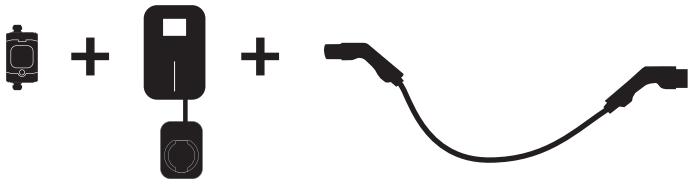
UP TO 900 €** KFW FUNDING NOW!

ev tap®

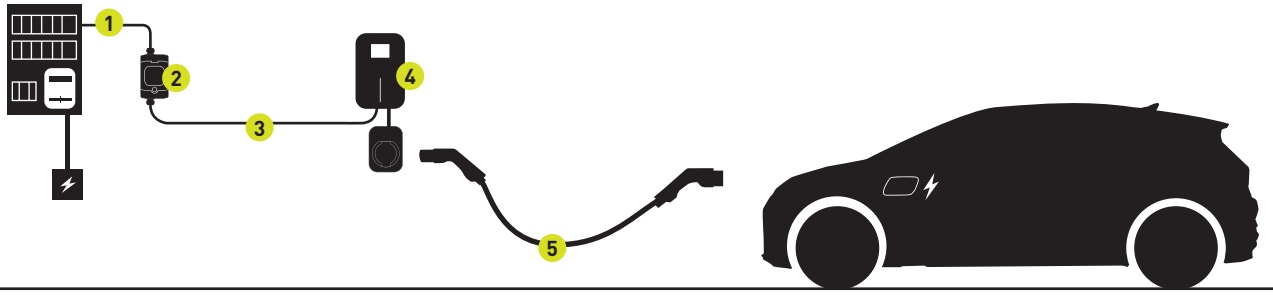
# SYSTEM SOLUTIONS.
# FOR ELECTROMOBILITY.



## connected to power

# ONE SYSTEM.
# MANY POSSIBILITIES.

**From the main distributor to your electric vehicle, everything from a single source**




**EVtap® system components**

1. Cable from main distributor to sub-distributor
2. Sub-distributor in 2 variants
3. Cable from distributor to wallbox
4. Wallbox
5. Charging cable for electric vehicles

# TABLE OF CONTENTS.
## EVERYTHING AT A GLANCE.



**Electromobility your daily companion.**
Charging Electric and PHEV vehicles occupies an important place in our everyday lives and places new demands on the entire energy supply. The increasing number of PV systems (some with storage functionality) enables convenient charging of electric vehicles at home. Wallboxes, charging stations, EV charging cables and distribution boxes will become important components of the future power grid. Vehicles can be charged easily and smartly at the electric „pump".

**Compact. Smart. Powerful.**
With the EVtap® charging cable, HIK and HIS offer a special product with clear design features, attractive, functional and compatible with most makes of car and applications.

**Leading by a distance. Indispensable.**
Our specially developed EVtap® charging cable is an ideal companion for every electric vehicle and is available in different variants and lengths. Options for wallbox and ICCB manufacturers are available. We can configure variants such as open cable ends, spiralised, CEE or Schuko plugs on request. The protective caps offer protection against water and dirt even in adverse conditions. The highest quality standards are the bedrock of the production process and the choice of components.

# THE WALLBOX.
# CORE VALUE.

# 11kW


*including mounting accessories*

connected to power

# TECHNICAL DATA.*

## 11 kW WALLBOX.

| Item number | EV-WB-11-00-03-AL |
|---|---|
| Standard | IEC 61851, IEC 61439-7 |
| Nominal voltage | AC 230V / 400 V |
| Rated frequency | 50 / 60 HZ |
| Charging capacitiy | 11 kW |
| Rated current | 16 A |
| Phases | 3 |
| Connection type | Type 2 according to IEC 62196-2 |
| Charging mode | Mode 3 |
| Residual Current operated Circuit-Breaker (RCCB) | Typ A + 6mA DC |
| Degree of protection/ protection class IP | IP66 |
| Standby consumption | <8 W |
| App available | YES |
| RFID available | NO |
| Wifi / Bluetooth available | YES |
| Display | 3,5'' (inch)LCD color display |
| LED status indicator light | YES (green) |
| Overvoltage protection | YES |
| Overload protection | YES |
| Short circuit protection | YES |
| Temperature monitoring | YES |
| Lightning protection | YES |
| Power adjustment | YES via APP |
| Dimensions | 29,5 / 19,5 / 6,5 cm |
| Weight | 6 – 8 Kg |
| Ambient air temperature | -40°C bis +75°C |
| Altitude | max. 2000m above sea level |
| Relative humidity | max. 95% (non-condensing) |
| Mounting method | wall mounted |
| Standards | CE, RoHS |

UP TO 900 €** KFW FUNDING NOW!

KFW FUNDING 440

**Secure KfW funding for your charging station now!**
With the new KfW funding initiative „Charging stations for electric cars - residential buildings (440)", you will receive a grant of € 900 gross for the purchase and installation of your private charging station**.

