

Charging Station

cPH1

Instruction Manual



Contact Details

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Important Information

Safety notices in this manual

This instruction manual contains important information for installation and putting into operation of all charging stations of type **cPH1**. Please make sure to read and follow the provided safety notices in any circumstances.

In particular, the warnings and safety measures clearly marked in this manual must be followed. The associated symbols carry the following meanings:



Danger!

Sections marked with this symbol indicate electrical voltages that represent danger to life and limb. Actions marked with this symbol must not be carried out **under any circumstances**.



Caution!

Sections marked with this symbol indicated further hazards that may lead to damage of users or the Wallbox itself. Actions marked with this symbol should be carried out with special care and by professional staff.



Please note!

Sections marked with this symbol indicate further important information and particularities which are necessary for a proper functioning device.

Safety notices on this device

Further safety notices and operating instructions can be found on and also inside the device. These symbols carry the following meanings:



Attention!

Only qualified staff which are familiar with this manual (this document) are allowed to open the **cPH1**.



Attention!

Dangerous electrical voltages occur inside the housing.

General safety notices

Before you start operating your cPH1 charging station please make sure you have carefully read the manual, heeded and followed all instructions and warnings.

The installation, repair and maintenance of the cPH1 as well as taking into operation must be carried out by qualified staff.

eCHARGE Hardy Barth GmbH does not assume liability for any damage of property or physical injuries caused by non compliance of the assembly and manual instructions, by usage of non-authorized replacement parts or accessories or by deploying non-qualified professional staff.

This device represents the current state of technology and fulfills all current technical safety requirements, directives and norms. The provided safety information serve to ensure a safe installation at the desired installation place as well as the proper operation of the device. Disregard of or actions contrary to the safety information and instructions contained in this manual may lead to electric shock, fire and/or severe injuries.

Usage of the charging station is only allowed if the installation has been carried out flawlessly and professional staff has taken it into operation. Malfunctions which threaten the safety of persons, connected users or the device itself must be removed by qualified or authorized staff only.

In case of a substandard installation or a malfunction caused by substandard installation, please contact first the company that has carried out the installation. If the errors still cannot be removed, please contact the technical support of **eCHARGE Hardy Barth GmbH**.

Via Mail support@echarge.de
Via telephone +49 (0) 9666 – 188 1350

Please make sure to store this manual in a safe and always accessible place.

A service case occurs, when...

- ...the housing has been damaged mechanically.
- ...the housing cover has been removed or cannot be closed or locked anymore.
- ...the necessary protection against water and/or foreign objects seems not to be provided anymore.
- ...the charging sockets and/or the external charging cable are visibly damaged or damaged in functional regards.
- ...the charging station does not work properly or is damaged otherwise.

Please also note the following:

- Do not install the charging station in close vicinity of running water or jetting water: The cPH1 is sufficiently protected against spray and splash according to IP44.
- The cPH1 must not be installed in an environment prone to or with danger of explosion (EX area).
- Do not install the charging station in any environment prone to or with danger of flooding.
- Please note that an additional fuse could be required due to a connected vehicle and/or due to national regulations.
- Please note that in some countries (other than Germany) and/or due to various vehicle manufacturers, tripping characteristics of the fault-current circuit breaker (type B) can be required. Please contact your distributor to learn about the requirements.

Operating instructions/Maintenance

Please note the following instructions regarding usage and maintenance of your device:

- This device **MUST ALWAYS** be connected to the protective conductor of the power supply.
- Please ensure that the rated nominal voltage and rated nominal current of the device correspond with the requirements of your local power supply system and that the nominal capacity is not exceeded during charging.
- Always follow the local safety regulations of the country you are installing or using the device.
- In order to fully disconnect the charging station from the power supply always disconnect the lead through one or more automatic cut-outs.
- Never install or operate the charging station in constricted rooms. In particular please ensure that vehicles can be parked within instructed distance to the charging station. The charging cable must never be strained with tensile strength when it is connected.
- Make sure that the front side of the housing cover is always closed to prevent unauthorized opening.
- **DO NOT** modify the housing or the wiring inside the Wallbox **in any case**. Violation contravenes the guarantee specifications and annul the warranty immediately.
- There are no components inside the product that will need to be maintained by the user.
- Only deploy qualified staff to install and/or repair your device.



ATTENTION!

The cPH1 charging station is designed for installation and operation at 230 /400V 50 Hz. The lead has to be inserted through a suitable cable channel or a tube on the bottom side of the housing.

- For cleaning use a dry or a slightly damp piece of fabric. **DO NOT** use any aggressive cleaners, wax or solvents (such as cleaning petrol or paint thinners for example). These can tarnish the display or damage the varnish.
- The cPH1 charging station **MUST NOT** be cleaned with a pressure washer or similar devices which apply high pressure on the housing when cleaning.

