

OlifeEnergy Doublebox Charging Station Installation Manual



Revision 3
Updated on: 24th October 2023
Written by: Olife Energy a.s.

1 LIST OF CONTENTS

2	Information on documents	3
2.1	Transport instructions.....	4
3	Product Characteristics	5
4	Connection of OlifeEnergy Doublebox Charging Station	5
4.1	Dimensions.....	7
5	Installation	8
5.1	TOTAL OVERVIEW	8
5.2	Connectors – Overview.....	9
5.3	Range of delivery	9
5.4	list of materials for installation of the charging station.....	10
5.5	Installation of charging station	10
	STEP 1: Disconnect the power supply and check the voltage	10
	Disconnect the power lead-in cable from the power supply before installation. Check that the supply cable is not live.	10
	STEP 2: Open the front cover.....	11
	STEP 3: Doublebox installation:	11
	STEP 4: Placing the power supply cable and network cable	14
	STEP 5: Connection of power wires	14
	STEP 6: Connection of network (Ethernet) cable/GSM modem.....	16
	STEP 7: Check the charging station.....	16
	STEP 8: Doublebox setup	17
	STEP 9: Chassis closing and checking functionality.....	17
6	Doublebox setup.....	17
6.1	Adjustment of maximum current collection by Doublebox	18
6.2	Automatic charging setup.....	18
7	Mobile app	19
	Connection to the Olife Energy charging station.....	19
8	Reset to factory defaults.....	20
9	RFID	21
9.1	Description	21
9.2	Technical parameters.....	21
9.3	RFID reader’s cards and chips management	21

	Adding an RFID card to the local database:	21
10	charging station control via RS485 – MODBUS RTU	23
11	Control of charging current through analogue signal.....	25
12	HDO Connection	26
13	operating instructions.....	27
13.1	Doublebox with charging cable.....	27
13.2	Doublebox with socket	28
14	description of LED indication	28
14	OCPP Configuration.....	29
14.1	Description	29
14.2	Procedure.....	29
15	equipment inspections	30
15.1	Visual inspection before each charging	30
15.2	regular service inspection	30
16	Fault detection and troubleshooting.....	32
17	Information for users on the disposal of electrical and electronic devices.....	33
17.1	households.....	33
17.2	Use in companies	33
18	contact to producer	33

2 INFORMATION ON DOCUMENTS

The following instructions guide you through the documentation. We are not liable for any damage caused by failure to follow these instructions.

1. Parts of documentation

For operators of the equipment:

- Operating instructions for the charging station

For a service technician:

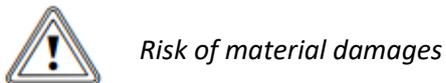
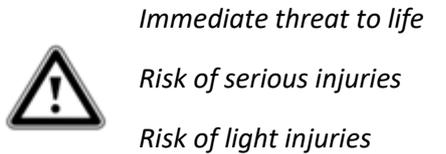
- Manual for installing and setting up the charging station
- Instructions regarding regular service inspections

2. Archiving of Documents

This Installation Manual as well as all the relating documents and needful aids shall be handed over to the operator of the equipment. The operator shall be responsible for storing all these instructions and aids so that these are available if required.

3. Symbols Used

The symbols, mentioned in the text, have the following meaning:



2.1 TRANSPORT INSTRUCTIONS



Caution!
Danger of damage to end connectors of charging cables!

- Ensure that the end connectors of the charging cables are fastened to the chassis and fitted with a protective element when being transported.
-



Caution!
Danger of damage to the charging station!

The control electronics of the charging station are sensitive to conductive dust particles and moisture.

- Always transport the charging station fully assembled.
-

The charging station is delivered in a single package.

- Transport the charging station to the place of installation. During the transport, the charging station should be in its protective packaging.

3 PRODUCT CHARACTERISTICS

OlifeEnergy Doublebox is a charging station of electric cars, which complies with the standard IEC 61851. The station is an electric device. This should be connected by a person who is qualified according to the legislation in force. The operating instructions must be followed to ensure a safe operation. Failure to observe the instructions may result in the risk of injury or damage. The station can charge two electric vehicles simultaneously by one to three phase connection (depending on the 230/400 V connection) with an alternating current of 6 – 32 A.

The charging cycle can be started automatically when the vehicle is connected, or based on authorization with an RFID chip. The station includes a pair of RFID readers.

Charging can be completely controlled by an external system using the ModBus RTU protocol over RS485 busbar. In addition to the ModBus RTU, the charging power of the station can also be controlled by a 0 – 10 V analogue signal. For the dynamic control of charging power based on consumption or production (PV, cogeneration, ...), use the OlifeEnergy Smartmeter unit.

In the SMART variant, the station can be partially or completely controlled from a remote server using the OlifeEnergy Cloud service or the OCPP protocol.

4 CONNECTION OF OLIFEENERGY DOUBLEBOX CHARGING STATION

The charging station must be connected to a fixed installation, it is not equipped with moving lead-in cables. In the case of a publicly accessible charging station, the upstream-located installation must contain an overvoltage protection device according to ČSN 33 2000-7-722. The charging station supply must be separately protected. The following devices are already installed in the station:

- 2x circuit breaker 3 x 32 A, tripping characteristics B
- 2x residual current protector, type A
- 2x device to detect the direct component according to EN 62196

The following diagram shows the recommended wiring of one OlifeEnergy Doublebox charging station according to EN 61851-1 ed.3.

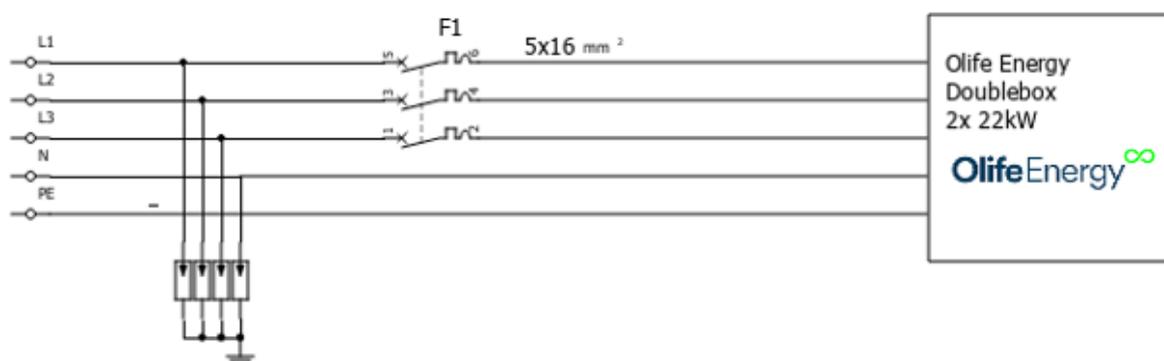


Fig. 1: Recommended wiring diagram

F1 – Circuit breaker 3x63 A, with tripping characteristics B



Attention! The wiring can may vary slightly according to national or local regulations. Always discuss wiring with your local inspection engineer or designer.

