## 1.Product Model List

Model	Power Consumption (24VDC)	Model	Power Consumption (220VAC)	Dimension	Model	Power Consumption (24VDC)	Model	Power Consumption (220VAC)	Dimension
T16S0R	2.5VA	T16S2R	5VA	93×95×82mm	T48S0R	4VA	T48S2R	6.5VA	177×95×82mm
T16S0T	3.5VA	T16S2T	5.5VA		T48S0T	5VA	T48S2T	7.5VA	
T24S0R	3VA	T24S2R	5.5VA		T60S0R	4.5VA	T60S2R	7.5VA	
T24S0T	4VA	T24S2T	6.5VA	131×95×82mm	T60S0T	5.5VA	T60S2T	8VA	
T32S0R	3.5VA	T32S2R	5.5VA						
T32S0T	4 VA	T32S2T	6.5VA						
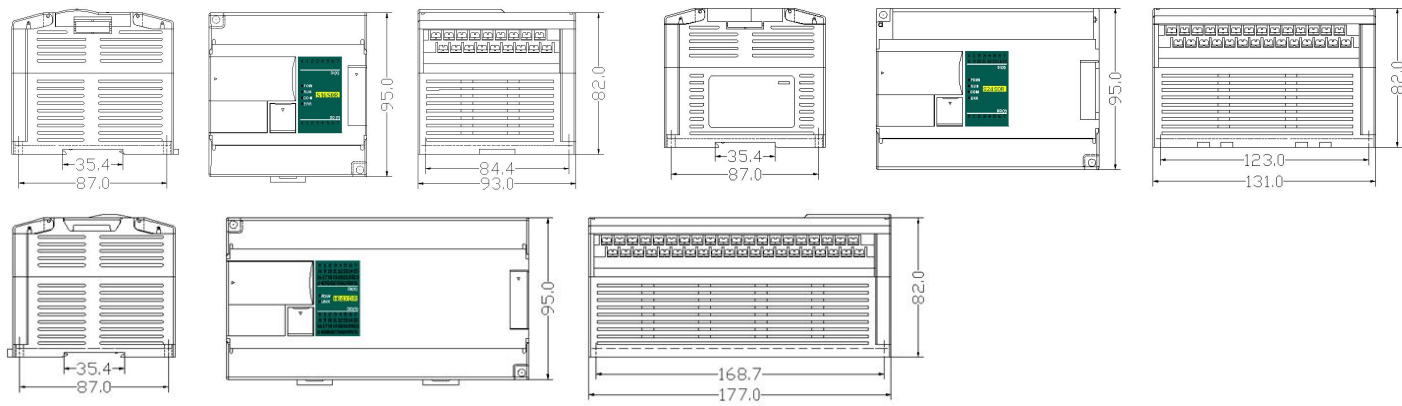
2.Indicator Description

① POW:Power indicator,green. Continuous ON - Power good; OFF - Power error.
② RUN:Running indicator,green. Continuous ON - PLC is in running state; OFF - PLC was shutdown.
③ COM:Communication indicator,green. Flickering - PLC is in communicating state, the flicker frequency indicates the speed of the
   communication; OFF - No communication.
④ ERR:Error indicator,red. Continuous ON - Hardware failure; Flickering - Software failure; OFF - Normal state.
④ According to the different states of the Error indicator, users are recommended to take the following actions:

State of the Error Indicator	Indication Information	Actions to Take
OFF	No error	Nothing
Flicker as below: 0.5 second's on with 0.5 second's off	Firmware abnormal or program error, keep running program is not recommended	Re-upgrade firmware or modify program
Continuous ON	Hardware failure, program is unable to run	Send the PLC back to us for repair

3.Power Supply Specification

Item	AC Power Supply	DC Power Supply
Power Supply Voltage	AC85~265V	DC24V -15%~+20%
Power Supply Frequency	50~60Hz	——
Power Consumption	25VA MAX	——
Instantaneous Surge	20A 1.5ms MAX @220VAC	20A 1.5ms MAX @24VDC
Power Loss Time	20ms or less @220VAC	10ms or less
Fuse	2A, 250VAC	2A, 250VAC
5V Output Voltage (for CPU)	5V, -2%~+2%, 1.2A MAX	5V, -2%~+2%, 1.2A MAX
24V Output Voltage (for output and extension)	24V, -15%~+15%, 500mA MAX	24V, -15%~+15%, 500mA MAX
24V Output Voltage (for input and peripheral)	24V, -15%~+15%, 300mA MAX	Use external 24VDC power supply
Insulation Type	Transformer isolation or optoelectronic isolation ,1500VAC/1 minute	No Electrical isolation
Power Protection	DC24V output over current	DC input power polarity reverse, over voltage

