

This manual describes the installation process for the ICU Eve charging point for electric vehicles. Carefully read this manual before you install the charging point. ICU Charging Equipment and Alfen bv cannot be held liable for any consequential damage and/or losses that may arise from the use of this manual. This manual applies to the product types below:

Plug & Charge

- 4457.230V.50HZ.16A.1FNPE.2X16A.PUAST
- 4457.400V.50HZ.32A.3FNPE.2X16A.PMAT
- 4457.400V.50HZ.16A.3FNPE.1X16A.PMAT
- 4457.400V.50HZ.64A.3FNPE.2X32A.PMAT
- 4457.400V.50HZ.32A.3FNPE.1X32A.PMAT

RFID + RFID Display

- 4457.400V.50HZ.32A.3FNPE.2X16A.RMAST
- 4457.400V.50HZ.16A.3FNPE.1X16A.RMAST
- 4457.400V.50HZ.64A.3FNPE.2X32A.RMAST
- 4457.400V.50HZ.32A.3FNPE.1X32A.RMAST
- 4457.230V.50HZ.16A.1FNPE.2X16A.DRUAST
- 4457.400V.50HZ.32A.3FNPE.2X16A.DRMAS
- 4457.400V.50HZ.16A.3FNPE.1X16A.DRMAS
- 4457.400V.50HZ.64A.3FNPE.2X32A.DRMAS
- 4457.400V.50HZ.32A.3FNPE.1X32A.DRMAS

The type number can be found on the identification label on the bottom side of the product.

Safety

- ✓ The electrical system must be dead (disconnected from the power supply) during all installation and maintenance work.
- ✓ Installation work must be performed by professionals who are familiar with this manual and work based on the IEC-60364 regulations.
- ✓ Work may not be performed when it is raining or the air humidity is higher than 95%.
- ✓ Never connect more than one charging object per group.

Installation requirements

Take the following requirements into consideration when installing the ICU EVe:

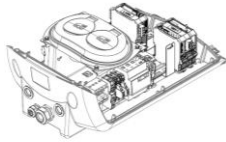
- The cable route of the main distributor to the ICU EVe must be protected against power surges and short-circuits by using a B characteristic circuit breaker or a screw gG tag fuse.
- The cable route must be protected against accidental touching by a type A or B 30 mA earth-leakage circuit breaker.
- The cable route and charging point are a part of a TN-S system and the earthing is provided from the main distributor.
- The cable route must be laid in accordance with the applicable standards such as, for example, IEC-60364.
- The cable route consists of copper cable where 90°C is at least the highest allowed conductive temperature.

Type	Protection Option 1	Protection Option 2	Min. Core cross section
2 x 16 A 1-phase	3 x 35 A gG fuses + 40 A-30 mA earth-leakage circuit breaker	40 B – 30 mA 2p earth-leakage fuse	5 x 6mm ²
1 x 16 A 3-phase	3 x 20 A gG fuses + 20 A-30 mA earth-leakage circuit breaker	20 B – 30 mA 4p earth-leakage fuse	5 x 4 mm ²
2 x 16 A 3-phase	3 x 35 A gG fuses + 40 A-30 mA earth-leakage circuit breaker	40 B – 30 mA 4p earth-leakage fuse	5 x 6mm ²
1 x 32 A 3-phase	3 x 35 A gG fuses + 40 A-30 mA earth-leakage circuit breaker	40 B – 30 mA 4p earth-leakage fuse	5 x 6mm ²
2 x 32 A 3-phase	3 x 80 A gG fuses + 80 A-30 mA earth-leakage circuit breaker	3 x 80 B system fuse + 80 A-30 mA earth-leakage circuit breaker	5 x 16 mm ²

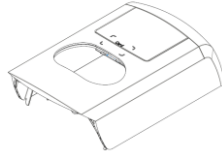
Always carry out the wiring at the maximum charging current of the charging point with a continuous load. The cable thicknesses in this manual are indicative. The installer is always responsible for determining the correct cable thickness on site and the application of the applicable standards.

Note: the requirements for the installation may depend on the location. Follow the guidelines of the IEC-60364 standard.

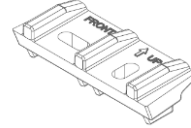
Contents of the packaging



1 ICU EVe base unit



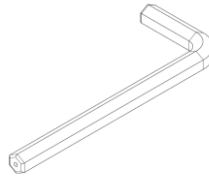
1 ICU EVe front cover



1 wall bracket



2 anti-theft bolts



1 pin key hexagon
socket wrench

Not supplied accessories

Tools

- Spirit level.
- (Impact) drill.
- Screwdriver for an M5 cross recess hole.
- Screwdriver for a terminal block.
- Pencil.
- Chucks suitable for substrate for M5 x 30 mm hole.

Material

- 4 x M5 x 30 mm screws.
- 4 x M5 rings
- 4 x M5 x 30 mm plugs.

Charging point installation

1. Fold open the packaging to first remove the white front cover. The front cover is fixed to the charging unit with two screws on the top and bottom sides. Loosen the screws at the bottom using a hexagon socket wrench and loosen the two screws on the bottom side of the rear cover using M5 Torx (T25). Tilt the front cover up on the bottom side. **Note:** The wiring of the LEDs and optional display is fixed on both the front cover and the rear cover. Ensure that this wiring is first disconnected. Next, lay the front cover down.
2. Use the drilling template on the cardboard packaging that has been marked with a drill icon to draw holes at the required height. **Note:** use the drilling template and not the rear cover. Use a spirit level to draw the markings straight. The distance between the holes is 123.8 mm (at the top), 39.6 mm (at the bottom) and 434.3 mm (vertically). Fix the suspension block using the bottom two holes that have been drilled.
3. Allow the charging point to drop on the suspension block perpendicularly (fig. 1).
4. Fix the charging point at the top side using 2 screws with a cross section of no more than 8 mm. (Fig. 1.)

