

## DC CHARGING POINT MEASURING DEVICE D1A DC Meter 130 A



### CHARACTERISTICS<sup>1</sup>

#### Meter type:

DC Energy Meter for 60 VDC - 600 VDC/ 1.25 - 25(130) A  
or 100 VDC - 1000 VDC/ 1.25 - 25(130) A  
Circuit diagramm E1000 (corresponds to 1000 as per DIN  
43856, see drawing on the back)

#### Accuracy:

Class A (2 %) oder Class B (1 %) according to EN 50470

#### Type approved, Domestic admission (DE)

#### Proven principle of measurement:

Direct current measurement with precision shunt resistor  
Direct voltage measurement with precision voltage divider

#### Mounting:

3-point mounting (see drawing on the back)

#### Meter versions:

D1AX3050 (measuring voltage range 60 V - 600 V)

D1AX3051 (measuring voltage range 100 V - 1000 V)

Metering scheme: one direction with reverse lock, tariffless

#### Serial data interface:

One record per second: meter ID and meter reading, as well as  
(for information only) instantaneous power and measuring voltage

#### Auxiliary supply voltage (230 V/ 50 Hz):

Meter operation is independent of measuring voltage (hence  
permanent operational readiness), low power consumption

### TECHNICAL DATA<sup>1</sup>

#### Meter type:

2-wire direct current (DC) meter for direct connection,  
with auxiliary supply voltage (specification: see below)

#### Measuring range:

$U_{nlo}$  to  $U_{nhi}$ : 60 VDC to 600 VDC (type: D1AXXXX0)  
 $U_{nlo}$  to  $U_{nhi}$ : 100 VDC to 1000 VDC (type: D1AXXXX1)  
 $I_{min}$  to  $I_{max}$ : 1.25 A to 130 A ( $I_{tr}$ : 2.5 A,  $I_{ref}$ : 25 A)

#### Accuracy class:

Energy values in class A (2 %) or class B (1 %) according to EN  
50470, informational voltage values in class B (2 %)

#### Auxiliary supply voltage:

$U_x$  = 195 V ... 265 V/ 50 Hz  
Power consumption:  $P < 1.0$  W ( $S < 10$  VA)

#### Power loss from the measuring signal:

Voltage path:  $< 0.5$  W  
Current path:  $< 0.2$  W at  $I_{ref} = 25$  A  
 $< 3.5$  W at  $I_{max} = 130$  A

#### Display:

2-line LCD, no backlight, monochrome  
1<sup>st</sup> line with 7.2 digits for energy information in kWh  
2<sup>nd</sup> line with 9 digits for additional information (power, voltage)  
Symbols for operating status

#### Interfaces:

Bidirectional infrared data interface („MSB data interface“)  
 $\lambda = 950$  nm, 9600 Baud, 8N1, SML 1.04  
Infrared metrological LED (test LED) with 100000 Imp./kWh  
(D1AX3050) and accordingly 60000 Imp./kWh (D1AX3051)  
 $\lambda = 950$  nm,  $t_{puls} = 200$   $\mu$ s

#### Number of energy registers:

D1AXXX5X: 1 energy register T0 (OBIS code 1.8.0)

#### Connectivity options:

D1AX3XXX: connection terminals with 9.5 mm diameter for  
recommended wire gauge of 35 mm<sup>2</sup> (AWG 2)

#### Overvoltage protection:

OVC III (rated impulse voltage: 4000 V)

#### Temperature range:

-40 °C to +70 °C

#### Safety/ Housing:

Appliance class: II, Ingress protection: IP 54  
Site of installation: indoor (i. e. inside stationary charger)

#### Dimensions:

approx. 177 mm x 198 mm x 51 mm (with terminal cover „60“)

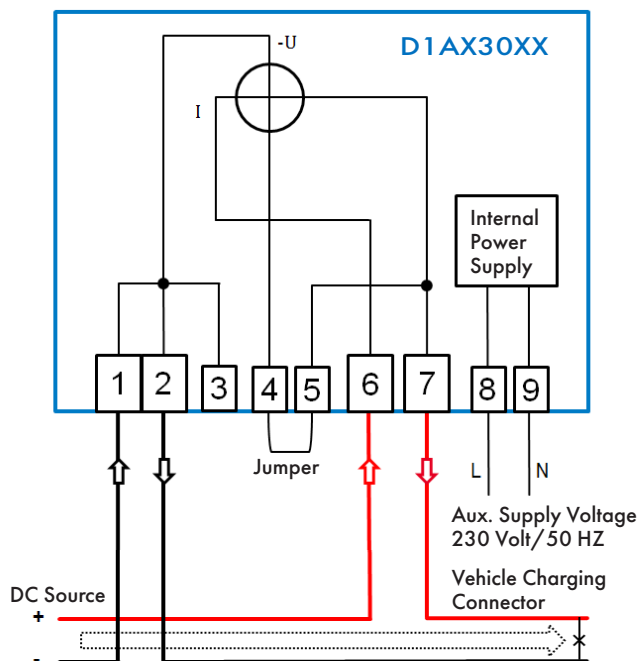
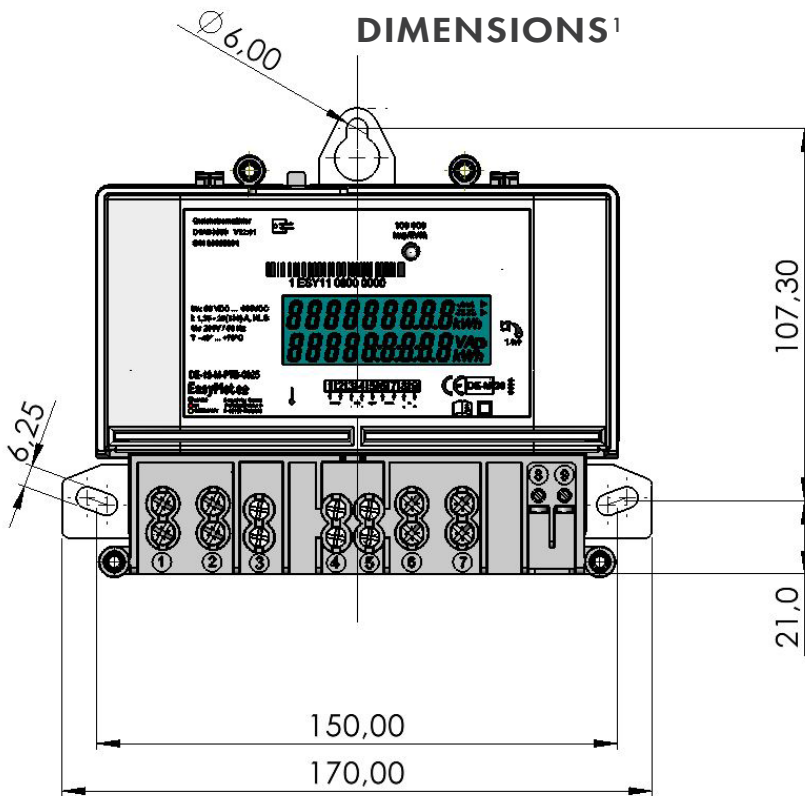
#### Weight:

approx. 0.6 kg

<sup>1</sup>Errors excepted.

# EasyMeter

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**BLOCK DIAGRAM  
WIRING DIAGRAM<sup>1</sup>**

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