comemso

EVCA Flex ComOnly

Technical datasheet

EVCA Flex ComOnly

The comemso EVCA Flex ComOnly is designed to execute communication-only test scenarios. Communication-only test scenarios are those in which no power is transmitted.

For CP/PP selftest, PLC selftest and the PLC EV ComOnly Test with EVCC it is directly ready for use, without the need for any extensions. For other test scenarios, extensions are necessary. The comemso EVCA Flex ComOnly basically has the same functionalities as the EVCA Flex; it measures and checks low and high level communication for standard conformity and records any deviations. The desired test procedure is selected by software means.

Front view

Back view

CE

Typical Application
Simulate and analyze the communication, e.g. directly on the EVCC / SECC. We do not simulate battery voltage/ charging current, therefore EVCC / SECC must be configured accordingly.

CCS-Core
Control part of CCS simulations for conductive charging of electric vehicles, including data recording and controlling on CAN interface as remote control.

The CCS Core includes a PP simulator, CP simulator, and two CP measurment moduls for synchronous measurment of EV and EVSE CP signal behaviour.
The PP, R2 and R3 resistors can be simulated in the range of 0-8 kOhm in 1 Ohm steps.

Control Pilot (CP)
· Long-term analysis throughout the charging process (e.g. as man-in-the-middle).
· Analysis / examination of the CP in all parameters.
· Analysis / testing according to IEC 61851, SAE J1772, GB/T 18487.1-2015 Annex A.
· Comfortable EV test / EVSE test in all parameters, stress tests, etc.

Power Line Communication (PLC)
· 2x PLC modules each with RJ45 socket for PC connection.
· Connection of the PLC modules to the CP signal can be switched on/off, controllable over CAN.
· Integrated hardware possibilities for PLC passive gateway, which can be activated over CAN bus.
· Analysis according to DIN EN 70121 2014 and ISO 15118 (basic included, for more additional software required).
· PLC Sniffer for PLC monitoring available.

Software Features
· Reports can be generated via the provided software.
· The EVCA Flex ComOnly can be remotely controlled via its own RS232 interface (with SCPI commands and REST API).

Accessories/Extensions
DC adapter (inlet/gun) with banana socket taps
Breakout Box CCS 2 for connection to DC charging pole and /or DC EV:
· Housing: Plastic case.
· Load capacity: 1000 V / 200 A.
· Connection EVSE: CCS inlet type 2 with actuator.
· Connection EV: Fixed cable with CCS plug type 2, length approximately 2 m.
· Locking Connector EVSE: electrical locking via a corresponding actuator, operation via two illuminated buttons (locking active, locking inactive) with corresponding labeling, power supply via 230 V IEC socket integrated in case.
· Current-carrying cables: All current-carrying cables are connected through in the case from CSS inlet to CSS plug (this ensures that in the event of a fault, e.g. a loose cable, there is never any voltage on the CP that is led out).
· Control Pilot: The CP connection from the charging pole to the vehicle will be interrupted in the case and routed to the outside via insulated banana sockets. The cable routing will be designed in such a way that there can be no crosstalk between the two CP signals internally in the case.
· PE: The PE will also be led to the outside via an insulated banana socket as reference potential for the CP.

AC adapter (inlet/gun) with banana socket taps
Adapter for measuring all mains, e.g. verification of EVCA measurement, calibration state:
· Isolated banana sockets with isolated banana bridges.
· For connecting between EVCA and EV.

EVCA AC EVSE adapter
Adapter cable for EV charging analyzer and EVSE with attached charging cable type 2, 32A, 3 phases:
· Vehicle-mounted socket with housing and finished assembled cable with connector suitable for EV charging analyzer.
· Can be mechanically locked/unlocked.
· Cable length: 0.5m.

Note: Also all accessories with CE marking.

Analysis/Testing Standards

AC CCS	IEC 61851-1, ISO 15118-2, ISO 15118-3, ISO 15118-4, ISO 15118-5, ISO 15118-20, SAE J1772
DC CCS	IEC 61851-1, DIN 70121, ISO 15118-2, ISO 15118-3, ISO 15118-4, ISO 15118-5, ISO 15118-20, SAE J1772
NACS	IEC 61851-1, DIN 70121, ISO 15118-2, ISO 15118-3

Specifications

Application	Tabletop device for communication-only test scenarios.
CP Measurement	Voltage, Duty Cycle etc.
PP Measurement	Resistance and voltage
Communication	CAN-bus
CAN Baudrate	1 MBd
Power Supply	12 V + 5 V mains adapter, mains supply 100 - 230 V
Max. Power Input	250 W
Max. Power Consumption	35 W
Test reports	Reports can be generated via the provided software.
Power consumption	Max. 500 VA – inrush current might be higher
Protection class	IP 30
Temperature range	0 ... + 50 °C / 32 - 122 °F
Humidity	< 80 %, non-condensing
Transportability	Portable case
Dimensions (WxHxD)	18.5 x 16.5 x 32.5 cm / 7.3 x 6.5 x 12.8 inch
Weight	About 4.3 kg / 9.5 lbs

Accessories

- Different AC and DC adapters
- IXXAT® CAN Device (1 Ch or 2 Ch)
- USB 3.0 Ethernet Adapter
- Software comframe
- Optional for CCS 1, CCS 2, NACS: Professional EV test (EVSE simulation) and professional EVSE test (EV simulation)
- Optional test libraries for ISO 15118, DIN 70121, and CharIN test cases available

Service

- Additional test standards available* (please contact sales@comemso.de).
- Optional calibration service according to ISO 17025
- Customer support

*The available test standards, test libraries and manual tests (half-automated tests) may differ from the table above and your purchased configuration

" For many years, comemso has set itself high standards in the development of test and validation systems in order to deliver optimal solutions for its customers."

16 years Innovation

Understanding and simulating test processes

For 16 years, comemso has been developing test systems to optimize e-mobility systems. Today, we are more determined than ever to continue enriching the electric mobility market with innovations. To find the best possible solution, we always carry out our own practical tests. The insights gained from these tests are directly incorporated into the development of new solutions and products.

Variants

116-2-015 –
CCS Core for ComOnly

116-2-016 –
CCS Core for ComOnly with PLC-Sniffer

116-1-011 –
CCS ComOnly Case

Accessories

061-2-002 –
DC adapter (inlet/gun) with banana socket taps

003-2-036 –
AC adapter (inlet/gun) with banana socket taps

003-2-102 –
EVCA-5 AC EVSE: Adapter T2, 32 A, S

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