

The smart Wallbox

**cPH2**

**Installation and operating manual**



English

## Contact Details

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# Important Information

## Safety instructions in this manual

This instruction manual contains important information for installation and putting into operation of all charging stations of type **cPH2**. 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!**

Life-threatening electrical voltages occur. Actions marked with this symbol **MUST NEVER** be performed.



### **Caution!**

Sections marked with this symbol indicate additional hazards that may result in damage to the device or other consumers. Actions marked with this symbol must be performed by **qualified personnel** and with **SPECIAL CARE**.

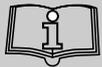


### **Notice!**

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

## Safety instructions on the device

Additional safety and operating instructions are attached to and inside the charging station. These symbols have the following meaning:



### Attention!

The charging station may only be opened by **qualified personnel** who are familiar with the instruction manual (this document).



### Attention!

**Life-threatening** electrical voltages occur inside the housing.

## General safety notices

Before using the cPH2 charging station, read these operating instructions carefully and follow all instructions and warnings.

Installation, commissioning, maintenance and repair of the charging station must only be carried out by **qualified personnel**.

The **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 charging station corresponds to the current state of the art and complies with all current safety requirements, guidelines and standards. The safety instructions in this manual are intended to ensure proper installation at the place of use and safe operation. **Non-compliance or failure to comply with the safety information and instructions in these installation instructions may result in electric shock, fire or serious injury.**

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 rectified, please contact the technical support of **eCharge**.

Via Mail [support@echarge.de](mailto:support@echarge.de)

Via phone +49 (0) 9666 – 188 00 50

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

### **The service case occurs when...**

- ...the housing has been mechanically damaged
- ...the housing cover has been removed or can no longer be closed or locked.
- ...adequate protection against splash water and/or foreign bodies no longer seems to be provided.
- ...the charging sockets and/or the external charging cables have been functionally or visibly damaged.
- ...the charging station does not function properly or has been damaged in some other way.

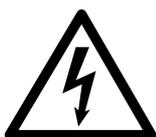
### **Also note the following:**

- The cPH2 is protected against spray and splash water according to IP 54. However, it should not be installed in the immediate vicinity of flowing or jet water.
- The cPH2 charging station must not be installed in an environment with danger for explosions (EX-area).
- The charging station must not be installed in areas subject to flooding.
- Note that additional overvoltage protection may be required by a connected vehicle and/or by 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.

## Instructions for use / Maintenance

Observe the following instructions for use or maintenance of your charging station:

- This device must **ALWAYS** be connected to the protective conductor of the power supply!
- Ensure that the rated voltage and current of the device comply with the specifications for your local power grid and that the rated power is not exceeded during charging operation.
- At all times, observe the locally applicable safety regulations for the country in which you are operating the charging station.
- To disconnect the charging station completely from the mains, the supply line must always be interrupted via the upstream circuit breaker(s).
- Never install and operate the charging station in confined spaces. In particular, it must be ensured that vehicles can be parked at the prescribed distance from the charging station for charging operation and can be connected to the charging cable without tension.
- Make sure that the front housing cover of the charging station is always closed to prevent unauthorized opening of the housing.
- **DO NOT** make any changes to the housing or the internal circuitry of the device! Failure to do so fundamentally violates the terms of the warranty and voids the warranty with immediate effect.
- There are no maintenance parts in the device for the user.
- Have the device repaired and/or installed by qualified personnel only.



### **ATTENTION!**

This cPH2 charging station is intended for connection and operation at 230V / 400V and 50 Hz mains voltage. The supply line must be inserted into the housing via the M32 cable gland provided for this purpose!

- Use a dry or slightly damp, well-wrung cloth to clean the charging station. Do not use aggressive cleaning agents, waxes or solvents (such as cleaning gasoline or paint thinner), as these can cloud the displays or damage the paintwork.
- **DO NOT** clean the cPH2 charging station with a high-pressure washer or similar device that applies high pressure to the surface of the housing.
- Check the charging sockets of your cPH2 charging station and the optionally available charging cables at regular intervals for any damage. If the optionally available charging cables show any damage, please have them replaced immediately: Further charging is not permitted from this moment on.



**DANGER!**

If you notice any damage to the housing, the charging sockets or the associated charging cables after installation, you must take the charging station out of operation immediately. Contact the service department of **eCharge!**

- The respective local regulations for the operation of electrical equipment apply at all times.

## Introduction

Thank you for choosing the cPH2 charging station from **eCharge Hardy Barth GmbH!** With this Wallbox you invest in an innovative and future-proof solution for the private and public sector to charge your electric vehicle reliably and intelligently.

The Wallboxes of the cPH2 series are delivered pre-configured for a minimum of technical and temporal installation effort, for an appropriately prepared installation site.

