

Energy meter

window type current transformer



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

Application fields

- Registration of relevant energy management data
- Suitable for billing purposes

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.

Further information

For more information see our product range on www.bender.de.

Ordering information

| Description | Type | Art. No. |
|--|------|-------------|
| Energy meter 1Ph/32 A MID Modbus RTU | ALD1 | B 9310 1005 |
| Energy meter 3Ph/65 A MID Modbus RTU | ALE3 | B 9310 1006 |
| Energy meter 3Ph/6 A MID Modbus RTU | AWD3 | B 9310 1007 |
| S0 pulse counter (four-fold) with Modbus RTU | PCD7 | B 9310 1008 |

Accessories

| Description | Type | Art. No. |
|---|------|-------------|
| Sealable cover for ALD1 (two per counter) | – | B 9310 1009 |
| Sealable cover for ALE3/AWD3 (four per counter) | – | B 9310 1010 |

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

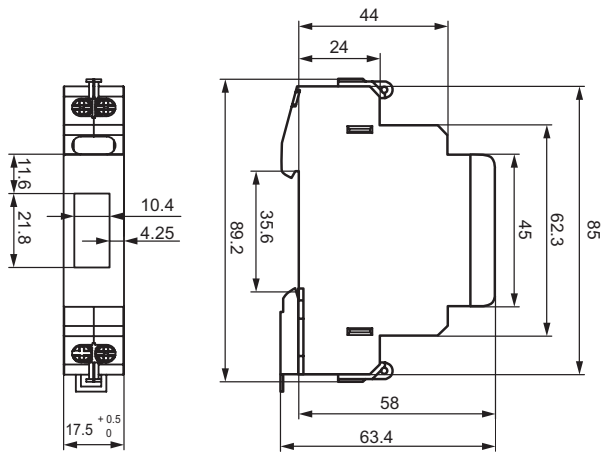
| | |
|--|---|
| Accuracy class | B acc. to EN 50470-3 1 acc. to IEC 62053-21 |
| Operating voltage | 3 x AC 230/400 V, 50 Hz |
| Tolerance | -20 %/+15 % |
| Reference current/maximum current | $I_{ref} = 10 \text{ A}$, $I_{max} = 65 \text{ A}$ |
| Starting current/minimum current | $I_{st} = 40 \text{ mA}$, $I_{min} = 0.5 \text{ A}$ |
| 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

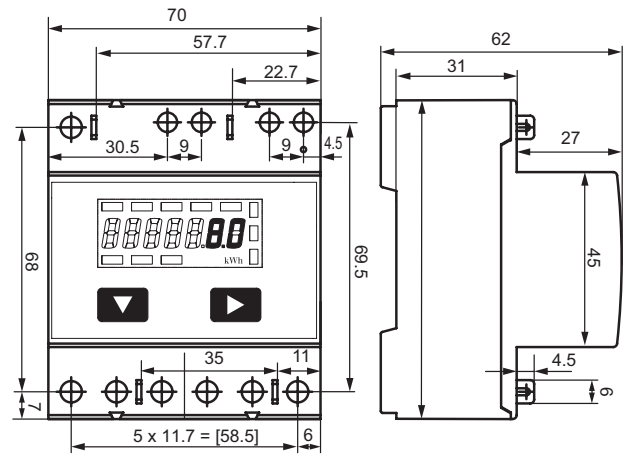
| | |
|--|---|
| Accuracy class | B acc. to EN50470-3, 1 acc. to IEC 62053-21 |
| Operating voltage | 3 x AC 230/400 V, 50 Hz |
| Tolerance | -20 %/+15 % |
| Power consumption | active 0.4 W per phase |
| Counter range | 000'000.0...999'999.9 1'000'000...9'999'999 |
| LC display with background illumination, | 6 mm high digits |
| Display without mains voltage | capacitor supported LCD maximum for two periods of 10 days |

Dimension diagram(dimensions in mm)

