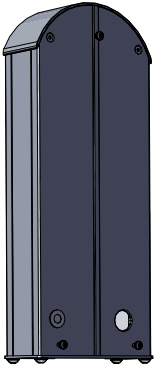
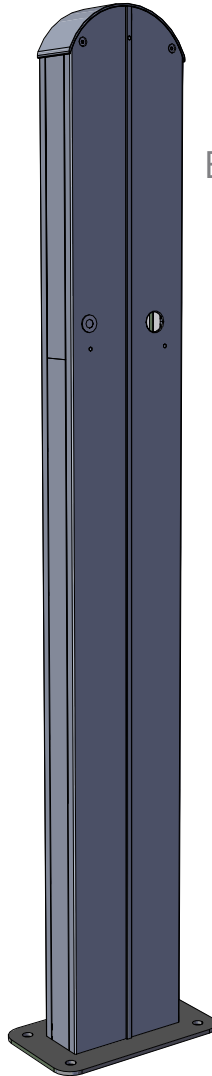


Mounting Kit for Ensto One Chargers



EVTL55.00



EVTL57.00

ENG Installation Guide



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Installation Guide

1. Introduction

- The pole adapter EVTL55.00 and full length pole EVTL57.00 are designed for Ensto One charger family.
- The pole adapter and full length pole are double-sided, so you can install one or two chargers to them.

2. Safety instructions



Electrically skilled person

- The installation must only be done by an electrician with the appropriate qualifications.
- Read this Installation Guide carefully before starting the installation work.
- Follow the instructions in this Installation Guide, and make sure that the installation complies with national safety regulations, installation methods and restrictions.
- The information provided in this Installation Guide in no way exempts the installer or user from responsibility to follow all applicable safety regulations.
- This Installation Guide is a part of the product and must be stored in a safe location so that it is available for future installation and service.



WARNING

Danger of electric shock! Risk of fire!

- *Improper installation can cause personal injury and property damage.*
- *Do not switch on the power supply before the installation work is completed.*

3. Delivery content

- EVTL55.00 / EVTL57.00
- Mounting accessories
- Installation Guide

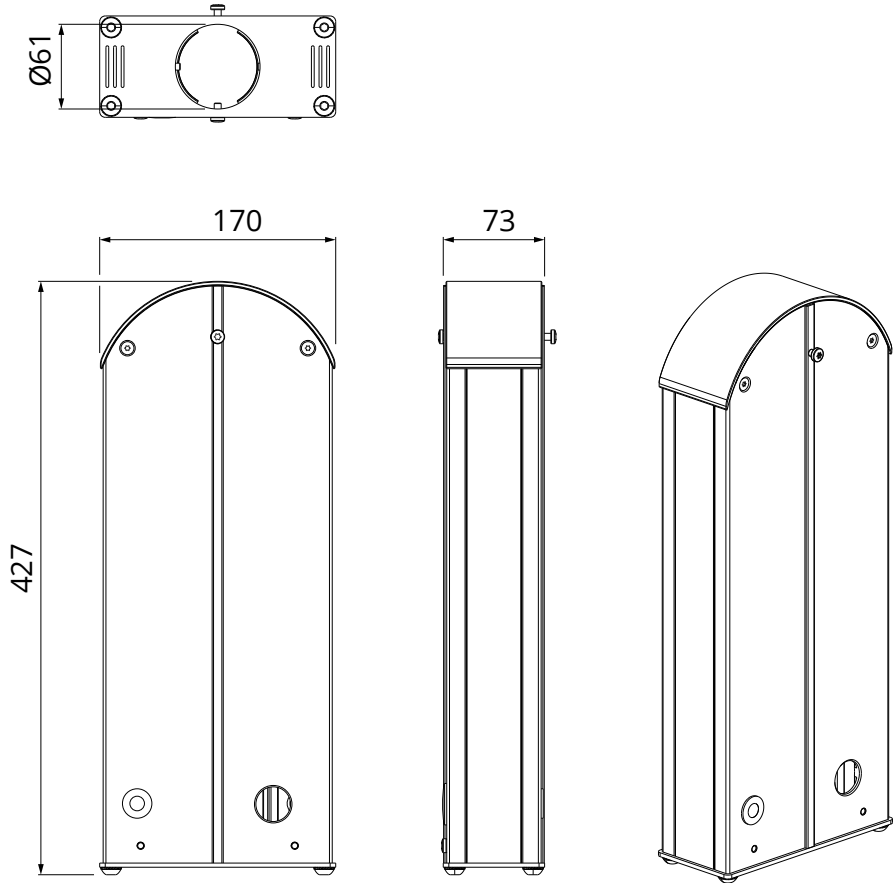
3.1. Mounting accessories

Item	Description and use	Quantity
	Screw M5x20 • Fasten the charger to EVTL55.00 / EVTL57.00	2
	Screw M5x10 • Fasten the EVTL55.00 / EVTL57.00 to pole	4
 KE10.1	Branching connector max. 4 conductors • Branch L1, L2, L3 and N	4
 KE10.3	Branching connector max. 6 conductors • Branch PE	1
 PMR1217.32B	Cover plug for M32 opening • Close the cable entry at the bottom of the charger	1
	Membrane entry grommet for 16mm hole • For ethernet cable when installing two chargers	1
	Grommet M16 for cable Ø 5-9mm • For ethernet cable	2
	Grommet M32 for cable Ø 15-20mm • For supply cable	2
	Cover cap for M5 screw head • Cover fastening screws inside the charger	4

