



# ELC-PS01, ELC-PS02

## Instruction Sheet

POWER SUPPLY MODULE

### WARNING

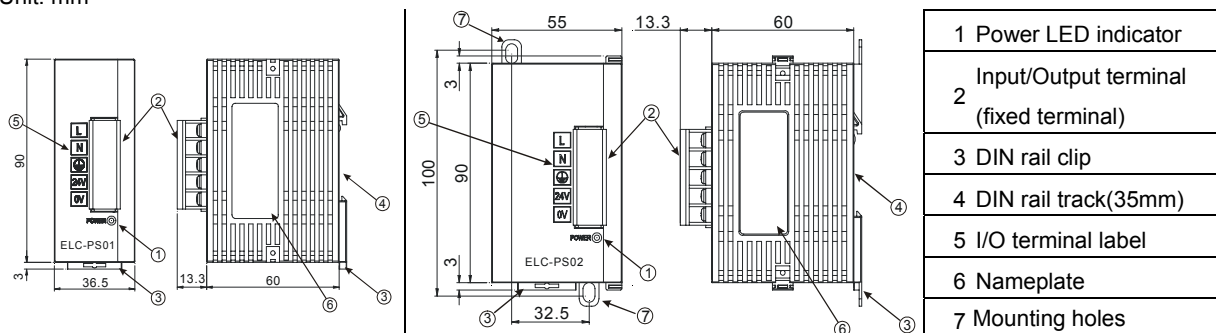
- This instruction will be helpful in the installation, electronic specification, function specification and troubleshooting of the ELC-PS01 and ELC-PS02.
- This is an OPEN TYPE ELC-PS series. The ELC-PS series should be kept in an enclosure away from airborne dust, high humidity, electric shock risk and vibration. Also, it is equipped with protective methods such as some special tools or keys to open the enclosure, so as to avoid the hazard to users and the damage to the ELC-PS series.
- Never connect the AC main circuit power supply to any of the output terminals, as it will damage the ELC-PS series. Check all the wiring prior to power up. To avoid any electromagnetic noise, make sure the ELC-PS series is properly grounded  $\oplus$ .
- The power supply of ELC-PS series is only for ELC series, NOT for any other special instruments.

### FUNCTION/ELECTRICAL SPECIFICATION

Item	Model	ELC-PS01	ELC-PS02
Power Input		100~240 VAC (-15%~+10%) · 50 / 60 Hz	100~240 VAC (-15%~+10%) · 50 / 60 Hz
Output Power		24VDC (±3%), output current: 1A max.	24VDC (±3%), output current: 2A max.
Ripple Noise ( $V_{p-p}$ )		Under 100mV Typical at full load	Under 240mV Typical at full load
Efficiency		78%~87% Typical at full load	
Over Load / Short Circuit Protection		Auto Recovery	
Grounding		The diameter of grounding wire cannot be smaller than the wire diameter of terminals L and N (All ELC units should be grounded directly to the ground pole).	
Operation/Storage Environment		Operation: 0°C~55°C (Temperature), 50~95% (Humidity), Pollution degree 2; Storage: -25°C~70°C (Temperature), 5~95% (Humidity)	
Agency Approvals		Underwriters Laboratories, Inc.: UL508 Listed(Industrial Control Equipment) European Community EMC Directive 89/336/EEC and Low Voltage Directive 73/23/EEC	
Weight (g)		158	250

### PRODUCT PROFILE AND OUTLINE

Unit: mm



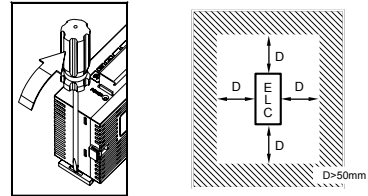
## INSTALLATION AND WIRING

### Installation of the DIN rail

The power module can be secured to a cabinet by using the DIN rail that is 35mm high with a depth of 7.5mm. When mounting the power module on the DIN rail, be sure to use the end bracket to stop any side-to-side motion of the power module, thus to reduce the chance of the wires being pulled loose. At the bottom of the power module is a small retaining clip. To secure the power module to the DIN rail, place it onto the rail and gently push up the clip.

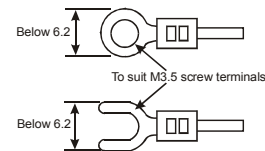
To remove it, pull down the retaining clip and gently pull the power module away from the DIN rail. As shown on the right:

When installing the power module, make sure that it is installed in an enclosure with sufficient space (as shown on the right) to its surroundings so as to allow heat dissipation.



### Wiring

1. Please use O-type or Y-type terminals for I/O wiring terminals. The specification for the terminals is as shown on the right. Use Copper Conductor Only, 60/75 °C.
2. Tighten PLC terminal screws to a torque of 5 to 8 kg-cm (4.3~6.9 in-lbs).



### NOTICE:

1. Connect the AC input (100VAC ~ 240VAC) to terminals L and N. Any AC110V or AC220V connected to the +24V terminal will permanently damage the ELC-PS01/PS02.
2. Please use wires of 1.6mm and above for the grounding.
3. If the power-cut time is less than 10ms, the ELC-PS01/PS02 still operates unaffectedly. If the power-cut time is too long, the ELC-PS01/PS02 will stop operating and all the outputs will be Off.

## TRIAL RUN

After wiring, be sure the check the items before turning ON the AC power to the ELC-PS01/02

- Is operating voltage supplied correctly?
- Is the power supply cable properly connected?
- Are both voltage and polarity connected correctly for each connection
- Protection against excess current: when overloaded, output voltage lowers. Although the output voltage will return to normal when the load returns to normal, be careful as long overloads or short-circuits will cause deterioration or destruction of internal elements.
- Attaching additional power supply units in parallel is not allowed! It may destroy internal elements and the load of the power supply.

Turning ON the AC power, check the "POWER" LED(it will lit in green)

## TROUBLESHOOTING

1. "POWER" LED is OFF
  - Check the power supply wiring.
  - Check if the power supplied to the ELC control units is in the range of the rating.  
Be sure to check the fluctuation in the power supply.
  - If the "POWER" LED remains OFF when disconnecting all the power supply wiring devices, there is probably an abnormality in the power module internal circuit. Please contact your dealer.
2. "POWER" LED is Blinking
  - Reducing the power supply wiring device.. If the LED turn ON at this moment, the capacity of the power supply is not enough. Prepare another power supply for other devices or increase the capacity of the power supply.