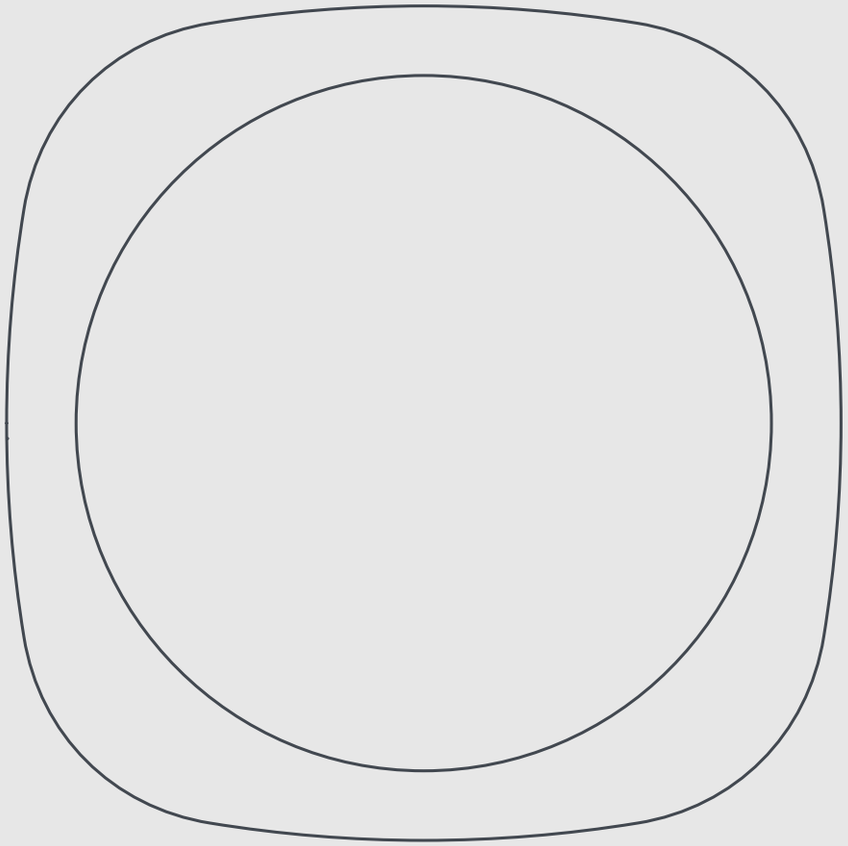
easee



User guide / Installation guide

# Easee Equalizer

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**IMPORTANT:**
Read carefully before use. Keep for future reference. When passing on the product, ensure this guide is also passed on.

# Introduction

This manual concerns the two versions of the product: Easee Equalizer (E02-EQP) and Easee Equalizer HAN (E02-EQ). All instructions apply to both versions, unless specified otherwise.

### Intended use

This product is intended for optimizing the power consumption by performing an automatic load balancing between the Easee Charging Robot(s) and the building. It is used to avoid overload and power interruptions while the electric vehicle (EV) is being charged.

The product may only be operated with the approved operating parameters and under the specified environmental conditions (see page 5). Uses other than those specified here are not permitted.

### Operating conditions

The product needs to be paired with a Charging Robot and connected to a supported meter with the cable provided. In order for the Equalizer to work, the smart meter's communication port in most cases needs to be activated. The Equalizer supports several smart meters. Find a full list of compatible meters at **easee.support**.

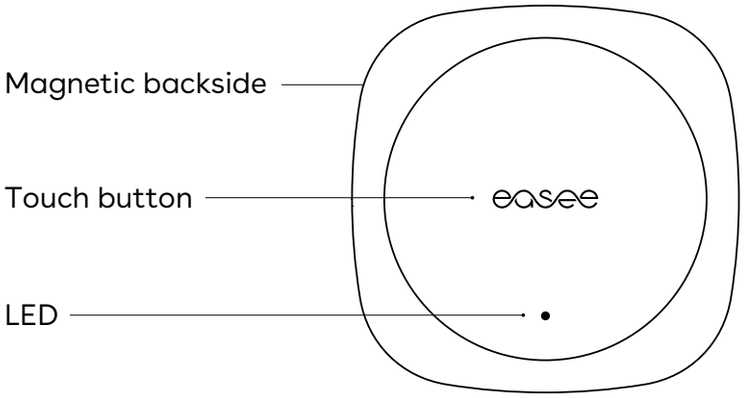
For installation and operation purposes, a smartphone with internet connection is needed.

