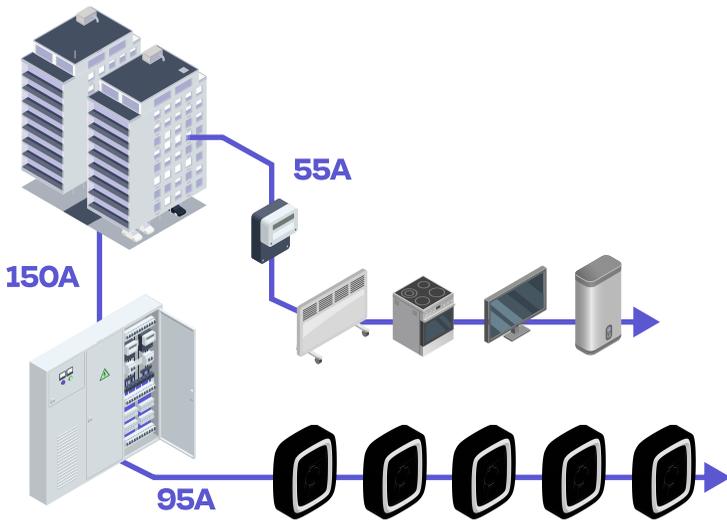


enua



Dynamic load balancing
Installation

Table of contents

- 3** Introduction
- 5** Compatible devices
- 6** Shelly installation guide
- 8** Shelly configuration guide
- 13** Perific installation guide
- 15** Perific configuration guide

Introduction

When installing a charging station facility with one or more Enea Charge, a solution for monitoring the maximum load on the main circuit breaker may be required. Enea provides compatible devices that enable accurate load monitoring and dynamic load balancing.

Enea's dynamic load balancing continuously measures the building's total power consumption and automatically adjusts EV charging output to prevent overload of the main circuit breaker. This ensures safe and efficient operation regardless of other electrical loads, such as cooking appliances, laundry equipment, or ventilation systems.

- Optimized charging speed based on available capacity
- Automatic prioritization of the building's total energy demand
- Fully automated operation with no user intervention required
- Scalable solution for single-family homes and large buildings

Install a compatible device and complete the guided configuration using the Enea Installer app to enable the system.

Compatible devices



Shelly Pro 3EM 120/400A

Mounting DIN rail
Connection Splitable current transformer
Range 0-120 A / 0-400 A
Phase 1 and 3 phase
Connectivity Wifi (802.11b/g/n) and Ethernet (RJ45)



Shelly Pro EM 50A

Mounting DIN rail
Connection Splitable current transformer
Range 0-50 A
Phase 1 phase
Connectivity Wifi (802.11b/g/n) and Ethernet (RJ45)



Shelly Pro 3EM 3CT63

Mounting DIN rail
Connection Fixed current transformer
Range 0-63 A
Phase 1 and 3 phase
Connectivity Wifi (802.11b/g/n) and Ethernet (RJ45)



Shelly 3EM-63 Gen3

Mounting DIN rail
Connection Fixed current transformer or wire
Range 0-63 A
Phase 1 and 3 phase
Connectivity Wifi (802.11b/g/n)



Perific Max

Connection Phase conductors L1-L3 (up to 2,5kA) and HAN/P1 (RJ12 / RJ145)
Phase 1 and 3 phase
Connectivity Wifi (802.11b/g/n) and LAN
Power supply USB Adapter, DIN Adapter or HAN/P1



Perific One

Connection HAN/P1 (RJ12) and HAN/P1 (RJ12 / RJ145)
Phase 1 and 3 phase
Connectivity Wifi (802.11b/g/n) and LAN
Power supply USB Adapter, DIN Adapter or HAN/P1

Shelly installation guide

We offer compatibility with several Shelly energy measurement devices. The installation is performed on a DIN-rail or at the cabling to the main circuit breaker. Configuration is performed inside the Enea Installer app.

The device will report the amperage to Enea and automatically adjust the maximum charging power allowed on the facility.

The device and Enea does not need to be on the same Wi-Fi. They will work as long as they are connected to Eneas cloud.