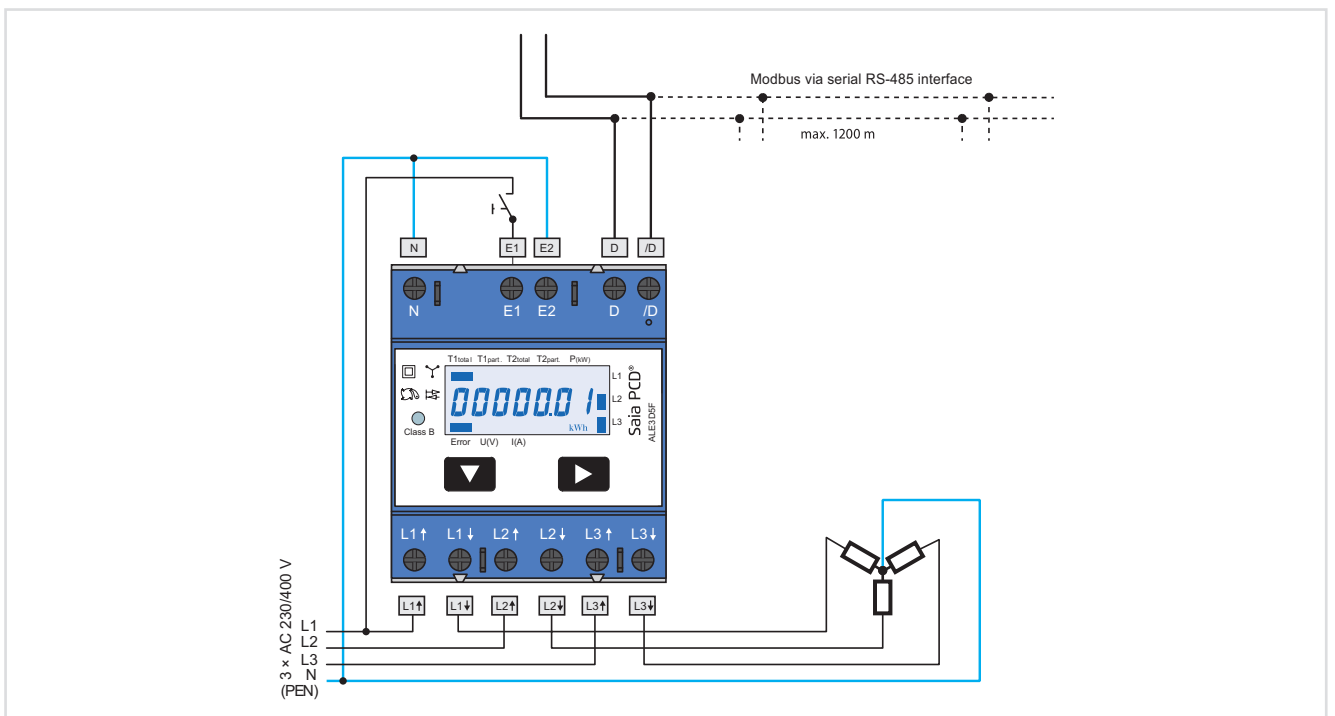
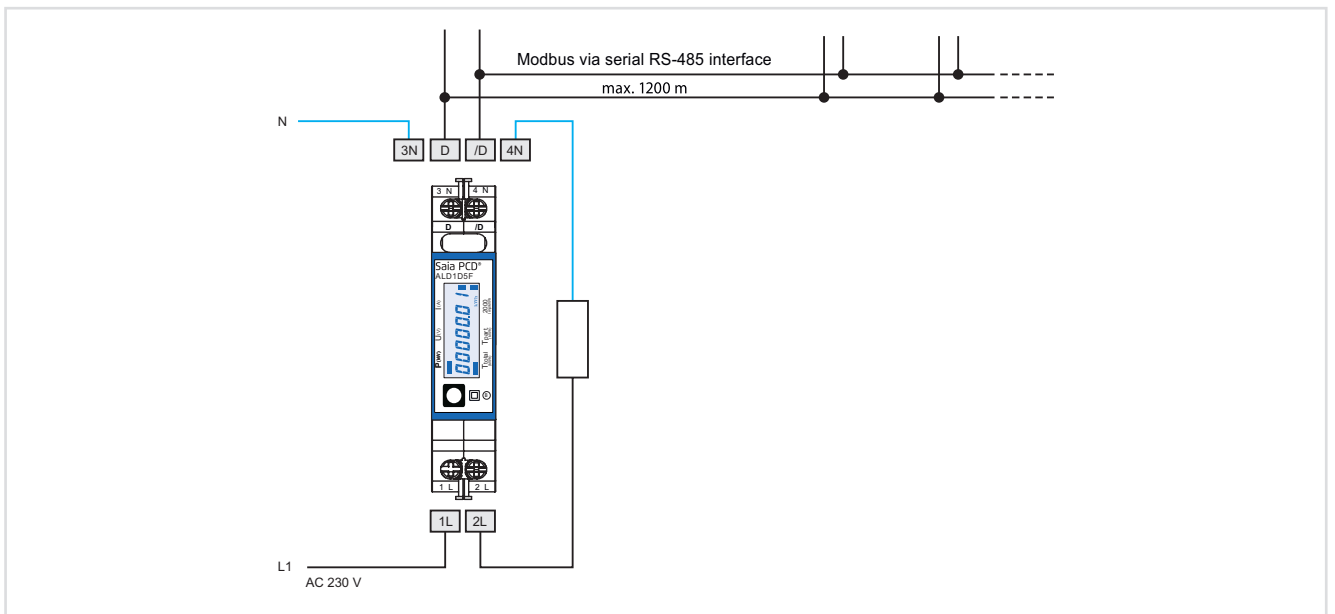
1 phase



