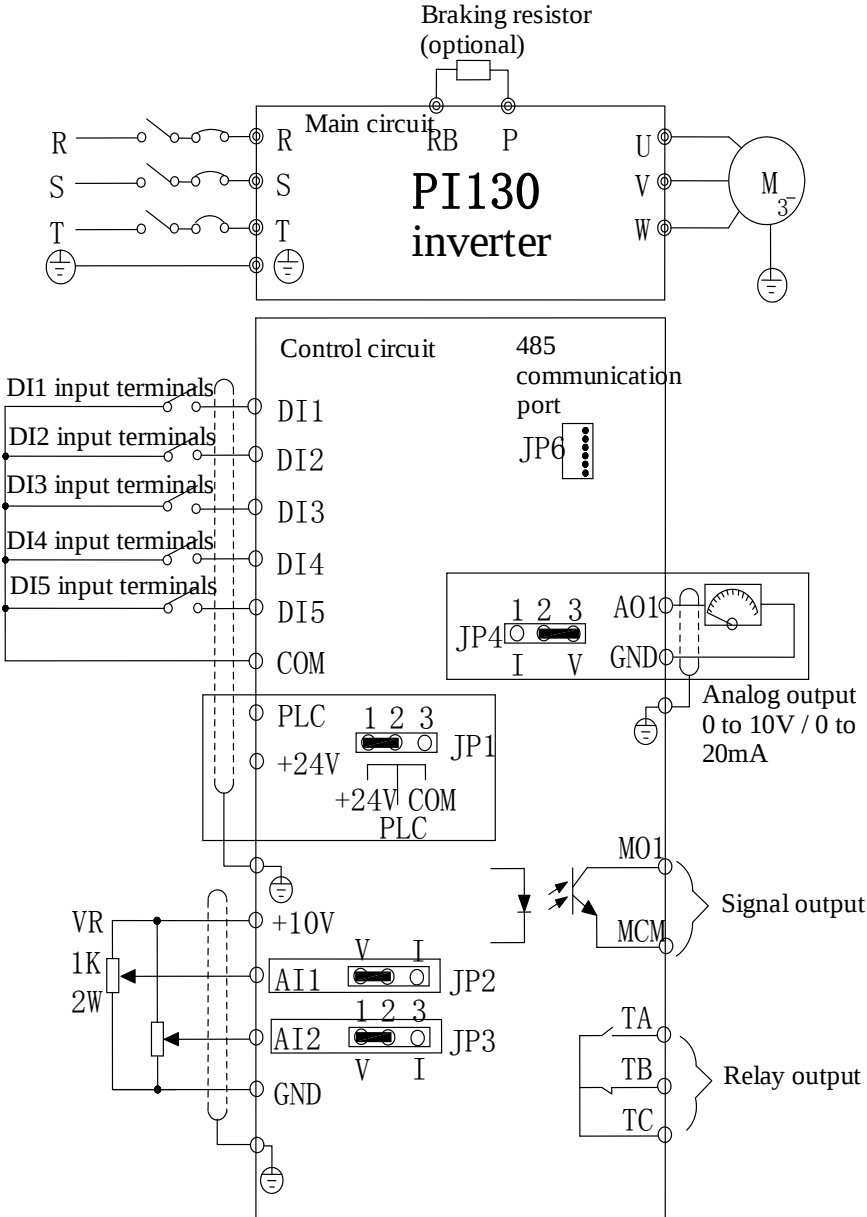
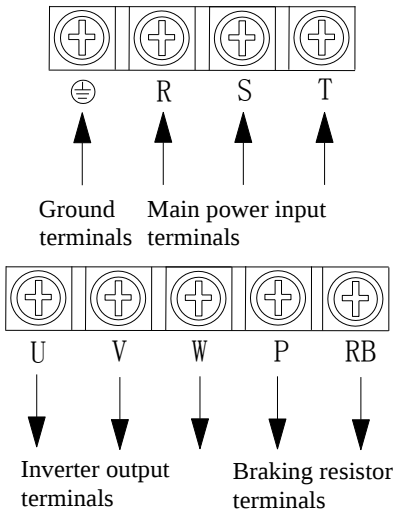




8-4.Main circuit terminal

8-4-1. PI130 main circuit terminal



8-4-2.Function Description of Terminals

Terminals	Name	Description
R, S, T	Inverter input terminals	Connection point of AC input power supply, single-phase connects to R, T
	Ground terminals	Ground terminals
P、RB	Braking resistor terminals	Connect to braking resistor
U、V、W	Inverter output terminals	Connect to three-phase motor

8-5.Control circuit terminals

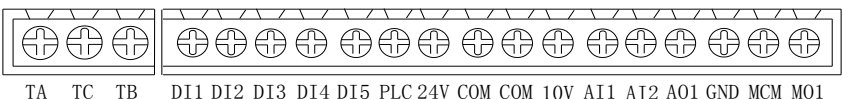
8-5-1. Description of control circuit terminals

Category	Symbol	Name	Function
Power supply	+10V、GND	External +10 Power	Output +10V power supply, maximum output current: 10mA Generally it is used as power supply of external potentiometer, potentiometer resistance range: 1kΩ to 5kΩ.

