

Wallbox Duo power

Assembly manual



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Congratulations on the purchase of the ENELION charger, and thank you for the trust you have shown.

Before installing the device, make sure that the module packages contain all the necessary components. The current version of the user and installation manual is available at: <https://enelion.com/pl/support/>

Before undertaking any activities related to the installation or operation of the charger, please familiarize yourself with the content of this manual.

1. Important information.

1.1. General provisions

The ENELION charger (hereinafter referred to as the device, charger, or charging terminal) is a charging station designed for charging electric vehicles within the meaning of the „Act on electromobility and alternative fuels” of January 11, 2018, in points 5, 12, 13, and 27 of Article 2 of the aforementioned law.

The installation and servicing of the device must be carried out by qualified and authorized individuals, and repairs can only be performed by the manufacturer or entities authorized by the manufacturer.

Interference with the mechanical, electrical, and electronic components, as well as the software of the device, is prohibited under the risk of voiding the warranty. Exceptions are activities described in the following instructions and those that have been agreed upon in writing with the manufacturer.

The manufacturer is not responsible for property damage resulting from the above-prohibited interference with the product.

The electrical installation from which the device will draw power during operation must meet the conditions described in the installation instructions. The manufacturer is not responsible for the improper execution and/or protection of the electrical installation to which the device is connected.

The manufacturer is not responsible for the improper functioning of the electrical installation to which the device is connected.

The electrical installation from which the device will draw power during operation must comply with the legal standards applicable at the installation and operation location of the device. The manufacturer is not responsible for damages caused by an electrical installation that does not meet legal standards.

The device does not have a built-in switch. The device starts when the power voltage appears. Power cutoff must be ensured by appropriate electrical installation devices described in the installation instructions. Except in emergency situations, the device cannot be turned off during the charging process.

Powering on the device is prohibited when the device housing is open.

The use of a mechanically damaged charger or one signaling a critical error is prohibited. Placing objects not intended for this purpose in the charger socket is

also prohibited. The only object intended for placement in the charger socket is a functional power cable with the appropriate power and type for the vehicle, terminated with a functional Type 2 plug according to EC 621962.

The use of extension cords or charging cable extensions is prohibited.

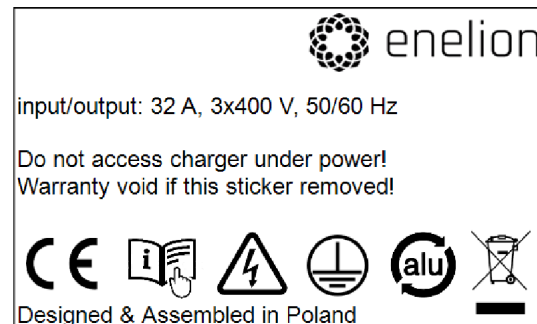
The manufacturer is not responsible for the loss of health or life resulting from non-compliance with the above recommendations.

The nameplate present on the device is its integral part and cannot be removed or damaged under the risk of voiding the manufacturer's warranty.

1.2. Safety Guidelines

Do not conduct external assembly during atmospheric precipitation or strong winds if there is a risk of water or contaminants reaching the device.

All activities described in this manual should be performed after ensuring that there is no voltage in the power cable.



Rys. 1: Sample information sticker

INFO

Three self-adhesive labels with information about the current value have been included in the set. Choose the appropriate one according to the specifications and affix it next to the nameplate.

2. General information

WALLBOX DUO POWER is a charging station intended for electric road and passenger vehicles. It is made of an aluminum casing, closed at its sides with reinforced polymer material. It includes a charging process control module, a front panel with an RFID reader, an OLED screen and LED signaling.

It is distinguished by two available TYPE 2 charging sockets operating in a 3-phase mode.

Additional accessories can be installed. The range of functions of the device can be extended by adding such accessories as ENELION BRIDGE, ENELION MID or ENELION RCM B protection. Some parameters and functions can be changed by reprogramming the device with the use of the attached RFID card. ENELION WALLBOX DUO POWER is available in two colors: black and silver.



Fig. 2: ENELION WALLBOX DUO POWER in black.

All ENELION charging stations are compatible with the proprietary ENELION CHAIN communication protocol, enabling operation within a local network of chargers. This allows activating the ENELION DLB function, providing dynamic load balancing. This feature reduces the number of devices requiring an internet connection and allows for more efficient utilization of power for vehicle charging.

All ENELION devices can be equipped with the ENELION BRIDGE (available as a separate add-on). It adds smart functions to the devices and enables connection to a remote management system (compatible with OCPP 1.6) via the internet.

INFO

To learn more, please refer to the „User Manual.“ It contains detailed information about the functionality and operation of the device.

2.1. Opening and closing ENELION WALLBOX DUO POWER

INFO

The 3 mm Allen key is needed to open (or close) the ENELION WALLBOX DUO POWER. No other tool is necessary for this operation..

INFO

Closing of the device is performed by repeating the steps in the reverse order.

INFO

The operations described below are identical for the device already mounted on the wall. Please note that the device must be opened at least once before the installation to allow access to the mounting holes on its back and to connect the power cable.

1. Remove the rubber plugs from the top left and right hole of the device.
2. Insert the supplied Allen key into the exposed hole. The key should be inserted until resistance is felt, i.e. until it cannot be pushed deeper.

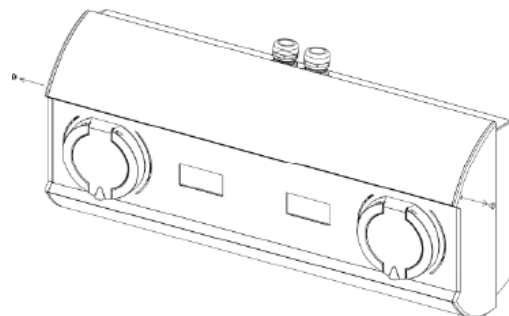


Fig. 3: Removal of rubber plugs.

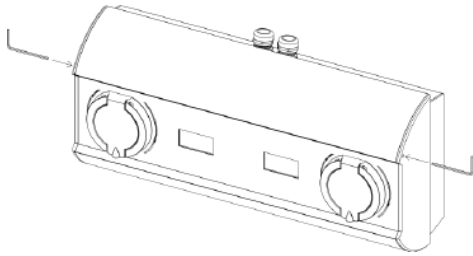


Fig. 4: Inserting an Allen key.

3. Turn the key counterclockwise until the locking pin is aligned with the side of the charger. Remove the Allen key from the hole. Repeat action number 2 for the second locking pin.

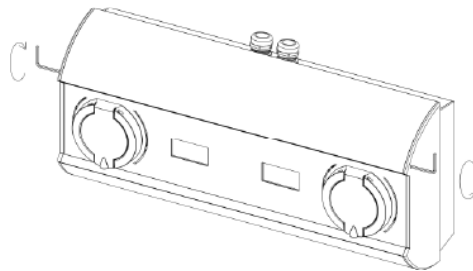


Fig. 5: Unscrewing the locking pin.

4. Slide the front panel upwards of the device by holding the socket housing use a suction cup as an option until the lower edge of the front panel is exposed.

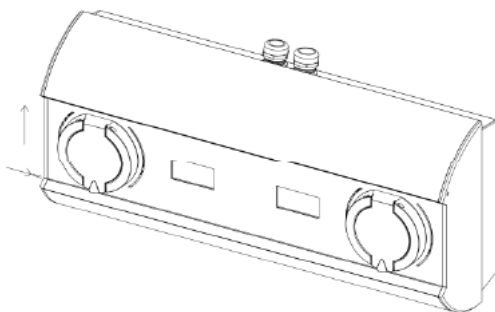


Fig. 6: Front panel moved upwards.

5. Holding the socket housing, pull the bottom edge of the panel until it is released from the housing and tilted slightly.

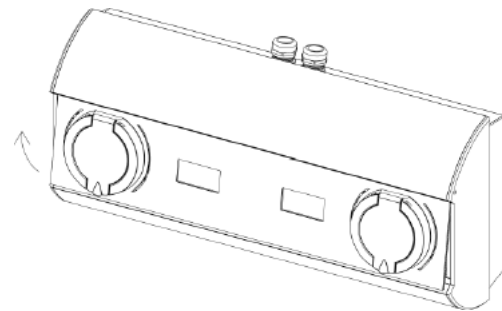


Fig. 7: Front panel slightly tilted.