3 phase

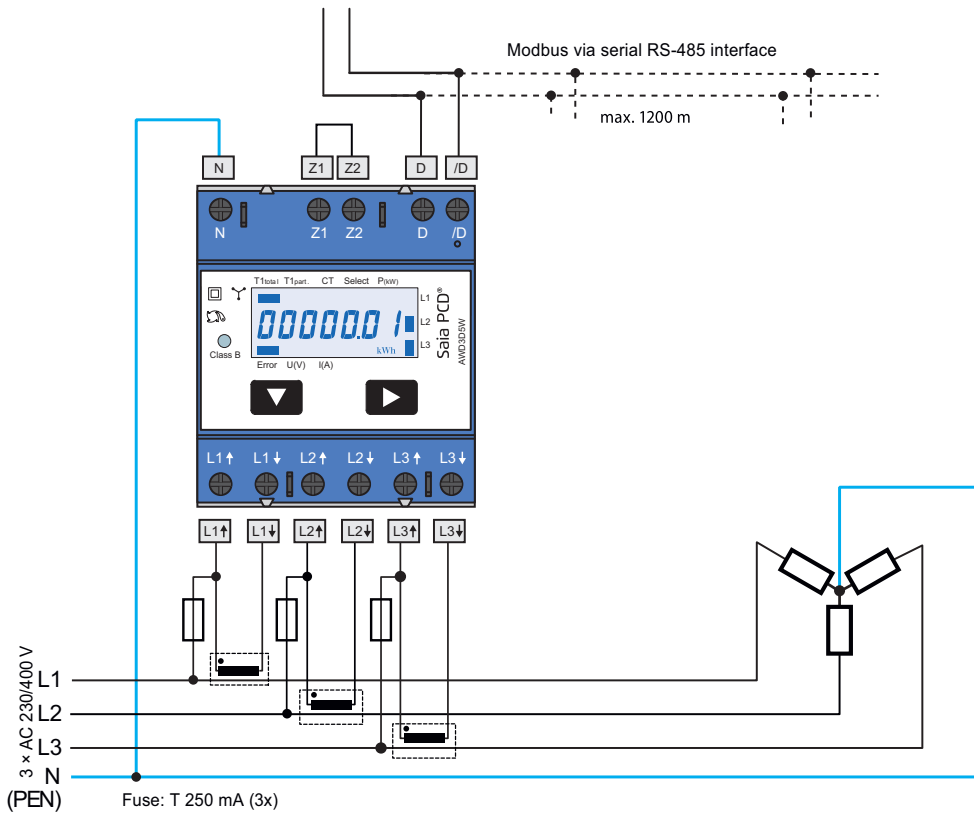


Wiring diagrams



Connections E1 and E2

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



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.