- Regularly examine the charging cable and/or charging sockets of your Wallbox as well as additional accessories to find possible damage spots and/or damages in general. If damages are found on the additional charging cable, please replace them immediately. No further charging is allowed in this case.

**DANGER!**

If you find damage on the housing, charging sockets or corresponding charging cables after installation, take the Wallbox out of order immediately and contact the service department of [eCHARGE!](#)

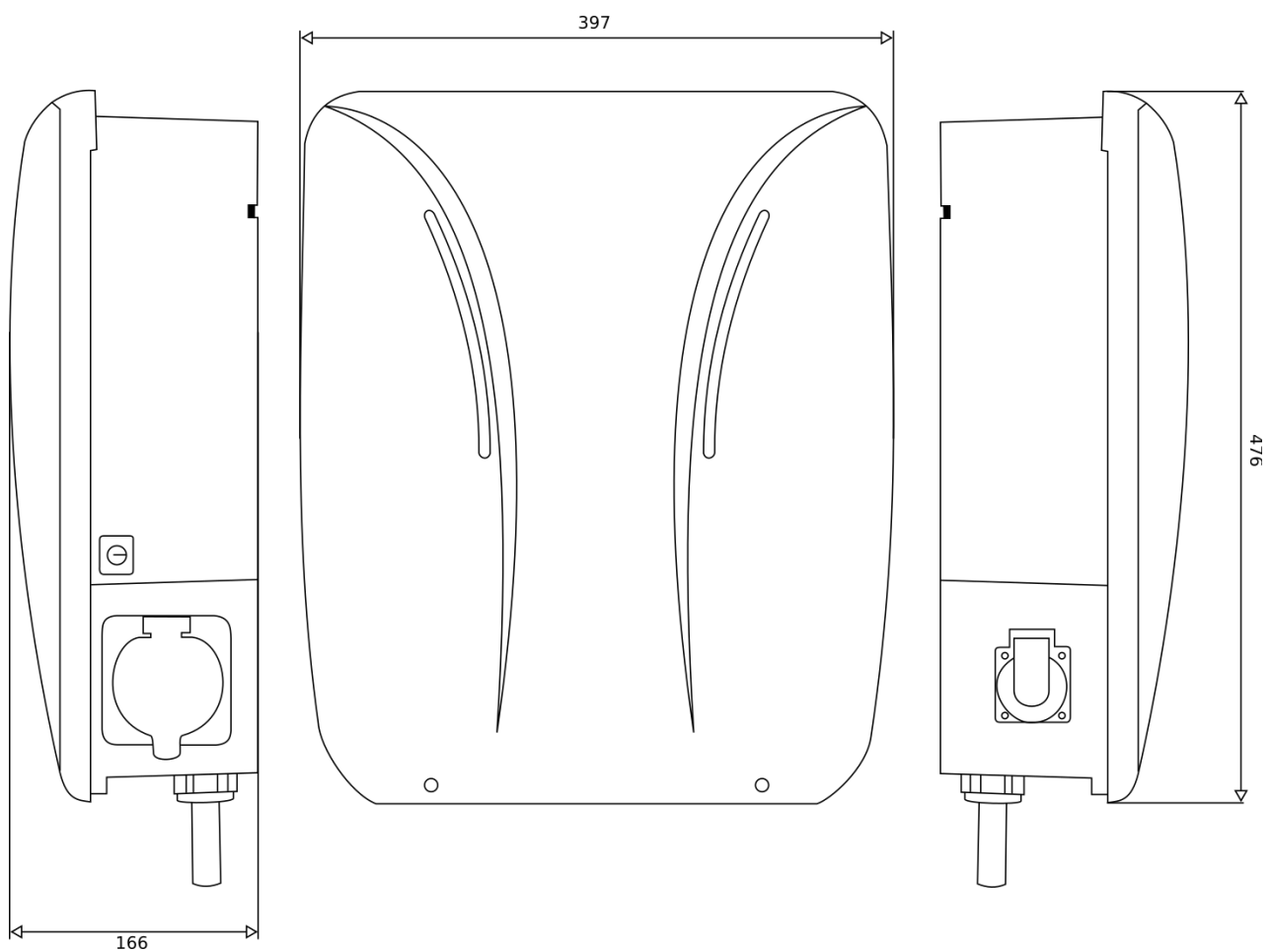
- The local regulations of operating electrical devices apply at any time.

Dimensional drawings and measurements

The cPH1 charging station is delivered after being completely assembled and tested. Below all measurements and assembly points are detailed in the dimensional drawings.

Charging station

Front view and side view of cPH1-series.
(all specifications are in mm)



Introduction

Thank you for choosing the cPH1 charging station by **eCHARGE** !

By choosing this product you are investing in an innovative and sustainable solution for the public and industrial section.

The charging stations of the cPH-series are delivered pre-configured and can be installed at a prepared mounting site with minimal technical and minimal time effort.

