

## PC03X, PC04X, PC05X

### Portable EV Charging Stations

## USER MANUAL



### INTRODUCTION

METRON PC03X, PC04X and PC05X are extremely compact & light weight "adaptor style" portable EV charging stations designed to charge electric vehicles from any household outlet (e.g. Schuko) or industrial socket (e.g. 1 or 3-phase CEE sockets) using standard Type2-Type2 or Type2-Type1 charging cables that are used for charging EVs from regular wall mounted or standalone charging stations.

PC03/4/5X portable EV charging stations actually convert any power outlet/socket to EV charging station with maximum user safety features. This truly unique design saves space and weight as PC03/4/5X replace regular cable type portable chargers. METRON portable EV charging stations also offer the possibility to set desired charging current/power by simply pressing a button.

### GET STARTED

First plug the portable EV charging station in the wall outlet. Immediately signal LED starts blinking: number of blinks tells you what is the saved charging power/speed setting (see the next page). Afterwards LED glows constantly till AC power is present indicating standby/ready status. Then insert the male side of your charging cable into portable EV charging station's Type 2 socket and the other side of charging cable into vehicle's charging socket. When everything is connected LED starts blinking slowly what means the vehicle is charging. When your electric vehicle is fully charged the LED glows constantly again.

### SETTING THE DESIRED CHARGING CURRENT/POWER

METRON portable EV charging stations allow users to set desired charging current/power, before being plugged in the electric vehicle charging socket. Procedure is simple:

- press and hold the push button: LED switches off immediately
- after 5 seconds LED starts blinking slowly
- Releasing the push button after a certain number of blinks determines charging current/power as follows:

#### PC03X

Number of LED blinks	Charging current/power
1	6 A / 1,4 kW
2	8 A / 1,8 kW
3	10 A / 2,3 kW
4	13 A / 3,0 kW
5	16 A / 3,7 kW*

#### PC04X

Number of LED blinks	Charging current/power
1	6 A / 1,4 kW
2	8 A / 1,8 kW
3	10 A / 2,3 kW
4	13 A / 3,0 kW
5	16 A / 3,7 kW
6	20 A / 4,6 kW
7	25 A / 5,8 kW
8	32 A / 7,4 kW

#### PC05X

Number of LED blinks	Charging current/power
1	3 x 6 A / 4,1 kW
2	3 x 8 A / 5,5 kW
3	3 x 10 A / 6,9 kW
4	3 x 13A / 9,0 kW
5	3 x 16A / 11,0 kW

\* 16A available only in case wall plug contains a temperature sensor.



**New charging current/power setting is stored in the memory and it stays the same (even after the power supply is not present anymore) until the next setting change is performed.**

### STATUS NOTIFICATION BY LED BLINKS

#### LED STATUS

Slow blinking when power supply is applied

Constantly on when not plugged in

Slow blinking when plugged in

Constantly on when plugged in

Slow blinking 2 times when plugged in

Slow blinking 3 times (plugged in or not plugged in)

#### NOTIFICATION

Indicating previous saved current setting

Stand-by / Ready to charge

Charging

Electric vehicle fully charged

Electric vehicle requests room ventilation (no charging)

Portable charger overheated (no charging); restarts charging automatically when it cools down

Slow blinking 5 times (plugged in or not plugged in)	Wall plug overheated (no charging); restarts charging automatically when it cools down; applies only to versions with wall plug integrated over-temperature protection
Slow blinking 6 times (plugged in or not plugged in)	Leakage current detected by built-in RCD (charging stopped); unplug to reset
Slow blinking 7 times (plugged in or not plugged in)	RCD self test failed (charging not allowed), station fault
Slow blinking 8 times (plugged in or not plugged in)	One or more power contact welded (charging not allowed), station fault
Rapid blinking (plugged in or not plugged in)	Station or vehicle fault