4.1 DIMENSIONS

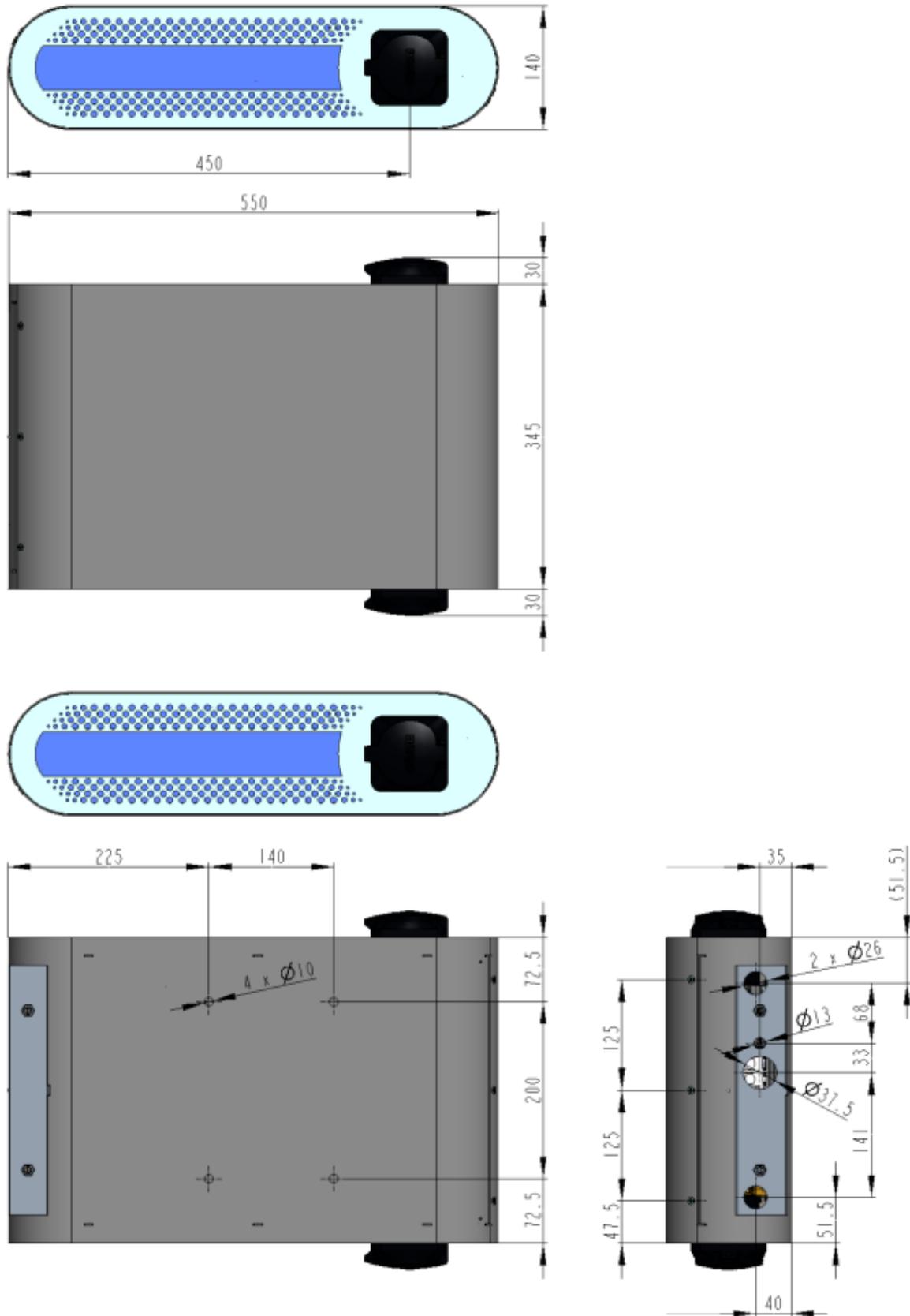


Fig. 2: Dimensions of Doublebox Olife Energy2x 22 kW

5 INSTALLATION

5.1 TOTAL OVERVIEW

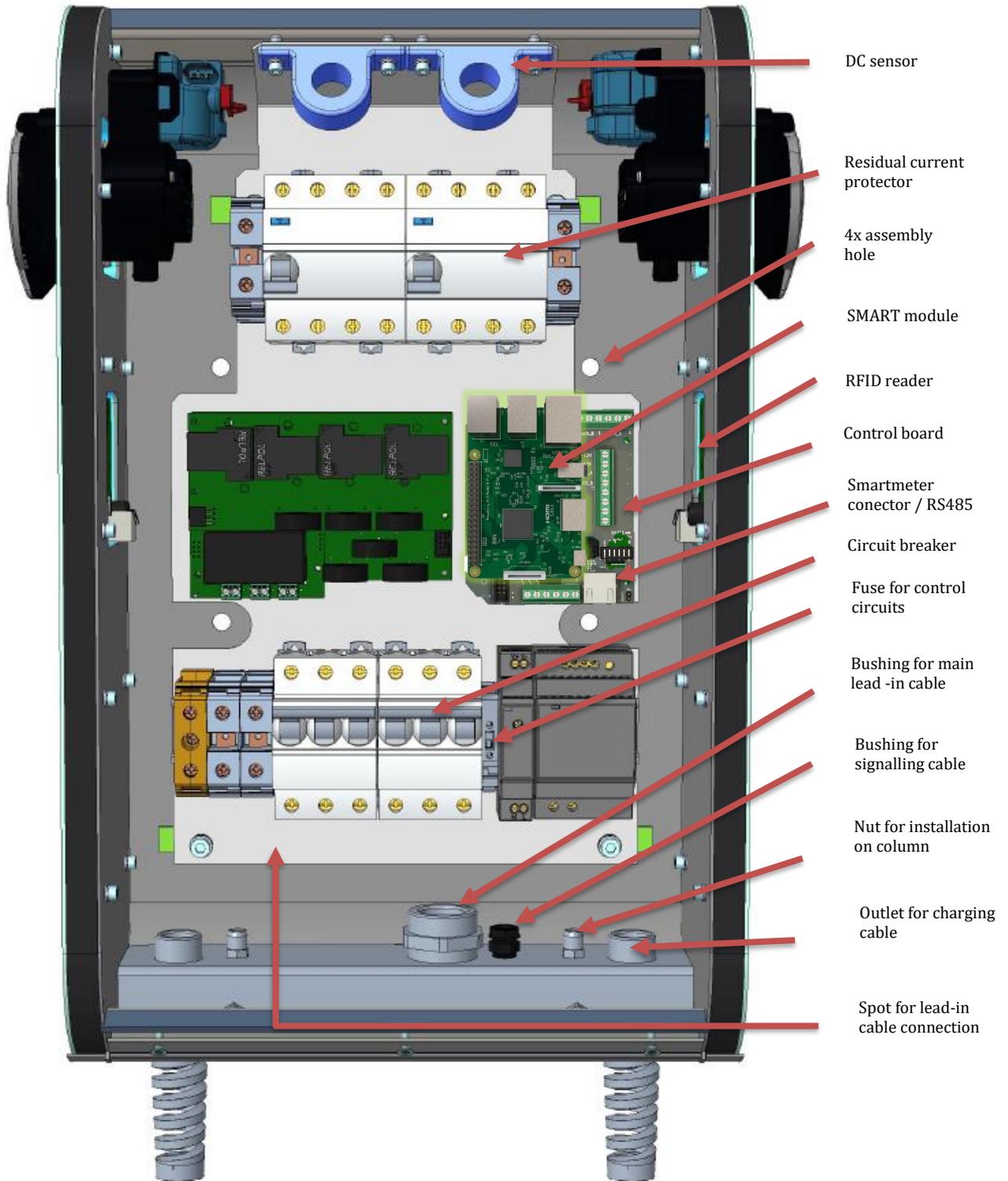


Fig. 3: Doublebox components

5.2 CONNECTORS – OVERVIEW

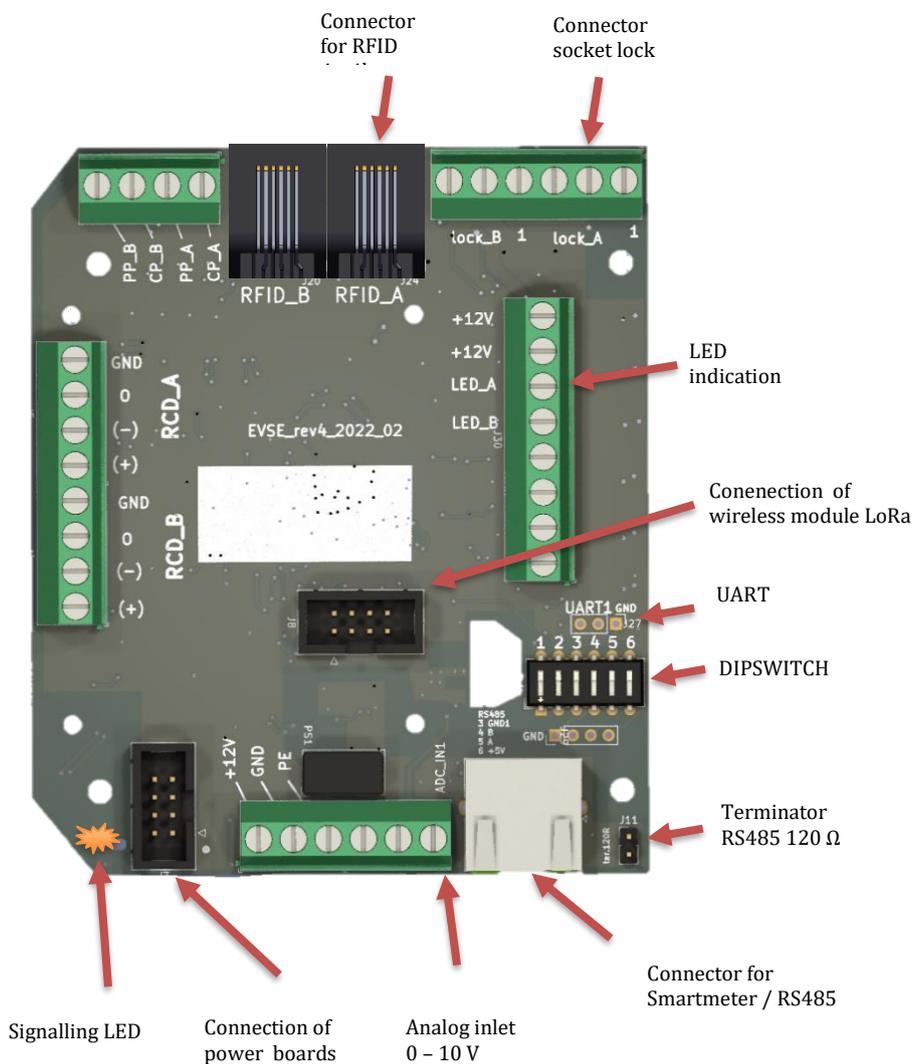


Fig. 4: Control board connectors

5.3 RANGE OF DELIVERY



Pc	olife Energy AC-22 kW charging station
1	OlifeEnergy Doublebox 2x22kW
2	Charging cable type ½, or socket
4	Sealing washers
2	RFID card
1	Installation Manual

5.4 LIST OF MATERIALS FOR INSTALLATION OF THE CHARGING STATION

Material/Tools	Size	Description
Torx screwdriver (or drill bit for cordless drill)	T20	
Flat-head screwdriver (or drill bit)	5	
Connecting materials (ideally with Allen key or Torx head) and tools for wall or column mounting		
Optionally – water level, pencil, rule, drill		

5.5 INSTALLATION OF CHARGING STATION



Danger!

Improper installation can cause danger to persons or damage to property!

Possible risk of personal injury and material damage to the charging station if installed without the prescribed instructions.



Caution!

Danger of damage to the control electronics of the charging station!

While installing the charging station, avoid any contact of liquids and conductive objects with internal parts of the control electronics. This could cause degradation or a conductive connection between contacts, which could cause a short circuit at the connection point or damage the station.

- Follow the Manual while installing the station.



The following section will describe particular steps for installing the charging station. Following the sequence of steps will ensure safe installation of the charging station.

STEP 1: Disconnect the power supply and check the voltage

Disconnect the power lead-in cable from the power supply before installation. Check that the supply cable is not live.

