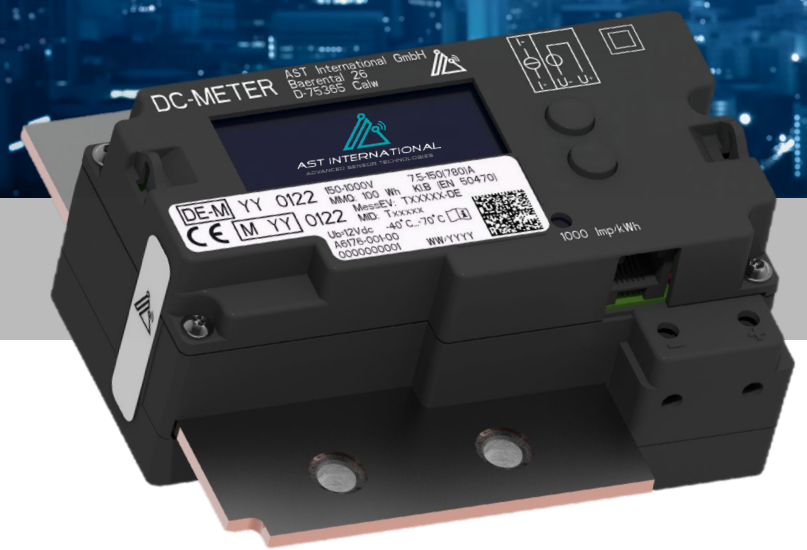

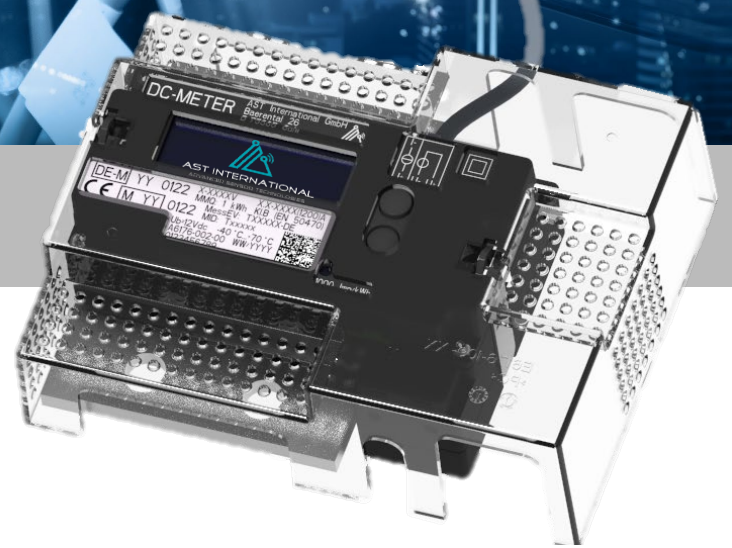

AST DC-Meter

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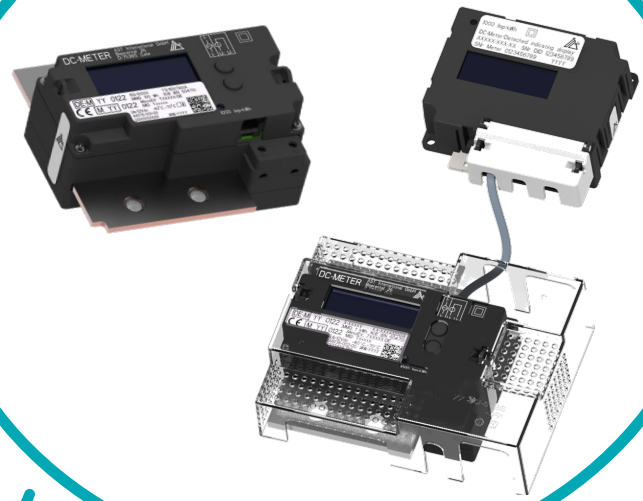
Communication protocol

