Product brochure

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Easy Chester Ultimate Guided EVSE testing in the field.

AC, DC, and safety testing for service teams worldwide – standards-based, reproducible, and documented.

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Why testing matters

Reliable charging infrastructure begins with professional testing.

When charging infrastructure fails, it is not just the driver who loses time. Operators lose availability, service organizations lose efficiency, and manufacturers lose trust. Professional testing combines electrical safety, charging functionality, and communication into a traceable process – all within a single test report.

01

CPO / Operator
Ensure availability, reduce downtime, demonstrate service levels.

02

Service teams
Quickly understand what is happening on-site – without a test vehicle and without guesswork.

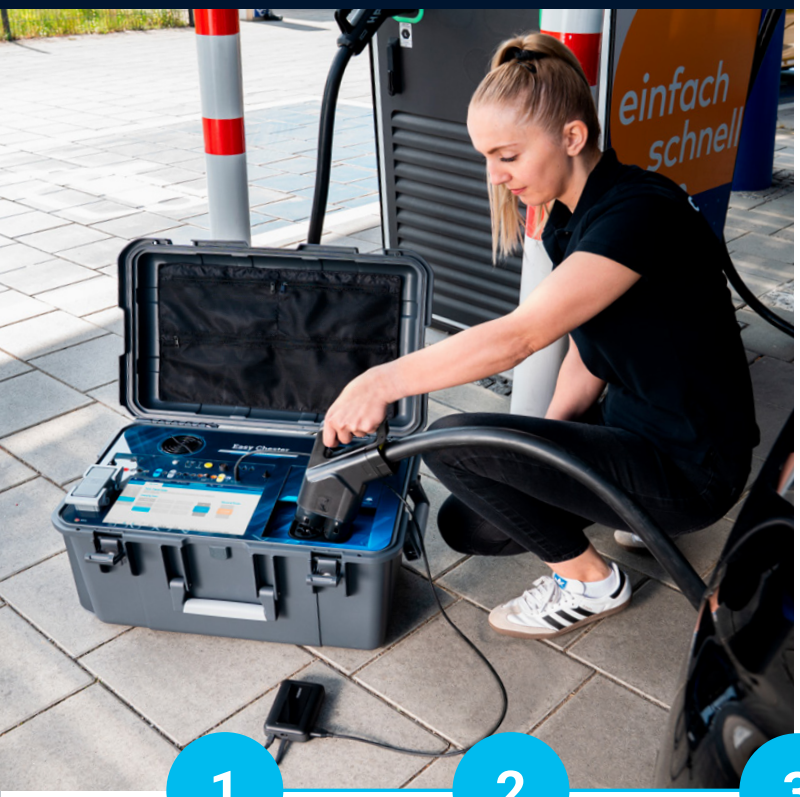
03

OEM / Manufacturer
Perform reproducible checks for commissioning, firmware changes, and service cases.

04

Specialized electrical companies
Conduct safety tests in accordance with standards, in a guided manner, and with documentation.

Uncertainty gives way to reliable verification. The Easy Chester Ultimate helps you test EVSE installations in a clear, reproducible, and documented manner—from the initial safety check to the final test report (Pass/Fail).



Field Reality

Connect. Select. Test. Verify. Report.

From connection to verification, the Easy Chester Ultimate guides the user through a clear process. The workflow integrates safety, functionality, diagnostics, and documentation. Service technicians do not work in a laboratory; they work out in the field, at the charging point – facing time pressure, varying standards, safety requirements, and customers who want a clear answer.

A good on-site test must bring structure to complexity.

1 Connect
2 Select
3 Test
4 Verify
5 Report

The Easy Chester Ultimate turns the charging point into a clear testing process – Connect, select standard, guided testing, isolate faults, document results.

The difference in the field: Individual audit actions transform into a guided audit process – featuring a start, status, decision, and documented result.

Is the system electrically safe?
Protective conductor, isolation, residual voltage, RCD/IMD, and loop impedance must be clearly evaluated.

Is the EVSE communicating correctly?
CP/PP, PLC/SLAC, DIN 70121, and ISO 15118-2/-3 must proceed in a traceable manner.

Does the station charge reliably?
400 V and 800 V technology, power levels, and extended tests demonstrate performance under real-world conditions.

Can the result be substantiated?
The operation is not complete until a professional test report documents the condition.

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Direct Standard Testing

Check standards directly. Without detours.

