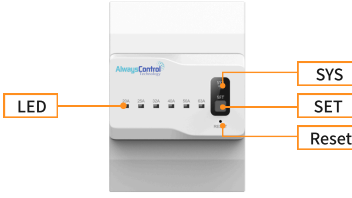
AlwaysControl Technology

Neuron III-Lite (N3 Lite)

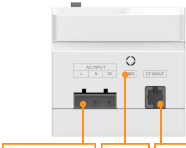
Quick Guide

1. Identification Description and Safety Precautions:

1. 1 Identification Description



Neuron III-Lite (N3 Lite) Front-view



Neuron III-Lite (N3 Lite) Top-view

Neuron III-Lite (N3 Lite) Bottom-view

Mark in Diagram	Name	Description
SYS	Module Status Indicator	Steady Green: Device bound successfully Steady Yellow: No device bound Steady Red: Alarm prompt
SET	Setting Button	Long press the setting button for 3 seconds. After the current threshold indicator flashes once, you can setit. Short press to switch the maximum incoming current threshold. Long press again for 3 seconds, and confirm the setting after it flashes once.
RESET	Reset Button	Use a SIM card pin or other slender hard object with a diameter less than 1mm to insert into the reset hole, press gently, and release when you feel the elastic feedback of the button. The device will restart immediately.
LED	Maximum Incoming Current Threshold Indicator	Indicates the current maximum incoming current threshold.
CT INPUT	Current Sensor Input Terminal	RJ9 input terminal, transformation ratio 3000:1, split core CT loop (standard 100A, cable length 100cm). (Note: The direction of the CT loop should not be connected incorrectly. Reverse connection may affect the normal operation of the device.)

WIFI	WIFI Antenna Reserved Interface	N3 Lite has a built-in antenna, and this interface is only for external antennas.
AC INPUT	Power Input Terminal	L connects to live wire, N connects to neutral wire, PE connects to ground wire(Copper core cable 14AWG~20AWG, recommended wire diameter: 14AWG, 2.1mm^2).

1. 2 Safety Precautions

Personal Safety:

- Live operation is strictly prohibited during installation. It is forbidden to install or remove cables with power on. When the cable core contacts the conductor, electric arcs, electric sparks or fire and explosion may occur, which can lead to fire or personal injury.
- When the equipment is powered on, irregular and incorrect operations may cause fire, electric shock or explosion, resulting in personal injury or property loss.
- It is strictly prohibited to wear watches, bracelets, bangles, rings, necklaces and other easily conductive objects during operation to avoid electric shock burns.
- Special insulated tools must be used during operation to avoid electric shock injury or short-circuit faults. The insulation voltage level must meet the requirements of local laws, regulations, standards and specifications.
- Special protective equipment must be used during operation, such as protective clothing, insulated shoes, goggles, safety helmets, insulated gloves, etc.

Electrical Safety:

- Before making electrical connections, please ensure that the equipment is not damaged, otherwise electric shock or fire may occur.
- Irregular and incorrect operations may cause accidents such as fire or electric shock.
- During operation, it is necessary to prevent foreign objects from entering the equipment, otherwise it may lead to equipment short-circuit faults or damage, load power supply derating or power failure, and personal injury.

Environmental Requirements:

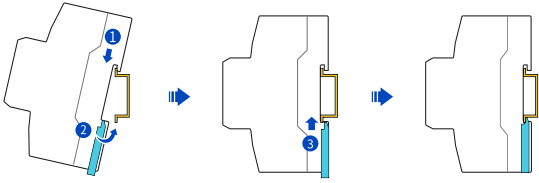
- It is strictly prohibited to place the equipment in an environment with flammable and explosive gases or fumes, and any operations in such an environment are prohibited.
- It is strictly prohibited to store flammable and explosive materials in the equipment area.
- It is strictly prohibited to place the equipment near heat sources or fire sources, such as fireworks, candles, heaters or other heating equipment. Equipment heating may cause equipment damage or fire.
- The equipment should be installed in an area away from liquids. It is strictly prohibited to install it under positions that are prone to condensation, such as water pipes and air outlets; it is strictly prohibited to install it under positions that are prone to water leakage, such as air conditioning outlets, ventilation outlets, and computer room outlet windows, to prevent liquids from entering the equipment and causing equipment failure or short circuit.

