

PLC Power Line Carrier Module YC-PLC.64A

Product Manual

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Version : V1.3



Figure 1. PLC Power Line Carrier Module

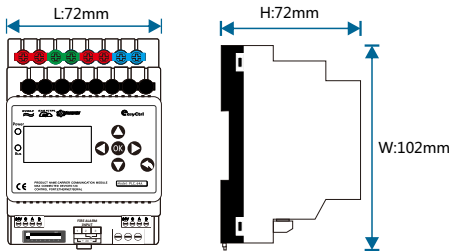


Figure 2. Dimensional Drawing - Front View Figure 3. Dimensional Drawing - Side View

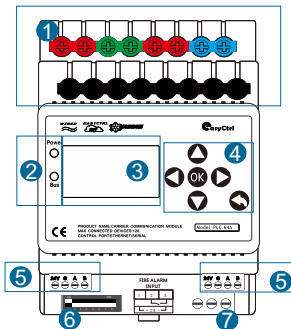


Figure 4. Product Information

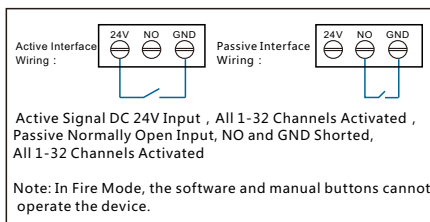


Figure 5. Fire Interface Description

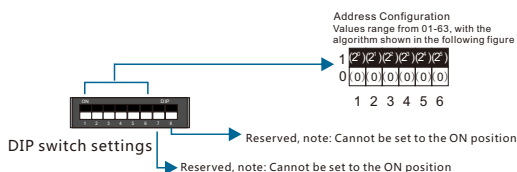


Figure 6. Address DIP Switch Table 1

Product Overview

PLC Power Line Carrier Module (see Figure 1) serves as a system switch execution unit, typically installed in a distribution box. It utilizes a bus communication protocol for upstream communication and a power line communication chip for downstream interaction. The module communicates with lamp controllers via power lines and operates according to the PLBUS protocol. This setup allows for single-lamp control, broadcast control, group control, scene control, and fault monitoring via the gateway. It eliminates the need for additional wiring, reduces costs, and facilitates easy installation and maintenance, making it ideal for intelligent lighting systems in commercial spaces, hotels, exhibition halls, classrooms, and more.

Function Description

- Standard 35mm DIN rail installation: Occupies 4P module units.
- Cross-Phase Control: Supports up to 128 slave devices, grouped into 32 groups.
- Connects to local PC-based control and management systems via upstream communication interface.
- Supports single-lamp control, group control, and scene control.
- Equipped with manual control buttons and an OLED screen for clear visualization of lighting status.
- Equipped with manual buttons and circuit/operation status indicators for convenient local debugging.
- Includes a fire protection interface with one normally open passive and one active 24V connection.
- Supports online firmware updates and Bus network disconnection alarm function.
- Supports RS485/YC-BUS communication.

Precautions

- Use CAT5E or RVV4*0.75 four-core wire for bus wiring.
- After installation, check all connections to ensure they are correctly connected.

Product Information

Product Dimensions: See Figures 2 and 3

Product Wiring: See Figure 8

Product Information: See Figure 4

1. PLC Signal Output: 3 independent output channels, each with a dedicated interface, compatible with three-phase power. Terminals from left to right: Phase A, Phase B, Phase C, and Neutral (N). For single-phase communication, connect any one phase (A, B, or C).
2. LED Indicators:
 - Power: Power indicator light.
 - Bus: Network indicator light; steady on indicates normal network connection, slow blinking indicates abnormal network connection.
3. LCD Display:
 - Group setup : 32 groups of control. Each group includes brightness and color temperature adjustment.
 - Set PLC SNID : SNID address range:0x0001-0xFFFF , default SNID:8888.
 - Set Fade Time : Adjust fade time for local key-controlled groups.
4. Function Keys:
 - ⬆ : Up • ⬇ : Down • ⬅ : Left • ➡ : Right • ⏹ : Confirm • ⏮ : Return
5. Bus Interface: 24V、G、A、B;
6. Setting Address:
 - Step 1: (See Figure 8) Remove the latch cover; it requires some force to pull it out.
 - Step 2: (See Figures 6-7) Refer to the address setting dip switch table to set the dip switch to the corresponding address.
 - Step 3: After setting the address, remember to replace the latch cover.
7. Fire Interface:
 - Fire Center: Provides a normally closed signal to engage all 32 circuits; provides a normally open signal to disconnect all 32 circuits, with priority over software and manual control (see Figure 5).

