

3.2.2 Terminals figure of main circuit

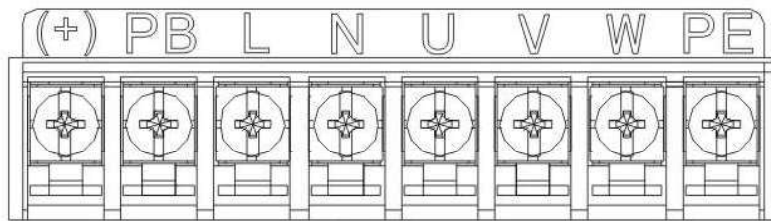


Figure 3-4 1PH terminals of main circuit (single phase)

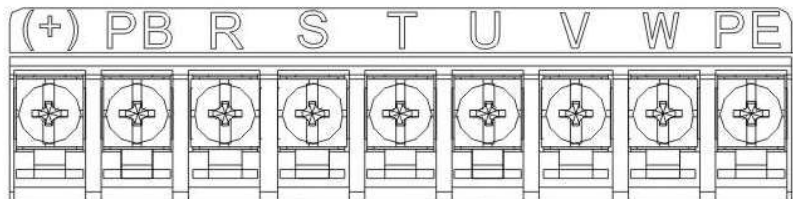


Figure 3-5 3PH terminals of main circuit (220V, $\leq 0.75\text{kW}$, and 380V, $\leq 2.2\text{kW}$)

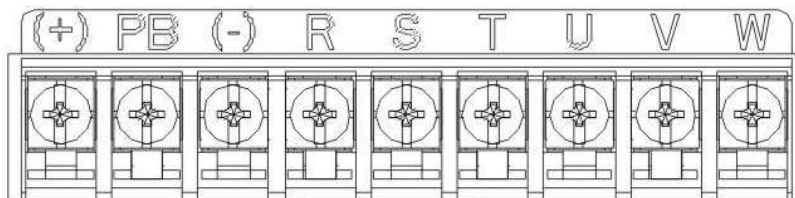


Figure 3-6 3PH terminals of main circuit (220V, $\leq 1.5\text{kW}$, and 380V, 4-22kW)

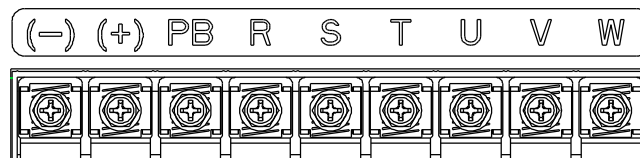


Figure 3-7 3PH terminals of main circuit (30-37kW)

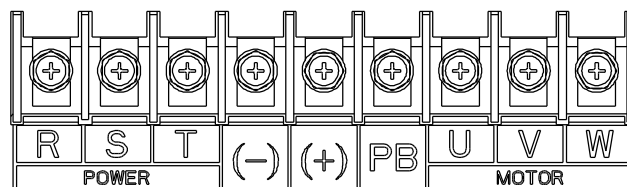


Figure 3-8 3PH terminals of main circuit (45-110kW)

Terminal	Function
L, N	Single phase AC input terminals which are generally connected with the power supply.
R, S, T	Three phase AC input terminals which are generally connected with the power supply.
PB, (+)	External dynamic braking resistor terminal
(+), (-)	Input terminal of the DBU or DC bus
U, V, W	Three phase AC input terminals which are generally connected with the motor.
PE	Protective grounding terminal

Note:

- ◆ Do not use asymmetrically motor cables. If there is a symmetrically grounding conductor in the motor cable in addition to the conductive shield, connect the grounding conductor to the grounding terminal at the inverter and motor ends.
- ◆ Route the motor cable, input power cable and control cables separately.

3.2.3 Wiring of terminals in main circuit

1. Fasten the grounding conductor of the input power cable with the grounding terminal of the inverter (PE) by 360 degree grounding technique. Connect the phase conductors to L1, L2 and L3 terminals and fasten.
2. Strip the motor cable and connect the shield to the grounding terminal of the inverter by 360 degree grounding technique. Connect the phase conductors to U, V and W terminals and fasten.
3. Connect the optional brake resistor with a shielded cable to the designated position by the same procedures in the previous step.
4. Secure the cables outside the inverter mechanically.

