



# EV CHARGING CABLES AND ADAPTERS

User Manual

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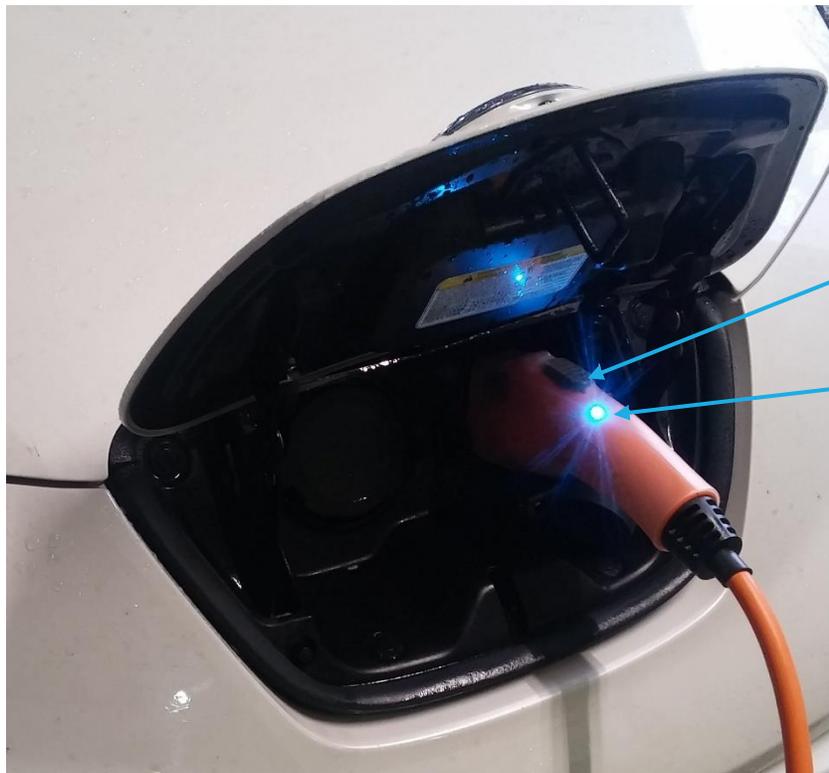
## PORTABLE CHARGING STATION SERIES

### Portable charging station PC01 Type1-Schuko 16A

Portable charging station (PCS) has been designed to charge cars with charging socket J1772 (also known as "Yazaki") at vehicle's side and normal household 16A socket (schuko) at the other side. It contains all the elements of normal charging station, therefore it has all the electronics necessary for communication with the car. It fully replaces home charging station and has the possibility to set charging current by simply pressing a button.

#### Portable charging station use

First plug the PCS to the grid (230VAC). Immediately signal LED starts blinking: number of blinks tells you the saved power setting (see table below). Afterwards LED glows constantly, till AC power is present, indicating standby status. When you plug it into the vehicle J1772 socket, it starts blinking slowly, which means the vehicle is charging. Rapid blinking indicates a fault.



Push Button (PB)

LED light

### Status notification by LED blinks

LED status	NOTIFICATION
Slow blinking when power supply is introduced	Indicating previous saved current setting
Slow blinking when already plugged in	Charging
Constantly on when already plugged in	Stand by
Rapid blinking when already plugged in	Fault

### Setting the charging power:

PCS enables 5 charging current settings. To set the charging current the PCS needs to be plugged in the grid. When LED starts blinking:

- press and hold PB (push button): LED switches off immediately.
- after 5 seconds LED starts slowly blinking. Number of blinks determines charging current/PWM duty.

**Note:** when you release the PB, LED remains off for 1 second and then lights constantly again (car is not charging, cable is just plugged into grid) or it blinks slowly (car is charging with new current settings).

Settings can be changed when cable is plugged into the grid (during standby period) or during car charging. New setting is written into the memory and it stays the same until next current setting (even after the power supply is not present anymore).

