

# EVECUBE 2C

EV Expert Wallbox 2x22kW  
(for the European Union and Norway)



USER MANUAL



Designed,  
developed and made  
in Czech Republic

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# IMPORTANT SAFETY INSTRUCTIONS

This document contains important instructions and warnings that must be followed when using the EVECUBE 2C charging station from EV Expert s.r.o.



## WARNING

Read this document before using the charging station. Failure to follow some of the instructions or warnings described in this document may result in fire, electric shock, serious injury, or death.

- The charging station is only designed for charging electric vehicles that support the IEC 62196-1 and IEC 61851-1 standards. Do not use it for other purposes or with other vehicles or objects.
- The charging station is only intended for vehicles that do not require ventilation during charging.
- Do not use the charging station in combination with sockets that are not rated for the required current load.
- Do not use the charging station if it is defective or damaged, or if the LED indicates an internal error.
- The device may only be opened for connection or disconnection from the mains.
- A product that is exposed to direct sunlight may overheat and, as a result, may reduce or stop charging until the internal components have cooled to operating temperature. Do not use the charging station in very heavy rain.
- Both the station body and the connecting cable can increase the temperature during the charging process due to the passage of electric current, especially if they are exposed to direct sunlight or high ambient temperatures. Watch out for burns.
- Do not touch the end terminals with sharp metal objects such as wires, needles or other tools.
- Make sure that the charging cable does not obstruct the movement of pedestrians, other vehicles or other entities.



Installation may only be performed by persons with appropriate qualifications in the field of electrical engineering. Contact your dealer to install or service the station.

If a fault occurs, the user is not authorized to open, disassemble, repair or otherwise modify the device.

If repair is required, contact EV Expert s.r.o. or your dealer.

If you have any questions or recommendations, contact us at: [info@evexpert.eu](mailto:info@evexpert.eu)

## TECHNICAL SPECIFICATIONS

Rated charging current	1x 6-32A or 3x 6-32A* (až 22kW)
Own consumption at rest	less than 0,5W
Permissible ambient temperature	-40°C to +50°C
Degree of protection	IP54
Body protection against shocks	IK10
Dimensions of the steel body	340 x 300 x 150mm (HxWxD)
Electric power supply	1 – 3 phase (6 – 32A) + corresponding neutral and protective conductor
Connection for electric vehicle	Socket Type 2 according to IEC 62196-2 for 32A
Compliance	IEC 62196, IEC 61851-1, CE,EMC, RoHS
Compatible electrical network	TN-S,TN-C, IT
Built-in circuit breaker	A-EV (RCD AC < 30mA + RCD DC < 6mA)
Protection of communication circuits	0,5 - 1A (fuse 20x5, 250VAC)

\*The maximum current and charging time depend on the characteristics of the electric vehicle being charged. The charging station can limit the charging current at high temperatures.

Management and invoicing system	Web Server, EVE.Charge or other OCPP compatible systems
Communication protocol	OCPP, Wiegand 26 (RFID)
OCPP version	v1.6 (JSON)
Data connection	LAN, WIFI, UART
Management and configuration interface	Web Server

Measurement of consumed electricity	Yes (MID certified)
Power management module	Optional for extra charge
Wi-Fi Hotspot	Yes (can be set or turned off at the customer's request)

## INSTALLATION



Installation may only be performed by persons with appropriate qualifications in the field of electrical engineering.

- 1) Before installing the charging station, check that there is no external damage.
- 2) To install the station, select a location that is protected from extreme weather conditions. A product that is exposed to direct sunlight may overheat and, as a result, may reduce or stop charging until the internal components have cooled to operating temperature. Do not use the charging station in very heavy rain.
- 3) Professionally connect to the mains according to the instructions and graphic drawing.

## CONFIGURATION AND FIRST RUN

1. By default, the station tries to obtain the address automatically from the DHCP server.
2. The red or blue LED on the EVSE should light up for the first 2 seconds to indicate initialization.
3. Each charging port has its own LED indication with information on the charging status. Red indicates that the TN-S network is selected. Blue indicates that the IT network is selected.
4. If the LED does not change after two seconds, there is a problem with the network (probably the PE wire was not detected correctly) - check the correct connection of the socket or house wiring.
5. If you need to change the selected network, press the button for 5 seconds during the initialization phase, thereby selecting the second network. The user is solely responsible for the correct choice of network.
6. If the PE wire is detected correctly and the initialization is successful, the station switches to operating mode. The Web Server is used to manage the charging station.
7. Then, if everything is OK, the LED is blue (authorization via web interface, RFID or remote management system) or green (no authorization is needed for charging).