**Household 16A Schuko wall sockets must be designed for constant 16A current!**

## TECHNICAL SPECIFICATIONS

	PC03X	PC04X	PC05X
EV Side Socket Type	Type 2 (IEC 62196) Female Socket	Type 2 (IEC 62196) Female Socket	Type 2 (IEC 62196) Female Socket
Wall socket/grid side Standard Plug Types	Type F/E (Schuko), CEE, Type G (UK), Type J, Type H, Type B, ...	CEE 32A [3-phase/3P+N+E], CEE 32A [1-phase/2P+E], ...	CEE 16A [3-phase/3P+N+E], CEE 32A [3-phase/3P+N+E]
Max. Charging Current	16A for Schuko with overtemp. prot. & CEE plug (1-phase); 13A for all other plugs (1-phase)	32A (1-phase)	3x16A [3-phase] or 1x16A (1-phase)
Possible charging current settings	6/8/10/13/16 A or 6/8/10/13 A	6/8/10/13/16/20/25/32 A	6/8/10/13/16 A
Max. Charging Power	3,7 kW or 3,0 kW	7,4 kW	11 kW [3-phase]; 3,7 kW [1-phase]
Rated Voltage	230 Vac [1-phase]	230 Vac [1-phase]	400 Vac [3-phase], 230 Vac [1-phase]
Operating voltage/frequency range	from 90 V to 270 V [50/60 Hz]	from 90 V to 270 V [50/60 Hz]	155 V to 470 V [3-phase] [50/60 Hz] 90 V to 270 V [1-phase]
Wall plug integrated OVER-TEMPERATURE PROTECTION	optional	optional	optional
Internal self-resettable overtemperature protection	yes	yes	yes
Integrated ground fault protection device [RCD]	30mA AC + 6mA DC	30mA AC + 6mA DC	30mA AC + 6mA DC
Automatic RCD self-test	yes	yes	yes
Power contactor weld detection (although very unlikely to occur due to special contact weld protection system)	yes	yes	yes
UV resistance	yes [all parts]	yes [all parts]	yes [all parts]
Operating Ambient Air Temperature Range	from -30°C to +50°C	from -30°C to +50°C	from -30°C to +50°C
Drive-over proofness	yes	yes	yes
IP Rating	IP67 [100% water proof]	IP67 [100% water proof]	IP67 [100% water proof]
IK Rating	IK10 [impact/shock proof]	IK10 [impact/shock proof]	IK10 [impact/shock proof]
Weight	1 kg	1 kg	1 kg

Portable charging station models PC03X, PC04X and PC05X can have some additional designation next to the number such as PC03xyz, PC04xyz and PC05xyz, where "x" and "y" and "z" may be any alphanumeric character or blank, representing a color or wall plug type, or lower than standard charging current limit or factory version, or any possible future product differentiations, which do not have an impact on general technical specifications.

## WHAT IS RCD AND HOW DOES IT WORK?

RCD is an acronym for Residual Current Device - sometimes it can be called also Earth Leakage Circuit Breaker or Safety Switch. Its purpose is to prevent you from getting a fatal electric shock if you touch live part, such as a bare copper wire under high voltage. RCDs offer a level of personal protection that ordinary fuses/circuit-breakers cannot provide. RCD constantly monitors the electric current flowing through one or more circuits which it protects. If it detects electricity flowing down an unintended path, such as through a person who has touched a live part, the RCD will switch the circuit off very quickly, significantly reducing the risk of death or serious injury. Every portable charging station has integrated Type A 30mA AC + 6mA DC RCD what ensures maximum possible level of personal protection as it protects users from AC, pulsating DC and pure DC leakage currents.

## GREEN PRODUCTION

All our products are produced in a carbon neutral way by using "Sustainable energy cycle" method. Production plant where we make charging cables and portable charging stations is the first fully sustainable production facility for EV charging cables. All energy needed for the heating and cooling of the building, production process and for transportation of goods and employees (except deliveries of heavy materials by trucks), is produced by 2 photovoltaic power plants and stored in 4 storage batteries. Almost all of the raw materials we use (cables, plugs) are produced in EU, to shorten supply routes and support local economy. Buying our products helps developing sustainable economy.

## LIMITED WARRANTY

METRON warrants its product to the original consumer purchaser that it will repair, or replace, any product that is determined to be defective for the following terms: **Two (2) years from date of purchase on all components.**

To be eligible for repair or replacement under this warranty, the product in question must be sent back to METRON within the warranty period and the original consumer purchaser must comply with the following conditions: The product thereof must not have been modified or altered in any way by an unauthorized source; The product thereof must have been used in accordance with the user manual. This limited warranty does not cover: Damage due to improper use; Accidental or intentional damage; Misuse, abuse, corrosion, or neglect; Product impaired by severe natural conditions, such as excessive hail storms, lightning strikes, tornados, flooding, ice or other natural occurrences; Damage due to improper packaging on return shipment. Any and all labor charges for troubleshooting, removal or replacement of the product are not covered by this warranty and will not be honored by METRON. All shipping costs regarding repair or replacement of the product is to be pre-paid by the original consumer purchaser.