



User manual for SPARK LINE 32 – Mode 2 charging cable



SPARK LINE 32 – EVSE for 32A charging

Important safety instructions. This document contains important instructions and warning that must be followed when using the Electric Vehicle Supply Equipment (EVSE).

WARNINGS

- Read this document before using the EVSE. Failure to follow any of the instructions or warnings in this document can result in fire, electrical shock, serious injury or death.
- The EVSE/charging cable is designed for only charging electric vehicles that support IEC 62196-1 and IEC 61851-1. Do not use it for any other purpose or with any other vehicle or object
- This equipment is intended only for vehicles that do not require ventilation during charging
- Do not use the EVSE/charging cable in combination with sockets that is not compliant with all regulations
- Do not use the EVSE/charging cable if it is defective, fails to operate, appears cracked, corroded, frayed, broken, seriously damaged or LED indicates serious internal error
- Do not attempt to open, disassemble, repair, tamper with, or modify the EVSE. The EVSE is not user serviceable. Please contact your dealer for any necessary repairs
- Do not disconnect the EVSE while charging the vehicle
- In order to protect the EVSE or any of its components from damage while in use or during transport, handle it with care and do not subject it to strong force, impact, pull , twist, tangle or drag. Avoid stepping on it
- Protect the EVSE and its connectors from moisture and water. Do not use the EVSE in heavy rain or snowfall
- Do not touch the EVSE's end terminals with sharp metallic objects, such as wires, needles or other tools
- Do not damage the EVSE with sharp objects and do not insert foreign objects into any part of the EVSE
- Ensure that the charging cable of the EVSE is not blocking the way for pedestrians, other vehicles or objects
- Do not leave the EVSE in the hands of small children or incompetent people.
- If you have any questions or suggestions about the EVSE, please contact Elbilgrossisten at kundeservice@elbilgrossisten.no

Specifications

Rated charging current	Max 1x32A (7,4kW) or 3x32A* (22kW)
Charging settings (amperage)	6A / 10A / 13A / 16A / 20A / 25A / 32A
Phase	1 or 3 depending on connected car and power grid
Consumption in idle state	< 0,5W
Electric supply connector	Blue CEE 32A 3-pin (230V) or Red CEE 32A 5-pin (400V)
Electric vehicle connector	Type 1 or 2 in accordance to IEC 62196-2 for 32A
Residual current device (RCD)	Type A w/ detection of pulsating direct current (DC) - DC-RCM-protection accordance IEC 61851-1
Degree of protection	IP65 (EVSE and kabel) and IP44 (plugs while used)
Dimensions of the body (EVSE)	5cm x 8cm x 18,5cm (HxBxL)
Material used for body (EVSE)	Anodisert aluminium
Certifications	IEC 62196, IEC 91851-1, CE, EMC and RoHS
Cable length	5 or 7,5 meter
Compatible power grid	TN-S and IT
Operating temperature	-25°C to +40°C
Weight	5kg

*Max current and charging time depends on the characteristics of the electric vehicle that is being charged. The EVSE can limit the current in extreme temperatures.

Safety features

The electronics inside of the EVSE perform self-diagnosis when it is connected to the power grid and will display error codes via flashing LEDs. The self-diagnosis includes:

- Continuously monitoring of the wires between the power grid and EVSE (Only for TN-S)
 - When IT grid is selected, the monitoring/check is done when the EVSE is plugged into the CEE socket and right before starting to charge
- Continuously monitoring the wires between the EVSE and the electric vehicle
- Continuously monitoring for ground fault and the voltage
 - The EVSE will disconnect the electric vehicle within 40ms in case of overvoltage, residual current or detection of ground fault
- Continuously monitoring of switching elements
- Integrated protection against overheating
- Controlled by a 32-bit microprocessor

Using the EVSE / Charging cable – plugging in

1. Inspect the EVSE for any visible damage. Do not use the EVSE if damaged
2. Plug the CEE plug of the EVSE into an industrial CEE socket. Do not use extension cords.
3. Red or blue LED on the EVSE should be emitting for the first 2 seconds signaling ongoing initialization
4. Red is signaling that TN-S grid is selected. Blue is signaling that IT grid is selected.
5. In case the LED does not change after 2 seconds, there is some problem with the grid (most probably PE wire was not detected correctly)
6. In case you need to change the selected grid, just press and hold the button for 5 seconds during initialization phase. In some cases the EVSE can detect TN-S grid on its own, but in most cases, the user is solely responsible for selecting the right grid. EVSE will remember your selection for future use
7. If everything is fine and PE wire is detected, the current charging settings is signaled by green LED flashes:

Number of flashes	Amperage
1x	6A
2x	10A
3x	13A
4x	16A
5x	20A
6x	25A
7x	32A

8. After that, if everything is fine, the LED will light green
9. Before plugging the connector into the car, you can set charging current by pressing the button repeatedly. Each time the button is pressed, a red or blue LED (depending on selected grid) will be lit for confirmation. The number of presses determines the charging current in the same way as the initial signalization (see table above)
10. If the CEE socket has a circuit breaker rated at less than 32A or if there is a risk of concurrence with other appliances, set your car or the EVSE to the appropriate charging rate. It is important to set the right charging amperage before plugging in. Otherwise the circuit breaker could pop out
11. You can now plug the connector of the EVSE into the car socket

Using the EVSE/Charging cable – Status signaling

The EVSE can signal several statuses during, before or after the charging process. In general, a green-lit LED means that everything is fine.

- Green LED light – everything is fine
- Orange LED light – Charging the vehicle
- Flashing LED light – Error and number of flashes defines the type of problem

Flashing green/orange LED light – Charging speed can be affected

Number of flashes	Error message
1x	Problem with switching elements in the EVSE
2x	Undervoltage or missing phases
3x	Possible grid problems
4x	High temperature

Flashing red LED light – Charging will stop

Number of flashes	Error message
1x	Problem with switching elements in the EVSE
2x	Problem with residual current device (RCD)
3x	Problem with PE or neutral wire (N)
4x	Overvoltage
5x	Very high temperature
6x	Unsupported charging mode

All of these error messages/statuses are also written on the device for easier identification of the problem

Using the EVSE/Charging cable – unplugging

1. Do not unplug the EVSE while charging
2. First, stop the charging process from the car side
3. Release the latch on the car's charge port if needed
4. Unplug the EVSE/Charging cable from the car and then from the CEE socket
5. Close the car's charge port if needed

Troubleshooting

1. If charging slows down or stops abruptly, check the car's infotainment for any error message.
2. Check signaling LED on the EVSE (see Using the EVSE – status signaling)
3. If high temperature is the source of the problem, stopping charging until the EVSE or CEE socket cools down or directly cooling the EVSE/socket may help. If the problem appears regularly, check the wiring in your socket or contact your dealer
4. In some cases – if charging has stopped – it might help to unplug the EVSE from the car and from the CEE socket
5. If the problems persist contact your dealer

Warranty

60 months from date of purchase excluding shipping costs.