EVTL55.00

Adapter for a \varnothing 60mm pole

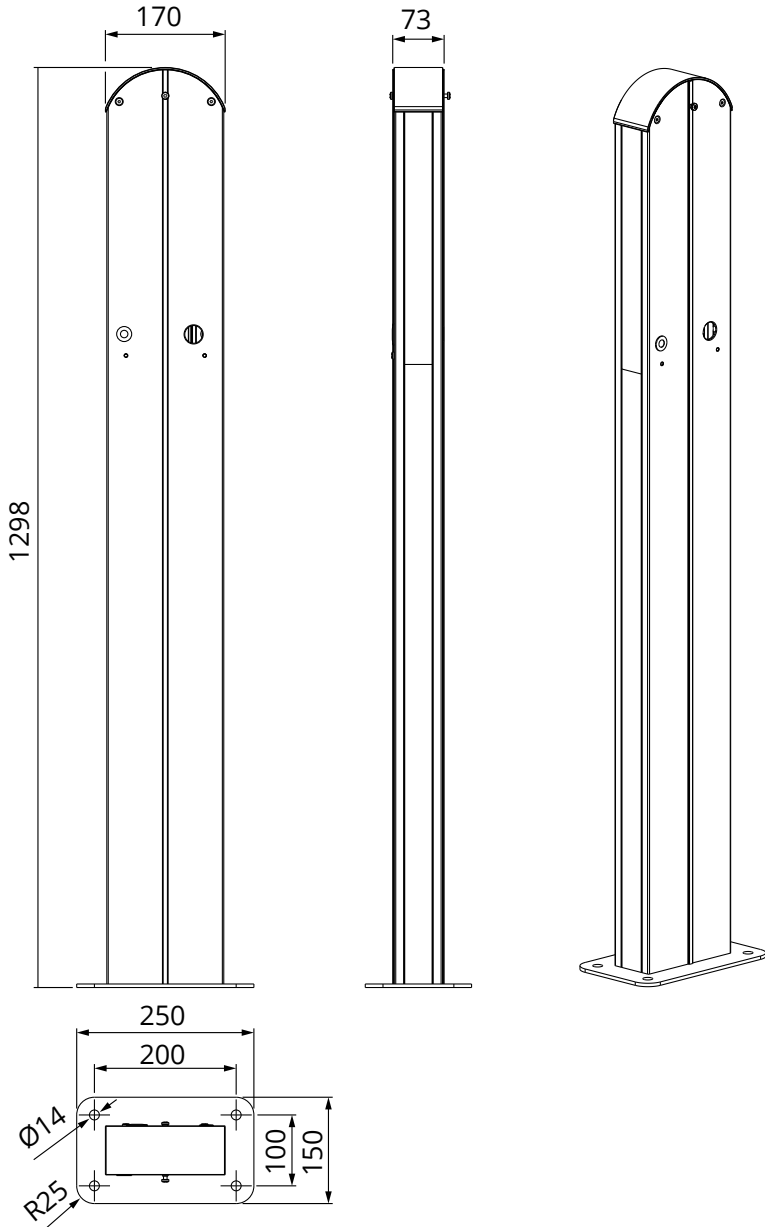
Inside the adapter is a compartment for possible electrical connections.



EVTL57.00

Full length pole for ground / floor

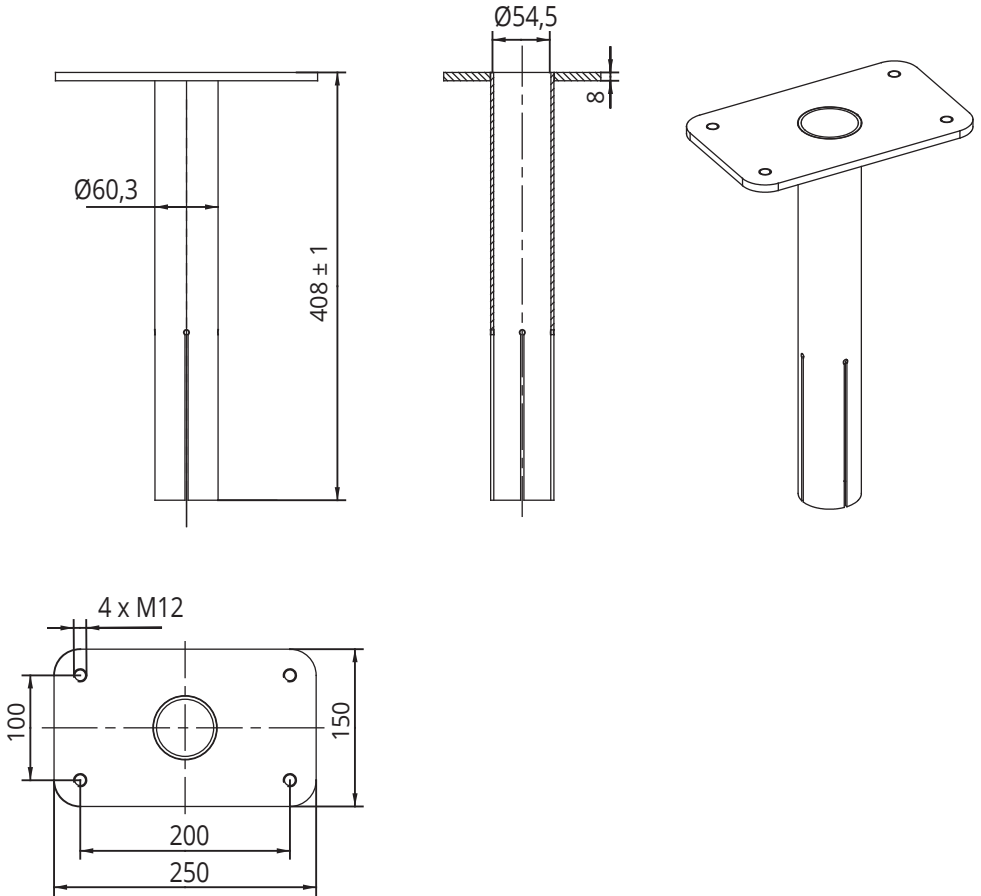
Inside the pole is a metal conduit \varnothing 60mm for electrical cable routing and a compartment for possible electrical connections.



4. Accessories

EVTL44.00

Adapter for ground mounting



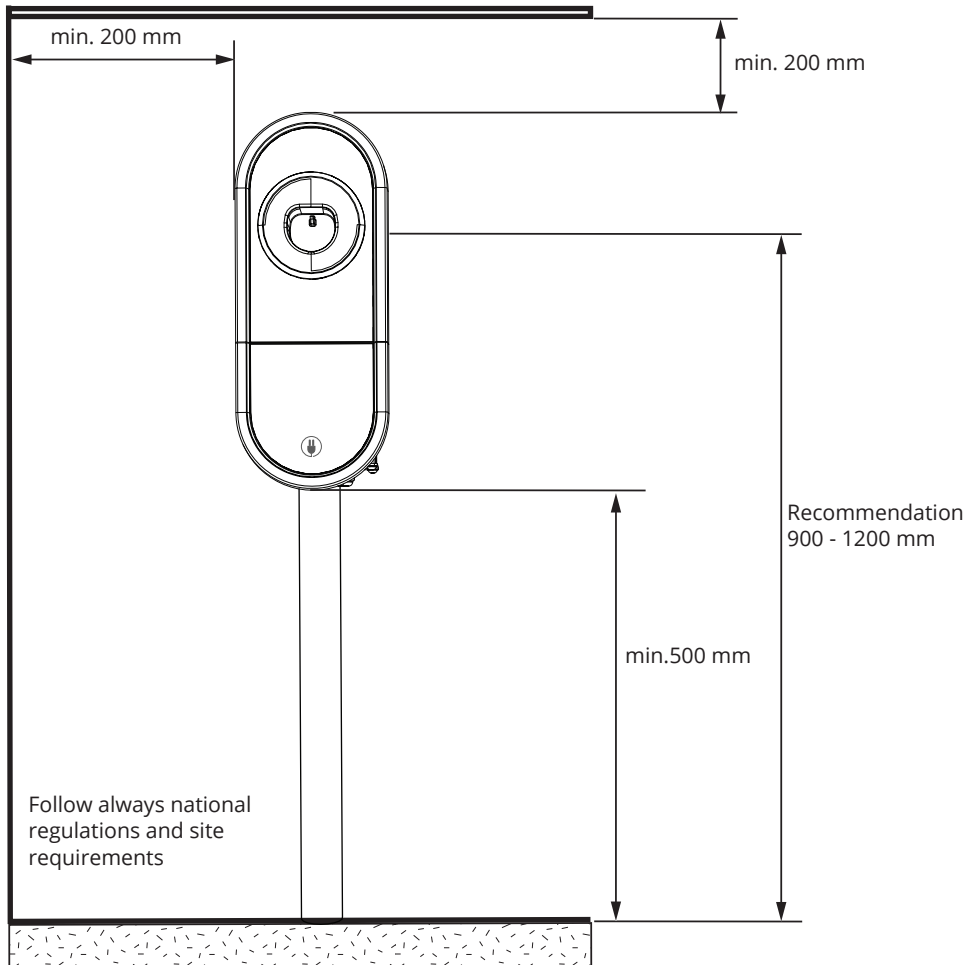
5. Mounting instructions

5.1. Before installation

Remove the EVTL55.00 / EVTL57.00 from its package. Do not scratch the surface of the item after removal from the package.

