



Installation & User Manual

NexBlue Zen (Current Sensor)

English 1

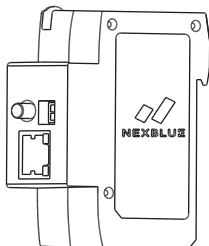
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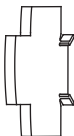
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Initial look at NexBlue Zen

NexBlue Zen (Current Sensor)



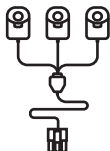
9 mm Spacer



Antenna



3-in-1 CT clamps for
three-phase load balancing



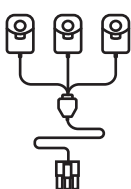
OR

1 CT clamp for
single-phase load balancing



Optional:

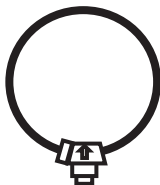
Extra CT clamps for solar surplus charging



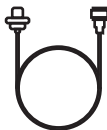
OR



Rogowski coil



Antenna extension cable

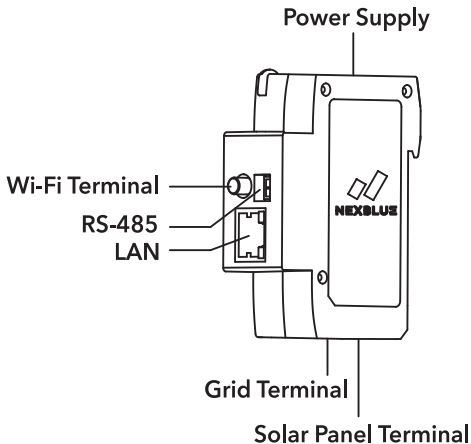


Antenna holder



Features of NexBlue Zen

NexBlue Zen (Current Sensor) is a delicate device that monitors the current and optimizes the consumption of power usage, supporting dynamic load balancing and solar charging. It communicates with NexBlue chargers via Wi-Fi, LAN, or Nexus RF, and connects to digital meters using RS-485.



Safety Instructions

Notice! Please read the safety instructions carefully before installing and operating the product.

1. Installation of this product is restricted to certified electricians. Ensure compliance with national and regional regulations during the installation process.
2. Before and during installation, make sure to switch off the power and electricity. Activate the power only after the entire installation has been completed by a qualified electrician.
3. Please carefully follow this manual. Incorrect installation and use may lead to injury.
4. Inspect the product for any obvious damage before use. Please ensure **all** connections are secure before use; and **DO NOT** attempt to repair or use the product if damaged.
5. Avoid installing the product in water-exposed areas.
6. **DO NOT** attempt to disassemble the product.
7. This is a power monitoring device; use **ONLY** for its intended purpose.
8. **DO NOT** allow individuals (including children) with reduced physical, sensory, or mental capabilities, or those lacking experience and knowledge, to use electrical devices unsupervised.
9. The product is installed on the DIN rail in the distribution box. Please **DO NOT** touch the input terminal when it is installed.

Installation guide

Required Tools

- Smart phone
- Slotted screwdriver SL3
- Multimeter
- Wire stripper

Step 1: Mount the NexBlue Zen

Notice!

NexBlue Zen (Current Sensor) must always be protected by a proper circuit breaker (C10 1P recommended) which is approved by your electrician based on local regulatory requirements.

To monitor all electrical power consumption, please install NexBlue Zen (Current Sensor) below the main circuit breaker panel of the building.

- Please turn off the power in the mains before installation.
- Connect the L line between MCB and NexBlue Zen

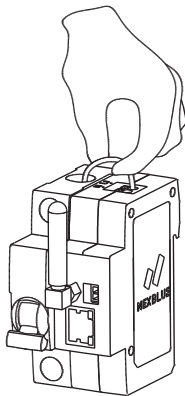
Notice!

Check whether the wiring between the circuit breaker and NexBlue Zen (Current Sensor) is secure. If it is not stable, please reinforce the connections; otherwise, it may pose a safety hazard.

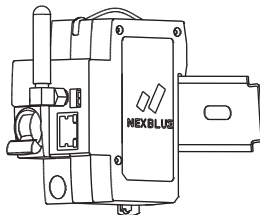
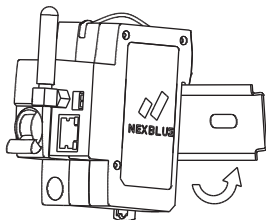
Wiring diagram:

Notice!