6. Holding the front panel in the same plane, slide it downwards from the top frame of the device.

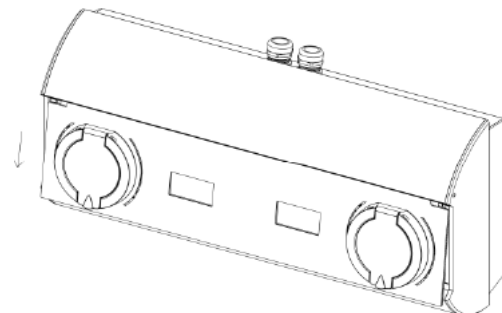


Fig. 8: Removing the front panel from the device housing.

7. Slowly continue to pull out the front panel, watchful of the socket lock not hooking onto the housing.-

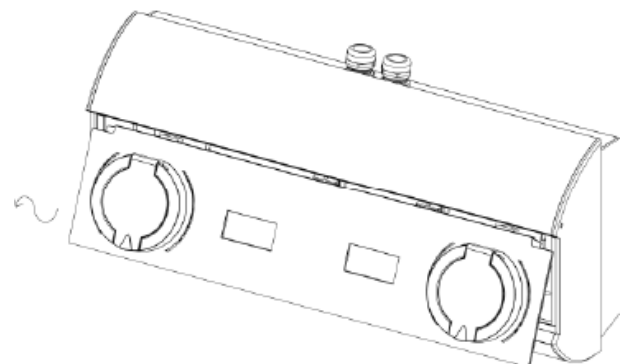


Fig. 9: Unscrewing the locking pin.

8. The front panel may freely rest next to the housing, hanging within the reach of the socket connection wires.

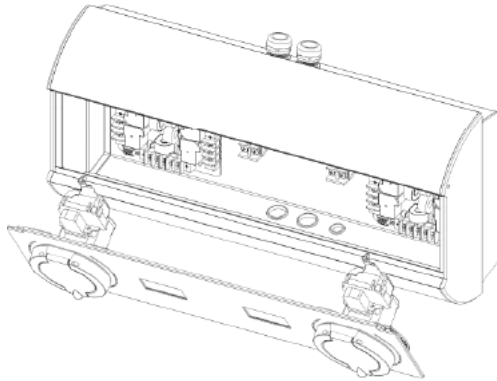


Fig. 10: The device open with the access to its interior.

INFO

The panel is fitted into place by following the above operations in the reverse order.

WARNING

Be careful not to crumple the signal tape while fitting the front panel..

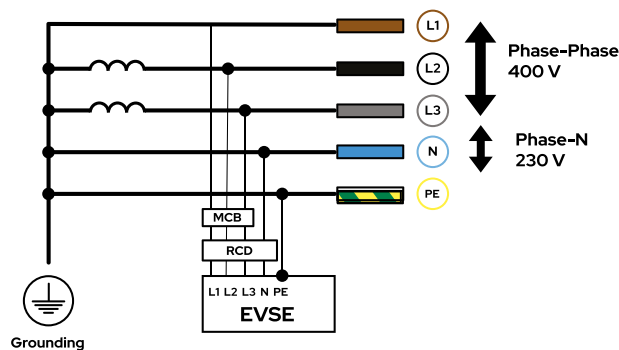
3. Design guidelines for installation

3.1. Power network systems for charging stations

ENELION charging stations are adapted for five-wire power supply. In a TN-S 230/400V network, this is the standard option.

TN-S 230/400 V

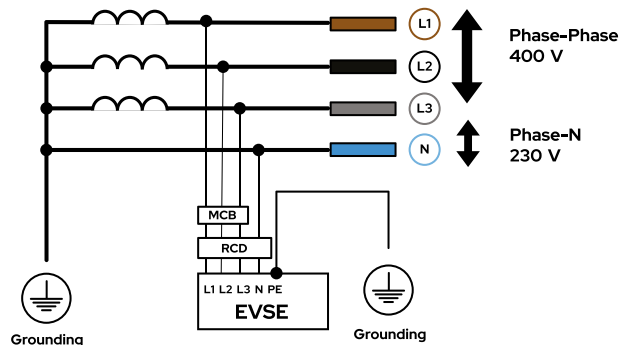
Generator or transformer



It is possible to power the station from other network systems described below:

TT 230/400 V

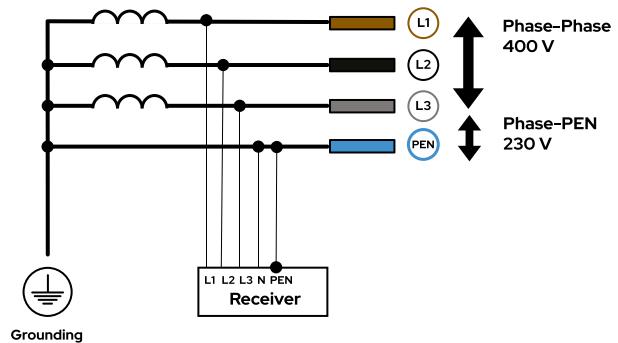
Generator or transformer



In the TN-C system configuration, you should separate the PEN conductor into N and PE as shown in the diagram below.

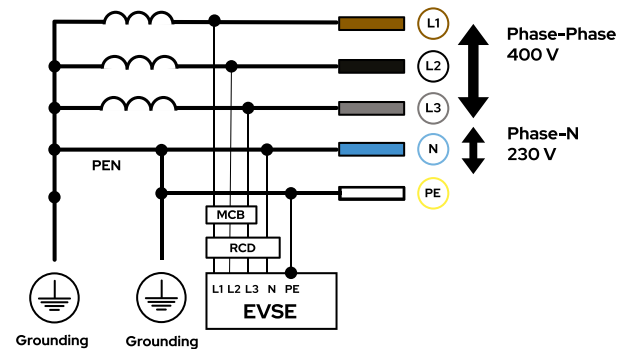
TN-C

Generator or transformer



TN-C-S 230/400 V

Generator or transformer

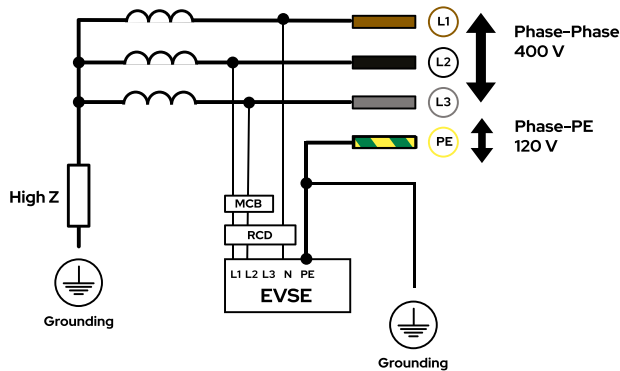


In the case of an IT network with 120/230 V, as found in Norway, the connection appears as follows.

It should be noted that one of the phases serves as the Neutral conductor, which is important during the installation of RCD (Residual Current Device). In such a network, it is not possible to charge in three phases; only some vehicles will be able to charge in two phases.

IT 120/230V

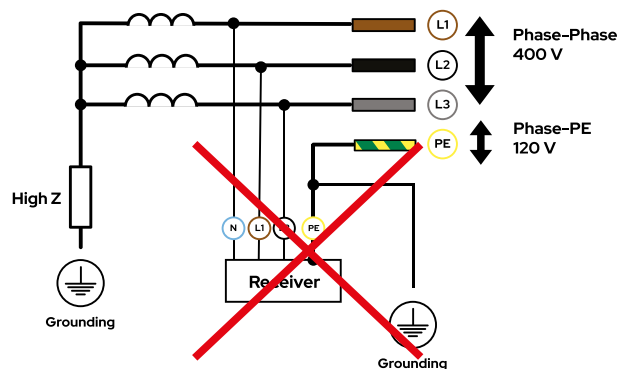
Generator or transformer



It is not possible to power the station from an IT network with 230/400V.

IT 120/400V NOT ALLOWED!!!

Generator or transformer



Other, more complex power systems require technical consultation before purchase.

circuit breaker with BorC characteristics and rated current of 32 A or lower, appropriate to the device version. To be compliant with the PN-EN IEC 61851-1: 2019-10 standard, each charging point must also be protected against type A or B residual current. This requirement must be met by one of the below:

1. Installation of a type B residual current device (RCD B 30 mA/40 A) or RCD EV (30 mA/40 A) in the switchboard,
2. Installation of a type A residual current device (RCDA 30 mA/40 A) in the switchboard with the application of ENELION RCM B – type B Residual Current Monitor, attached to the charging terminal.