- Transparent billing according to OCMF protocol
- Compatible with S.A.F.E. transparency software
- Acc. WELMEC 7.2 Software Guide



IoT

- Communication supporting Ethernet and RS485
- Backlighted LCD display (legal data and energy)
- NTP (Network Time Protocol)

Design

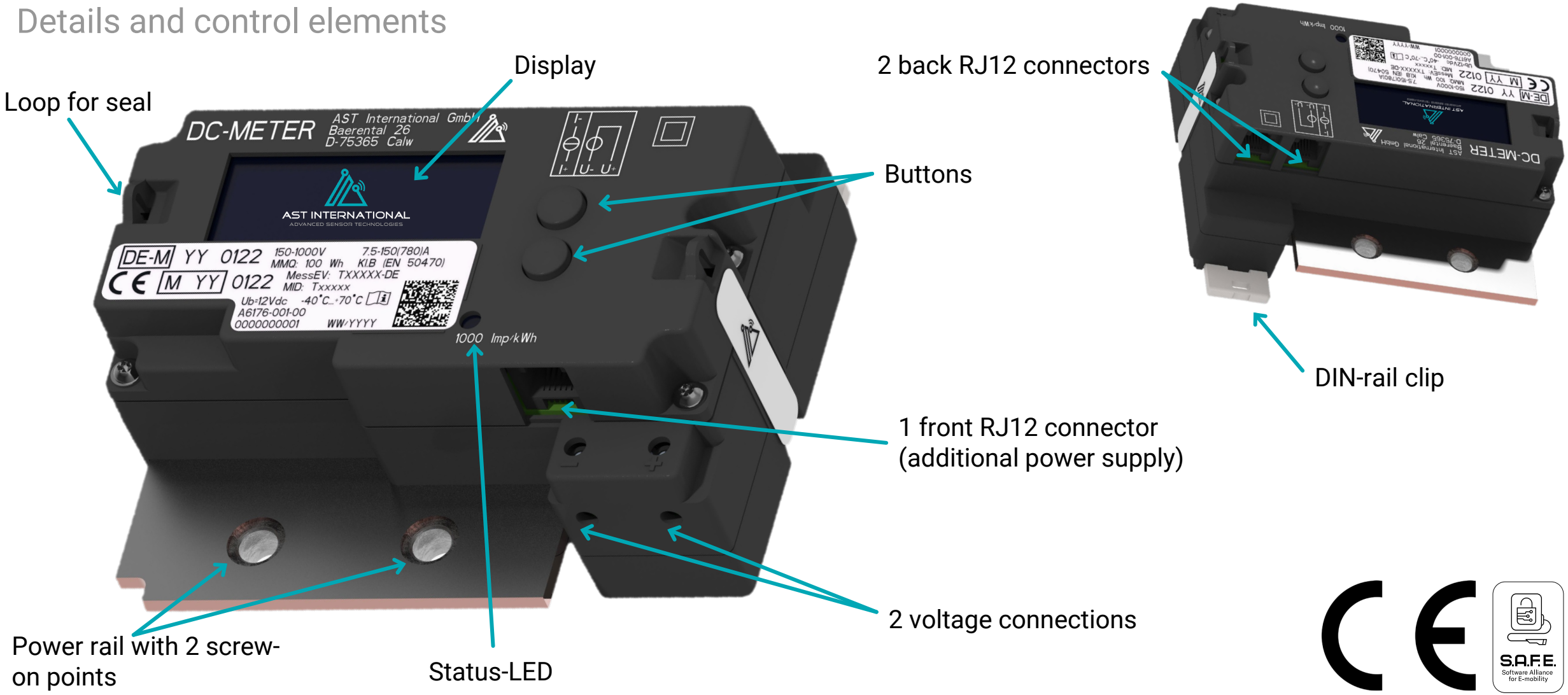
- Compact DC-Meter
- DC-Meter with a detached display (up to 3m cable length)
- Continuous high current and voltage measurement up to 1500A and 1000V
- bi-directional DC-Meter
- retrofit: designed to replace existing solutions