When selecting installation site, take into account the following:

- For ground / floor mounting you need accessories depending on the mounting site and method.
- The charger is suitable for indoor and outdoor use.
- In order to ensure the optimal charging performance, the charger should not be exposed to direct sunlight.
- The minimum space needed for operating and maintenance.

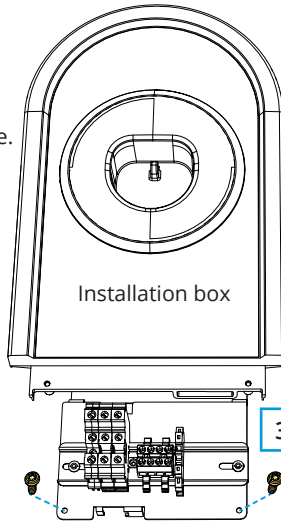
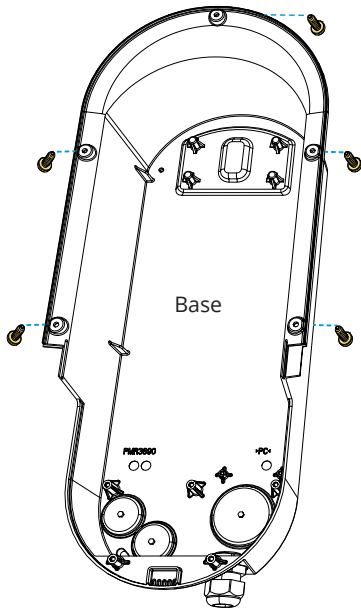


5.2. Cable entries

- You need to open cable entries on the rear of the charger in order to route electrical cables to the charger.

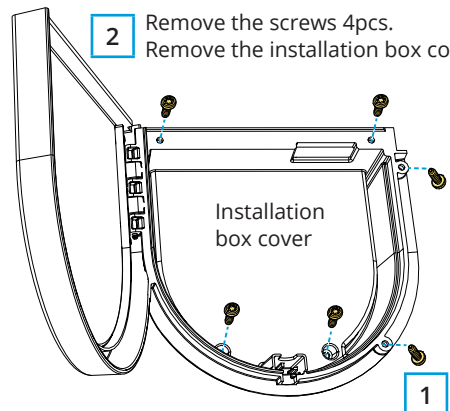
Disassemble the charger

- 4** Remove the screws 5pcs.
Remove the installation box from the base.



- 3** Remove the screws 2pcs.

- 2** Remove the screws 4pcs.
Remove the installation box cover.



1

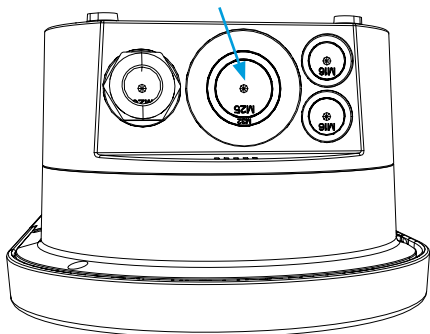


TX20
Tightening torque 1,5 Nm

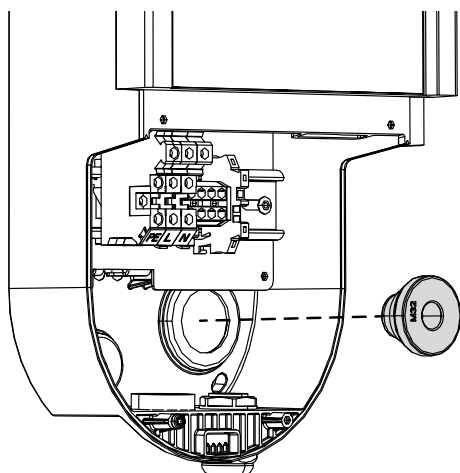
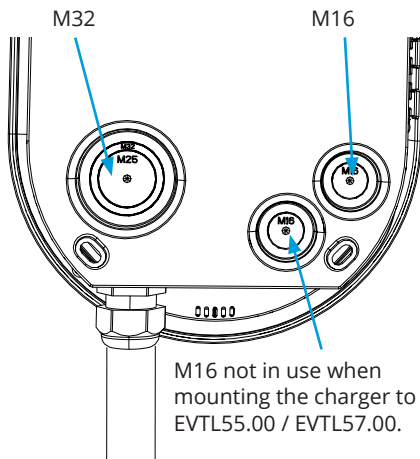
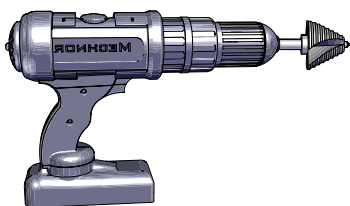
Screw fixing: Remove the screws 2pcs.
Mechanical lock: Unlock the hatch with a coin or suchlike.

Prepare the charger for mounting

- 1 Remove the included cable gland from the bottom and close the cable entry with a cover plug, PMR1217.32B (included).



- 2 Open the cable entry M32 for supply / connection cable with a step drill bit.
Open also the cable entry M16 for an additional electrical cable if necessary.



- 3 Install the included grommet to the M32 opening.
Install a grommet to the M16 opening if necessary.

- 4 Assemble the base and installation box.

- 5 Assemble the installation box cover after the installation work is completed.

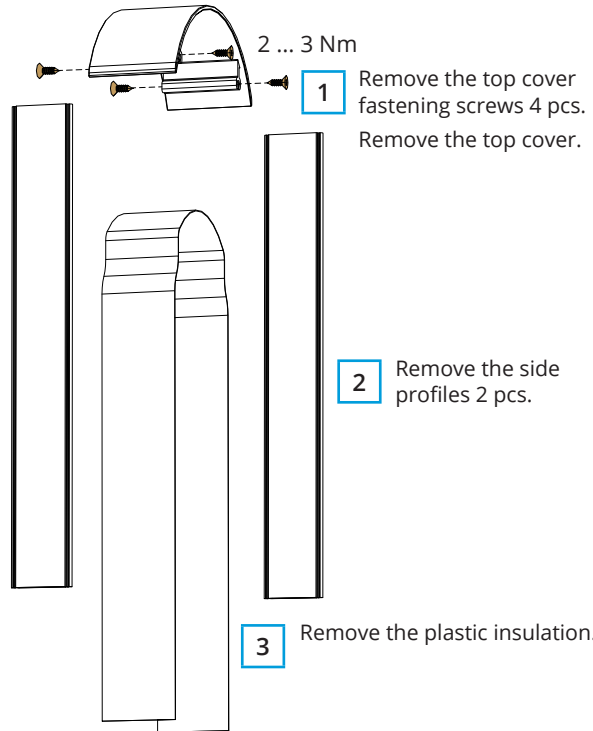
5.3. Disassemble the EVTL55.00 / EVTL57.00

Installation steps

This figure shows the disassembly of the pole adapter EVTL55.00.