4.Environmental specifications for Product

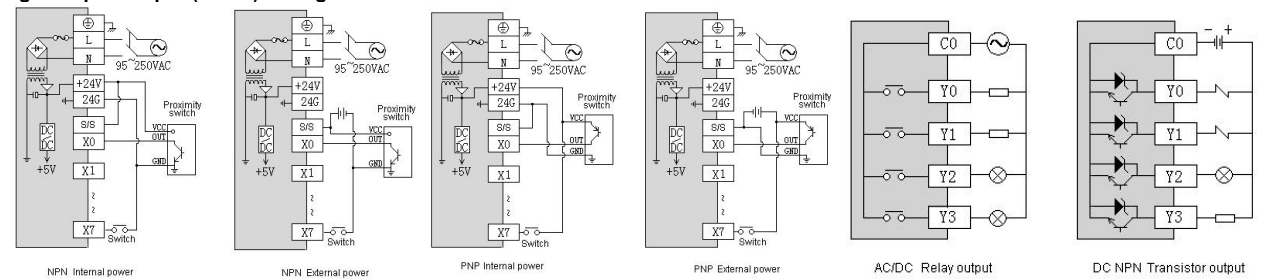| Item	Environment Specification	
Temperature/Humidity	Operating temperature:0~+55℃ Storage temperature:-25~+70℃ Humidity: 5~95%RH, No condensation	
Vibration Resistance	10~57 HZ, amplitude=0.075mm, 57HZ~150HZ acceleration=1G, 10 times each for X-axis, Y-axis and Z-axis	
Impact Resistance	15G, duration=11ms, 6 times each for X-axis, Y-axis and Z-axis	
Interference Immunity	AC EFT:±2500V Surge:±2500V	DC EFT:±2500V Surge:±1000V
Over Voltage Resistance	1500VAC/1min between AC terminal and PE terminal, 500VAC/1min between DC terminal and PE terminal	
Insulation Impedance	≧5MΩbetween AC terminal and all input/output points to PE terminal @500VDC	
Ground	The third kind of grounding(Connecting to the ground of high voltage system is prohibited)	
Operating environment	Avoid dust, moisture, corrosion, electric shock and external shocks	

5.Digital Input (DI)Specification

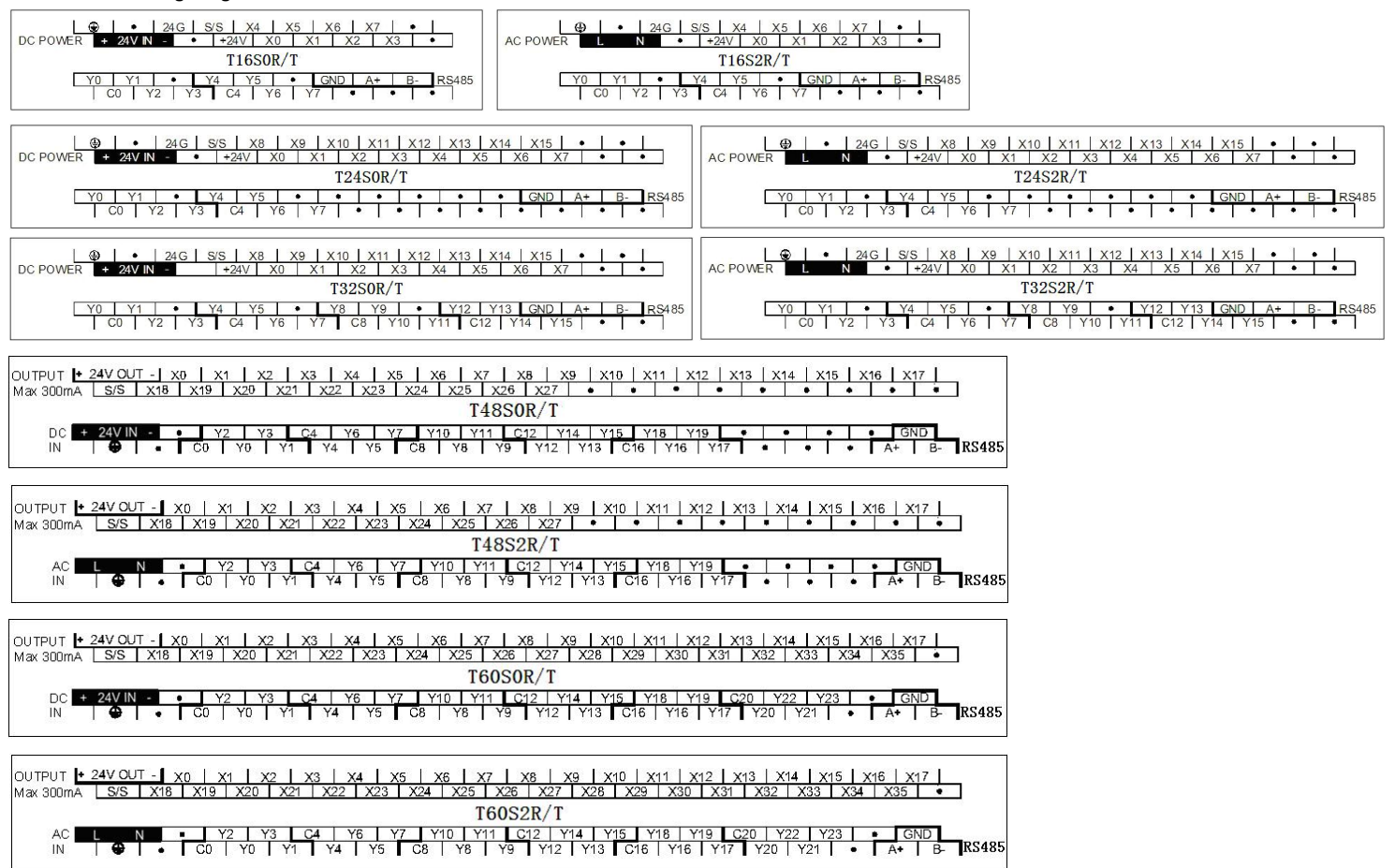| Item	Digital Input (DI)
Input Signal	No voltage contact or NPN/PNP
Action driving	ON>3.5mA OFF<1.5mA
Input Impedance	Input Impedance≈4.3KΩ
Maximum Input Current	10mA
Reaction Time	6.4ms DEFAULT, can be configured to 0.8~51.2ms
Insulation Type	Optoelectronic isolation for each channel
Input Indication	LED's lighting indicates ON, no light indicates OFF
Power supply	MPU internal power supply:DC power supply (SINK or SOURCE) 5.3mA@24VDC