EVSE Master

Laden im App Store

JETZT BEI Google Play

**Convenient and easy to control via the app**
The EVSE Master App offers the function to enable you to control the starting and stopping of your charging processes (via WLAN or Bluetooth). Evaluation and archiving of the charging history as well as user management and configuration of the charging power are further important functions of the app.

## EV+ PHEV

**Charges most Electric and Plug-in Hybrid vehicles.**
Thanks to the wide range of charging capacity options available, the EVtap® Wallbox is compatible with almost every electric car model available.

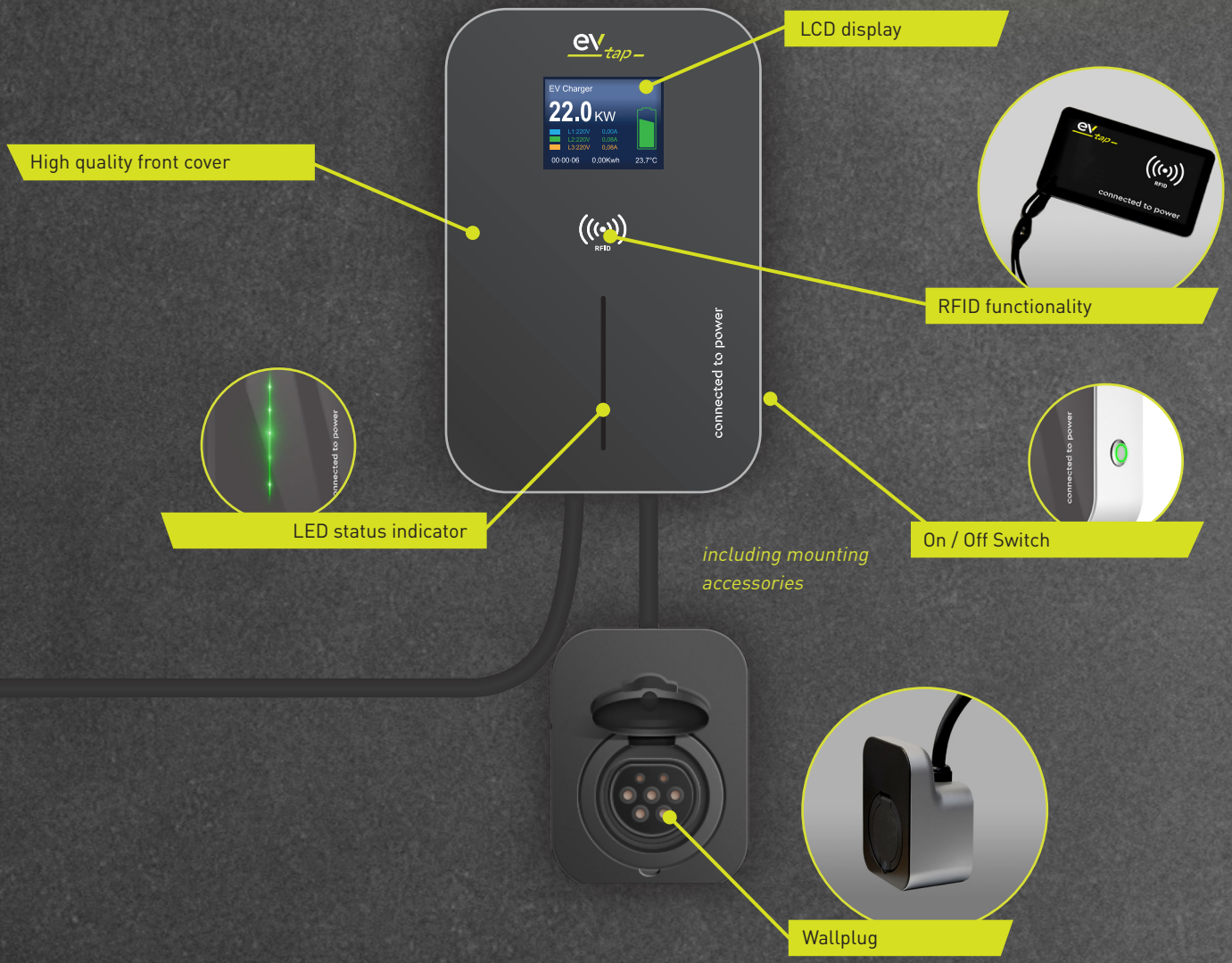
**Ensures your battery is fully charged every morning when you leave the house.**
Avoid the stress of not being able to find an available charging station and using cost intensive, public charging stations.