There is no need to use the Shelly app. All configuration and setup is done through the Enea Installer app!



There need to be a internet connection available for the device. This can be through Wi-Fi or Ethernet. Please observe that some devices only support Wi-Fi.



For complete technical data and product data sheet on your products, we recommend to visit [Shelly.com](https://shelly.com) and find the documentation you need there.



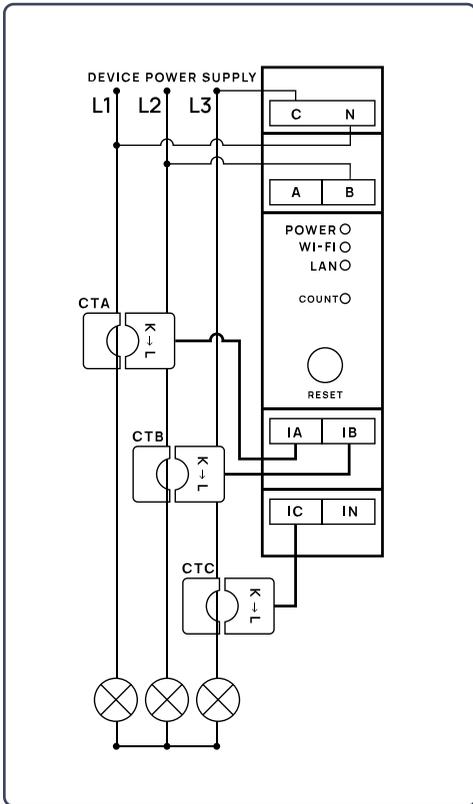
These products needs to be installed and configured by an certified electrician. The instructions given in this manual and provided by Shelly needs to be followed closely. Failure to follow instructions can lead to damage and injuries.

Shelly devices are made for 400V TN connection, 1/3-phases + N, but will also work on 230V IT, 1/3-phases without N.

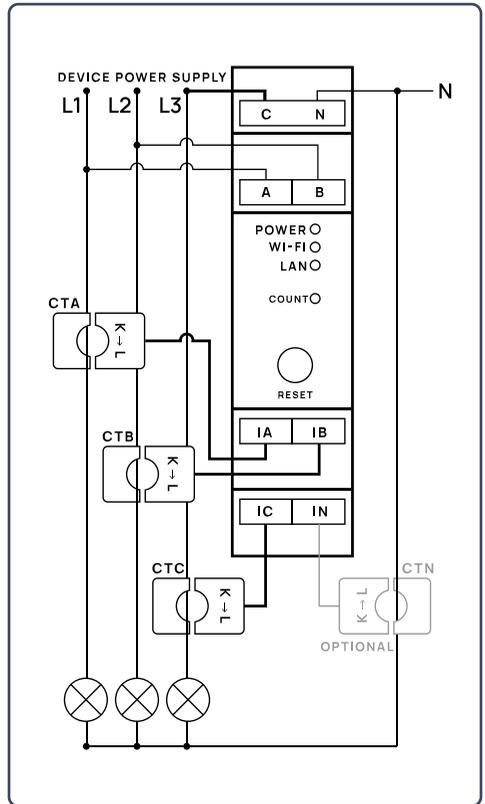
Please follow the diagram below for correct installation.

Finish the installation of the unit before you start with the configuration.