STEP 2: Open the front cover

- Unscrew the 6 screws and remove the front cover as shown below:



Fig. 5: Cover removal

Tools	
Size	Type
T20	

STEP 3: Doublebox installation:

On the wall

- Draw 4 holes to attach the Doublebox on the wall, with dimensions shown in Fig. 5
- Drill the 4 holes.
- According to the type of construction material of the wall choose a suitable fixing method (dowels, threaded rods $\phi 8 - 10$ mm, etc.)
- Fix the station to the wall using sealing washers for screw heads.



CAUTION! Do not forget to use the sealing washers that are part of the delivery.



Use pads to flatten uneven surface (not included in delivery).

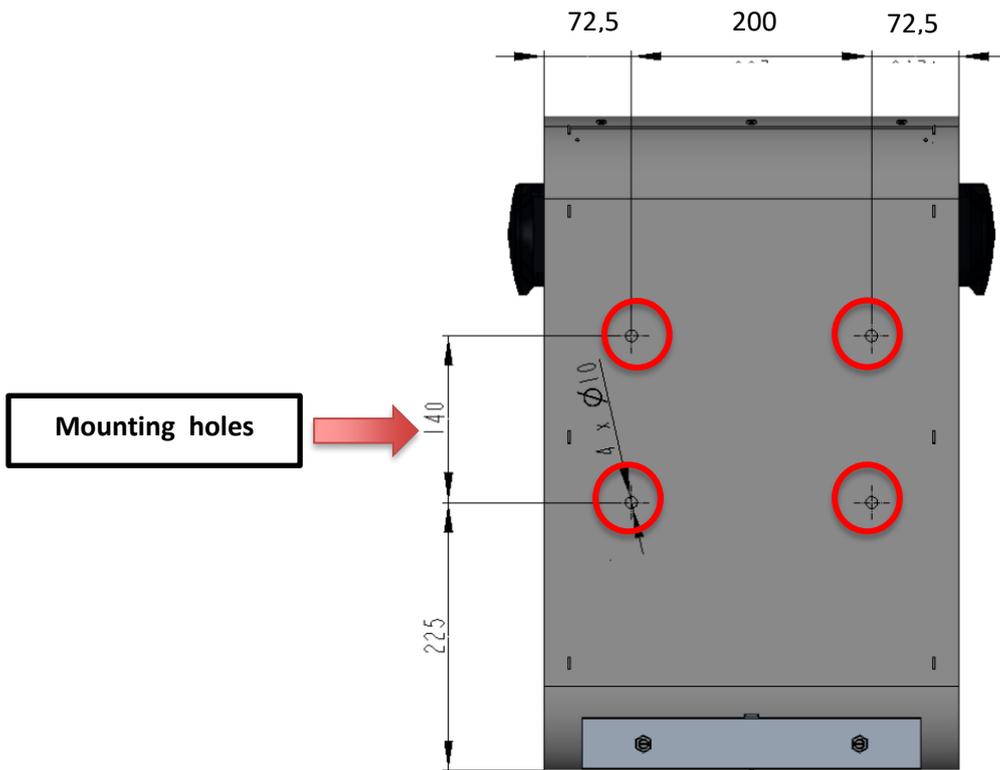


Fig. 6: Dimensions of Doublebox rear side

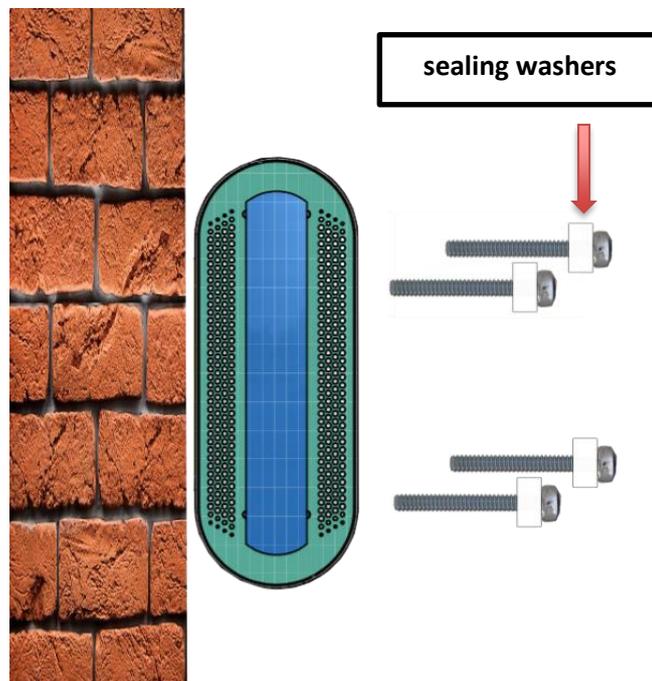


Fig. 7: An example of Doublebox installation on the wall

On the column

- At the installation site, prepare a concrete foundation and anchoring elements of max. ϕ 15 mm for the station as shown in the following figure. Lead the high and low current cables through the centre of the foundation so that it can enter the station through the marked hole (40x35 mm). The anchoring material and the lead-in cables are not included in the delivery of the station.

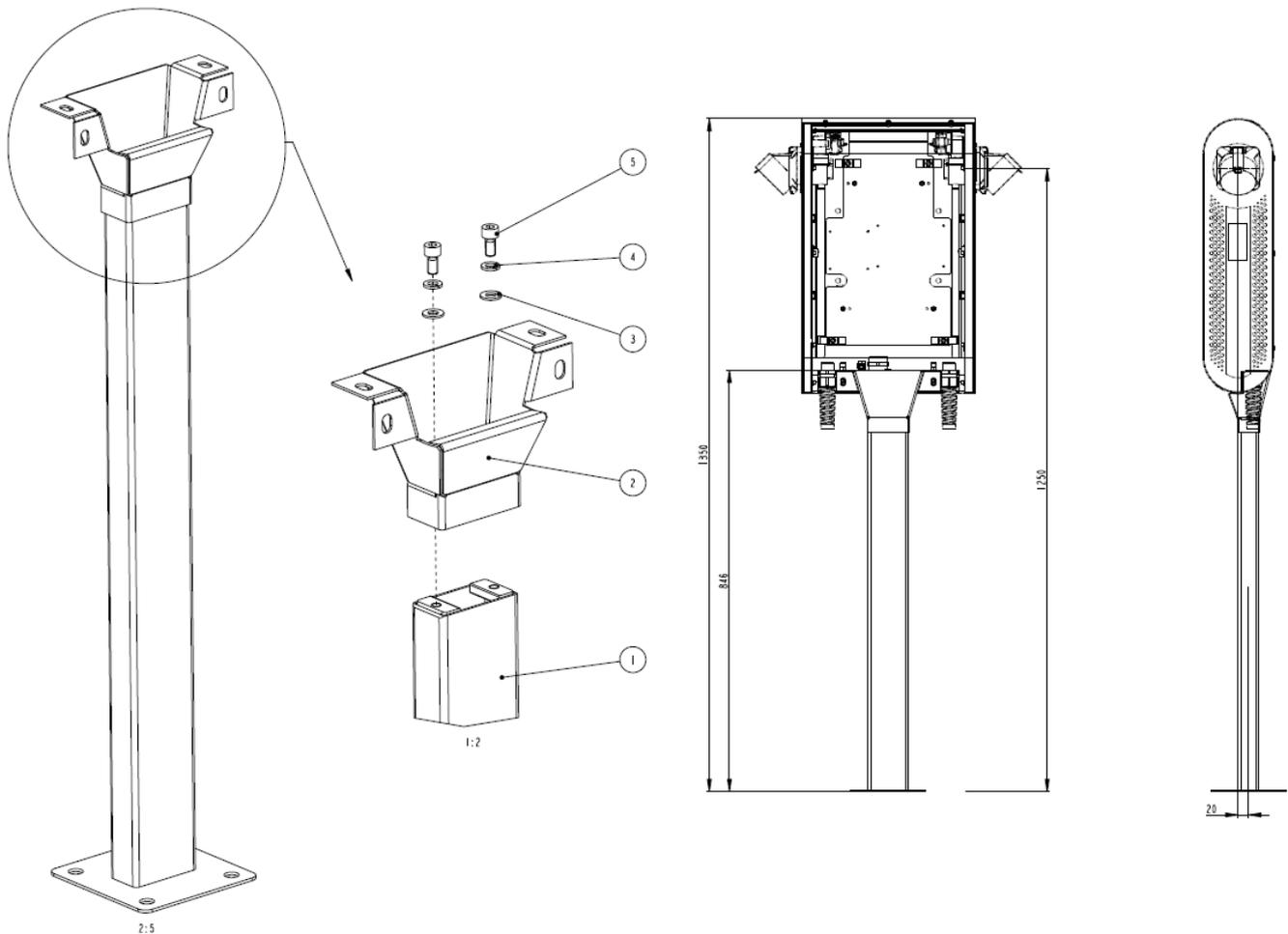
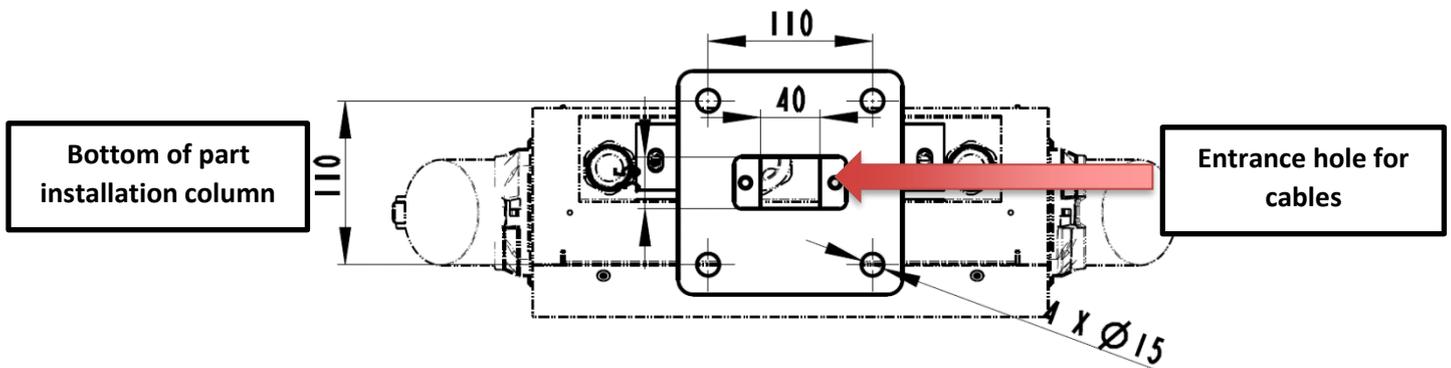


Fig. 8: Column dimensions

- Fix the head (1) to the installation column, using screw (5) and washers (3 and 4)

STEP 4: Placing the power supply cable and network cable

- Pull the power supply wire through the lower middle bushing, see Figure 9.
- For Doublebox Smart version, pull the network (Ethernet) cable through the middle bushing.

