



LITE^{VE}
Zero

LITE^{VE}
Uno

LITE^{VE}
Kubo

INSTALLATION MANUAL



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1- WELCOME

1.1 ABOUT THIS MANUAL

This manual contains important and essential information for the correct installation of LITE chargers and their accessories.

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The original manual is written in Spanish. Translation of the original manual into different languages has the sole purpose of clarifying its content. In the event of discrepancy between the translated document and the original, the original version takes precedence over the translation.

1.2 WARRANTY

VELTIUM guarantees this product and its accessories against defects in their materials and manufacturing process for a period of 3 years from the date of purchase. During this period, VELTIUM will repair or replace any defective product. In the event of repair or replacement, the warranty period for the new items will be the time remaining for the other original parts, or 6 months, whichever is longest. The warranty will be void in the following cases:

- Defects caused by an accident, improper use, inadequate maintenance or normal wear and tear.
- Unauthorised replacement, modification or addition of any part.
- Installation, repair or dismantling of the unit by unqualified personnel.

1- WELCOME

1.3 SAFETY MEASURES

The charger must only be installed by qualified personnel following applicable local regulations.

- Use the unit within the parameters and conditions specified at item 4, "TECHNICAL SPECIFICATIONS"
- Visually inspect the unit prior to installation. Contact the distributor in the event of detecting faults, breakages, dirt or humidity.
- Take all necessary precautions if you have an electronic medical implant. Consult a doctor on the effects of the charging process on your implant.
- Do not remove, destroy or damage the stickers or labels on the unit.
- Do not step on, strike or drop the charging cable or the connector.
- Do not apply tension to the cable under any circumstances.
- Do not use extension cables or adapters for the charging cable.
- The charger must always be connected to the installation's ground connection.
- Do not install the charger near inflammable, explosive or combustible materials, chemicals or solvents, gas pipes, steam vents, radiators or batteries.
- Do not install the charger in areas susceptible to flooding, high humidity or running water.
- Before installing the charger, ensure that the surface on which it is to be assembled can withstand the mechanical stresses associated with the weight of the charger and its use.
- This unit will be permanently connected to the AC supply network.
- The power supply line must be connected to an existing installation and fitted with the necessary protection devices in accordance with local regulations.
- The installation must include a miniature circuit breaker (MCB) rated for the charger's maximum output current.
- The installation must also include a 30 mA residual current device (RCD), type A or B, in accordance with local regulations.

2- BEFORE STARTING

2.1 IDENTIFICATION OF THE CHARGER

The charger model is visible on its cover (LITE Zero, Uno or Kubo). The charger also comes with a label on the side indicating its model.



2- BEFORE STARTING

2.2 ELEMENTS INCLUDED IN THE PACKAGING

| ELEMENT | QUANTITY |
|---|--------------------------|
| LITE Zero, Uno, Kubo | |
| LITE Charger | 1 |
| Bushing | 1 |
| 4.8x38 screw | 1 |
| 4.8x90 screw | 3 |
| SX8x40 wall plug | 4 |
| Cap | 3 |
| Blind grommet | 1 |
| Hollow crimp ferrule for 6 mm ² cables | 3 (Zero, Uno) - 5 (Kubo) |
| Spare ACCESS CODE label | 1 |
| Template for installation* | 1 |
| Cable holder | 1 |











2.3 OPTIONAL ACCESSORIES

| ELEMENT | QUANTITY |
|--|--------------------------------------|
| STAND | |
| STAND | 1 |
| M5x12 screw | 1 (single STAND) 2 (double STAND) |
| M5x70 screw | 3 (single STAND) 6 (double STAND) |
| CURVE | |
| CURVE | 1 |
| Zip-tie | 1 |
| SINGLE-PHASE METER | |
| Inepro PRO2-Mod single-phase energy meter | 1 |
| THREE-PHASE METER | |
| Inepro PRO380-Mod three-phase energy meter | 1 |

* If necessary, you can also download the installation template [from this link](#) and print it in DIN A3 size.

2- BEFORE STARTING

2.4 REQUIRED TOOLS

| LITE (Zero, Uno, Kubo) | |
|------------------------------------|---|
| Driller |  |
| 8 mm bit |  |
| Phillips PH2 screwdriver |  |
| Hammer |  |
| Pencil or marker |  |
| STAND | |
| Spanner |  |
| 4 mm Allen or hex key |  |
| CURVE | |
| 3.2 mm flathead screwdriver |  |
| SINGLE-PHASE AND THREE-PHASE METER | |
| 2 mm flathead screwdriver |  |
| THREE-PHASE METER | |
| PZ 2 screwdriver |  |

3- INSTALLATION

3.1 INSTALLATION OF THE LITE ZERO/UNO/KUBO CHARGER

1 CHECK THAT THE POWER SUPPLY IS DISCONNECTED

Make sure that the power supply is disconnected at the charger point of installation.

2 CHECK THE CONNECTIONS

Check that the electrical wiring required to power the charger is available at the point of installation.

OPTIONAL: If you are also going to install a CURVE device, check that the wiring for the device is also available. For more information, see item 3.2 "INSTALLATION OF THE CURVE DEVICE".

OPTIONAL: If you are going to connect the charger to a communications device (modem, router, switch, ...), check that the Ethernet wiring from that device is also available. For more information, see item 3.5 "CONNECTION OF THE CHARGER TO A COMMUNICATIONS ELEMENT".


3 OPTIONAL: INSTALLATION OF THE STAND ELEMENT

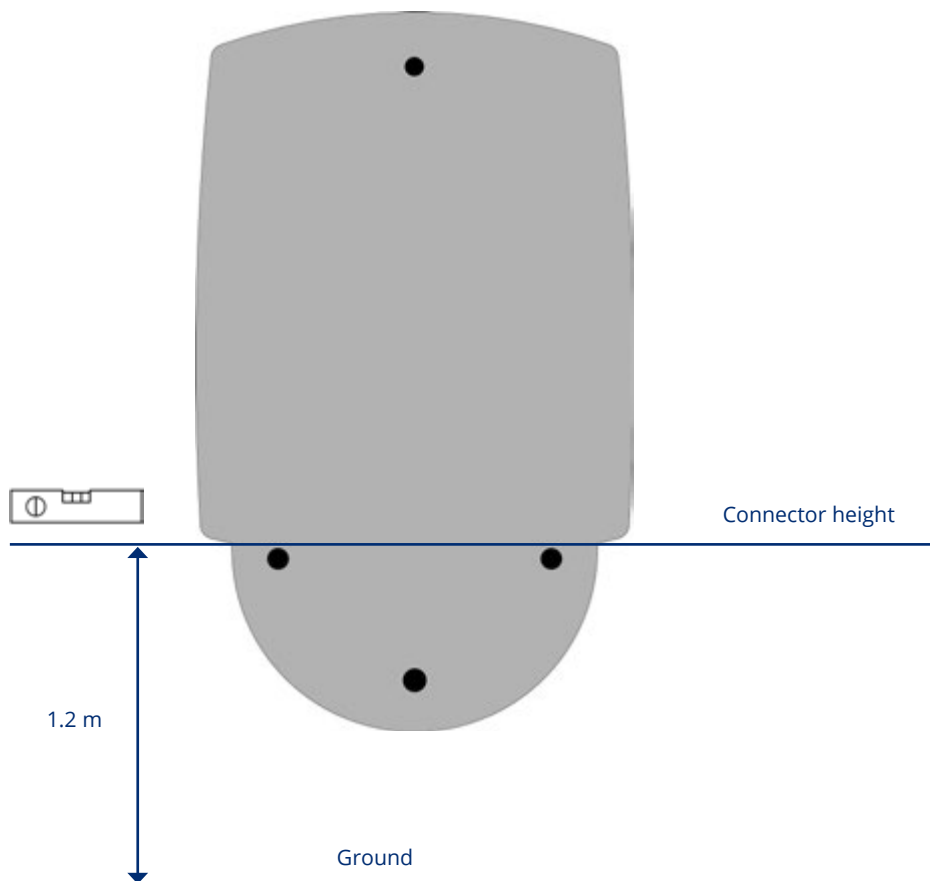
If the installation of a STAND element is necessary to anchor the charger to the ground, see item 3.4 "INSTALLATION OF THE STAND ELEMENT".