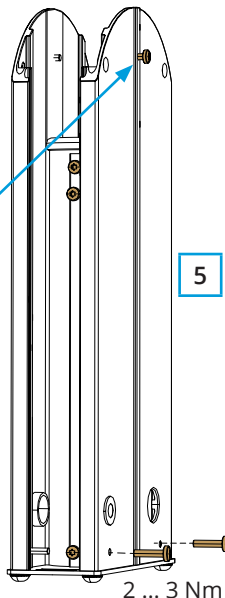
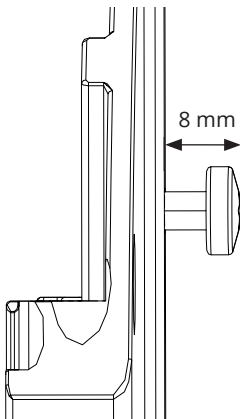
The disassembly of the full length pole EVTL57.00 follows the same installation steps.

You need all the removed parts when you assemble the EVTL55.00 / EVTL57.00.



4 The screw on one side is pre-installed to the correct position.

When you install a charger on both sides, unscrew the screw on the other side to the same measure. We recommend that you use thread-locking compound.



5 Installing one charger:

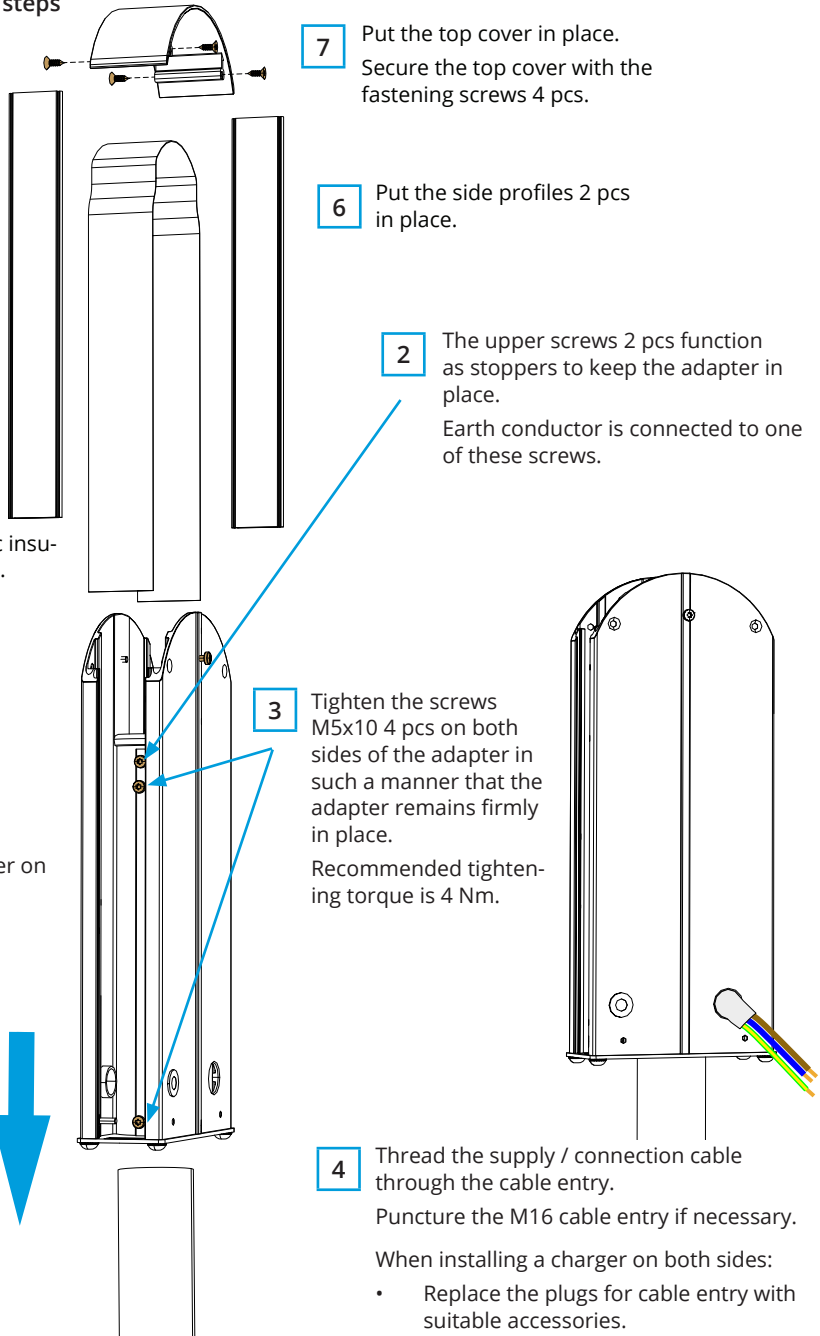
- The fastening screws 2 pcs are in the included accessory bag.

Installing a charger on both sides:

- Remove the fastening screws 2 pcs.
- You need these screws when you fix the charger to the EVTL55.00 / EVTL57.00.