*subject to technical changes

** Subject to the conditions and the approval of the KfW

# THE WALLBOX.
# CORE VALUE.

# 22kW




*including mounting accessories*

connected to power

# TECHNICAL DATA.*

## 22 kW WALLBOX.

| Item number | EV-WB-22-01-03-AL |
|---|---|
| Standard | IEC 61851, IEC 61439-7 |
| Nominal voltage | AC 230V / 400 V |
| Rated frequency | 50 / 60 HZ |
| Charging capacitiy | 22 kW |
| Rated current | 32 A |
| Phases | 3 |
| Connection type | Type 2 according to IEC 62196-2 |
| Charging mode | Mode 3 |
| Residual Current operated Circuit-Breaker (RCCB) | Typ A + 6mA DC |
| Degree of protection/ protection class IP | IP66 |
| Standby consumption | <8 W |
| App available | NO |
| RFID available | YES |
| Wifi / Bluetooth available | NO |
| Display | 3,5'' (inch)LCD color display |
| LED status indicator light | YES (green) |
| Overvoltage protection | YES |
| Overload protection | YES |
| Short circuit protection | YES |
| Temperature monitoring | YES |
| Lightning protection | YES |
| Power adjustment | NO |
| Dimensions | 29,5 / 19,5 / 6,5 cm |
| Weight | 6 – 8 Kg |
| Ambient air temperature | -40°C bis +75°C |
| Altitude | max. 2000m above sea level |
| Relative humidity | max. 95% (non-condensing) |
| Mounting method | Wall mounted |
| Standards | CE, RoHS |

* subject to technical changes


RFID

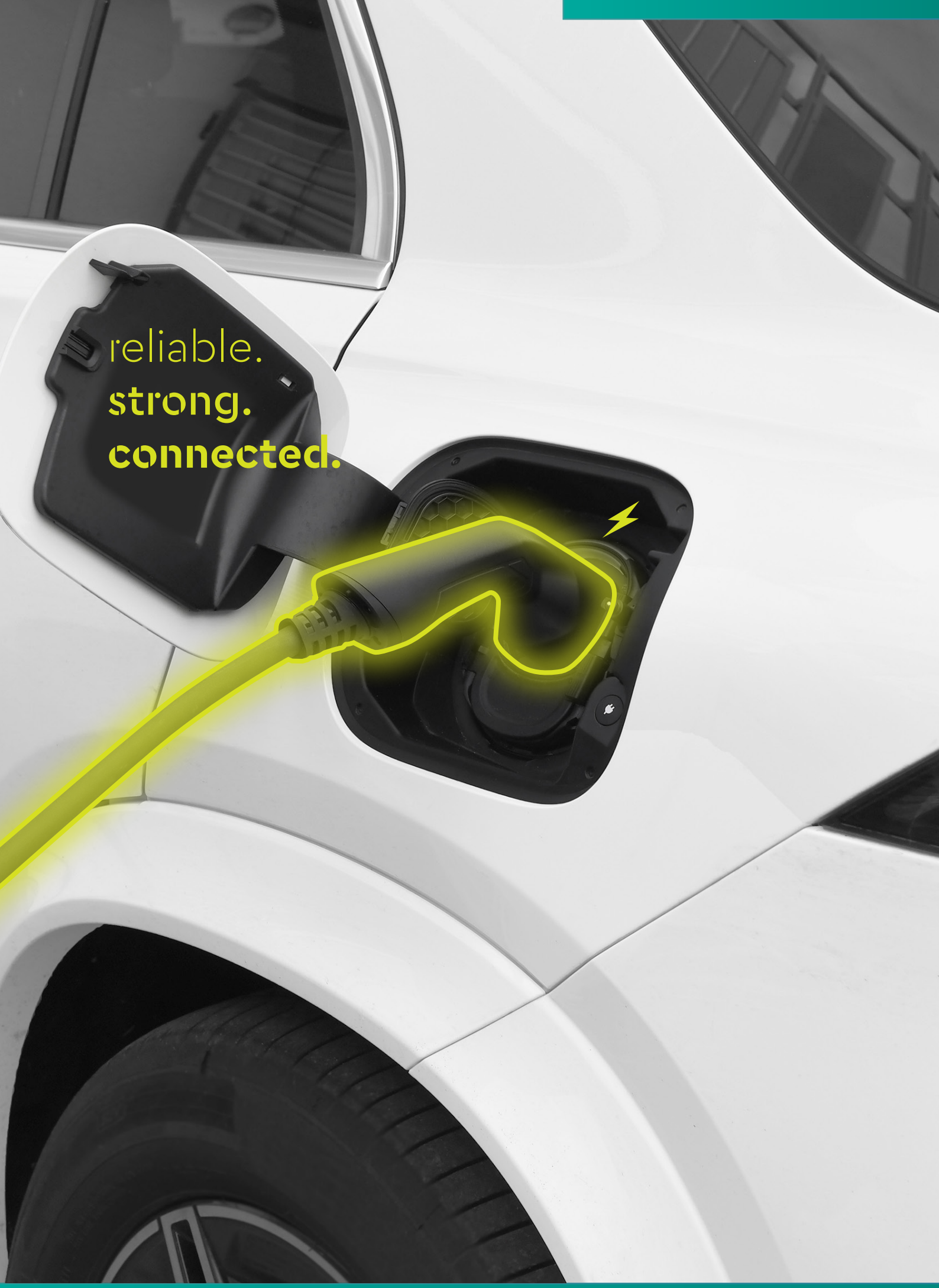
**Practical user management thanks to RFID technology**
Modern access protection via RFID chip card. Simply use your car charging cable, connect it to the E-car and the wallbox. After activation via the RFID card, the charging process starts immediately. This charging station is suitable for all types of parking spaces.

