

PROFITEST H+E XTRA

PROFITEST H+E XTRA C

EV Diagnostics Tester for DC Charging Stations for CCS, CHAdeMo and AC per DIN EN 61851-1/22/23/24 (VDE 0122-1/2-2/2-3/2-4), ISO 15118-1, DIN SPEC 70121

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- EV simulation during communication for drawing EVSE charging current
- EV simulation at DC load circuit, adapted to communication
- Test/analysis standards:
 - CHAdeMO versions 0.9.1, 1.0.0, 1.0.1, 1.1
 - DC-CCS per DIN SPEC 70121 or ISO 15118-1
 - AC per EN 61851-1
- Measured values for direct voltage and direct current
- Test sequence for detecting insulation faults
- Graphic color display with intuitive touchscreen
- Interface for software connection and firmware updates
- Read-out of test results (passed/failed) depending on charging variant
- Results reports can be downloaded as PDF files via USB read-out
- Rugged carrying case housing



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Applications

The PROFITEST H+E XTRA and the PROFITEST H+E XTRA C are diagnostics testers for simulating the charging process with DC source and load. Both instruments are equipped with integrated measuring inputs for connecting an installation tester in order to check the effectiveness of protective measures.

Use as Diagnostics Tester for Charging Stations

After servicing multi-charger systems, testing per CCS and CHAdeMO can be performed with a single test instrument during the same service call or maintenance procedure. Within just one minute, the instruments indicate whether or not the charging station is working correctly.

Testing the Effectiveness of Protective Measures

The effectiveness of protection against electric shock and protection by means of automatic shutdown at AC/DC charging stations in the event of overcurrent can be verified by the PROFITEST H+E XTRA or the PROFITEST H+E XTRA C in combination with the PROFITEST PRIME or the PROFITEST PRIME AC.

- Measurement of low-resistance protective conductor continuity
- Measurement of DC loop resistance (internal resistance or Z_{LOOP})
- Testing of the IMD's triggering threshold, shutdown in the event that specified limit values are exceeded

- Insulation measurement between two DC charging stations
- Touch voltage measurement
- Residual voltage measurement

Features

PROFITEST H+E XTRA

- Testing of the functional performance of electric charging stations for DC-CCS with COMBO 2 inlet
- Automatic test sequence / simulation of DC EV per DIN SPEC 70121 and ISO 15118-1
- Detection of insulation faults
- 4 mm safety sockets for DC+, DC- and PE for connecting a PROFITEST PRIME or PROFITEST PRIME AC test instrument in order to test the effectiveness of protective measures
- Storage of measured values
- Software for generating test reports

PROFITEST H+E XTRA C

- Testing of the functional performance of electric charging stations for DC-CCS, CHAdeMo and AC type 2
- Automatic test sequence / simulation of DC EV per DIN SPEC 70121 and ISO 15118-1, CHAdeMO 1.1 (and lower) and AC EV per IEC 61851-1

PROFITEST H+E XTRA

PROFITEST H+E XTRA C

- Detection of insulation faults
- 4 mm safety sockets for DC+, DC-, PE, L1, L2, L3 and N for connecting a PROFITEST PRIME test instrument in order to test the effectiveness of protective measures
- Storage of measured values
- Software for generating test reports

Technical Data

Mechanical Design

Housing (W × H × D)	Approx. 60 × 30 × 40 cm
Weight	Approx. 15 kg
Display	Color TFT
Protection	IP67 with closed lid IP30 with open lid

Ambient Conditions

Operating temperature	+5 °C ... +40 °C
Storage temperature	-20 °C ... +60 °C
Relative humidity	Max. 75% No condensation allowed
Elevation	Max. 2000 m

Power Supply

Supply network	100 ... 240 V AC (can be connected to a 12 V DC cigarette lighter with the help of an adapter*) * Not included with the instrument
Power consumption	Max. 500 VA, inrush current higher
Inrush current	DC-CCS: approx. 8.3 A CHAdEMO: approx. 10.7 A

Electrical Safety

Measuring category	CAT III 300 V
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Data Interface

Connections	USB-B port
Memory	Micro SD card
Communication	Display panel and CSV report stored in the instrument

Product Standards

The device has been manufactured and tested in accordance with the following safety regulations:

EN 61010-1	Safety requirements for electrical equipment for measurement, control and laboratory use – General requirements
EN 60529	Test instruments and test procedures Degrees of protection provided by enclosures (IP code)
EN 61326-1	Electrical equipment for measurement, control and laboratory use – EMC requirements – Part 1: General requirements
IEC 61000-4-2	Electromagnetic compatibility (EMC) Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test
EN 61000-4-3	Electromagnetic compatibility (EMC) Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test
EN 61000-4-4	Electromagnetic compatibility (EMC) Part 4-4: Electrical fast transient/burst immunity test
EN 61000-4-5	Electromagnetic compatibility (EMC) Part 4-5: Testing and measurement techniques – Surge immunity test
EN 61000-4-6	Electromagnetic compatibility (EMC) Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields
IEC 61000-4-11	Electromagnetic compatibility (EMC) Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests

PROFITEST H+E XTRA

PROFITEST H+E XTRA C

Included Features

- The PROFITEST H+E XTRA can be used to test electric charging stations with DC-CCS connections for correct functioning.
- The PROFITEST H+E XTRA C can be used to test electric charging stations with DC-CCS connections, CHAdeMO connections and AC connections for correct functioning.
- In combination with the PROFITEST PRIME, measurements can be performed in order to test the effectiveness of protective measures in accordance with IEC 60364-6/DIN VDE 0100-600, EN 50110-1/DIN VDE 0105-100 and IEC 60364-4-41/DIN VDE 0100-410.



Characteristic Values

Test/Analysis Standards

CHAdeMO	Versions 0.9.1, 1.0.0., 1.0.1, 1.1
DC-CCS	DIN SPEC 70121 or ISO 15118-1
AC	EN 61851-1

DC-CCS Measurement

Voltage Measurement	
Range	0 ... 1000 V
Resolution	± 1 V
Accuracy	± 1 V, not calibrated
Current Measurement	
Range	0 ... 6 A
Resolution	± 100 mA
Accuracy	± 0.5A, not calibrated

EV Simulation

Simulated battery voltage	230 ... 260 V DC output
Current	Approx. 6 A _{DC}
Duration	Approx. 20 s

Scope of Delivery

- 1 PROFITEST H+E XTRA / PROFITEST H+E XTRA C
- 1 Mains cable
- 1 **Toolbox** software
- 1 Operating instructions
- 1 USB cable

Order Information

Description	Type	Article Number
PROFITEST H+E XTRA	For CCS	M525N
PROFITEST H+E XTRA C	For CCS, CHAdeMO, AC	M525M


Further information regarding accessories can be found:

- in our Measuring Instruments and Testers catalog
- on the Internet at www.gossenmetrawatt.com


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