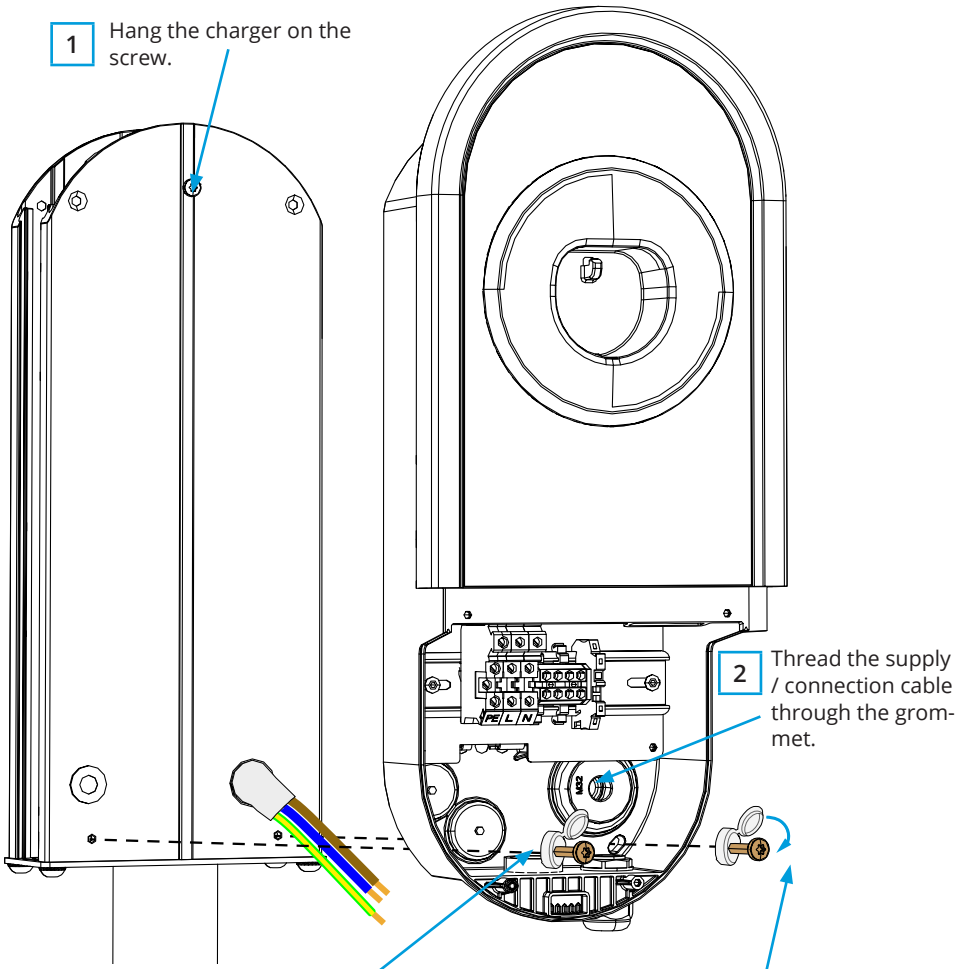
5.4. Mount the adapter EVTL55.00 on the pole

Installation steps

- 
- 1** Lift the adapter on the pole.
 - 2** The upper screws 2 pcs function as stoppers to keep the adapter in place.
Earth conductor is connected to one of these screws.
 - 3** Tighten the screws M5x10 4 pcs on both sides of the adapter in such a manner that the adapter remains firmly in place.
Recommended tightening torque is 4 Nm.
 - 4** Thread the supply / connection cable through the cable entry.
Puncture the M16 cable entry if necessary.
When installing a charger on both sides:
 - Replace the plugs for cable entry with suitable accessories.
 - 5** Put the plastic insulation in place.
 - 6** Put the side profiles 2 pcs in place.
 - 7** Put the top cover in place.
Secure the top cover with the fastening screws 4 pcs.

5.5. Attach the charger to the EVTL55.00 / EVTL57.00

Installation steps



5 Assemble the EVTL55.00 / EVTL57.00 after the electrical installation work is completed.

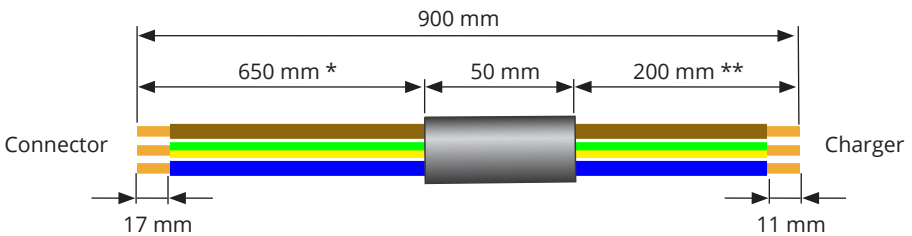
This figure shows how to attach the charger to the pole adapter EVTL55.00.

If you attach the charger to the full length pole EVTL57.00, follow the same installation steps.

6. Installation instructions

- You need a separate connection cable. Make sure that the connection cable complies with the system dimensioning.
- Use the included connectors for installation.
- Alternatively you can route the supply cable directly to the charger.
- If the charger will be connected to the internet, first connect the Ethernet cable to the RJ45 connector and then the supply conductors to the power terminals.

6.1. Connection cable



* The length is for the longest conductor. Cut the other ones in suitable lengths.

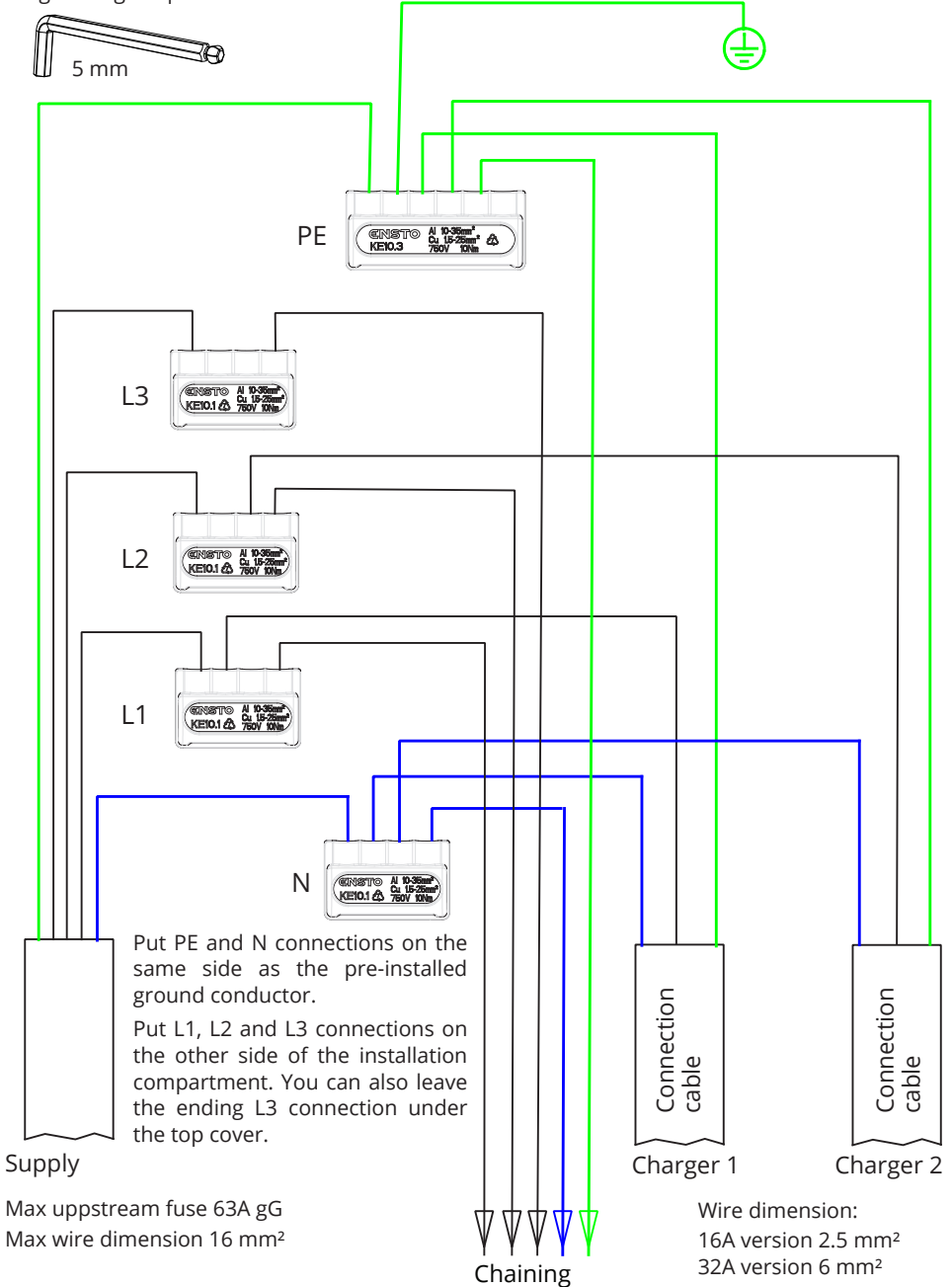
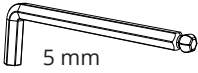
** Leave the ground conductor long enough so that if a fault occurs it is the last one that comes loose.