International Metering Standards

- Complies with the German Eichrecht, MID, UL and French calibration law
- EN 50470-4, IEC 62053-41
- IEC 62052-11:2020, IEC 62052-31 (Safety)
- UL 61010-1, UL 61010-2-030
- Décision ministerielle 01-03-2022

AST DC-Meter

Details and control elements



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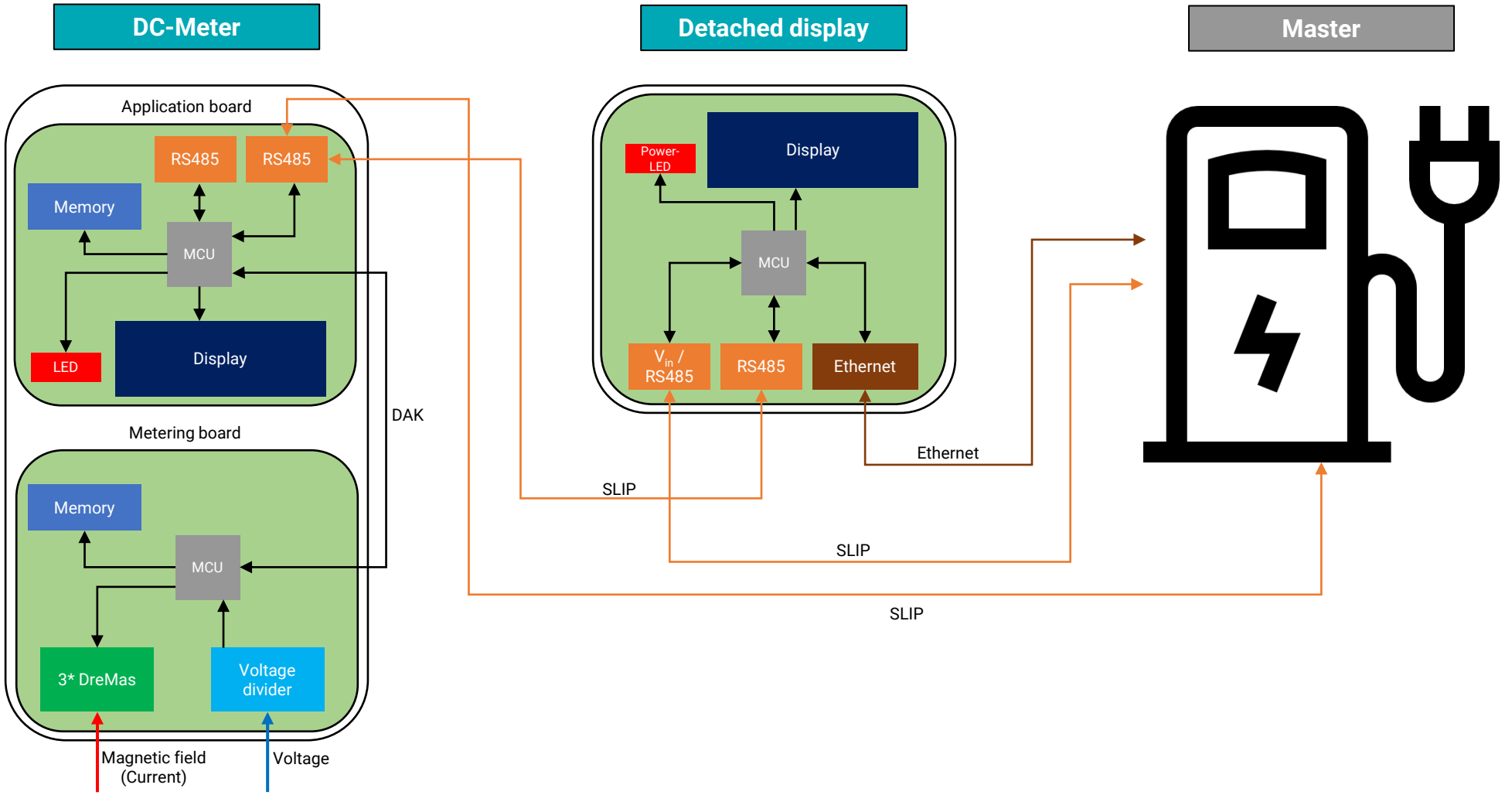
System overview