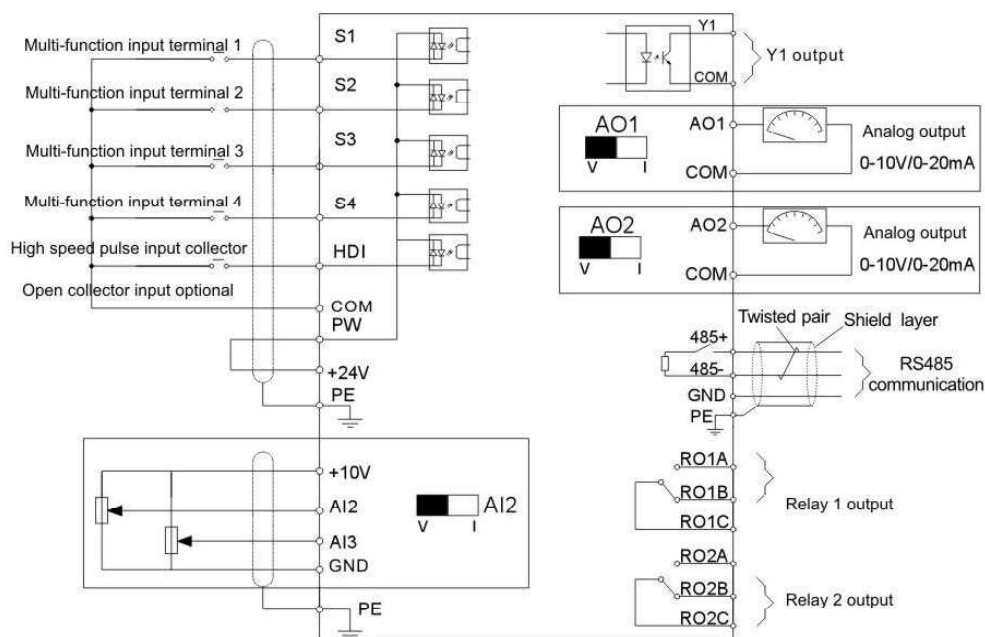
3.2.4 Wiring diagram of control circuit

Figure 3-9 Wiring of control circuit

3.2.5 Terminals of control circuit

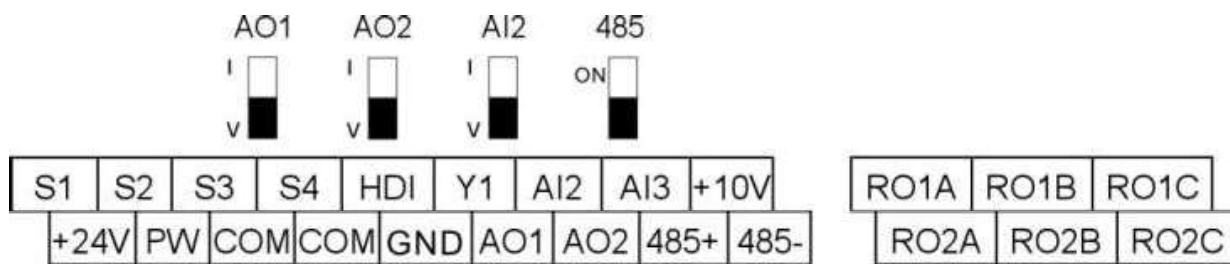


Figure 3-10 Terminals of control circuit

Type	Terminal name	Function description	Technical specifications
Communication	485+	485 communication	485 communication interface
	485-		
Digital input/output	S1	Digital input	1. Internal impedance:3.3kΩ 2. 12~30V voltage input is available 3. The terminal is the dual-direction input terminal 4. Max. input frequency:1kHz
	S2		
	S3		
	S4		
	HDI	High frequency input channel	Except for S1~S4, this terminal can be used as high frequency input channel. Max. inputfrequency:50kHz Duty cycle:30%~70%
	PW	Digital power supply	To provide the external digital power supply Voltage range: 12~30V
	Y1	Digital output	Contact capacity: 50mA/30V
24V power supply	+24V	24V power supply	External 24V ± 10% power supply and the maximum output current is 200mA。 Generally used ad the operation powersupply of digital input and output or external sensor power supply
	COM		
Analog input/output	+10V	External 10V reference power supply	10V reference power supply Max. output current: 50mA As the adjusting power supply of the external potentiometer Potentiometer resistance: 5kΩ above
	AI2	Analog input	1. Input range: AI2 voltage and current can be chose: 0~10V/0~20mA; AI3:-10V~+10V. 2. Input impedance:voltage input: 20kΩ; current input: 500Ω. 3.Voltage or current input can be
	AI3		

Type	Terminal name	Function description	Technical specifications
			setted by dip switch. 4. Resolution: the minimum AI2/AI3 is 10mV/20mV when 10V corresponds to 50Hz.
	GND	Analog reference ground	Analog reference ground
	AO1	Analog output	1. Output range:0~10V or 0~20mA 2. The voltage or the current output is depended on the dip switch. 3. Deviation $\pm 1\%$,25°C when full range.
	AO2		
Relay output	RO1A	Relay 1 NO contact	RO1 relay output, RO1A NO, RO1B NC, RO1C common terminal RO2 relay output, RO2A NO, RO2B NC, RO2C common terminal Contact capacity: 3A/AC250V
	RO1B	Relay 1 NC contact	
	RO1C	Relay 1 common contact	
	RO2A	Relay 2 NO contact	
	RO2B	Relay 2 NC contact	
	RO2C	Relay 2 common contact	

3.2.6 Input/Output signal connection figure

Please use U-shaped contact tag to set NPN mode or PNP mode and the internal or external power supply. The default setting is NPN internal mode.