3- INSTALLATION

4 PLACE THE TEMPLATE

Place the template in the desired position, approximately 1.2 m from the horizontal reference to the ground.

 We recommend that you use a spirit level to ensure that the template is perfectly level.



3- INSTALLATION

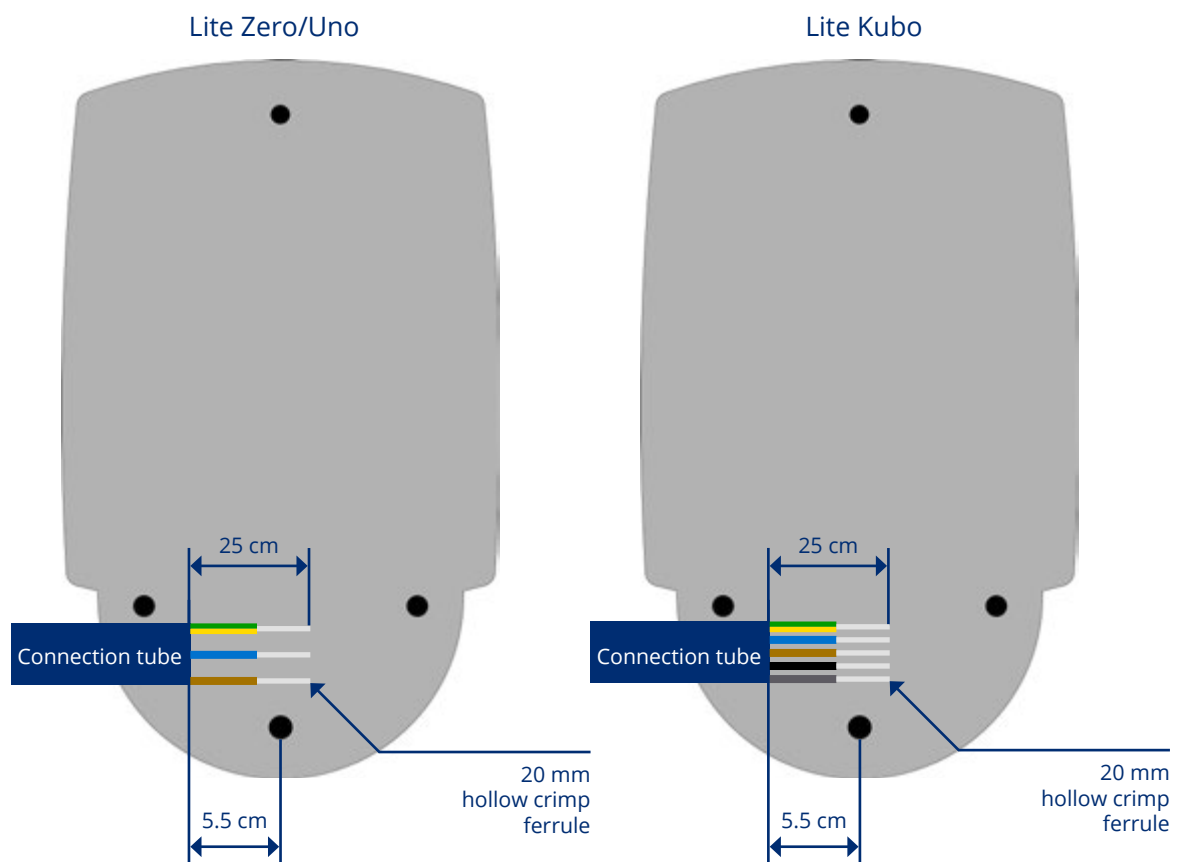
5 PREPARE THE CONNECTIONS

Following the template indications, proceed with the following steps:

1. Place the tube for the power supply wiring at the indicated height.
2. Cut and strip the cables to the recommended length.
3. Fit the ferrules.



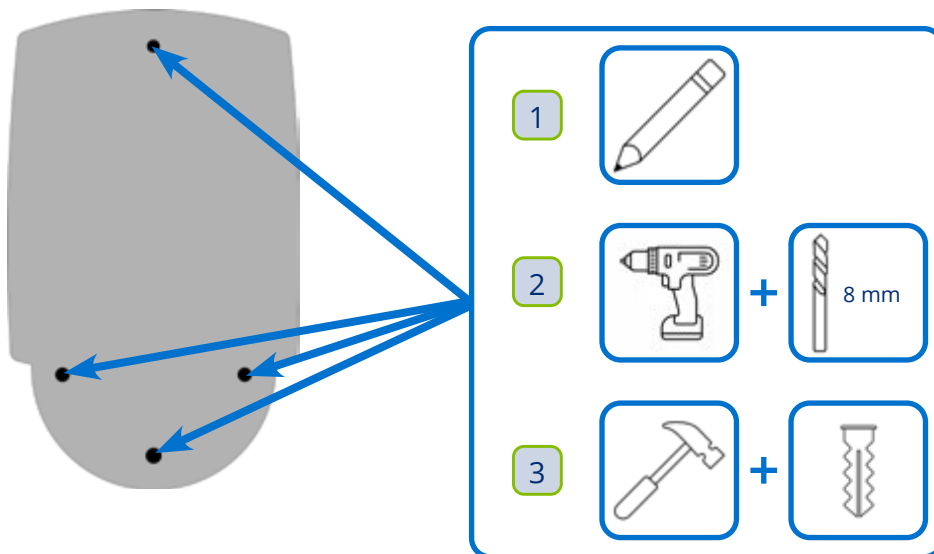
Always use an appropriate tool (crimper) to avoid poor connections likely to cause overheating in the connection terminals.



3- INSTALLATION

6 PREPARE THE CHARGER INSTALLATION

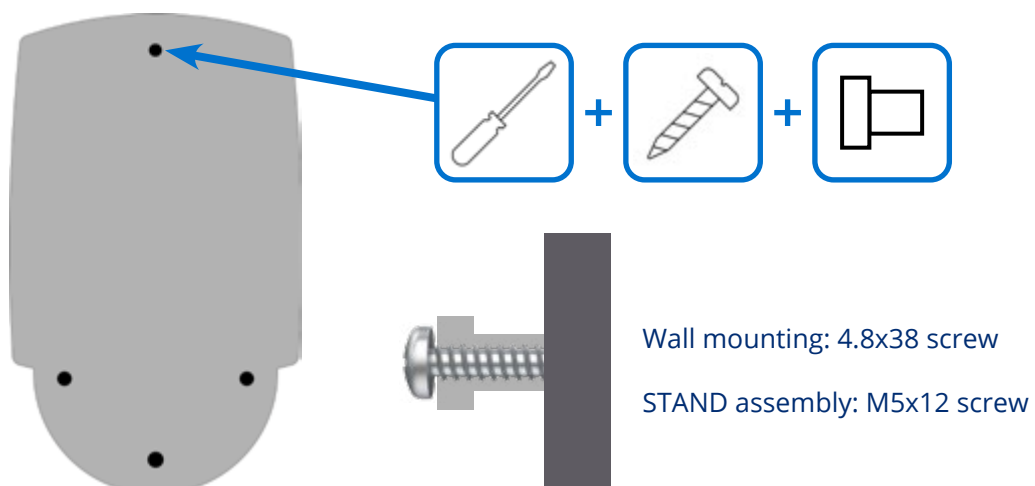
1. Mark the holes to be made.
2. Drill the holes.
3. Fit the wall plugs.



7 FIT THE UPPER SCREW

Insert the screw of the upper part and tighten it into the bushing as far as it will go.


! In the case of the STAND, use the screws supplied with it in the packaging.