**All-round safety for battery and vehicle**
Integrated temperature monitoring, voltage fluctuation protection and DC fault current detection ensure that your battery is completely protected and can be used most effectively. By reducing external influences, the longest possible service life and reliability for both battery and vehicle are ensured.

## EV+ PHEV

**Charges most Electric and Plug-in Hybrid vehicles.**
Thanks to the wide range of charging capacity options available, the EVtap® Wallbox is compatible with almost every electric car model available.

**Ensures your battery is fully charged every morning when you leave the house.**
Avoid the stress of not being able to find an available charging station and using cost intensive, public charging stations.


reliable.
strong.
connected.

# CHARGING ON THE MOVE.
# WITHOUT COMPROMISE.

The EVtap® charging cable offers the following advantages:

- Increased safety thanks to temperature monitoring of the power contacts.
- Optimised battery charging thanks to signal contacts for communication between vehicle and charging station
- Robust design and long service life due to high impact, pressure and rollover resistance
- Standardised Type 2 charging plug, compatible with most electric and PHEV vehicles (IEC 62196-2)
- Full protection against contact and splashing water from all directions thanks to IP54 certification and protective cap
- Locking of the cable possible on the station and vehicle side
- High-quality HIKRA® cable in variable lengths with mineral oil and diesel resistance (IEC 628931)
- Supports 1- and 3-phase charging with 230V/400V, maximum 32A

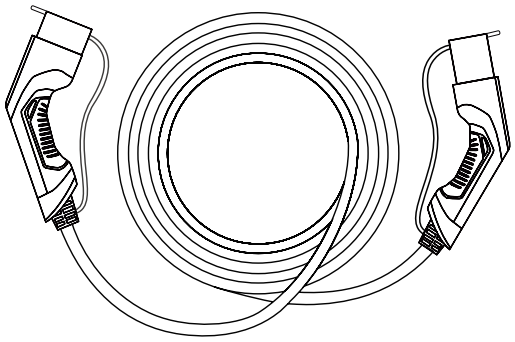
# THE CHARGING CABLE.
## BEST CONNECTION.

The EVtap® charging cable is your reliable partner for fast charging of electric and hybrid vehicles. With a Mode-3 Type-2 charging cable, all public AC charging stations throughout Europe can be used, so this cable belongs in the boot of every electric.

Mode-3 Type-2 ensures single-phase or three-phase AC fast charging with up to 22 kW. In Mode-3, the required charging power is determined by communication between the charging station and the vehicle.

# TECHNICAL DATA.*
## CHARGING CABLE.

- 1 and 3-phase charging
- Comfortable handling
- Low insertion and extraction forces
- High quality and robust
- Cable lengths of 3, 5 and 7 metres
- HIKRA® EVC cable



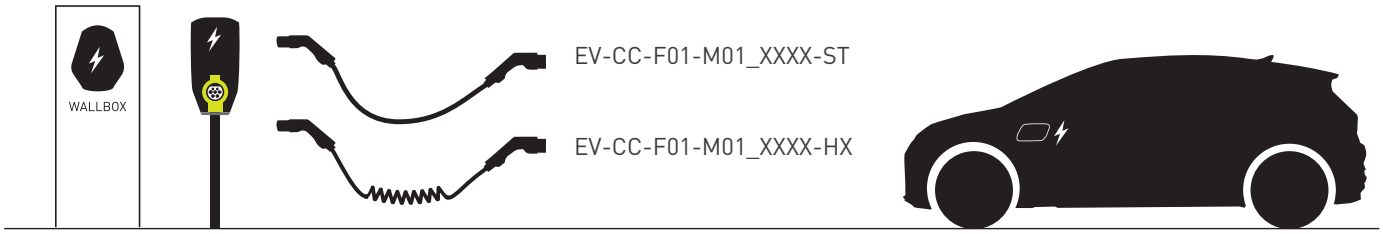
| Item number | EV-CC-F01-M01-XXXX-ST | | | EV-CC-F02-M02-XXXX-ST | | |
|---|---|---|---|---|---|---|
| Plug and connector | IEC 62196-2 | | | IEC 62196-2 | | |
| Connector type |  Type-2 connector to type-2 plug | | |  Typ-2 connector to type2 Stecker | | |
| Charging capacity | 11 kW | | | 22 kW | | |
| Rated current | 20 A | | | 32 A | | |
| Load type | AC | | | | | |
| Nominal voltage | 480 V | | | | | |
| Rated frequency | 50 Hz | | | | | |
| Number of phases | 3 | | | | | |
| Number of power contacts | 5 (L1, L2, L3, N, PE) | | | | | |
| Insertion/withdrawal cycles | > 10.000 | | | | | |
| Insertion force /withdrawal force | < 100 N | | | | | |
| Operating temperature | -30° C to +50° C | | | | | |
| Protection class | IP54 with protective cap | | | | | |
| Type of conductor | straight, black | | | | | |
| Cable type | (HIKRA® EVC) H07BZ5-F according to EN 50620, IEC 62893 | | | | | |
| Cable cross-section | 5 x 2,5 $mm^2$ + 0,5 $mm^2$ | | | 5 x 6 $mm^2$ + 0,5 $mm^2$ | | |
| Cable diameter | 12,80 ± 0,4 mm | | | 16,5 ± 0,4 mm | | |
| Conductor length/ cable length (meter) | 3 | 5 | 7 | 3 | 5 | 7 |
| Weight (Kg) | 1,5 | 2,0 | 2,5 | 2,2 | 3,1 | 4,0 |