Our charging stations are subject to permanent further development and comply with the regulations and standards applicable throughout Europe for the charging of electric vehicles. Please also read the section "Standards & Guidelines" on page 26.

## Product description

Your cPH2 charging station allows safe and convenient charging of electric vehicles in accordance with the IEC 61851-1 standard, Mode 3. Depending on the variant in question, the cPH2 is always designed for the fastest possible charging of the connected electric vehicles in terms of circuit design, cable diameter and connections.

Thanks to access control via the Charge Controller, charging operations can be managed easily and in a controlled manner. The versatile setting parameters thus facilitate, for example, the charging operation of several vehicles by limiting the respective charging current.

An integrated MID energy meter provides precise information about the current charging power at each charging point. The determined data on active and past charging operations can then be made available in real time on a smartphone, tablet or PC in the internal network and can be transferred as required.

In combination with a compatible inverter or additional eCB1 MP+, the cPH2 Wallbox also allows 100% use of solar power from an existing photovoltaic system for charging your electric vehicle. Furthermore, in combination with a compatible smart energy meter, such as our eCB1 MP+, the cPH2 enables dynamic load management, for example, to avoid peak loads or limit the maximum current when using multiple charging points simultaneously.

The two LED displays on the front of the housing inform the user at all times about the current status of the Wallbox and the respective charging point.

Depending on the equipment variant, the cPH2 offers connection of the vehicle via integrated charging cables type 2 or alternative charging sockets type 2 according to IEC 62196-2. Optionally, the cPH2 is also available with an additional protective contact socket: For further information, please contact your sales partner.

With all our products, we place maximum emphasis on safety for the user. Therefore, in addition to Welding Detection, the cPH2 offers DC residual current detection, which in combination with the installation's protective devices ensures careful protection against short circuits, electric shocks and other hazards.

## Identification of the product variant

The cPH2 series comprises several variants that differ in terms of charging sockets and charging power and thus serve different application profiles. For identification of the variant, there is a product type plate on the outside and inside of the housing.

**CAUTION:** The charging station may only be opened by qualified personnel.



Figure 1: Nameplate cPH2

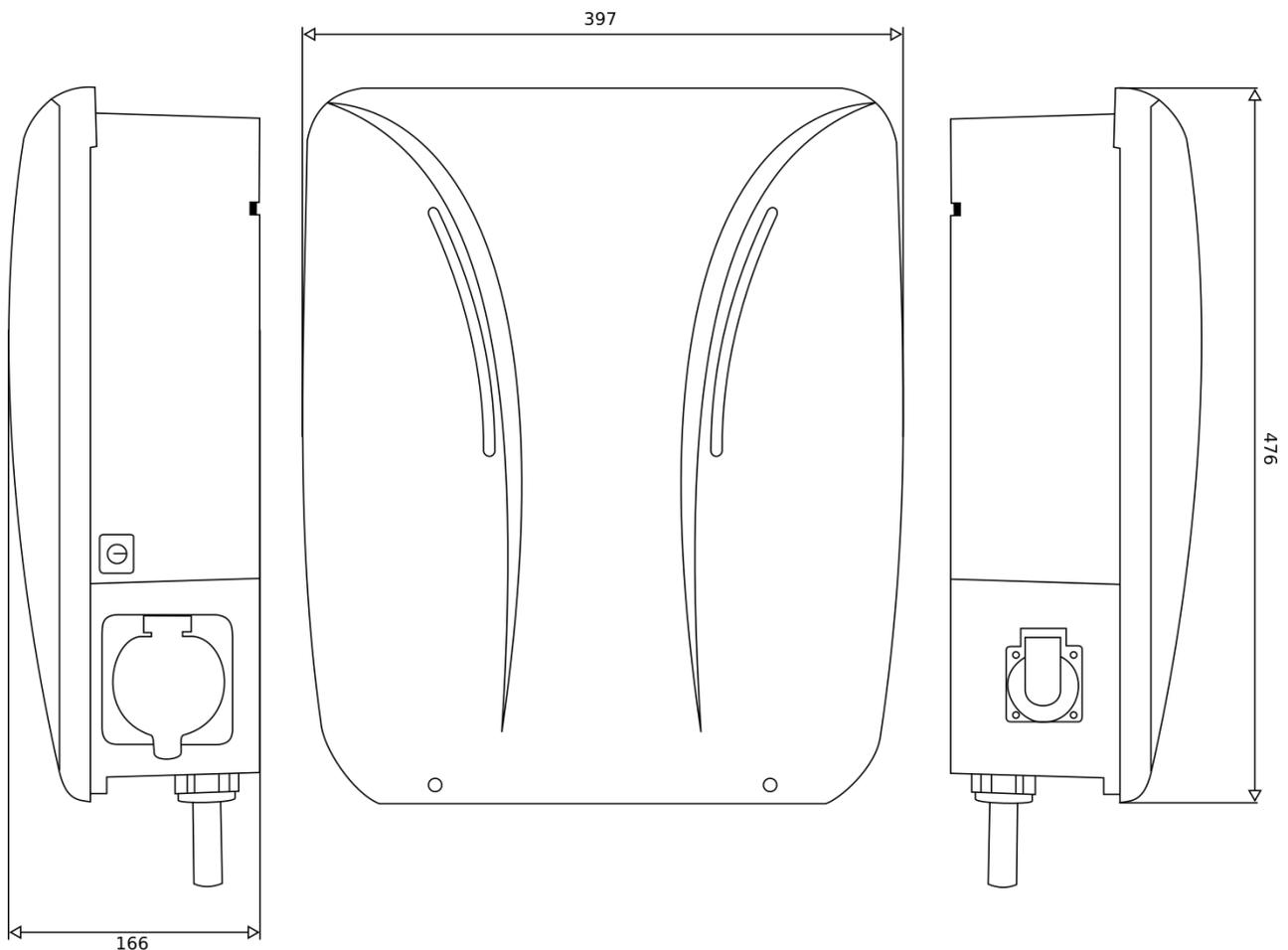
The model designation (cPH2 xTyy..) and the values for the mains connection (voltage, mains frequency, current) are particularly relevant for identification.