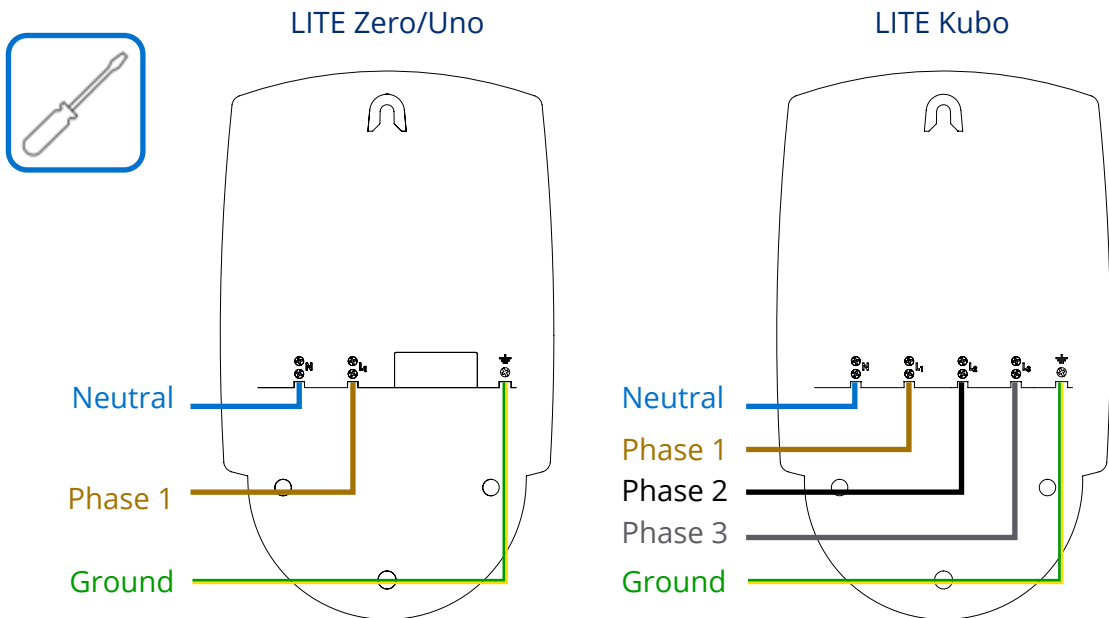


3- INSTALLATION

8 CONNECT THE CHARGER

Connect the electric terminals of the power cable to the corresponding points on the charger.

 Make sure that all screws are securely tightened for effective contact of the conductor's active elements.



- OPTIONAL: If you are also going to install a CURVE device, connect the wiring from that device. For more information, see item 3.2 "INSTALLATION OF THE CURVE DEVICE".
- OPTIONAL: If you are going to connect the charger to a communications device (modem, router, switch, ...), check that the Ethernet wiring from that device is also available. For more information, see item 3.5 "CONNECTION OF THE CHARGER TO A COMMUNICATIONS ELEMENT".

3- INSTALLATION

9 OPTIONAL: INSTALLATION OF THE CURVE DEVICE (ZERO/UNO)

In the event of having to install the CURVE device, see item 3.2 "INSTALLATION OF THE CURVE DEVICE".

10 OPTIONAL: INSTALLATION OF THE SINGLE-PHASE AND THREE-PHASE METER (UNO/KUBO)

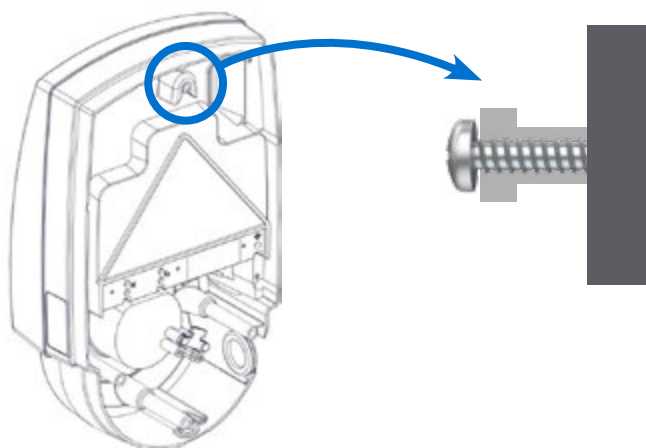
In the event of having to install the SINGLE-PHASE OR THREE-PHASE METER, see item 3.3 "INSTALLATION OF THE SINGLE-PHASE AND THREE-PHASE METER".

11 OPTIONAL: CONNECTION OF THE CHARGER TO A COMMUNICATIONS ELEMENT

In the event of having to connect the charger to a communications element, see item 3.5 "CONNECTION OF THE CHARGER TO A COMMUNICATIONS ELEMENT".

12 HANG THE CHARGER FROM THE BUSHING

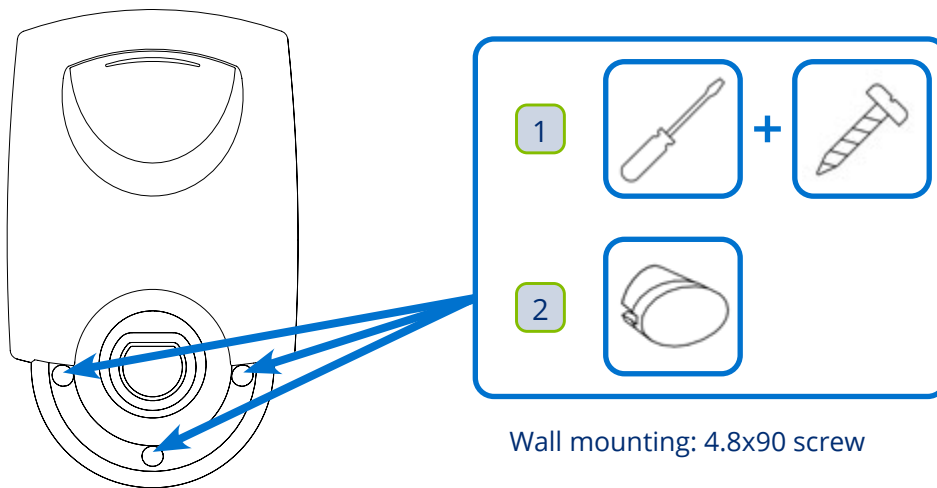
Hang the charger on the upper screw bushing.



3- INSTALLATION

13 FIX THE CHARGER TO THE WALL

1. Fit the three screws on the lower part of the charger and tighten them firmly.
2. Fit the caps to cover the three screws.