Mechanical Safety:

- For high-altitude operations, safety helmets, safety belts or waist ropes must be worn, which should be tied to firm and solid structural parts. It is strictly prohibited to hang on moving unstable objects or sharp-edged metals to prevent hook slipping and falling accidents.
- Tools must be complete and qualified through professional organization inspection. It is forbidden to use tools with scars, unqualified inspection or exceeding the inspection validity period. Ensure that the tools are firm and not overloaded.
- Drilling holes on the equipment is strictly prohibited. Drilling will damage the tightness, electromagnetic shielding performance, internal components and cables of the equipment. Metal chips generated by drilling entering the equipment will cause short circuits of the circuit board.

Device Installation Method:

Rail-mounted installation: Insert Neuron III Lite into the 35mm standard rail from bottom to top, then press the buckle to fasten Neuron III Lite on the rail.



2. Quick Operation Guide

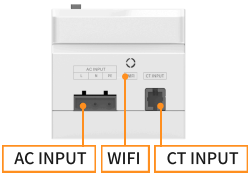
2. 1 Package Contents

No.	Product Name	Quantity
1	Neuron III Lite Terminal Controller	1
2	Quick Start Guide	1
3	Warranty Card	1
4	3Pin AC Power Input Terminal	1
5	Split Core CT Loop (Standard 100A, Cable Length 100cm)	1

2. 2 Device Cables

Mark in Diagram	Name	Type	Cable Gauge	Source
AC INPUT	AC Power Input Cable	Copper core cable (temperature resistance ⩾90°C)	14AWG~20AWG, recommended 14AWG, 2.1mm^2	Provided by user
CT INPUT	CT Clamp Input Interface	Two-core or multi-core twisted pair cable, RJ9 crystal head, CT clamp turns ratio 3000:1	Black sheathed cable, 100cm	Standard configuration, RJ9 input terminal, split-core CT clamp (standard 100A, cable length 100cm)

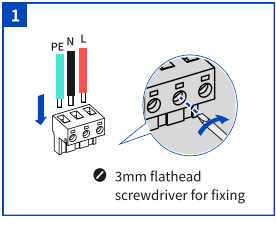
2. 3Electrical Connection: Connect AC Power Cable/External CT Cable:



Interface Description	Definition	Function	Description
AC INPUT	L	AC Power Incoming Line L	Used to connect to the power grid
	N	AC Power Incoming Line N	
	PE	AC Power Incoming Line PE	
CT INPUT	CT Clamp Input Interface	CT clamp incoming line, detects current on the L side	Used to connect external split-core CT clamp (Note: Do not reverse the CT clamp direction; reverse direction may affect the normal operation of the device)

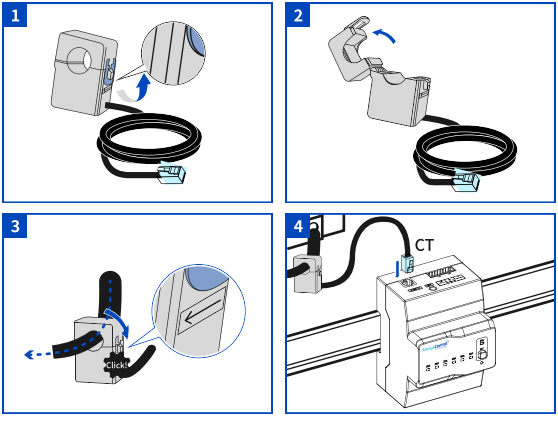
2. 3. 1 Steps for Connecting AC Power Cable

1. Connect the AC power cables L, N, PE to the power connector in sequence, and fix them with a 3mm flat-blade screwdriver.
2. Then, insert the power connector into the AC power input interface, ensuring that it is inserted in place and the connection is firm.