The final selection of the safety devices belongs to an authorized designer or a qualified electrician.

The above requirements result in the necessity to use independent cables for multi-socket devices: WALLBOX DUO POWER and WALLBOX ADSPACE.

WALLBOX DUO POWER multi-socket device allows one to power the charging sockets only in 1-phase mode. Therefore, it should be powered with one four-wire cable.

The cross-section of the power supply cables must be selected by an authorized electrician, depending on the distance from the switchboard and other conditions pertinent to the location. To obtain the maximum charging power in wall-mounted devices, the use of cables with a conductor cross-section not greater than 6 mm² is recommended. **The diameter of the power supply cable with insulation must not exceed 16 mm.**

Cables running underground must be installed in accordance with the binding building regulations. For convenient installation, flexible power cables, stranded type, terminated with clamping sleeves are recommended.

ⓘ WARNING

Connection possibilities have been described in "User manual", in the Device configuration section.

ENELION charging terminal must be powered from the electrical switchboard. The board must have the required protections in the form of an overcurrent

ⓘ INFO

In case of single phase installation, the maximum cross-section of the power supply cable to be assembled in connection terminals is 10 mm². The diameter of the power supply cable with insulation must not exceed 16 mm.

ⓘ WARNING

To supply the voltage to the installed and connected charging station, first switch on the RCD protection, and next the overcurrent switch.

For installation, about 50 cm of power cable reserve from the expected installation position is recommended. For WALLBOX ADSPACE devices, a reserve of about 110 cm of the cable supplying power to the left socket is recommended.

3.1.1. RCD B with automatic reclosing device

There is an option to install an RCD B circuit breaker with an automatic reclosing device. The automatic reclosing device is a separate physical device mounted on a DIN rail and must be installed next to the circuit breaker. Depending on the number of phases, the circuit breaker with an automatic reclosing device occupies 4 or 5 positions on the DIN rail.

The power supply to the automatic reclosing device should be connected before the power supply to the RCD B to prevent it from being switched off when the RCD B activates.

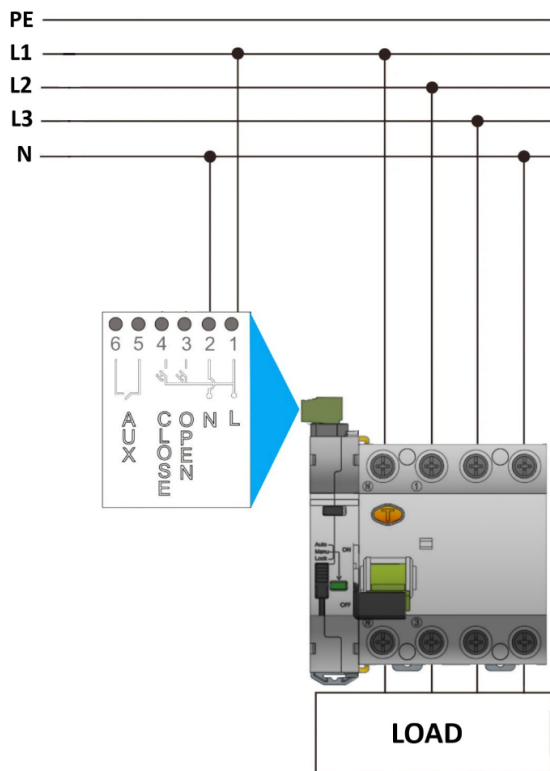


Fig. 11: Instructions for connecting RCD B with an automatic reclosing device to the power supply.

The automatic reclosing device is equipped with an LED interface that indicates its status:

1. Continuous green means the device is ready to operate.
2. Continuous red indicates device lockout after 3 unsuccessful lift attempts. In this case, the presence at the station is required, and the automatic reclosing device must be raised manually.
3. Flashing red indicates that the automatic reclosing device is attempting to lift the differential current switch lever.

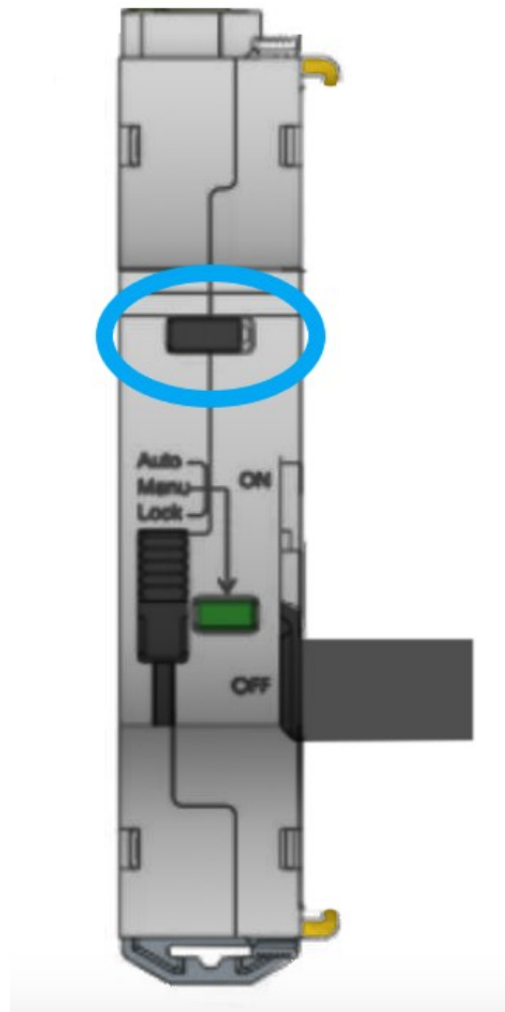


Fig. 12: Automatic reclosing device Interface

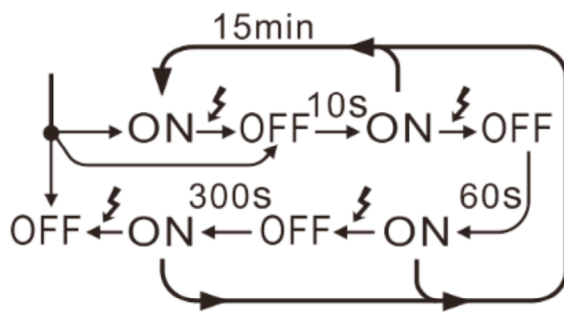
The automatic reclosing device can operate **in three modes**:

Auto mode: In this mode, the automatic reclosing device attempts to lift the RCD a maximum of 3 times in case the differential current switch is tripped.

1. The first attempt is made 10 seconds after the differential current switch is triggered.
2. If the switch is tripped again within 15 minutes, the automatic reclosing device will make a second attempt after 1 minute.
3. If the switch is tripped again within a time frame of less than 15 minutes, the third lift attempt will be made after 5 minutes.

The fourth trigger of the differential current switch deactivates the automatic reclosing device. At this point, manual lifting of the RCD B switch lever is required.

The process has been presented in the form of a diagram in the illustration below.



Manual mode: Standard operation of the differential current switch. After tripping, RCD B requires manual lifting.

Lock mode: Protection against unauthorized access. When the automatic reclosing device is set to this mode, a seal can be applied to prevent unauthorized individuals from changing the automatic reclosing device's operating mode.

When purchasing an ENELION station with a differential current switch with an automatic reclosing device, the automatic reclosing device will be set to auto mode."

3.2. Recommended power connection

ENELION charging stations are adapted to five-wire power supply from TN-S type and TT type grid. It is possible to apply three-wire power supply from TN-S type grid.

⚠ WARNING

Connection possibilities have been described in "User manual", in the Device configuration section.

ENELION charging terminal must be powered from the electrical switchboard. The board must have the required protections in the form of an overcurrent circuit breaker with BorC characteristics and rated current of 32 A or lower, appropriate to the device version. To be compliant with the PN-EN IEC 61851-1: 2019-10 standard, each charging point must also be protected against type A or B residual current. This requirement must be met by one of the below:

1. Installation of a typeBresidual current device (RCD B 30 mA/40 A) or RCD EV (30 mA/40 A) in the switchboard,
2. Installation of a typeAresidual current device (RCDA30 mA/40 A) in the switchboard with the application of ENELION RCM B – type B Residual Current Monitor, attached to the charging terminal.