8. If the supply is protected by less than 32A circuit breaker or there is a risk of concurrence with other appliances, set the appropriate maximum charging current at the charging station. It is important to set the correct charging speed before connecting the connector to the vehicle. Otherwise, the circuit breaker may trip.

## CONNECTION

1. Inspect the charging station for any external damage. Do not use the charging station if it is damaged.
2. Connect the vehicle by inserting the connector into the vehicle, if the charging cable is integrated.
3. In the case of a charging station with a socket, connect the charging cable first to the charging station and then to the electric car.
4. If everything is OK, the LED is blue. Charging can be authorized via the EVE CHARGE payment gateway, or your superior OCPP system for managing charging stations, or via RFID tags, which can be set via the Web Server.
5. If the need for authorization is switched off, and if everything is OK, the LED lights up green, and anyone connected to the charging station can charge.
6. Charging starts automatically.

## DISCONNECTION



**NEVER** disconnect the charging station while charging.

1. Stop charging in the vehicle first.
2. If necessary, release the latch on the vehicle's charging port.
3. Disconnect the charging cable from the vehicle and then from the charging station.
4. Close the charging port cover.

If the power supply is interrupted, the station automatically unlocks the charging cable lock from its own backup source as soon as a power failure is detected.

## STATUS SIGNALING

The charging station can signal several states before, during or after charging.

Green LED means ready to charge. An orange LED means that charging is in progress. And the flashing of the LED means a problem. The types and severities of the various flickers are described below:

### ERROR MESSAGES

Flashing green / orange LED - may affect charging speed:

1x	Problem with the main switching elements in the charging station (fast flashing)	Turn the main switch off and on
2x	Undervoltage or missing phase	Check that each phase is connected correctly and has the correct voltage (this operation may only be performed by a qualified person)
3x	Network connection problem	Check that the network is set up correctly or that each phase is connected correctly (this operation may only be carried out by a qualified person)
4x	High temperature	Wait for the device to cool to operating temperature

Flashing red LED - charging will be stopped:

1x	problem with the main switching elements in the charging station (fast flashing)	Contact your dealer or manufacturer.
2x	problem with the circuit breaker	Turn the main switch off and on.
3x	zero wire problem	Check that the neutral wire is connected correctly (this operation may only be performed by a qualified person).
4x	overvoltage	Check that the voltage is correct at each stage (this operation may only be performed by a qualified

		person).
5x	very high temperature	Wait for the device to cool to operating temperature
6x	unsupported charging mode	Change the charging mode

## PROBLEM SOLVING

- If charging slows down or stops abruptly, check the vehicle's on-board system for an error condition.
- Check the signal LED on the charging station.
- If a high temperature is the cause of the problem, stopping charging until the charging station cools down or cooling it down directly can help. If this happens regularly, without external influences (direct sunlight, high ambient temperature), contact EV Expert s.r.o. or your dealer.
- In some cases - if charging has stopped - it may help to disconnect the charging station from the car and reconnect it.
- In case of persistent problems, contact EV Expert s.r.o. at: [info@evexpert.eu](mailto:info@evexpert.eu)

## MAINTENANCE

The EVECUBE charging station is made of high-quality, anti-corrosion stainless steel and is almost maintenance-free. At regular intervals, the socket for connecting the charging cable or the charging cable (for the version with integrated cable) must be checked for damage to the plastic parts, foreign bodies or dirt in the contacts, or for insulation in the case of the charging cable (visual inspection). If it is necessary to clean dirt from the contact area of the socket or connector, the station must be switched off by a circuit breaker.

In case of contamination, use a microfiber cloth that has a non-abrasive structure and water, or clean the surface of the charging station with a non-abrasive solvent-free cleaner. To maintain the gloss and protect the brushed stainless steel surface, agents designed for stainless steel surfaces are recommended.



