

EVELINE MAX II MANUAL

MANUAL for 22kW portable charger
(for the European Union and Norway)



Designed,
developed and made
in Czech Republic

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IMPORTANT SAFETY INSTRUCTIONS

This document contains important instructions and warnings that must be observed when using the portable charger for electric vehicles from EV Expert s.r.o.



WARNING

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

- The portable charger contains an RCD-A-EV circuit breaker and therefore a residual current device is not necessary.
- The EVELINE MAX II portable charger is only designed for charging electric vehicles that support the IEC 62196-1 and IEC 61851-1 standard. Do not use it for other purposes or with other vehicles or objects.
- The portable charger is only intended for vehicles that do not require ventilation during charging.
- Before connecting the charger to the socket, make sure that the socket is rated for the required current load and is not damaged.
- Do not use the charger if it is defective, corroded or otherwise damaged, or if the display indicates a serious internal error. (See the list of errors on page 12.)
- Do not disconnect the charger during charging.
- Do not touch the end terminals with sharp metal objects such as wires, needles or other tools.
- Do not damage the charger with sharp objects or insert foreign objects into any part of the charger.
- Keep the charger out of the reach of children or incompetent people.
- When using and transporting the charger, handle it carefully to avoid damage. Do not subject it to strong shocks, tension, twisting, tangling or any other strain.
- Protect the charger, and especially its terminals, from moisture and water. Do not use it in heavy rain or snow.
- Make sure that the charging cable does not obstruct the movement of pedestrians or other vehicles.



If a fault occurs, the user is not authorized to open, disassemble, repair or otherwise modify the device. If repair is needed, contact your dealer or EV Expert s.r.o.

If you have any questions or recommendations, contact us at: info@evexpert.eu

CHARGER COMPONENTS AND DISPLAY INFORMATION

Charger components

The EVELINE MAX II smart charger consists of:

- Phoenix charging cable 5 or 7 meters long
- Type 2 or 1 connector (for connection to the car)
- CEE industrial plug
- Charger body
 - OLED display
 - Control button



OLED Display

Voltage on each phase (1-3)

Internal temperature of the portable charger

State of connection to a vehicle

READY/CHARGING
State of the charging station




Charging current limit

Charged kW/h

EVELINE MAX II CHARGER SETTINGS

Charging current settings

 Before you start charging an electric car, it is important to set the adequate charging current limit to prevent the circuit breaker from tripping. Settings can only be made if the electric car is not connected.

The current is set using the control button located on the opposite side of the charger than the display. The restriction is set in steps: 6A, 8A, 10A, 13A, 16A, 20A, 25A and 32A. Each press of the button moves the limit one value further. After the last step, it returns to the beginning. The set limit is shown on the display in the lower left corner.



The charging current set at the present time

The correct limit depends on the type of circuit breaker, the number of connected appliances and the phase load. In the case of a circuit breaker of 32A and other appliances connected on the same circuit, a limit of 25A is usually appropriate, if there are more appliances or have a high consumption then 20A limit would be better. If the circuit breaker is 25A, then a limit of 16 or 13A is appropriate.

When using an adapter from an industrial CEE socket to a SCHUKO home socket, the maximum current must be limited to 16A if there are no other appliances, if there are, the ideal setting is 10 / 13A.

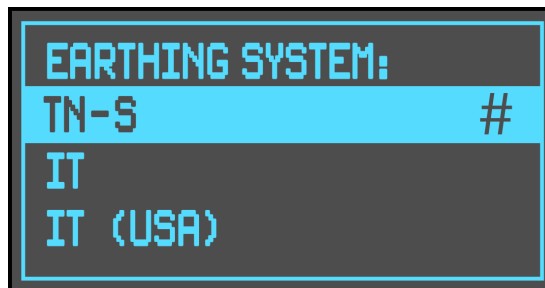
If the charger is not properly restricted, the circuit breaker may trip. If this happens, you must first disconnect the charger from the electric car. Then you switch the circuit breaker on again and adjust the settings. There is no risk of damage to the charger. The charger remembers the set value, it does not need to be set again the next time it is used.



The correct setting needs to be calculated according to the energy consumption of each household and solely the user is responsible for it.

Electrical network settings

1. In case you need to change the type of electrical network, press the button for 5 seconds during the initialization phase and you get to the TN-S, IT and IT (USA) network selection.
2. Confirm the selected network by pressing the button again for 5 seconds.



If you are not using the charger outside of Europe, do not change the network settings and leave the default TN-S settings selected.

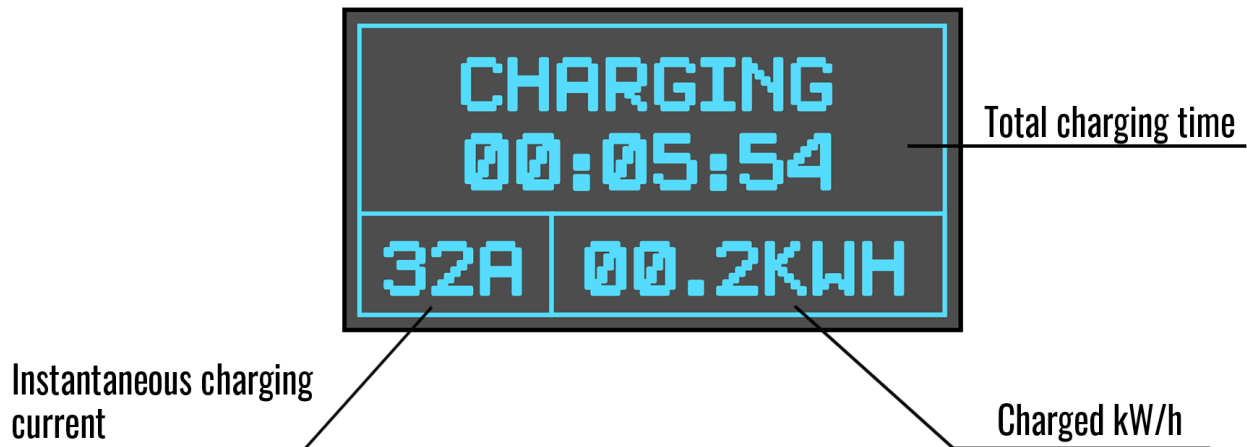
The user is solely responsible for selecting the correct network. Incorrect settings can cause the RCD to malfunction.