*further individual designs available on request

# PRODUCT VARIANTS.*
# OEM SOLUTIONS.

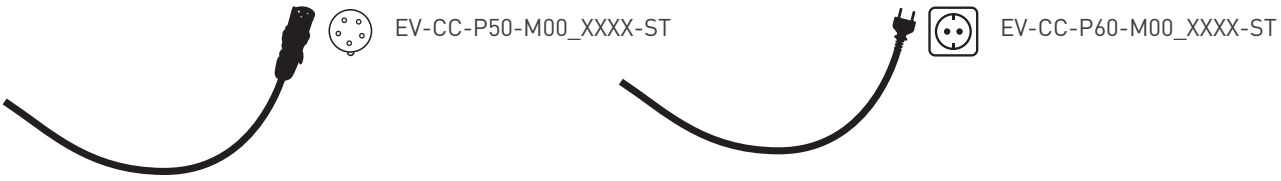
Our AC charging cables are suitable for many fields of application in different product variants. In addition to private use, the charging cables can also be used by wallbox and ICCB manufacturers. We are flexible and will develop and configure your customised solution in the field of electro-mobility. In everything, from the plug to the charging cable as desired, we are your reliable partner.

**VARIANT 1** For connection to public **charging stations** or **wallboxes** at home




**VARIANT 2** Type 2 coupling with open cable end for **wallbox manufacturers**

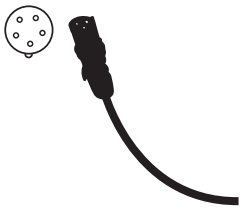

**VARIANT 3** **CEE** or **Schuko plug** with open cable end for **manufacturers of control cabinets**

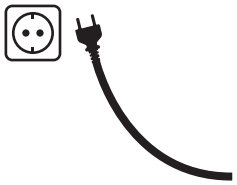



*subject to technical changes

# connected to power

# TECHNICAL DATA.*
# OTHER VARIANTS.





| Item number | EV-CC-F01-M00-XXXX-ST | EV-CC-F02-M00-XXXX-ST | EV-CC-P50-M00-XXXX-ST | EV-CC-P51-M00-XXXX-ST | EV-CC-P60-M00-XXXX-ST |
|---|---|---|---|---|---|
| **Plug and connector** | IEC 62196-2 | IEC 62196-2 | IEC 60309 | | - |
| **Connector type** | Type-2 connector to open end | | CEE plug to open end | | Schuko plug to open end |
| **Charging capacity** | 11 kW | 22 kW | 11 kW | 22 kW | - |
| **Rated current** | 20 A | 32 A | 16 A | 32 A | 16 A |
| **Load type** | AC | | | | |
| **Nominla voltage** | 480 V | | 400 V | | 250 V |
| **Rated frequency** | 50 Hz | | 50 + 60 Hz | | - |
| **Number of phases** | 3 | | 3 | | 1 |
| **Number of power contacts** | 5 (L1, L2, L3, N, PE) | | 5 (L1, L2, L3, N, PE) | | 3 (L1, N, PE) |
| **Insertion/withdrawal cycles** | > 10.000 | | - | | - |
| **Insertion force, Withdrawal force** | < 100 N | | - | | - |
| **Operating temperature** | -30° C to +50° C | | - | | - |
| **Protection class** | IP54 with protective cap | | IP44 | | IP54 |
| **Type of conductor** | straight / black | | | | |
| **Cable type** | (HIKRA® EVC) H07BZ5-F according to EN 50620, IEC 62893 | | | | |
| **Cable cross section** | 5 x 2,5 $mm^2$ + 0,5 $mm^2$ | 5 x 6 $mm^2$ + 0,5 $mm^2$ | 5 x 2,5 $mm^2$ + 0,5 $mm^2$ | 5 x 6 $mm^2$ + 0,5 $mm^2$ | 3 x 2,5 $mm^2$ + 0,5 $mm^2$ |
| **Cable diameter** | 12,8 ± 0,4 mm | 16,5 ± 0,4 mm | 12,8 ± 0,4 mm | 16,5 ± 0,4 mm | 10,1 ± 0,3 mm |
| **Conductor length/ cable length (meter)** | 3 5 7 | 3 5 7 | 3 5 7 10 | 3 5 7 10 | 3 5 7 10 |
| **Weight (Kg)** | 1,1 1,6 2,0 | 1,8 2,7 3,6 | 0,9 1,3 1,8 2,5 | 1,6 2,5 3,5 4,8 | - - - - |

EV-CC-XX-XX-XXXX-XX

- Electric Vehicle (EV)
- Charging Cable
- XX: F01 Type 2 16 A female; F02 Type 2 32 A female; P50 CEE 16 A; P51 CEE 32 A; P60 Schuko
- XX: M00 Open end; M01 Type 2 16 A male; M01 Type 2 32 A male
- XXXX: 0300 3 Meters; 0500 5 Meters; 0700 7 Meters; 1000 10 Meters
- XX: ST Straight

**NOTE:**

Cable variants with CEE and Schuko plugs can only be configured with an open cable end.

