





# SAFE ELECTRICAL TESTING OF CHARGING STATIONS

- Standards-compliant testing of charging stations during initial start-up and periodic testing with the PROFITEST MXTRA per DIN VDE 0100-600 (IEC 60364-6) and DIN VDE 0105-100 (EN 50110)
- Simulation of electric vehicles as well as the current carrying capacity of cord sets with the PRO-TYP II test adapter per VDE 0122-1 (IEC 61851-1)



# DIAGNOSIS OF CHARGING STATION MALFUNCTIONS

- Testing for correct functioning and complete diagnosis of charging stations with the PROFITEST H+E BASE
- 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 PRO and the PROFITEST E-MOBILITY per DIN VDE 0701-0702
- Simulation of faults in accordance with DIN VDE 0122-1 (DIN EN 61851-1) and the E-Mobility E-Check





# POWER QUALITY AND ENERGY MANAGEMENT

- Avoidance of malfunctioning 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 ENERGYMID meters
- Energy controlling with ENERGYSENS: 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 XTRA
- Insulation resistance tester, milliohmmeter, multimeter and data logger with the METRAHIT H+E CAR
- 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



# CHARGING STATION (TESTING)



PROFITEST MXTRA M535D



PRO TYP II TEST ADAPTER
Z525A



PRO TYP I TEST ADAPTER
Z525B



ADAPTER PRO TYP I to PRO-TYP II

Z525C

### CHARGING STATION (DIAGNOSTICS)





PROFITEST H+E BASE
M525A



PROFITEST H+E TECH
M525B

### **CHARGING CABLES**





SECUTEST PRO M705C



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 H+E CAR M227T



SYSKON M227T

### **SOFTWARE**



IZYTRONIQ\*



IZYTRONIQ CLOUD COLLECTION\*



SMARTCOLLECT\*



**DRANVIEW** Z818Z

## **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-15080-01-01.

#### 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



### 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



# 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 3.2 million electric vehicles had already been registered worldwide by the end of 2017, including just under 100,000 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) which specifies the charging modes. Charging cables must also be tested at regular intervals in accordance with DIN VDE 0701-0702.

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.



**GMC** INSTRUMENTS

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