

RESIDENTIAL

Landis+Gyr Domestic

ZME110AC / ZME120AC

TECHNICAL DATA

**Voltage**Rated voltage U_n 3 x 230/400 VVoltage range 80 % - 115 % U_n **Current**Base current I_b 5 A**Maximum current I_{max}**

metrological 100 A

thermal 100 A

Short-circuit ≤ 10 ms 10'000 A**Frequency**Rated frequency f_n 50 Hz**Measuring Accuracy**

ZME110AC to IEC 62053-21 Class 1

ZME120AC to IEC 62053-21 Class 2

Measurement BehaviourStarting current 0.5 % I_b **Operating Behaviour****Voltage interruption**

Blocking of inputs and outputs immediately

Standby operation for 0.2 s

Data storage after 0.2 s

Disconnection after approx. 0.3 s

Restoration of voltageReady for service
(depending on duration of failure) < 5 sRecognition of energy direction
and phase voltage < 3 s**Power Consumption****Power consumption in voltage circuit**

Active power per phase (typical) 0.45 W

Apparent power per phase (typical) 2.4 VA

Power consumption in current circuittypical at $I = 5$ A 0.1 VA**Environmental Influences****Temperature range**

Operation -25 °C to +70 °C

Storage -40 °C to +85 °C

Temperature coefficient

Range from -25 °C to +70 °C

Typical mean value ± 0.02 % per K $\cos\phi=1$ (from 0.1 I_b to I_{max}) ± 0.05 % per K $\cos\phi=0.5$ (from 0.2 I_b to I_{max}) ± 0.075 % per K

Impermeability to IEC 60529 IP 52

Electromagnetic Compatibility

Electrostatic discharges	to IEC 61000-4-2
Contact discharges with basic current I_b	8 kV

Electromagn. high frequency fields with basic current I_b	to IEC 61000-4-3
80 MHz to 2 GHz	at least 10 V/m

Radio interference suppression to IEC/CISPR 22 Cl B


Fast transients burst test with basic current I_b	to IEC 61000-4-4
for current and voltage circuits	4 kV
for auxiliary circuits > 40 V with open current circuit	1 kV
for voltage and current circuits	4 kV

Surge immunity test	to IEC 61000-4-5
Impulse voltage	6 kV
Impedance of source	2 Ω
Rise-/ Decay time of impulse voltage	1.2 μ s / 50 μ s
Rise- / Decay time of current	8 μ s / 20 μ s

Insulation Strength

Insulation strength	4 kV at 50 Hz for 1 min.
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Impulse voltage strength	to IEC62052-11
Impulse voltage	8 kV
Impedance of source	500 Ω
Rise- /Decay time of impulse voltage	1.2 μ s / 50 μ s

Protection class to IEC 60529	 2
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Display

Characteristics	
Type	LCD liquid crystal display
Digit size	8.4 mm
Number of digits	7

Inputs and Outputs

Tariff control (optional)	
Control voltage U_t	230 V
Permissible range	80% - 115% U_t
Current consumption	< 2 mA ohmic at 230 V

Optical Test Output

Type	Infrared LED
Combined with optical interface (i.e. infrared-LED is integrated in optical interface)	
Pulse length	approx. 2 ms
Meter constant R	1000 imp/kWh

Pulse output r53 to IEC 61393 / DIN 43864

Type	S0 interface
Impulse constant	500 imp/kWh
Supply voltage (nominal value)	24 V DC
Current	10 to 20 mA DC
Pulse length	40 ms

The pulse output can be parameterised as unidirectional communication interface. In this mode every 30 seconds the billing values are given out at 300 Baud according to IEC 62056-21 (data readout).

Communication Interface

Optical interface	
Type	serial, bi-directional
Protocol	according to IEC 62056-21

Application

Readout of billing data (Data readout)	to IEC 62056-21
Test output	physically combined with test diode

Weight and Dimensions

Weight approx. 1 kg

External dimensions comply with DIN

Width	170 mm
Height (without terminal cover)	42.7 mm
Height (with terminal cover)	192 mm
Depth (without terminal cover)	42.7 mm
Depth (with terminal cover)	51 mm

Suspension

Height suspension hook covered	89 mm
Heights suspension hook open	131.5 mm
Width	105 mm