For detailed information on the cPH2 charging stations, please refer to the "Technical data" section on page 24.

## Dimensional drawings and dimensions

The **cPH2** Wallbox is delivered fully assembled and tested. All dimensions as well as the mounting points are shown in the following dimensional drawings.

Top and side view of the cPH2 series  
(all dimensions in mm)



## Scope of delivery

Your cPH2 charging station is delivered with various components that are necessary for assembly and proper operation. Therefore, immediately after unpacking, check whether the following basic components are included:

Components	Quantity	Description
cPH2 Wallbox	1	Charging station, consisting of plastic housing with lockable cover, touch protection
Installation and operating manual	1	Manual with information on the charging station, instructions for mechanical and electrical installation and commissioning of the Wallbox. (this document)
Mounting accessories	4	Screws and dowels for wall mounting of the Wallbox

## Available accessories and equipment (optional)

**eCharge Hardy Barth GmbH** offers the following accessories for your cPH2 Wallbox. For more information or information about available accessories and the further delivery program of **eCharge**, please visit our website at: [www.echarge.de](http://www.echarge.de)

Components	Description
RFID module incl. 5 x RFID cards	Authentication and release of the loading process for an authorized group of users
GSM communication module	Backend connection, e.g. management of multiple charging stations on different sites
eCB1 MP+	Smart energy meter as an alternative to a compatible PV system, for example for PV overcharging or for limiting the maximum current in the house connection.
Protective contact socket	230 V, 6A socket on the housing of the cPH2
Stele with concrete foundation	For the safe assembly of the Wallbox without wall mounting
Key switch	Switch between eco/fast charging and charging stop

## Assembly and installation



### Attention

**Assembly, installation and initial commissioning** of the charging station may **only** be carried out **by qualified personnel**.

The cPH2 Wallbox is an electrotechnical device and is therefore subject to certain specifications for indoor and outdoor installation. Although the housing of the cPH2 complies with the regulations described for protection class IP54, you must take the following environmental conditions into account in particular:

- For safe operation of your charging station, minimum distances to other technical installations must be taken into account: For more information, please contact your electrical installation company or your sales partner.
- The charging station must be mounted so that it is freely accessible to persons authorized to operate it.
- Select the mounting location so that you can easily reach the charging socket on the vehicle with the optionally available charging cable of the cPH2. The cable must **NEVER** be under tension when connected to the vehicle.

## Requirements for the assembly site

The cPH2 charging station was developed for indoor and outdoor use. For proper charging, you as the operator must observe the following specifications for the location as well as for the installation:

- Observe all local regulations for electrical installations, fire prevention and accident prevention.
- All specifications for the installation of low-voltage systems according to DIN VDE 0100.
- The mounting surface must have sufficient strength to withstand the mechanical loads.
- A sufficiently dimensioned supply line for the power supply must be provided at the mounting position. Depending on the equipment variant, 2 separate supply lines are also possible.
- The cPH2 charging station should not be installed in areas with a high volume of people or on thoroughfares. In particular, ensure that the charging cables are laid so that they are clearly visible and that passers-by or walkways are NOT obstructed by the cables.

- Basically, the cPH2 is designed for operation in high ambient temperatures. Nevertheless, it is recommended to install the charging station, if possible, in a way that it is protected from direct sunlight: this prevents excessive heating of the housing. For more information on environmental conditions, refer to the "Technical data" section on page 24.
- The charging points and holding devices for the charging plugs should be between 0.4 m and 1.5 m above the ground.

