MTE Meter Test Equipment

eMOB I-200.1 DC

Test Adapter for E-Mobility Charging Stations

The new eMOB I-200.1 DC test adapter enables in combination with the PWS 3.3 genX Portable Working Standard a comprehensive on-site test of DC charging stations for electric vehicles.

This is prerequisite for precise billing of the energy charged into the accumulator of the electric vehicle considering the voltage drop between the built-in electricity meter and the outlet of the charging station.

The eMOB I-200.1 DC test adapter is equipped with a CCS Type 2 inlet (IEC 62196-3) to plug-in and lock the cable of the charging station and on the other side with a charging cable with CCS plug for the Electric Vehicle.

Advantages

- Calibration of the DC energy measuring unit(s) inside the charging station with a reference equipment of accuracy class 0.1
- Easy and fast connection between charging station and vehicle
- Charging voltage up to 1000 VDC measured
- Charging current up to 200 ADC measured (up to 200 kW DC power at 1000 VDC)
- User-friendly functions such as integrated operation manual
- Large 9" touch screen colour display and web server for remote display of graphical user interface and remote control of the unit

Technical Data eMOB I-200.1 DC

General

Power supply:	Power may be taken from the CT-Inputs of the Metering device: U = ± 18 VDC U = 3.3V DC
Power consumption:	max. 18 W
Housing:	Hard Plastic
Dimensions:	L 440 x W 184 x H 234 mm
Weight:	7.5 kg
Operation temperature:	-10 °C ... +50 °C
Storage temperature:	-20 °C ... +60 °C
Relative humidity:	≤ 85% at Ta ≤ 21°C
	≤ 95% at Ta ≤ 25°C, 30 days / year spread
Connection:	CCS Type 2 inlet and cable with CCS plug (IEC 62196-3)

Safety CE

Isolation protection:	IEC 61010-1:2017 IEC 61010-2-030:2017
Isolation voltage:	5 kV DC
Degree of protection:	IP-42

Measurement Range

Measuring Quantity	Range	Phase
DC Current	1 A… 200 A	I1
Internal ranges	Range	Output value [V]
	1 A … 1.5 A	0.2V … 2.5V DC
	1.5 A … 3 A	0.2V … 2.5V DC
	3 A … 6 A	0.2V … 2.5V DC
	6 A … 12 A	0.2V … 2.5V DC
	12 A … 25A	0.2V … 2.5V DC
	25 A … 50 A	0.2V … 2.5V DC
	50 A … 100 A	0.2V … 2.5V DC
	100 A … 200 A	0.2V … 2.5V DC

Technical Data PWS 3.3 genX + eMOB I-200.1 DC

Measurement Accuracy

Voltage / Current		≤ ± E [%] [1]
Measuring Quantity	Range	**Cl. 0.1**
DC Voltage (U1-N)	40 V …1000 V	0.05
	10 V … 40 V	0.05
DC Current direct (I1)	2 A … 200 A	0.1
	1 A … 2 A	0.1

DC Power / Energy DC Voltage: 40 V … 1000 V		≤ ± E [%] [1]
Measuring quantity / Input I	Range	**Cl. 0.1**
DC current direct (I1)	2 A … 200 A	0.1
	1 A … 2 A	0.1
Drift / year at Power / Energy (I direct)		0.02

	Internal voltage ranges Un [V]			
DC Voltage (U1-N)	125	250	500	1000

		≤ ± TC [%/°C]
	Range	**Cl. 0.1**
Temperature	0°C ... +40°C	0.005
coefficient (TC)	-10°C … +50°C	0.008

Notes

[1] x.x :Related to the measuring value
x.x :Related to the measuring range final value (full scale, FS),
E(M) = FS/M * x.x
(e.g. 0.05 at FS = 125 V, E(25) = 125/25 * 0.05 = 0.25 %)

Application