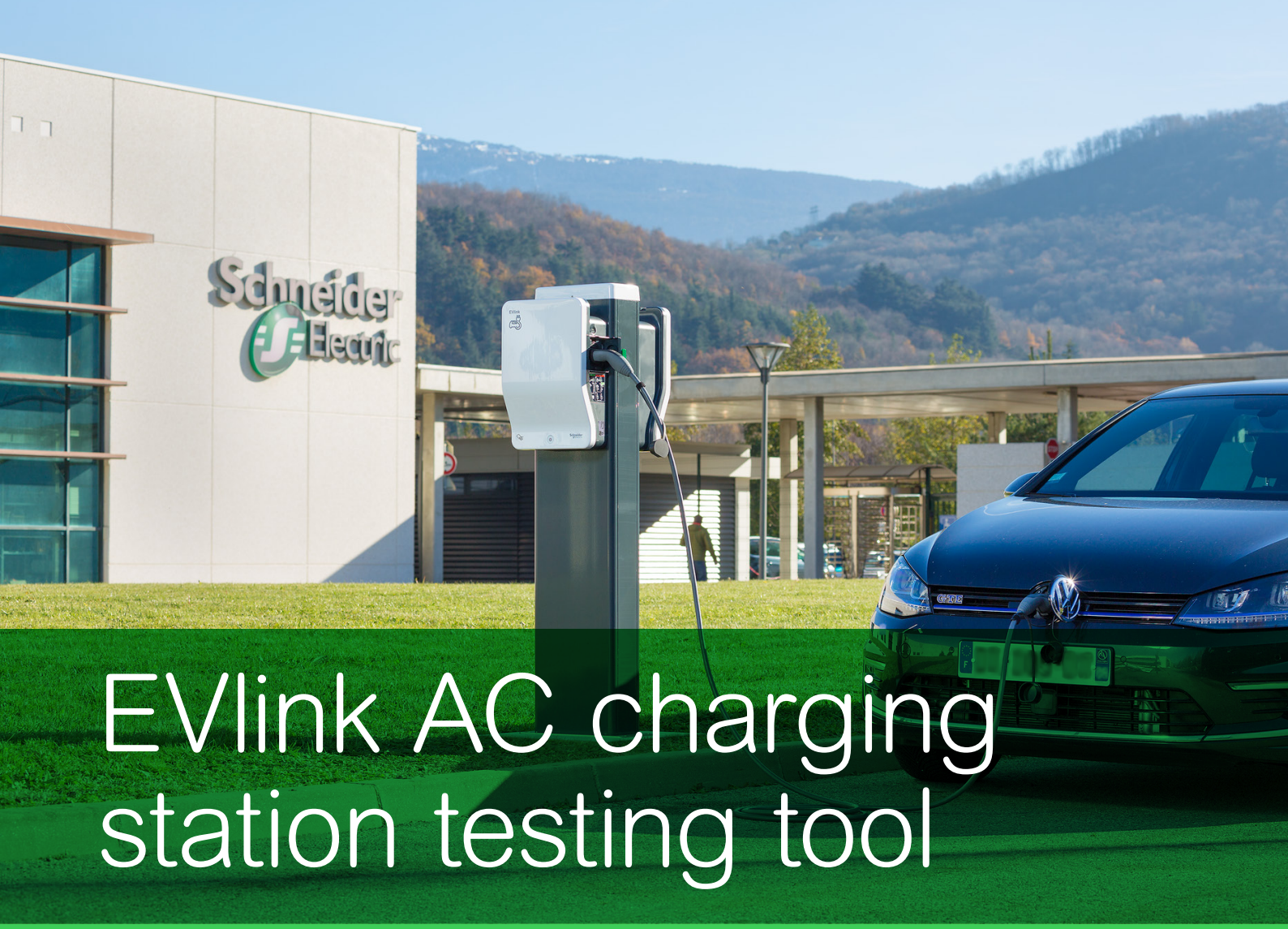


# EVlink AC charging station testing tool

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


se.com

Life Is On Schneider Electric

# 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.

| Standards | Applicable regulations |
|---|---|
| **IEC 61010-1**<br>**DIN EN 61010-1**<br>**VDE 0411-1** | Safety requirements for electrical equipment for measurement, control and laboratory use<br>– General requirements |
| **IEC 61851-1**<br>**DIN EN 61851-1** | Electric vehicle conductive charging system<br>– Part 1: General requirements |
| **EN 60529**<br>**VDE 0470-1** | Test instruments and test procedures<br>Degrees of protection provided by enclosures (IP code) |

# 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

## Ambient conditions
- Operating temperature: -10 °C ... +45 °C
- Storage temperature: -25 °C ... +60 °C
- Relative humidity: Max. 80%, condensation is ruled out

## 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 61851-1standard:

- 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

| Designation | Type | Article n° |
|---|---|---|
| **Single and three-phase EVlink AC charging station testing tool with type 2 plug** | EVlink AC charging station testing tool | EVA1SADS |

se.com

Life Is On Schneider Electric

Schneider Electric Industries SAS
35, rue Joseph Monier - CS 30323
F92506 Rueil-Malmaison Cedex