Via the optional available eCB1 module, the cPH1 can be embedded into an already existing photovoltaic system. When operating in an integrated network the charging station will allow nearly 100 % power usage consisting solely of solar electricity.

Thanks to the access control through the built-in RFID-Module (optionally available) all charging processes can be efficiently conducted and controlled, while the integrated energy meter provides precise measurement: The determined data is displayed in real time on a smartphone, tablet or pc for external utilization.

The charging stations of the cPH-series are constantly developed further and at all times comply with regulations and norms for charging of electric vehicles applicable through-out Europe according to IEC 61851-1, Mode 3. Please read on page 30 at paragraph "Standards and guidelines" for more details.

If you require more information to your charging station or want to inform yourself about additional equipment or want to know about further delivery programs of **eCHARGE**, please visit our website: www.echarge.de

Product description

Your cPH1 charging station permits safe and comfortable charging of electric vehicles according to Norm IEC 61851-1, Mode 3.

Depending on the respective variant your cPH1 is laid out for charging as fast as possible due to its circuit design and its diameter of cables and pins.

The cPH1 offers charging via a fixed cable of either Type 1 or Type 2 and/or also via charging sockets according to IEC 62196-2 Type 2 (depends on your variant). For those charging sockets **eCHARGE** offers additional cables, e. g. a charging cable with Type 2 plug on both ends or an adapter cable (Type 2 to Type 1) for electric vehicles with Type 1 charging sockets.

Alternatively the cPH1 is also available with a Schuko plug socket. Your distributor can provide further information.

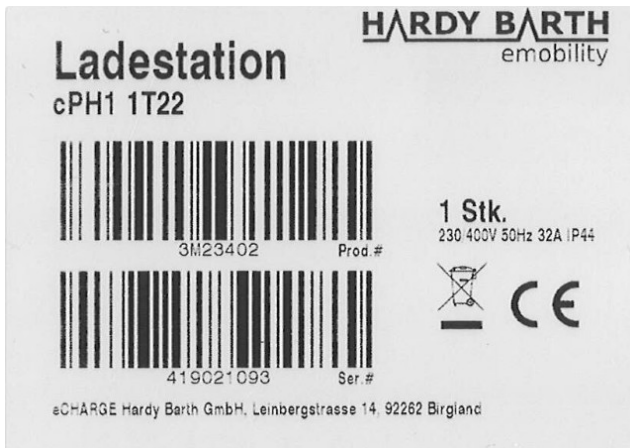
We set maximum value on the user's safety on all of our products.

Therefore, the cPH1 Wallboxes offer effective protection against short circuit, electric shock and other threats due to its built-in protective switches and fault-current detection.

Via two LED lights on the housing the user is always informed about the current state of the charging station.

Identifying your product variant

The cPH-series consists of multiple variants which differ in charging cable and charging capacity. Therefore they serve different implementation profiles. Inside the housing of the Wallbox you will find an identification plate. Open the housing cover before installation and operation in order to verify the type of variant with help of the identification plate:



In particular the model description (cPH1 XTYT) and data of the power supply (voltage, power frequency, current) are relevant for identification.

Detailed information to cPH1 charging stations can be found in section "Technical specifications" on page 29.




Scope of delivery

Your cPH1 Wallbox is delivered with various components which are essential for the installation and proper operation. Please check immediately whether your package contains the following basic components:

| Components | Quantity | Description |
|---|----------|---|
| cPH1 charging station | 1 | Charging station consisting of plastic housing with a lockable cover, protection against contact |
| Instructions for assembly and operation | 1 | Contains instructions for mechanical and electrical installation as well as taking into operation (this document) |

Available accessories

eCHARGE offers the following additional accessories for your cPH1 charging station:

| Illustration | Description | Item number |
|---|---|-------------|
|  | Charging cable Type 2 to connect all cPH1 charging stations and vehicles with charging sockets according to IEC 62196-2 Type 2, 32 A 240 / 415 V AC, protection against spray and splash IP44 Length: 5 Meters | 3M40504 |
|  | Adapter cable Type 2 to Type 1 to connect all cPH1 charging stations and vehicles with charging sockets according to IEC 62196-2 Type 2 with a charging plug of Type 1 according to IEC62196-2 Type 1 32 A 230 V AC, protection against spray and splash IP44 | 3M40513 |
|  | eCB1-Module external management module as measuring point 3-phase active power-energy meter up to 63 A, with LAN-interphase, RS-485 Bus system | 3M40405 |

Preparing the Installation

Several requirements regarding the mounting site and connection technology must be met for the installation in order to guarantee a safe operation.

Requirements for mounting site

The cPH1 charging station was developed for indoor as well as outdoor areas. As user please note the following requirements for the mounting site and installation to ensure safe charging later on.

