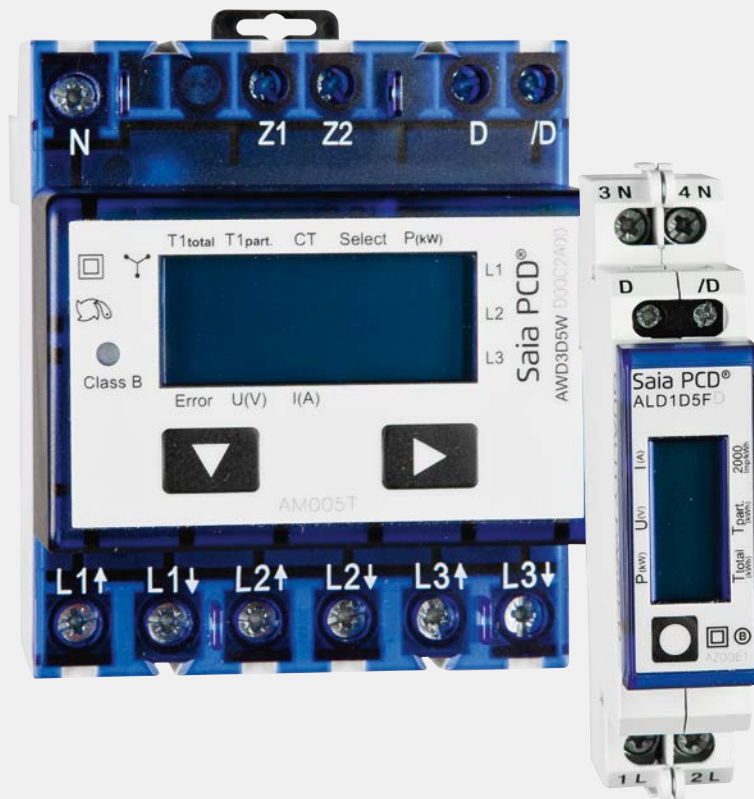


Energy meter



Energy meter



Energy meter AWD3



Energy meter ALD1

Device features

- Energy meter with Modbus RTU interface
- MID approved
- 7-digit display
- Automatic recognition of bus transmission rate and parity
- Lead seal possible with cap as accessory
- Resettable, partial reading
- In addition to active energy metering, measured data such as current, voltage, power and cos (phi) is also available.
- DIN rail mounting

Product description

Along with numerous measuring values, all PEM series devices can measure energy and power values. If, however, a measuring point is used for billing purposes, special requirements must be met (subject to obligatory calibration). Energy meters with the Measurement Instrument Directive (MID) conformity mark meet these requirements.

Standards

The energy meters have been developed in accordance with the following standards: Accuracy class B acc. to EN 50470-3, accuracy class 1 acc. to IEC 62053-21.

Technical data ALD1

Accuracy class	B acc. to EN 50470-3 1 acc. to IEC 62053-21
Operating voltage	AC 230 V, 50 Hz
Tolerance	-20 %/+15 %
Reference current/maximum current	$I_{ref} = 5 \text{ A}$, $I_{max} = 32 \text{ A}$
Starting current/minimum current	$I_{st} = 20 \text{ mA}$, $I_{min} = 0.25 \text{ A}$
Power consumption	active power 0.4 W
Counting range	00'000.00...99'999.99 100'000.0...999'999.9
Pulses per kWh	LC display 2000 imp/kWh

Technical data ALE3

Accuracy class	B acc. to EN 50470-3 1 acc. to IEC 62053-21
Operating voltage	3 x AC 230/400 V, 50 Hz
Tolerance	-20 %/+15 %
Reference current/maximum current	$I_{ref} = 10 \text{ A}$, $I_{max} = 65 \text{ A}$
Starting current/minimum current	$I_{st} = 40 \text{ mA}$, $I_{min} = 0.5 \text{ A}$
Power consumption	active 0.4 W per phase
Counting range	00 000.00...99 999.99 100 000.0...999 999.9
LC display with background illumination,	6 mm high digits
Display without mains voltage	capacitor supported LCD maximum for two periods of 10 days
Pulses per kWh	LED 1000 imp/kWh