Charging standards directly and precisely – without detours via adapters and protocol converters. Genuine testing in accordance with the standards.

EV Core
Communication and charging function integrated directly into the system.

No adapter mindset
Guided standard processes instead of workarounds.

comISO
Safety tests on the grid and EV sides.

400 V + 800 V
330 V and 660 V charging technology.

Practical benefit: The technician sees not just a measured value, but the state of the EVSE in the context of the standard. This reduces misinterpretations, speeds up diagnostics, and improves comparability between locations.

Product Architecture

AC Tester + DC Tester + Safety Tester

The Easy Chester Ultimate combines communication, charging/functional, and electrical safety tests into guided standard processes for both the commissioning and maintenance of charging stations.

„All-in-one“ here means more than just measurement. It means understanding the charging station from three perspectives: the grid, the vehicle, and the service process. This is precisely what makes complex EVSE testing easily manageable – for both beginners and experts.

AC

AC Testing
IEC 61851-1 and SAE J1772, as well as ISO 15118 as required, for AC charging processes, CP/PP signals, and guided functional tests.

DC

DC Testing
DIN 70121, ISO 15118-2/-3, CCS, NACS, CHAdeMO – directly at the charging point, without multiple vehicles.

Safety Testing
comISO for grid and EV sides: protective conductor, isolation, residual voltage, RCD, IMD, and Z_s.

From the service vehicle to the charging point. The portable test unit brings the testing process directly to the location where the EVSE needs to be evaluated.

For your service teams‘ standards.

A testing device for international service organizations – Europe, North America, and Asia – configurable according to charging infrastructure, region, and testing tasks.

Interfaces, testing and communication aspects

Europe / International	DC CCS 2, AC type 2	IEC 61851-1, DIN 70121, ISO 15118-2 / -3
North America	DC CCS 1, NACS / SAE J3400, AC type 1	SAEJ1772, SAEJ3400, ISO 15118-2 / -3
Asia / Global Networks	CHAdeMO	CHAdeMO

Configure instead of improvise. The Easy Chester Ultimate is designed to match the standards and charging points of your specific service environment and can be combined as needed. This enables international teams to work using a unified testing process – even when infrastructure varies by region.

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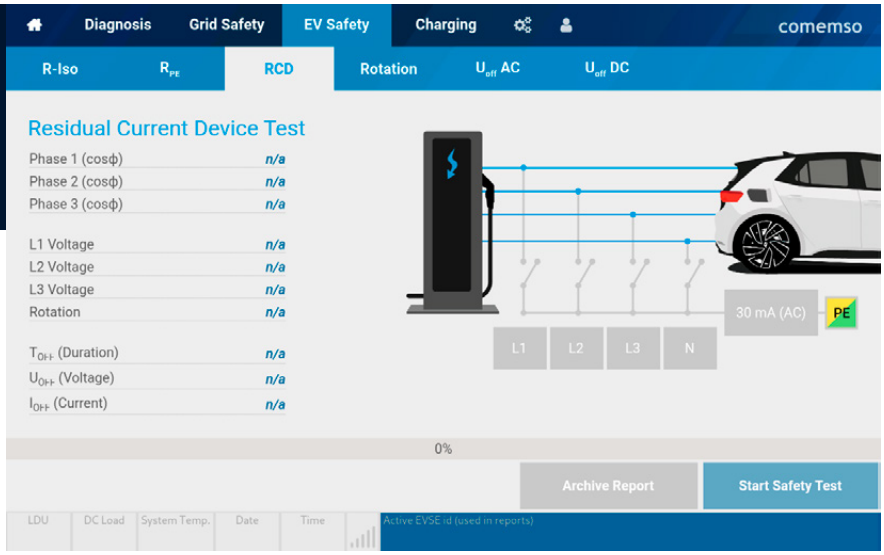
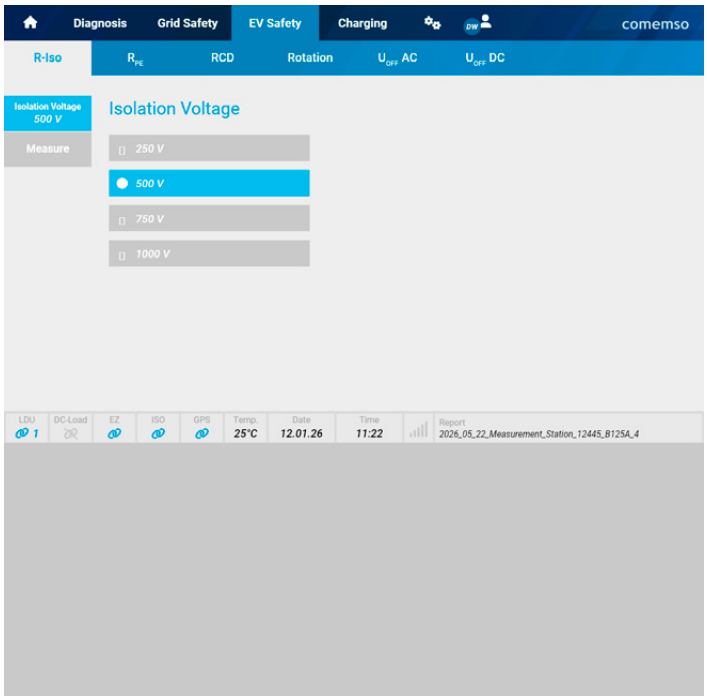
Guided Test Sequence