The length of the wire strip should not exceed 9mm, ensuring that the wire is fully tightened while preventing the conductor from being exposed outside.

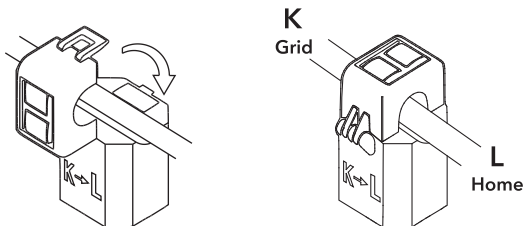


- Mount NexBlue Zen (Current Sensor) on the DIN rail



Step 2: Install the CT clamp

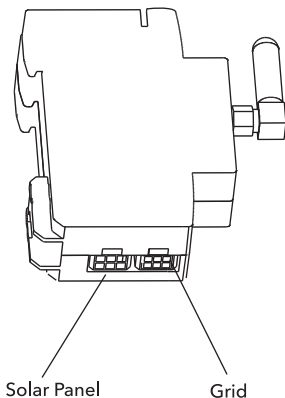
- Clamp the current sensor around the phase line, subject to following conditions:
 - Match the clamps with the corresponding phase
 - Ensure the clamps are in the direction of current flow, as indicated by the arrow on the current sensor shown in the image below.



- Plug the connector into the grid terminal on the NexBlue Zen (Current sensor)

Notice!

Do not plug the connector into the Solar Panel Terminal.



Step 3 (optional): Install the CT clamps for solar surplus charging

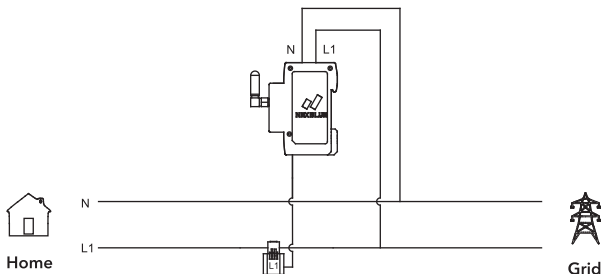
- Clamp the current sensor around the phase line on the PV-Grid side, subject to following conditions:
 - Match the clamps with the corresponding phase.
 - Ensure the clamps are in the direction of current flow.
 - It needs to be clamped between the AC inverter and the household distribution box.
- Plug the connector into the solar panel terminal on the NexBlue Zen (Current sensor)

Step 4: Connect the power supply

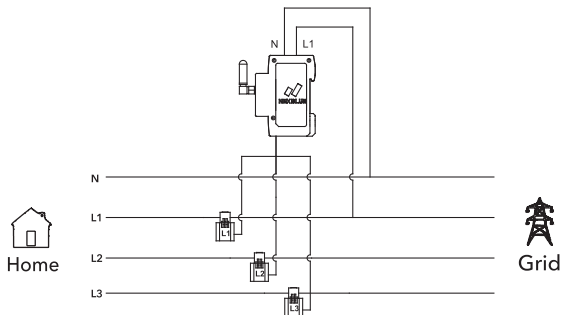
Notice!

Ensure proper functionality by connecting the L of the circuit breaker to L1 in the mains and the N of NexBlue Zen (Current sensor) to N in the mains.

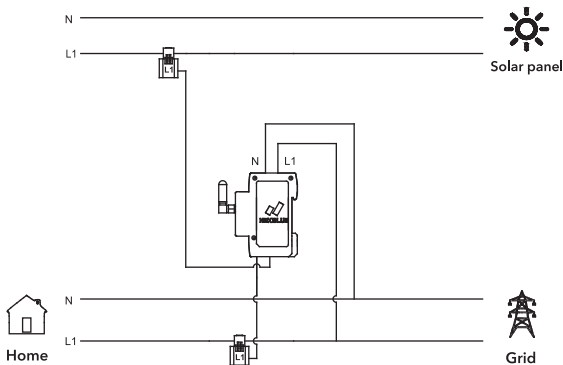
- Connect the power cable to NexBlue Zen (Current Sensor).
 - Wiring diagram (TN/TT single-phase)