### Optimal performance

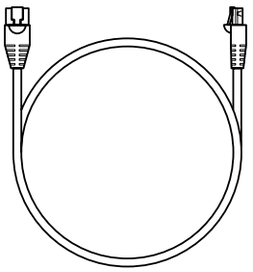
The Equalizer makes it possible to charge smarter, safer and faster if the installation is scaled accordingly. To enable its true potential, the rated value of the chargers circuit fuse should be as high as possible compared to the main fuse. Even in 1-phase setups, we recommend using a 3-phase cable to future proof the installation.

# Product overview

### Equalizer

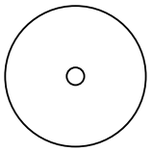



### Cable

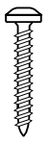


### Wall mounting kit

For non-metallic surfaces



**x1**



**x1**

# Safety instructions

**Read the entire manual carefully before installing and operating the product. Observe the following instructions:**

- Do not use the product if it is damaged or does not function properly.
- Always have any repair work carried out by an authorised electrician and in accordance with local requirements.
- This product is intended for indoor use in dry locations only. If placed outside the house, it must be installed inside a cabinet protected from the weather.
- Do not immerse the product in water or other liquids.
- Avoid direct sunlight or heat exposure.
- Keep product away from open flames and extreme heat.
- Make sure that children do not play with the product.

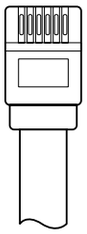
# Technical specifications

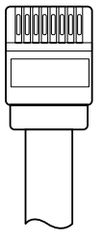
### General

Product (mm): H: 110 x W: 110 x D: 27.5
Packaging (mm): H: 130 x W: 130 x D: 39
Permitted temperature: -20 °C to +50 °C
Weight: 95 g (Equalizer) and 110 g (Equalizer HAN)
IP degree: IP40
Supply: 5-32 V DC 100 mA (Equalizer) and 20-32 V DC 30 mA (Equalizer HAN)
RJ11 connector

### Cabling

Cable length: 1.5 m
RJ11 to RJ11 custom made cable (Equalizer) and RJ11 to RJ45 custom made cable (Equalizer HAN)
It can be extended using an extension cable: up to 15 m (Equalizer) and up to 200 m (Equalizer HAN)


RJ11 (6 pins)


RJ45 (8 pins)

### Max transmitted power

**Radio:** 25 mW at 863–870 MHz.
**WiFi:** 50 mW at 2.4–2.472 GHz.

### Connectivity

Easee Link RF™ and WiFi[1]
HAN (NVE/AMS) or P1 smart meter communication
Modbus connection to energy meter[2]
Monitor power consumption with the Easee App
RFID / NFC reader

[1] WiFi is required for normal operation and for future software updates. When offline or unstable, it will use Easee Link RF™ as backup in small installations with one primary charger. Easee Link RF™ via radio may be limited by walls, concrete or other obstacles.
[2] Only for supported meters.

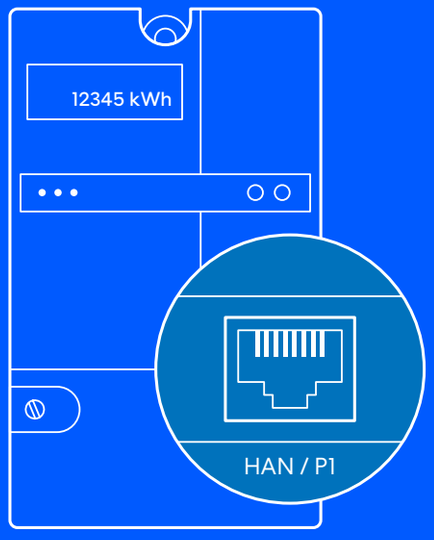
Installation

# Customer setup

Follow these steps if you are a private customer installing the Equalizer in your own household.

## 1 HAN port Activation

In Scandinavia, the communication port on the smart meter is most likely not activated. Contact your utility company to open the HAN port for use with the Equalizer.
If you are not in Scandinavia, skip to step 2.




Smart meter

## 2 Easee App Download

Scan the QR code to download the Easee App and create a free account.

easee.com/app

## 3 Equalizer Setup

Add the Equalizer in the app, follow the on-screen installation guide and get ready to balance your energy smarter than ever before!