- Follow all local regulations concerning electrical installation, fire prevention and accident prevention
- All regulations to installing a low voltage system according to IEC 60364-1- and IEC 60364-5-52 apply to any times.
- The mounting surface has to be steady and solid enough to withstand mechanical pressure.
- The installation position has to provide a lead big enough for the power supply. Depending on your variant two separate leads are also possible.
- Do not install the Wallbox at crowded areas or passage ways. Please make sure to lay all charging cables in sight and pedestrians or routes are NOT obstructed in any way.
- Even though basically the cPH1 is constructed to operate in an environment with high temperatures. If possible, it is highly recommended to install the charging station at a place where it is protected of direct sun irradiation. This way overheat of the housing can be prevented. You can find more information to environmental conditions in section “Technical specifications” on page 29.

Installation and taking into operation

The installation has to be carried out principally by professional staff. **Approval has to be given by a qualified electric company before the charging station can be taken into operation for the first time.**

Your cPH1 charging station is an electrotechnical device and therefore has to follow certain demands concerning the installation indoors and outdoors: Even though the housing of the cPH1 fulfills the standards given by IP44, please note especially for outdoors various environmental conditions:

- To ensure safe operation comply with minimum distances to other technical constructions. Further information can be obtained upon asking your distributor or deployed qualified staff of the electrical installing company.
- The charging station has to be installed in places easily accessible to persons authorized for usage.
- Choose the place of installation accordingly so the charging cable of the cPH1 can reach the charging socket of your electric vehicle without any further problems. UNDER NO CIRCUMSTANCES should the cable be strained with tensile strength while it is connected with your EV.

Mechanical installation on wall

Additionally the following components will be required:

- An electric drilling machine or a cordless screwdriver (not included in scope of delivery)
- A twist drill Ø 10 mm for the respective mounting surface (not included in scope of delivery)
- A Torx-Screwdriver or Torx-Bit TX25 and TX40 (not included in scope of delivery)
- Four ASSY-D plug screws of size 8,0-70/60; partial threads with matching nylon screw anchors of size 10×56 mm (included in scope of delivery)
- two cylinder head screws of size M5×16 (included in scope of delivery)
- if necessary: a level (not included in scope of delivery)

Please proceed as follows:

- Take off the front cover of the housing by unscrewing the 2 screws in the corners
 - unscrew the screws fastened in the lower part of the front panel.
 - remove the panel by carefully lifting it.
- Mark four drill holes on the wall.
- Drill the previously marked spots (Ø 10 mm).
- Insert the included screw anchors for the fastening screws.
- Position the charging station so the drilled holes of the wall tally with the ones of the cPH1.
- Now insert the fastening screws and tighten them.

The mechanical installation is now complete.

Electrical installation of charging station



DANGER!

Danger to life due to electric shock!

Before working with the cPH1 charging station:

Disconnect the electrical power supply and make sure that it stays disconnected non-stop through the whole installing process.

After completion of the mechanical installation the charging station will be connected to the power line. In the following, instructions on how to connect additional accessories are not shown in this manual as it focuses on the basic installation process. You can find instructions for the accessories in separate manuals of the respective component.

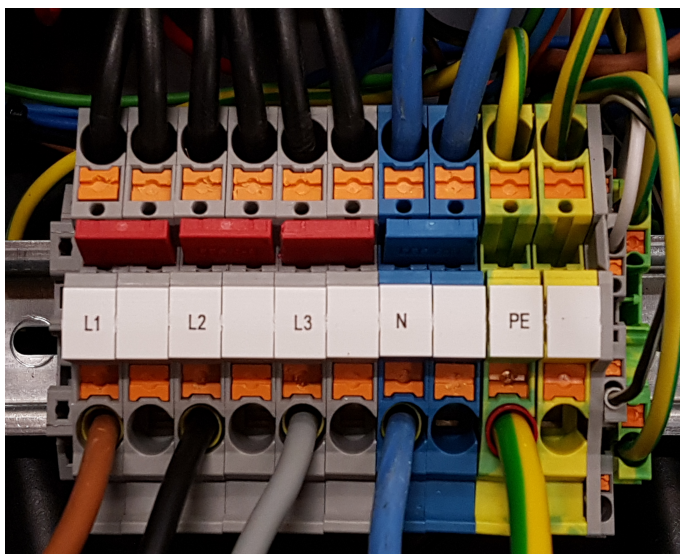
For the electrical installation, the following tools will be needed:

- A screwdriver, TX25 (not included in scope of delivery)
- Stripping tongs (not included in scope of delivery)

