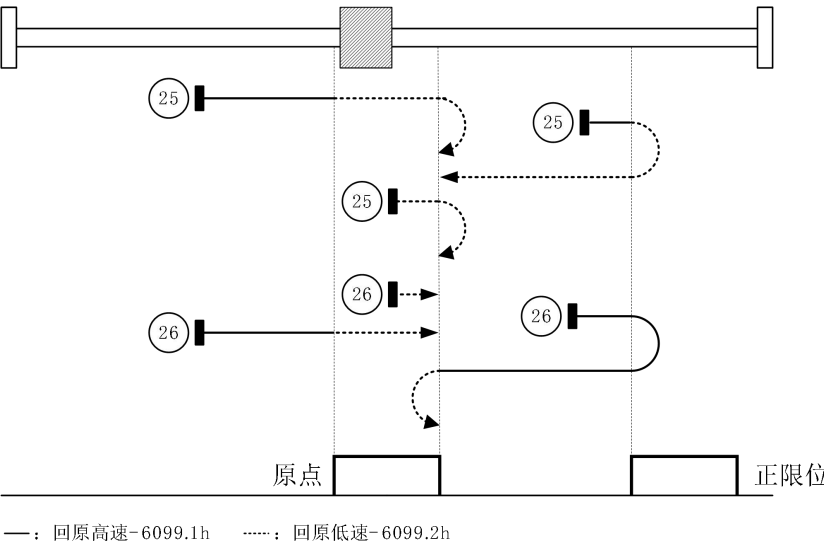
•   **Methods 23, 24**

Homing method	Signal used	Home position
Method 23	Home position, positive limit	Home position falling edge
Method 24	Home position, positive limit	Home position rising edge



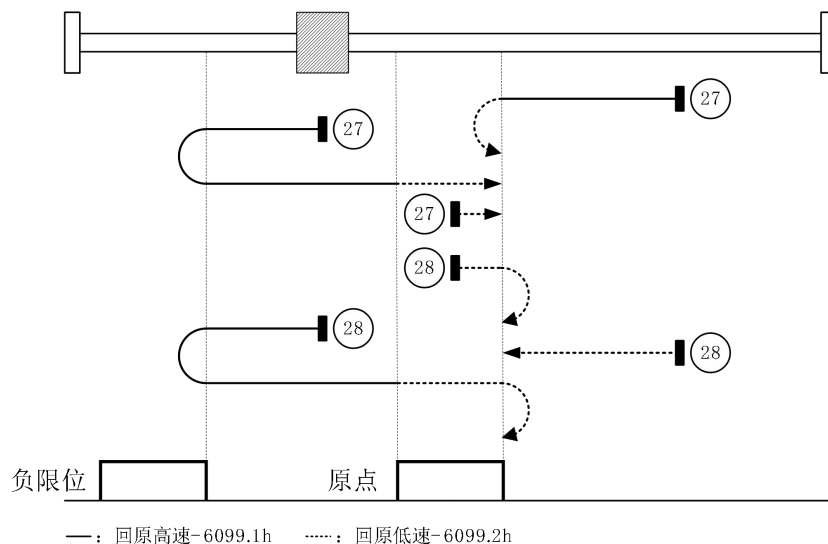
•   **Methods 25, 26**

Homing method	Signal used	Home position
Method 25	Home position, positive limit	Home position rising edge
Method 26	Home position, positive limit	Home position falling edge