*subject to technical changes

# ACCESSORIES.
# ALWAYS SUITABLE.

### Bag for EVtap® charging cable

Charging cable bag with double zipper and carrying handle. Suitable for charging cables up to 5 m (depending on cable diameter).

| | |
|---|---|
| Dimensions outside: | 35,5 x 32 x 9,8 cm |
| Dimensions inside: | 30 x 30 x 9 cm |
| Weight: | 0,550 kg |
| Colour: | Schwarz |

EV-CCA-01

### Mounting Post for EVtap® Wallbox

The post makes it possible to use the Wallbox as a free-standing charging station and thus to have more options when choosing the installation location independent of existing walls.

| | |
|---|---|
| Height post | 149 cm |
| Width post: | 12 cm |
| Depth post: | 5,5 cm |
| Width base: | 25 cm |
| Depth base: | 19 cm |
| Colour: | black |

EV-CCA-05

### EV wall-mounted plug holder type 2

Wall-mountable plug holder type 2 (IEC62196). Angled housing for dry and practical storage of electric vehicle plugs when not in use.

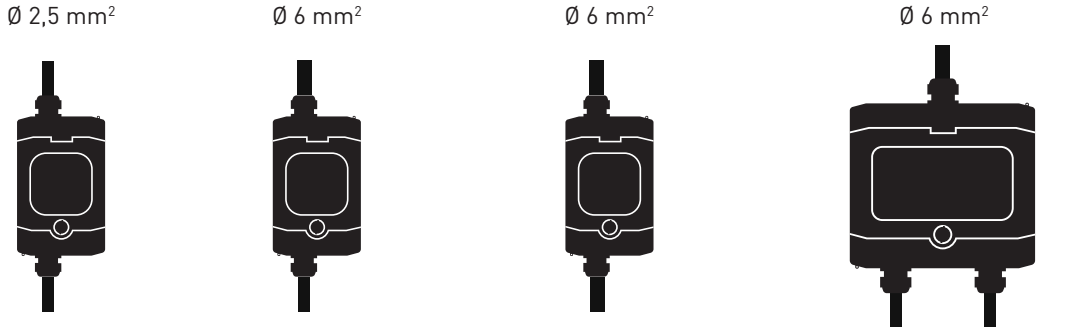
| | |
|---|---|
| Dimensions (outside): | 9,8 x 11 cm |
| Colour: | Black |

EV-CCA-03

# SUB-DISTRIBUTOR.
# WITHOUT EQUAL.

We are your supporting partner on the way to a quick wallbox installation

- Our sub-distributors are fitted quickly and easily. Thanks to our high standard and
- our modular principle, we create a plug-and-play overall solution that enables many individual variations
- In this way, we offer frustration-free support for every electrician.
- Our 3-phase sub-distributor is suitable for every wallbox and every household. It is suitable for three-phase.
- We ensure that you receive the complete installation material in addition to the wallbox.
- The sub-distribution board is manufactured in accordance with DIN EN 61439-3 standards for distribution boards.
- We also offer you the matching cable for the sub-distributor, with individual lengths. We will be happy to select the right cable for the sub-distribution board for you. You only need to inform us of the required length.