## Wall mounting of the charging station

### For the assembly you need the following components:

- Drilling machine or cordless screwdriver (not included in the scope of delivery)
- Drill Ø 10 mm for the respective mounting surface (not included in the scope of delivery)
- Torx screwdriver TX40 and Allen key 4 mm (not included in delivery)
- Four ASSY-D dowel screws 8.0-80, partial thread, with matching nylon dowels 10 x 56 mm (included in delivery)
- Two M5x16 cylinder screws (included in delivery)
- cPH drilling template [echarge.de/accessories](https://echarge.de/accessories) or **PDF** (not included in delivery) or optionally available cPH2 drill plate as eCharge accessory: Article 3M40777
- If necessary, spirit level (not included in the scope of delivery)

### Proceed as follows:

- 1** Check the dimensions on the drilling template for correctness using a calibrated meter measure **BEFORE** marking and drilling the holes.
- 2** Mark the four drill holes on the wall using the drilling template or drill plate and a spirit level.
- 3** Drill the marked mounting holes (4x, Ø 10 mm).
- 4** Insert the dowels supplied.
- 5** Remove the housing cover of the charging station.
  - 5.1** To do so, unscrew the two screws on the lower side of the cover.
  - 5.2** Carefully lift off the housing cover and then the contact protection cover. To do this, carefully disconnect the plug connection of the LED indicators on the touch guard.
- 6** Place the charging station in position so that the pre-drilled holes in the wall match those of the cPH2.
- 7** Now insert the supplied fastening screws and tighten them hand-tight.

This completes the mechanical assembly of the charging station.

## Electrical installation of the charging station



### **DANGER!**

#### **Danger to life due to electric shock!**

Before working on the cPH2 charging station:  
Disconnect the power supply and ensure that it remains permanently disconnected during the work.

After completion of the mechanical installation, the charging station is ready to be connected to the mains. Only the basic connection of the power supply line is described below: The assembly and connection of optional accessories is not the subject of these instructions, but is described in the instructions for the respective component.



### **NOTE!**

For the fuse protection of the Wallbox, one **type A RCD** **RCD type A** (residual current circuit breaker with 0.03A tripping current) and a subsequent **circuit breaker 32 A\*, 3-pole** (C characteristic recommended) must be pre-installed for each supply line.\*\*

#### **Special case:**

In the case of a Wallbox with two charging points and only one supply line, it is mandatory to pre-install a **type B or type EV RCD** in the supply line. We therefore recommend connecting one supply line per charging point.

\* A C16A or C20A, 3-pole is specified for the cPH2 1T11.

\*\* Deviating country-specific standards (connection conditions) must be observed!

### **For the electrical assembly you need the following components:**

- Allen key 4 mm (not included in the scope of delivery)
- Stripping pliers for supply cable (not included in scope of delivery)



### **NOTE!**

The initial commissioning of the charging station **MUST ALWAYS** be carried out by a qualified installer: This person can determine the correct operation of the charging station or correct any malfunctions or installation errors.

**Proceed as follows to connect the charging station to the mains:**

- 1** Make sure again that all **line circuit breakers** and **current circuit breakers** in the supply line are **deactivated**.
- 2** Remove the housing cover of the charging station.
  - 2.1** Unscrew the two screws on the lower side of the lid
  - 2.2** Carefully lift off the housing cover
  - 2.3** Carefully lift off the touch guard and pull out the plug connection of the LED-indicators. You can then remove the touch guard.
- 3** Now switch off the circuit breaker in the charging station (switch position 0 OFF).
- 4** Insert the supply line from below into the corresponding cable gland. Then clamp the stripped wires of the supply line into the supply line terminals according to the terminal labeling (max.10 mm<sup>2</sup>). The **underlined phases** indicate the terminals for the **right-hand charging connection**.

**Incorrect connection of the wires can cause damage to the charging station!**

**Caution:** In the case of a Wallbox with two charging points and only one supply line, **type B or type EV RCD** must be pre-installed in the supply line.