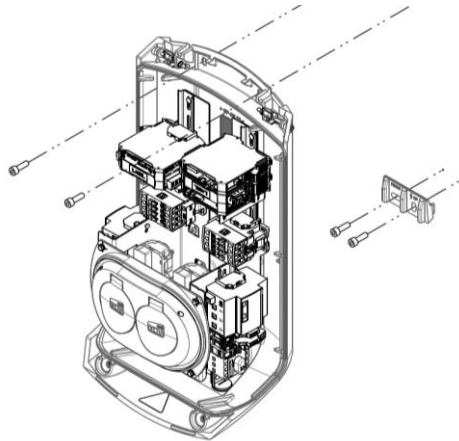


Figure 1: 3-phase model shown

5. Insert the power supply cable through the opening in the screw connection.
6. Pull the power supply cable into the housing approximately 150 mm. The power supply cable must be long enough to be pulled into the housing from the ground or wall.
7. Fix the power supply cable in the screw connection by tightening it in such a way that there is no movement in the power supply cable.
8. Remove the sleeve of the power supply cable using wire stripping pliers so that the cores are sufficiently exposed to be able to be installed in the isolator switch.
9. Fix the cores at the correct location in the earth-leakage circuit breaker. Always install the earthing first! See figure 3.1 (1-phase variant) or figure 3.2 (3-phase variant).



Figure 3.1: 1-phase variant)

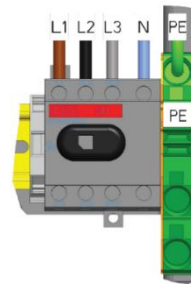


Figure 3.2: 3-phase variant)

10. Switch on the isolator switch after the power supply cable is live.
11. Connect the wiring of the LEDs back on the connector that was disconnected in step 1.

12. Lower the front cover with the two protruding studs in the grooves on the top side that is indicated with the blue arrows (fig. 4).

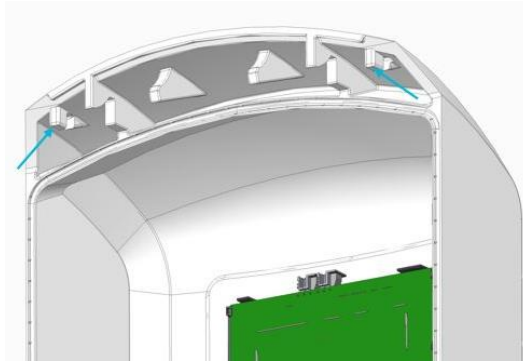


Figure 4

13. Tighten the screws at the top side of the base unit using M5 Torx.

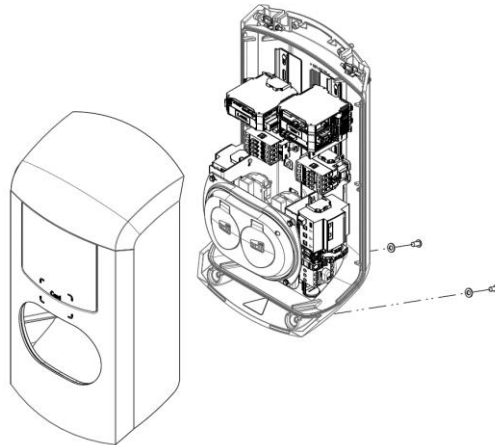


Figure 5: 3-phase model shown

14. Press the front cover shut and secure the M8 x 16 anti-theft bolts in the holes for this on the rear. Tighten them using the supplied pin key hexagon socket wrench (figure 5).
15. As the last action, remove the transparent film from the front cover.

Commissioning

1. Connect the power to the power supply cable. The EVe will show different LED indicators. Ultimately, the LED will switch off and the charging point will be ready for use.
2. Take the following steps in case of an error message:
 - a. Check the earthing connection.
 - b. Check whether the phase and neutral have been connected correctly.
 - c. Switch off the power from the charging point for at least 1 minute.
 - d. Again switch on the power.

Product specifications

	1-phase model	3-phase model
Housing	SMC (fibreglass strengthened plastic)	
Dimensions	H 590 x W 338 x D 230 mm	
Weight	approximately 15 kg	approximately 25kg
Protection value	IP54	
Charging mode	Mode 3	
Socket	Type 2	
Ambient temperature	-30°C to +40°C	
Max. air humidity	95%	
Standby consumption	approx. 20 W	
Standard	IEC 61851-1 (2010) and IEC 61851-22 (2001)	
CE Directives	Low voltage directive 2006/95/EC and EMC directive 2004/108EC	
RFID*	Meets ISO15693 and ISO14443	
Local Area Network*	At least CAT5 Ethernet (TCP/IP)	
GPRS	900/1800 Mhz	

* Specific models

Identification label

The identification label specifies, for example, the model, production date and serial number. It can be found on the bottom side of the charging point. Always make reference to the serial number when writing to ICU so that you receive the fastest support.

Contact



information

The contact information below is meant for resellers of ICU products. End users of charging points can contact the point of sale where they purchased the product for questions and notifications.

ICU Charging Equipment

Splijtbakweg 15
1333 HC Almere

Postbus 1042
1300 BA Arnhem

Tel: +31 36 54 93 400
Email: info@icu-charging-stations.com
Website: www.icu-charging-stations.com