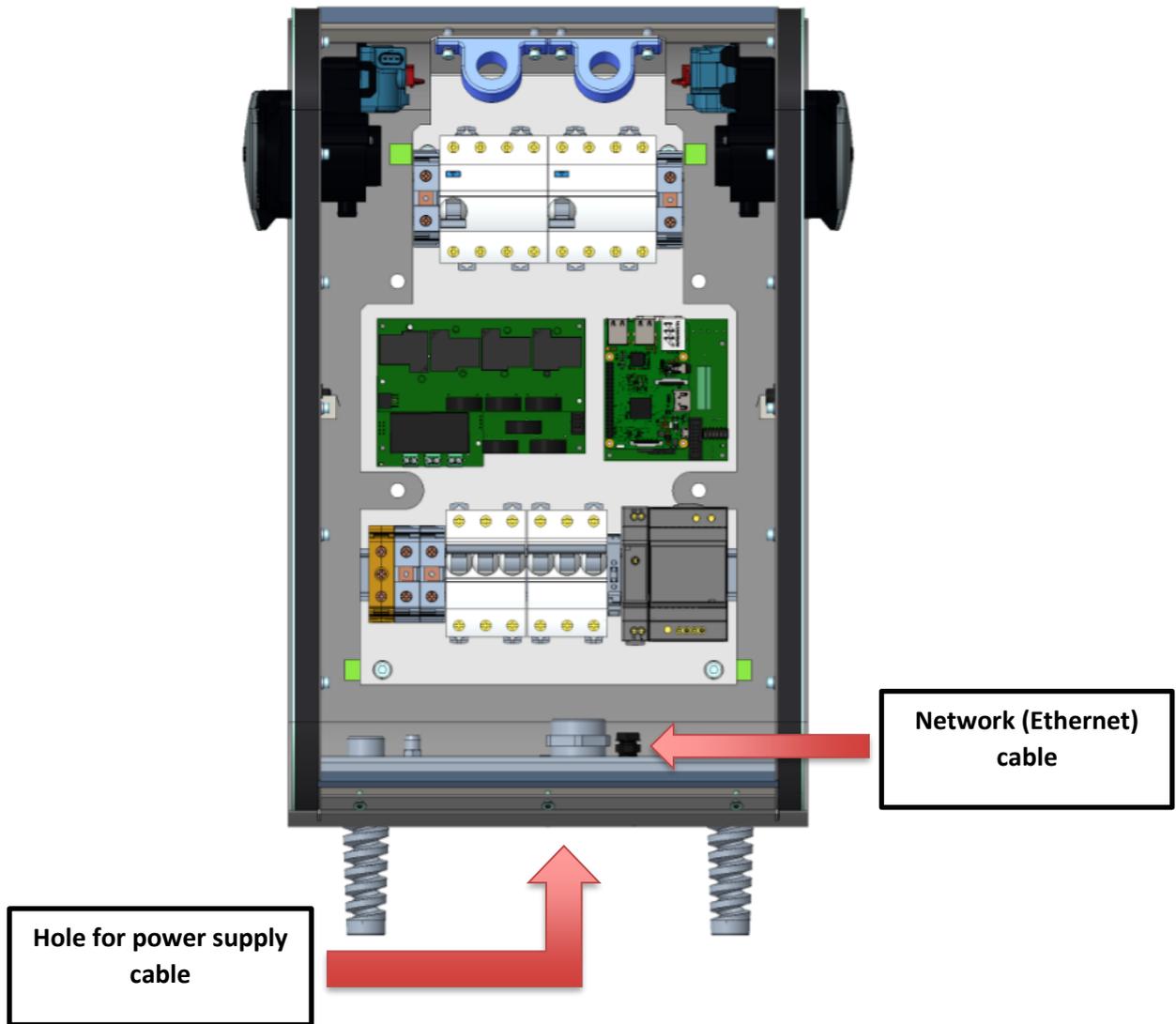


Fig. 9: Front side of opened Doubleboxu



To install the power supply cable or the network cable, it is necessary to remove the blinding cap. To remove it, push the blinding cap edge, which causes it breaks out. If not, knock the edge with an impact screwdriver and a hammer.

STEP 5: Connection of power wires

The maximum possible cross section of the lead-in wire is 25 mm²

TN-S

- Connect the lead-in wires in the TN-S network, as shown below in Fig. 10

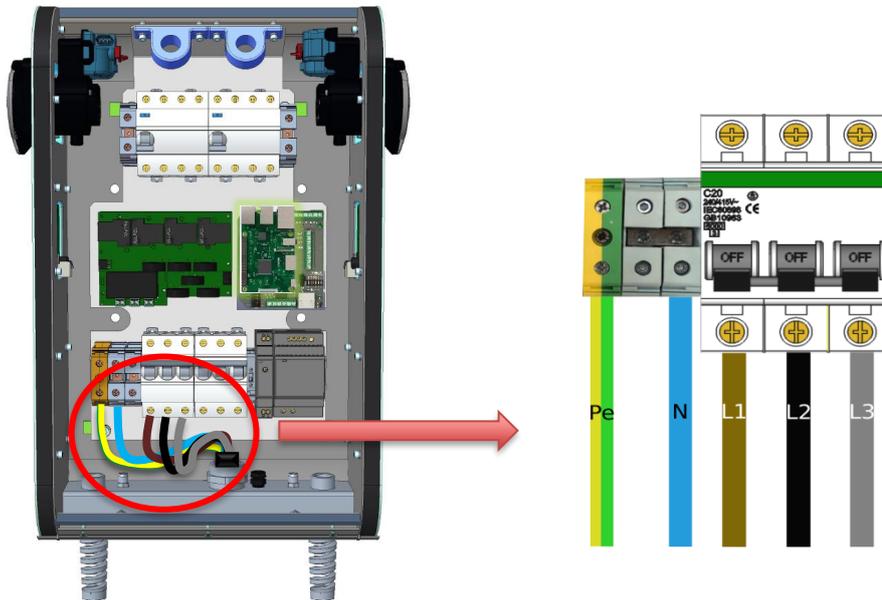


Fig. 10: Zapojení přívodních vodiče v síti TN-S

TN-C

- Connect the lead-in wires in the TN-C network, as shown below in Fig. 11

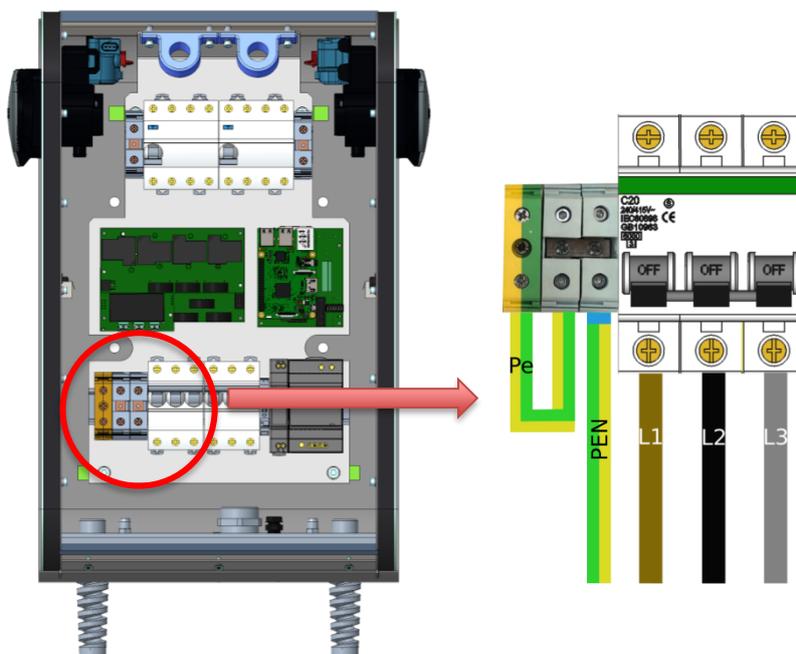


Fig. 11: Connection of lead-in wire in TN-C network

STEP 6: Connection of network (Ethernet) cable/GSM modem



This step concerns only the SMART version. The connection using a network cable (Ethernet) is given priority to the connection through the GSM network.