Terminal cover

Standard 60 mm free space

Connections

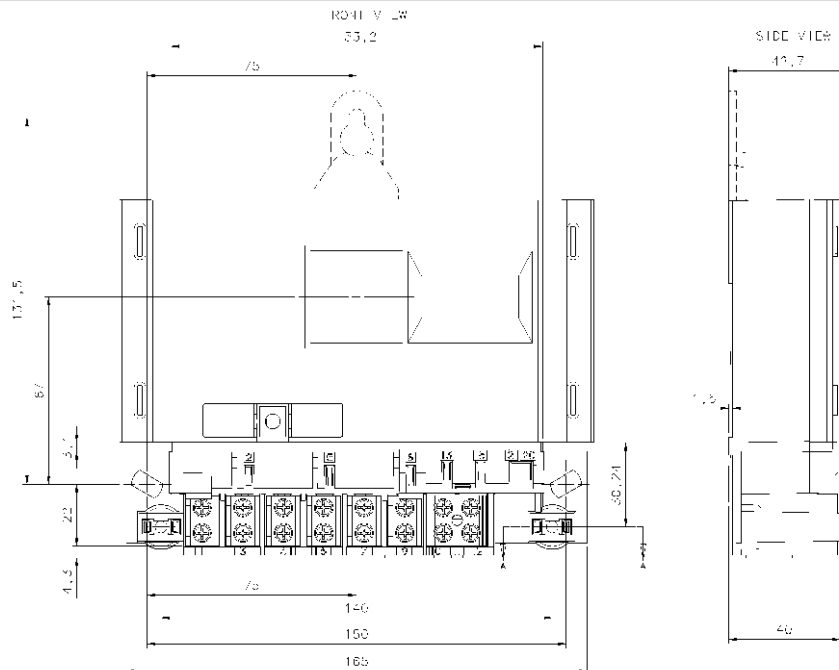
Mains connections

Type	screw type terminals
Diameter	8.5 mm
Maximum conductor cross-section cable	35 mm ²
strand	25 mm ²
Minimum conductor cross-section	4 mm ²
Screw dimensions	M6 x 14
head diameter	max. 6.6 mm
Tightening torque	max. 3 Nm

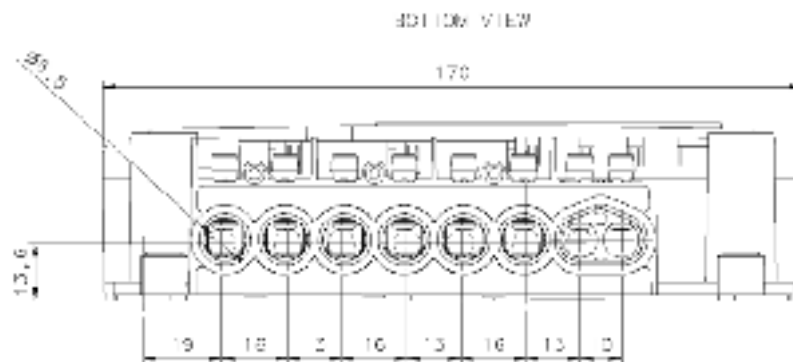
Other connections

Type	screw less spring-loaded terminals
Maximum current of voltage outputs	1 A

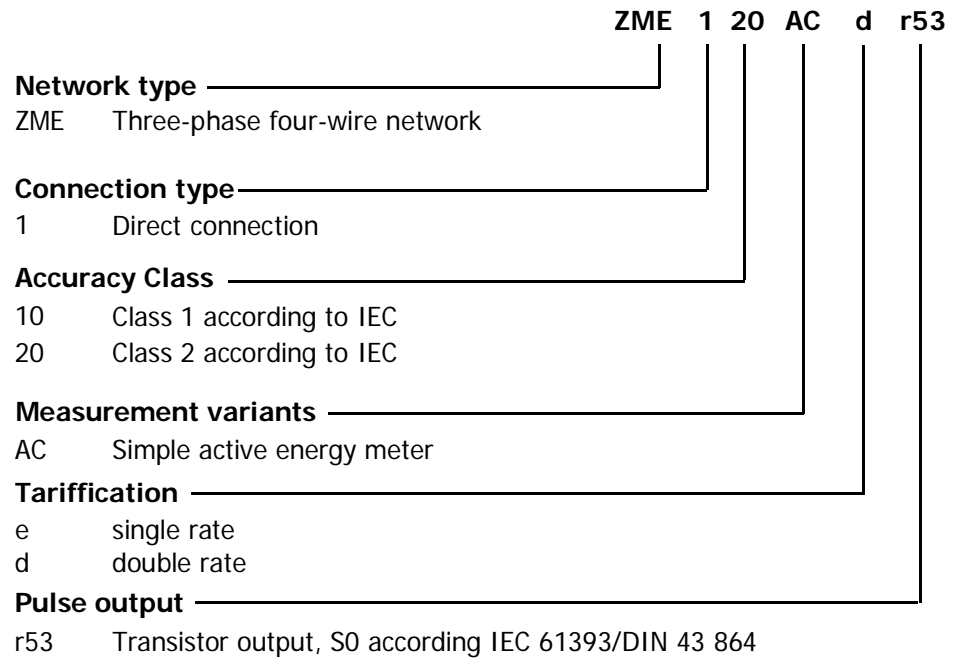
Dimensions (standard terminal cover)



Terminal layout and dimensions




Type Designation



Subject to technical changes

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