OPERATING MANUAL

EV CHARGING CABLE

MODE 2 | max. 11kW | 3-phase

8A – 10A – 13A – 16A

WELCOME

Thank you for purchasing your new EV charging cable mode 2. With the help of the operating instructions, you will be able to use the functions of your charging cable optimally. We hope you enjoy using your new charging cable.

EXPLANATION OF SYMBOLS

The product complies with the requirements of the EU Directive.

Do not dispose of the product in household waste! Dispose of the product at an authorised waste disposal company or at a municipal waste disposal facility. Observe the currently valid regulations. In case of doubt, contact the disposal facility.

Attention! A dangerous situation may occur if the measures are not observed. Risk of death, serious injury and burns!

Do not use charging cables that are damaged at the housing, plug or cable!

Do not use extension cables of any kind!

Do not use multiple sockets!

Do not use travel adapters!

Vehicle coupling type 2

Follow the operating instructions!

Do not expose to direct sunlight!

INTENDED USE

Use the cable exclusively for charging electric and hybrid vehicles with alternating current (AC) at CEE sockets with 16A load capacity. The cable may only be used in conjunction with standardised and designated vehicle inlets according to IEC 62196-2 (type 2 plug).

Compliance with all the information in these operating instructions is also part of the intended use. Any other use or use beyond this is considered misuse and can lead to dangerous situations. The user is liable for any damage caused by improper use.

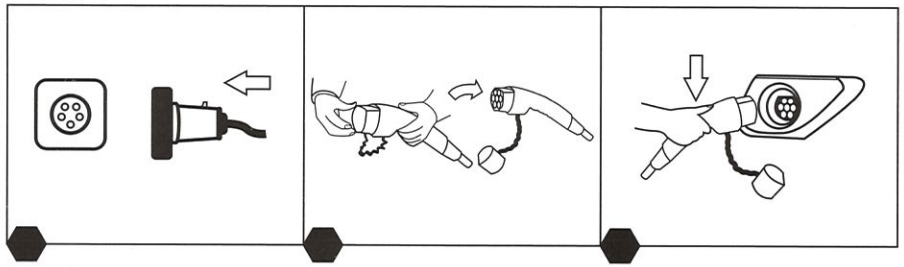
SAFETY INSTRUCTIONS

- Only connect to a fault-free and suitable infrastructure (16A CEE socket). If in doubt, have a specialist check the suitability. Make sure that the fuse is not overloaded and that no other loads are connected to this fuse.
- Improper handling of the charging cable can cause explosions, electric shocks and short circuits. Observe the generally applicable safety precautions and the instructions.
- Before each use, check the charging cable and the contacts for damage and dirt.
- Never charge with a damaged charging cable, vehicle inlet, control box or CEE socket.
- Never charge with contacts that have become dirty or damp.
- Never pull off the plug by force. Dangerous electric arcs can cause death or serious injury.
- Only connect the charging cable to vehicle inlets and CEE sockets that are protected from water, direct sunlight, moisture and other liquids.
- Some electric vehicles allow the vehicle to be started with the charging cable plugged in. Always make sure to disconnect the charging cable before driving off.
- Do not use the charging cable with an extension cable or an adapter. Modifications or alterations are dangerous to life and will immediately void the warranty.
- If the plug connection smokes or melts, never touch the charging cable. If possible, stop the charging process. Disconnect the relevant mains socket from the power supply (fuse, FI, switch).
- Make sure that the charging cable is not accessible to children. Only persons with a valid driving licence for motor vehicles may operate the charging cable.
- Only use the cable in protected outdoor areas.

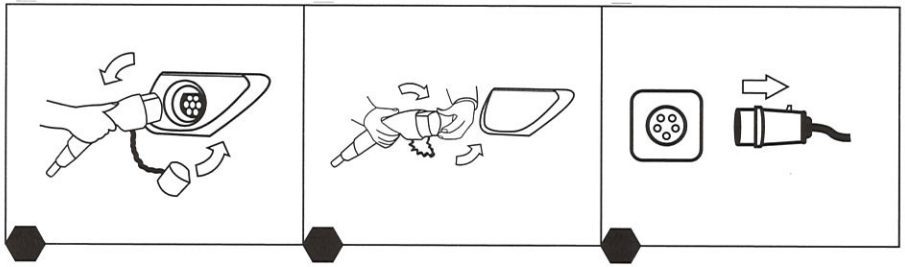
OPERATION

1. Read the instructions for the charging cable and the vehicle completely and carefully.
2. Switch off the vehicle engine and put the gear lever in park.
3. Connect the mains plug of the charging cable to a suitable socket (400V 16A).
4. The green LED lights up to indicate that the vehicle is ready for charging.
5. Remove the protective cap from the charging plug and connect the plug to the vehicle's charging socket.
6. The charging process starts automatically as soon as the blue LED starts flashing.
7. Charging is complete when the green LED and the blue LED light up continuously.
8. When the charging process is finished, pull the charging plug out of the charging socket of the vehicle and then pull the mains plug out of the mains socket (vehicle must be unlocked).
9. Put the protective cap on the charging plug and roll up the cable without kinks.