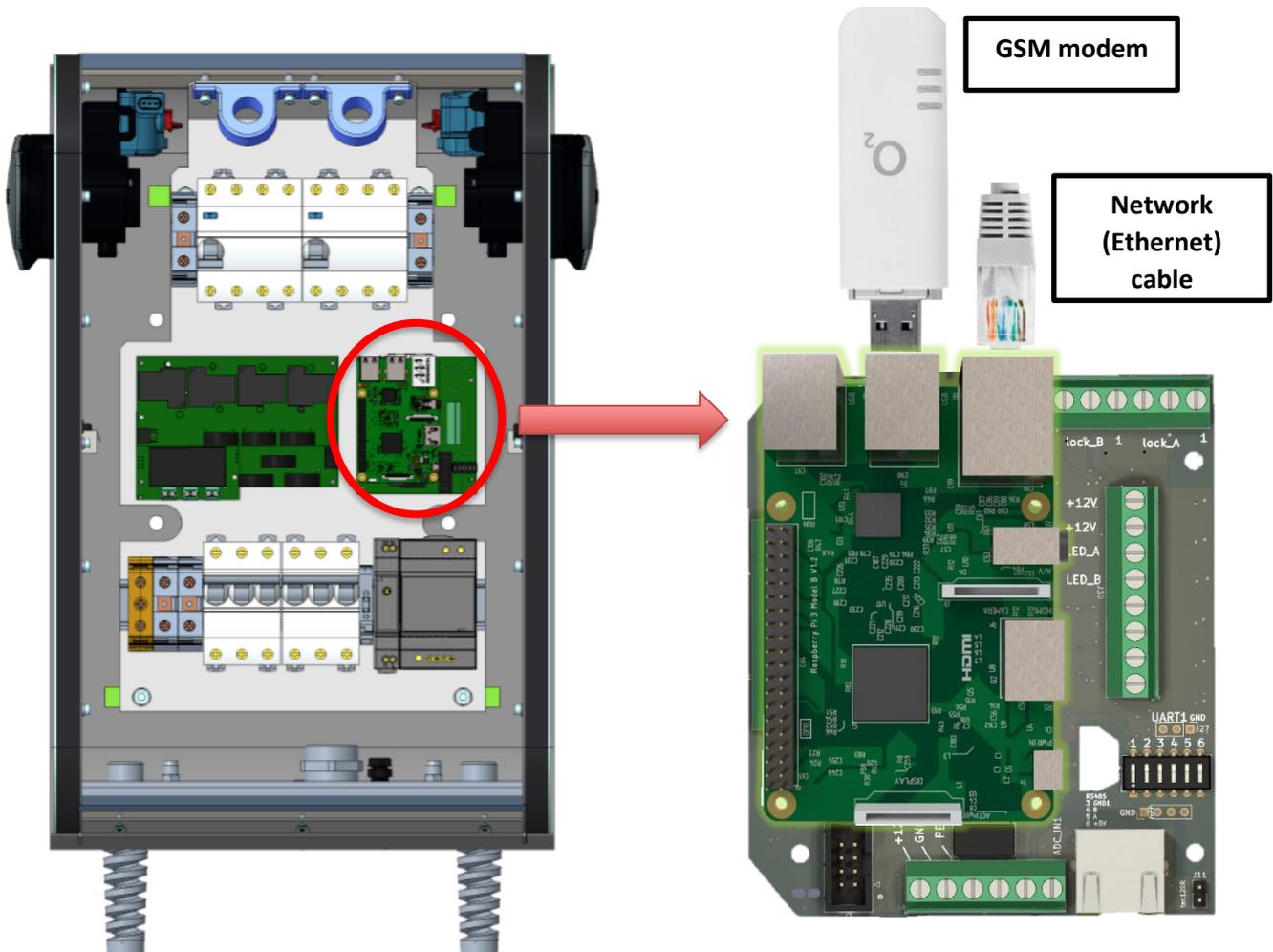


Fig. 12: Connection of GSM modem/network cable

STEP 7: Check the charging station

Check the station before and after connection and only when the whole set is not live. The device must be checked to verify that the permanently connected electric items:

- comply with safety requirements of corresponding standards
- have been chosen and installed properly
- have no visible damages
- have been chosen properly due to their current carrying capacity and voltage drop
- protective and zero wires have been used and suitably marked
- power supply wires have been suitably fixed (it is recommended to tight with torque of approx. 2 to 3 Nm).

STEP 8: Doublebox setup

From the factory, the station is set to start charging with the power required by the vehicle to the station's maximum (22 kW, 32 A) immediately after having been connected to an electric vehicle. If you require a power limitation or advanced configuration, please follow Chapter 6 "Doublebox Setup".

STEP 9: Chassis closing and checking functionality

Close the charging station chassis and apply voltage to the station. Check the correct functioning of the charging station according to Chapter 13 "Operating Instructions".

6 DOUBLEBOX SETUP

The basic settings of the charging station can be made using the DIP-switches located on the station's control board. Comprehensive charging station setup can be done using the ModBus RTU protocol or the OlifeEnergy mobile app. Setup using the mobile app is described in the following chapter.

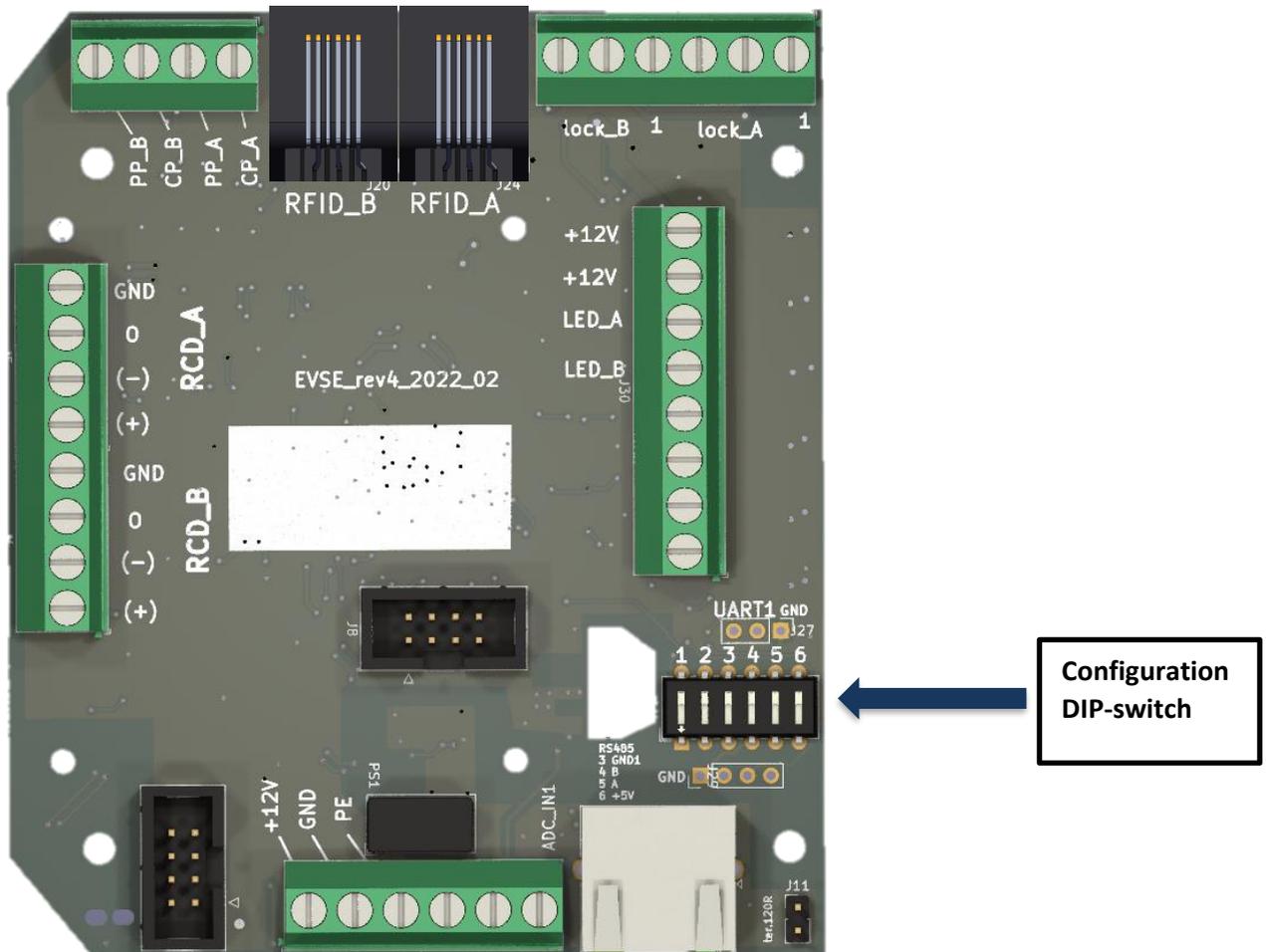


Fig. 13: DIP-switch marked on Doublebox control board

6.1 ADJUSTMENT OF MAXIMUM CURRENT COLLECTION BY DOUBLEBOX

The factory default setting for maximum charging current is 32 A per connector and 63 A for the entire station. The charging current at a specific time is determined by the vehicle up to the maximum defined by the charging station. If you wish to reduce this maximum, set the switches as shown in the table. This function is useful for installations where a lower-rate circuit breaker is mounted upstream or where there are frequent electricity failures due to an undersized main circuit breaker. If charging on both connectors, the current is divided in half for each connector. If charging on one connector, the entire current is allocated to that connector until charging begins on the other connector.

Maximum current	Change-over switch 1	Change-over switch 2	Change-over switch 3	Change-over switch 4	Description
63 A	off	off	off	off	
40 A	ON	off	off	off	
32 A	off	ON	off	off	
20 A	ON	ON	off	off	

6.2 AUTOMATIC CHARGING SETUP

By default – switch 3 in the ON position – the charging station will start charging immediately after the vehicle has been connected. This behaviour can be changed by setting switch 3 to the OFF position. This will activate RFID authorization.

