

3-phase energy meters with S0 pulse output

The S0 interface is a hardware interface for the transmission of measured values via pulses.

Main features

- 3-phase energy meter, 3 × 230 / 400 VCA 50 Hz
- Direct measurement up to 65 A
- Display of active power, voltage and current for every phase
- Display of active power for all phases
- S0 output
- 7-digits display for 1 or 2 tariffs
- Lead seal possible with cap as accessory
- Accuracy class B according to EN50470-3, Accuracy class 1 according to IEC62053-21

Order Number

Standard Version: ALE3D5F10KA2A00
ALE3D5F10KB2A00

MID Version: ALE3D5F10KA3A00
ALE3D5F10KB3A00
ALE3D5F11KC3A00

Sealing caps: 4 104 7485 0



Technical Data

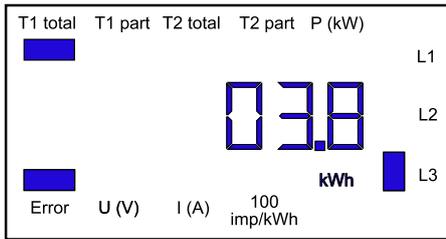
Precision class	B according to EN50470-3 1 according to IEC62053-21
Operation voltage	3 × 230 / 400 VAC, 50 Hz Tolerance -20%/+15%
Reference / maximum current	Iref = 10 A, Imax = 65 A
Starting / minimum current	Ist = 40 mA, Imin = 0.5 A
Power consumption	Active 0.4 W per phase
Counting range	00'000,00...99'999,99 100'000,0...999'999,9
Display	LCD backlit, digits 6 mm high
Display without mains power	Capacitor based LCD Max. 2 times over 10 days
S0 output (interface)	Optocoupler max. 30 V / 20 mA and at least 5 V, impedance 100 Ω, pulse width 30 ms
Transmission distance, S0 output	Max. 1000 m (at 30 V / 20 mA)
Pulses per kWh	LED: 1000 imp./kWh S0 output: 1000 imp./kWh

Mounting

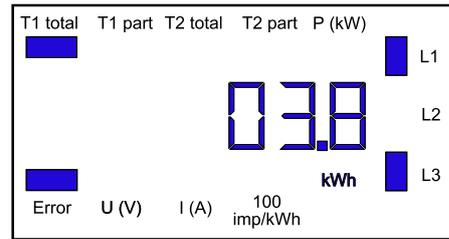
Mounting	On 35 mm rail, according to EN60715TH35
Terminal connections Main circuit	Conductor cross-section 1.5 – 16 mm ² . Screwdriver Pozidrive no. 1 Slot no.2, torque 1.5 – 2 Nm
Terminal connections Control circuit	Conductor cross-section max. 2.5 mm ² . Screwdriver Pozidrive no.0. Slot no.2, torque 0.8 Nm
Insulation characteristics	– 4 kV/50 Hz test according to IEC62053-21 for Energy Meter part – 6 kV 1.2/50 μs surge according to IEC62052-11 – device protection class II
Ambient temperature	–25 °...+55 °C
Storage temperature	–30 °...+85 °C
Environment	Mechanical M2 Electromagnetic E2
Relative humidity	75 %, without condensation
EMC/ interference immunity	– Surge according to IEC61000-4-5 at main circuit 4 kV – Burst according to IEC61000-4-4, at main circuit, 4 kV, at outputs S0, 1 kV – ESD according to IEC61000-4-2, contact 8 kV, air 15 kV