6.Digital Output (DO) Specification

Item		Output point type : Relay - R	Output point type :Transistor - T
Maximum load	Resistive Load	2A/1 point, 8A/4 points COM	0.5A/1 point, 2A/4 points COM
	Inductive Load	50VA	5W/DC24V
	Lamp load	100W	12W/DC24V
Minimum Load		10mA	2mA
Voltage Specification		Below 250VAC, 30VDC	30VDC
Drive Capability		Maximum contact capacity: 5A/250VAC	1A MAX, 10 seconds
Reaction Time		Off→On 10ms, On→off 5ms	Off→On 10us, On→Off 120us
Insulation Type		Mechanical isolation	Optoelectronic isolation for each channel
Output Indication		LED's lighting indicates ON, no light indicates OFF	
Power Supply		MPU internal 24VDC power supply	

7.Digital Input/Output (DI/DO) Wiring

NPN Internal power   NPN External power   PNP Internal power   PNP External power   AC/DC Relay output   DC NPN Transistor output

8.MPU Terminal Wiring Diagram

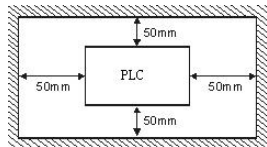## 9.Mounting and installation

The PLC should be secured to an enclosed cabinet while mounting. For heat dissipation, make sure to provide a minimum clearance of 50mm between the unit and all sides of the cabinet. (See the figure.)

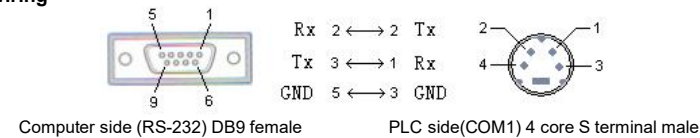**Rail Mounting:** Use standard 35 mm rail.

Screw Mounting: Each MPU or extension module has two positioning screw holes, the diameter of the hole is 4.5mm. Please refer to the dimension figure for the location of the positioning holes and their spacing.

To avoid over temperature and for a better heat dissipation, do not mount PLC to a position near to the bottom/top of the cabinet. Do not mount PLC in vertical direction.

Extension Module Wiring: Connections between extension modules and connections between module and MPU are achieved through bus. An extension cable will be configured to every extension module, for the connection between two different modules. Connection methods: turn the right side of extended interface(the last MPU or extension module) over, plug the extension cable in the extended interface, then press down the cover of the extended interface to reset the interface, the extended interface at the right side of the module will be reserved for extension of the next module. Connect all extension modules in turn in the same way.

10.Programming Cable Wiring

Rx 2 ←→ 2 Tx
Tx 3 ←→ 1 Rx
GND 5 ←→ 3 GND

Computer side (RS-232) DB9 female   PLC side(COM1) 4 core S terminal male

11. Power Supply Wiring

There are two kinds of power supplies for PLC: AC input and DC input. Please pay particular attention to the following notes:
● AC input voltage is 85VAC~265VAC 50/60Hz unless otherwise stated. Connecting any one of the AC input wires to the terminal-L and terminal-N on the MPU will be OK, but for safety's sake, please connect the two wires (Live Wire & Neutral Wire) of AC input to terminal-L and terminal-N respectively.
● Any AC110V or AC220V connected to the +24V terminal or input points will permanently damage the PLC.
● Please use wires of 2.5mm or above for the grounding of the MPU.

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