AST DC-Meter

Market needs

- Continuous current and voltage measurement for fast & ultra charging stations as well as Megawatt Charging Systems.
  - High current up to 780A or 1500A
  - High voltage up to 1000V

- DC-Meter conformity - certification according to
  - German Eichrecht (Module B and Module D certified)
  - MID
  - UL compliance
  - French calibration law (Décision n° 22.00.570.001.1)
- 4-wire-measurement or software based cable compensation
- Compact DC-Meter or variant with a detached display
- Bi-directional energy measurement

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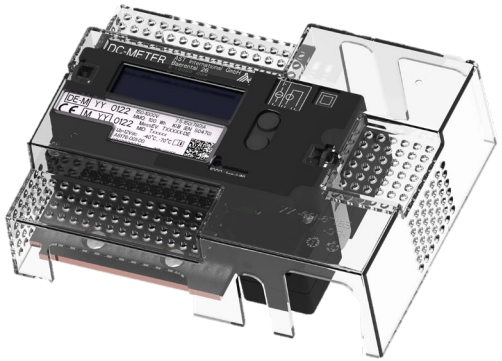
AST DC-Meter – product overview

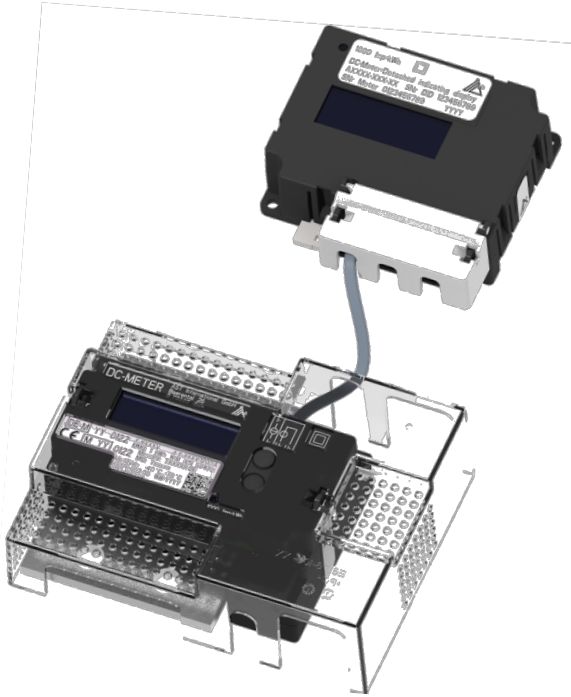
DC650	DC1500
Current measurement	
I_n = 650A	I_n = 1250A
I_{min} = 7.5A	I_{min} = 10A
I_{tr} = 15A	I_{tr} = 24A
I_{max} = 780A	I_{max} = 1500A
I_{st} = 0.6A	I_{st} = 0.96A
Voltage measurement	
U_n = 1000V	U_n = 1000V
U_{min} = 150V	U_{min} = 150V
Accuracy class	
• Class B, MID (according to 2014/32/EU of the EUROPEAN PARLIAMENT AND COUNCIL, attachment V, MI-003) • Class 1, IEC 62053-41:2021	• Class B accuracy starting at 10A, MID (according to 2014/32/EU of the EUROPEAN PARLIAMENT AND COUNCIL, attachment V, MI-003) • Class 1, IEC 62053-41:2021

Both available in following design variations:

Compact Version



Detached Display Version



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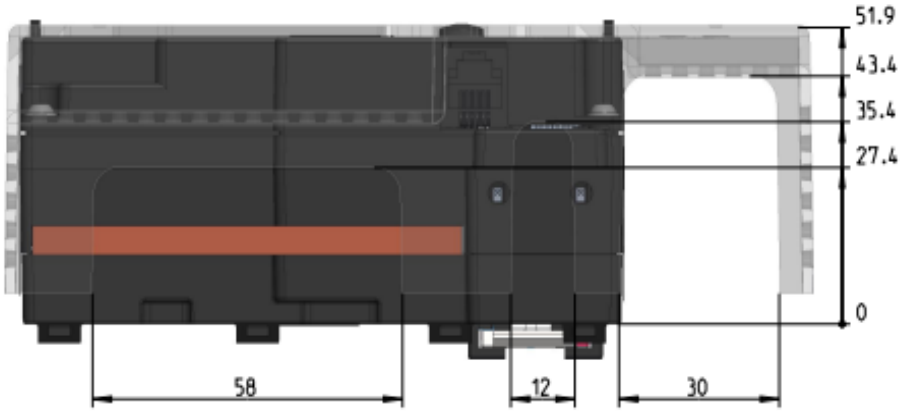
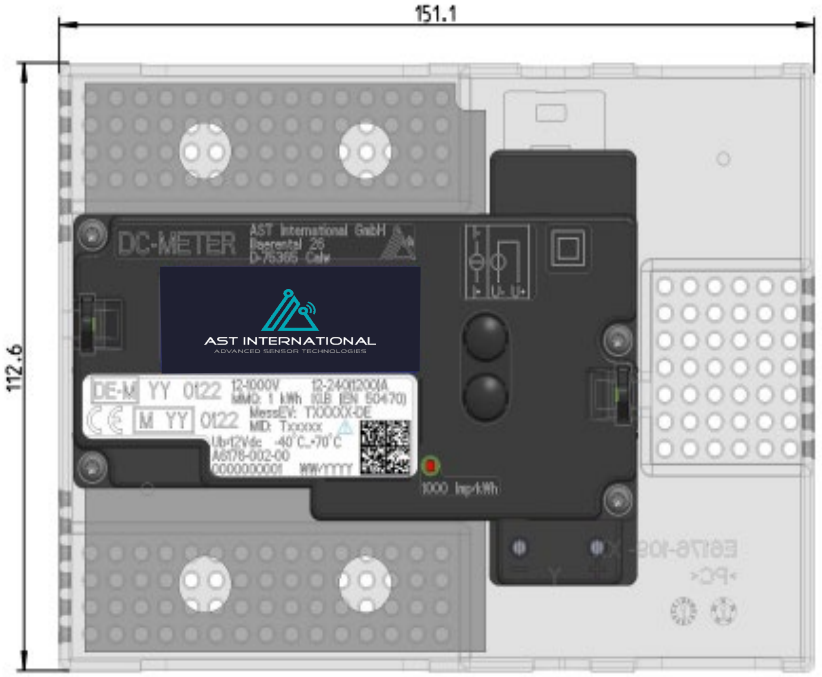
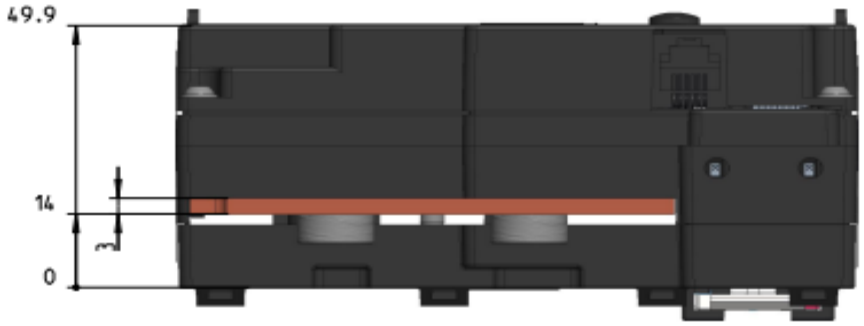
Dimensions with housing DC650 / DC1500 - Compact Version