Product Installation

See Figures 9-12

- Step 1. Secure the 35mm rail with screws.
- Step 2. Remove the snap-on cover from the PLC Power Line Carrier Module
- Step 3. Press the entire module onto the rail and slide it until it is in the correct position, then snap the cover into place.

Safety Warning

- Each relay circuit requires a suitable circuit breaker or fuse.
- Tightening torque should not exceed 0.4 Nm.
- Input power wire: Max 4mm²; Load wire: Max 1mm².
- Installation location: Distribution box.
- Do not connect the YC-BUS interface incorrectly, as it may damage the equipment.
- The YC-BUS interface must not be connected to AC power; otherwise, it will damage all devices on the bus.
- Ensure a good ventilation environment.
- Do not expose to rain, contact with other liquids, or corrosive gases.

Packing List

- YC-PLC.64*1/User Manual*1/Certificate of Conformity*1

1 2 3 4 5 6 7 8							
ID SET							
ID01	ID02	ID03	ID04	ID05	ID06	ID07	ID08
ID09	ID10	ID11	ID12	ID13	ID14	ID15	ID16
ID17	ID18	ID19	ID20	ID21	ID22	ID23	ID24
ID25	ID26	ID27	ID28	ID29	ID30	ID31	ID32
ID33	ID34	ID35	ID36	ID37	ID38	ID39	ID40
ID41	ID42	ID43	ID44	ID45	ID46	ID47	ID48
ID49	ID50	ID51	ID52	ID53	ID54	ID55	ID56
ID57	ID58	ID59	ID60	ID61	ID62	ID63	

Figure 7. Address Dip Switch Table 2

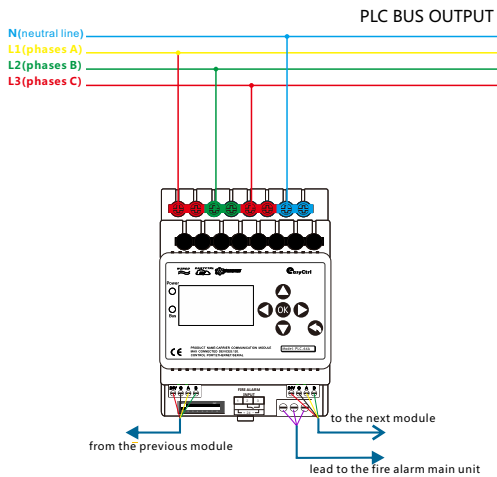


Figure 8. Product Wiring Diagram



Figure 9

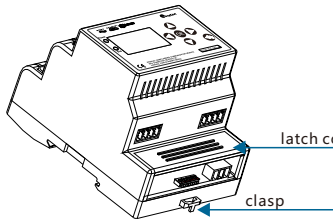


Figure 10

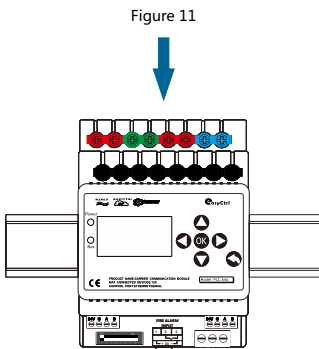


Figure 11

Figure 12

Technical support

Service Hotline: 86-18029750069

working hours: 9:00-12:00,13:00-18:00,From Monday to Friday)

Email:ceshi@easyctrlg.com

website: http://www.easyctrlg.com



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This manual may be changed or updated without prior notice.