For more detailed wiring instructions please see in the charger's Installation and User Guide.

6.2. Wiring example

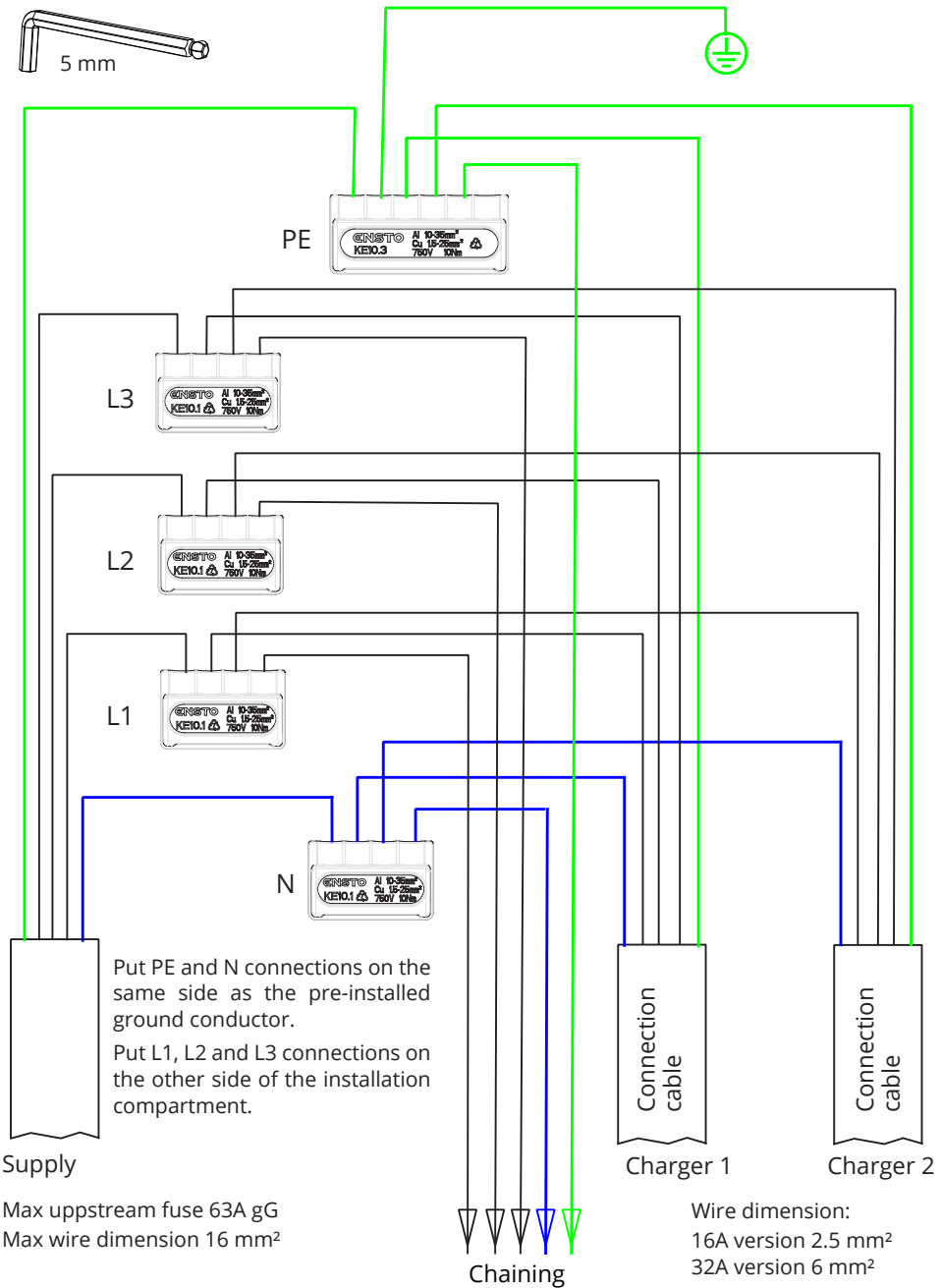
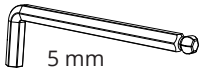
Installing two 1-phase chargers to the EVTL55.00 / EVTL57.00

Tightening torque: 10 Nm



Installing two 3-phase chargers to the EVTL55.00 / EVTL57.00

Tightening torque: 10 Nm



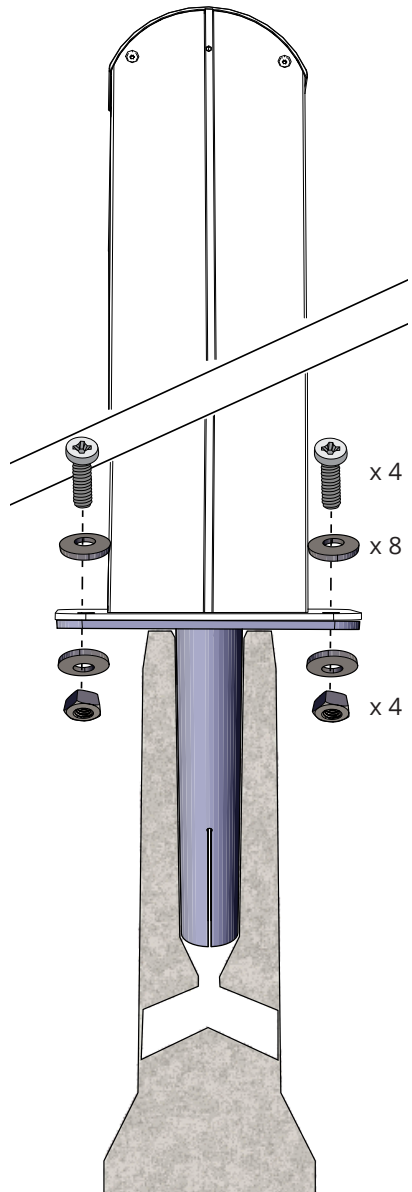
7. Ground / Floor mounting examples

7.1. Mounting on concrete foundation

Items needed:	Full length pole EVTL57.00	1 pcs
	Adapter for ground mounting EVTL44.00	1 pcs
	Concrete foundation (from different manufacturers)	1 pcs
	Bolts (not included)	
	Washers (not included)	
	Nuts (not included)	