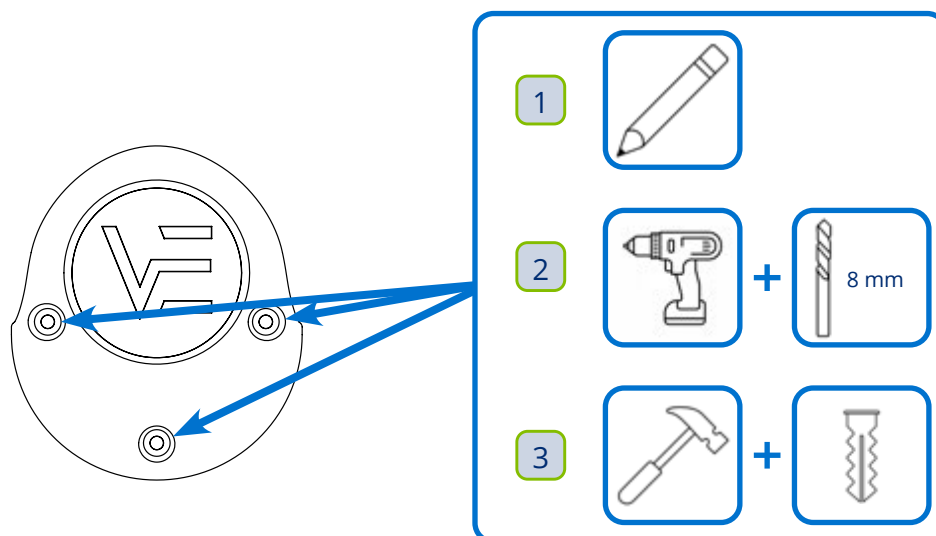


Wall mounting: 4.8x90 screw

STAND assembly: M5x70 screw

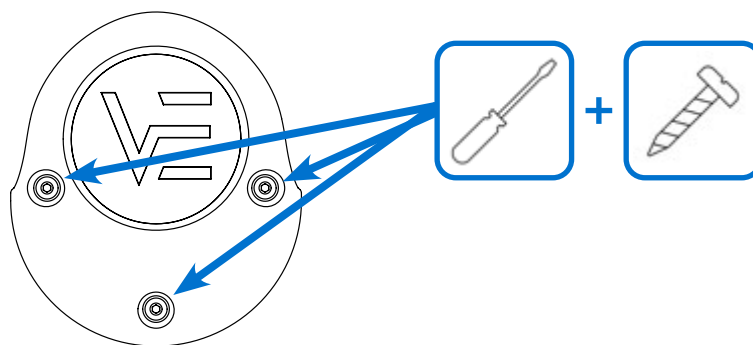
14 INSTALL THE CHARGING CABLE SUPPORT

1. Mark the holes to be made in the wall.
2. Drill the holes.
3. Fit the wall plugs.



3- INSTALLATION

4. Fit the screws.



15 SUPPLY POWER TO THE CHARGER

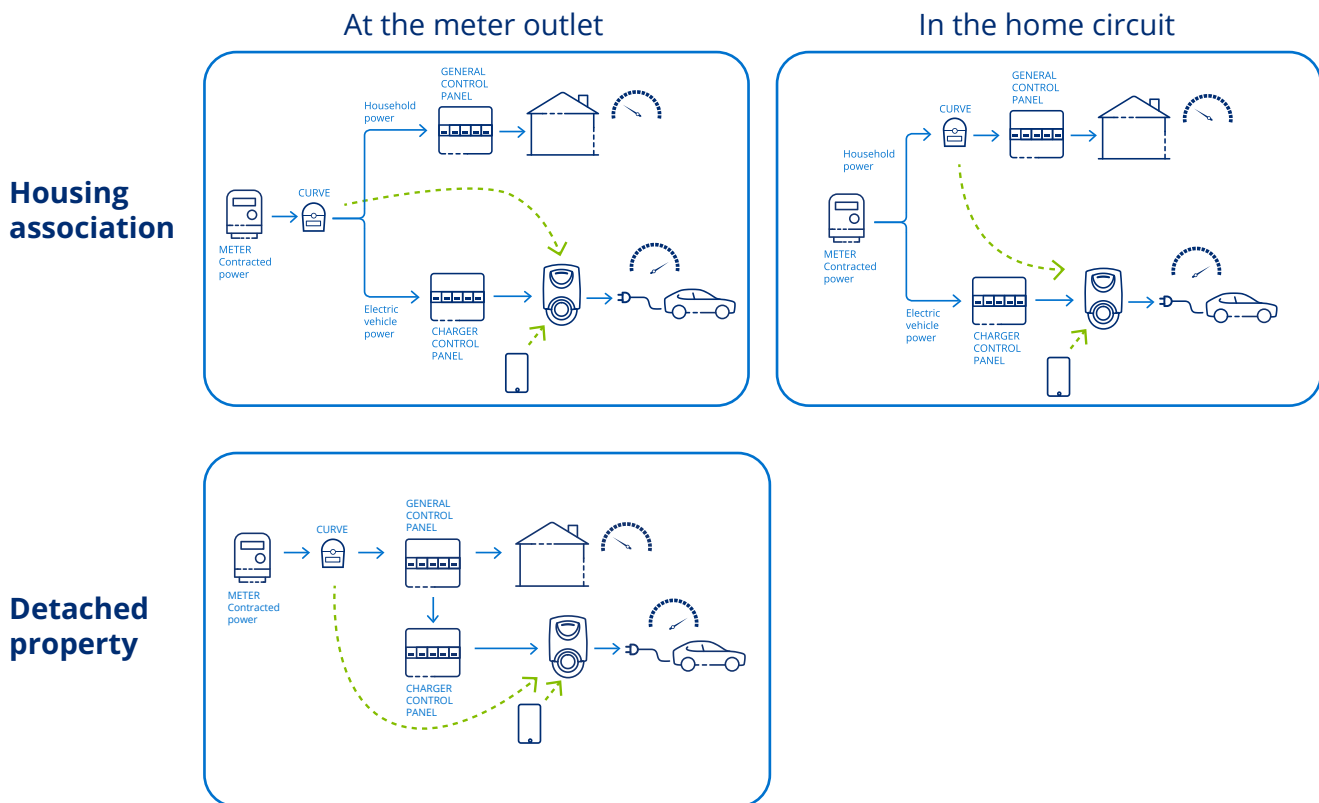
Close the element that cuts off the electrical circuit powering the charger.

3- INSTALLATION

3.2 INSTALLATION OF THE CURVE DEVICE

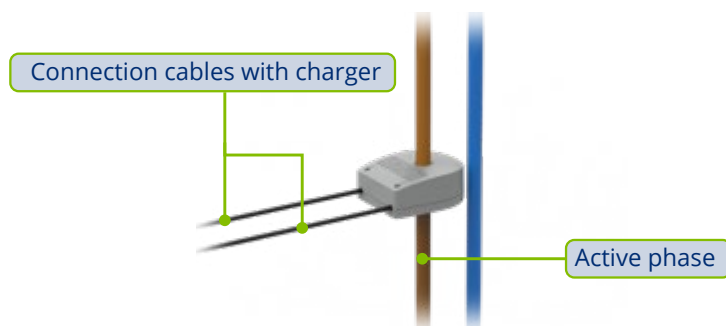
! The CURVE device is designed for use with the LITE Zero/Uno charger.

1. Select the circuit onto which you want to install the CURVE device.



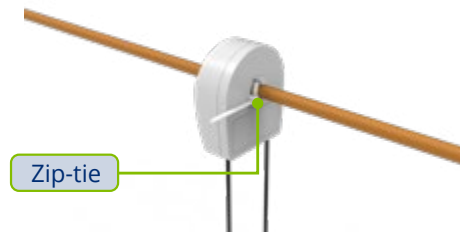
! Operation of the CURVE device is independent from the direction of the active phase current passing through it.

2. Install the CURVE device in the active phase of the circuit you wish to measure (general or home).

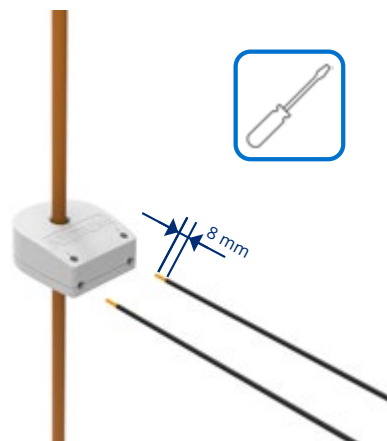


3- INSTALLATION

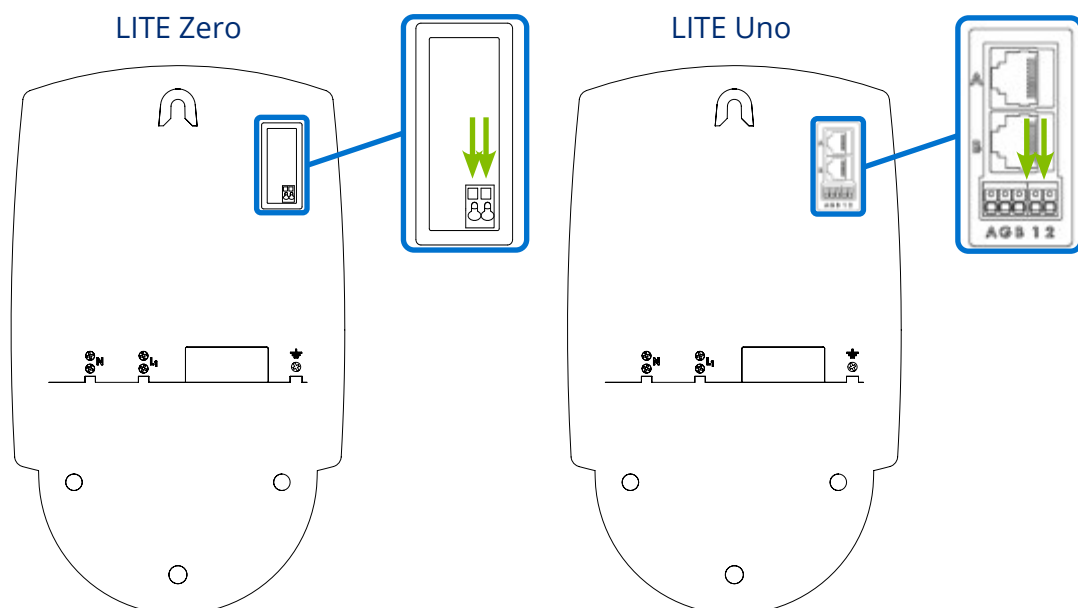
3. Attach the CURVE device to the cable using the zip-ties.



