

STANDARDS- COMPLIANT TESTING OF E-MOBILITY

LEGALLY SECURE TESTING OF CHARGING
INFRASTRUCTURE AND ACCESSORIES



STANDARDS-COMPLIANT TESTING OF THE CHARGING STRUCTURE

For short to medium driving distances, electric vehicles are a sensible alternative to internal combustion engines and they promote an improved environmental balance sheet by doing without fossil fuels. Roughly 10.9 million electric vehicles had already been registered worldwide by the end of 2020, including just above 745,000 newly registered vehicles with electric drive alone in the European Union. However, increasing numbers of electric vehicles are posing new challenges for the historically evolved electrical power grid and the charging infrastructure. Furthermore, according to a study conducted by the university of applied sciences in Bingen, Germany, expansion of the charging infrastructure is often associated with diminished power quality.

Charging stations must comply with the German charging station ordinance and have to be tested in accordance with applicable technical standards (initial testing per IEC 60364-6/DIN VDE 0100-600 and periodic testing per IEC 50110-1/DIN VDE 0105-100). Conductive charging is described in e-mobility standard DIN EN 61851 (VDE 0122), DIN SPEC 70121 as well as ISO 15118-1 which specifies the charging modes. Charging cables must also be tested at regular intervals in accordance with DIN EN 50699 (VDE 0702).

Solutions provided by GOSSEN METRAWATT cover all aspects of e-mobility – from the quality of the electrical networks (so-called power quality) and testing of charging stations and cables, right on up to safe, high-voltage vehicle testing.

HIGHLIGHTS

LEGALLY SECURE TESTING

Assures standards-compliant testing – even 10 years down the road – by updating the firmware to the most current standards. Calibration at our own calibration center with DAkkS certificate ensures traceability for your ISO certification.

LEGALLY SECURE DOCUMENTATION

Quick, efficient and simple, audit-proof documentation of test results thanks to ingenious IZYTRONIQ software. Cascadable, future-proof software concept.

FUTURE-PROOF

Thanks to a 10-year service guarantee and application support for test requests. Can be updated for future expansion and changes.



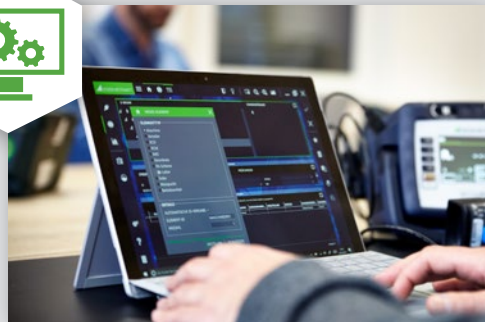
POWER QUALITY AND ENERGY MANAGEMENT

- Avoidance of malfunctioning in the charging process thanks to power monitoring with the SINEAX AM and LINAX PQ product ranges, or with the mobile MAVOWATT 240
- Billing and monitoring of energy consumption with MID-certified ENERGMID meters
- Energy controlling with ENERGYSSENS: the intelligent sensor system



HIGH-VOLTAGE TEST AND PRECISION TEST SIGNALS

- Legally secure testing of electric vehicles per UN ECE R100 with the METRAHIT IM E-DRIVE
- Insulation resistance tester, milliohm meter, multimeter and data logger with the METRAHIT IM E-DRIVE
- SYSKON series of programmable, manually and remote controllable DC power supplies



SOFTWARE

- Modern test data management with the IZYTRONIQ / IZYTRONIQ Cloud Collection software solution
- SMARTCOLLECT measurement data and energy management software
- Data logging for power quality and power monitoring via DRANVIEW





SAFE ELECTRICAL TESTING OF CHARGING STATIONS

- Standards-compliant testing of charging stations during initial start-up and periodic testing with the PROFITEST MXTRA IQ / PRIME per DIN VDE 0100-600 (IEC 60364-6) and DIN VDE 0105-100 (EN 50110-1)
- Simulation of electric vehicles as well as the current carrying capacity of cord sets with the GOSSEN METRAWATT test adapters per VDE 0122-1 (IEC 61851-1)
- Simulation of AC and DC charging processes per VDE 0122-1 / 22 / 23 / 24 (IEC 61851-1 / 22 / 23 / 24), DIN SPEC 70121, ISO 15118-1



DIAGNOSIS OF CHARGING STATION MALFUNCTIONS

- Testing for correct functioning and complete diagnosis of charging stations with the PROFITEST H+E BASE, BASE C, BASE II, BASE 32, H+E XTRA, H+E XTRA C
- Quick and efficient diagnosis of malfunctions with the PROFITEST H+E TECH



SAFE ELECTRICAL TESTING OF CHARGING CABLES

- Standards-compliant testing of single and 3-phase mode 2 and 3 charging cables with the SECUTEST ST PRO, PROFITEST MXTRA IQ and the PROFITEST E-MOBILITY per DIN EN 50699 (VDE 0702), IEC 62955, IEC 62752
- Simulation of faults in accordance with DIN VDE 0122-1 (DIN EN 61851-1) and the E-Mobility E-Check