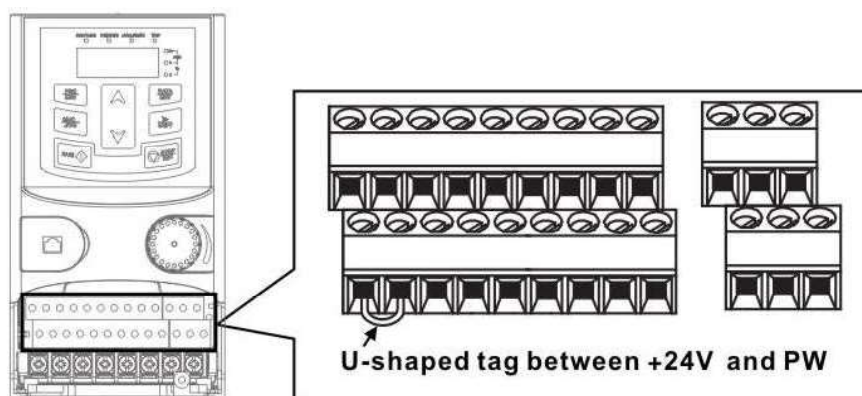


Figure 3-11 U-shaped contact tag

If the signal is from NPN transistor, please set the U-shaped contact tag between +24V and PW as below according to the used power supply.

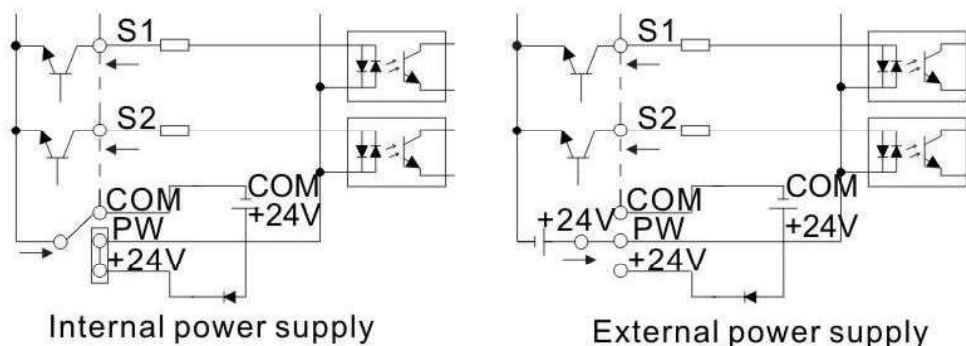


Figure 3-12 NPN modes

If the signal is from PNP transistor, please set the U-shaped contact tag as below according to the used power supply.

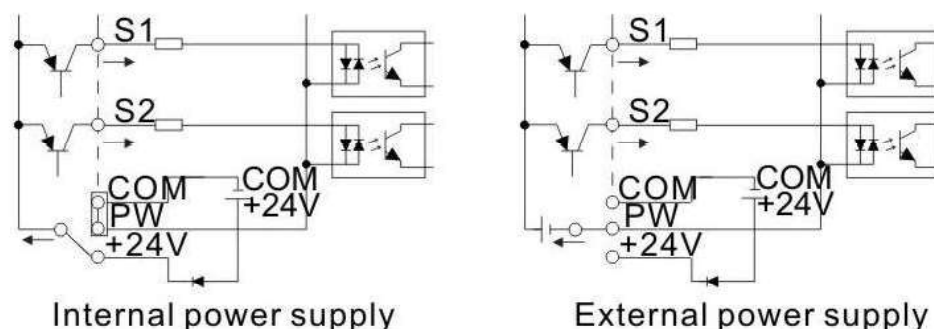


Figure 3-13 PNP modes

3.3 Layout protection

3.3.1 Protecting the inverter and input power cable in short-circuit situations

Protect the inverter and input power cable in short circuit situations and against thermal overload. Arrange the protection according to the following guidelines.

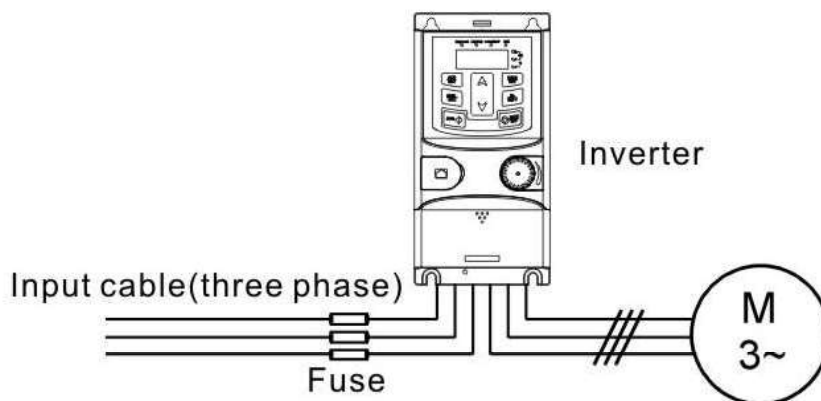


Figure 3-14 Fuse configuration

Note: Select the fuse as the manual indicated. The fuse will protect the input power cable from damage in short-circuit situations. It will protect the surrounding devices when the internal of the inverter is short circuited.

3.3.2 Protecting the motor and motor cables

The inverter protects the motor and motor cable in a short-circuit situation when the motor cable is dimensioned according to the rated current of the inverter. No additional protection devices are needed.