IT-grid 230v



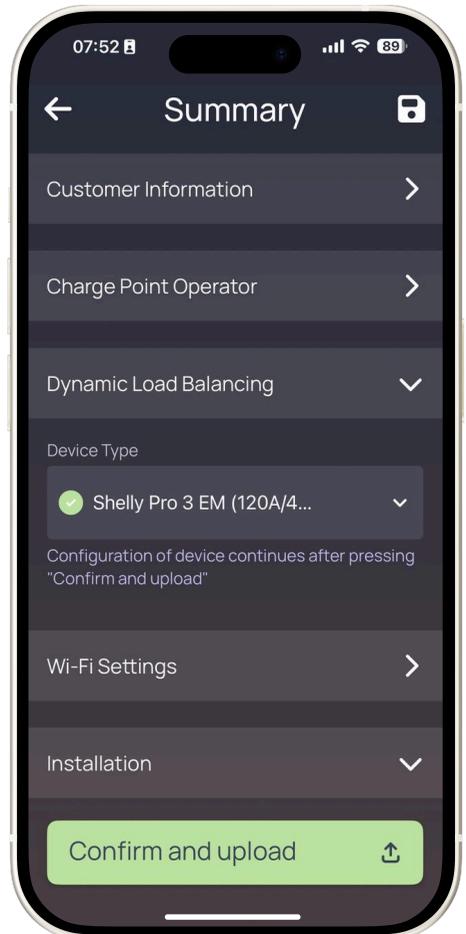
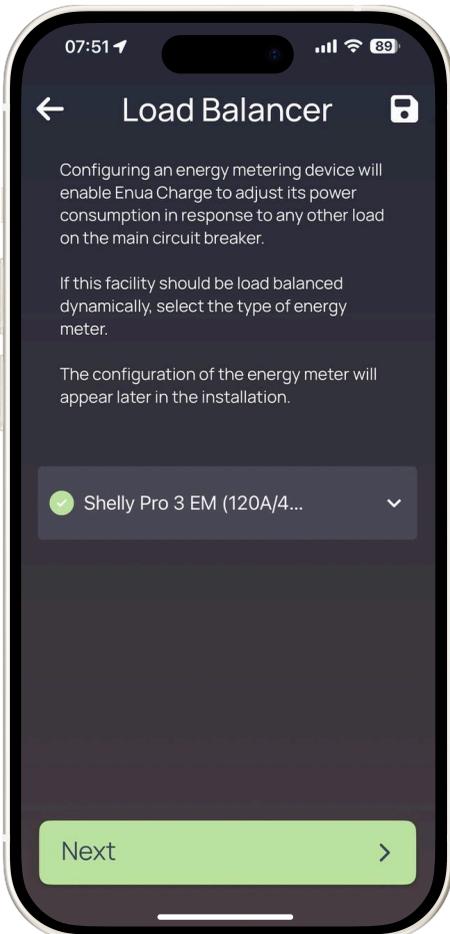
TN-grid 400v



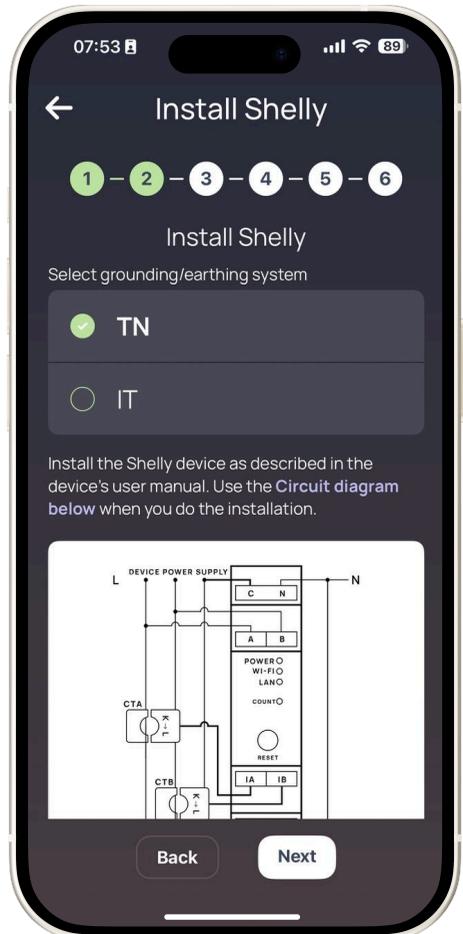
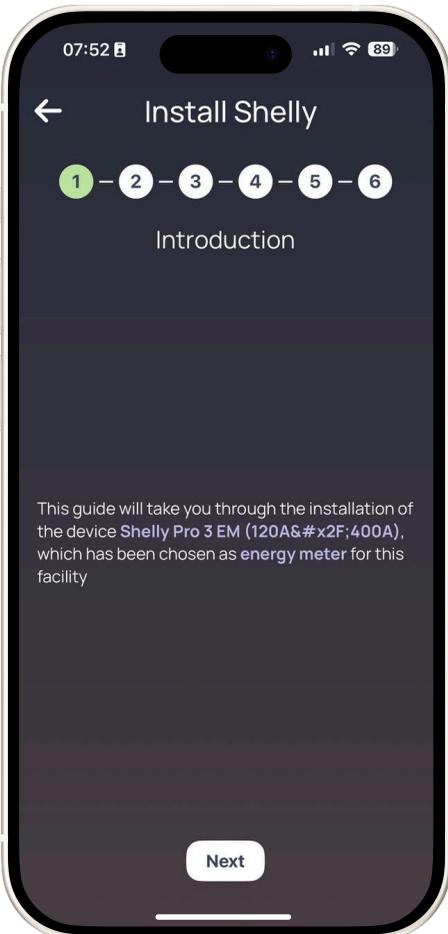
Shelly configuration guide