4. Run a 1.5 two-cable wire between the CURVE device and the charger.
5. Strip 8 mm from each wire of the cable and connect it to the terminals of the CURVE device.



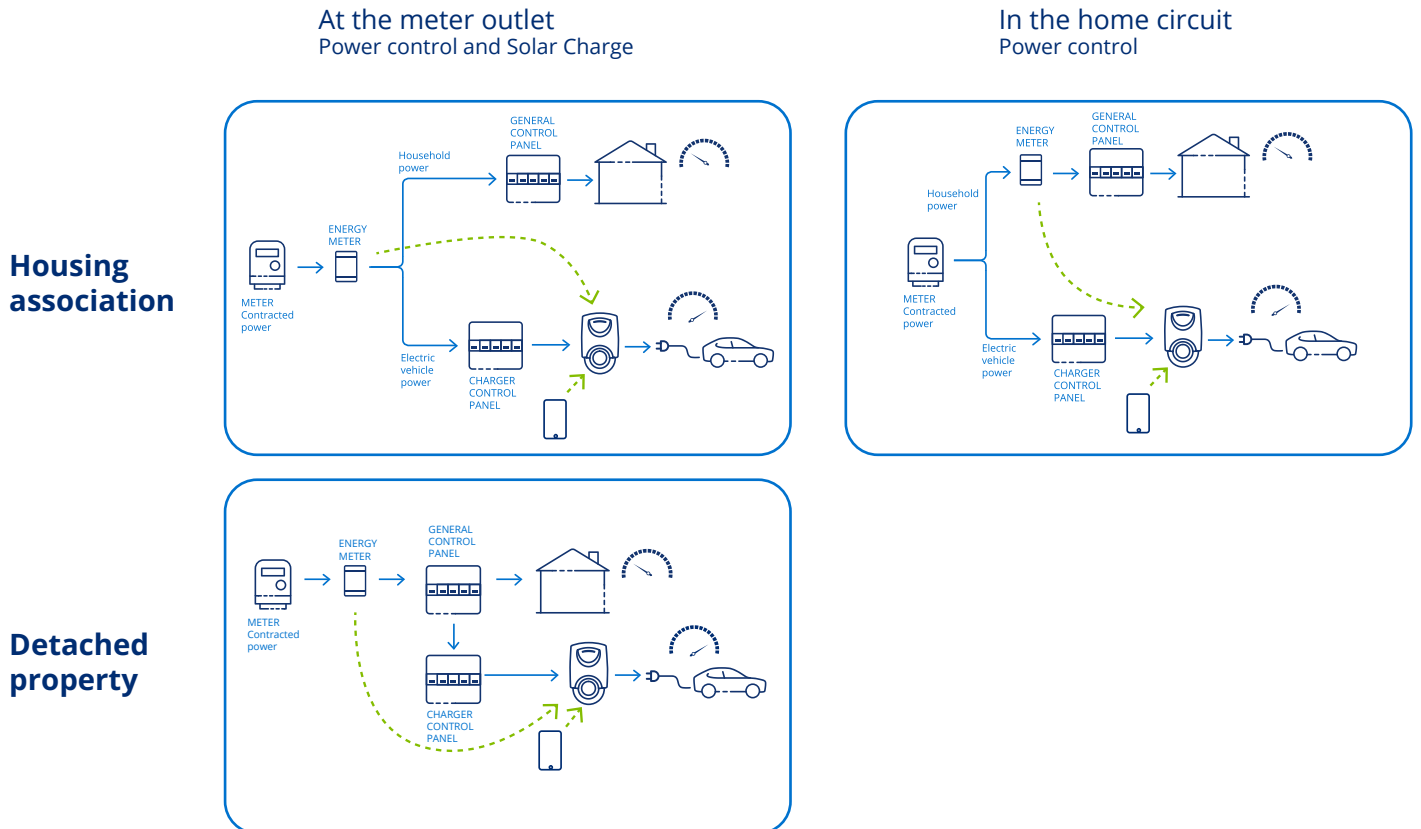
6. Strip 8 mm from each wire of the cable and connect the CURVE device to the charger in the pins indicated.



3- INSTALLATION

3.3 INSTALLATION OF THE SINGLE-PHASE AND THREE-PHASE METER

1. Select the circuit onto which you wish to install the METER.



2. Install the meter close to the circuit to be measured..




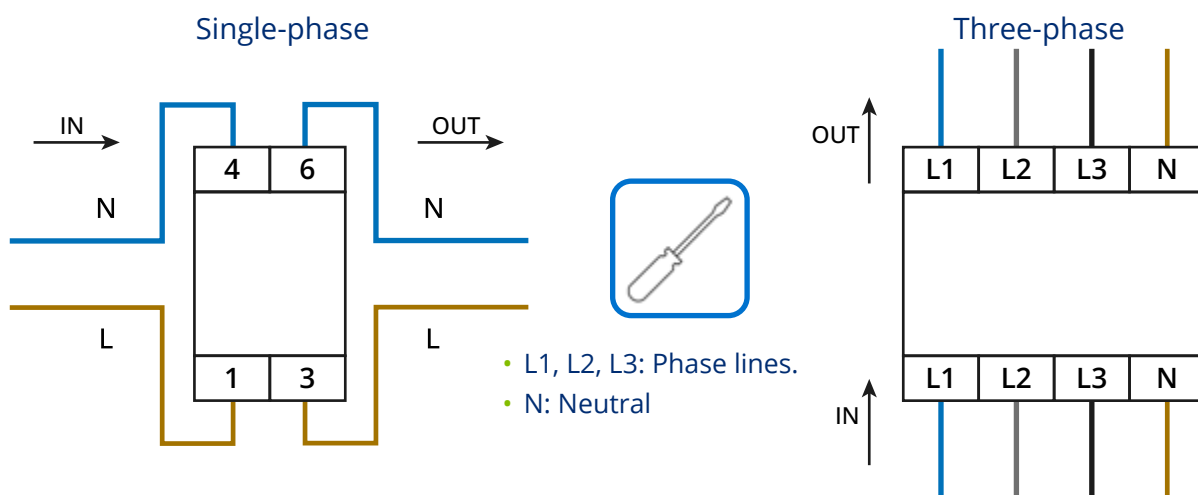
The energy meter is designed for installation on a 35 mm DIN rail.

3. Strip the power cables max. 14 mm.
Maximum cable cross-section: 25 mm² (flexible cable) and 35 mm² (solid cable).


3- INSTALLATION

4. Place the power cable contacts in the energy meter and tighten the screws.

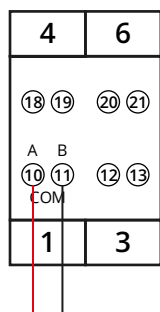
 The incorrect or incomplete connection of voltage or other terminals can cause malfunction of or damage to the device.



5. Strip 8 mm RS485 cables and connect them to the meter and charger.

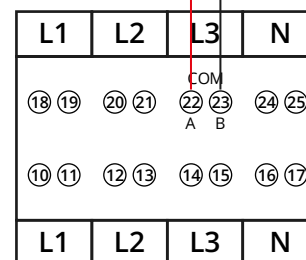
 Recommendation: Use twisted pair of at least 0.5 mm² cross-section.