Installation

# Installer setup

Follow these steps if you are an installer and use the Installer App to configure the Equalizer in large commercial installations or private households.

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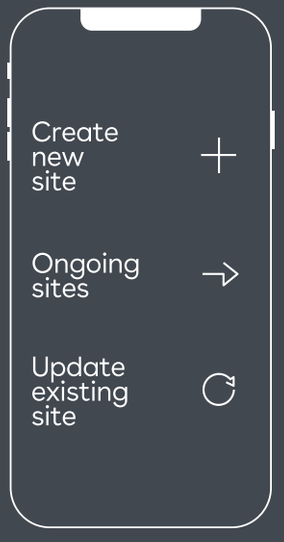
## 1 Installer App
## Download

Scan the QR code to download the Installer App and create a free account.

easee.com/installer-app

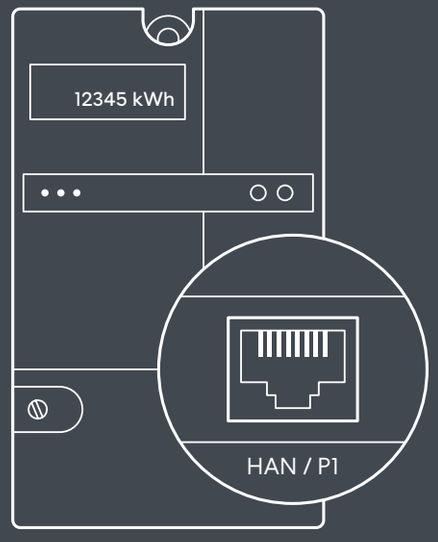
## 2 Equalizer
## Setup

Add the Equalizer to a new or existing charging site using the Installer App and follow the on-screen installation guide to set it up.




## 3 Smart meter
## Connect

Connect the Equalizer to the smart meter using the provided cable. The Equalizer will appear in the Easee Portal after a while.




Smart meter

# LED colours meaning

White, fast flashing – Booting

White, breathing every 10s – Normal operation

Red / white, switching – No WiFi added[3]

Red, flashing – No data from power meter[4]

Red, breathing every 10s – Error[5]

Purple, breathing every 10s – Offline operation[6]

**Touch the Easee logo in the middle to check power consumption:**

Blue, fast flashing – High power consumption

Blue, slow flashing – Low power consumption

Count the flashes for percentage – 1 flash (10%), 2 flashes (20%), up to 10 flashes (100%)

**Hold the Easee logo for 3 seconds to check connectivity. You will see 2 flashes:**

1st flash – Easee Link RF status[7]
2nd flash – WiFi status

Green – Connected

Red – Not connected

[3] Use the Easee App to set up the WiFi.
[4] Contact your utility company to activate the HAN port.
[5] Go to http://easee.support.
[6] Check your internet connection.
[7] After booting, it can take a few minutes before Easee Link RF™ status flashes green.

# Practical details

### Warranty

The device is free from material defects and is in accordance with laws and regulations for consumer protection in the country where the product is purchased. All correctly installed Easee hardware is covered by our 3 years* limited warranty.
*Some countries may have extended warranty.

### Standards

Hereby, Easee AS declares that the radio equipment types Easee Equalizer (E02-EQP) and Easee Equalizer HAN (E02-EQ) are in compliance with Directive 2014/53/EU.

The full text of the EU Declaration of Conformity is available at the following internet address: **easee.support**.

### Maintenance

This product requires no maintenance. If it needs to be repaired, please contact your Easee supplier.

### Storage

The product should be stored in a tempered, dry and well-ventilated area in order to preserve the packaging and its contents. Relative humidity should not exceed 80 % and no corrosive gas should be present. Storage or transportation environment should never exceed the limits provided in the technical specifications.

### Disposal

A crossed-out dustbin symbol indicates that a product and its accessories must not be disposed of in household waste at the end of their lifecycle. For the return of old devices, free collection and acceptance points may be available in your vicinity. Observe local regulations for correct and environmentally friendly disposal. If the electronic equipment contains personal data, you are responsible for deleting it yourself before returning it. This can be done via Easee App or Installer App.

### Returns and complaints

Contact your distributor or Easee Customer Support at **easee.support** regarding the return and complaint of your product.

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The latest version of this publication can be downloaded at http://easee.support

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Illustrations of the product and user interface are exemplary and may differ from the actual appearance.

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