### Current setting and LED blinks

Number of blinks	Charging current [A]
1	6
2	8
3	10
4	13
5	16

### Technical data

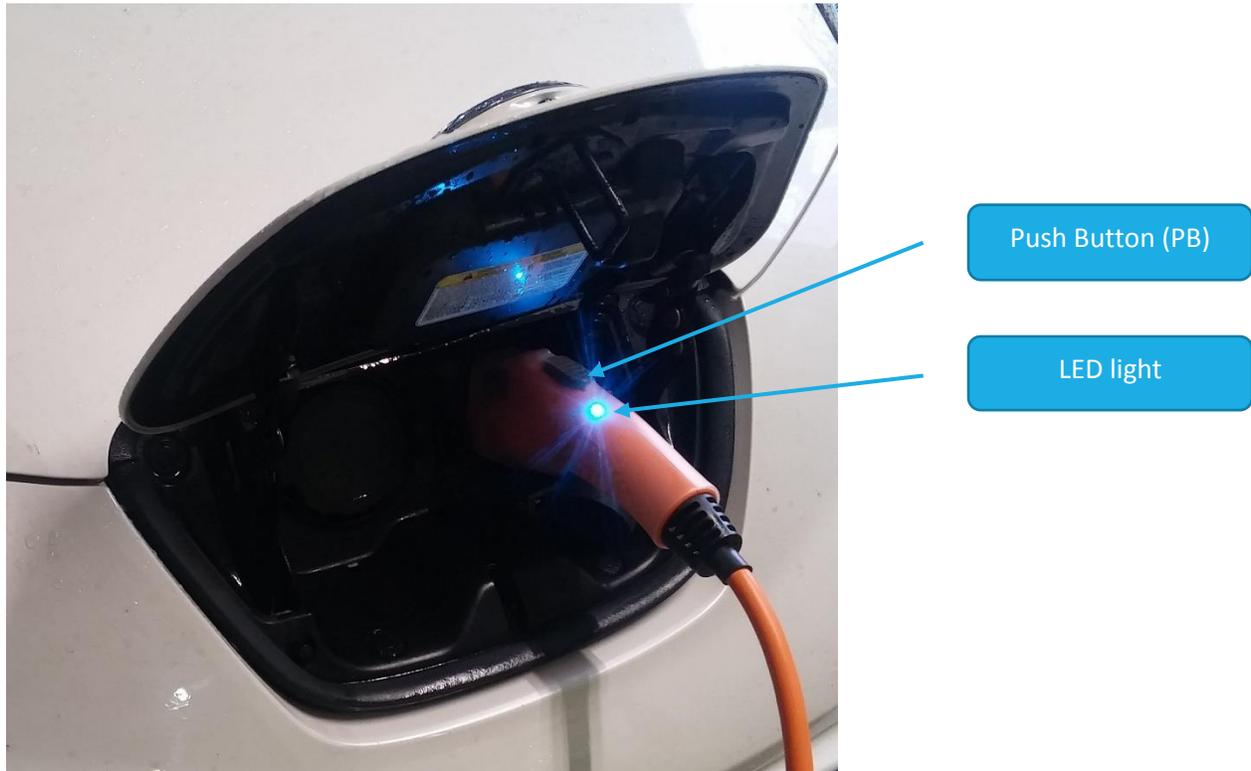
Maximum continuous current [A]	<b>16</b>
Ingress protection (IP) rating	44
Temperature range [C°]	from -20 to +55
Cable cross section [mm <sup>2</sup> ]	2,5
Cable length [m]	from 3-10

## Portable charging station PC02 Type1-CEE 32A

Portable charging station (PCS) has been designed to charge cars with charging socket J1772 (also known as “Yazaki”) at vehicle's side and industrial CEE socket at the other side. It contains all the elements of normal charging station, therefore it has all the electronics necessary for communication with the car. It fully replaces home charging station and has the possibility to set charging current by simply pressing a button.