Single-phase



Connect terminals 10 (A) and 11 (B)


Three-phase



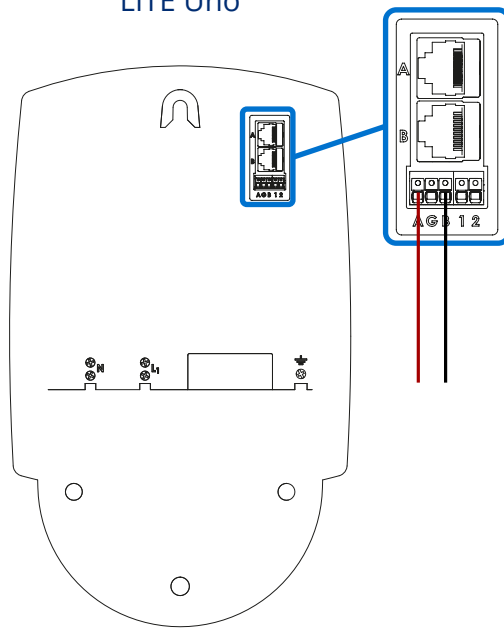
Connect terminals 22 (A) and 23 (B)

Neutral

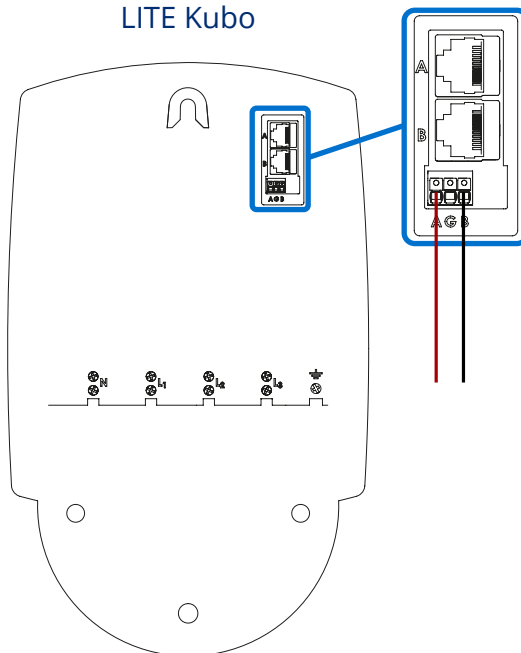
3- INSTALLATION

 Connect terminal A of the meter to terminal A of the charger and terminal B of the meter to terminal B of the charger..

LITE Uno



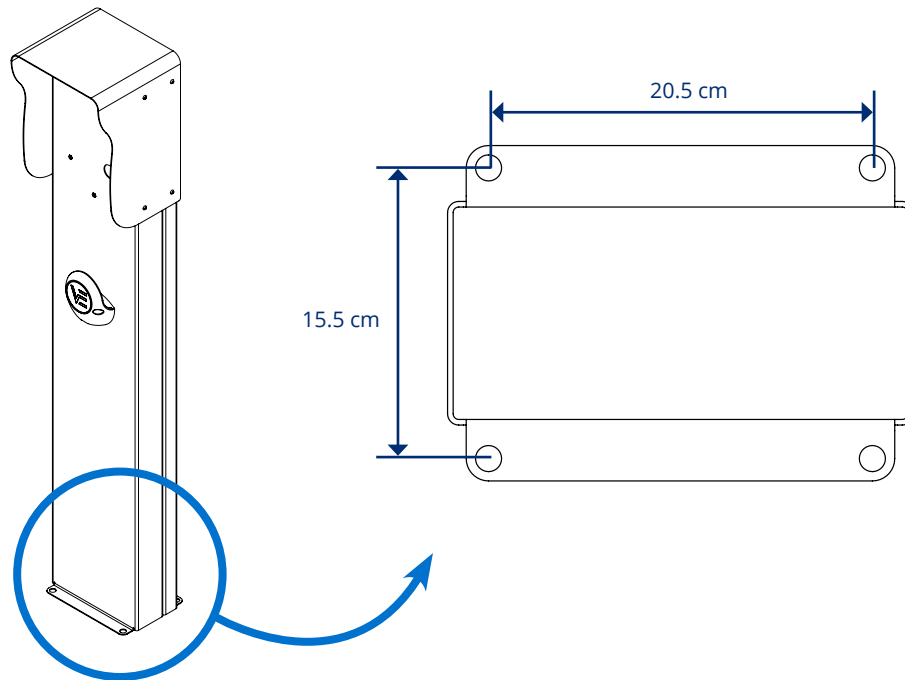
LITE Kubo



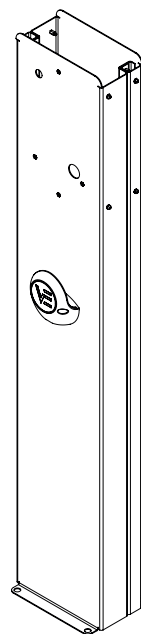
3- INSTALLATION

3.4 INSTALLATION OF THE STAND ELEMENT

1. Prepare the ground anchors for the STAND element according to the figure, always using M12 components.

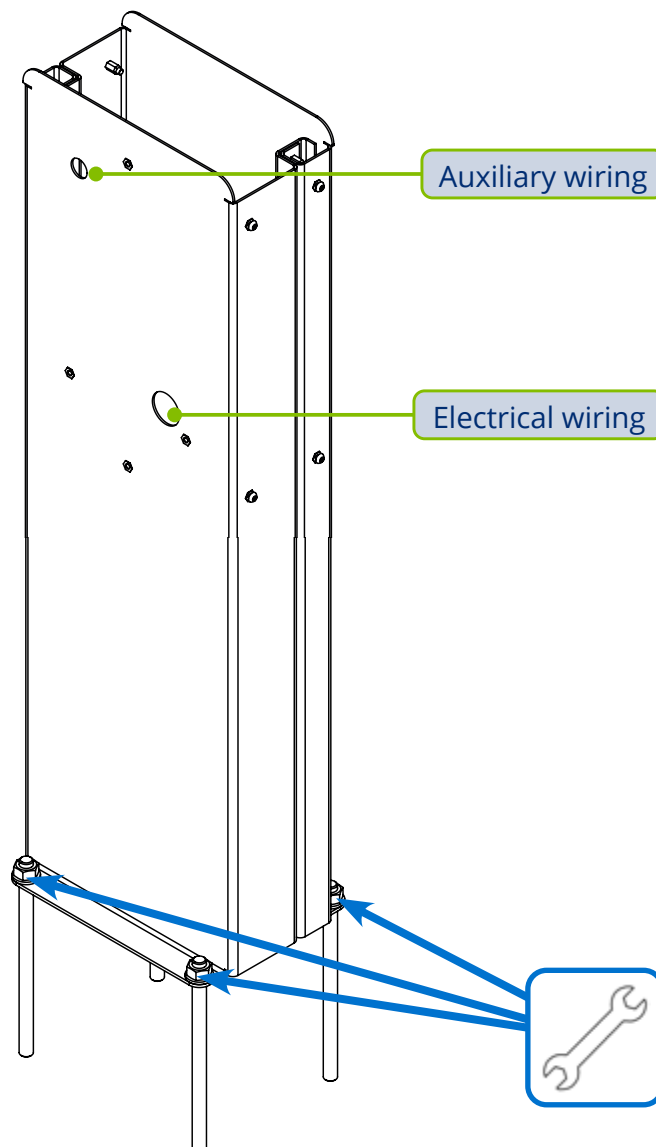


2. Remove the top part of the STAND element in order to access the hollow interior.



3- INSTALLATION


3. Place the STAND element next to the cable outlet on the ground, and pass the power supply cables and the auxiliary wiring (for connecting other devices) through the hollow interior from the bottom until they can be pulled out through the corresponding grommet.




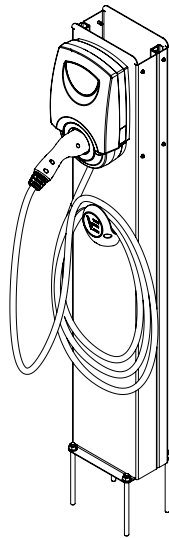
4. Fix the STAND element to the ground.

