

EN Installer guide

Charge Lite

Introduction

Read the Important product information guide in the product packaging or at <u>easee.com/manuals</u> before installing the product.

Installation of this product requires a mobile device with NFC or Bluetooth support.

⚠ WARNINGS AND CAUTIONS

A Warning indicates a condition, hazard or unsafe practice that can result in serious personal injury or death.

A Caution indicates a condition, hazard or unsafe practice that can result in minor personal injury or damage to the product.

⚠ WARNING

This product shall only be installed, repaired or serviced by an authorised electrician. All applicable local, regional and national regulations for electrical installations must be respected.

For Austria, Finland, Germany, Netherlands, Switzerland:

Charge Lite is a home-charging device manufactured and designed strictly for residential use only. Charge Lite chargers shall not be used for non-residential use. Residential use is to be understood as use in or around an individual's own residence. The Charge Lite charger at all times must make use of an individual's private connection to the electricity grid. Charge Lite chargers cannot be used for charging electric vehicles for which reimbursement is desired, based on the realized consumption of electricity. The Charge Lite charger cannot be used to calculate this consumption. For Belgium, Croatia, Czech Republic, Denmark, Estonia, France, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, UK:

Charge Lite is not MID compliant. In some markets, MID compliance is not a requirement yet for charging electric vehicles for which reimbursement is expected or consumption is reported as a cost in tax filings; please check local rules for more information.

Data Protection

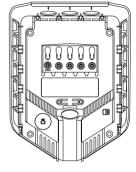
Upon Installation and connection to the internet, as an IoT device Easee Charging Robots automatically share data with the Easee cloud (owned by Easee ASA). This makes sure that Easee monitors the charger safety, security, and stability during its lifetime. As a result, some personal data, such as usage patterns, site configurations, and device identifiers, will be processed to provide the smart functionalities of the charger. By using our Chargers, you agree to the collection and processing of some personal data in line with our privacy policy and any applicable data protection laws. If data transfer to the Easee cloud is not desired, we advise users to stop using Easee chargers immediately. For more information, please see Easee Privacy Policy (https://easee.com/en/privacy/), available in our website.

Product overview

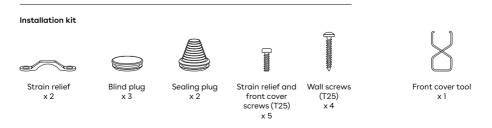


Front cover Protects the electronics from external influences.

Chargeberry Lite (1.4-11 kW) Contains the electronics for charging the vehicle.



Backplate (1.4-22 kW) For attaching and connecting to the charging infrastructure.



Technical specifications

General		
Type designation	Easee AC Charger Platform CB-A3-2	
Dimensions	256 x 193 x 106 mm (H x W x D)	
Drilling hole distance	c/c 160 x 125 mm (H x W)	
Operating temperature	-30 °C to +40 °C (indoor and outdoor use)	
Weight	1.5 kg	
Sensors and indicators		
Light strip with LEDs showing the status of the charger		
Touch button		
Temperature sensors in all main contacts		
Chargeberry technical specifications		
Max charging power capacity	IT 3 phase: 3x 16 A = 6.4 kW TN 3 phase: 3x 16 A = 11 kW IT/TN 1 phase: 1x 32 A = 7.4 kW	
Connection point	Type 2 socket (IEC 62196-2)	
Number of phases	1 or 3 (fully dynamic)	
Voltage	3x 230/400V AC (±10%)	
Mains frequency	50 Hz	
Built-in energy meter (±2 %)		
Backplate technical specifications		
Max charging power capacity	1.4-22 kW	

Max charging power capacity	1.4-22 kW
	6 A 1 phase - 32 A 3 phase
	Up to 7.4 kW at 32 A 1 phase
	Up to 22 kW at 32 A 3 phase
Voltage	3x 230/400V AC (±10%)
Mains frequency	50 Hz

Connectivity

WiFi 2.4 GHz b/g/n connection

Easee Link RF™

Control charging via Easee App

RFID/NFC reader

OCPP 1.6 via Easee API

Bluetooth BLE 4.2

Protection

Integrated overload protection according to EN IEC 61851-1:2019

Built-in ground fault protection 30 mA AC/6 mA residual direct current detecting device (RDC-DD) complying with IEC 62955, clause 9.9 (see note 2)