Technical data AWD3

Accuracy class	B acc. to EN50470-3, 1 acc. to IEC 62053-21
Operating voltage	3 x AC 230/400 V, 50 Hz
Tolerance	-20 %/+15 %
Transformer measurement	5...1500 A
Reference current/maximum current	$I_{ref} = 5 \text{ A}$, $I_{max} = 6 \text{ A}$
Starting current/minimum current	$I_{st} = 10 \text{ mA}$, $I_{min} = 0,05 \text{ A}$
Conversion factor	5:5, 50:5, 100:5, 150:5, 200:5, 250:5, 300:5, 400:5, 500:5, 600:5, 750:5, 1000:5, 1250:5, 1500:5
Power consumption	active 0.4 W per phase
Counting range	000'000.0...999'999.9 1'000'000...9'999'999
LC display with background illumination,	6 mm high digits
Display without mains voltage	capacitor supported LCD maximum for two periods of 10 days

Ordering information

Description	Type	Art. No.
Energy meter 1Ph/32 A MID Modbus RTU	ALD1	B93101005
Energy meter 3Ph/65 A MID Modbus RTU	ALE3	B93101006
Energy meter 3Ph/6 A MID Modbus RTU	AWD3	B93101007
50 pulse counter (four-fold) with Modbus RTU	PCD7	B93101008

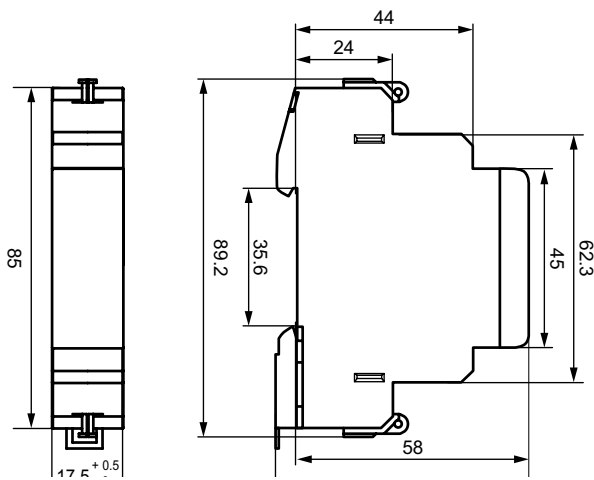
Accessories

Description	Type	Art. No.
Sealable cover for ALD1 (two per counter)	–	B93101009
Sealable cover for ALE3/AWD3 (four per counter)	–	B93101010