CHARGING STATION (TESTING)



PROFITEST MXTRA IQ
M535D



PRO TYP I, II TEST ADAPTER
Z525A / Z525B



ADAPTER
PRO TYP I to PRO-TYP II
Z525C



METRALINE EM PRO TYP I, II, III
TEST ADAPTER
Z525F / Z525G / Z525H

CHARGING STATION (DIAGNOSTICS)



PROFITEST H+E BASE / 32
M525A / M525C



PROFITEST H+E BASE II / PQ
M525E



PROFITEST H+E TECH
M525B



PROFITEST H+E XTRA C
M525M

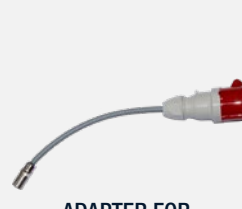
CHARGING CABLES



SECUTEST ST PRO
M707B



PROFITEST E-MOBILITY
M513R



ADAPTER FOR
PROFITEST E-MOBILITY
Z513G



ADAPTER FOR
PROFITEST E-MOBILITY
Z570B

POWER QUALITY & ENERGY MANAGEMENT



LINAX PQ3000*



LINAX PQ5000*



SINEAX AM1000*



SINEAX AM3000*



MAVOWATT 240
M820B



ENERGYMID
U2289



ENERGYSENS
U100A

* Configurable product

HIGH-VOLTAGE TEST & PRECISION TEST SIGNALS



METRAHIT IM XTRA
M273S



METRAHIT IM E-DRIVE
M274S



SYSKON P-Series
500-4500W



SPL-Series
250-400W

SOFTWARE



IZYTRONIQ*



IZYTRONIQ CLOUD COLLECTION*



SMARTCOLLECT*



DRANVIEW
Z818Z

ADDED VALUE – FROM GOSSEN METRAWATT

TRAINING CENTER

Ongoing qualification enjoys top priority, because complex measuring tasks, standards and regulations are subject to continuous change. Our instructors are experienced experts who are familiar with the requirements based on actual practice and always keep themselves up to date.

We can provide you with:

- Training at GMC-I's training center
- Training on-site at your location
- Individualized training concepts, customized to meet your needs
- Webinars on selected topics



PRODUCT SUPPORT

Our product support department makes numerous support services available, regardless of whether you need to solve a problem with a product, require on-site technical support, want help with one of our software products or are seeking technical advice regarding standards or measuring applications.

We can provide you with:

- Telephone and e-mail support for technical questions and problems
- Consultation concerning applicable standards and products
- Software support
- Extensive FAQs



CALIBRATION CENTER

Calibration as a standard feature is an essential QA factor for professional test equipment monitoring. Our calibration center is accredited per DIN EN ISO / IEC 17025 as a DAkkS calibration lab under registration no. D-K-20313-01-00.

Our services:

- DAkkS calibration
- Factory calibration
- Test equipment monitoring
- Verification of energy meters at our state-approved test laboratory

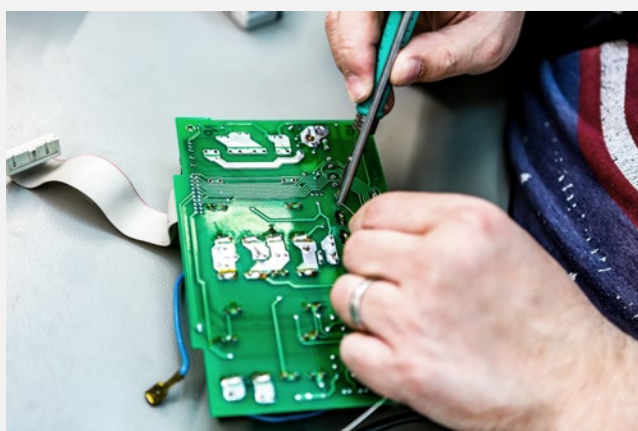


SERVICE CENTER

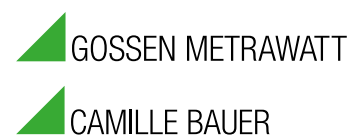
In order to assure that your measuring and test instruments are always ready for use, the employees at our GMC-I Service Center complete any necessary repairs quickly, reliably and economically.

Our services:

- Repair services executed by qualified personnel
- Rental instrument service
- Replacement parts for a long service life
- Update service for reliable measuring and testing in the future as well



GMC INSTRUMENTS



Gossen Metrawatt GmbH
Südwestpark 15 ■ 90449 Nürnberg ■ Germany
Phone: +49 911 8602-0 ■ Fax: +49 911 8602-669

www.gossenmetrawatt.com ■ info@gossenmetrawatt.com