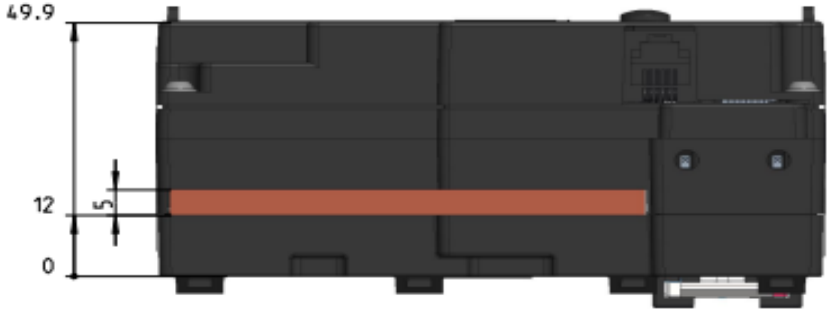


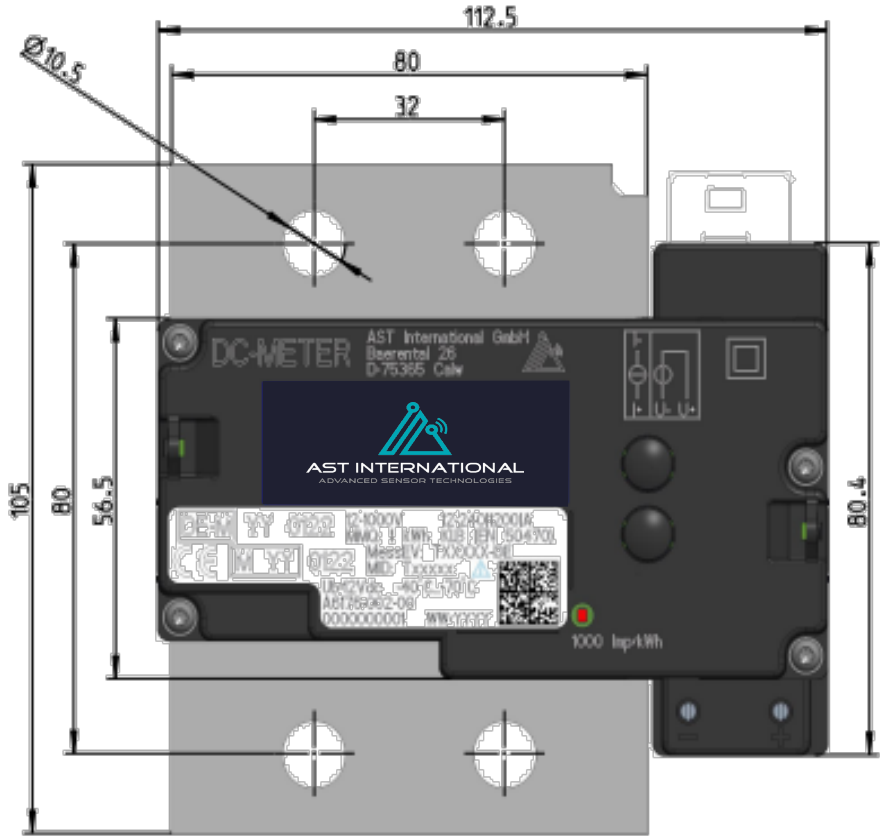
Dimensions without housing DC650 / DC1500 - Compact Version