The final selection of the safety devices belongs to an authorized designer or a qualified electrician.

The above requirements result in the necessity to use independent cables for multi-socket devices: WALLBOX DUO POWER and WALLBOX ADSPACE.

WALLBOX Duo multi-socket device allows one to power the charging sockets only in 1-phase mode. Therefore, it should be powered with one four-wire cable.

The cross-section of the power supply cables must be selected by an authorized electrician, depending on the distance from the switchboard and other conditions per-tinent to the location. To obtain the maximum charging power in wall-mounted devices, the use of cables with a conductor cross-section not greater than 6 mm² is recommended. **The diameter of the power supply cable with insulation must not exceed 16 mm.**

Cables running underground must be installed in accordance with the binding building regulations. For convenient installation, flexible power cables, stranded type, terminated with clamping sleeves are recommended

ⓘ INFO

In case of single phase installation, the maximum cross-section of the power supply cable to be assembled in connection terminals is 10 mm². The diameter of the power supply cable with insulation must not exceed 16 mm.

ⓘ WARNING

To supply the voltage to the installed and connected charging station, first switch on the RCD protection, and next the overcurrent switch.

For installation, about 50 cm of power cable re-served from the expected installation position is recommended. For WALLBOX Adspace devices, a reserve of about 110 cm of the cable supplying power to the left socket is recommended.

3.3. Recommended communication network

ENELION devices support the ENELION CHAIN communication interface. For its implementation, a wired connection between the devices is required using an Ethernet CAT 5 or CAT6 cable.

For installation, leave about 50 cm of communication cables from the expected installation position.

The network works in a serial topology where:

- the number of ENELION charging points does not exceed 100 devices,
- the total length of the communication cable connecting the devices does not exceed 500m.



Fig. 13: ENELION CHAIN network topology.

ENELION devices equipped with the ENELION BRIDGE module can use the Internet connection via the Ethernet interface in the LAN network. In order to utilize this function, run the Ethernet CAT 6 cable to the device in which the use of this option is expected.

ⓘ INFO

Devices equipped with ENELION BRIDGE can also use WiFi and GSM interfaces to ensure the Internet connection, but they do not have requirements related to cable installation.

3.4. Location selection criteria

Wall-mounted ENELION devices may be installed both internally or externally.

The device has been designed to be installed near parking spaces for electric vehicles. When used in the vehicle collision hazard zone, the structure should be secured with appropriate fenders painted in yellow and black stripes (warning about the gauge).

Bear in mind that the national regulations may define the space for the installation. The device should not be located in a place of high exposure to sunlight, which could cause overheating. Do not install the device near heat sources or in small, closed spaces (e.g. in a box).

It is forbidden to install a power cord that does not comply with the guidelines in section 3.1 Recommended power connection. It is forbidden to install the device in potentially explosive environment.

Local regulations for electrical installations, fire prevention measures and accident prevention must be taken into account, and escape routes at the installation site must be provided.

It is forbidden to install the device in a location where falling objects may damage the charger.

Before installation, make sure that the mounting space for the device is sufficient.

WALLBOX family devices should have at least:

1. 10 cm clearance on each side of the unit.

For devices from the Stilo family, it is necessary to provide at least:

1. 10 cm clearance on the right side of the unit.
2. 50 cm clearance above the top edge of the device.
3. 100 cm clearance below the bottom edge of the device.

ⓘ WARNING

The manufacturer accepts no responsibility for any damage resulting from failure to comply with the above-mentioned recommendations.

4. Assembly

⚠ WARNING

Before commencing the installation, switch off the power supplied to the cables.

4.1. Preparing the installation

1. Place the packaged ENELION WALLBOX DUO POWER horizontally, in accordance with the markings on the packaging. Cut the package open along the indicated line. Take the device out of the cardboard box, remove the polystyrene protective casing and put the device in the safe position.
2. The polystyrene protection contains useful accessories necessary for the mounting of the device. Before recycling the packaging, collect those accessories that include:
 - cable gland plug,
 - RFID configuration card and RFID pendant.
3. Open ENELION WALLBOX DUO POWER in accordance with the instruction included in section 2.1 Opening and closing ENELION WALLBOX DUO POWER.

4.2. Selection of bolts and anchors

ENELION WALLBOX DUO POWER is mounted on vertical surface using bolts. The device has four mounting openings. Additionally, the device is equipped with holds facilitating the assembly.

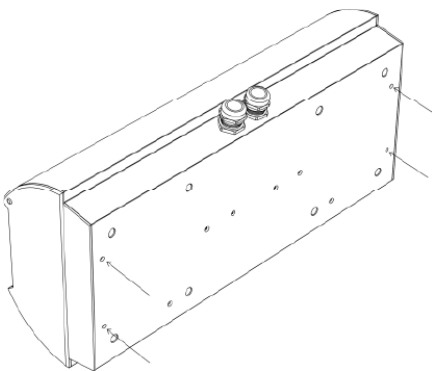


Fig. 17: Mounting holes of ENELION WALLBOX DUO POWER as seen from the back of the device.

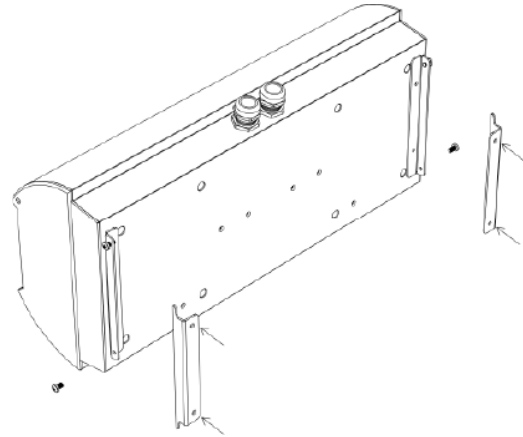


Fig. 14: Assembly of the holds at the back of the device.

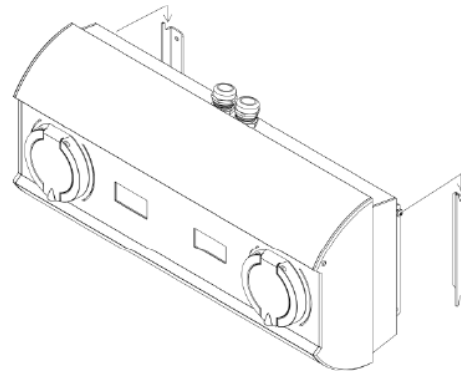


Fig. 15: Hanging ENELION WALLBOX DUO POWER on the holds.

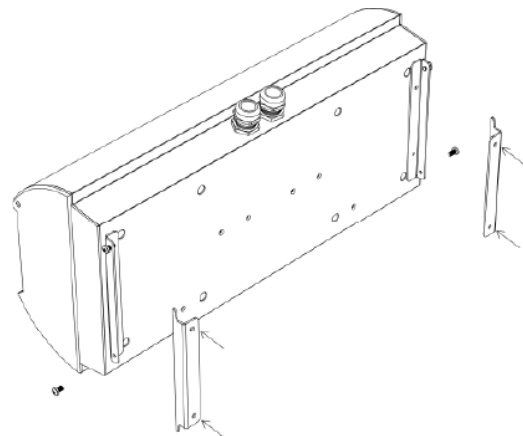


Fig. 16: Attaching the device to the holds with screws.

Follow the information listed below to choose the appropriate method of assembly, depending on the mounting surface:

1. four mounting holes are positioned on the plan of a rectangle with dimensions of 490 mm x 96 mm (width x height),

2. mounting holes have a diameter of 5,5 mm,
3. the device weighs 6,2 kg,
4. mounting must provide stability for the device to withstand significant forces affecting it when plug-ging and unplugging the charging cable in the socket.

! WARNING

Use all mounting holes in the process of installation. Failure to do so will result in the loss of water and dust resistance of the device, classified, as a default, as IP 54. This can lead to damage or failure of the charger, and consequently to loss of life or health. The manufacturer is not responsible for damage and injuries arising from failure to observe the above recommendations.

4.3. Cable routes

The default power cable entry ("A" entry) is at the top part of the device.

It is possible to insert the power cables from the bottom of the device by moving the glands by oneself. To do this, remove the plugs at the bottom of the device. The insertion of communication cables ("B" entry) is possible from the bottom of the device. This requires the removal of the plug and the installation of a gland suitable for the type and number of communication cables to be routed. The opening diameter for the communication cable gland is 19 mm.