Autom. mode	Change-over switch 1	Change-over switch 2	Change-over switch 3	Change-over switch 4	Description
-	off	off	ON	off	

7 MOBILE APP

The OlifeEnergy mobile app for station control is free to download on Google Play and the App Store. The mobile app communicates with the charging station via Bluetooth. This communication works over a distance of units of meters. For remote communication, management and setup, use the SMART version and the remote OCPP server, or the OlifeEnergy Cloud service.



Connection to the Olife Energy charging station

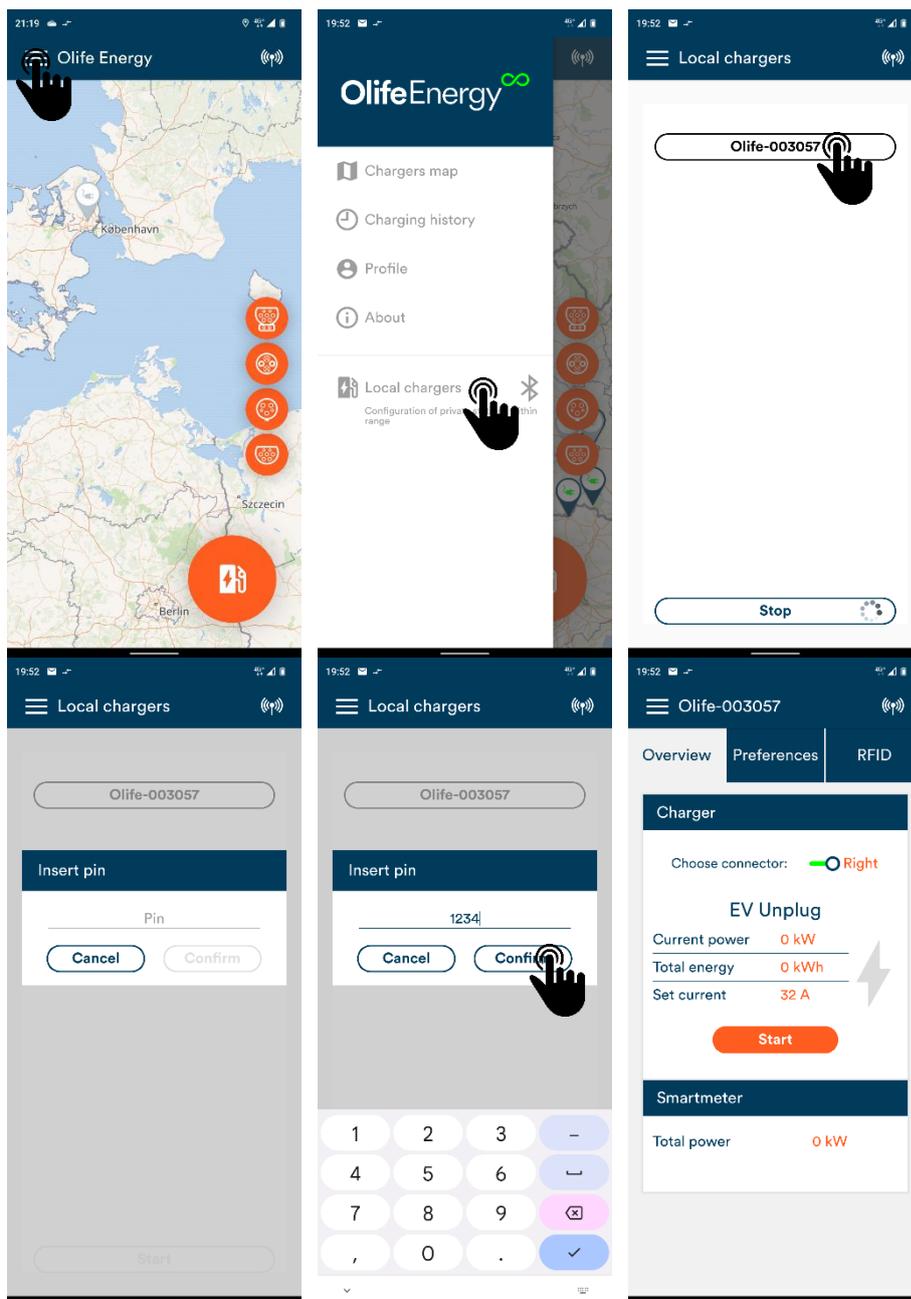


Fig. 14: Procedure to connect to the OlifeEnergy charging station

- 1) Open the left navigation bar.
- 2) Open the item "Local stations".
- 3) The app will start searching for charging stations. If a station is within range, it will appear in the list. Select the station you want.
- 4) After selecting a station, a dialog box will appear.
- 5) Enter the PIN, which is set by factory to **1234**. **After the first connection, change the PIN using the mobile app.**
- 6) If the authorisation is successful, the information and configuration cards of the charging station will be displayed

The app displays 3 cards:

- 1) Overview** – it displays the current overview of the charging station status
- 2) Settings** – it displays the configuration registers. To see what the current register means, click on the question mark icon. After clicking, a dialog box will appear with a description of the register.
- 3) RFID** – it is used to manage the local RFID database

8 RESET TO FACTORY DEFAULTS

DIPSWITCH No. 4 is used to reset the charging station to factory settings.

1. Turn off the power supply to the charging station.
2. Remove the charging station cover and switch DIPSWITCH No. 4 to the "ON" position.



3. Turn on the power supply to the charging station and wait for 30 seconds.
4. Turn off the power supply to the charging station again and return DIPSWITCH No.4 to



- the "OFF" position.
5. Finished - Install the charging station cover and turn on the power supply; the charging station is now in default setting with PIN being "1234".

9 RFID

9.1 DESCRIPTION

The reader is designed to read RFID chips operating at a frequency of 13.56 MHz. The system supports communication with ISO/IEC 14443 A/MIFARE cards and transponders without additional active circuits. The electronics is supplemented with an indicating piezo speaker.

9.2 TECHNICAL PARAMETERS

Communication interface	UART	Reading range	<50 mm
Frequency	13,56 MHz	Dimensions (mm)	64 x 40 mm
For types of chips	14443 A, MIFARE	Working current	<50 mA
Power supply	2.7 – 5.5 V	Signalling interface	Buzzer

9.3 RFID READER'S CARDS AND CHIPS MANAGEMENT

User authentication by RFID cards is activated by placing change-over switch 3 to the OFF position, or in the mobile app. RFID card authentication is performed against an internal database located directly in the station. The RFID card and chip database is managed via the OlifeEnergy mobile app, see Chapter 7 "Mobile App".

In the SMART version, the authentication of RFID records on a remote server can be activated. Thus, the station reads the card and asks the server if it can start charging. In this case the RFID cards and chips are registered on the remote server.

Adding an RFID card to the local database:

- Click on the "Add" button as shown in Fig. 15.
- A dialog box will then open with the requirement: "attach the card to the RFID reader located on the side of the charging station".
- When the card is attached to the reader, the station will alert you with a short beep. To add more cards, repeat the procedure.
- To exit add mode, click the on "End Add" button. When the dialog box closes, the added cards will be displayed in the RFID card.
- To save them to the charging station, click on the "Save" button



Fig. 15: RFID menu to add cards + a symbol on the station to which cards and chips are added

Deleting the RFID card:

- Click on the "Delete" button for the desired RFID card. To confirm the request, click on the "Save" button

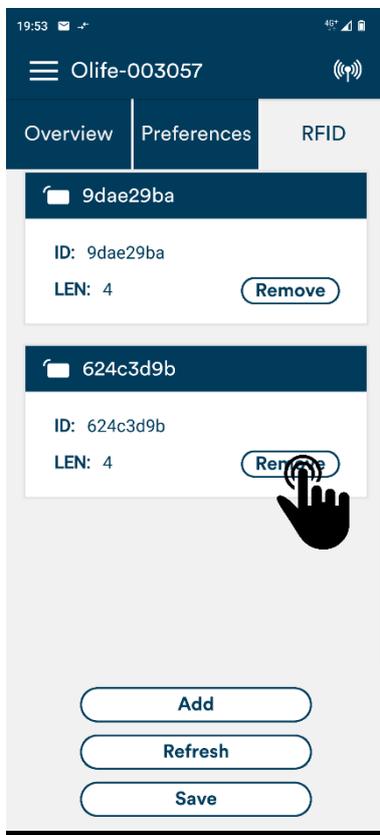


Fig. 16: RFID - deleting the card

10 CHARGING STATION CONTROL VIA RS485 – MODBUS RTU

The charging station can be completely controlled by digital communication over RS485 busbar with MODBUS RTU communication protocol, where the charging station is in the role “Slave”.

CAUTION! It is not possible to combine third party control systems via RS485 and OlifeEnergy Smartmeter, which uses RS485 for its communication with the station.

The Slave ID can be changed in the mobile app. The bus bar terminator is disconnected in the station, its connection can be done using a jumper, see Fig. 17.