### Portable charging station use

First plug the PCS to the grid (230VAC). Immediately signal LED starts blinking: number of blinks tells you the saved power setting (see table below). Afterwards LED glows constantly, till AC power is present, indicating standby status. When you plug it into the vehicle J1772 socket, it starts blinking slowly, which means the vehicle is charging. Rapid blinking indicates a fault.



### Status notification by LED blinks

LED status	NOTIFICATION
Slow blinking when power supply is introduced	Indicating previous saved current setting
Slow blinking when already plugged in	Charging
Constantly on when already plugged in	Stand by
Rapid blinking when already plugged in	Fault

### Setting the charging power:

PCS enables 8 charging current settings. To set the charging current the PCS needs to be plugged in the grid. When LED starts blinking:

- press and hold PB (push button): LED switches off immediately.
- after 5 seconds LED starts slowly blinking. Number of blinks determines charging current/PWM duty.

**Note:** when you release the PB, LED remains off for 1 second and then lights constantly again (car is not charging, cable is just plugged into grid) or it blinks slowly (car is charging with new current settings).

Settings can be changed when cable is plugged into the grid (during standby period) or during car charging. New setting is written into the memory and it stays the same until next current setting (even after the power supply is not present anymore).

### Current setting and LED blinks

Number of blinks	Charging current [A]
1	6
2	8
3	10
4	13
5	16
6	20
7	25
8	32

### Technical data

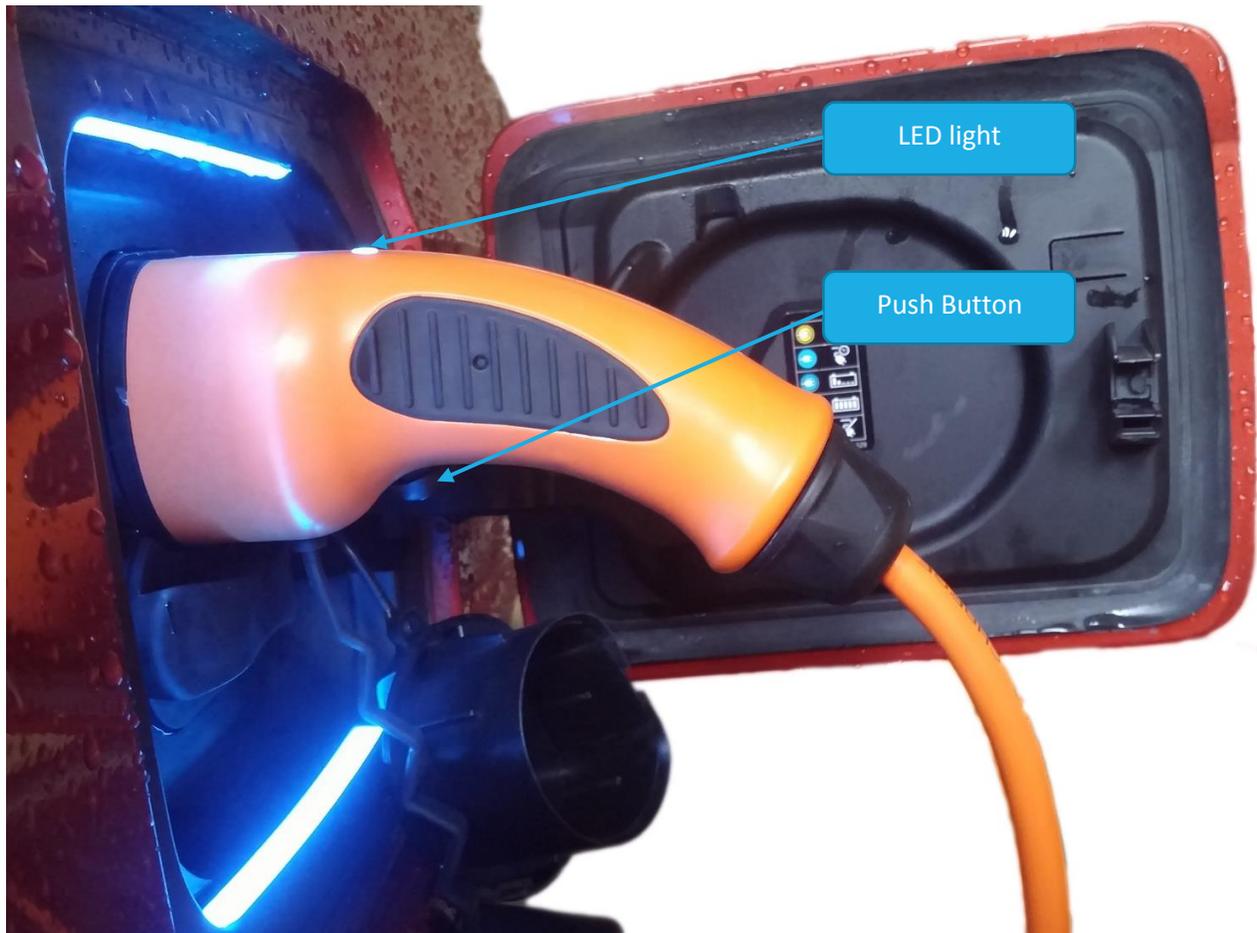
Maximum continuous current [A]	32
Ingress protection (IP) rating	44
Temperature range [C°]	from -20 to +55
Cable cross section [mm <sup>2</sup> ]	6
Cable length [m]	from 3-10