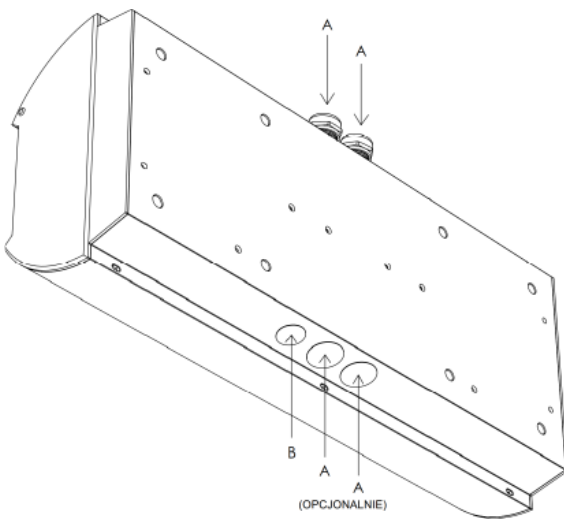


Fig. 20: Locations of cable entry points in ENELION WALLBOX DUO POWER.



Fig. 18: Additional plug with a nut provided with the product.

The removal of plugs for the assembly of cable glands should be performed according to the following guidelines:

1. place the device on a stable surface,
2. use a hammer and a flat-bladed screwdriver to knock out the gland hole plug carefully.

The cable gland in the upper part of the device should be put into the hole in the lower part of the device and screwed to ensure tightness. The gland nut requires a 32 mm spanner and the gland requires a 30 mm spanner. After repositioning the gland, the opening in the upper part of the device should be closed with the plug provided with the product.

! WARNING

To make sure the device is water-tight in accordance with IP54 class and keep the manufacturer's warranty for the device, after relocating the cable gland from the top to the bottom of the device, the unused hole must be secured with a plug and a nut set included with the device.

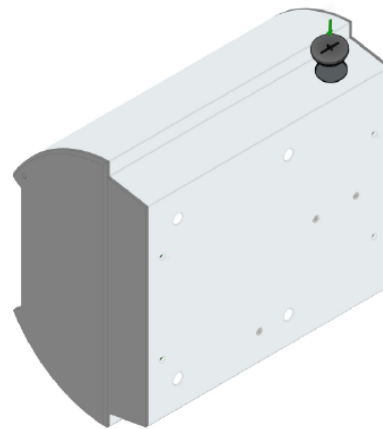


Fig. 19: Mounting place for the additional plug.

The cable gland in the upper part of the device should be put into the hole in the lower part of the device and screwed to ensure tightness. The gland nut requires a 32 mm spanner and the gland requires a 30 mm spanner. After repositioning the gland, the opening in the upper part of the device should be closed with the plug provided with the product.

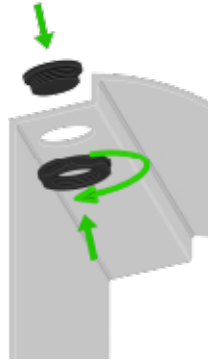


Fig. 21: Mounting method for the additional plug.

7. Screw on the power cable gland ensuring tightness.
8. (Optional) Insert at least 350 mm of the communication cables into the device.

The device mounted in this way can be connected.

4.4. Mounting the device

INFO

The device has been equipped with a template facilitating the installation

1. Determine the final location of the device using the attached template and the level, and mark the mounting holes. The template marks the mounting holes, the outline of the rear wall of the device, the axis of the glands (both in the version with a gland in the upper and the lower part of the device) and the optimal cable lengths. Mounting holes should be at least 5 cm from the edge of the wall (in case of a recess, minimum 20 cm—to leave enough space for the use of Allen key). The axis of the power cable must coincide with the axis of the glands marked on the template. Make sure that the power cord is at least 350 mm long, measured from the edge of the device marked on the template.
2. Make assembly holes and install expansion bolts. Mounting holes should be made in accordance with the specification of expansion bolts, which should be placed in the cleaned holes.
3. Make sure that there is no voltage in the power cords.
4. Open the device as described in section 2.1 Opening and closing ENELION WALLBOX DUO POWER.
5. Put the device in the target position by threading the power cable through the glands.
6. Fasten the device with screws using a screwdriver with a shaft length of at least 150 mm.

5.Connection

5.1. Power connection

ENELION WALLBOX DUO POWER comes in various types. Depending on which type is being installed, the power supply cables may be connected directly to the terminals or to the ap-proved integrated MID meter.

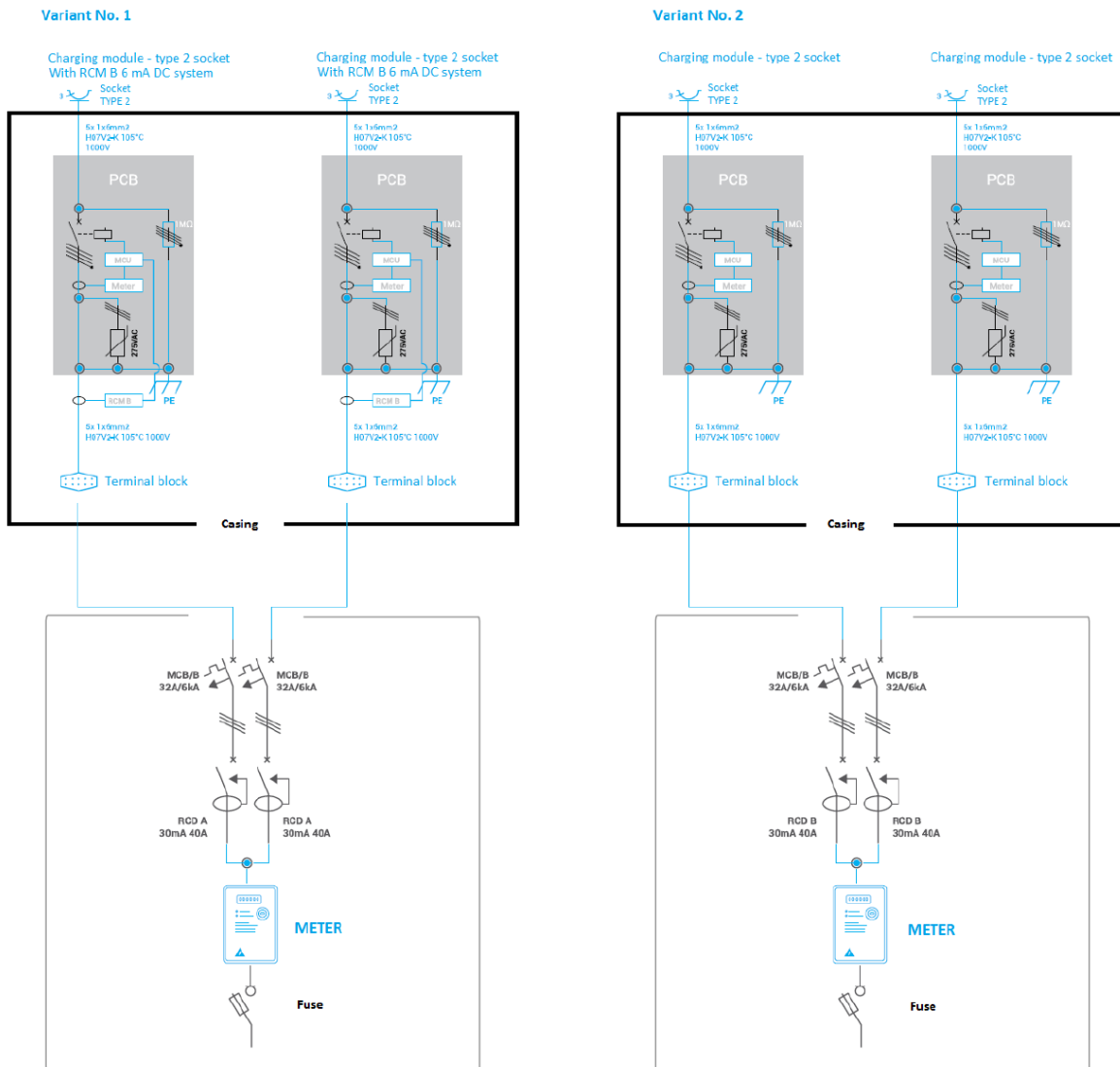
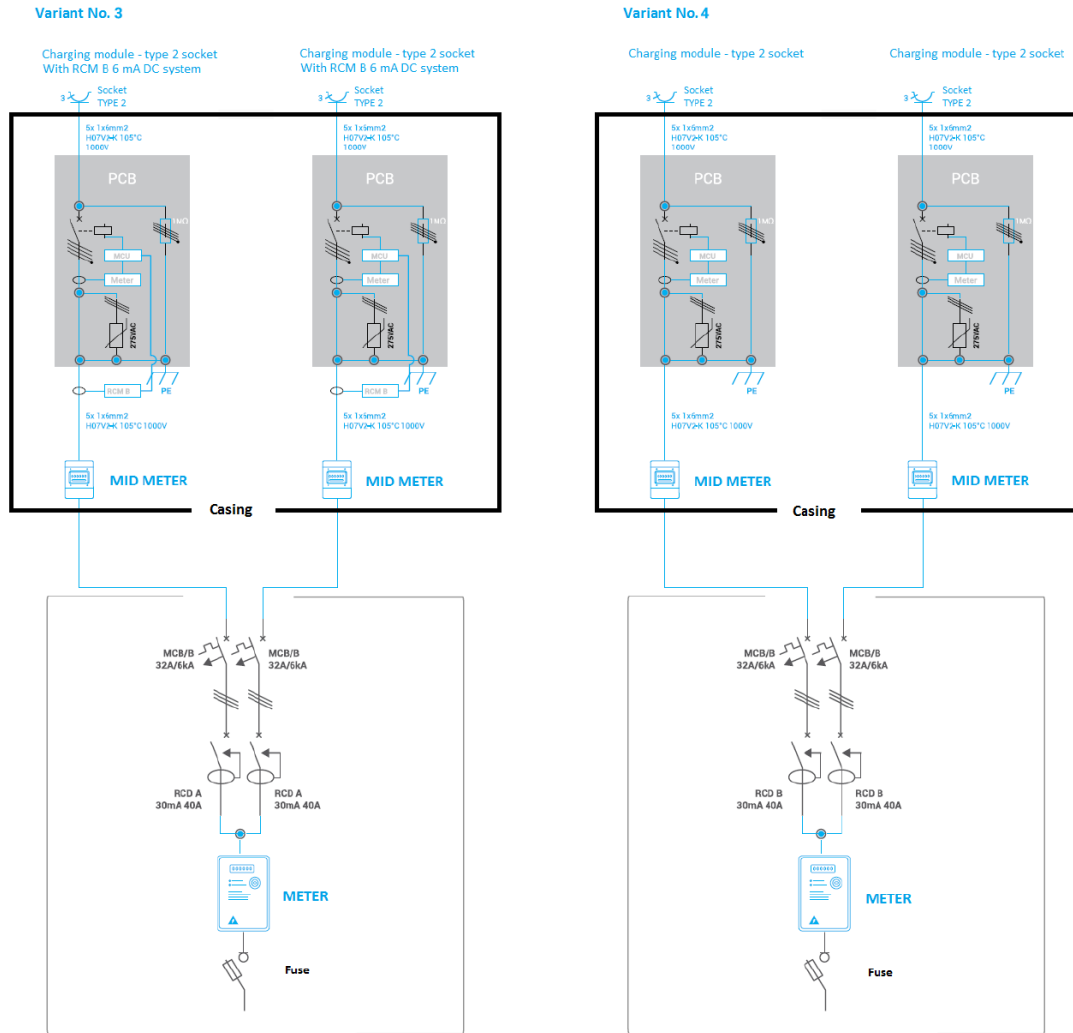