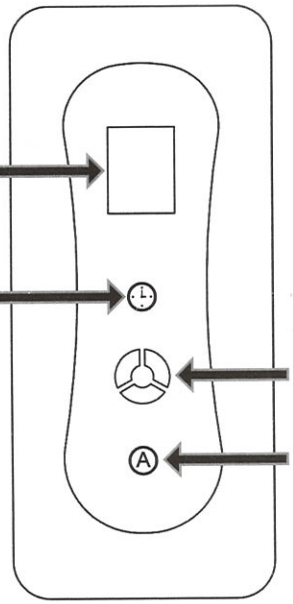
Start charging



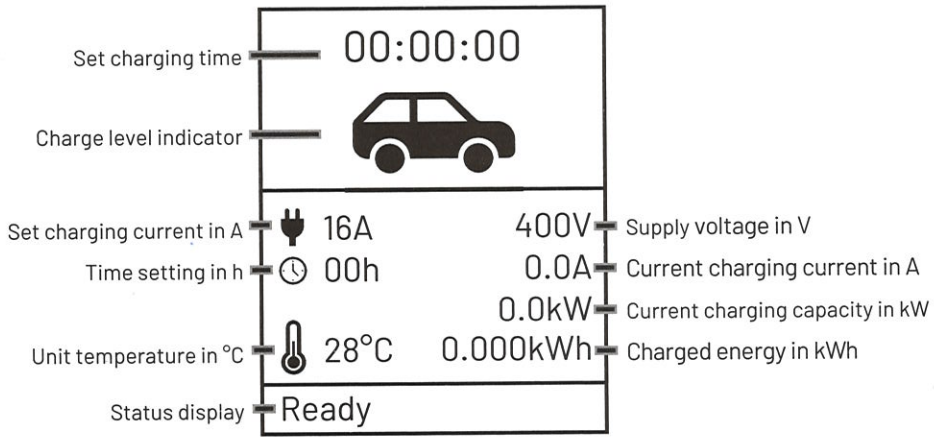
End charging



OPERATING ELEMENTS



LCD CHARGING STATUS INDICATOR



ERROR

The charging cable has several monitoring functions that are indicated by the LEDs.

LED GREEN	LED BLUE	LED RED	DESCRIPTION	DECLARATION
●	●	●	Standby	Sleep mode.
☼	●	●	Normal connection	Charging cable is connected to the vehicle.
●	☼	●	Charging	Battery is charging.
●	●	●	Charging completed	Battery is fully charged.
●	●	●	Failed self-test	The control box cannot establish communication with the vehicle. Check that the connectors are correctly seated and check for dirt in the de-energised state. If the fault cannot be rectified, send the charging cable to the manufacturer for inspection.
●	●	2x ☼	Low voltage	The supply voltage is outside the tolerance range. Check the mains voltage.
●	●	3x ☼	Over voltage	The supply voltage is outside the tolerance range. Check the mains voltage.
●	●	4x ☼	Leakage current	The control box detects a fault current. Stop charging, disconnect the charging cable from the vehicle and check the wiring / vehicle. Visit a specialist workshop.
●	●	5x ☼	Over current	The charging current is above the maximum value. Stop charging and check the compatibility of the charging cable.
●	●	6x ☼	Charger overheated	The control box is overheated. This can be caused, for example, by direct sunlight during the charging process. The charging process is interrupted. After cooling down, the charging process starts automatically.
●	●	7x ☼	PE error	The control box detects a fault in the PE line. Check mains socket / mains connection.
● = ON ● = OFF ☼ = FLASH				

TECHNICAL DATA

Input:	400V
Charging plug:	IEC62196-2 Type 2
RCD:	30mA AC + 6mA DC
Rated power:	max. 11kW
Output:	8A – 10A – 13A – 16A
Number of phases:	3-phase
Contact resistance:	≤0.3mΩ (L/N)
Isolation resistance:	500MΩ (1.000V AC)
High voltage strength:	2.600V AC
Contact temperature rise:	≤50K
Charging mode:	IEC 61851-1
Operating humidity:	5% -95% non condensing
Protection class:	IP55 (Vehicle plug in mated condition) IP54 (Control box)
Flammability class:	UL94 V-0
Protective functions:	Overvoltage, undervoltage, overcharging and overheating protection (charge at +85°C interrupt, continue at 55°C), residual current, PE control
Pull-off force:	45N...80N
Plugging cycles:	≥10.000x (Load-free)
Dimensions control box:	240x107x61mm
Operating temperature:	-20°C...+50°C
Cable:	5+1m length, 3*2.5mm^2+0.75mm^2
Weight:	2.800g

LOADING TIME

The duration of the charging process depends on the capacity, the state of charge of the vehicle's high-voltage battery and the permissible charging power of the charging cable and the CEE socket. The charging current (max. 16A) is regulated by the vehicle (charging power may vary). At very low and very high temperatures, the charging performance may be impaired.

CLEANING AND STORAGE

Only clean the cable when it is not connected to the vehicle and not to the socket. Only clean the charging cable and the dirty contacts with a dry cloth. Never use harsh cleaning agents, water or steam cleaners. Never immerse the product in liquids. Store the charging cable with the protective caps on in a dry and clean place.

ENVIRONMENTAL PROTECTION

Information according to the Electrical and Electronic Equipment Act (ElektroG):
Since 24 March 2006, old electrical appliances may not be disposed of with household waste. These electrical and electronic appliances are marked with a crossed-out dustbin. Owners of old appliances from private households can dispose of them at the collection points of the public waste management authorities or at the take-back points set up by manufacturers or distributors in accordance with the ElektroG.

GUARANTEE

The product is guaranteed for 2 years. No guarantee can be given for damage resulting from non-observance of the operating instructions.