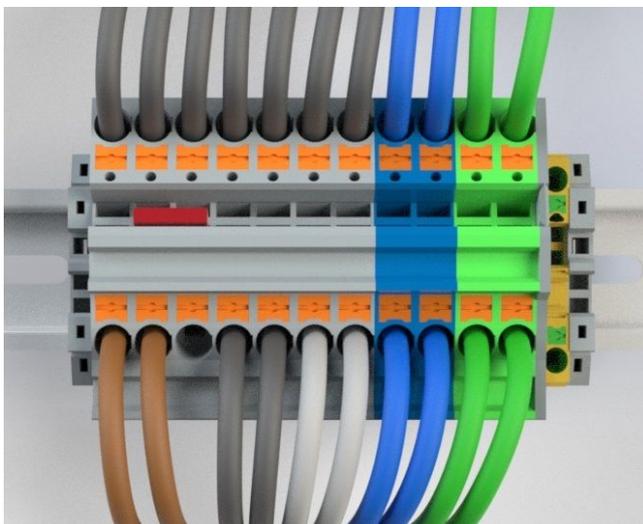


Figure 1: dual supply line

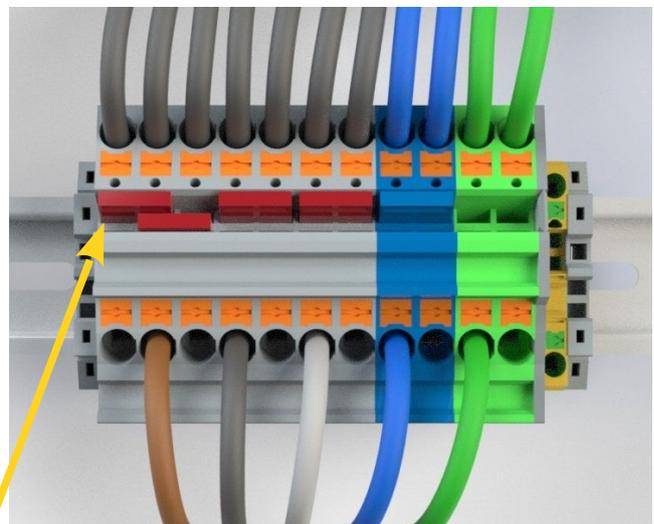


Figure 1: single supply line

Observe jumpers!

Designation	Core colour supply line	Marking terminal block
Live conductor phase 1	BROWN	L1
Live conductor phase 2	BLACK	L2
Live conductor phase 3	GREY	L3
Neutral	BLUE	N
Protective conductor	GREEN-YELLOW	PE



### **DANGER!**

The previously mentioned colour coding is **NOT international binding**: If the individual wires in the supply cable are color-coded differently, contact a qualified electrical specialist company! Have the supply line checked and replaced if necessary.

- 5 Now set the circuit breakers of the cPH2 charging station (switch position I ON).
- 6 Reattach the housing cover to the cPH2 charging station.
  - 6.1 Reconnect the plug for the LED indicators and insert the Touch protection cover in.
  - 6.2 Hook the housing cover back onto the charging station from above.
  - 6.3 **Hand-tighten** the two screws on the lower side of the housing cover.
- 7 Finally, activate the back-up fuses installed in the supply line.  
The LED indicators should now light up green.

This completes the electrical installation of your charging station.  
After the mechanical and electrical installation, your charging station is ready for operation.

# Commissioning and charging

## Safety instructions for operation

Before you perform a charge with the cPH2, you must check the following points for your safety:

- The cPH2 has been installed according to the specifications in this document: In particular, ensure that the charging station is freely accessible, not exposed to direct sunlight or rain if possible, and that an electric vehicle can be connected without the charging cable being under tension or otherwise stressed.
- The cPH2 has been properly connected to the supply line.
- Ensure that the supply line is protected by suitable circuit breakers.
- Ensure that the cover of the cPH2 is always closed during normal operation.
- Ensure that the charging cable is not twisted and make sure that the cable, charging couplings, housing and charging sockets have no visible damage.

For charging, your cPH2 has different connection options from the TYPE 2 plug depending on the variant. Accordingly, you need an optionally available charging cable to connect to your vehicle.

The type 2 charging socket of the cPH2 in accordance with IEC 62196-2 has three live contacts, a neutral conductor, a PE protective conductor and two signal contacts (**C**ontrol **P**ilot and **P**roximity **P**ilot), which ensure safe connection and thus hazard-free use.

As long as the plug of the external charging cable is not locked in the charging socket of the cPH2, no voltage is output to the charging cable via the current-carrying contacts of the socket. If the mains voltage fails, the charging socket is automatically unlocked.

The charging socket of the cPH2 offers an electromotive module with an intern RFID-Module (available as an option) for a fully controlled charging process.

The type 2 charging sockets of the cPH2 are each internally equipped with a DC residual current module. This protection is a prerequisite especially if your electric vehicle itself does not provide protection against DC fault current: Information on this can be found in the manual for your vehicle and from the manufacturer or Sales partner for your vehicle.

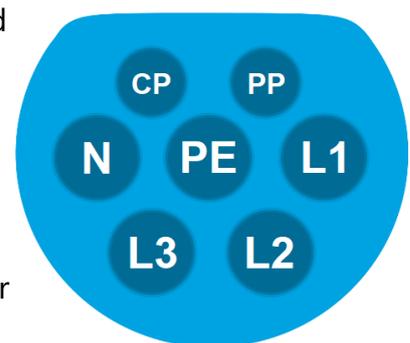


Figure 2: Type 2 plug female

## Loading process

The cPH2 is designed to charge your vehicle as quickly as possible. However, the effective charging time depends on the vehicle battery, as well as the current residual energy in the vehicle. A binding statement on the charging time is therefore not possible: You can therefore only conclude the actual charging time yourself from your practical experience values.