Fig. 22: Schemes of connection variants 1./2.



5.1.1. Standard power connection

INFO

ENELION WALLBOX DUO POWER must have voltage applied to the electrical terminals of both charging controllers for both charging sockets to function. Please apply the steps described below to the terminals of both charging sockets.

- 1. Prepare the power cable.** Remove the main insulation from the power cable over a length of 200 mm. Terminate the individual cores of the cable with fork terminals (size M4 or M5) or sleeve terminals.

- 2. Insert the power cables into the terminals.**

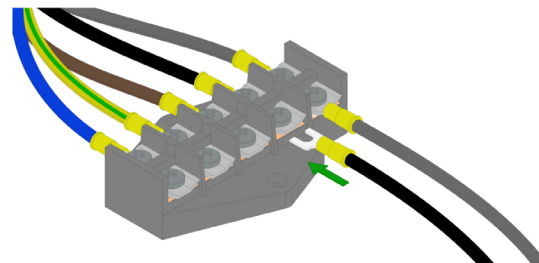


Fig. 24: Connection using fork terminals.

WARNING

Before starting the installation, disconnect the power in the power cables.

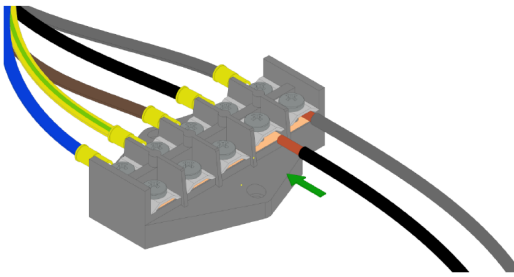


Fig. 25: Connection with solid conductors-wire

3. Use a PZ2 end screwdriver to tighten the terminals with 1,5 N m torque.

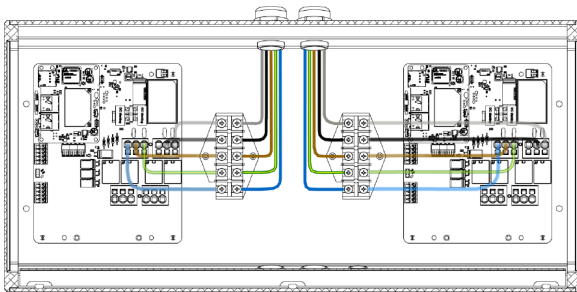


Fig. 26: Electrical connection executed correctly.

HINT

The colors of the phase wires in ENELION WALLBOX DUO POWER may not match the colors of the power cables, maintaining, however, the guidelines on ENELION WALLBOX DUO POWER label. This is a correct and expected situation when using the phase sequence function.

5.1.2. Power connection in the version with MID meter

INFO

For both sockets to operate, the voltage in ENELION WALLBOX DUO POWER must be supplied to the connection clamps of both charging controllers. Operations described below should be performed for the terminals of both charging sockets.

1. **Prepare the power cord.** Remove 200 mm of the main insulation off the power supply cable. Terminate the individual wires of the cable with sleeve terminals.
2. **Insert the power cables into the terminals of the MID meter and tighten them.** Unless otherwise marked on the label of the device, make standard connection in accordance with the markings on the meter. The PE protective conductor should be connected to the prepared coupling.

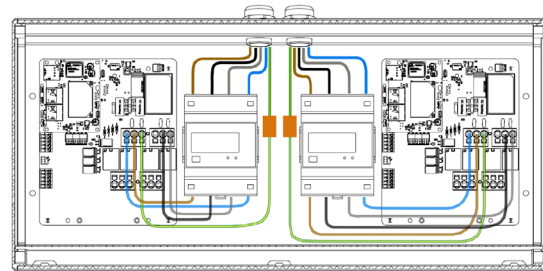


Fig. 27: Recommended connection when applying a MID meter.

WARNING

The connection presented is an example. Before installation check the markings on the meter being installed.

MID meter communication connection should be done according to the diagram below:

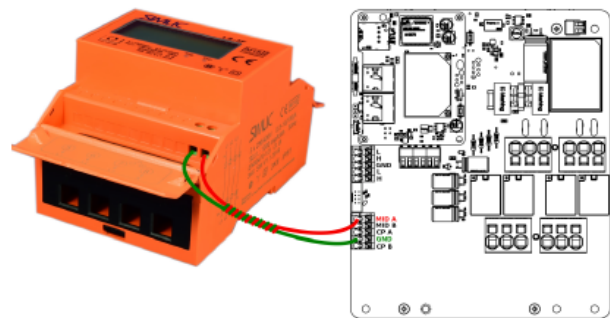


Fig. 28: Connection diagram of MID meter communication cables.

5.1.3. RCM B Connection

ENELION RCM B-Residual Current Monitor type B accessory. ENELION RCM B in combination with the RCD A used in the switchgear meet all safety requirements.