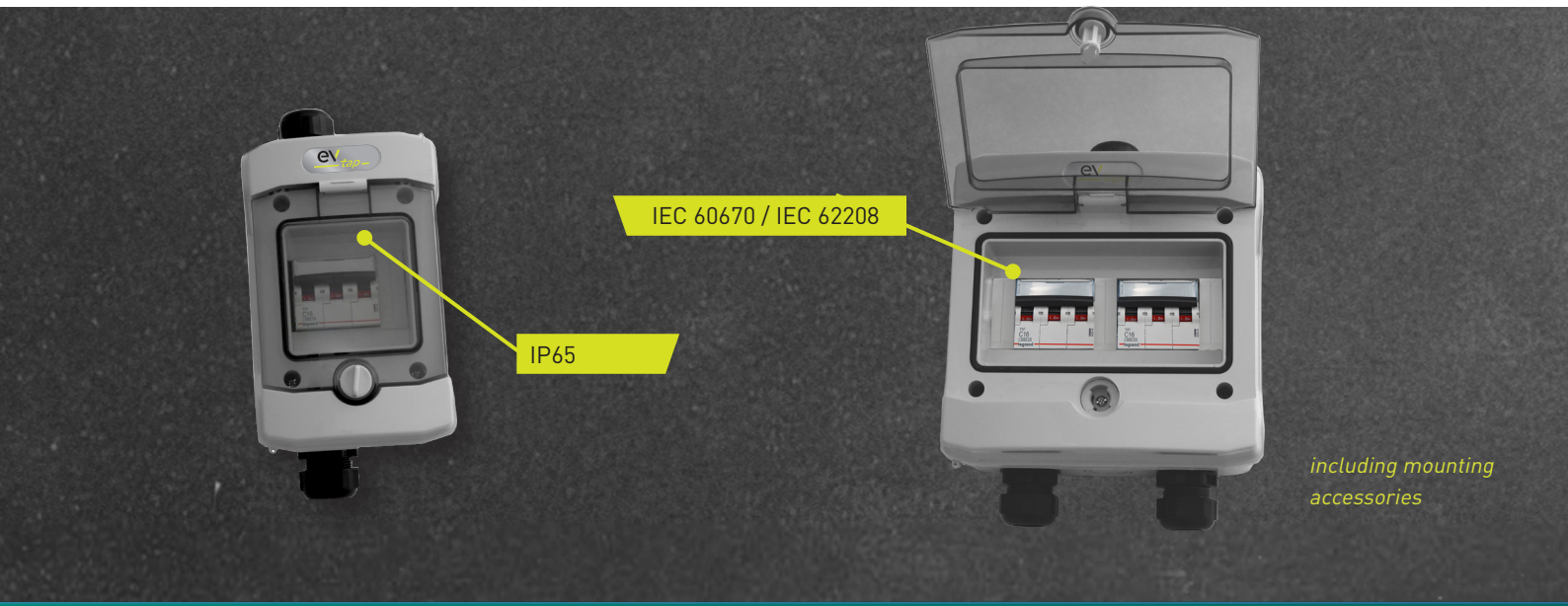

EV-WBI-11-2,5-1 | EV-WBI-11-6-1 | EV-WBI-22-6-1 | EV-WBI-11-6-2

The cable for the connection from main to sub-distributor and from sub-distributor to wallbox.

## NYM-J Cable

| HI Nr. | 704182 | 701167 |
|---|---|---|
| **Cable structure** | 5 x 2,5 | 5 x 6 |
| **External cable diameter in mm** | 12 | 14,5 |
| **Copper index Kg/Km** | 120 | 288 |
| **Weight Kg/Km** | 270 | 540 |
| **PVC sheathed cable** | according to DIN VDE 0250-204 | |
| **Temperature range** | moving +5°C bis +70°C / not moving -40°C bis +70°C | |
| **Nominal voltage** | 300 / 500V | |
| **Minimum bending radius** | fest verlegt 4x Leitungs-Ø | |
| **PVC self-extinguishing and flame-retardant** | according to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2 | |

| Item numbere | EV-WBI-11-2,5-1 | EV-WBI-11-6-1 | EV-WBI-11-6-2 | EV-WBI-22-6-1 |
|---|---|---|---|---|
| **Electrical capacity** | 11 kW | | | 22 kW |
| **Box** | | | | |
| **Dimensions** | 201x128x120mm | | 201x202x120mm | 201x128x120mm |
| **Material box** | Acrylonitrile-styrene-acrylate copolymers (ASA) | | | |
| **Material door** | Polycarbonate (PC) | | | |
| **Norm** | IEC 60670 / IEC 62208 | | | |
| **DIN rail** | 1x4 | | 1x8 | 1x4 |
| **Protection class** | IP 65 | | | |
| **Resistance to impact** | IK08 | | | |
| **Ambient temperature range** | -25°C to +60°C | | | |
| **Operating voltage** | 400 V AC / 1500 V DC | | | |
| **Protection class/ class** | II | | | |
| **Cable gland at the top** | 1xM25 | 1xM32 | 1xM32 | 1xM32 |
| **Cable gland a the bottom** | 1xM25 | 1xM25 | 2xM25 | 1xM32 |
| **Miniature circuit breaker (MCB)** | | | | |
| **Number of mcb** | 1 | | 2 | 1 |
| **Tripping characteristic class** | C | | | |
| **Rated current** | 16 A | | | 32 A |
| **Rated voltage** | 400 V | | | |
| **Poles** | 3 | | | |
| **Voltage type / type of voltage** | AC | | | |
| **Rated frequency** | 50-60 Hz | | | |
| **Terminals** | | | | |
| **Conductor** | 3 | | | |
| **Connection cross-section** | 0,5mm² to 6mm² | | | |