After installation the device needs to be configured. This is done through the Enea Installer app.

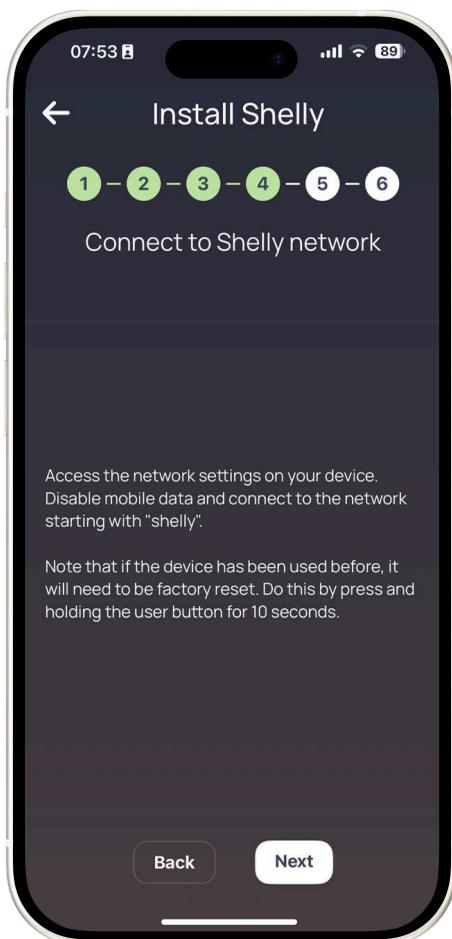
Select the correct load balancer during facility configuration. The configuration of the device will automatically proceed afterwards.