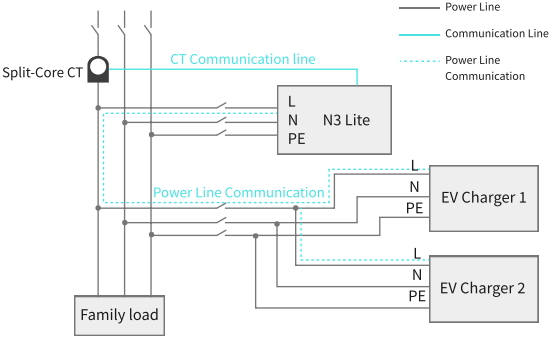


2. 3. 2 Steps for Connecting CT Loop

1. First, the CT loop needs to be installed according to the phase: the CT loop needs to be hung on the L wire.
2. When installing the CT, it is imperative to confirm that the current direction is consistent with the direction of the CT to avoid reverse connection, which may lead to incorrect current detection.
3. Open the buckle of the CT loop, place the wire in the central hole, and then fasten the buckle.
4. Finally, insert the RJ9 terminal of the CT loop into the input interface of the CT loop and ensure it is inserted in place.



2. 3. 3 Electrical Wiring Diagram



3. Pre-Power-On Check

- Neuron III Lite has been reliably installed in place without looseness, offset or shaking, and there is no condensation or frost in the installation environment.
- All cables have been reliably connected without short circuits, open circuits or looseness. The CT loop matches the power phase, and the direction of the CT loop is correct.
- The routing of power cables and signal cables meets the requirements of strong and weak current routing and complies with the system routing plan.
- The cables are tied neatly and beautifully with uniform spacing, appropriate tightness and consistent direction.
- There are no redundant tapes, cable ties or other residues on the cables.

4. Power-On and Debugging of Neuron III Lite

- Please use specialized protective equipment and insulated tools to avoid electric shock or short circuits.
- Before the equipment is powered on for the first time, the parameters must be accurately set by a qualified professional. Operation by non-professionals may result in incorrect settings, causing the equipment to fail to meet the requirements of the country or region, thus affecting its normal operation.

4. 1 Software Installation

To make full use of Always-control' energy management solutions,
please install the latest version of the software according to the following steps:

- IOS: Open the App Store, search for N3 Lite and download it.
- Android: Open the link https://www.pgyer.com/charge-android to download
- Or scan the QR code below to download:

App Store Download

Android Download

For detailed operation of the N3 Lite APP software, please refer to the Neuron III Lite Manual. Manual link:
https://www.alwayscontrol.com.cn/zh-CN/doc/information

5. Equipment Maintenance

- Please contact professional personnel for operation. Non-professional personnel are not allowed to perform this operation to prevent personal injury or equipment damage.
- Before performing maintenance work, please power off the equipment first to ensure that the equipment is powered off before operating the equipment.
- Please use special protective equipment and special insulated tools to avoid electric shock injury or short-circuit faults.

Maintenance Content	Inspection Method	Maintenance cycle
Equipment Operating Status	1. Inspect the equipment for any damage or deformation. 2. Check the indicator lights for prope function.	Once every six months.
Electrical Connections	1. Check whether the cable connections are loose or disconnected. 2. Check whether the cables are damaged, focusing on checking whether the outer skin of the cables in contact with metal surfaces has cuts.	Six months after the first commissioning. Once every six months to one year thereafter.

6. Product Data Link

https://www.alwayscontrol.com/ziliaoxiazai

7. Technical Support

If you encounter any usage problems, please feel free to contact us.

Tel: 0755-23303782

Email: xuheng@alwayscontrol.com.cn

Official Website: https://www.alwayscontrol.com.cn

Address: 401, Building 7, Taihua Indus Park, Hangcheng Street, Bao'an District, Shenzhen Always-control Technology Co., Ltd.

Warranty Card

Product Name: Date: _____ Month _____ Day_____

User Name		Contact Phone		Postal Code	
Communication Address		Sales Order Number			
Place of Purchase		Purchase Price			
Product Specification		Device Serial Number			
Dealer's Signature:		User's Signature:			

Warranty Terms

1. The product is warranted for two years from the date of sale; accessories are not covered by the warranty.
2. For product faults caused by man-made damage, self-disassembly, improper use, etc., paid maintenance services will be implemented.
3. This card must be provided for warranty; if this card cannot be provided or is altered without permission, our company has the right to refuse the warranty.
4. The start date of the warranty period is based on the date of the product purchase invoice or certificate.

*The final interpretation right of the content of this warranty card belongs to Always-control Technology Co., Ltd.