DC650



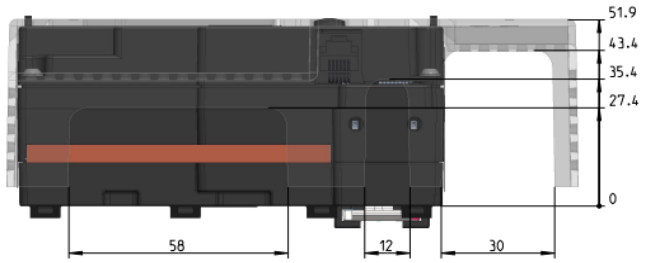
DC1500

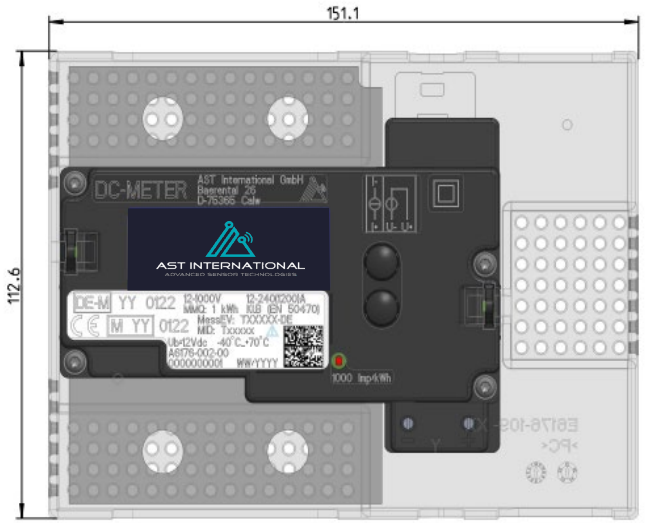




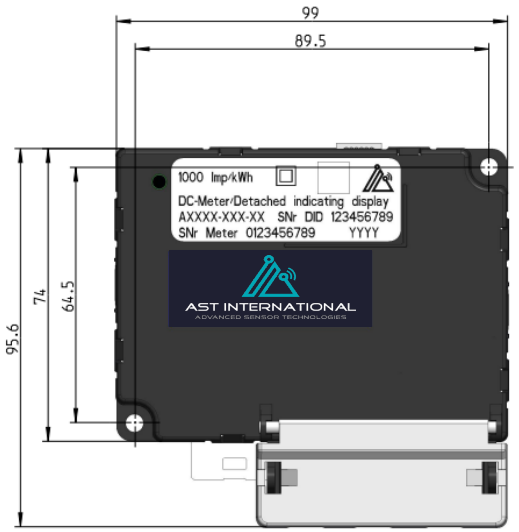
Dimensions with housing DC650 / DC1500 - Detached Display Version

Sensor Unit





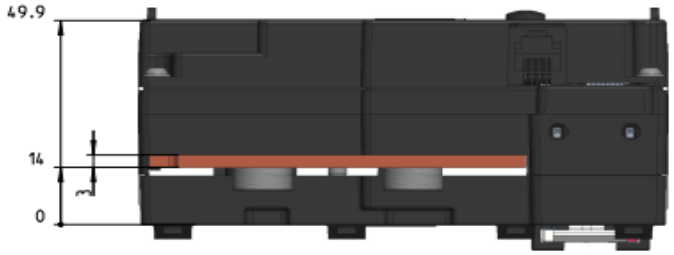
Meter Unit



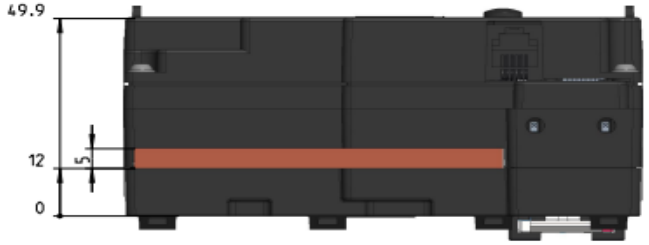
Dimensions without housing DC650 / DC1500 - Detached Display Version