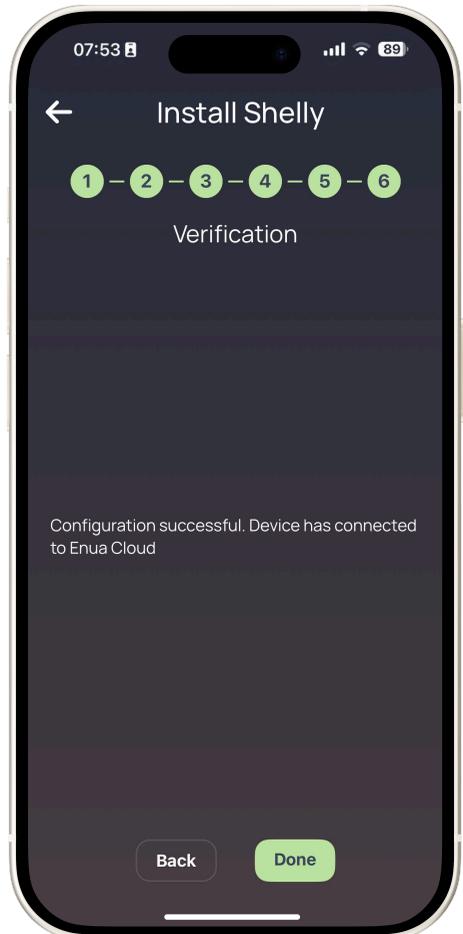
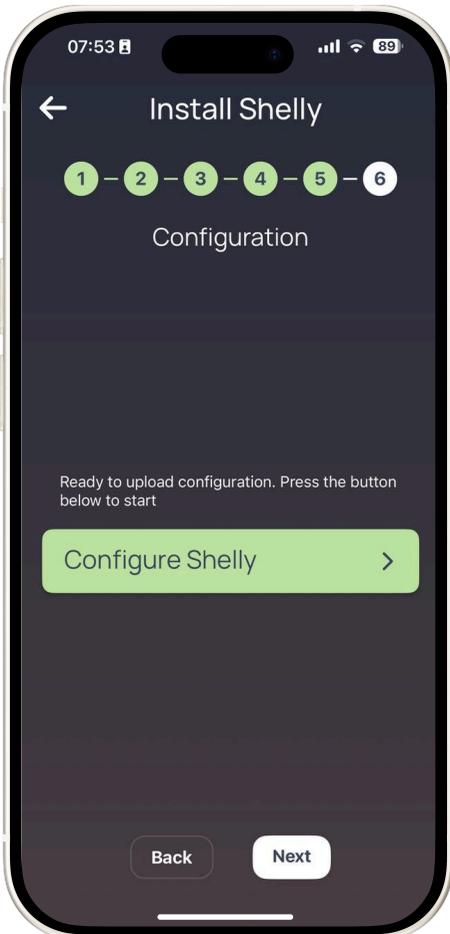
1. The configuration starts, please confirm that the correct device is selected.
2. Select the correct load balancer during facility configuration. The configuration of the device will automatically proceed afterwards.



3. Select if you want to connect to a Wi-Fi network or use the Ethernet port for internet connection. If you already have configured a Wi-Fi for the charging station, this will be prefilled, but can be edited if needed.
4. On the phone, select the Shelly Wi-Fi under settings, and continue with the next step on the Enea Installer app.



- When everything is done is the last step the configuration itself. This will connect the device to our cloud.
- After the configuration a confirmation screen will appear. The system will check and verify the connection.



Perific installation guide

We offer compatibility with two Perific energy measurement devices. The installation is performed nearby the fuse cabinet and you need to have access to the cabling for the main circuit breaker. Configuration is performed inside the Enea Installer app and through Perifics app.

The device will report the amperage to Enea and automatically adjust the maximum charging power allowed on the facility.

The device and Enea does not need to be on the same Wi-Fi. They will work as long as they are connected to Eneas cloud.



You will need to use the Perific app. Configuration and setup is done through both apps.



There need to be a internet connection available for the device. This can be through Wi-Fi or Ethernet. Please observe that some devices only support Wi-Fi.



For complete technical data and product data sheet on your products, we recommend to visit [Perific.se](https://www.perific.se) and find the documentation you need there.

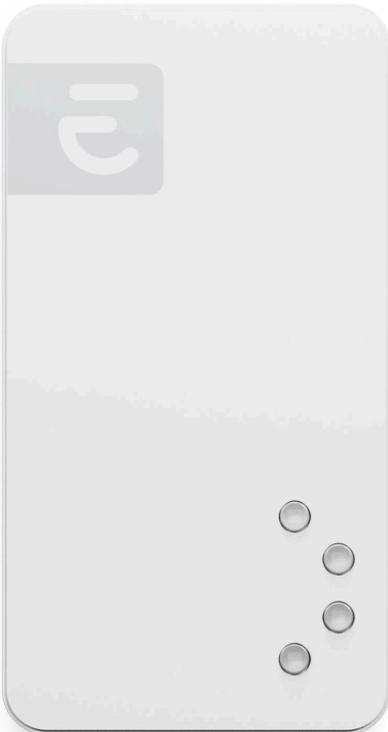


These products needs to be installed and configured by an certified electrician. The instructions given in this manual and provided by Perific needs to be followed closely. Failure to follow instructions can lead to damage and injuries.

Perifics products needs to be installed according to their instructions. You can find the needed documentation on download.perific.com

Here you will find specific guides for the different Perific products and an Enea specific guide. You can press the headline underneath for your device underneath for a direct link.