# DATA SHEET.
## CABLE.

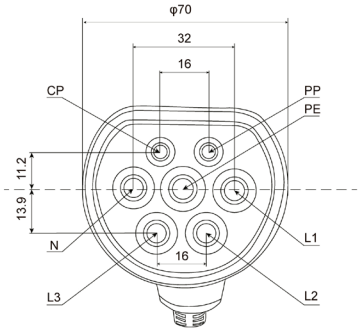
HIKRA®

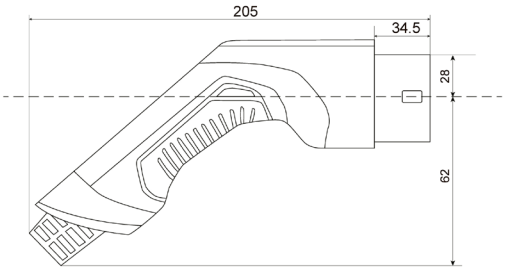
HIKRA® EVC

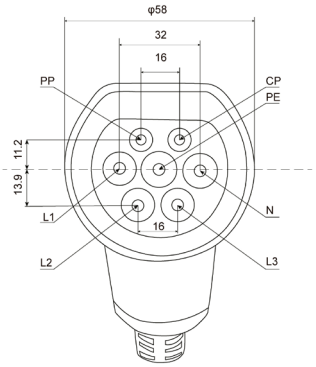
| | |
|---|---|
| **Construction** | |
| **Strand construction** | E-Copper bare (electrolytic copper), fine wire acc. IEC 60228 Class 5 |
| **Insulation** | Electron-beam cross-linked Polyolefin (EVI-2) |
| **Outer Sheath** | TPU- HFFR (EVM-1) |
| **Colour** | Sheath: black |
| **Marking** | HIKRA EVC VDE Zert. 40053157 CE |
| **Bauartkurzzeichen** | H07BZ5-F |
| **Standards** | DIN EN 50620, IEC 62893 |
| **Technical characteristics** | |
| **Nominal voltage $U_0/U$** | 450/750 V DC / AC |
| **Maximum permitted operating voltage** | 480V AC (phase-earth); 825V AC (phase-phase) |
| **Voltage test on strands** | 2,0 kV AC with a thickness up to 0,6 mm; 2,5 kV with a thickness > 0,6 mm; 5 Min. acc. EN50395 Section 7 |
| **Voltage test** | 3,5 kV AC; 15 minutes acc. EN 60395 Section 6 |
| **Current carrying capacity** | Acc. EN 50620, Annex E |
| **Short-circuit-temperature** | 250° C/5s |
| **Surface resistance** | EN 50395 Section 11 (≥ 109 Ohm at 100 up to 500 V DC) |
| **DC-resistance of energy strands** | EN 50395 Section 9 (10 days, 80 ± 5 °C; 0,9 kV DC) |
| **Capacity between data- and energy strands** | Capacity < 150 pF/m at 60 ± 5°C Water temperature acc. EN 50289-1-5, 4.3.1 |
| **Material properties** | |
| **UV stability** | Acc. EN 50620, Annex F; EN 50289-4-17, Method A |
| **Ozone resistance** | EN 50396 Section 8.1.3, Method B |
| **UV resistance test on sheath** | acc. EN 50620, Annex F; EN 50289-4-17, Method A (720h; 60°C ± 3°C; 50 ± 5% humidity) |
| **Insulation resistance** | EN 50395 Section 8.1; Carried out at 20°C and 90°C in water; Results acc. EN 50620, Table 4a |
| **Dynamic penetration test** | Spring-steel-needle through insulation or sheath (EN50618 Annex D) |
| **Direct burial** | Long-term water immersion at 90°C, duration 12 weeks; Insulation resistance ≥ 3GΩ (internal examination acc. UL44 cl. 5.4 & UL2556 6.4.4.2.1) |
| **Crushing- and impact-resistance** | Impact-Resistance gemäß UL 854.23 und Crushing-Resistance gemäß UL 854.24 (zusätzliche interne Prüfungen) |
| **Sheath resistance against acid and alkaline** | Impact-Resistance UL 854.23 and Crushing-Resistance UL 854.24 (internal examination) |
| **Test of the vertical flame spread** | flame-retardant acc. EN 60332-1-2 |
| **Halogen-free** | EN 50525-1, Annex B |
| **Cold impact test** | EN 60811-506, EN 50618 Annex C.1 at -40°C |
| **Cold elongation test** | -40±2°C, 16h (EN 60811-505) |
| **Chemical resistance** | fuel: petrol, unleaded acc. EN 228; urea 32,5 % acc. ISO 22241-1; fuel: diesel acc. EN 590; radiator anti-freeze (C2H6O2)-water cold cleaner; mineral oil resistant IRM 902 (EN 60811-404) |
| **Minimum bending radius** | 4x cable diameter |
| **Temperature range** | Ambient temperature: -40° C to +80°C; Maximum conductor temperature: +90° C |

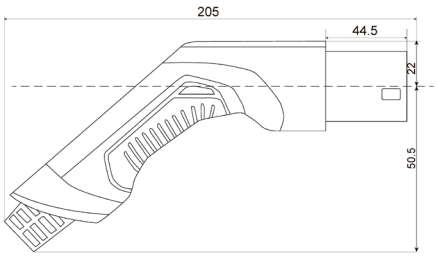
CE VDE

# DATA SHEET.
## PLUG 6 CONNECTOR.




| Technical data | | |
|---|---|---|
| **Plug and connector** | IEC 62196-2 | IEC 62196-2 |
| **Connector type** |  Type-2 connector to type-2 plug |  Type-2 connector to type-2 plug |
| **Charging capacity** | 11 kW | 22 kW |
| **Rated current** | 20 A | 32 A |
| **Load type** | AC | |
| **Nominla voltage** | 480 V | |
| **Rated frequency** | 50 Hz | |
| **Number of phases** | 3 | |
| **Number of power contacts** | 5 (L1, L2, L3, N, PE) | |
| **Insertion/withdrawal cycles** | > 10.000 | |
| **Insertion force, Withdrawal force** | < 100 N | |
| **Operating temperature** | -30° C to +50° C | |
| **Protection class** | IP54 with protective cap | |

# ADDITIONAL INFORMATION.
## WE ARE HERE FOR YOU.

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** Subject to the conditions and the approval of the KfW