3- INSTALLATION

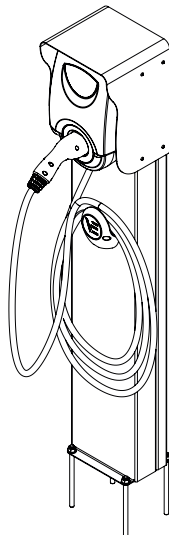
5. Mount the charger onto the STAND element. Follow points 8 to 12 of the charger assembly instructions.

 The fasteners to be used in this case must be those provided with the STAND element, and not those supplied with the charger.

 Given that in this case the power supply does not come through the side of the charger, this access must be covered using the blind grommet provided with the charger.



6. Replace the top part of the STAND element.




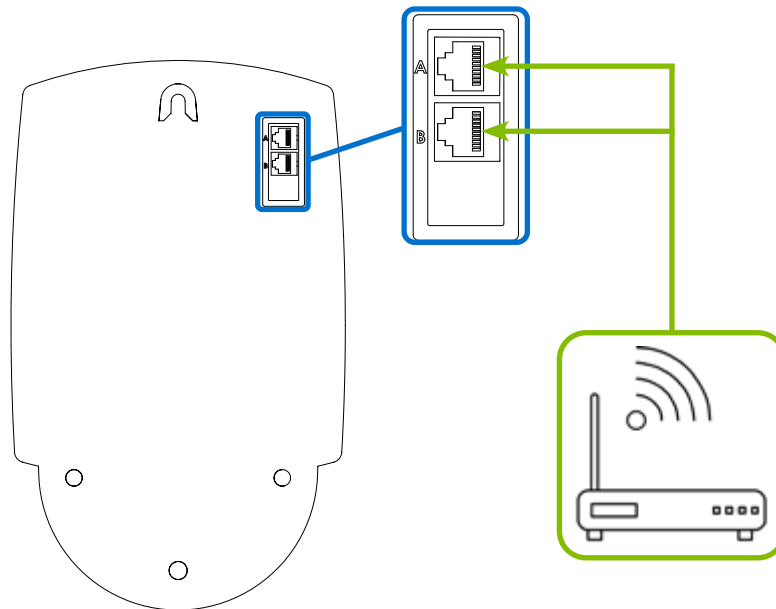
3- INSTALLATION

3.5 CONNECTION OF THE CHARGER TO A COMMUNICATIONS ELEMENT

The LITE Uno and Kubo models have two local network sockets which permit the following:

- Connect the charger to a communications device (modem, router, switch, ...).

 The communications device can be connected to either of the two sockets interchangeably.



4- TECHNICAL SPECIFICATIONS

4.1 CHARGERS

| | LITE Zero | LITE Uno | LITE Kubo |
|--|---|--|------------------------|
| Functional | | | |
| Charging standard | Mode 3 as IEC 61851-1 Ed 3.0 | | |
| User interface | VELTIUM App and Customer Area at www.veltium.com website | | |
| Status indication | Multicolour LED | | |
| Energy metering | Integrated MID meter | | |
| Access control | <ul style="list-style-type: none"> • Free • Proximity • Manual | | |
| Static power control | Per charger individually | | |
| Dynamic power control | With CURVE accessory | With CURVE accessory, single-phase meter or three-phase meter. | With three-phase meter |
| Charge scheduling | Yes | | |
| No. of EV that can be charged simultaneously | 1 | | |
| Integration with photovoltaic generation | No | Yes (Solar Mode / Mixed Mode) | |
| Electrical | | | |
| Frequency | 50-60 Hz | | |
| Maximum current (per phase) | 32 A | | |
| Power supply | Single-phase (P+N+PE) | | Three-phase (3P+N+PE) |
| Voltage | AC 230 V | | AC 400 V |
| Maximum output power | 7.4 kW | | 22 kW |
| No. of connectors | 1 | | |
| Type of connector | Type 1/2 tethered cable | | Type 2 tethered cable |
| Safety | | | |
| Power cut | Latching relay 80 A | | |
| Protection against electric shock | Class II | | |
| Detection of welded relay contacts | Yes | | |
| Detection of ground connection | Yes | | |
| Detection of correct supply connection | Single-phase | | Three-phase |
| Detection of direct current leaks | No | 6 mA | |

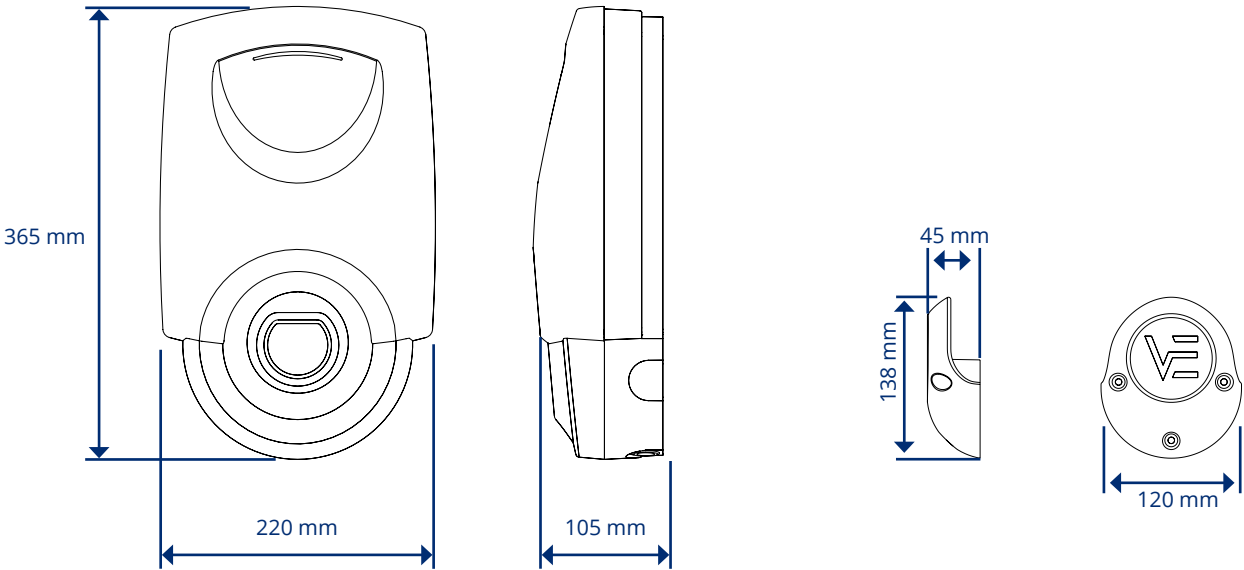
4- TECHNICAL SPECIFICATIONS

| | LITE Zero | LITE Uno | LITE Kubo |
|---|--|--------------|------------------|
| Communications | | | |
| Bluetooth | BLE 4.2 | | |
| Wi-Fi | No | 802.11 b/g/n | |
| Ethernet | No | 2 x RJ45 | |
| Mechanical | | | |
| Material | Flame retardant PC/ASA (V0) | | |
| Anchor type | <ul style="list-style-type: none"> • Wall • Floor with STAND accessory | | |
| Height (mm) | 365 | | |
| Width (mm) | 220 | | |
| Depth (mm) | 105 | | |
| Weight (including 5m/7m charging cable) | 3.75 kg/4.35 kg | | 4.35 kg/ 4.95 kg |
| IP Grade | IP54 | | |
| IK Grade | IK10 | | |
| Plug holder (tethered cable model) | Integrated to the unit | | |
| Cable length (tethered cable model) | <ul style="list-style-type: none"> • 5 meters • 7 meters | | |
| Cable holder (mm) | 138 x 120 x 45 | | |
| Power supply connection | Accessible from the exterior (no need to open the charger during installation) | | |
| Cable gauge | 16 mm ² | | |
| Colour | <ul style="list-style-type: none"> • White • Black | | |
| Environmental | | | |
| Suitable for outdoor use | Yes | | |
| Operating temperature | -25 to 40°C | | |
| Storage temperature | -25 to 60°C | | |