External approved Type-A RCD (1 phase: 2P; 3 phase 3P+N; max 40 A) is required

Degree of protection	IP54 (the backplate is IP22 without cover)
Impact resistance	IK10
Insulation class	1
Pollution degree	4 (installation environment)
EMC Classification	Class A & Class B
Overvoltage category	III
Installation	
Installation network	TN, IT or TT (detected automatically)
Installation circuit breaker	Max 40 A Short circuit current limited to 10 kA
Installation circuit breaker Wire cross-section	
	Short circuit current limited to 10 kA Copper wire, between 2.5 and 16 mm ² : 1 phase 32 A: 4.0 mm ² to 16mm ² 3 phase 16 A: 2.5 mm ² to 16mm ² PE must have an equal or larger cross section as the phase wire
Wire cross-section	Short circuit current limited to 10 kA Copper wire, between 2.5 and 16 mm ² : 1 phase 32 A: 4.0 mm ² to 16mm ² 3 phase 16 A: 2.5 mm ² to 16mm ² PE must have an equal or larger cross section as the phase wire Use the largest possible wire cross-section to make the site future-proof

Notes

1. Charging station is mode 3 equipment

2. For more information about the RDC-DD, please go to RDC-DD Functional Description

Planning the installation

Prior to the installation, it is recommended that you consider future charging needs, so that you can easily expand accordingly in the future.

For an optimal result

- We always recommend a 3 phase installation if possible, to make it future-proof.
- If possible, use the largest approved cable crosssection (see <u>Technical specifications</u>).
- Consider installing Easee Ready backplates if there are plans for adding more chargers in the future.
- To avoid overloading the building's main fuse, the Easee Equalizer can be used for dynamic load balancing. The maximum current value can also be set as required during configuration.

RCDs

Easee Charge Lite shall be installed with an external Type-A RCD in front of each charge point.¹ Easee Charge Lite will disconnect the supply in case of DC fault currents above 6 mA and in combination with an external Type-A provide equivalent protection against DC fault currents as an RCD Type-B. The internal DC fault protection is automatically tested at start-up, between every charging session or at least every 24 h.

The external RCD is not included with the charger and must be according to one of the following standards:

- EN 61009-1
- EN 61008-1
- EN 62423
- EN 60947-2

Overcurrent

Easee Charge Lite shall be installed with an external overcurrent protection device in front of each charge

point. The external overcurrent device is not included with the charger and must be according to one of the following standards:

- EN 61009-1
- EN 60898
- EN 60947-2
- EN 60269

A combined RCD and overcurrent protection device (RCBO), according to EN 61009-1, is typically the preferred choice recommended by Easee for a safe, userfriendly and cost efficient installation.

NOTES

- RCDs must disconnect all live conductors.
- For manual diagnostic and initialization of the RCD test, please use the Installer App and diagnostic tool.

Special considerations

- The equipment is intended for non-restricted access.
- The charging station is mode 3 equipment.
- The Charge Lite cannot be installed on the same site as an Easee Charge. The maximum installation is three Charge Lite per site.
- PIN code: The PIN code is required for installation and located on the front of the Chargeberry. It is recommended to keep the PIN code for safe keeping, e.g. inside the fuse cabinet.
- Site Key: During installation, a Site Key must be used to assign the Charging Robots to the correct location in the Easee Cloud. A Site Key will automatically be generated when creating a new charging site using the Easee Installer App or it can be obtained by creating a new charging site at portal.easee.com.

¹ Easee will continue to challenge the standards and fight to ensure that new and safer technology can gain ground. Until further notice, an external RCD is required.

This device can emit electromagnetic radiation, including high-frequency electromagnetic radiation.

Your house, power grid and EV

The Charging Robot automatically adapts to the power grid, the electric car and the capacity of the electrical installation. In the table you can see what charging effect you can expect from your installation and situation. The table is only meant as a guide.

The type of installation as well as cable crosssections must be determined by a qualified electrician in accordance with valid local, regional and national regulations for electrical systems.

Load	Chargeberry power (Charge Lite)	
Ampere (A)	1 phase (kW)	3 phase (kW) ²
6	1.4	4.1
8	1.8	5.5
10	2.3	6.9
13	3.0	9
16	3.7	11
20	4.6	-
25	5.8	-
32	7.4	-

Padlock

It is possible to lock the electronics with a padlock. This will create an extra layer of security (padlock is not included).

Max total lock height	56 mm
Shackle height (outer dimensions)	19 - 20 mm
Shackle thickness	3.2 - 4 mm

Manufacturing Date and Serial Number

The Chargeberry's month and year of manufacture and serial number are on the sticker on the Type-2 socket underneath the charger cover. The production date is displayed in MM/YY format, directly above the serial number, unique to each Chargeberry unit.

The manufacturing date can be found in DD/MM/YY format in the user app. Go to Charger settings, then About, then Manufactured.