## Portable Charging Station PC03 Type2-Schuko 16A

Portable charging station (PCS) has been designed to charge cars with charging socket Type 2 (also known as “Mennekes”) at vehicle's side and normal household schuko or CEE blue “camping” 16A socket at the other side. It contains all the elements of normal charging station, therefore it has all the electronics necessary for communication with the car. It fully replaces home charging station and has the possibility to set charging current by simply pressing a button.

### Portable charging station use

First plug the PCS to the grid (230VAC). Immediately signal LED starts blinking: number of blinks tells you the saved power setting (see table below). Afterwards LED glows constantly, till AC power is present, indicating standby status. When you plug it into the vehicle Type 2 socket, it starts blinking slowly, which means the vehicle is charging. Rapid blinking indicates a fault.



### Status notification by LED blinks

LED status	NOTIFICATION
Slow blinking when power supply is introduced	Indicating previous saved current setting
Slow blinking when already plugged in	Charging
Constantly on when already plugged in	Stand by
Rapid blinking when already plugged in	Fault

### Setting the charging power:

PCS enables 5 charging current settings. To set the charging current the PCS needs to be plugged in the grid. When LED starts blinking:

- press and hold PB (push button): LED switches off immediately.
- after 5 seconds LED starts slowly blinking. Number of blinks determines charging current/PWM duty.

**Note:** when you release the PB, LED remains off for 1 second and then lights constantly again (car is not charging, cable is just plugged into grid) or it blinks slowly (car is charging with new current settings).

Settings can be changed when cable is plugged into the grid (during standby period) or during car charging. New setting is written into the memory and it stays the same until next current setting (even after the power supply is not present anymore).

