

# XCHARGE C6EU DC charging station

## Preventive maintenance instructions



### Maintenance by maintenance partners / XCHARGE

Category	Predefined maintenance cycles	Expected work duration	Description
External monitoring of EVSE	1 year	2 min.	Checking the body of EVSE for scratches and damage caused by transport or vandalism.
Checking the display and control panel	1 year	1 min.	Check that the display and control panel are not damaged.
Checking the door mechanism	1 year	2 min.	Checking the locking mechanism of the front and rear doors, i.e. fixing points, handle and lock. Check that the whole locking system works well.
Inspection of internal covers	1 year	12 min.	Check the internal protection covers and enclosures of the EVSE. Please pay attention to dirt, penetrated water and corrosion. Please remove dust in the charger (if present).
Replacing the filter mats	1 year	10 min.	Replace the filter mats if cleaning does not restore the function. Otherwise, check the cleanliness. Cleaning must be carried out (if necessary) in such a way that the filters are not damaged.
Visual component inspection	1 year	4 min.	Check that all components are marked as they were when the machine was commissioned and are not in the event of a fault. Please check for damage and corrosion.
Checking the cables	1 year	7 min.	Check that all cables are marked as at commissioning, please check for damage and loose connections. The valid safety rules must be followed and insulated tools must be used.

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Check the charging point connections CP1 CHAdeMo CP2 CCS	1 year	4 min.	Check the charging points for wear, damage to plugs, cables and holders. Check that the cable glands are tightened and that there is no risk of electric shock. Check that the charging cables are correctly and firmly connected to the connection points inside the charger.
Control of the SPD over-voltage protection	1 year	1 min.	Check the display window on the surge protection module. If red, the surge protection module must be replaced.
Control of RFID functionality	1 year	1 min.	Check that the RFID reader can recognise and read the RFID cards.
Control of antennas	1 year	1 min.	Check that the antenna is not damaged and that there are no traces of water leaking through the antenna to the inside of the charger.
Control of the controller DCB and A8	1 year	5 min.	Check that there is no damage to the boards or corrosion. All cables must be firmly connected.
Checking the fans	1 year	6 min.	Check that the fans are not damaged and that no deposits have formed on the fan or rotor blades.
Test of the RCDs	1 year	2 min.	Test the RCDs with the test button on the main switch.

**Note:** the total 1 year maintenance inspection period last on average 58 minutes, however the actual duration may vary, but should not exceed 90 minutes.

Check the protective conductor connections	3 years	10 min.	Check that all accessible conductive components are connected to the earth rail. The resistance must be <0.1 Ohm.
Inspection of the insulation resistance (removal of the surge protection and the rectifier modules, disconnection of the control unit)	3 years	20 min.	The insulation resistance between the power cables and the protective conductor >1M $\Omega$ at 500VDC Check that the insulation resistance between the wires is > 1M $\Omega$ at 500VDC.

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Checking the triggering behaviour of the RCD	3 years	10 min.	Measurement of the tripping current and tripping times with a suitable measuring device
Inspection of the ground fault loop impedance	3 years	15 min.	Check if the ground fault loop impedance meets local requirements. The value must be sufficiently low to trip the safety devices in the required time.

**Note:** the total 1 year maintenance inspection period last on average 60 minutes, however the actual duration may vary, but should not exceed 120 minutes.

### Replacement of components

Component	replacement cycles	Duration of work for replacement
CCS charging plug and charging cable	8 years or 10 000 cycles	45 minutes
charging plug and charging cable CHAdeMo	8 years or 10 000 cycles	45 minutes
Air filter	1 year, depending on the EVSE environment	5 minutes/filter (10 minutes max.)
Fans for the whole EVSE	8 years	15 minutes/fan
Fan in the power module	8 years	15 minutes/fan
Auxiliary power supply 12V and 24V	8 years	20 minutes/supply (max. 30 min.)
contactor	8 years or 10 000 cycles	Fuse FU1, FU2: 15 minutes Interim reply KA1-4: 30 minutes AC SPD: 20 minutes

Based on the results during maintenance, the site operator and/or service partner plans preventive maintenance, prepares spare parts stocks and catches possible failures in advance to extend the life of EVSE. All results should be written down in the table and sent annually to eu@xcharge.com to demonstrate proper maintenance of the charging station. XCHARGE's warranty is void if the charging station has not been properly maintained.