

End-of-line test – MTS780e

Testing of AC charging stations in compliance with calibration law

The growing number of electric vehicles in Europe also makes the expansion of the charging infrastructure increasingly important. The requirements for the charging process of electric vehicles with their different charging capacities and different types of connectors are high. The charging stations should operate reliably, according to their specifications and, especially the HPC (High Power Chargers), should operate ultra-fast. This requires sophisticated quality control at the end of the production process.



Suitable for accreditation according to MID

Our compact systems, including a test value generation and measuring system, can be seamlessly integrated into your production process. The test quantities are supplied to the charging station via a customised connection adapter. The metrological verification is carried out via a charging cable permanently connected to the DC charging station which can be connected to the connection panel on the test system.

European Directive 2014/32/EU (MID) - e.g. module B and F (calibration and routine testing)

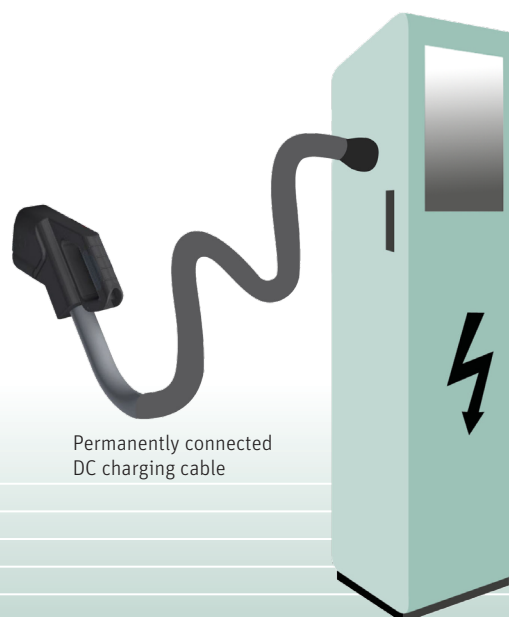
Quality inspection and calibration

Testing of High Power Charger (HPC)
Current measurement up to 1000 A DC
Voltage measurement up to 1500 V DC

- **Electronic generation** of test voltage and test current using the latest power electronics
- The control of the integrated current switches (measurement in two directions) occurs via PLC resp. compressed air unit.



Test system MTS780e



Permanently connected DC charging cable

DC charging station

Hardware – Testing up to 1000 A (DC) and 1500 V (DC)



MT310s2 Reference meter



TK326 Scanning head

Precise

- MT310s2 Reference Meter of class 0.1
- Forms a measuring unit together with a high-precision DC converter
- Reference device and „error calculator“ in one

Alternatively

- Comparator COM3003[DC] class 0.04 (DC)



COM3003[DC] Comparator

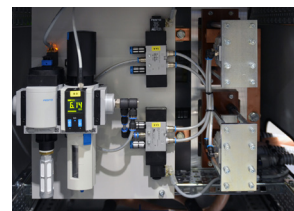


Controllable

- Compact high-performance sources for DC test quantities with current generation in the return connector

Digital

- PLC controls the voltage and current circuit
- Magnet valves control currents >80 A DC using current switches and pneumatic unit



Current switches and pneumatic unit

Options

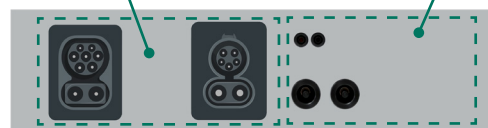
- Watchdog to ensure safety
- DTS100 for data transfer
- Adaptable to existing systems
- Test position can be adapted variably to the DUT on request

Input

- CCS 1
- CCS 2

Output

- Current
- Voltage



Example: Connection panel for charging station

WinSAM – Software for control and testing

Specials

- Automatic and manual control
- Simple implementation in the customer's IT landscape
- Network-compatible
- Individual, pre-defined test sequence
- Individual layout by report generator
- Reporting including evaluation

The entire test system can be controlled automatically or manually using the WinSAM test and control software. Optionally, the system can be controlled via the corresponding interface with the customer's software.