Conduct guided tests – in the order that makes sense in the field.

Safety first, then function: The Easy Chester Ultimate guides the user through safety checks on the grid and vehicle sides, as well as functional tests and fault simulations on the EV side – culminating in a test report.



Grid Safety Tests
Check the grid side: R_{PE}, R-ISO, t_{RCD}, and Z_S. The system is first evaluated from the perspective of the installation itself.



Guided Safety workflow visualizations
Residual voltage, insulation, and RCD/IMD functions are visually displayed. This reduces the effort for interpretation and helps make risks visible.

Safety Tests on the EV side
Check the vehicle side: R_{PE}, R-ISO, U_{OFF}, t_{RCD}, and IMD/R-ISO simulation. Safety functions become visible at the point where the electric vehicle is connected.

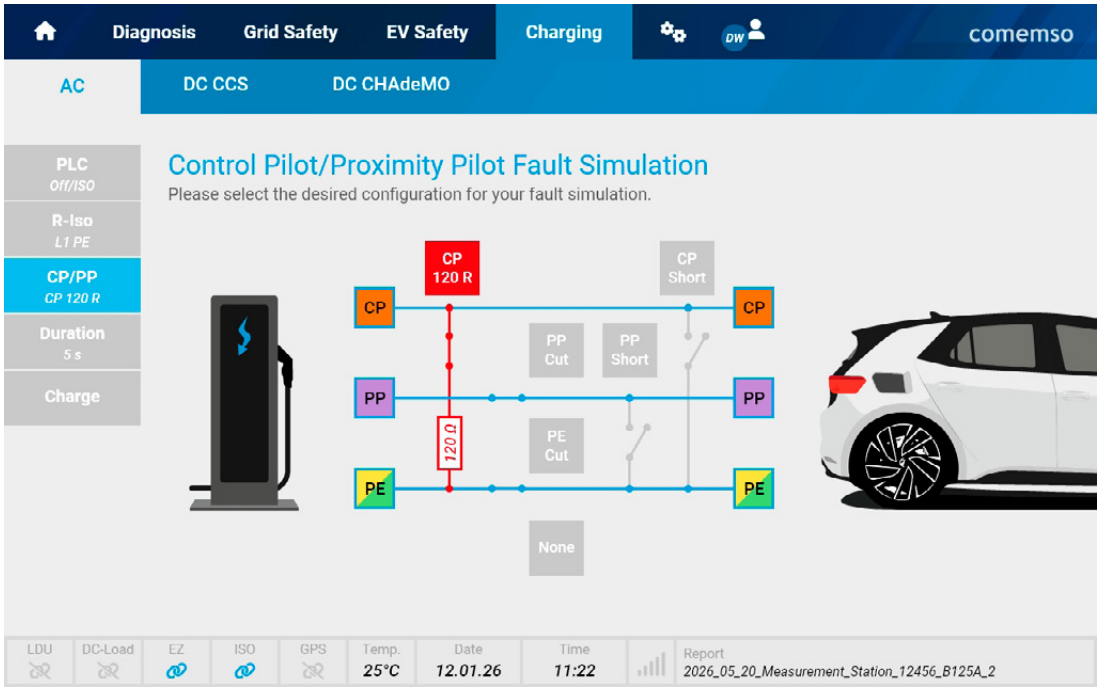
Functional tests on the EV side
Test charging communication and charging behavior: CP/PP, PLC/SLAC, DIN 70121, ISO 15118-2 / ISO 15118-3, 400/800 V charging technology and charging function.