Perific One



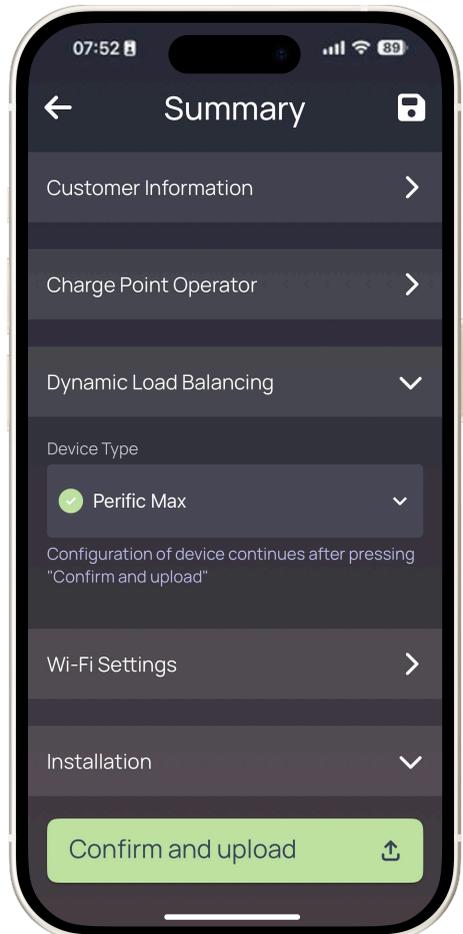
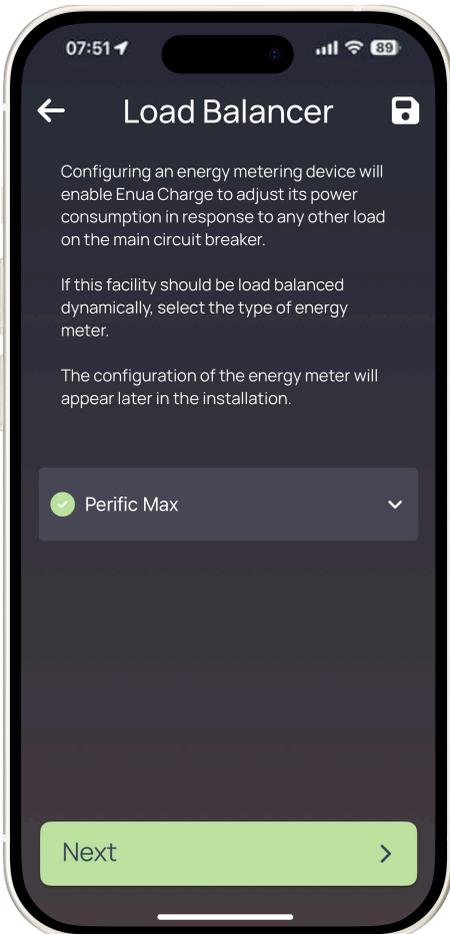
Perific Max



