

EVCA210/EVCA210-UK Electric vehicle charge-point adaptor



- Push Button for PE Pre-Test
- Push button for CP Error "E" simulation
- Push button for PE Error (Earth Fault) simulation
- Rotary switch providing PP State simulation
- Rotary Switch providing CP State simulation
- Type 1 to Type 2 Adaptor available (Supplied as standard with the EVCA210-UK)
- Carrying Case
- CAT II 300V Rating
- Comply with Low Voltage Directive LVD 2014/35

DESCRIPTION

The Megger EVCA210/EVCA210-UK are compact, simple to use adapters designed to perform all the functions required by the electrical contractor to fully test Mode 3 AC Electric Vehicle Charge-points. Specially designed to comply with UK, European and other International wiring regulations and standards, the EVCA210/EVCA210-UK may be used on all single and three phase electric vehicle charge points, with appropriate connectors. They are designed to test the function and safety of a charging point. The adapters allow you to conduct tests using appropriate single or multifunction test instruments on EV charging points in accordance with IEC/EN 61851-1 and IEC/HD 60364-7-722. Charging points should be tested as part of the initial installation and repeated periodically.

The Megger EVCA210/EVCA210-UK test adaptors are designed to simulate the connection of an electrical vehicle to the charging point under test. Connection of the adapter enables the operator to trigger the charging process by selecting the appropriate Proximity Pilot (PP) and Control Pilot (CP) states.

Test instruments can be connected using either the front mounted mains socket or the 4mm connection ports L1, L2, L3, N, PE. 2 additional CP signal terminals give the operator the ability to measure the CP signal using an oscilloscope.

In addition, the adapters have a manual PE Pre-Test feature that allows the user to test for dangerous voltages present on the PE, prior to any other testing of the charge point. If this test fails, testing must cease as potentially dangerous voltages may be present on the PE and faults must be investigated and rectified before continuing. The adapters also integrate two further manual tests: CP Error – simulates an error on the control pilot circuit; and a PE Error – where a disconnection of the PE circuit is produced. Both test ensure correct disconnection of the output of the charge point. Before carrying out testing with this adaptor, it is recommended that the user familiarize themselves with the relevant standards:

IEC 61851-1:2017, Electric vehicle conductive charging system - Part 1: General requirements

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IEC 60364-7-722:2018 Low-voltage electrical installations
 - Part 7-722: Requirements for special installations
 or locations - Supplies for electric vehicles and any
 documentation relating to the charging station itself.

All Megger EVCA210 variants are supplied with a fixed Type 2 connector plug. The EVCA210-UK is also supplied with a Type 2 to Type 1 adaptor plug as standard - optional for other variants.

| | EVCA210 | EVCA210-UK |
|--|---------|------------|
| Input voltage 250 V (single phase system) / 430 V (three phase system), | ■ | ■ |
| Push Button for PE Pre-Test | ■ | ■ |
| Rotary switch providing PP State simulation | ■ | ■ |
| Rotary Switch providing CP State simulation | ■ | ■ |
| Push button for CP Error "E" simulation | ■ | ■ |
| Push button for PE Error (Earth Fault) simulation | ■ | ■ |
| Measurements on live conductors (L1, L2, L3 and N) and on PE conductor | ■ | ■ |
| Mains Socket: EVCA210-UK - 13A UK socket EVCA210 - Schuko socket (CEE 7/3) | ■ | ■ |
| CP signal test, two 4 mm ports for connection to an oscilloscope | ■ | ■ |
| CAT II 300 V | ■ | ■ |
| Fixed Type 2 Plug for charging points with panel mounted socket outlet or fixed cable with vehicle connector. | ■ | ■ |
| Type 1 to Type 2 adaptor for charging points with fixed cable and vehicle connector – Supplied with EVCA210-UK as standard | | ■ |
| Soft Carry Case | ■ | ■ |

EVCA210/EVCA210-UK

Electric vehicle charge-point adaptor

SPECIFICATIONS

| | | | |
|---|--|----------------------------------|--|
| Input voltage | Up to 250 V (single phase system) / up to 430 V (three phase system) | Altitude above sea level. | 2000 m max. |
| Input Frequency | 50/60 Hz, | Dimensions (W x H x L) | 225 mm x 145 mm x 62 mm (without connection cable and test cable) |
| PE Pre-Test | Yes – Push button | Weight | Approx: 780g |
| CP Error “E” simulation | Push button | CE directive | Low Voltage Directive LVD 2014/35/EU |
| PP Simulation | NC, 13 A, 20 A, 32 A, 63 A | Safety | IEC/EN 61010-1:2010 IEC/EN 61010-2-030:2010 |
| CP States | A, B, C, D | Working temperature range | 0 to +40 °C |
| CP Error “E” | Yes | Storage temperature range | -10 to +50 °C |
| PE Error (Earth fault) | Yes | Reference humidity range | 10 to 60% relative humidity w/o condensation |
| Measuring Ports L1, L2, L3, N and PE | Max. 250/430 V, CAT II 300 V, max. 10 A | Working humidity range | 10 to 85% relative humidity w/o condensation |
| Mains socket | Max. 250 V, CAT II 300 V, max. 10 A, Note: Do not load mains socket simultaneously with measuring ports! | | |
| CP Signal Test Ports | Approx. +/-12 V, CAT 0 (under normal condition) | | |
| Measurement category | CAT II 300 V | | |

ORDERING INFORMATION

| Description | Part number | Description | Part number |
|--|-----------------|--|-----------------|
| EVCA210-UK (UK Mains Socket) | 1012-732 | EVCA210 (Schuko Mains Socket) | 1013-317 |
| Included accessories | | Included accessories | |
| Type 1 to Type 2 Charging Plug Adaptor | | EVCA210 | |
| Fixed Type 2 Charging Plug | | Fixed Type 2 Charging Plug | |
| EVCA210 Carry Case | | Soft Carry Case | |
| Instruction Manual | | Instruction Manual | |
| | | Optional accessories for EVCA210 & EVCA210-UK | |
| | | EVCA210 Soft Carry Case | 1013-318 |
| | | Type 1 to Type 2 Plug Adaptor | 1014-901 |
| | | EVCA210-CH EV adaptor | 1013-832 |
| | | EVCA210-AU EV adaptor | 1015-141 |

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