Test Report and Maintenance Record
Pass/fail results, measured values, communication steps, and safety test results serve as professional documentation.

Ultimate UI

Complex standards. Clear decisions.

The user interface is built for service operations: Visually guided, with clearly recognizable status and designed for rapid decision-making.



Clear operating structure
Menus, status areas, and measured values remain visible during the test. The UI indicates which step is active and which decision is pending next.

Fault simulation on the EV side
Targeted fault injection: CP short circuit, PP short circuit/line break, and PE line break.
Causes are isolated in a reproducible manner.

Guided navigation
Grid safety, EV safety, charging, and diagnostics are visible as process logic.

PASS / FAIL Clarity
Results are incorporated into the test report in a transparent and immediate manner.

Fault simulation
CP/PP/PE faults help test the EVSE's response to electromagnetic degradation.

Dynamic Status Display
Color-coded status indicators show boot, standby, PASS, FAIL, HV warning, active measurement, and remote session – even from a distance.

comISO Safety Tests

Making safety visible – on the grid and vehicle sides

comISO integrates electrical safety testing into the EVSE service workflow. This allows protective functions to be tested where it matters – in the field.

Safety Tests	Grid side	EV side
R_{PE} – Protective Conductor Resistance	●	●
R-ISO – Isolation Resistance	●	●
U_{OFF} – Residual Voltage	–	●
t_{RCD} – Residual Current Device	●	●
IMD / R-ISO Simulation	–	●
Z_s – Loop Impedance	●	–

Connection within the service process

Firmware, support, data, and test reports are part of the workflow – enabling field teams to work productively and always with the latest updates.

FOTA
„Firmware Over The Air“ for updates in the service process.

Hotspot
Data transmission and access in the field.

Remote Support
Assistance from comemso support regarding diagnostic questions (during comemso office hours).

128 GB Storage
Storage for test data, reports, and instructions.

Beyond Measurement
The real benefit arises when testing is not viewed in isolation: firmware stays up to date, service inquiries can be resolved more quickly, test reports are stored, and data can be integrated into the service process.

Practical design

Built for the service vehicle, not just for the laboratory.

In the field, factors such as transport, power supply, visibility, and robust operation are what count. The Easy Chester Ultimate is designed for real-world service conditions.

Terms of service matter
Improved thermal management, dynamic status display, GPS, audio, automatic self-test, lid pocket, and robust wheels/handles support on-site use.

USB-C / 12V/24V
Simple power supply using a standard power adapter or airline-compliant power banks.

23.6 x 15.7 x13.1 in
Format suitable for service vehicles

< 100 W
Low power consumption

15,7 kg
Lower weight for field service

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Extended Validation

When the Quick Check isn‘t enough.

Some errors only become apparent after a prolonged charging time or under higher load. The Easy Chester Ultimate can be expanded for more in-depth validation.

Long Duration Unit
Extend charging time by up to 60 minutes, check backend communication, and expose time-dependent errors.

Use Cases
Backend and billing verification, long-term stability, load balancing, PE connections, recurring service incidents, and in-depth validation following repairs or firmware updates.

Resistive 30 kW DC Load
Test up to 30 kW / 90 A or cascade two loads: up to 60 kW / 180 A.
Suitable for more realistic load validation over extended periods (>60 minutes).

Trust through experience and innovation.

The Easy Chester product family has been on the market from comemso since 2016 and impresses through continuous development and innovation leadership.

Remote Support
Assistance from comemso support with diagnostic questions (during comemso office hours).

Standards Expertise
Active engagement with charging protocols, standards, and interoperability.

Made in Germany
Development and support from Ostfildern – for customers worldwide.

Calibration competence
Accredited calibration laboratory according to DIN EN ISO/IEC 17025

Made in Germany

DAkkS Deutsche Akkreditierungsstelle

Used by international EVSE manufacturers, operators, and service organizations

circontrol · Clever · electrify america · EnBW · EVBOX · Fastned · KEMPOWER · Mercedes Benz · SIEMENS · swarco · synfis · OMRON

Ready to standardize your EVSE service?

Configure the Easy Chester Ultimate for your standards, regions, safety tests, and load validation.

Request configuration
Clarify standards, options, comISO, LDU, and load requirements.

Book a live demo
Experience guided workflows, UI, and test reports in a service context.

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