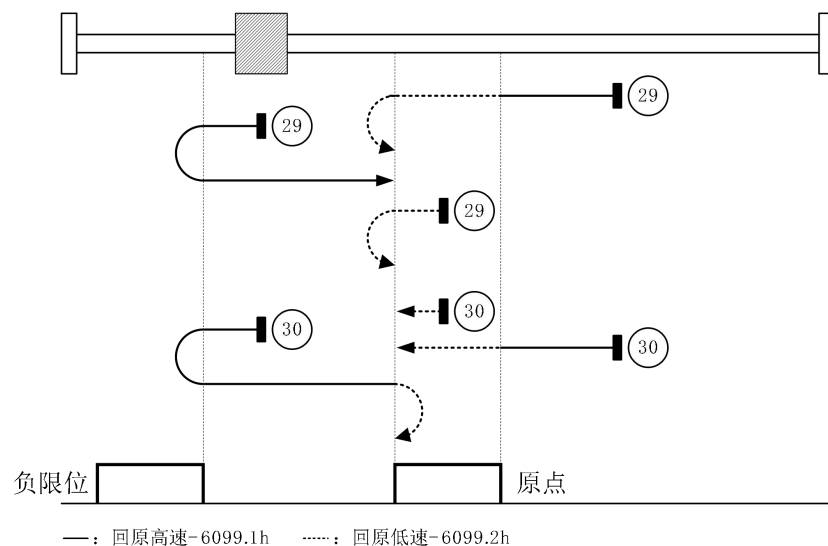
• **Methods 27, 28**

Homing method	Signal used	Home position
Method 27	Home position, negative limit	Home position falling edge
Method 28	Home position, negative limit	Home position rising edge



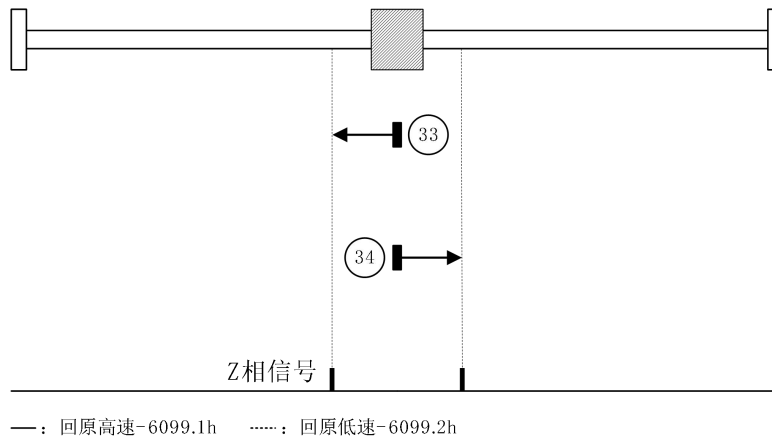
• **Methods 29, 30**

Homing method	Signal used	Home position
Method 29	Home position, negative limit	Home position rising edge
Method 30	Home position, negative limit	Home position falling edge



- **Methods 33 and 34**

Homing method	Signal used	Home position
Method 33	Phase Z signal	Phase Z signal
Method 34	Phase Z signal	Phase Z signal



- **Methods 35, 37:**

Homing method	Signal used	Home position
Method 35	-	The current point is used as the home position
Method 37	-	The current point is used as the home position

## 6 Object Dictionary

Object address	Object name	Content	Type	Attribute
1010.1	Save all parameters	All parameters are saved when the 0x65766173 is written. It will return to 1 after they are written successfully	UINT32	Read/Write
1011.1	Restore all default parameters	All parameters are saved when the 0x64616F6C is written. It will return to 1 after they are written successfully	UINT32	Read/Write
2000	Peak Current	Motor peak current, in milliamper	INT32	Read/Write
2001	Motor Resolution	Number of pulses per revolution of the motor	INT32	Read/Write
2002	Min Current	Motor static current, in milliamper	INT16	Read/Write
2003	Contrl Mode	Open loop/closed-loop control mode =8: Open loop,=0: Closed loop	UINT8	Read/Write
2005.1	CH1 Input Filter Time	IN1 input signal filtering time, in millisecond	UINT16	Read/Write
2005.2	CH2 Input Filter Time	IN2 input signal filtering time, in millisecond	UINT16	Read/Write
2005.3	CH3 Input Filter Time	IN3 input signal filtering time, in millisecond	UINT16	Read/Write
2005.4	CH4 Input Filter Time	IN4 input signal filtering time, in millisecond	UINT16	Read/Write
2005.5	CH5 Input Filter Time	IN5 input signal filtering time, in millisecond	UINT16	Read/Write
2007	Disable Mode	Brake function. =0: enabled,=1: disabled	INT32	Read/Write
2008	Boosting Current	The power-on scan current is used to determine the phase research current of the motor when it is first enabled after powered on. In milliamper.	UINT16	Read/Write
2018	Motor Select Virtual Switch	Motor model selection:	UINT8	Read/Write
		1: 20/28 series motor (current 0.5A) 3: 42 series motor (current 1.5A) 6: 57 short series motor (current 4A) 8: 57 long series motor (current 4A) 9: 60 series motor (current 4A) C: 86 Short series motor (current 6A) E: 86 long series motor (current 6A)		
2029	Encoder Resolution	Encoder resolution, in pulse	INT32	Read/Write
2051	Polarity	Motor running direction. 0: Clockwise, 1: Counterclockwise	UINT8	Read/Write
2052	Default Current Parameter Setting	Motor default parameters. 0: Disabled, 1: Enabled	UINT8	Read/Write

