

This manual describes the installation process for the ICU Compact 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:

Socket

- 4456.230V.50Hz.16A.1F+N+PE.1x16A.RMAST
- 4456.400V.50Hz.16A.3F+N+PE.1x16A.RMAST
- 4456.400V.50Hz.32A.3F+N+PE.1x32A.RMAST

Fixed Cable + RFID

- 4456.230V.50Hz.16A.1F+N+PE.1x16A.RMASV
- 4456.400V.50Hz.16A.3F+N+PE.1x16A.RMASV
- 4456.400V.50Hz.32A.3F+N+PE.1x32A.RMASV

Fixed cable (Plug & Charge)

- 4456.230V.50Hz.16A.1F+N+PE.1x16A.PMAV
- 4456.400V.50Hz.16A.3F+N+PE.1x16A.PMAV
- 4456.400V.50Hz.32A.3F+N+PE.1x32A.PMAV

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 Compact:

- The cable route of the main distributor to the ICU Compact 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	Option 1 protection	Option 2 protection	Min. Core cross section
1 x 16 A 1-phase	1 x 20 A gG fuses + 20 A-30 mA earth-leakage circuit breaker	20 B – 30 mA 1p+N earth-leakage fuse	3 x 4 mm ²
1 x 16 A 3-phase	3 20A gG fuses + 20 A - 30 mA earth-leakage circuit breaker	20 B – 30 mA 4p earth-leakage fuse	5 x 4 mm 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

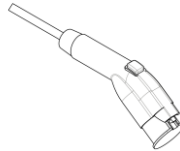
Always carry out the wiring at the maximum charging current of the charging point with a continuous load. The cable thicknesses in this manual are indicative. The installer is always responsible for determining the correct cable thickness on site and the application of the applicable standards.

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

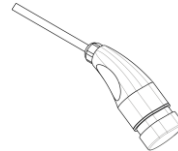
Contents of the packaging



1 ICU Compact charging point



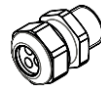
(Optionally) 1 fixed cable of type 1



(Optionally) 1 fixed cable of type 2

Supplied screw connections

Different screw connections are supplied depending on the charging point model. Below we provide a list of the screw connections per variant.



Phases	Amperes	Implementation	Large screw connection	Small screw connection	3-hole screw connection
1	16	Socket	1	0	1
1	16	Fixed cable	1	1	1
3	16	Socket	1	0	1
3	16	Fixed cable	2	0	1
3	32	Socket	1	0	1
3	32	Fixed cable	2	0	1

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 x 30 mm plugs.

Charging point installation

1. Remove the metal cover strips on the top and bottom sides.
2. Loosen the four screws in the corners and remove the cover.
3. Use the drilling template from the packaging to draw holes at the required height. Use a spirit level to measure off the markings straight.
4. Drill the holes by using the markings and install the plugs (4 m5 x 30 mm).

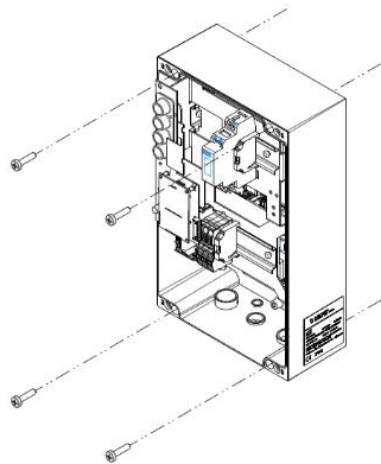


Figure 1

5. Install the ICU Compact by using screws (4 x M5 x 30 mm) in de drilled holes (fig. 1). The distances between the holes amount to 144 mm (horizontally) and 312 mm (vertically).
6. Loosen the collet and remove it together with the rubber ring from the screw connection (fig. 2).
7. Slide the collet over the power supply and/or fixed cables to be connected. Next, slide the rubber ring over the power supply or fixed cable.
8. Insert the power supply and/or fixed cable through the opening in the screw connection in the Compact and ensure that approximately 30 mm of cable is available in the housing.
9. Again slide the rubber ring and the collet on to the screw connection.
10. Fix the power supply and/or fixed cable in the screw connection by tightening the collet until the power supply and/or fixed cable no longer shows any movement.
11. Remove the sleeve of the power supply and/or fixed cable using wire stripping pliers so that the cores are sufficiently exposed to be able to be installed in the connecting terminals.
12. Fix the cores at the correct location in the connecting terminals. Always install the earthing first (fig. 3).
13. Screw on the cover on the housing using the supplied screws.
14. Again install the metal cover strips at the correct location on the cover.

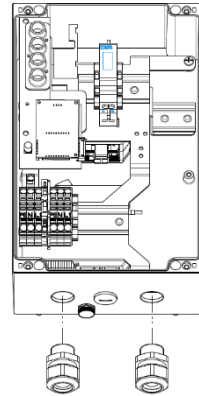


Figure 2

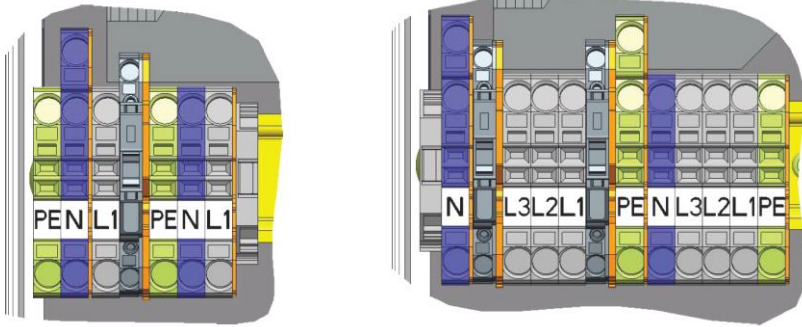


Figure 3

1-phase model connecting terminals

3-phase model connecting terminals

Commissioning

1. Connect the power to the power supply cable. The Compact 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

Housing	Aluminium
Dimensions	330 x 200 x 120 mm (H x W x D)
Weight	6.3 kg
Protection value	IP54
Charging mode	Mode 3
Socket	Type 2
Fixed cable	Type 1 or 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	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

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1300 BA Arnhem

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