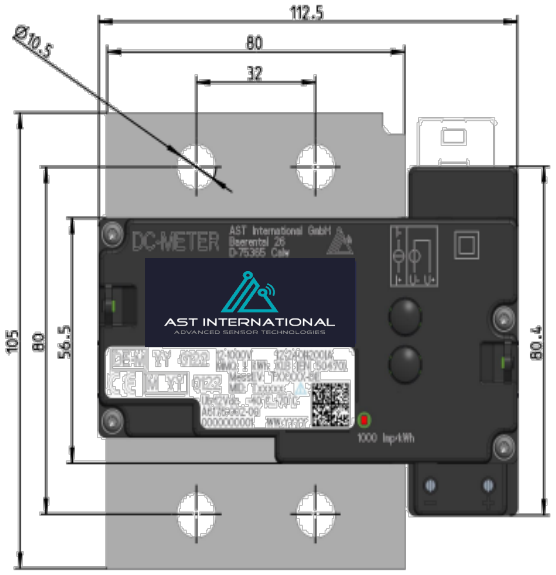
Sensor Unit

DC650

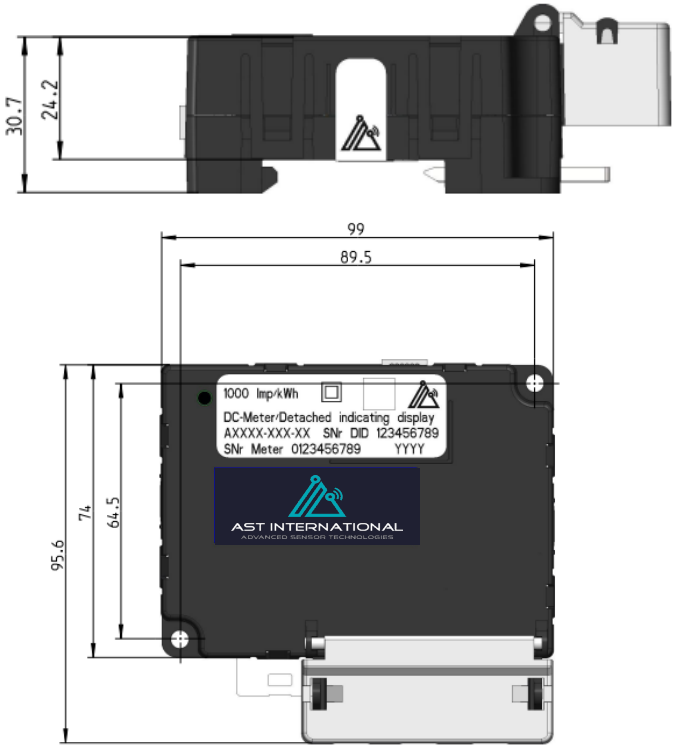


DC1500





Meter Unit



AST DC-Meter

Key features

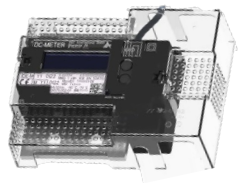
- Compact and robust design
- Bi-directional meter
- EN 50470-4, IEC 62053-41:2021
- IEC 62052-11:2020, IEC 62052-31 (Safety)
- UL 61010-1, UL 61010-2-030
- Charging cable resistance compensation or 4-wire-measurement
- Supply Voltage: 12V (compact version) / 24V (detached display)
- Meter Unit operating temperature range: -40°C to +80°C
- Sensor Unit operating temperature range: -40°C to +80°C
- Instantaneous data provided with a refresh rate at 500ms (current, voltage)
- Communication via Ethernet or RS485
- Encapsulated with OCMF protocol (S.A.F.E. transparency software) and signed data
- Rated insulated voltage at 1000V DC
- Production site approved acc. to Module D (German Eichrecht, MID)

Description

- Meter Unit: interface between the charging station (via Ethernet, RS485) and sensor unit as well as presenting the measuring data to the client.

- Cable: transmits data from the sensor unit to the meter unit. Capable to reach length up to 3 meters.

- Sensor Unit: measures the current and voltage.
  The calculated kWh are transmitted to the meter unit.



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✉ sales@ast-international.com

✆ +49 (7051) 6001-0