2152.1	Input1 Function	Function definitions of digital inputs 1-5		INT32	Read/Write
2152.2	Input2 Function	1: Probe 1 2: Probe 2 3. Home position 4. Positive limit 5. Negative limit 6. Enabling control input 7: Alarm clear input 8. Emergency stop input 17: General IO1 18: General IO2 19: General IO3 20: General IO4 21: General IO3	Notes: If the reverse signal needs to be taken, write the current value+128. Example: IN3 defaults to the positive limit, with the polarity normally on, i.e. 2152.3=4. Now it is changed to normally OFF. Write 2152.3=4+128=132		
2152.3	Input3 Function				
2152.4	Input4 Function				
2152.5	Input5 Function				
2156.1	Output 1 Function	Function definition of output 1		UINT32	Read/Write
2156.2	Output 2 Function	1: Motor motion/stationary state output 2: Driver alarm 3: Brake output 33: General output 1 34: General output 2 35: General output 3			
2156.3	Output 3 Function				
5502.1	Digital Input Level	Digital input status		UINT16	Read only
		Bit 0	IN1		
		Bit 1	IN2		
		Bit 2	IN3		
		Bit 3	IN4		
		Bit 4	IN5		
5502.2	Digital Output Level	Digital output status		UINT16	Read only
		Bit 0	OUT1		
		Bit 1	OUT2		
		Bit 2	OUT3		
		Bit 3	Brake output		

603F	Last Error Code	Driver error code		UINT16	Read only
		0x70C0: Excessively high voltage 0x60D0: Excessively low voltage 0x3052: Motor overcurrent 0x3130: Motor open circuit 0x8311: Motor position deviation			
6040	Control Word	Control word		UINT16	Read/Write
		Bit 0	Switch on		
		Bit 1	Enable voltage		
		Bit 2	Quick stop		
		Bit 3	Enable operation		
		Bit4-6	Operation mode specific		
		Bit 7	Fault reset		
		Bit 8	Halt		
		Bit9-10	Reserved		
		Bit11-15	Manufacturer specific		
6041	Status Word	Status word		UINT16	Read only
		Bit 0	Ready to switch on		
		Bit 1	Switched on		
		Bit 2	Operation enabled		
		Bit 3	Fault		
		Bit 4	Voltage enabled		
		Bit 5	Quick stop		
		Bit 6	Switch on disabled		
		Bit 7	Warning		
		Bit 8	Manufacturer specific		
		Bit 9	Remote		
		Bit 10	Target reached		
		Bit 11	Internal limit active		
		Bit 12-13	Operation mode specific		