If a fault should occur during the charging process or afterwards, this is indicated via the LED status display of the cPH2. The chapter Status LED, page 22, describes how to recognize operating and error states and what measures are necessary.

### To charge your vehicle, proceed as follows:

1. check the LED status indicators on the front of the cPH2:  
When the charging station is ready for operation, the LEDs on the front of the charging station light up green.
2. Open the charging socket on the vehicle.
3. Plug the charging coupling of the charging cable into the charging socket on the vehicle.  
The vehicle must be parked so that you can easily reach the socket on the vehicle.  
The cable must **not** be under tension during the charging process.
4. if available on your model, open the cover of a charging socket on the cPH2 and insert the type 2 charging plug.



### NOTE!

If you equip your Wallbox with RFID authentication or an OCPP Backend please note points 5 and 6. Otherwise, charging takes place immediately after plugging in. (The LED changes from "green" to "yellow" (vehicle connected) to "blue" (charge active)).

5. Log on to the Wallbox with a valid RFID card (one of the 5 RFID cards supplied ex works). Hold the card in front of the card reader of the Wallbox for approx. 3 seconds. A short beep will sound to indicate that the card has been successfully recognized. Immediately afterwards, you will hear another tone:
  - short tone (approx. 1 second) for card accepted
  - long tone (approx. 3 seconds) for card rejected

More information about the RFID module on page 21.

**6. Start of the charging process:**

In the default configuration, the charging process starts immediately after the authentication via RFID card has been successfully performed. When the charging process starts, the color of the status LED of the associated charging socket changes from yellow to blue.

- 7.** the charging process is usually terminated only by the vehicle. The LED STATUS changes from blue to yellow. After the charging process is completed, first pull the cable out of the socket on the vehicle and then (if present) out of the Type2 socket on the Wallbox. If the vehicle is not 100% charged in this case, please check the settings in your vehicle. You usually have the option of setting a charge limit (e.g. at 80%) in the vehicle's on-board computer.

## Charge control

With the upgrade to our "Salia" board, all cPH charging stations of the 2 series get a number of additional functions. While one or more vehicles are in a charging phase, the charging current for each charging point can be actively controlled in real time. For various applications, it may also be useful to specify the maximum or minimum current of the charging process. Normally, the charging current of an electric vehicle is between 6 A and 32 A (varied).

In addition, the cPH2 supports dynamic load management and enables, for example, avoidance of load peaks or limitation of the maximum current when several charging points are used simultaneously with a separate house connection measurement. (Blackout protection)

In combination with a compatible inverter or additional eCB1 MP+, the Wallbox also allows 100% use of solar power from an existing photovoltaic system for charging your electric vehicle.

The corresponding settings are controlled via the local web interface of the charging station. For detailed information about the charging control, please refer to the **configuration instructions** on our website [echarge.de](https://www.echarge.de).

Our user interface is constantly being optimized and further developed, so we can continue to provide you with new functionality even after you have purchased your charging station. The control of a cPH2 with Salia board and a cPH1 with eCB1 Smart Controller is not possible on a common web interface.

## RFID-module (optional)

The RFID module is an optional order option with the cPH2 and is NOT installed as standard. The module provides user identification to restrict or enable charging for an authorized group of users.

Five RFID cards are included in the scope of delivery. These are stored in the Wallbox database at the factory and are required to activate the charging process.

During normal operation, the LED on the RFID module flashes continuously for a short time (6 s interval). The flashing indicates that RFID is ready for operation.

If you want to log on to 2 charging sockets at the same time, please disconnect one of the charging cables and log on to the two charging outputs one after the other.

In case your RFID card was not accepted, wait a moment and try again. If the charging station is still not unlocked, the card may be defective or not stored in the database. In this case, contact your sales partner.

The RFID module is integrated into the touch protection cover together with the optical RGB LED and connected to the Wallbox via a plug connection. This can be disconnected for installation or maintenance of the charging station.

Please ensure that the **plug connection is made** at the touch guard during normal operation and function testing!

Further information on the charging process can be found on page 19.

## Operating status

Your cPH2 charging station is designed for maximum safety in operation and the most reliable charging possible. Internal test routines detect any malfunction of the cPH2 and the Wallbox is switched off immediately.

If a malfunction should occur in practice, it is indicated via the LED displays in the front area of the cPH2. The following chapter describes how to recognize operating and error conditions and what measures you can take to remedy the fault.

### Status-LED

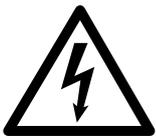
The LED status indicators on the front of the Wallbox show the current operating status. For display purposes, the LEDs can be...