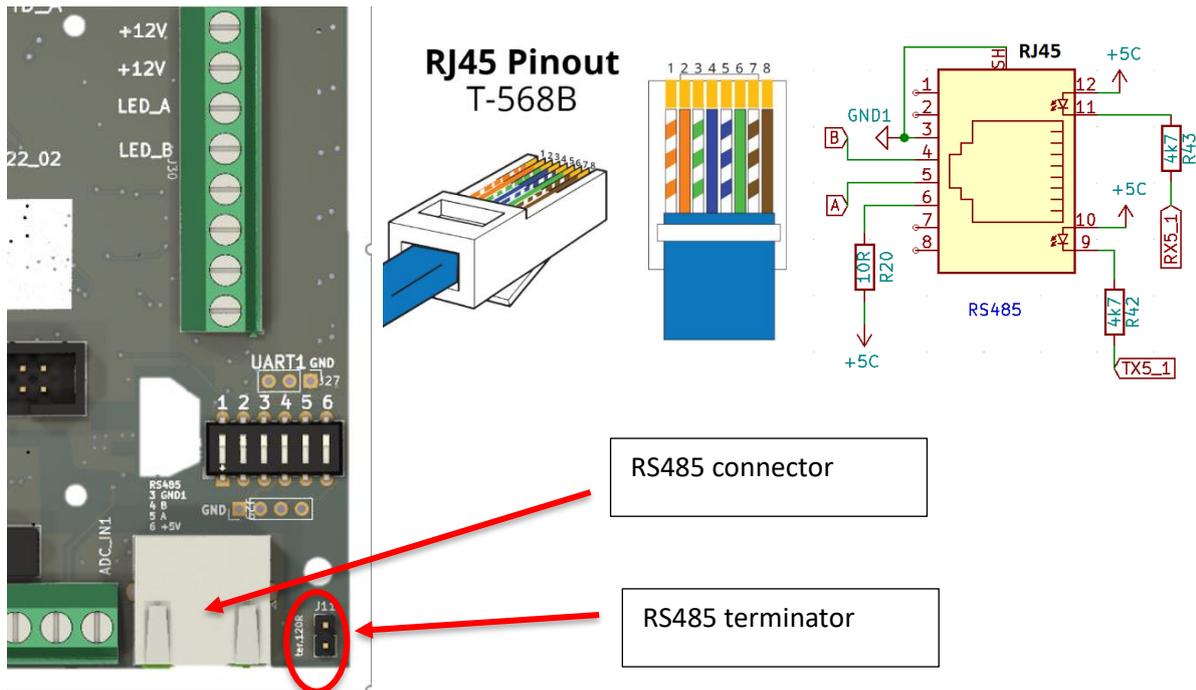


Fig. 17: RS485 wiring

Register	Parameter	Description	Operation	Type	Range
Right connector					
2001	Verify user	1 - enable charging, 0 - disable charging (only if register 5003 != 0)	R/W	uint16_t	0-65535
2004	EV state	Charging station state	R	uint16_t	0-65535
		1 - disconnected			
		2 - connected			
		3 - user verified			
		4 - charging			
		5 - vehicle stopped charging			
		6 - current set up below 6A			
		7 - user authentication off			
		90 - Error			

2006	current limit control	connector current setup	R/W	uint16_t	0-65535
2007	Actual Current limit	currently valid current limit	R	uint16_t	0-65535
4006	E sum	power of running charging	R	uint32_t	0-4294967295
4013	P sum	capacity od running charging	R	uint16_t	0-65535
Left connector					
2101	Verify user	1 - enable charging, 0 - disable charging (only register 5003 != 0)	R/W	uint16_t	0-65535
2104	EV state	charging station status	R	uint16_t	0-65535
2106	current limit control	connector current setup	R/W	uint16_t	0-65535
2107	Actual Current limit	currently valid current limit	R	uint16_t	0-65535
4106	E sum	power of running charging	R	uint32_t	0-4294967295
4113	P sum	capacity od running charging	R	uint16_t	0-65535
both connectors					
5003	Automatic	1 - user need not be verified for charging, 0 - authentication necessary	R/W	uint16_t	0-1
5006	Max station current	maximum current collection of the entire station	R/W	uint16_t	0-63
5008	Max LED PWM	LED lighting intensity - 0 to 1000	R/W	uint16_t	0-1000

Only function 03 – Read Multiple Registers – is allowed for reading
 Function 16 – Write Multiple Registers – for writing down

The complete description of MODBUS registers is available by the producer upon requirement.

11 CONTROL OF CHARGING CURRENT THROUGH ANALOGUE SIGNAL

The charging station can be controlled by an external third-party system's analogue signal 0 – 10 V, or charging can be interrupted by an external third-party system's 10–20V digital signal.

CAUTION! The analogue input is galvanically connected to the PE protection conductor, the 0–10V control signal must be galvanically isolated.

The control characteristic is linear and inverse. Thus, if no voltage is connected to the analogue input, the station charges with the maximum set current.

0 – 1 V	Maximum charging current (according to set-up maximum of the station)
1 – 9 V	Continuous, inverse, linear regulation of charging current from the maximum up to 6A
9 V	6A (the lowest possible charging current)
9 – 9,3 V	hysteresis for switching off/on
9,3 – 10 V	Switched off

CAUTION! The IEC 61851-1:2017 charging standard allows a minimum charging current of 6 A per phase. In the range from 0 to 6 A the station will interrupt/not start charging.

According to the standard, continuous control may range between 6 and 32 A and the minimum step is 1 A; all phases may only be controlled simultaneously, so it is not possible to require a different charging current on each phase; if necessary the Doublebox can only be powered from one or two phases. The maximum input voltage for linear current control is 10 V, but for digital START/STOP control, a voltage of 10 to 20 V can be used.

Connection on the charging station side:

- Connect a galvanically isolated output signal from an external device (e.g. PLC, Wattrouter, ...) to the charging station to the ADC_IN1 terminal.
- Connect the signal ground/reference to the GND terminal.
- If a +12 V supply is required for a galvanically isolated signal, it is possible to sue supply from the charging station, from the +12 V terminal. **CAUTION!** The current collection may not exceed 50 mA.

Charging station setup:

The charging station do not have to be set up, as the control described above is factory activated.

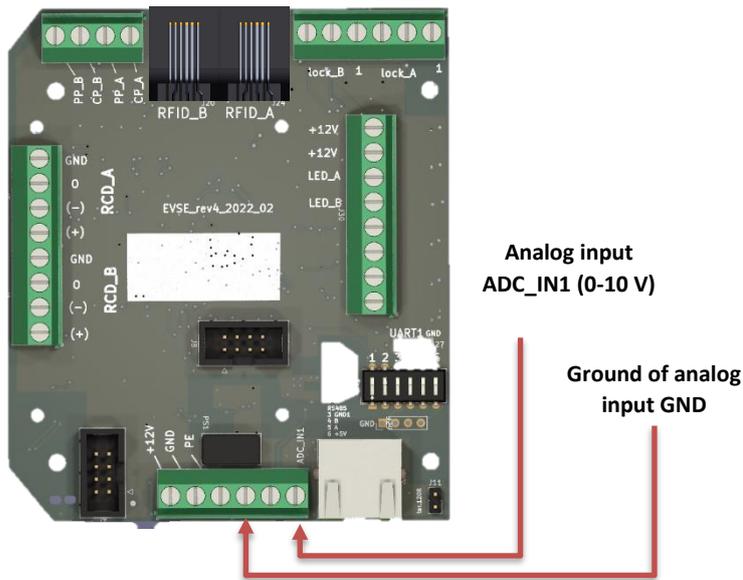


Fig. 18: Connection of controlling conductor

12 HDO CONNECTION

Place the "REL" relay with a NC contact "normally closed" and a 230 V coil in the upstream-located switchboard. Feed the relay contact using a twisted or shielded two-wire cable into the charging station from the bottom side through the middle bushing. Connect one conductor to the +12 V terminal and the other to the ADC_IN1 terminal.

You can control the relay coil from the HDO receiver or HDO contactor by a switched phase or a switched neutral conductor. We recommend to protect the coil with a single-pole circuit breaker.

If charging is required at a time when the HDO signal is not active (high tariff), the analogue input function can be switched off via Bluetooth using the mobile app, and thus also the function of charging only in the presence of the HDO signal.

Function description

If the "REL" relay is activated (contact closed), i.e. +12 V and ADC_IN1 are connected, the charging station disables charging. As soon as the relay disconnects the contact, the charging station will enable charging.

CAUTION! The recommended HDO connection uses the 0–10 V input, therefore it cannot be used for further control afterwards.

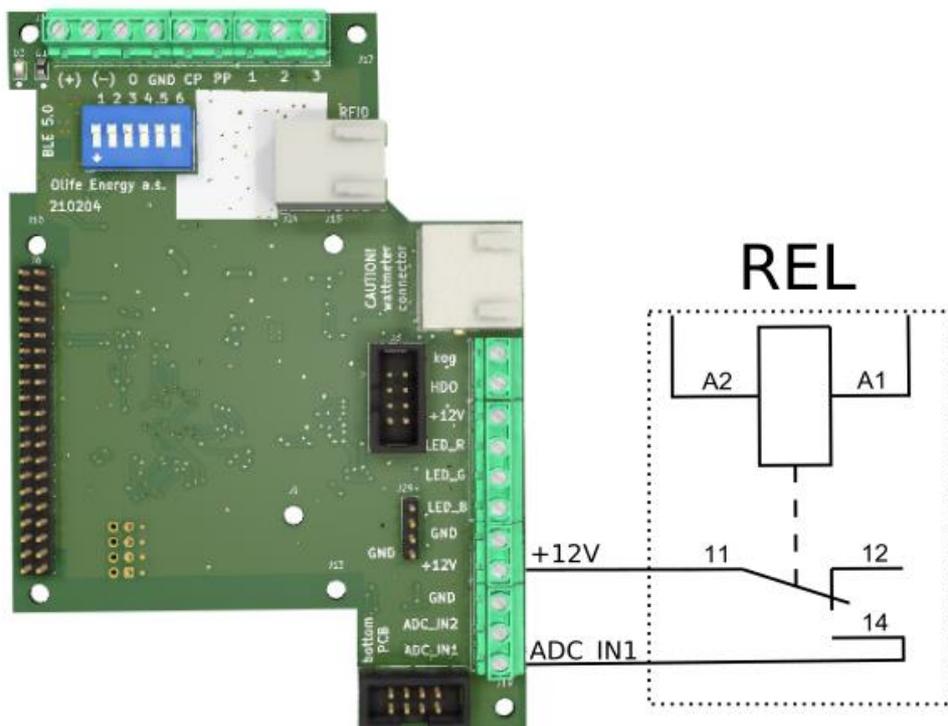


Fig. 19: An example of external control connection using a relay controlled by HDO signal

13 OPERATING INSTRUCTIONS



Before each charging check the charging station visually, including the charging cable and socket (see Chapter “Station Checking” to be sure that the station is not visibly damaged.