PIN and Serial Number

The PIN and Serial Number sticker is removed by the installer and placed in the fuse cabinet. The Bluetooth connection to the charger uses the serial number as a name.

² Example for 400 V TN, deviating values for other grid types.

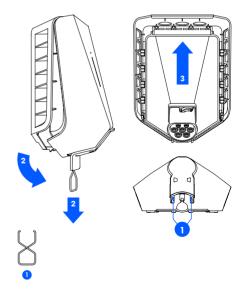
Installation instructions

WARNING

Always work with the power off and in accordance with local regulations. Use extreme caution and follow instructions carefully.

Charging Robot Opening

- Bend down the lower part of the rubber cover and insert the two ends of the front cover tool into the two openings at the bottom of the front cover.
- 2 Pull the tool until the front cover comes loose and remove the cover.
- 3 Grasp the Type 2 socket and push upwards with good force until the Chargeberry disconnects. Make sure you do not touch the cable locking mechanism.



2 Mounting

Fix the backplate to a solid, non-perforated wall or structure with sufficient load-bearing capacity using the 4 wall screws provided in the mounting kit. Use suitable wall plugs for mounting and observe the local regulations for recommended installation height.

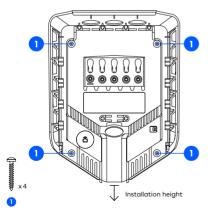
- The installation wall must cover the entire back of the product. If this is not possible to achieve, it is possible to use the Easee Mount.
- The area should not be exposed to direct rain, direct sunlight or explosive gases. A physical barrier is recommended to protect the charger.
- Install at a height of 130-140cm, with an angle no more than +/- 3 degrees from vertical. Suggested installation height for accessibility: 80-95 cm.

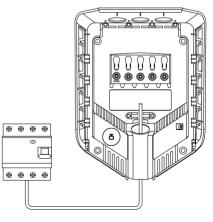
3 Fuse box / enclosure Adding external protection

External Type A RCD protection is required for each backplate with Charge Lite. The RCD must meet the regulations and requirements stated in <u>Planning the installation</u>.

NOTE

If you will have multiple charging points at the same time, you must have a requisite external Type A RCD protection for each backplate with an Charge Lite charger. Examples can be found at <u>support_easee.com</u>.



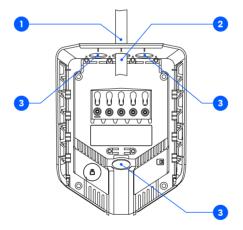




Shorten the sealing plug to fit the cable. The hole should be slightly smaller than the cable to ensure a good seal.

2 Insert the cable through one of the 4 cable entries and secure it to the backplate with the strain relief provided.

3 Close all cable entries that are not in use with the supplied blind plugs.





5 Wiring

Strip each wire, exposing 12 mm of copper on each. If the cable has flexible conductors, then you must use ferrules on stranded wires to make the connection. Use the correct tools to press them.

2 Tighten the screw terminals with a torque of 5 Nm.

NOTES

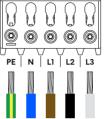
- It is recommended to follow the existing colour codes used in the installation. Depending on national standards, the colours of the cables can vary from the illustrations. The illustrations in this manual follow the IEC 60446 standard.
- Before turning the power on, make sure the wires are properly connected and tightened.
- The PE must have an equal or larger cross section as the phase wire.

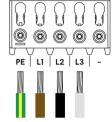
TN/TT 3-phase

IT/TT 3-phase

(3x 230/400 V)

(3x 230 V)

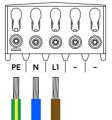


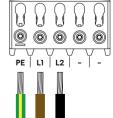


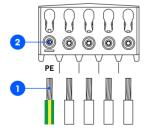
TN 1-phase

(230 V)

IT/TT 1-phase (230 V)









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

NOTE

Your phone must support either NFC or Bluetooth.

2 Select one of the two site setups in the Installer App:

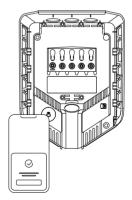
Create new site: If this is a completely new charging site, select "Create new site". Enter the installation details, follow the on-screen instructions and return to this guide afterwards.

Update existing site: If this site already has one or more Charging Robots installed or if it has been created by an operator (Easee Charge), select "Update existing site" and search for the site address. On "Site overview", select the circuit that you want the backplate to be part of and select "Add another backplate". Follow the on-screen instructions and return to this guide afterwards.



easee.com/installer-app





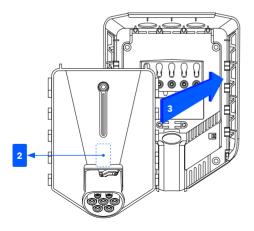
7 Attaching

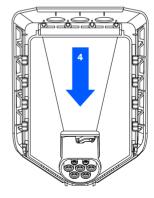
Insulation testing must be performed **before** a Chargeberry is installed in the backplate. Testing the circuit insulation with the Chargeberry installed in the backplate may damage the electronics or impact the reading negatively.

