# Adapter for testing vehicle charging stations

### **EVSE-01**



# Quick and full diagnostics of charging stations

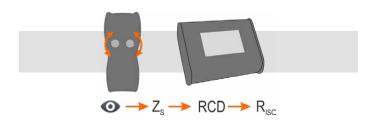
#### Capabilities

Adapter allows to perform comprehensive **measurements of electric vehicle charging stations** - quickly and in accordance with applicable regulations. Simulating the charging cable (proximity pilot line - PP) and vehicle connection status (control pilot line - CP), it will bring the station into different operating states. This will enable **measurements in the field of electric shock protection:**  $Z_s$  fault loop impedance,  $R_{ISO}$  insulation resistance and checking the parameters of RCD residual current devices.

To facilitate diagnostics, one of the EVSE-01 sockets is provided with **pulse width modulation signal (PWM)**.

#### Application

The EVSE-01 adapter enables measurements of AC electric vehicle charging stations with **type 2 connector**. Tests for 1-phase and 3-phase stations are available - both with and without ventilation.



MPI-540-PV MPI-540



MPI-530-IT MPI-530 **MPI-525** 

MPI-520



**MPI-507** MPI-506 MPI-502



\* the scope of measurements depends on the capabilities and technical parameters of each model.

## **Technical specifications**

| measurement category according to EN 61010-1 |         | CAT II 300 V                                    |  |  |
|--|---------|---|--|--|
| ingress protection<br>according to EN 60529  |         | IP40  |  |  |
| pollution degree                             |         | 2   |  |  |
| input voltage                                |         | 400 V (3-phase)                                 |  |  |
| frequency                                    |         | 50 Hz, 60 Hz                                    |  |  |
| simulation of charging cable PP              |         | open circuit, 13 A, 20 A, 32 A, 63 A            |  |  |
| vehicle connection<br>simulation CP          | state A | vehicle not connected                           |  |  |
|  | state B | vehicle connected, not charging                 |  |  |
|  | state C | vehicle connected, charging without ventilation |  |  |
|  | state D | vehicle connected, charging with ventilation    |  |  |
|  | state E | error - CP short to PE                          |  |  |
| socket types                                 |         | measuring sockets: L1, L2, L3, N, PE            |  |  |
| test lead (length)                           | EVSE    | 1 m   |  |  |
|  | MPI     | 0.5 m   |  |  |
| operating temperature                        |         | -5+45°C   |  |  |
| storage temperature                          |         | -20+60°C  |  |  |
| dimensions                                   |         | 220 x 100 x 60 mm                               |  |  |
| weight                                       |         | 1.4 kg  |  |  |

## **Functional comparison**

|   | MPI-540-PV<br>MPI-540<br>MPI-536<br>MPI-535 | MPI-530-IT<br>MPI-530<br>MPI-525<br>MPI-520 | MPI-507<br>MPI-506 | MPI-502  |
|---|---|---|--------------------|----------|
| auto measurements   | √   | -   | -                  | -        |
| automatic three-<br>phase measurement<br>via multiplug                      | √   | -   | -                  | -        |
| visual inspection   | ✓   | -   | -                  | -        |
| fault loop Z <sub>L-PE'</sub><br>Z <sub>L-N</sub> parameters<br>measurement | √   | √   | √                  | <b>√</b> |
| 6 mA RCD test   | √   | -   | -                  | -        |
| RCD test  | AC, A, F, B,<br>B+, EV                      | AC, A, F,<br>B, B+                          | AC, A              | AC, A    |
| insulation resistance R <sub>iso</sub> measurement                          | √   | √   | √                  | -        |
| measurements report   | √   | √   | √                  | √        |

#### **Standard accessories**



Carrying case WAFUTM6



**User manual** 