		Bit 14-15	Manufacturer specific		
6060	Modes of Operation	Operation Mode		INT8	Read/Write
		1: Position control mode (PP) 3: Speed control mode (PV) 6: Homing mode (HM)			
6061	Modes of Operation Display	In the current operation mode, the displayed numerical values are consistent with the object 6060.		INT8	Read only
6064	Actual Position	Current actual position of motor		INT32	Read only
606C	Actual Velocity	Current actual speed of motor		INT32	Read only
6071	Target Torque	Target torque value of the motor, in milliampere		INT16	Read/Write
6072	Max Torque	Maximum torque value of the motor, in milliampere		INT16	Read/Write
6077	Torque Actual Value	Actual torque value of the motor, in milliampere		INT16	Read only
607A	Profile Target Position	Target position		INT32	Read/Write
6081	Profile Velocity	Target speed in the PP mode		UINT32	Read/Write
6082	End Velocity	Stop speed in the PP mode		UINT32	Read/Write
6083	Profile Acceleration	Acceleration in the PP mode		UINT32	Read/Write
6084	Profile Deceleration	Acceleration in the PP mode		UINT32	Read/Write
6098	Homing Method	Homing method in the HM mode		INT8	Read/Write
6099.1	Homing Velocity (fast)	Homing high speed in the HM mode		UINT32	Read/Write
6099.2	Homing Velocity(slow)	Homing low speed in the HM mode		UINT32	Read/Write
609A	Homing Acceleration	Homing acceleration and deceleration in the HM mode		UINT32	Read/Write
60B8	Touch Probe Function	Probe function configuration		UINT16	Read/Write
60B9	Touch Probe Status	Probe function status		UINT16	Read/Write
60BA	Touch Probe 1 Positive Value	Probe 1 positive edge trigger position value		INT32	Read/Write
60BB	Touch Probe 1 Negative Value	Probe 1 negative edge trigger position value		INT32	Read/Write
60BC	Touch Probe 2 Positive Value	Probe 2 positive edge trigger position value		INT32	Read/Write
60BD	Touch Probe 1 Negative Value	Probe 2 negative edge trigger position value		INT32	Read/Write

60FD	Digital Inputs	Digital input mapping		UINT32	Read only
		Bit 0	Negative limit		
		Bit 1	Positive limit		
		Bit 2	Home position		
		Bit 3	Probe 1		
		Bit 4	General input 1		
		Bit 5	General input 2		
		Bit 6	General input 3		
		Bit 7	General input 4		
		Bit 8	General input 5		
		Bit 9	General input 6		
		Bit 10	General input 7		
		Bit12	Probe 2		
		Bit 16	Emergency input control		
		Bit 17	Alarm clearing		
		Bit 31	Phase Z signal		
60FE.1	Physical Outputs	Digital output control		UINT32	Read/Write
		Note: The corresponding OUT port needs to be configured as a general output port first during use			
		Bit 0	0: OUT1=0, 1: OUT1=1		
		Bit 1	1: OUT2=0, 2: OUT2=1		
		Bit 2	2: OUT3=0, 2: OUT3=1		
60FE.2	Bit Mask	Digital output control mask		UINT32	Read/Write
		Note: You only need to use the default value 0xFFFF			
60FF	Target Velocity	Target speed		INT32	Read/Write



## 7 Alarm Code

The Y2SS3-CAN driver displays status and errors through a combination of flashing green and red LED indicator lights, with the specific meaning as follows:

LED indicator light	Meaning	Resolution
Green light flashing with an interval of 1 second	Motor not enabled	-
Green light flashing with an interval of 0.5 seconds	Motor enabled normally	-
4 red lights and 1 green light	Excessively high bus voltage	<ol style="list-style-type: none"> <li>1. Check whether the supply voltage of the driver is too high;</li> <li>2. In case of overvoltage during movement, the motor deceleration time can be increased.</li> </ol>
4 red LED lights and 2 green LED lights	Excessively low bus voltage	Check whether the supply voltage of the driver is too low;
5 red lights +1 green light	Motor overcurrent	<ol style="list-style-type: none"> <li>1. Check whether the motor has been damaged;</li> <li>2. Check whether the set current of the driver is too high;</li> </ol>
6 red lights +1 green light	Motor open circuit	<ol style="list-style-type: none"> <li>1. Check whether the motor wiring is correct;</li> <li>2. Check whether the motor has been damaged</li> </ol>
5 red LED lights and 2 green LED lights	Position deviation	<ol style="list-style-type: none"> <li>1. Check whether the encoder wire is connected correctly and securely</li> <li>2. Check whether the encoder resolution is set correctly</li> <li>3. Check whether the motor is blocked</li> <li>4. Increase the acceleration and deceleration time appropriately</li> </ol>

## 8 Contact Kaifull



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