- 1 Turn on the power. The terminals of the backplates are now electrically live.
- 2 Remove the PIN code sticker and attach it to the inside of the fuse cabinet, or another safe location for storage.
- 3 Position the Chargeberry to fit into the slots on the backplate located in the center of the installation.
- 4 When the Chargeberry is in the track, press it forcefully down until you hear a "CLICK".

NOTE

You do not need to touch the terminals of either the Chargeberry or the backplate when installing or removing the Chargeberry.





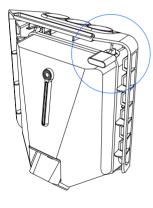
"CLICK!"

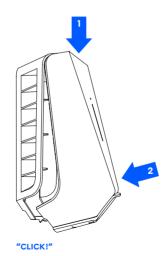


Before closing the front cover, it is possible to lock the Chargeberry with a padlock (see <u>Planning the</u> <u>installation</u>).

- Hang the front cover at the top of the backplate and let it fall into place.
- 2 Press the bottom of the front cover until you hear a click.
- 3 Bend the lower part of the rubber cover down.
- Screw in the front cover screw at the bottom of the charger to secure the front cover.
 NOTE! The locking screw is necessary to secure the cover and protect the charger from exposure.
- 6 Close the rubber cover. If the cable is inserted from the bottom, you can cut a corresponding hole in the rubber cover to ensure a neat installation.

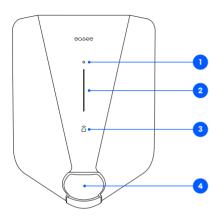
The charger is now ready for testing according to local regulations. Once complete, transfer ownership to the owner via the Installer App.







Features



- Touch button: The touch button is used to activate the local interface. The local interface is intended for local operations of the charger when no internet is available. Read more about the local interface at: easee.com/support/localinterface
- 2. Light strip: The light strip communicates the status of the Charging Robot at all times. (See <u>Charging</u> <u>Robot interface</u>).
- RFID area: The integrated RFID reader enables access control of the Charging Robot and identification of different users. You can use it to unlock the charger with an Easee Key. Check our knowledge base at <u>easee.com/support</u> for more details on how to add and manage your Easee Keys.
- 4. Type 2 socket: The Type 2 socket is completely universal and allows you to charge any type of electric vehicle using the appropriate charging cable. Furthermore, it is possible to permanently lock the charging cable, so you do not have to worry about it being stolen.

NOTE: Adaptors should not be used on the charger or the charging cable. The charging cable must have appropriate sockets on each end.

Charging Robot interface

Light description	Status
White - constant light, only at the bottom 2 LEDs - master unit / 1 LED - secondary units	Standby
White - constant light	Car connected
White - pulsating light	Charging in progress
Blue - constant light	Smart charging enabled (car connected)
Blue - pulsating light	Smart charging in progress
At startup, the LEDs turn on one by one. When the charger is updating, one or more LEDs will flash green while this is in progress.	Updating software (updating can take up to 30 minutes) NOTE! The car must be disconnected before a software update can be completed.
White - flashing light	Waiting for authentication by an RFID tag. Hold the RFID tag against the RFID area of the Charging Robot in order to authenticate and initiate the charging.
White - fast flashing light	RFID-tag received (awaiting key verification)
Red - flashing light, with warning sounds	▲ WARNING Critical error! Turn off the power and remove the charging cable from the Charging Robot. The power can then be turned back on if necessary. The flashing red light will continue, but the warning sound will stop when the charging cable is disconnected. The charger is blocked from further use, cannot be reset and must be replaced. Contact customer support.
Red - flashing light	A WARNING Critical error! The charger is blocked from further use, cannot be reset and must be replaced. Contact customer support.
Red - constant light	General error. Unplug the charging cable and replug it to the Charging Robot. If the red light persists, check the Easee App or our knowledge base ³ for further information.

³ Easee public knowledge base can be found at <u>easee.support</u>.

Light description	Status	
Red - constant light, with warning sounds	Wires are connected incorrectly.	
Red - pulsating light	The Charging Robot has measured an abnormal temperature and has entered in safe mode. Please go to our knowledge base ³ for further information.	
Yellow - flashing light, only at the bottom	The Charging Robot is waiting to be configured.	

³Easee public knowledge base can be found at <u>easee.support</u>.

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