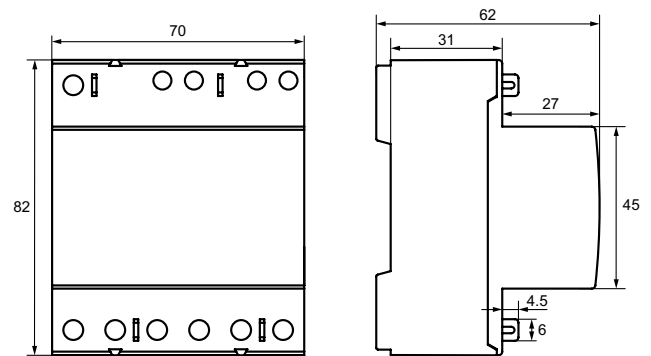
Dimension diagram

Dimensions in mm

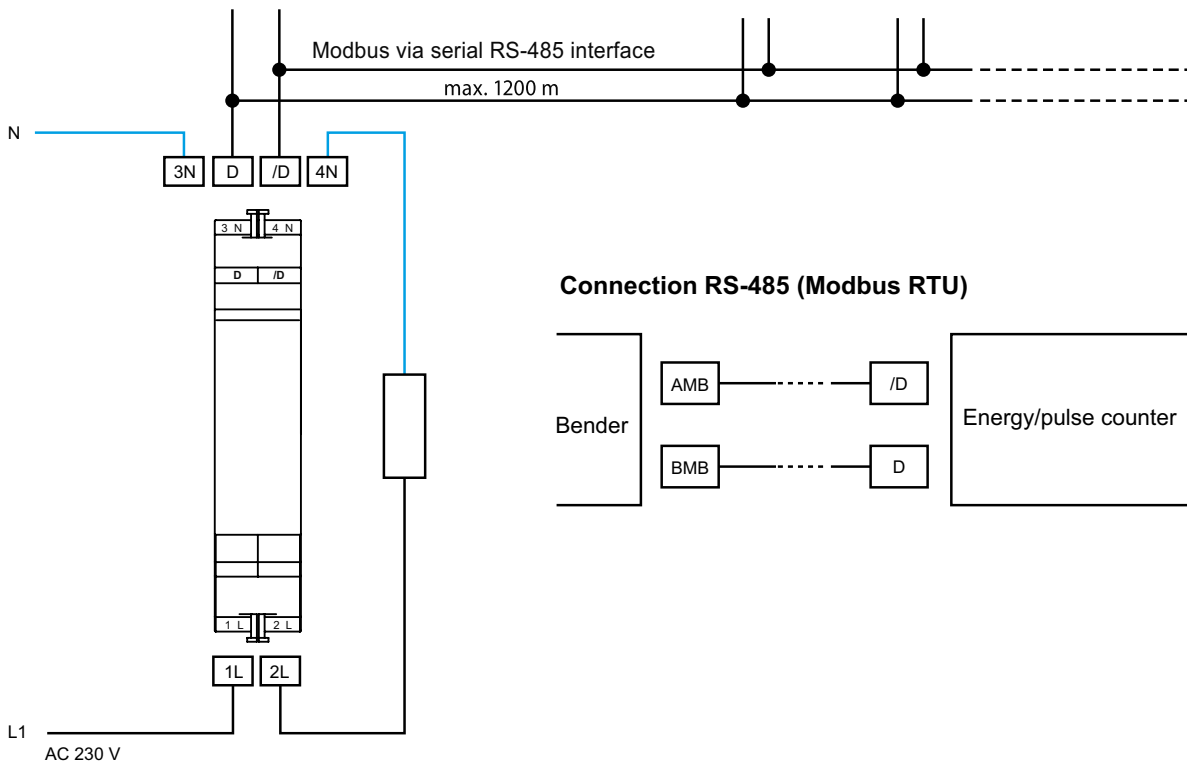
1 phase



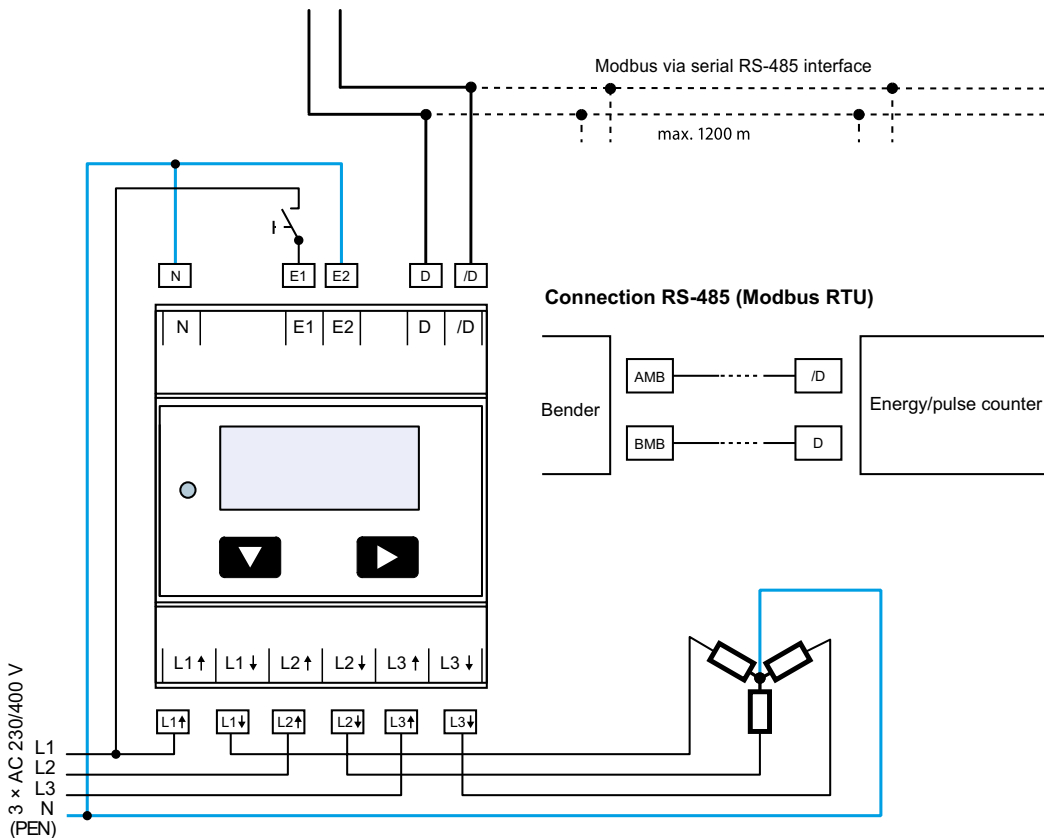
3 phase



Wiring diagrams ALD1



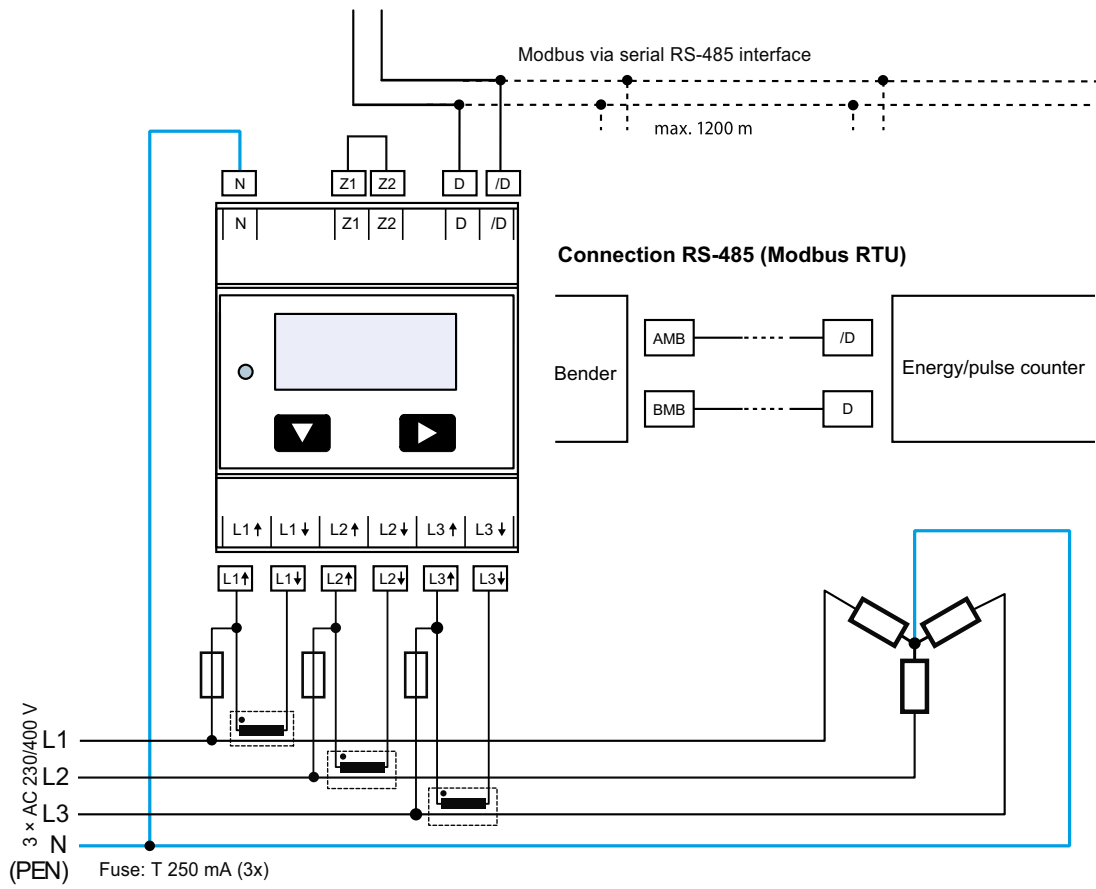
Wiring diagrams ALE3



Connections E1 and E2

To switch between tariffs, connect to the control signal of the ripple control receiver.

Wiring diagrams AWD3



The secondary current transformer connection on the network side has to be connected to the phase to be measured. For this reason the current transformer must not be earthed.



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