- ...light up (permanently on)
- ...flashing (1Hz)
- ...not light up (permanently off)

Status-LED	Description
Green	The Wallbox/charging point is ready for operation. The vehicle can be connected.
Yellow	Vehicle is connected and ready to charge (or fully charged)
Blue	The vehicle is currently being charged.
Red	Error occurred during loading (notify technician)
Purple flashing	OCPP authentication phase (only for backend connection)
Green flashing	Update process (do <b>NOT</b> switch off the charging station)
Red flashing	Internal DC fault current detection has triggered. Disconnect vehicle and try again.
Off	No power supply (check external fuses) / Check internal control fuse (notify technician)

## Malfunctions and solutions

The cPH2 performs various internal test routines to ensure proper and safe operation. In order to take appropriate measures in the event of a fault and to restore operation, you must first establish beyond doubt what type of fault is present.



### **DANGER!**

**Life-threatening voltages** occur inside the charging station!  
**Opening** and subsequent work on the charging station may only be carried out by **qualified personnel**.

The following malfunctions may occur:

Malfunction	Possible cause	Proposed solution
The LEDs have no function.	No mains voltage is applied to the cPH2.	The external power supply of the cPH2 is interrupted: Check the pre-switched circuit breakers in the supply line. An internal control fuse has tripped.
	Error of the internal 12V DC power supply unit	Check internal 12V operating voltage or contact support if necessary
Vehicle is not detected (LED remains on "green")	The charging cable is not correctly connected to the vehicle or the Wallbox.	Remove the charging plug from the vehicle and plug it in again: make sure that the plug is correctly seated in the vehicle socket.
		Check the vehicle charging socket as well as that of the Wallbox (if present) for possible interfering objects or dirt.
The LEDs flash "red".	The cPH2 detects a malfunction e.g.: internal DC fault current detection has triggered, internal MID counter not detected.	Disconnect the vehicle and then briefly disconnect the Wallbox from the mains to restart it. If an internal energy meter (MID meter) is installed, check its function. Check the voltage of the AC supply line.

# Technical data

## Supply / Charge

Type	1T11	1T22	2T22	2T44
<b>Connection terminals</b>	1x Terminal block, 5 x 6 mm <sup>2</sup> (L1,L2,L3,N,PE)		2x Terminal block, 5 x 6 mm <sup>2</sup> (L1,L2,L3,N,PE)	
<b>Rated voltage / frequency</b>	230 V   400 V 3-phase; 50 Hz			
<b>Rated current</b>	16 A	32 A	2x 16 A   1x 32 A	2x 32 A
<b>Connected load</b>	11 kW	22 kW		44 kW
<b>Charging power max.</b>	11 kW	22 kW	2x 11 kW   1x 22 kW	2x 22 kW
<b>Charging socket / charging cable according to IEC 62196-2</b> (automatic socket release in case of mains voltage failure)	Type 2, 20 A	Type 2, 32 A	2x Type 2, 32 A	

## Fuse

Type	1T11	1T22	2T22	2T44
<b>DC fault current detection</b>	electronic, DC-RCM, $I_{\Delta n,DC} \geq 6$ mA, per charge point			
<b>Welding Detection</b>	Error signal via LED indicators			
<b>Circuit breaker*</b> (required on site)	16 A, 3p	32 A, 3p	2x C32 A, 3p   2x C16 A, 3p	2x 32 A, 3p
<b>Residual current circuit breaker</b> (required on site)	RCD type A, 40 A, 30 mA		2x RCD type A, 40 A, 30 mA**	

\* C-characteristic recommended

\*\*Special case: with two charging points and one supply line, an RCD type B or type EV is mandatory.

## Functions / Fixtures

<b>RGB LED's</b>	for operating state
<b>Energy meter</b>	MID compliant, per charge point
<b>Load management</b>	dynamically between the charging points
<b>Power control</b>	adjustable via web interface, 6 A - 32 A
<b>PV control</b>	with compatible system
<b>Authentication</b> (optional)	RFID Mifare DESFIRE, (ISO14443A+B) and LEGIC Prime & Advant
<b>Charge release</b> (optional)	local RFID, keyswitch, Whitelist, OCPP 1.6
<b>Communication</b>	Ethernet, optional Mobile radio (for backend connection)
<b>Vehicle communication</b>	IEC 61851-1 „Mode 3“ and ISO 15118 Ready

## Conditions / Standards

<b>Operating temperature</b>	-25 to 50 °C
<b>Storage temperature</b>	-25 to 80 °C
<b>Relative humidity</b>	5 bis 95% (non condensing)
<b>Standards</b>	IEC 61851-1, IEC 61851-21, IEC 61851-22
<b>Class of protection</b>	II
<b>Overvoltage category</b>	III
<b>Degree of pollution</b>	3
<b>Degree of protection</b>	IP54
<b>Maximum Elevation</b>	≤ 2000 m NHN