Installation steps

1. Dig holes for cable conduits and the concrete foundation to necessary depths.
2. Add gravel to the bottom of the trench, to such thickness that the top of the foundation will reach desired level when lifted into the hole. Note! Consider the possible paving materials when setting the level.
3. Lift the concrete foundation into the installation hole. For more information, please see the concrete foundation mounting instructions.
4. Put cable and possible drain conduits in place.
5. Lift the adapter EVTL44.00 into the concrete foundation. Cut the adapter, if necessary. Adjust the adapter in such a manner, that the adapter is perpendicular. Make sure, that the adapter is securely in place and does not swing.
6. Pull electrical cables through the conduits and the adapter approx. 1600 mm measured from the adapter flange.
7. Tighten the foundation to its place by filling the excess space outside the foundation with gravel.
8. Fix the full length pole EVTL57.00 on the adapter with bolts, washers and nuts.
9. Pull the electrical cables through the metal conduit in the pole.
10. Attach the charger to the full length pole. See instructions on page 13.



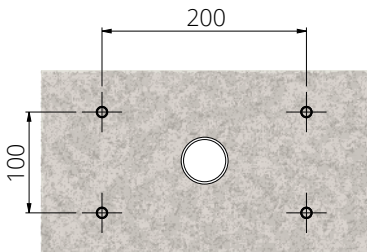
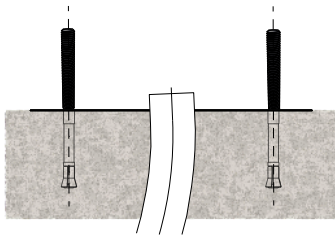
7.2. Mounting on concrete casting

Items needed:	Full length pole EVTL57.00	1 pcs
	Anchor bolts M12 (not included)	4 pcs
	Washers (not included)	
	Nuts (not included)	

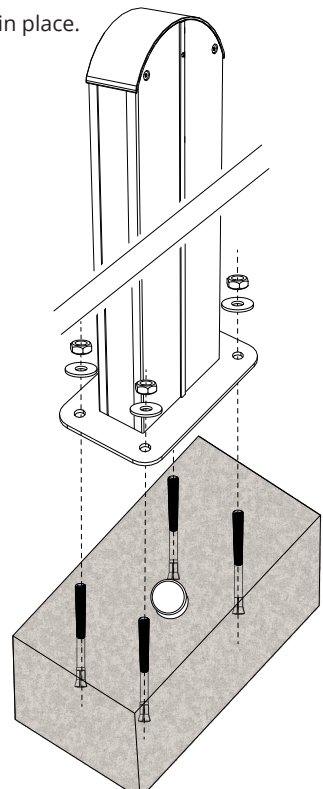
Make sure that the materials used for the concrete casting and the installation procedures follow local building regulations and safety standards.

- Dig a pit for the concrete casting. The pit floor should be trampled and horizontal.
- Put cable and possible drain pipes in place.
- Fill the pit with concrete.
- Let the concrete solidify. Make sure that the surface stays solid and level during the process.

Installation steps



1. **Make sure that the concrete surface is flat and level.**
2. Drill a hole in the concrete for the anchor bolts. For more information, please see the anchor bolt instructions.
3. Put anchor bolts in place.



4. Pull the electrical cables approx. 1600 mm measured from the concrete surface.
5. Fix the full length pole EVTL57.00 on the anchor bolts with washers and nuts.
6. Pull the electrical cables through the metal conduit in the pole.
7. Attach the charger to the full length pole. See instructions on page 13.

7.3. Mounting on Unimi Concrete Foundation

This installation example describes the installation procedure using a concrete foundation supplied by Unimi - Solutions.

Items needed:

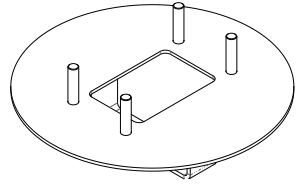
Full length pole EVTL57.00 1 pcs

Please order the following items from www.unimi.se

Concrete foundation 1 pcs

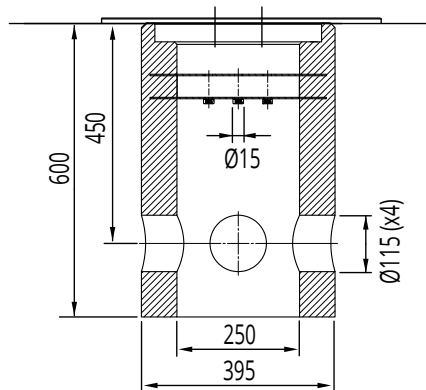
Cover plate 1 pcs

Adapter, product code US7650 1 pcs



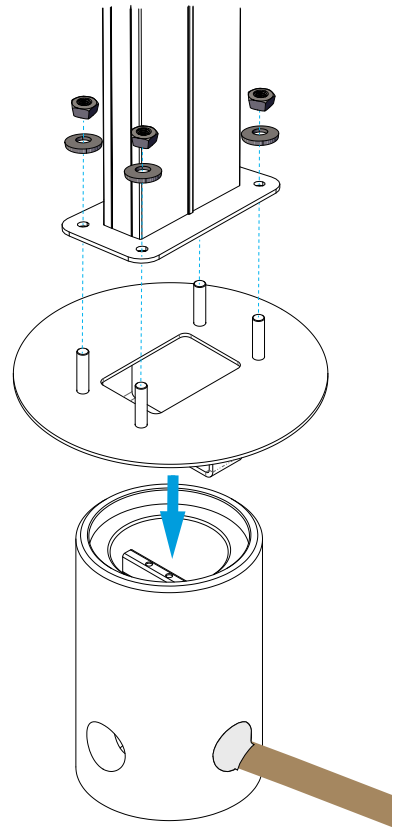
Installation steps

1. Dig holes for cable conduits and the concrete foundation to necessary depths.
2. Adjust the depth of the hole so that the top of the foundation will be in level with the surrounding ground surface. Note! Consider the possible paving materials when setting the level.
3. Cover the unused conduit openings with plugs, which are included in the foundation delivery.



4. Lift the foundation into the installation hole, the attachment bar embedded in the foundation can be used as a lifting point. The attachment bar should be oriented to allow attachment of the charger into desired position.
5. Lay the cable conduits into the trenches and install conduits to relevant inlets.
6. Pull electric cables through the conduits into the foundation approx. 1600 mm measured from the top of the foundation.

7. Tighten the foundation to its place by filling the excess space outside the foundation with gravel.
8. Set the final layer of gravel so that the top of the foundation will be in level with ground or the final paving material.
9. Always place a cover plate on the foundation, if the charger is installed in a separate session than the foundation.
10. When you start the installation of the charger, remove the cover plate.
11. Put the adapter element on the foundation.
12. Fix the adapter on the foundation attachment bar with bolts included in the delivery.
13. Fit the full length pole EVTL57.00 to the threaded bolts on the adapter. Secure with the nuts included in the delivery.
14. Pull the electrical cables through the metal conduit in the pole.
15. Attach the charger to the full length pole. See instructions on page 13.