Technical Parameters

Basic Parameters

Operating Voltage	24VDC \pm 10%
Maximum Power Consumption	\leq 1.3W
Rated Voltage	220VAC
Upstream Communication	bus communication
Downstream Communication	power line communication
Downstream Communication Range	300 meters
Maximum Number Of Slave Devices	128 devices, can be grouped into 32 groups
Control Port	2*Etron-Net

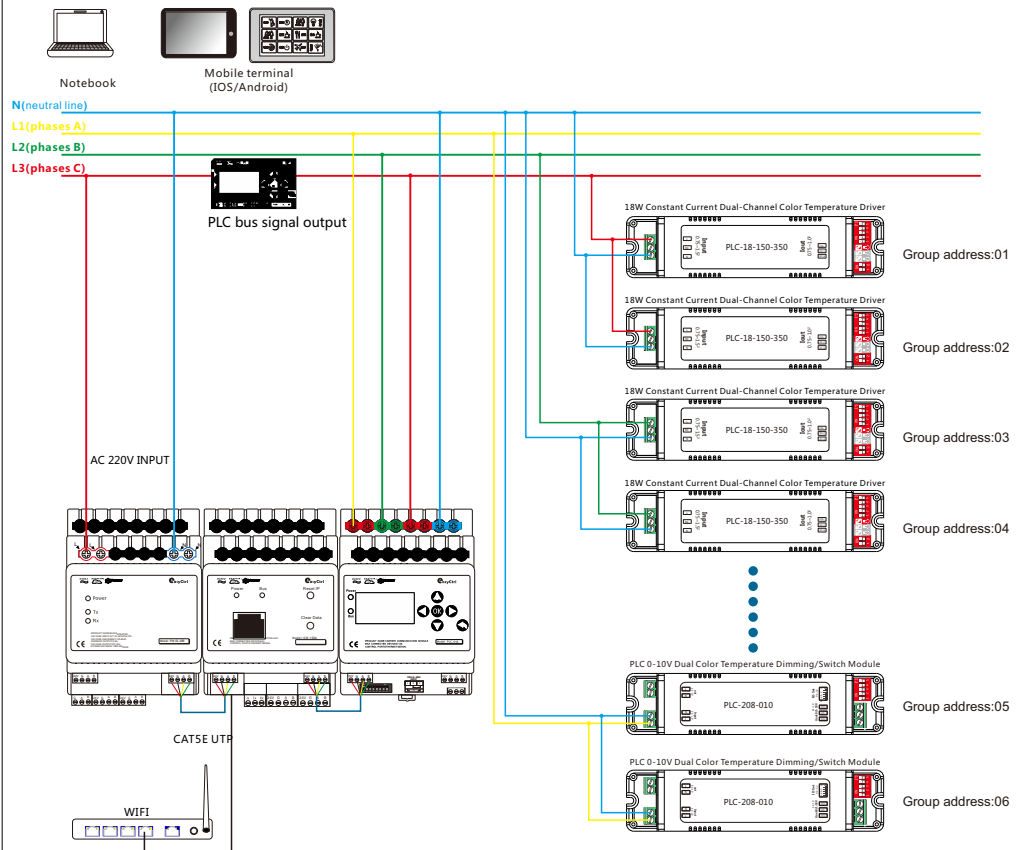
External Environment

Operating Temperature	-5 $^{\circ}$ C~45 $^{\circ}$ C
Operating Relative Humidity	\leq 90%
Storage Temperature	-20 $^{\circ}$ C~60 $^{\circ}$ C
Storage Relative Humidity	\leq 93%

Product Specifications

Dimensions (L*W*H)	72 mm*102 mm*72 mmm
Net Weight	\leq 316 g/pcs
Enclosure Material	flame retardantPP
Installation Method	standard 35mm DIN rail mounting(see Figure 9-12)

System Diagram



Bus Specification

Bus interface	4-core wire : RVV4*0.75	UTP : CAT5/CAT5E
24V	RED	BROWN WHITE/BROWN
GND	BLACK	BLUE WHITE/BLUE
A	YELLOW	ORANGE WHITE/GREEN WHITE
B	GREEN	ORANGE/GREEN