### Current setting and LED blinks

Number of blinks	Charging current [A]
1	6
2	8
3	10
4	13
5	16

### Technical data

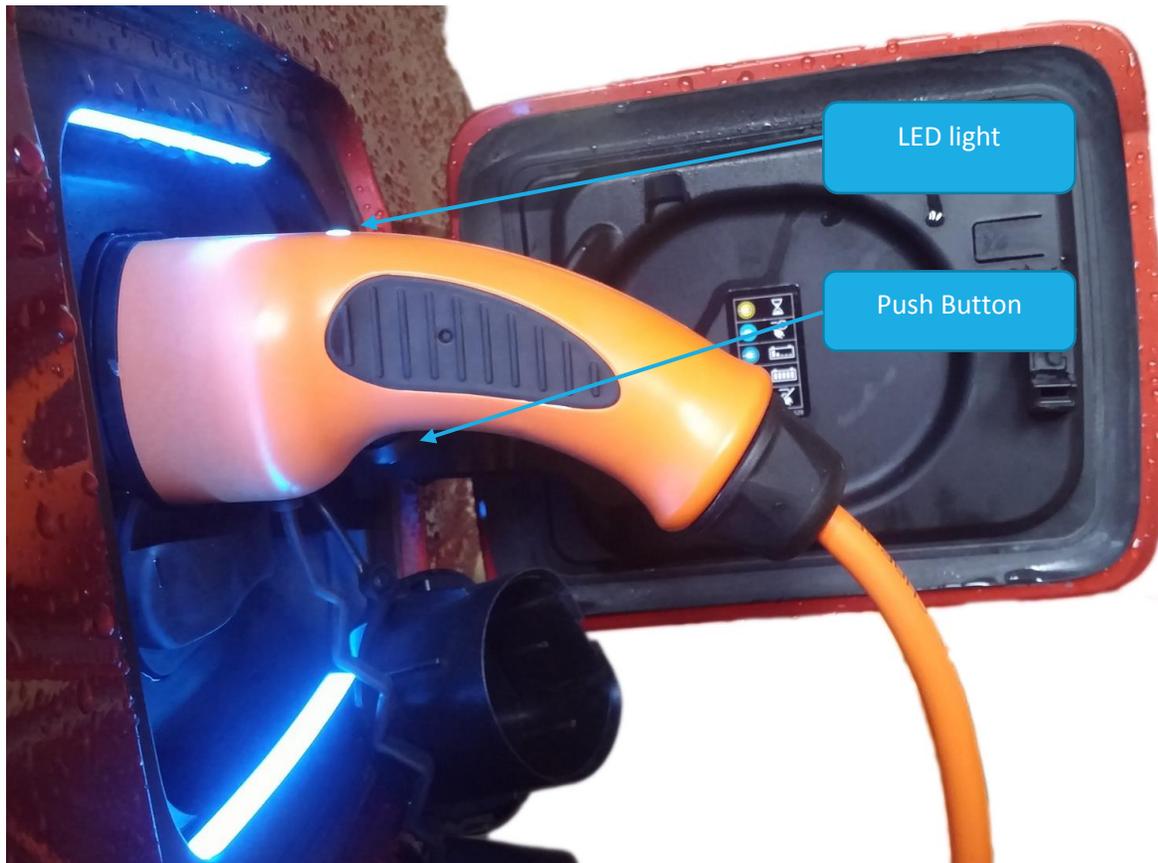
Maximum continuous current [A]	<b>16</b>
Ingress protection (IP) rating	54
Temperature range [C°]	from -20 to +55
Cable cross section [mm <sup>2</sup> ]	2,5
Cable length [m]	from 3-10

## Portable Charging Station PC04 Type2-CEE 1x32A

Portable charging station (PCS) has been designed to charge cars with charging socket Type 2 (also known as “Mennekes”) at vehicle's side and industrial CEE 32A socket at the other side. It contains all the elements of normal charging station, therefore it has all the electronics necessary for communication with the car. It fully replaces home charging station and has the possibility to set charging current by simply pressing a button.

### Portable charging station use

First plug the PCS to the grid (230VAC). Immediately signal LED starts blinking: number of blinks tells you the saved power setting (see table below). Afterwards LED glows constantly, till AC power is present, indicating standby status. When you plug it into the vehicle Type 2 socket, it starts blinking slowly, which means the vehicle is charging. Rapid blinking indicates a fault.



### Status notification by LED blinks

LED status	NOTIFICATION
Slow blinking when power supply is introduced	Indicating previous saved current setting
Slow blinking when already plugged in	Charging
Constantly on when already plugged in	Stand by
Rapid blinking when already plugged in	Fault

### Setting the charging power:

PCS enables 8 charging current settings. To set the charging current the PCS needs to be plugged in the grid. When LED starts blinking:

- press and hold PB (push button): LED switches off immediately.
- after 5 seconds LED starts slowly blinking. Number of blinks determines charging current/PWM duty.

