EVlink AC charging station testing tool

Data sheet EVA1SADS

Unique features

The EVlink AC charging station testing tool EVA1SADS is a single and three-phase test adapter used to:

- Test the effectiveness of protective measures at electric charging points
- Simulate dummy connected electric vehicles
- Simulate current-carrying capacity of cord sets per IEC 61851-1
Compatibility

The EVlink AC charging station testing tool is compatible with all Schneider Electric EVlink chargers equipped with a type 2 socket, or with an attached cable with a type 2 connector:

- EVlink Wallbox
- EVlink Smart Wallbox
- EVlink Parking
- EVlink City

It is also compatible with all electric vehicle charging stations operating in mode 3 in compliance with IEC 61851-1 standard.

Functions

The following functions can be performed with the EVlink AC charging station testing tool:

- The tool can be used to simulate various states of the electric vehicle with a rotary switch:
  - State A: vehicle not connected,
  - State B: vehicle connected but not requesting to charge,
  - State C: vehicle connected and ready to charge,
  - State E: short-circuit error between control pilot and protective earth.
- The different codings for charging cables of 13, 20, 32 and 63 A cables, as well as "no cable connected", can be simulated by means of a rotary switch.
- Indication of phase voltages by LEDs. Depending on the charging station, one or three phases may be active.
- Test of electrical charging stations with fixed charging cable by means of an extended control pilot test pin.
- Check that the energy meter is correctly connected.
- Measure the voltage between phases, between phase and neutral, between neutral and protective earthing conductor.
- Test the residual current protection device of the charging station.
- Measure the voltage between the control pilot line and the protective earth conductor.

The last 4 points require usage of an additional measuring device (multi-meter, differential circuit breaker tester, oscilloscope...).

Applications

The EVlink AC charging station testing tool adapter triggers the charging process by simulating an electric vehicle. The range of applications includes service applications for initial start-up and for periodic testing.

Cables are connected to the testing tool via 4 mm safety sockets (L1, L2, L3, N, PE) with an additional grounding contact socket.

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<td>VDE 0470-1</td>
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Technical data

General features
• Pollution degree 2
• Protection: IP20

Physical features
• Housing dimensions:
  W x L x H = 105 x 210 x 53 mm
• Complete with connector plug:
  W x L x H = 105 x 750 x 62 mm
• Weight: approximately 795 g

Electrical safety
• Protection class II
• Test voltage: 3.5 kV AC
• Measuring category: CAT III 300 V

Power
Test consumer: Max. 2.9 kVA (no continuous operation)

Connection values
• Input voltage: 400 V (3-phase)
• Frequency: 50 Hz

Electrical safety
• Voltage: 3.5 kV AC
• Measuring category: CAT III 300 V

Vehicle simulation
The tool simulates A, B, C and E states according to IEC 61851-1. The various vehicle states are selected by means of a rotary switch.

  • State A: No vehicle connected
  • State B: Vehicle connected but not ready for charging
  • State C: Vehicle connected and ready to be recharged, ventilation of the charging area is not required
  • State E Error: Short circuit between control pilot and protective earth via internal diode

Cable simulation
It is possible to simulate the different codings for the loading of 13, 20, 32 and 63 A cables. It is also possible to simulate the state "without cable". The different charging cables are simulated by connecting different resistors by means of a rotary switch.

The following values are possible in accordance with IEC 61851-1 standard:

  • No cable: 0 Ω
  • 13 A cable: 1.5 kΩ
  • 20 A cable: 680 Ω
  • 32 A cable: 220 Ω
  • 63 A cable: 100 Ω

Scope of Delivery
• 1 EVlink AC charging station testing tool
• 1 Set of operating instructions

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<td>EVlink AC charging station testing tool</td>
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