1. Connect the device to the dedicated socket on the PilotBox board. [Fig. 28]

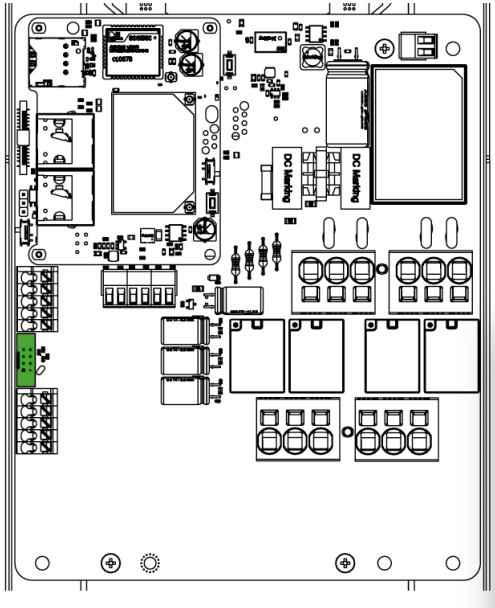


Fig. 29: PilotBox RCM B socket

2. Pass through the RCM B hole four powering cables (All three phases and neutral cord.)

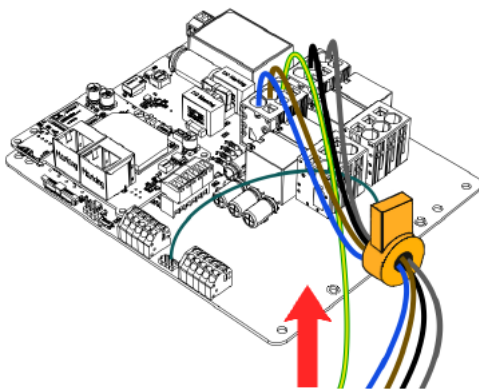


Fig. 30: RCM B connection

HINT

The way of cables through the RCM B hole does not matter. The RCM B monitor could be freely assembled on the socket cables or on the main income cables.

INFO

More information in the User Manual.

5.2. Connecting Communication Cables

HINT

In the ENELION WALLBOX DUO POWER device, both integrated charging controllers are by default connected by a communication cable. When implementing the ENELION CHAIN network, this segment should be treated as a segment between devices, applying all the guidelines described below.

5.3. ENELION CHAIN

If the communication between the devices is expected to be via ENELION CHAIN network, the cables should be connected to the charge controller. Two cores of the communication cable and the screen grounding are used for communication. To connect correctly::

1. **Prepare the communication cables.**
2. (a) or devices at the beginning of the network, select a pair of communication wires.
(b) or devices in a section of the network, prepare the communication cables inserted into the device by connecting together the cores of the incoming and outgoing wires (in variant A) or move to the next step (in variant B, check figures below).

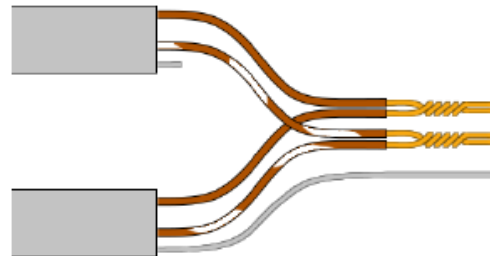


Fig. 31: Incoming and outgoing communication cable connection (variant A)

3. Release the connector terminal by pressing the button using a flathead screwdriver and insert the wires into the respective locations. There will be single wires for devices at the start and end of the network.
4. Use termination for devices at the beginning and end of the network. In case of variant A place terminating jumper on the marked headers [Fig 38]. In case of variant B, termination is done by slide the switch down, to show white square. In alternate version, if there is no switch, place a jumper on two pins in the header inside the charger marked by white line [Fig. 39]

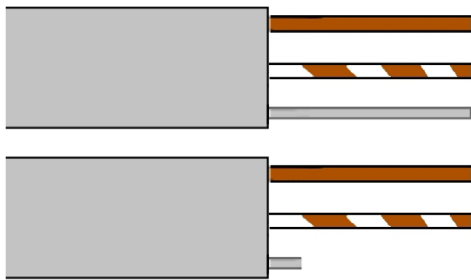


Fig. 32: Incoming and outgoing communication cables (variant B)

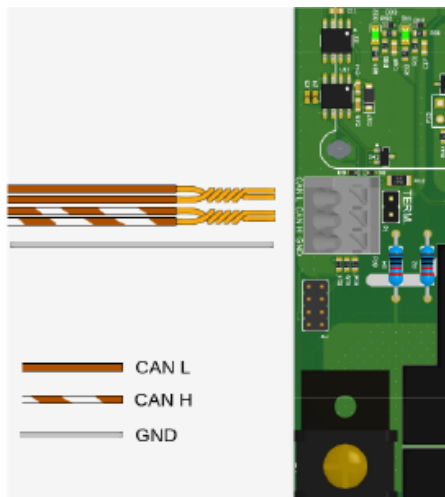


Fig. 33: Diagram of ENELION CHAIN communication cables connection (variant A)

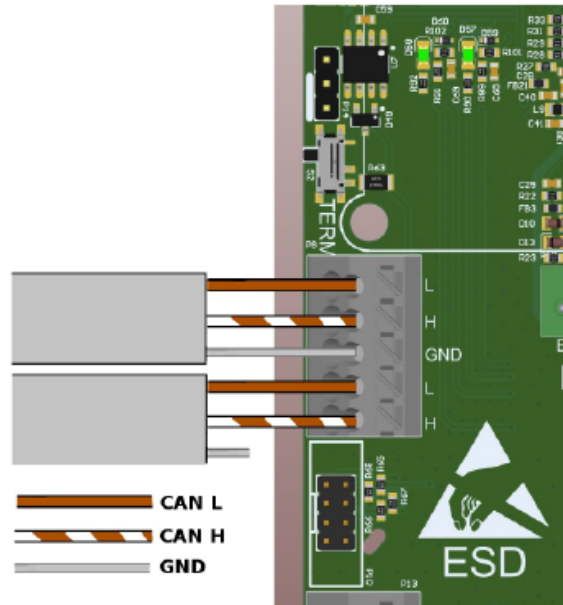


Fig. 34: Diagram of ENELION CHAIN communication cables connection (variant B)