CHARGER CONNECTION

1. Inspect the charger for any visible damage. If it is damaged, do not use it. If service is required, contact your dealer or EV Expert s.r.o.
2. Connect the charger to an industrial CEE socket. Do not use extension cords!
3. The display on the charger lights up and a diagnostic is performed, followed by a basic information window.



4. After connecting the electric car, CHARGING starts and the total charging time and kW / h charged so far are displayed.



NEVER disconnect the charger while charging!

END OF CHARGING AND DISCONNECTING THE CHARGER

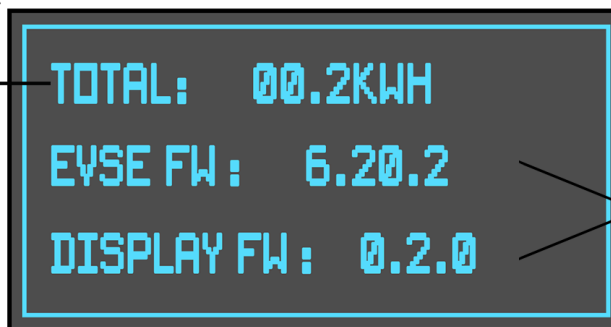
1. First stop charging on the side of the vehicle.
2. Unplug the charger.
3. If necessary, release the lock on the vehicle's charging port, and disconnect the charger from the vehicle.

When the electric vehicle finishes charging, the display shows an overview of the last charging session with information on the charged kW / h and the total charging time.



If the charger is not charging, it is possible to induce a complete overview of the charger's history by pressing the control button for 5 seconds.

Totally charged kw / h
during the time of using
the charger



Firmware version
of the portable
charger and its
control unit

ERROR MESSAGES

Warning

RELAY 2 MALFUNCTION	Relay B failed to close (Phase 2 + 3)	Restart the charger or Contact the manufacturer if the error persists
PHASE OR VOLTAGE PROBLEM	Undervoltage or a missing phase (displayed even in 1-phase portable chargers, where it is not an error, but only information)	Try plugging the charger into a different outlet
CHARGING LIMITED TEMPERATURE PROBLEM	Charging limitation due to high temperature	Unplug the charger and wait until it cools down
COMM ERROR	Error in communication with the control unit	Restart the charger or Contact the manufacturer if the error persists
POWERGRID PROBLEM	Another problem with the electrical network	Try plugging the charger into a different outlet Verify that the correct TN/IT network is set

Error

RELAY DISENGAGE FAULT	The relay remained closed	Restart the charger or Contact the manufacturer if the error persists
RELAY ENGAGE FAULT	The relay did not close	Restart the charger or Contact the manufacturer if the error persists
RCD PROBLEM	RCD error	Try another outlet or car
PE / N PROBLEM	Error on PE / N conductor	Try another outlet
INPUT VOLTAGE FAULT	Overvoltage	Try plugging the charger into a different outlet
CURRENT LEVEL FAULT	Overcurrent	Try plugging the charger into a different outlet
OVERTEMPERATURE	High temperature (over $\geq 80^{\circ}\text{C}$)	Unplug the charger and wait until it cools down
UNSUPPORTED CHARGING MODE	Unsupported charging mode	Change the charging mode

PROBLEM SOLVING

- If charging slows down or suddenly stops, check the on-board system in the vehicle and the display on the charger for an error code. Then follow the instructions related to the reported error. See the next page.
- If charging has stopped, it may help to disconnect the EVSE from the car and the CEE socket and reconnect it.
- If the problem is caused by the high temperature of the charger, stop charging until the charger cools down. Check that the EVSE is not in direct sunlight, if so, put it in shade. If overheating occurs regularly, contact your dealer or EV Expert s.r.o.

In case of persistent problems, contact EV Expert s.r.o. at info@evexpert.eu

TECHNICAL SPECIFICATIONS

Rated charging current	Max 1x32A or 3x32A* (22kW) depending on the connector
Consumption at rest	Less than 0,5W
Permissible ambient temperature	-40°C to +50°C
Degree of protection	Body and cable: IP65, when connected: IP44
Dimensions of the aluminum body	50 x 80 x 190mm (HxWxL)
Power supply terminal	CEE32 (red 5pin socket 32A)
Terminal for electric vehicle	Type 1 or Type 2 in compliance with IEC 62196-2 to 32A
Phases used	1, 2 or 3 (depending on the vehicle)
Manufactured in accordance with	IEC 62196, IEC 61851-1, CE, EMC, RoHS
Total length	5m or 7m
Compatible electrical network	TN, IT
RCD-A-EV (Integrated in the charger)	AC < 30mA / DC < 6mA

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



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