

# EV Charging Cable

## User Manual

Type: 3 phase 16A 11KW

3 phase 32A 22KW



IP54



Qualify 2ton  
Drive Over



Flame Retardant  
94-V0



Withstand Voltage  
2000V



IEC62196-2  
Type2



No-load Plug  
>10000 Times

# Symbol Meaning

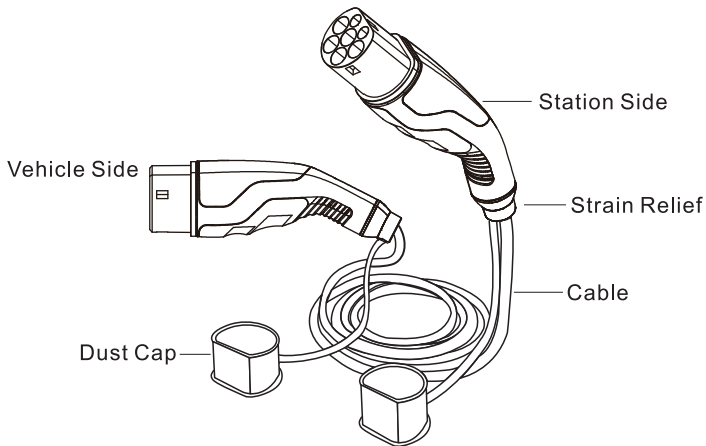
| Symbol                                                                            | Meaning                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | "Non-recyclable" mark: located on the product, instruction manual or package, indicating that electrical and electronic equipment and its accessories should be treated separately from ordinary household waste. When scrapped, it should be treated as industrial waste, otherwise it may cause accidents. |
|  | Warning sign: indicates danger. Pay attention to the personal injury that may be caused by operation procedure or incorrect operation. Actions after the "warning" mark can only be performed when the conditions indicated by the condition are fully understood and satisfied.                             |

The company is committed to the continuous improvement and update of the product, product hardware and software will continue to upgrade, the information provided is subject to change without prior notice.

Version: V1.0

Revision date: 2022-03

# Product Overview



These EV charging cable, by standard IEC/EN 62196 type 2 to type 2, are intended to be used in EV conductive charging systems and for circuits specified in IEC 61851-1. It is to be used in an ambient temperature of between -35°C and +50°C by simply plugging usage.

## Technical data

| Model No.       | V1-32T W/B            | V1-16T W/B            |
|-----------------|-----------------------|-----------------------|
| Rated current   | 32A                   | 16A                   |
| Rated voltage   | 480V<br>(three-phase) | 480V<br>(three-phase) |
| Cables          | 5G6+2x0,5             | 5G2,5+2x0,5           |
| Coding resistor | 220Ω 1W               | 680Ω 0,5W             |
| Rated power     | 22kW                  | 11kW                  |

\*Charging power subject to power design of EVSE device and vehicle

## Electrical performance

|                           |                                           |
|---------------------------|-------------------------------------------|
| Protection rank           | IP54                                      |
| Fire retardant level      | 94-V0                                     |
| Insulation resistance     | > 100M ohm (DC 500V)                      |
| Terminal temperature rise | <50K                                      |
| Withstand voltage         | 2000V                                     |
| Contact resistance        | 0.5m ohm Max                              |
| Coupled insertion force   | >45N <80N                                 |
| Operating temperature     | -35C to 50C                               |
| Mechanical life           | no load plug in / pull out > 10000 times  |
| Impact of external forces | qualify 1m drop or 2 Ton vehicle run over |

## Interlock function and circuit

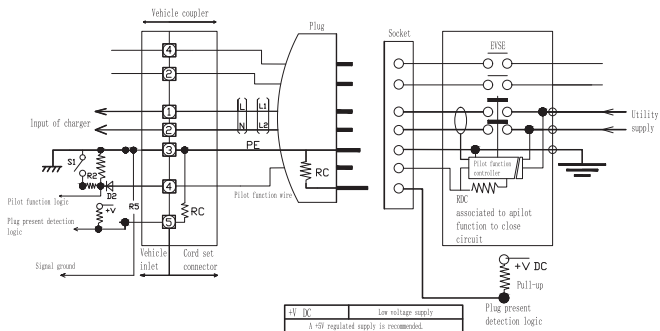
The connectors is not suitable for making and breaking an electrical circuit under load. It shall be equipped with interlock (retaining device) after the completing assembly

The interlock function shall be performed by the proper functioning of the latching device and will be checked according to the standard. The interlocking means shall offer a feedback to show that mechanism is in correct engagement.

Proximity detection and current coding shall be realized by implementation of IEC 61851-1 Annex B.5

“System for simultaneous proximity detection and current coding for vehicle connectors and plugs”.

The pilot function shall be realized by implementation of IEC 61851-1 Annex A, “Pilot function through a control pilot circuit using PWM modulation and a control pilot wire”.



**Figure 1:** Example for the simultaneous proximity detection and current coding function



## **WARNINGS**

Please do not use any extension cord or adapter

Please do not use the charging cable if it is defective ( cracked frayed, broken or damaged in any means).

Please do not plug the charging cable into a defective, loose or worn power outlet.

Please do not insert the plug if any electrical outlet is wet or dirty.

Please do not dismantle the protective cap. It protects the charging connector from moisture and dirt.

After every use put the protective caps back on

Please do not try to disassemble the shell or any part of the cable. It will cause damages to the item and thus cause serious results when charging.

Accordingly to your charging device and vehicle, the power rate is backwards compliant, yet couldn't handle higher power rate, which will cause temperature rise and charging shutdown.

## **HANDLING**

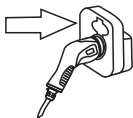
Please handle the charging cable with care. Do not pull, twist, tangle, drag, drop or step on it.

## USAGE

Please read your vehicle's charging instructions before using the charging cable. Check the outlet on charging station and the inlet on vehicle before inserting the plugs. The plug must be fully inserted into the outlet and inlet. Failure to do so will prevent the charging station from start charging

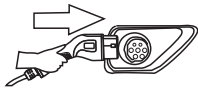
1. Insert the cable plugs into the vehicle inlet and charging station outlet
2. Make sure both plugs are properly connected, charging can start.
3. Do not disconnect the charging cable while the vehicle is charging
4. After charging is completed unplug the charging cable from the vehicle, then from the charging station

1



1. Plug into charging station outlet

2



2. Plug into the car charging port

3



3. Charging

## CARE

Clean the charging cable only when it is disconnected by using a damp cloth. Please do not use water or chemicals when cleaning the cable