4- TECHNICAL SPECIFICATIONS



DIMENSIONS

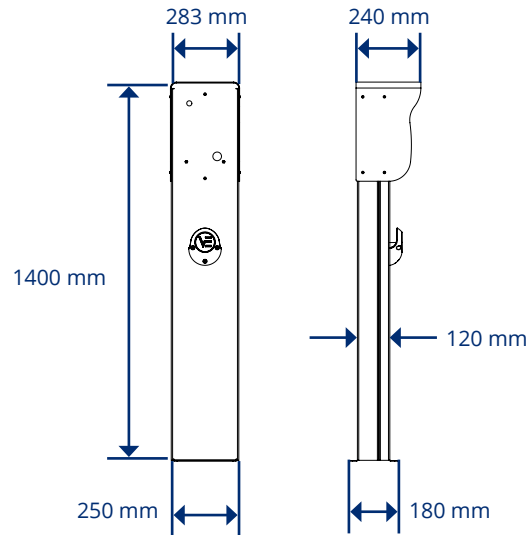


4- TECHNICAL SPECIFICATIONS

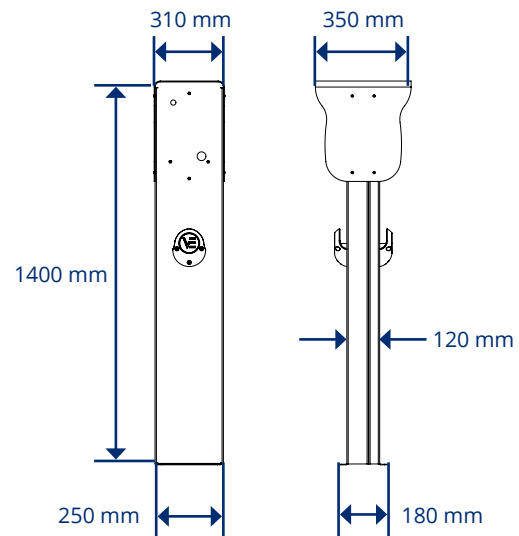
4.2 ACCESSORIES

STAND

Single STAND



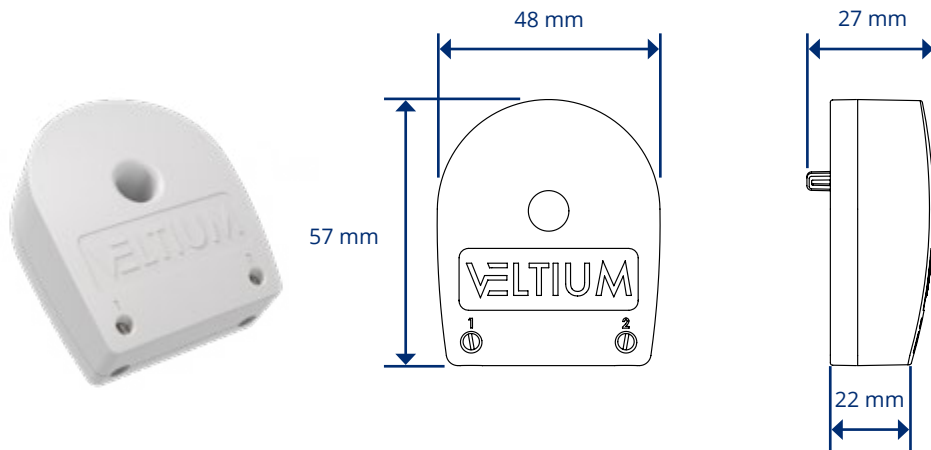
Double STAND



| TECHNICAL SPECIFICATIONS | |
|----------------------------------|------------------|
| Functional | |
| Number of chargers- Single STAND | 1 |
| Number of chargers- Double STAND | 2 |
| Mechanical | |
| Material | Lacquered steel |
| Single STAND dimensions (mm) | 1400 x 283 x 240 |
| Double STAND dimensions (mm) | 1400 x 310 x 350 |
| Single STAND weight | 25 kg |
| Double STAND weight | 26.5 kg |

4- TECHNICAL SPECIFICATIONS

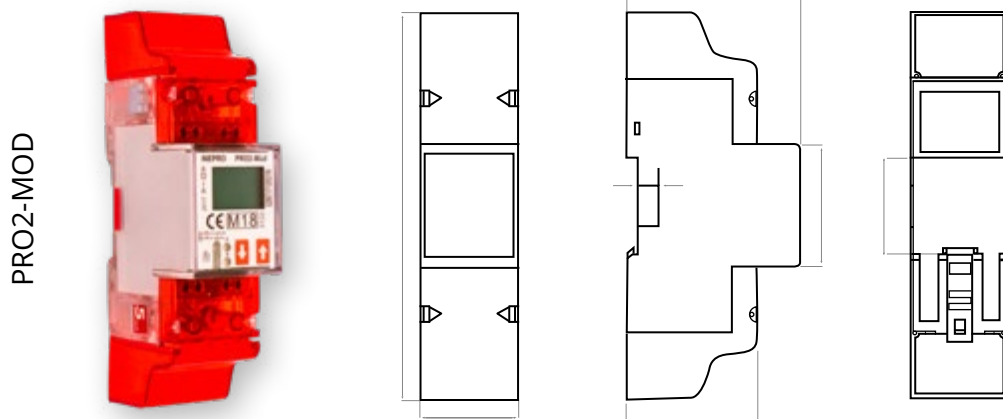
CURVE



| TECHNICAL SPECIFICATIONS | |
|--------------------------|-------------------------|
| Electrical | |
| Maximum current | 63 A |
| Mechanical | |
| Dimensions (mm) | 48 x 57 x 27 |
| Material | PC/ABS V0 |
| Maximum cable gauge | 25 mm ² |
| Charger link cable | 2 x 1.5 mm ² |

4- TECHNICAL SPECIFICATIONS

SINGLE-PHASE METER



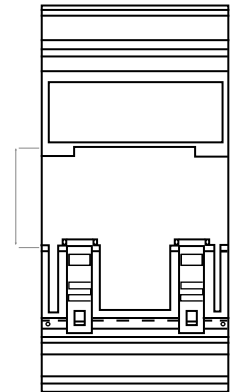
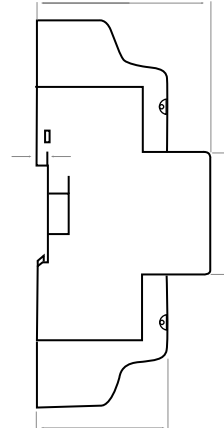
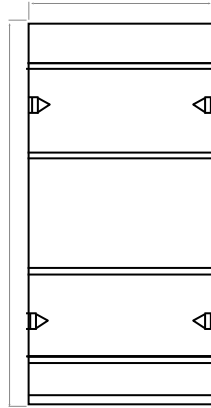
**Imágenes tomadas de los correspondientes manuales de Inepro*

| TECHNICAL SPECIFICATIONS | |
|--------------------------|---|
| Mechanical | |
| Dimensions (mm) | 141,5 x 35,8 x 63 |
| Mounting | DIN rail |
| Electrical | |
| Power supply | Single-phase (P+N) |
| Maximum current | 100 A |
| Voltage | 230 V AC |
| Frequency | 50 ± 10% Hz |
| Cable gauge | 25 mm ² (flex), 35 mm ² (solid) |
| Certification | MID |
| Communication | |
| Bus Type | RS485 |
| Protocol | MODBUS |
| Range | 1000 m |
| Cable gauge | Twisted pair 0,5 mm ² |

4- TECHNICAL SPECIFICATIONS

THREE-PHASE METER

PRO380-MOD



**Imágenes tomadas de los correspondientes manuales de Inepro*

| TECHNICAL SPECIFICATIONS | |
|--------------------------|---|
| Mechanical | |
| Dimensions (mm) | 141 x 70 x 63 |
| Mounting | DIN rail |
| Eléctricas | |
| Power supply | Three phase (3P+N) |
| Maximum current | 100 A |
| Voltage | 3 x 220 / 400 V AC |
| Frequency | 45 - 60 Hz |
| Cable gauge | 25 mm ² (flex), 35 mm ² (solid) |
| Certification | MID |
| Communication | |
| Bus Type | RS485 |
| Protocol | MODBUS |
| Range | 1000 m |
| Cable gauge | Twisted pair 0,5 mm ² |



VELTIUM

KEEP IT SIMPLE

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