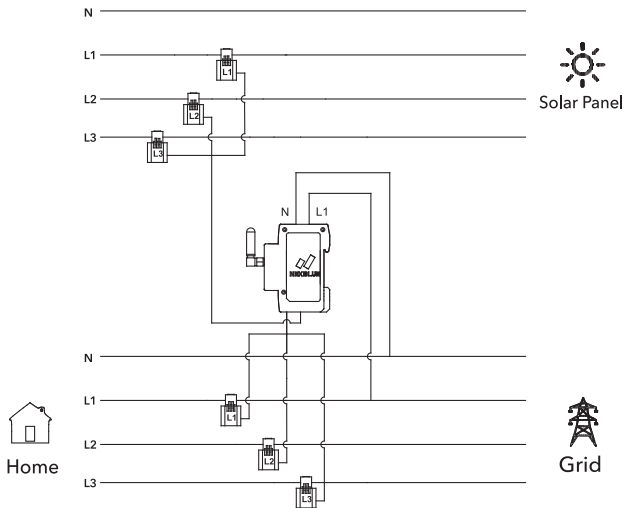
- Wiring diagram (TN/TT three-phase)



- Wiring diagram (TN/TT single-phase with solar)



- Wiring diagram (TN/TT single-phase with solar)



- Check if the wiring is correct.
- Turn the power on in the mains.

Step 5: Configure and manage your NexBlue Zen (Current sensor) with NexBlue Partner APP and NexBlue Partner Portal

- Download the NexBlue Partner app and follow the instructions to add the product to an existing location or a new location.

Apps

The NexBlue Partner app is available on the App Store and Google Play.



APP Store



Google Play

- Use NexBlue Partner Portal to manage chargers, diagnose issues, optimize configurations, monitor charging consumption, and collaborate with partners on location management.

Portal

Please visit: <https://partner.nexblue.com/login>

Status light indicator

Light	Status
 Blue Light, Constant	Normal Operation
 Red Light, Constant	Error
 Purple Light, Constant	No Internet
 Purple Light, Flashing	Waiting for Configuration
 Purple Light, Fast Flashing	Initialization

Warranty

Warranty

We provide a 3-year limited warranty applicable to correctly installed NexBlue Zen units. For more information, please see our website's warranty section.

Declaration of conformity

Hereby, NexBlue AB declares that the NexBlue Zen CS3ANA has been developed, produced, tested and supplied as been accordance with the applicable legal regulations of the specified sales regions. It complies with the EU Radio Equipment Directive 2014/53/EU and the UK Radio Equipment Regulations 2017. The full text of the EU Declaration of Conformity and UK Declaration of conformity is available at the following internet address:
<https://nexblue.com/pages/document-and-manuals>

Join our Facebook Community to get a faster after sales and inquiry response.



Technical Specifications

General

Model: CS3ANA

Dimension (mm):

H:85.8 x W: 27 x D: 66.8

Weight: 95 g

Overvoltage category: OVC II

Insulation class: II

Voltage measurement range:

85-264 V AC

Rated power: 3 W

Current measurement range:

CT clamps (included): $\pm 0 - 120$ A

(MAX cross-section: 25 mm²)

Rogowski coil (optional): $\pm 0 - 250$ A

Power Supply:

85-264 V AC, 50Hz

Installation system: TT, IT or TN single to three phase

Terminals: grid terminal / solar panel terminal / RS-485 / LAN / external Wi-Fi terminal / power supply terminal

Mounting: DIN rail

Warranty: 3 years

Operating conditions

Operating temperature: - 25°C to +55°C

Ingress protection: IP30

Relative humidity : 0 - 90%

Altitude: 0-2000 m

Indoor use: Yes

Connectivity

Wi-Fi: 2.4 GHz 802.11b/g/n

Band frequency: 2412-2472 MHz

Maximum output power: 19.99 dBm

Bluetooth: BLE 4.2

Band frequency: 2402-2480 MHz

Maximum output power: 8.68 dBm

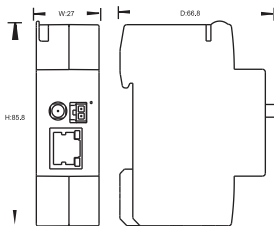
Nexus RF

Band frequency: 868MHz

Maximum output power: -3.27 dBm

RS485: TIA/EIA-485A

Ethernet: ISO/IEEE 802.3u



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