	+24V、COM	External+24V power supply	Output +24V power supply, generally it is used as power supply of digital input and output terminals and external sensor. Maximum output current: 200mA
	PLC	External power input terminal	When external signal is used to drive, please unplug JP1 jumpers, PLC must be connected to external power supply, and to +24V (default) .
Analog input	AI1、COM	Analog input terminal 1	1.Input range: (DC 0V to 10V/0 to 20mA), depends on the selected JP2 jumper on control panel. 2.Input impedance: 22kΩ with voltage input, 500Ω with current input.
	AI2、COM	Analog input terminal 2	1.Input range: (DC 0V to 10V/0 to 20mA), depends on the selected JP3 jumper on control panel. 2.Input impedance: 22kΩ with voltage input, 500Ω with current input.
Digital input	DI1 TO DI5	Multifunction digital terminals (1 to 5)	1. Opto-coupler isolation, compatible with bipolar input 2. Input impedance: 2.4kΩ 3. Voltage range of level input : 9V to 30V, depends on the selection of JP1 jumper on the control panel.
Analog output	AO1、COM	Analog output terminals 1	The selected JP4 jumper on control panel determines voltage or current output. Output voltage range: 0V to 10V, output current range: 0mA to 20mA
Digital output	MO1、MCM	Output signal 1	Output Open Collector signal MO1, the common terminal is MCM. Output voltage range: 0 to 24V, output current range: 0 to 50mA
Relay output	TA/TB/TC	Output signal 2	Relay output, TA normally open, TB normally closed, TC common terminal, output function is determined by F2.03 setting. Contact capacity: 7A/AC250V

8-5-2.Arrangement of control circuit terminals

1. PI130MCB board control circuit terminal



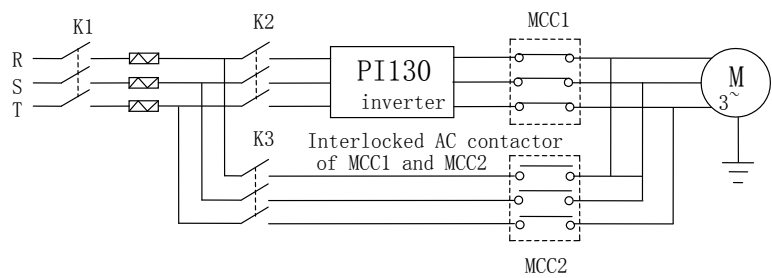
8-6.Wiring Precautions:

- ※ The U, V, W output end of inverter can not install phase advancing capacitor or RC absorbing device. The inverter input power must be cut off when replacing the motor
- ※ Do not let metal chips or wire ends into inside the inverter when wiring,otherwise which may cause malfunction to the inverter.
- ※ Disconnect motor or switch power-frequency power supply only when the inverter stops output
- ※ In order to minimize the effects of electromagnetic interference,it is recommended that a surge absorption device shall be installed additionally when electromagnetic contactor and relay is closer from the inverter.
- ※ External control lines of inverter shall adopt isolation device or shielded wire.
- ※ In addition to shielding, the wiring of input command signal should also be aligned separately, it is best to stay away from the main circuit wiring.
- ※ If the carrier frequency is less than 3KHz, the maximum distance between the inverter and the motor should be within 50 meters; if the carrier frequency is greater than 4KHz, the distance should be reduced appropriately, it is best to lay the wiring inside metal tube.
- ※ When the inverter is additionally equipped with peripherals (filter, reactor, etc.), firstly measure its insulation resistance to ground by using 1000 volt megger, so as to ensure the measured value is no less than 4 megohms.
- ※ When the inverter need to be started frequently, do not directly turn power off, only the control terminal or keyboard or RS485 operation command can be used to control the start/stop operation, in order to avoid damage to the rectifier bridge.
- ※ Do not connect the AC input power to the inverter output terminals (U, V, W) .
- ※ To prevent the occurrence of an accident,the ground terminal ($\perp$) must be earthed firmly (grounding impedance should be less than 10 ohms), otherwise the leakage current will occur.
- ※ The specifications on wires used by the main circuit wiring shall comply with the relevant provisions of the National Electrical Code.
- ※ The motor's capacity should be equal to or less than the inverter's capacity.

8-7.Spare Circuit

When the inverter occurs the fault or trip, which will cause a larger loss of downtime or other unexpected faults. In order to avoid this case from happening, please additionally install spare circuit to ensure safety.

Note: the characteristics of spare circuit must be confirmed and tested beforehand,and its power-frequency shall be in accordance with the phase sequence of the inverter.



Chapter 9 Maintenance and Repair

9-1.Inspection and Maintenance

During normal use of the inverter, in addition to routine inspections, the regular inspections are required (e.g. the overhaul or the specified interval, and the interval shall not exceed 6 months),please refer to the following table to implement the preventive measures.

Check Date		Check Points	Check Items	Check to be done	Method	Criterion
Routine	Regular					
√		Display	LED/OLED display	Whether display is abnormal or not	Visually check	As per use status
√	√	Cooling system	Fan	Whether abnormal noise or vibration exists or not	Visually and audibly check	No abnormal
√		Body	Surrounding conditions	Temperature, humidity, dust, and harmful gases	Visually check with smelling and feeling	As per Section 2-1
√		Input/output terminals	Voltage	Inputs, output voltage is abnormal	Test R, S, T and U, V, W terminals	As per standard specifications
	√	Main circuit	Overall	Whether these phenomenon of loose fastenings, overheat, discharging, much dust, or blocked air duct exist or not	Visually check, tighten and clean	No abnormal