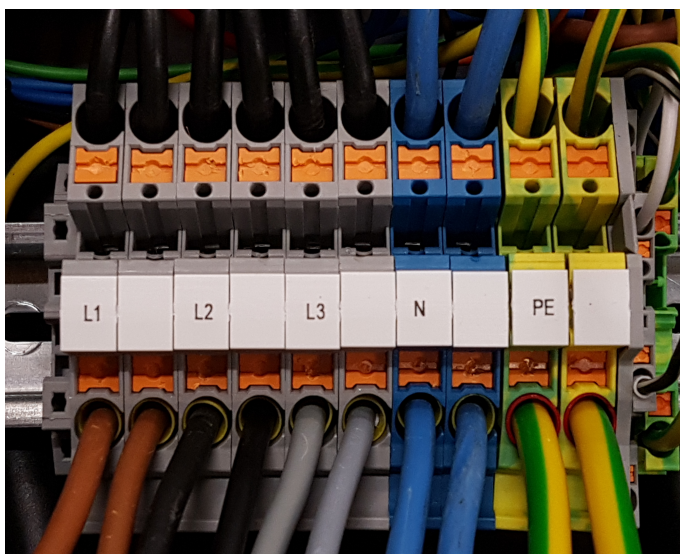
In order to connect your charging station to the power line please proceed as follows:

- 1 Once again make sure that all circuit breakers and all fault-current-circuit breakers in the lead are **deactivated**.
- 2 If not already done, take off the cover by
 - 2.1 unscrewing the two screws from the lower part of the charging station.
 - 2.2 Then carefully lift the cover and remove it.
 - 2.3 In order to remove the LED-Display fully first lift it slightly. Just so you can unplug it.
- 3 Turn off all circuit breakers and all fault-current-circuit-breakers inside the charging station (switch position 0 OFF).
- 4 Insert the lead from below into the respective cable glands. Clamp the stripped glands of the lead into the lead terminal blocks according to the labels (6mm²).

4.1 Single lead:



4.2 Double lead:

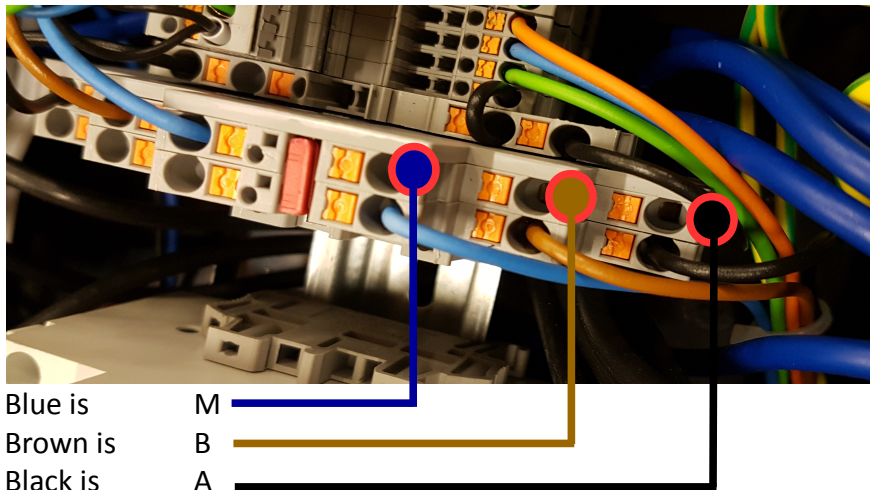


| Description | Colour of core | Label |
|------------------------|----------------|------------------------|
| Live conductor Phase 1 | BROWN | EUROFUSE NH00/000 63A |
| Live conductor Phase 1 | BLACK | EUROFUSE NH00/000 63A |
| Live conductor Phase 1 | GREY | EUROFUSE NH00/000 63A |
| Neutral | BLUE | BLUE CONDUCTOR |
| Protective conductor | GREEN-YELLOW | GREEN-YELLOW CONDUCTOR |

DANGER!

The previously named colour codes are NOT obligatory on an international level: If the cores are colour-coded differently please contact a qualified electrical company and have them examine the lead and if required, replace it.

- 5 If there is no built-in eCB1 module and communication through the external eCB1 module is preferred instead, the RS-485 Bus cable of the external eCB1 module has to be inserted from below. The RS-485 Bus cable will be clipped in the middle of the cPH1 like so:



Blue is M
Brown is B
Black is A

- 6 Turn the circuit breakers and fault-current circuit breakers back on. (Switch Position I ON) The LED lights will glow green.
- 7 To re-attach the front cover,
- 7.1 first plug the LED-Display back in and put it on top of the charging station.
 - 7.2 Then close the charging station by re-attaching the front cover.
 - 7.3 Secure it with the two screws on the bottom of the front cover.

The electrical installation is now complete.

**PLEASE NOTE!**

The first time operating the charging station should be executed by a qualified electrician in any case. They can determine correct operation as well as repair malfunctions or mistakes that had been made during the installation.

Taking into operation and charging process

After the mechanical and the electrical installation, your charging station is immediately ready.
For charging there are various ways to connect your cPH1 to your EV (depends on your variant).