# EU DECLARATION OF CONFORMITY

## WE

EV Expert s.r.o.  
Polská 181 / 70  
779 00, Olomouc  
IČ: 056 99 711

as manufacturer, **declare under our sole responsibility that the following referenced vehicle charging products:**

Charging station EVECUBE 2C  
(serial number printed on the body of each charger)

**is in conformity with the applicable requirements of the following directives:**

2014/35/EU	Low Voltage Directive
2014/30/EU	EMC Directive
2011/65/EU	Restriction of the use of certain hazardous substances in electrical and electronic equipment

**Conformity with these directives has been assessed for this product by demonstrating compliance to the following harmonized standards and/or regulations:**

- EN 61851-1:2010
- EN 62196-2
- EN 61000-6-3 ed.2:2007 + A1:2011
- EN 61000-6-1 ed.2:2007
- EN 61000-3-2
- EN 61000-3-3

The product is safe under normal and intended use conditions. We have taken all measures available to ensure the conformity of products placed on the market with the essential requirements of European Union legislation.

In Olomouc, 5.1.2020

# WARRANTY CONDITIONS

1. The company EV Expert, LLC (hereinafter "EV Expert") has developed a highly reliable device for charging electric vehicles, referred to as EVECUBE. It is designed to withstand normal operating conditions when installed and used in accordance with the EVECUBE Operation and Installation Manual (hereinafter "the Manual") provided by EV Expert together with the product. The minimum operational life of the chargepoint EVECUBE is three years from the date of installation if installed and used in accordance with the Manual and the EV Expert warranty covers defects in EVECUBE manufacturing and material for a period of two (2) years from the date of installation.
2. The warranty does not apply to and EV Expert accepts no liability for any defect or damage to any EVECUBE which has been:
  - (1) Neglected or amended, or
  - (2) Improperly installed, operated, handled, used in conditions for which the product was not designed or used in an unsuitable environment or used in a manner that is not consistent with EV Expert's Manual or applicable laws and regulations, or
  - (3) Exposed to fire, water, corrosion, biological attack or input voltage that created operating conditions above the maximum or below the minimum limits specified in the EV Expert specifications and the Manual, including high input voltage from any kind of source or lightning strikes, or
  - (4) Subjected to accidental or consequential damage caused by defects in other components of the electrical system, or
  - (5) If the original identification mark (including trademark and/or serial number) of the EVECUBE has been contaminated, altered or removed.
3. EV Expert will use new and / or repaired parts at its discretion during repair or replacement. EV Expert reserves the right to use parts or products of the original or improved design when repairing or replacing the defective product. After repair or replacement, the warranty will continue on the repaired or replacement product for the remainder of the original warranty period or, if the warranty period expires, ninety (90) days from the date of return of the repaired or replacement product by EV Expert.

The warranty does not cover the costs associated with the reinstallation of the repaired or replacement product if the original contract stated that the customer will procure the installation himself.

4. The warranty covers replacement parts, labour and the cost of transporting the defective and the repaired or replacement product to and from EV Expert via a carrier selected by EV Expert to locations within the European Union and the United Kingdom, but not outside the European Union. Any on-site assistance, repairs and replacements that are provided under the warranty are for free.
5. The warranty does not cover damage that occurred during the transport or damage caused by improper handling by the carrier. The carrier is responsible for such damage.
6. Updates to the system software and firmware of the charger components aimed at improving or correcting the safety and functions of the charger EVECUBE cannot be considered warranty actions.

## Procedure for exercising warranty rights

To obtain repair or replacement under the limited warranty, the customer must follow the following policies and procedures:

1. All defective products must be returned with an RMA (Return Merchandise Authorization Number), which the customer must request from EV Expert. This request must include the following information:
  - the proof of purchase of the defective product,
  - the model number of the defective product,
  - the serial number of the defective product,
  - a detailed description of the defect,
  - shipping address where the repaired or replacement product should be returned.
2. Any defective product approved for return must be returned in the original shipping container or other packaging that adequately protects the product from damage during the shipment.
3. The returned defective product must not be disassembled or modified without the prior written consent of EV Expert.

Email contact address is [info@evexpert.eu](mailto:info@evexpert.eu)

Contact phone is +420 722 689 252



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