**Note:** when you release the PB, LED remains off for 1 second and then lights constantly again (car is not charging, cable is just plugged into grid) or it blinks slowly (car is charging with new current settings).

Settings can be changed when cable is plugged into the grid (during standby period) or during car charging. New setting is written into the memory and it stays the same until next current setting (even after the power supply is not present anymore).

### Current setting and LED blinks

Number of blinks	Charging current [A]
1	6
2	8
3	10
4	13
5	16
6	20
7	25
8	32

### Technical data

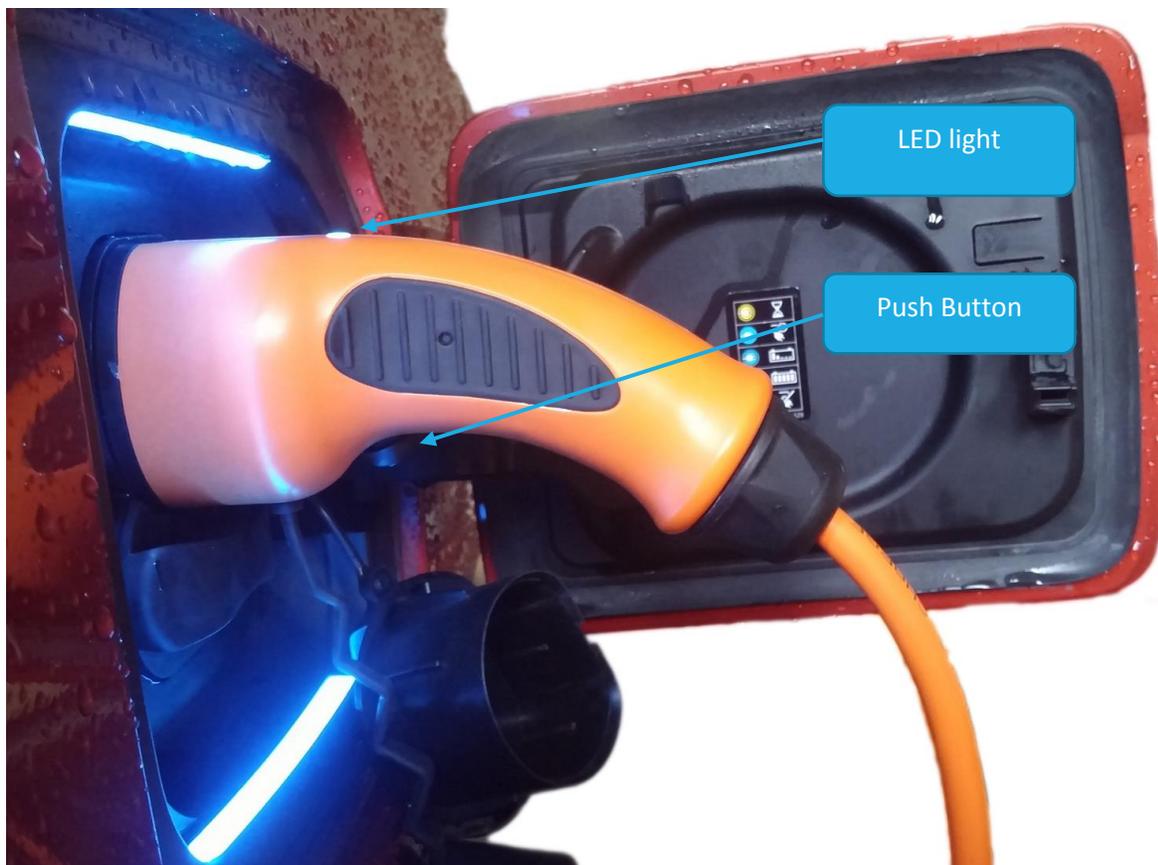
Maximum continuous current [A]	<b>32</b>
Ingress protection (IP) rating	54
Temperature range [C°]	from -20 to +55
Cable cross section [mm <sup>2</sup> ]	6
Cable length [m]	from 3-10