For that an optional charging cable might be needed. For the benefit of flexibility, **eCHARGE** offers you two different cables

| Item number | Description | Maximum loading capacity |
|-------------|---|--------------------------|
| 3M40504 | Charging cable Type 2 to connect all cPH1 and EVs with charging sockets according to IEC 62196-2 Type 2 | 22 kW |
| 3M40513 | Adapter cable Type 2 to Type 1 to connect all cPH1 with charging sockets according to IEC 62196-2 Type 2 to charging plug according to IEC 62196-2 Type 1 | 7.4 kW |

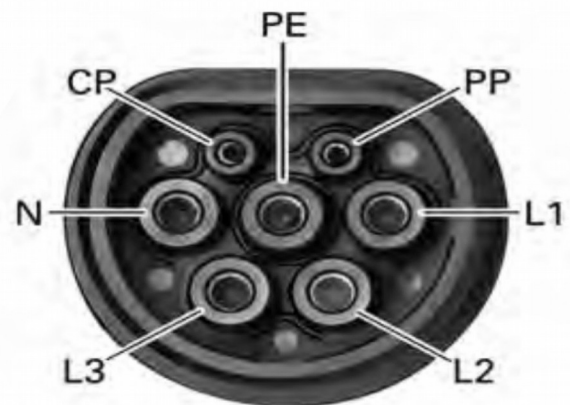
The Type-2 charging cable of the cPH1 has three live conducting pins, a neutral conductor, a PE conductor and two signalling contacts (**C**ontrol **P**ilot and **P**roximity **P**ilot)

Only when the plug of the charging cable is interlocked with the charging socket, voltage will be output through the conducting pins and the charging process will start.

The charging socket of the cPH1 has an electromotive interlock which offers complete control, custom clearance and surveillance in combination with the optionally available RFID module.

The Type 2 charging sockets of the cPH1 are equipped with a DC fault-current-module.

This is especially important in case your vehicle does not provide protection against DC fault current: Further information can be found in the instruction manual of your electric vehicle, the manufacturer or your vehicle distributor.



Safety notices for operation

Please note the following safety notices before you charge with your cPH1:

- Make sure that the cPH1 has been installed according to the requirements of this document. Mind especially that the charging device is freely accessible and is not exposed to rain or direct solar radiation. You should also be able to connect the external charging cable to your electric vehicle without putting it under tension or straining it otherwise.
- Make sure that your cPH1 is properly connected to the lead.
- Make sure that the lead is protected by appropriate automatic cut outs.
- Make sure the cover of the cPH1 is always securely closed during normal operation
- Make sure that the external charging cable is not twisted and assure yourself that the cable and cover do not have any visible damages.

Preparation for RFID access

You can set up identification of users to restrict or authorize charging process for authorized persons with the integrated RFID Reader. Registration at the cPH1 has to be done through the RFID conformable transponders and/or through RFID identification cards.

The registration happens through the RFID-Module located in the middle of the cPH1. The RFID module visualizes its status and all reports with a red LED light each during registration and operation.

Before you are able to charge with the cPH1 the optionally available RFID, identification cards have to be registered by the eCB1 module.

Charging process

The cPH1 is designed to charge your vehicles as fast as possible according to IEC 61851-1 Mode 1 (upon using the Schuko plug socket) or IEC 61851-1 Mode 3. The effective charging time depends on the battery of your vehicle as well as on the current residual energy. Therefore, it is not possible to give a binding statement regarding the charging time.

In fact you will determine the data upon practice and thus, develop your own personal schedule for charging.

To charge your vehicle proceed as follows:

1. Check the LED-Display on the front of your charging station. If the charging station is ready, the LED lights are glowing green.
2. Open the charging socket of your vehicle.
3. Plug the charging cable (of either Type 1 or Type 2) into the charging socket of your vehicle. Park the EV accordingly so you can reach it comfortably. During the charging process the cable **MUSTN'T** be strained.
4. Open the cover of your charging socket of the cPH1 if available with your variant and plug in your Type 2 charging cable.



PLEASE NOTE!

If the used charging plug socket does not require RFID authentication, the charging process will start immediately. In this case skip step 5 and 6.

5. Register with your RFID identification card by placing the card in front of the marked spot of the RFID module on the cPH1.

Find more details at paragraph "RFID-module" on page 27.

6. Start of charging process

6.1 Standard operation

In case of standard configuration the charging process will start immediately after a successful registration by the RFID identification card. The colour of the LED-Display will change from green to blue as soon as the charging process begins.

6.2 Operation with activated timing

If time control is activated in the eCB1 module, the charging process will start as soon as the issued point of time is reached. Outside of the issued point of time the charging socket is marked as “reserved” as long as the charging cable is plugged into the charging socket. In that case the LED Display continues to glow in green but changes to glow in blue as soon as the charging process starts.



PLEASE NOTE!

If the cable is unplugged during the reserved time, the reservation will be deleted for the respective charging plug socket. Then you need to register again.

Time control is activated through the eCB1 module and has to comprise of a fixed time period (Start time- End time). Additionally, individual weekdays can be activated or deactivated for time control.