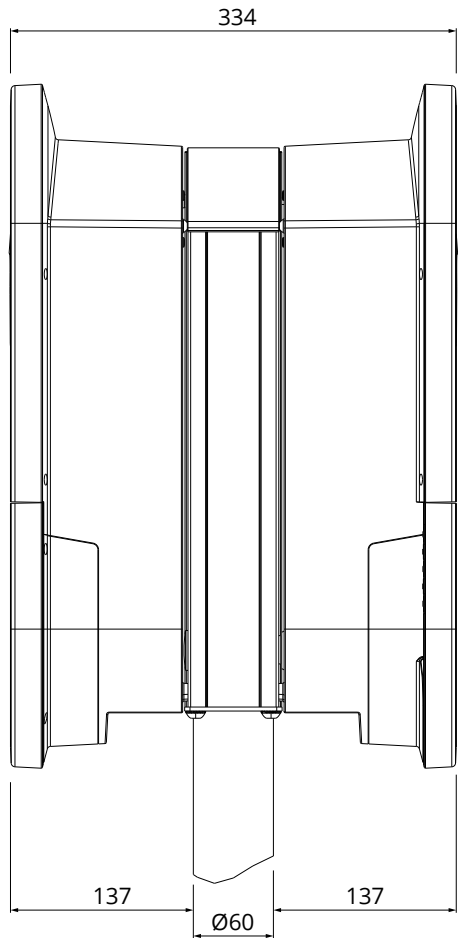
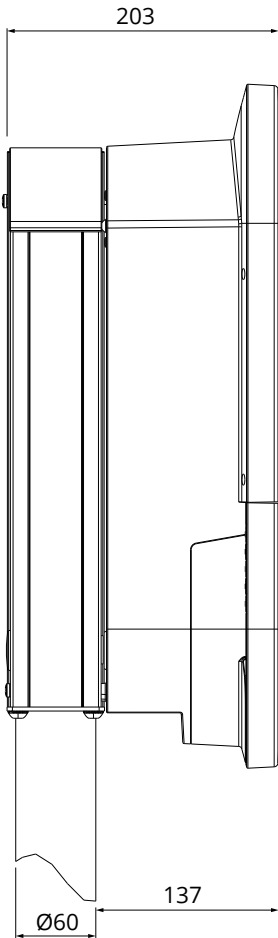
7.4. Ground mounting on pole Ø 60mm

Items needed:	Pole adapter EVTL55.00	1 pcs
	Pole Ø 60mm (not included)	1 pcs
	Concrete foundation (from different manufacturers)	1 pcs

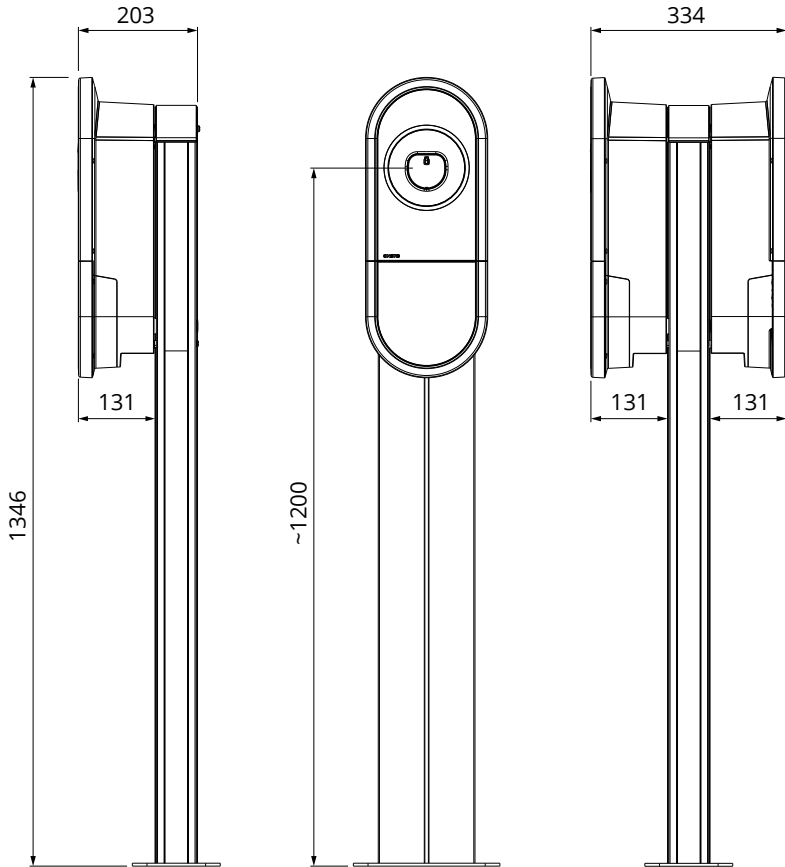
- Prepare the mounting site.
- Mount the pole so that the top of the pole is 900 - 1200 mm measured from ground surface.
- If you replace a car heating socket with an Ensto One charger and want to use the existing pole and supply cables, you can cut the pole shorter so that the conductors are long enough for electrical connections to the charger.
- Use a suitable concrete foundation. Follow the manufacturer's instructions.

8. Dimension drawings

EVTL55.00



EVTL57.00



9. Technical information

Electrical connections	EVTL55.00	EVTL57.00
Nominal supply voltage	1-ph, 230 VAC / 3-ph, 400VAC	
Nominal frequency	AC 50 Hz	
Supply connection to included connectors	Cu 2,5 mm ² - 16 mm ² Tightening torque: 10Nm	
Connection cable	Cu 2,5 mm ² - 6 mm ² Ø 10 - 20 mm Stranded or solid conductors	
Supply connection to charger	See the charger's technical specifications	

Design and Mechanics	EVTL55.00	EVTL57.00
Material	Aluminium	
Color	Silver	
Mounting	Ground / Floor	
Weight	approx. 2,8 kg	approx. 8,8 kg
Ingress protection rating	IP23	
Impact resistance rating	IK10	
Tested according to IEC 61439-07 medium resistance		

10. Installation / Commissioning checklist

Introduction

Check the mechanical and electrical installation according to this checklist in order to make sure that the charger is properly installed.

Checking the Installation



Go through the visual, mechanical and electrical installation when the charger is unpowered.

CATEGORY	X	ITEM
Overall look		You have received the ordered material.
		You do not see any scratches or damages.
Mechanical installation		The charger is fixed properly on installation site.
Electrical installation		Charger's power supply capacity meets electrical planning (cable size, protective devices...). Review the local electrical design plan.
		The PE-cable screw is tight.
		The conductors (L, N and PE) are properly connected to the connectors in the charger.
		Conductors are properly connected to the separate branching connectors.
		The insulation of the power supply cable and conductors (L, N and PE) is intact.
		The voltage between PE and N is less than 10 V.
		The PE conductor resistance is less than 3 Ω.
		Test the functionality of the protective device.



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