## Housing

Product	cPH2			
	1T11	1T22	2T22	2T44
<b>Type</b>				
<b>Wallbox dimensions [mm]</b>	497 x 397 x 166 (H x B x T)			
<b>Colour</b>	anthracite   silver gray			
<b>Wallbox weight</b>	ca. 12 kg		ca. 15 kg	
<b>Item number</b>	3M5XXXXX			

## Standards & Guidelines

The cPH2 charging station complies with the following standards and protection classes:

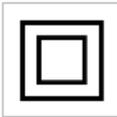
### General standards

Norm	Explanation
2014/30/EU	EMC Directive
2011/65/EU	RoHS Directive
2012/19/EU	WEEE Directive
ElektroG	Electrical and Electronics Act

### Standards, protection class and degree of protection for device safety

DIN EN IEC 61851 describes conductive charging systems for electric vehicles:

Norm	Explanation
IEC 61851-1	- General requirements - Protection against electric shock - miscellaneous: Environmental conditions
IEC 61851-1, Mode 3	- Charging with specific charging plug-in systems for electric vehicles with pilot and control contact
IEC 61851-21-2	- Requirements for on-board chargers for electric vehicles with alternating current / direct current supply
DIN EN 61851-22	- AC charging station for electric vehicles

Protection class/ protection type	Explanation
	Protection class II: The charging station has protective insulation. No electrically conductive parts on the housing can be touched.
<b>IP 54</b>	Protection class of the housing: <ul style="list-style-type: none"> <li>• complete protection against contact and protected against dust in harmful quantities</li> <li>• Protection against splashing water from all sides</li> </ul>

# Warranty / Guarantee

## Warranty and guarantee condition

The **eCharge Hardy Barth GmbH** grants the legally prescribed warranty period of 24 months on the present product as well as a warranty with the same duration for the country in which the product was purchased.

If the product is operated in another country, the legal regulations for the country in which the product was purchased still apply: The warranty, like the guarantee, is not transferable under any circumstances.

If modifications of any kind are made to the product that have not been expressly approved by **eCharge Hardy Barth GmbH** or described in a manual for authorized service partners, the warranty obligations on the part of the manufacturer expire with immediate effect.

## Exclusion of claims for damages and liability claims

This includes claims that are due to the following causes:

1. deterioration due to normal wear and tear, corrosion, damage, accident, faulty storage or operation, lack of reasonable and necessary maintenance.
2. installation services of the Wallbox carried out by unauthorized persons (by an unauthorized electrician), installers not authorized by **eCharge Hardy Barth GmbH** or the customer himself.
3. repairs or interventions carried out by unauthorized persons, companies or by the customer itself to remedy defects in the Wallbox in question.
4. use of spare parts that are not original spare parts of **eCharge Hardy Barth GmbH**.
5. incorrect maintenance and/or use due to failure to observe or follow the operating instructions.
6. accepting further damage to the device and its environment, e.g. by continuing to use the device after the defect or malfunction has been detected.
7. damage due to mechanical overstress.

The manufacturer further disclaims any claims for damages resulting from improper use, negligence, modifications, attempted repairs by unauthorized persons, or acts of God.

The repair or replacement of defective parts does not lead to an extension or restart of the warranty period according to the warranty conditions.



**ATTENTION!**

If any problems occur during operation of your product, please contact your local distributor or authorized representative immediately and clarify to what extent this malfunction is covered by the warranty and/or guarantee. Under no circumstances should you make any changes or repairs to your product yourself!

The company **eCharge Hardy Barth GmbH** assures the proper operation of the present product after delivery within the scope of the legally valid warranty.

The warranty is limited to such damage that is due to normal use and obvious material or manufacturing defects.

In these cases, the manufacturer, in cooperation with the local distributor, will attempt to restore the proper function of the product.

Any costs incurred for the transport of the product shall be borne by the customer.

If the serial number has been removed from the Wallbox, altered or made illegible through the fault of the customer, all rights granted under the warranty conditions shall expire and only the statutory warranty period shall apply.

If the customer orders an execution of repair or replacement work outside the business hours of **eCharge Hardy Barth GmbH**, the hourly wage and the travel expenses outside the normal business hours (Monday - Friday 9:00 - 16:00) will be charged to the customer according to the current price list.

**Customer service for questions, complaints and claims:**

Monday to Thursday from 8:00 - 12:00 and 13:00 - 17:00.

Friday from 8:00 - 16:00 under the telephone number +49 9666 / 188 00 50,  
as well by e-mail at [support@echarge.de](mailto:support@echarge.de)

**Please have the serial number, the product designation of the Wallbox and your customer number ready!**