Mark individual RFID-Tags as “Master” to temporarily bypass the time control. Charging processes activated by these tags ignore the set time period and activate the charging slot immediately.



PLEASE NOTE!

A flawless time control can only function permanently if the eCB1 module has access to a time server (NTP)!

7. The charging process will not be terminated by the charging station but only by the vehicle itself. Based on communication between the cPH1 and your vehicle, the charging station will give notification by switching the LED colour from blue back to green. This is to signify that you can remove the charging cable. Upon ending the charging process, pull the cable out of the socket of your EV and out of your cPH1. Should the EV still not be completely charged please contact the service partner of your vehicle.



PLEASE NOTE!

Should any errors or malfunction occur during or after the charging process, it will be indicated on the LED-Display of the charging station. Chapter “Operation Status” on page 26 describes how to recognize the operation status and/or error status and which actions are necessary to be taken.



PLEASE NOTE!

If time control is activated in the eCB1 module, an ongoing charging process will be terminated early upon reaching the end of the fixed time period regardless of its battery condition. Further information can be found on page 25.

Particularities

1. Time control

Time control is activated through the eCB1 module. It consists of a fixed time period which can be set freely.

Mark individual RFID-Tags as “Master” to temporarily bypass the time control. Charging processes activated with these tags ignore the set time period and activate the charging slot immediately.

If time control is activated in the eCB1 module, the charging process will start as soon as the issued point of time is reached. Outside of the issued point of time, the charging socket is marked as “reserved” as long as the charging cable is plugged into the charging socket.

Additionally, the maximum charging period can be set in timing. After reaching the maximum amount of charging time, the charging process will be terminated. Continuation of charging can only be issued after unplugging and re-authentication via the RFID module.



PLEASE NOTE!

Unplugging the charging cable during reserved mode will terminate the reservation.



PLEASE NOTE!

A flawless time control can only function permanently if the eCB1 module has access to a time server (NTP)!

2. Charge control

While one or more vehicles are charging you can actively control the charging current in real-time via the eCB1 module. E.g. you can restrict the charge current to a certain maximum power through separate mains supply measurement. You can also set the minimum power for charging. Normally the control range of an electric vehicle is between 6 A and 32 A.

The respective settings will be made through the eCB1-Module which passes the data to the vehicle. For detailed information regarding charging control please contact the contact person in your region.

Operation status

The cPH1 charging station is also designed for maximum security and reliable charging. Through internal testing routines malfunctions are identified and immediate switch off is issued. Should there be any malfunctions during the charging process, the LED-Display and the LED lights of the RFID module will immediately indicate them. This chapter describes how to recognize the error states and operating states and which measurements are to take in order to repair the glitch.

LED-Display

The LED-Display on the front cover shows the current operation condition. For visualization the LED lights can...

- ...glow (they are permanently turned on)
- ...not glow (they are permanently turned off)

When in normal operation mode the following colors and states are displayed as follows:

| Colour code | Description |
|-----------------------|---|
| Green | The charging station/charging socket is ready. You can connect the vehicle to charge at any time. |
| Blue | The electric vehicle is currently charging. |
| Red | An error occurred while charging. (Please contact a technician) |
| Green/Yellow flashing | A RCM error occurred. (Please contact a technician) |
| Off | There is no power supply. (Please check the external fuses) / There is an error at the charging point. (Please contact a technician) |

RFID-Module (optional)

The centrally located LED Display (RED) shows the current status of the RFID module of the charging station.

During normal operation the LED lights are flashing steadily every six seconds. This is to show that the RFID module is ready.

After connecting your vehicle/charging cable to the charging station, hold an active RFID identification card over the module.

Upon recognizing the RFID card provided that it is registered in the data base the LED light will glow for about 1.5 seconds and the charging process will start.

If the LED light flashes three times, these could be the reasons:

- The RFID card is not activated,
- or there is a charging cable connected to the second charging socket which hasn't been reserved or activated.

In these cases the charging process will not start.

If two charging sockets shall be activated at the same time, unplug one of the charging cables and re-register the cables one after another.

If your RFID card wasn't accepted, please wait for a moment before trying again. If the charging station still doesn't activate after that, your RFID card is either damaged or not registered in the database.

Interruption of operation and solutions

The cPH1 executes internal testing routines to guarantee proper and safe operation. In order to restore the previous operation state, first, it is essential that you determine the type of malfunction undoubtedly.



DANGER!

Inside the charging station life threatening voltages occur!
Opening the charging station and following works on the charging station must be carried out solely by qualified staff.