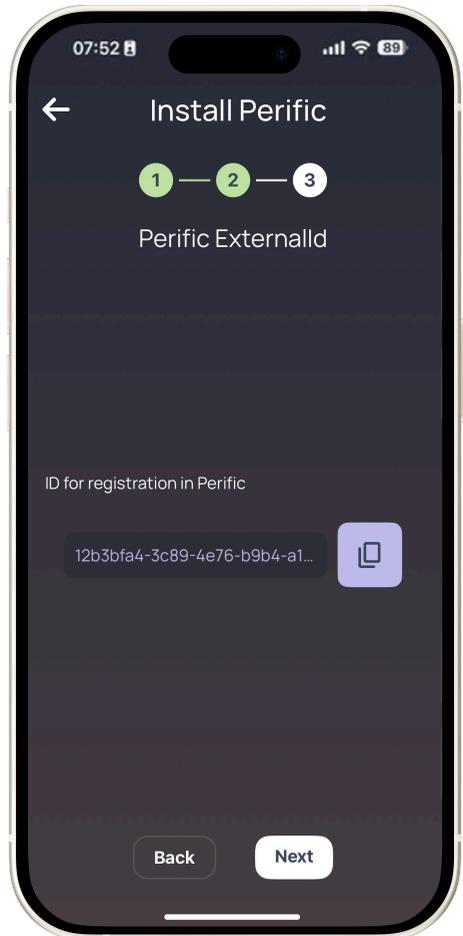
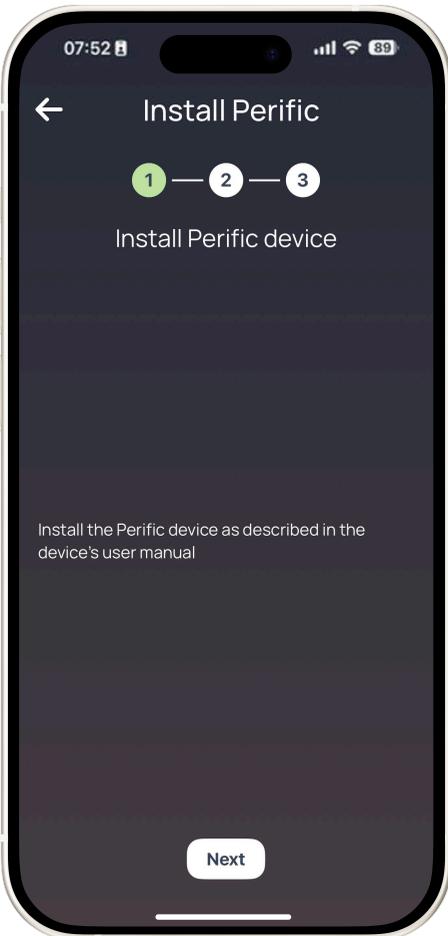
Perific configuration guide

After installation the Perific needs to be configured. This is done through the Enea Installer app and the Perific app.

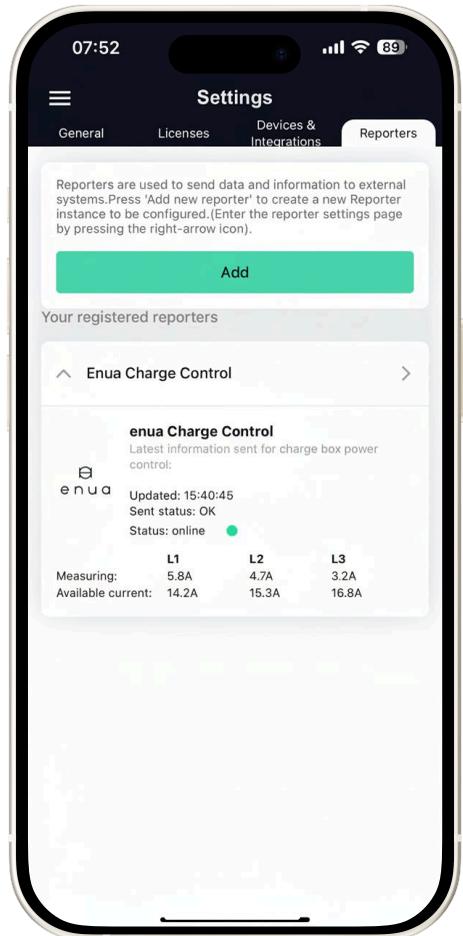
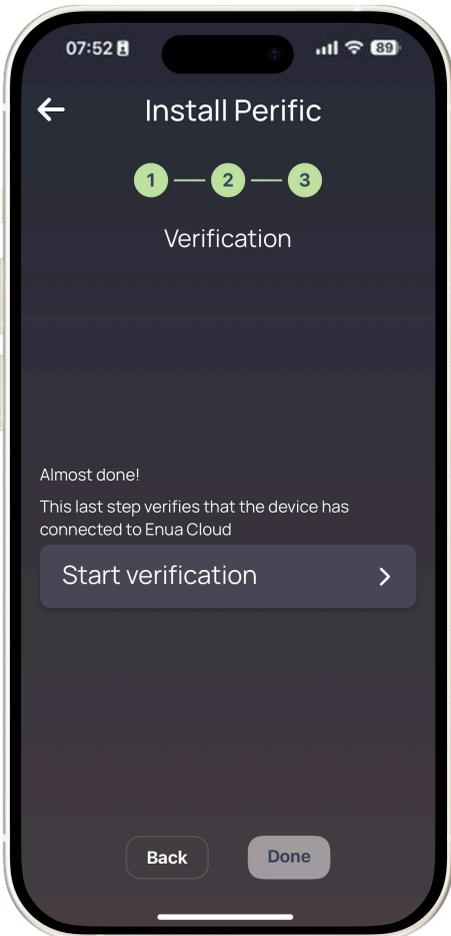
Select the correct load balancer during facility configuration. The configuration of the device will automatically proceed afterwards.

