

EVECUBE 2B MANUAL

EV Expert Wallbox 22kW
(for the European Union and Norway)



USER MANUAL



Designed,
developed and made
in Czech Republic

CONTENT

IMPORTANT SAFETY INSTRUCTIONS	3
WARNING	3
TECHNICAL SPECIFICATIONS	4
INSTALLATION	5
CONFIGURATION	5
CONNECTION	6
DISCONNECTION	6
STATUS SIGNALING	6
ERROR MESSAGES	6
PROBLEM SOLVING	7
MAINTENANCE	7
EU DECLARATION OF CONFORMITY	9
EVECUBE warranty conditions	10
Procedure for applying the warranty conditions	10
Additional provisions	11

IMPORTANT SAFETY INSTRUCTIONS

This document contains important instructions and warnings that must be followed when using the EVECUBE 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 contains an RCD-A-EV circuit breaker and therefore a residual current device is not necessary.
- 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.



The charger must not be exposed to direct sunlight!



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

TECHNICAL SPECIFICATIONS

Rated charging current	1x 6-32A or 3x 6-32A* (up to 22kW)
Own consumption at rest	less than 0,5W
Permissible ambient temperature	-40°C to +50°C
Degree of protection	IP44
Body protection against shocks	IK10
Dimensions of the steel body	220 x 200 x 120 mm (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)

*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.

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

1. During the initialization phase, the red LED indicates that the TN-S network is selected. Blue indicates that the IT network is selected.
2. If you need to change the selected network, press the button for 5 seconds during the initialization phase to select the second network.



The user is solely responsible for the correct choice of network.

3. After correct detection of the PE conductor and successful initialization, the flashing LED signals the setting of the maximum charging current.

1x	6A
2x	10A
3x	13A
4x	16A
5x	20A
6x	25A
7x	32A

4. Then the LED stays green and the charger is ready to charge.
5. Before connecting the electric car, it is possible to set the maximum charging current using the button. When pressed, it changes color to either red or blue (depending on the type of network selected). The number of presses determines the maximum charging current as in the initial signaling, ie one press corresponds to a limit of 6A, two presses 10A, three 13A, four 16A, five 20A, six 25A and seven 32A. The eighth press sets the limit back to 6A.
6. The number of presses is confirmed by the same number of flashes of the white LED.



If the supply is protected by less than 32A circuit breaker or there is a risk of concurrence with other appliances, set an adequate maximum charging current. Limiting the maximum charging current is important to prevent the circuit breaker from tripping. The charging station remembers the last setting.

CONNECTION

1. Inspect the charging station for 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. 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. Each charging port has its own LED indication with information on the charging status.

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 flashes 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 onboard 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

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 microfibre 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 B
(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

EVECUBE warranty conditions

1. EV Expert, sro (hereinafter "EV Expert") has developed a highly reliable device for charging electric vehicles, called EVECUBE, which is designed to withstand normal operating conditions when used in accordance with the installation of EV Expert and operation in accordance with the operating manual (the "Manual") supplied by EV Expert.
2. The EV Expert Limited Warranty ("Limited Warranty") covers defects in workmanship and EVECUBE material ("Defective Product") for a period of three (3) years ("Warranty Period") from the date of original purchase of the Product.
3. The Limited Warranty does not apply and EV Expert assumes no responsibility for any defect or damage to any EVECUBE that has been:
 - a. misused, neglected, altered or otherwise damaged, either internally or externally,
 - b. improperly installed, operated, manipulated or used, including use under conditions for which the product was not designed or used in an unsuitable environment or used in a manner inconsistent with EV Expert's installation and operating manual or applicable laws and regulations
 - c. exposed to fire, water, corrosion, biological attack or input voltage that creates operating conditions above the maximum or minimum limits specified in the EV Expert technical specifications, including high input voltage from generators or lightning strikes,
 - d. exposed to accidental or consequential damage caused by defects in other components of the electrical system,
 - e. if the original identification mark (including the trademark or serial number) of such Evecube has been contaminated, altered or removed.
4. The limited warranty does not cover costs associated with disassembly, installation or troubleshooting of the customer's electrical systems. The limited warranty does not exceed the original costs of EV Expert.
5. During the warranty period, EV Expert will, at its sole discretion, repair or replace a defective product free of charge, provided that EV Expert inspects the existence of a defect covered by the limited warranty.
6. EV Expert will use new and / or repaired parts at its discretion when repairing or replacing a defective product. EV Expert reserves the right to use parts or products of original or improved design when repairing or replacing a defective product.
7. If EV Expert repairs or replaces a defective product, the limited warranty will continue on the repaired or replacement product for the remainder of the original warranty period or ninety (90) days from the date of return of the repaired or replacement product by EV Expert, whichever is later.
8. The limited warranty covers parts and labor required to repair a defective product, but does not cover labor costs associated with uninstalling the defective product or reinstalling the repaired or replacement product.
9. The Limited Warranty covers the cost of shipping a repaired or replacement product from EV Expert through a carrier selected by EV Expert to locations within the European Union, but not to locations outside the European Union. The limited warranty does not cover damage during transport or damage caused by improper handling by the carrier. The carrier is responsible for such damages.

Procedure for applying the warranty conditions

1. To obtain repair or replacement under the limited warranty, the customer must follow a certified Return Merchandise Authorization process.
2. All defective products must be returned with a Return Merchandise Authorization Number (RMAN), which the customer must request from EV Expert.

The RMA request must contain the following information:

- i. Proof of purchase of defective product

- ii. Defective product model number
 - iii. Serial number of the defective product
 - iv. Detailed description of the defect
 - v. Shipping address for returning a repaired or replacement product.
3. 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 shipment.
4. The returned defective product may not be disassembled or modified without the prior written consent of EV Expert.

Additional provisions

1. The Limited Warranty is the only and exclusive warranty provided by EV Expert that is permitted by law. Its meaning takes precedence over all other warranties, express or implied, statutory or otherwise, including warranties of title, quality, merchantability, fitness for a particular purpose or warranties as to the accuracy, effectiveness or suitability of any technical or other information provided in manuals or other documentation.
2. In no event shall EV Expert be liable for any special, direct, indirect, incidental or consequential damages, losses, costs or expenses under contract, or restrictions on the commencement of any economic loss of any kind, any loss or damage to property, or any personal injury.
3. To the extent that warranties relating to EVECUBE are required under applicable law, such implied warranties will be limited in time to the Warranty Period to the extent permitted by applicable law. In states and provinces that do not allow the limitation or exclusion of implied warranties or for the duration of the implied warranty, or the limitation or exclusion of incidental or consequential damages, the above limitations or exclusions may not apply.
4. This Limited Warranty gives the customer specific legal rights. The customer may have other rights that vary from state to state or region to region.

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