The following malfunctions can occur:

| Malfunction | Possible cause | Proposal for solution |
|---|---|---|
| The LED lights are not working. | The cPH1 is not provided with any voltage. | The external power supply of the cPH1 is interrupted: Please check the fuses and protective switches of the pre-installation, located in the lead. |
| | | An internal RCCB of the cPH1 is triggered: Please check the status of the RCCB and plug it back in by the rocker arm. |
| | The LEDs of the display are damaged. | If the LEDs are defect, please contact your local distributor or previously employed electricians so they can be exchanged. |
| The electric vehicle is not recognized. | The charging cable is not plugged in correctly. | Remove the charging plug from the vehicle and plug it in once again. Make sure that the cable is set correctly in the socket of the vehicle and/or the charging station. |
| | The vehicle is configured faultily. | Check the settings of your vehicle and restore them to pre-setting if required. |
| The LEDs display an error sequence | The cPH1 recognizes a malfunction. | All malfunctions displayed on the RFID module relate to the RFID-registration. If the error still persists, please register the RFID-cards again or contact your local distributor. |

Appendix

Technical specifications

| | |
|--------------------------------|--|
| Variant | cPH1 |
| Power line | For lead of size 5 x 6 mm ² |
| Rated nominal voltage | 230 / 400 V |
| Rated nominal current | 16 A/ 32 A, 3-phase |
| Nominal frequency | 50 Hz |
| Maximum charging capacity | 22 kW |
| Protective switches | DC fault-current detection 6 mA (built in) and circuit breaker C16 A/ C32 A (built in, depends on variant); additionally required: fault-current circuit breaker of Type A, 40 A, 0,03 A |
| Charging socket/charging cable | 2 x Type 2, 16 A/ 32 A |
| Charging controller | 2 x EVCC |
| Access | RFID Mifare |
| Load management | Dynamic with eCB1-Module |
| Environmental temperature | -30 to 50° C |
| Storage temperature | -30 to 85° C |
| Relative humidity | 5 to 95% (non-condensing) |
| Class of protection | I |
| Over-voltage category | III |
| Degree of contamination | 3 |
| Type of protection for cover | IP44 |
| Dimensions | 497mm x 397mm x 166mm (HxWxD) |
| Weight per unit | approx. 10.5 kg |
| Product number | 3M2XXXX |

Standards and guidelines

The cPH1 charging station fulfills the following standards and protection classes:

General standards

| Norm | Explanation |
|------------|----------------------------------|
| 2014/30/EU | EMV-guideline |
| 2011/65/EU | RoHS-guideline |
| 2012/19/EU | WEEE-guideline |
| ElektroG | Electrical and electronical laws |


Equipment safety standards

| Norm | Explanation |
|---------------------------|---|
| IEC 61851-1 Ed 2.0:2010 | Conductive charging systems for electric vehicles- part 1: general requirements |
| IEC 61851-22 (69/201/CD) | Conductive charging systems for electric vehicles part 22: alternating current charging station for electric vehicles |
| DIN EN 61851-1:2012-01 | Conductive charging systems for electric vehicles part 1: general requirements |
| E DIN EN 61851-22:2011-04 | Conductive charging systems for electric vehicles part 22: alternating current charging station for electric vehicles |
| HD 60364-7-722:2012 | Installation of low voltage systems part 7-22: power supply electric vehicles |

Only for Germany

| Norm | Explanation |
|--------------------------|--|
| DIN VDE 0100-722:2012-10 | Installation of low voltage systems- requirements for establishments rooms and grounds of special kind – power supply for electric vehicles |

Protection class and protection types

| Protection class/protection type | Explanation |
|---|--|
|  | Protection class I: all electrically conductive components of the operating device are connected low impedance with the protective conductor system of the fixed |
| IP 44 | Protection type of housing: Protection against foreign objects < 1mm and protection against splashing from every direction |

Guarantee specifications and warranty

eCHARGE provides the legally prescribed guarantee period as well as a warranty of the same duration for the country in which the product was purchased. Should the product be operated in another country the legal provision of the country of purchase apply nevertheless: Under no circumstances are guarantees or warranty transferable.

Should modifications of any kind have been made to the product that have not been explicitly authorized by **eCHARGE** or have been described in the guidelines of authorized service partners, the manufacturer's warranty obligations become void with immediate effect.

Only the manufacturer or authorized service partners can repair on site. Transgression leads to the manufacturer's warranty obligation to become void with immediate effect.

WARNING!



Should problems occur when operating your product please contact immediately your local distributor or an authorized representative to clarify whether the malfunction is covered by guarantee and/or warranty provisions. Do not, **under any circumstances**, make alterations or repairs to your product on your own!

eCHARGE guarantees the proper operation of the product after delivery and installation within lawfully valid warranty. The guarantee is limited to damage that can be shown to have resulted from normal use and obvious material defects or manufacturing defects. In such cases the manufacturer will attempt to restore the proper function of the product in collaboration with the local distributor. The customer will be responsible for covering arising transport costs for the product.

The manufacturer rejects further damage claims that can be shown to have resulted from improper use, neglect or modifications, from repair attempts by unauthorized persons or force majeure.

Any assumed guarantees, including the guarantee of marketability or suitability for specific uses are restricted to the warranty period.