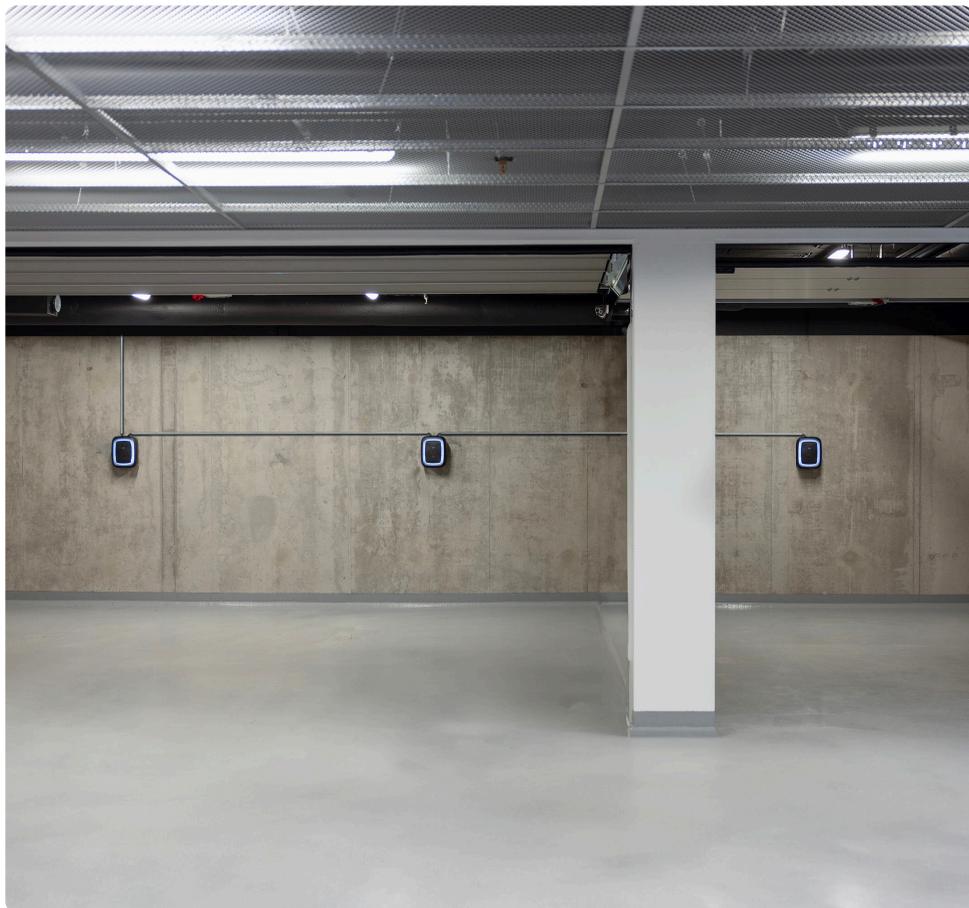


1. The configuration starts, please confirm that the correct device is selected.
2. The provided ID will connect your Perific device to the Enea cloud. Use this ID in the Perific app before continuing.



3. Press “Start verification”. An automated test will begin and verify the connection with Perfic.
4. You can also watch and confirm the connection inside the Perfic app.





V10004-1

Enua dynamic load balancing - Installation manual

Enua AS
7044 Trondheim
Norway