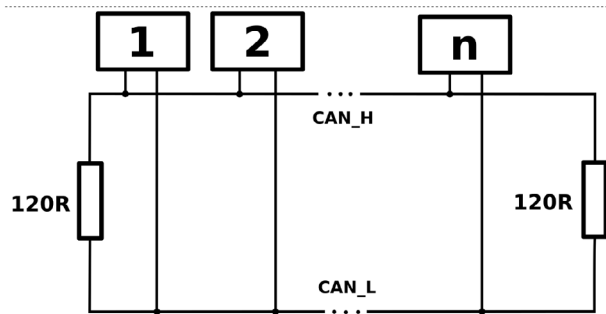
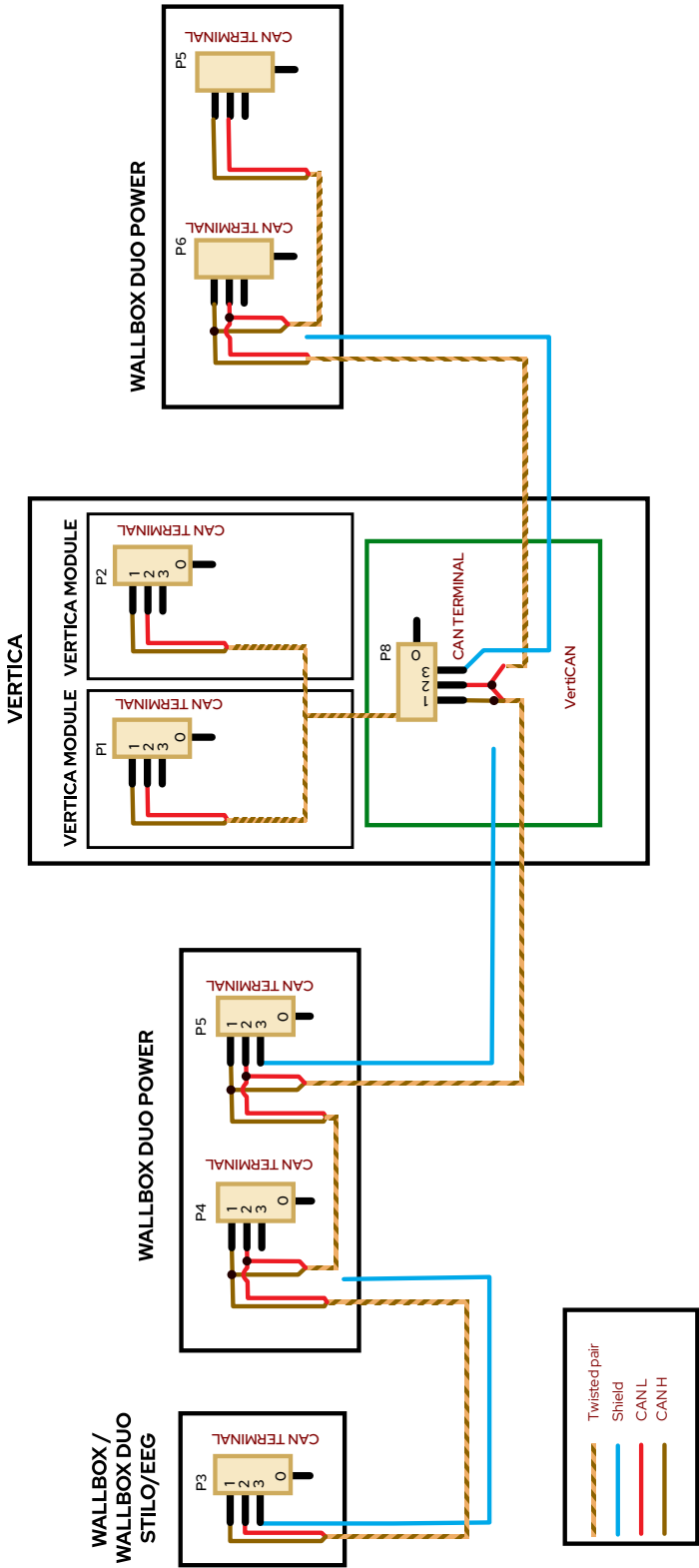


Fig. 35: Termination diagram.



Fig. 36: A sample jumper.



Rys. 37: The ends of the bus must be terminated with a 120 Ohm resistor. For this purpose termination must be enabled on the PCBs of devices at the edge of the network

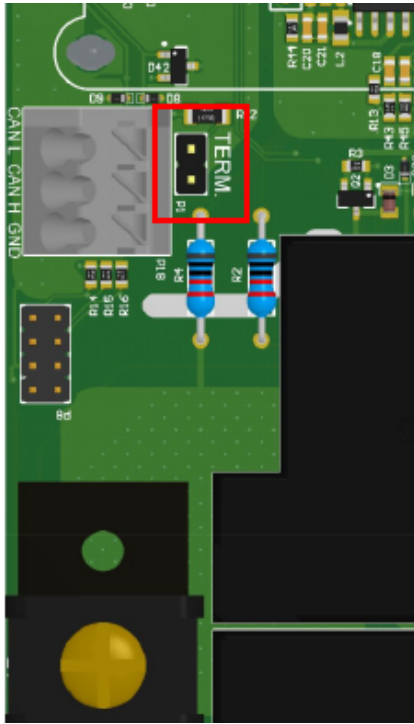


Fig. 38: The place of applying the terminating jumper (variant A)

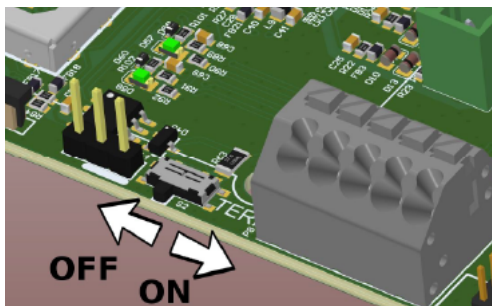


Fig. 39: The place of applying the terminating jumper (variant B)

5.4. Internet connections via Ethernet interface in LAN network

To provide the Internet connection to a charger equipped with ENELION BRIDGE module via Ethernet interface:

1. Insert the Ethernet cable into the device through the gland for communication cables.
2. Terminate the cable with the RJ45 connector according to TIA-568A/B to 100BaseT.

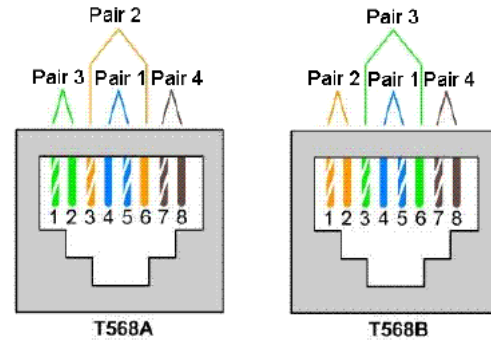


Fig. 40: Termination of the Ethernet cable according to TIA-568A/B to 100BaseT.

3. Connect the Ethernet cable to the WAN/INTERNET socket of ENELION BRIDGE module marked with number 2.

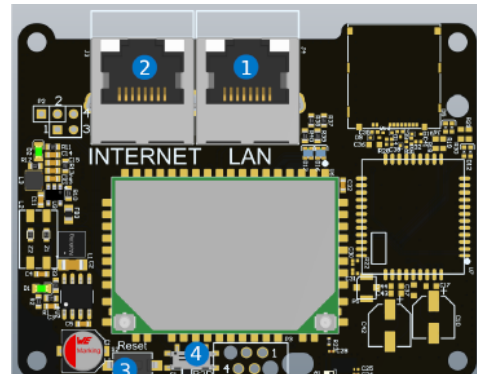


Fig. 41: ENELION BRIDGE module diagram..

6. Maintenance

The device is designed to operate in temperatures from -25 °C to 55 °C. The manufacturer does not guarantee the proper functioning of the charging station in temperatures outside the specified range. Chargers that are damaged because of exposure to temperatures below -25 °C or above 55 °C are not covered under the warranty. In case it is necessary to open the device, make sure that it is disconnected from the power source. With the device installed outdoors, make sure that there is no precipitation or strong wind.

⚠ WARNING

The device may only be opened by a qualified and authorized person.

6.1. Cleaning

The correct way to clean the charger is to wipe the housing with a microfiber cloth using a cleaning agent dedicated to anodized aluminum. Plexiglas elements (front panel) and plastic elements (socket) should be cleaned with a microfiber cloth using a cleaning agent dedicated to cleaning windowpanes. Other cleaning methods (e.g. wire brush) may lead to the damage of the device housing. Damage resulting from improper cleaning of the device does not constitute grounds for warranty claims.

⚠ WARNING

The device meets the IP 54 standard. Therefore, it is forbidden to wash the charger with pressure washers, garden hoses, shower or any other water stream sources.

7. Technical data

7.1. ENELION WALLBOX

Electrical data	
Routing of the power cord Surface mounted	Surface mounted
Power cord cross-section	Recommended minimum cross-section) 5 x 6,0 mm ² (32 A nominal current)
Supply voltage (Europe)	3 x230 V/400 VAC (+/-10%)
Voltage frequency	50 Hz/60 Hz
Network type	TN, TT (IT per special request)
Overvoltage category	III according to EN 60664-1
Rated short-circuit current	Effective value < 6 kA according to EN 61439-1
Overcurrent protection	Not included. Protection to be made in accordance with the locally valid regulations and according to the type of the device.
Protection Class	Class I
Socket type	Type 2, standard socket 32 A/400 VAC in accordance with EN 62196-1

Mechanical data	
Dimensions (width x height x depth)	530 mmx 249 mm x 156 mm
Weight	6,3 kg ± 5%
IP class	IP54
Mechanical strength class	IK10

Interface	
Charging network development	ENELION CHAIN
Add-ons	<ul style="list-style-type: none"> • ENELION MID • ENELION VERTICA Splitter • RCD B
RFID	MIFARE cards compliant with ISO 14443

Ambient conditions	
Working temperature	from 25°C to 55°C
Storage temperature range	from 40°C to 80°C
Permitted relative air humidity	from 5% to 95%
Elevation above the sea level	maximum 2000 m

Signs of installation faults

Damaged varistors on PilotBox

It means faulty connection powering cords

⚠ WARNING

Above information may be the basis for exclusion of warranty.