## Portable Charging Station PC05/PC06 Type2-CEE 3x16A

Portable charging station (PCS) has been designed to charge cars with charging socket Type 2 (also known as “Mennekes”) at vehicle's side and industrial CEE 16A socket at the other side. It contains all the elements of normal charging station, therefore it has all the electronics necessary for communication with the car. It fully replaces home charging station and has the possibility to set charging current by simply pressing a button.

### Portable charging station use

First plug the PCS to the grid (230VAC). Immediately signal LED starts blinking: number of blinks tells you the saved power setting (see table below). Afterwards LED glows constantly, till AC power is present, indicating standby status. When you plug it into the vehicle Type 2 socket, it starts blinking slowly, which means the vehicle is charging. Rapid blinking indicates a fault.



### Status notification by LED blinks

LED status	NOTIFICATION
Slow blinking when power supply is introduced	Indicating previous saved current setting
Slow blinking when already plugged in	Charging
Constantly on when already plugged in	Stand by
Rapid blinking when already plugged in	Fault

### Setting the charging power:

PCS enables 5 charging current settings. To set the charging current the PCS needs to be plugged in the grid. When LED starts blinking:

- press and hold PB (push button): LED switches off immediately.
- after 5 seconds LED starts slowly blinking. Number of blinks determines charging current/PWM duty.

**Note:** when you release the PB, LED remains off for 1 second and then lights constantly again (car is not charging, cable is just plugged into grid) or it blinks slowly (car is charging with new current settings). Settings can be changed when cable is plugged into the grid (during standby period) or during car charging. New setting is written into the memory and it stays the same until next current setting (even after the power supply is not present anymore).

### Current setting and LED blinks

Number of blinks	Charging current [A]
1	3x6
2	3x8
3	3x10
4	3x13
5	3x16

### Technical data

Maximum continuous current [A]	<b>3x16A</b>
Ingress protection (IP) rating	54
Temperature range [C°]	from -20 to +55
Cable cross section [mm <sup>2</sup> ]	6
Cable length [m]	from 3-10

## CHARGING CABLE ADAPTERS – AC SERIES

### Charging Adapter Type2-Schuko 16A, 3 x Schuko and 3 x 16A CEE

Charging adapter was designed to enable charging to cars without Type 2 plugs, but with normal schuko 16A plugs. Adapter does not function with charging stations that have charging cable type 2 attached. It sends signals "car ready" and "car charging" to charging station and thus enabling charging with schuko plug.



## Charging adapter use

1. Plug charging adapter to charging station Type 2 socket.
2. Press on Switch (1) (see picture) => charging station gets the message "car ready".
3. Press on Switch (2) (see picture) immediately after switching on switch (1), charging station gets the message "car ready".
4. Charging station powers relay and you have voltage on your adapter.

Some stations do not require this procedure to be followed, they start charging when you plug in the adapter with both switches at "ON" position.

When you want to stop charging, use the opposite procedure, by first pressing second switch (2) and then first one (1). This will release the cable lock at charging station socket and let you pull out the adapter.

**NOTE: NEVER use more than 16A or 3x16A load at charging adapter!**

## Technical data

Maximum continuous current [A]	16
Ingress protection (IP) rating	54
Temperature range [C°]	from -20 to +55
Cable cross section [mm <sup>2</sup> ]	2,5
Cable length [mm]	250

The adapter is **MOISTURE RESSISTANT**, but **NOT WATERPROOF**, so warranty is void in case of water penetration!

## Warranty

12 months from date of purchase, covering the product without shipping costs.

PCS is **NOT** waterproof and the warranty is void in case of water penetration.

**NOTE:** the use of the *portable charging station* is allowed exclusively on the installations, protected by RCD. Household 16A socket, if used, must be designed for constant 16A current!