The charging station is ready for charging when the green uninterrupted light is on.

13.1 DOUBLEBOX WITH CHARGING CABLE

If the charging station is ready for charging, insert the charging plug of the charging station into the vehicle. Charging will begin upon successful RFID authorization; if the station is in automatic mode, charging will begin immediately. You can terminate charging by the vehicle (unlock, vehicle button or vehicle socket button, etc.) or by RFID.



13.2 DOUBLEBOX WITH SOCKET

If the charging station is ready for charging, insert the charging plug into the charging station and then into the vehicle. Charging will begin upon successful RFID authorization; if the station is in automatic mode, charging will begin immediately. You can terminate charging by the vehicle (unlock, vehicle button or vehicle socket button, etc.) or by RFID.



Attention! The charging station is intended for electric cars complying with ČSN EN 61851 that all modern mass-produced electric car meet.

14 DESCRIPTION OF LED INDICATION

STATUS		REPEATING	ON [ms]	OFF [ms]	BREAK [ms]
STATION READY FOR OPERATION			∞		
EV CONNECTED		1x	100	200	3000
EV IS BEING CHARGED		∞	2000	1000	
EV STOPPPED CHARGING		2x	100	200	3000
CURRENT SET TO 0A		3x	100	200	3000
CONTROLLER STOPPED CHARGING		4x	100	200	3000
ERROR OF RCD PROTECTOR		5x	100	200	3000
ERROR	STATE_E_0	6x	100	200	3000
	STATE_E_3	7x	100	200	3000
	STATE_E_L12	8x	100	200	3000
	STATE_E_MIN	9x	100	200	3000
	STATE_E_MAX	10x	100	200	3000
RFID	Accepted	10x	100	100	
	Rejected	1x	0	2000	

STATUS can be observed in smartphone application Olife Energy. The status is also indicated by repeated blinking of LEDs at the side of the charger.

EV STOPPED CHARGING: this status occurs if the charging session is stopped by electric vehicles. For example EV is unlocked, charged to 100% (or any pre-set value in EV if available) or EV error

CURRENT SET TO 0A: Charging current can be set to 0A (or less than 6A) by various reasons:

1) Through RS485 interface:

a) Olife Energy meter is connected into RS485 MODBUS interface in order to prevent local grid overload or to provide charging from photovoltaic energy only. If the Smartmeter keeps stopping charging even you think it should not, please check the settings in smartphone application, such as enabled charging from PV excess energy under insufficient sunlight conditions, HDO (ripple control) input enabled, correct values of current measured in overview tab, etc.

b) any other 3rd party RS485 Modbus RTU controller

2) Olife Energy Cloud

3) 3rd party OCPP server

4) 0-10V analog input.

a) Connected HDO (ripple control) relay 12V into 0-10V input

b) 3rd party 0-10V analog control unit or 12V digital input unit

CONTROLLER STOPPED CHARGING: If the charger Authorisation method is NOT set to AUTO through the smartphone app or dip-config, the controller stops charging based on different inputs:

1. Charging was stopped by repeated RFID authorization
2. Charging was stopped by STOP button in smartphone application
3. Charging was stopped by OlifeEnergy Cloud (for SMART/CLOUD charging stations only)
4. Charging was stopped by 3rd party OCPP server
5. Charging was stopped by RS485 input by external MODBUS RTU control unit.

CAUTION: this status can not be triggered by Olife Energy Smartmeter!

ERROR OF RCD PROTECTOR: CAUTION! This error is result of safety step triggered by current leakage sensor! It is necessary to check the cable connection of the charger, especially moisture of EV charging connector of the charger output plug / socket. It is recommended to leave that to qualified electrician. The error can be deleted by restarting the charger.

EV error: These errors can not be influenced or repaired by user. Try restarting the charger. If the error occurs please contact the Olife Energy service.

15 OCPP CONFIGURATION

The OCPP is available for CLOUD and SMART versions of Olife Energy Wallbox. The BASE version of the products does not support OCPP.

15.1 Description

The charging station shall be configured via a web interface in the station. The following modes can be set: charging (automatic/authorized), web interfaces (Ethernet, Wi-Fi, GSM modem) and connection to a remote server (Olife-Energy Cloud, OCPP).

15.2 Procedure

1. Connect a network cable (Ethernet) in the station. In the initial setting, the station expects being assigned IP address from DHCP server.
2. Open the web server on your device and connect to the station IP address (http://charger_ip).

3. Log in the web interface with username: *owner* and password: *owner*.

Now you can start adjusting the station setting. Once changed, the new setting must be saved. To see the changes, the station must be restarted.

16 EQUIPMENT INSPECTIONS

16.1 VISUAL INSPECTION BEFORE EACH CHARGING

A visual inspection should be carried out before each use. If a defect occurs, record the result of the inspection for later inspection by a specialist.

Recommended inspection points:

- **Visual inspection of the integrity of metal parts placed on the charging station chassis** – If the station is visibly damaged, there is a risk of leakage and failure of the internal electronics. It is prohibited to use the charging station with any visible damage. If the station is damaged, it is imperative to shut down the station immediately by turning off the upstream mounted main switch or the appropriate circuit breaker.
- **Optical inspection of the condition of charging connectors and cables** – If a charging connector or cable is visibly damaged, its further use is not permitted. It is imperative to shut down the station immediately by turning off the upstream mounted main switch or appropriate circuit breaker for the duration of the repair.
- **Visually inspection of the charging connector pins for oxidation** – If any corrosion or oxidation is visible, the station must be shut down by turning off the upstream mounted main switch or the appropriate circuit breaker for the duration of the repair.
- **Optical inspection of station lighting** – If the LED indication on the station shows problems (non-functioning, partial non-functioning), the station should be shut down by turning off the upstream mounted main switch or the appropriate circuit breaker for the duration of the repair.



Attention! The internal electronics of the charging station is not subject to the scope of regular inspection. Any intervention by persons without the appropriate electrical qualifications is prohibited.

16.2 REGULAR SERVICE INSPECTION



Danger!

Danger of injury and damage to property through improper maintenance and repair!
Only a qualified service technician may inspect or repair the charging station.

To ensure long-term reliability and safety and to maintain the guarantees, the OlifeEnergy Doublebox charging station must be subject to a regular expert inspection every six months. Make a record of the service inspection and keep it.

Recommended inspection points

- Optical inspection of the chassis and its tightness, and bushing and cover tightness.
- Optical check of conductor for oxidation.
- Tightening of conductors in terminal boards (torque 1 – 1,2 Nm), tightening of conductors in circuit breakers and current protectors (torque 2 – 3 Nm).
- Checking the station function (conditions) according to EN 61851 using an electric car or a special item.
- It is necessary to check the equipment of the Hager residual current protectors (CDA440D, 4P, 40A, 30mA, 6kA, type: A) once in six consecutive calendar months, using the TEST button. Both residual current protectors are subject of the inspection.

17 FAULT DETECTION AND TROUBLESHOOTING



Danger!

Danger of injury and damage to property through improper maintenance and repair!
Only a qualified service technician may inspect or repair the charging station.

Information about faults occurring during the charging station operation, their possible causes and troubleshooting are mentioned in the table below.

All the works on the charging station (assembly, maintenance, repairs etc.) may be carried out solely by service workers.

Failure	Possible cause	Troubleshooting
The charging station does not light up	<ul style="list-style-type: none"> - Failure in the upstream-located installation (circuit breaker/residual current protector) - Connectivity failure (SMART version only)) 	Check whether the power supply is live. For SMART stations, check the data lead or SIM card if fitted. If the station still does not light up, disconnect the station from the power supply (using an upstream-located circuit breaker) for 10 seconds and reconnect.
The charging station does not charge	<ul style="list-style-type: none"> - Failure in the upstream-located installation (circuit breaker/residual current protector) - Cable failure - Authentication 	<p>Check whether the lead-in is live.</p> <p>Check if you authorize correctly (automatic mode, RFID, payments)</p>
The charging station is flashing intensively.	<ul style="list-style-type: none"> - Error status of the station 	<p>Count the number of flashes, move to Chapter 14 and record the error.</p> <p>Disconnect the station from the power supply (using an upstream-located circuit breaker) for 10 seconds and reconnect.</p> <p>If the error is repeated, contact the service technician of the charging station.</p>

18 INFORMATION FOR USERS ON THE DISPOSAL OF ELECTRICAL AND ELECTRONIC DEVICES

18.1 HOUSEHOLDS



The symbol on the product or in the accompanying documentation means that used electrical or electronic products must not be disposed of with municipal waste. In order to dispose of the product correctly, please take it to the designated collection points where it will be accepted free of charge.

By properly disposing of the charging station, you will help preserve valuable natural resources and you help prevent potential negative environmental and human health impacts that could result from improper waste disposal. Contact your local authority or the nearest collection point for further details.

Fines may be imposed in accordance with national regulations if the charging station is disposed of incorrectly.

18.2 USE IN COMPANIES

For proper disposal of electrical and electronic equipment, please ask your dealer or supplier for detailed information.

19 CONTACT TO PRODUCER

Olife Energy, a.s.
Lazarská 11/6
120 00 Prague 2
Czech Republic

www.olife-energy.com
info@olife-energy.com
+420 602 615 953