Error display

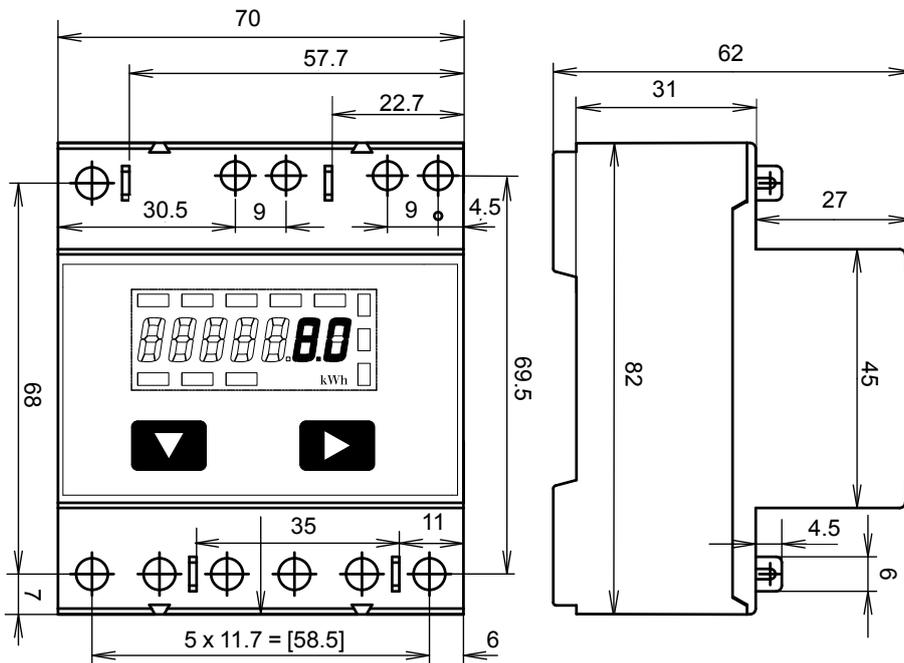
Example: Connection error at L3



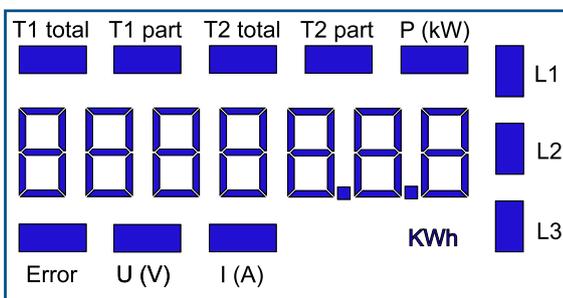
Example: Connection error at L1 and L3



Dimension drawings

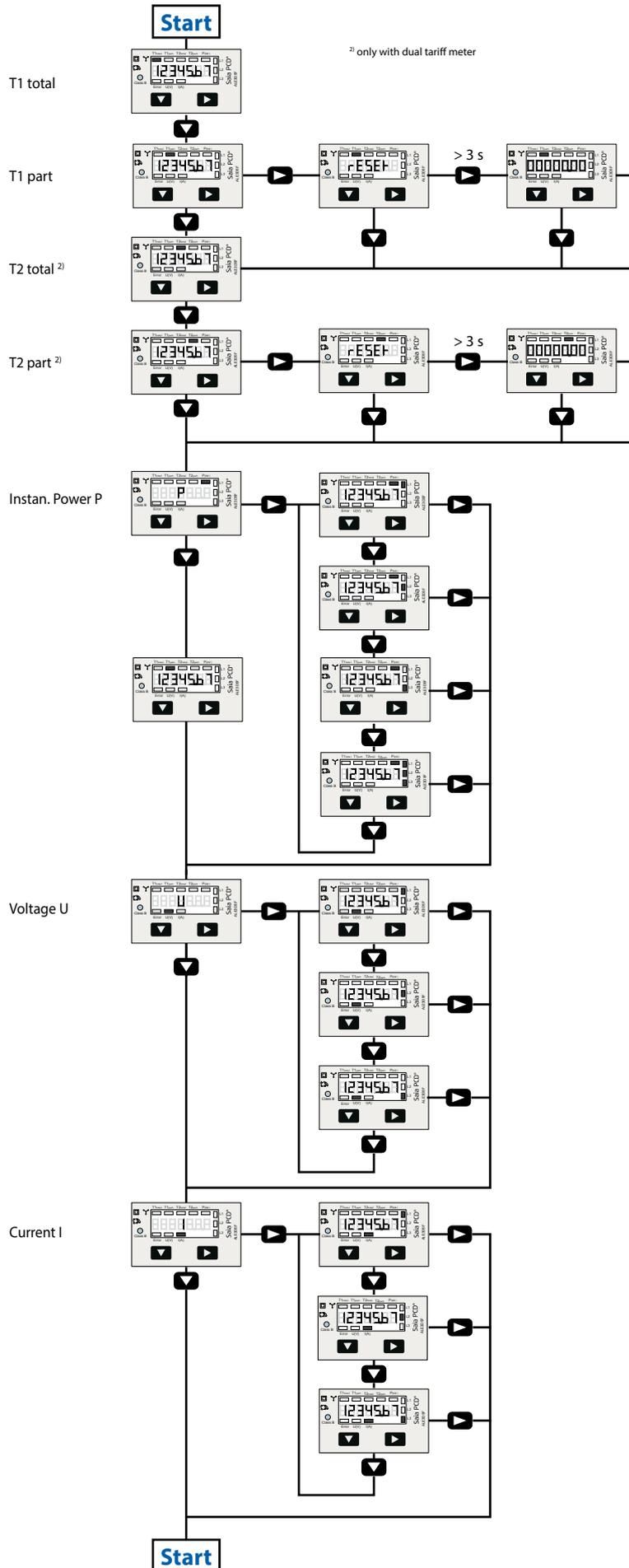


Display elements, direct measurement

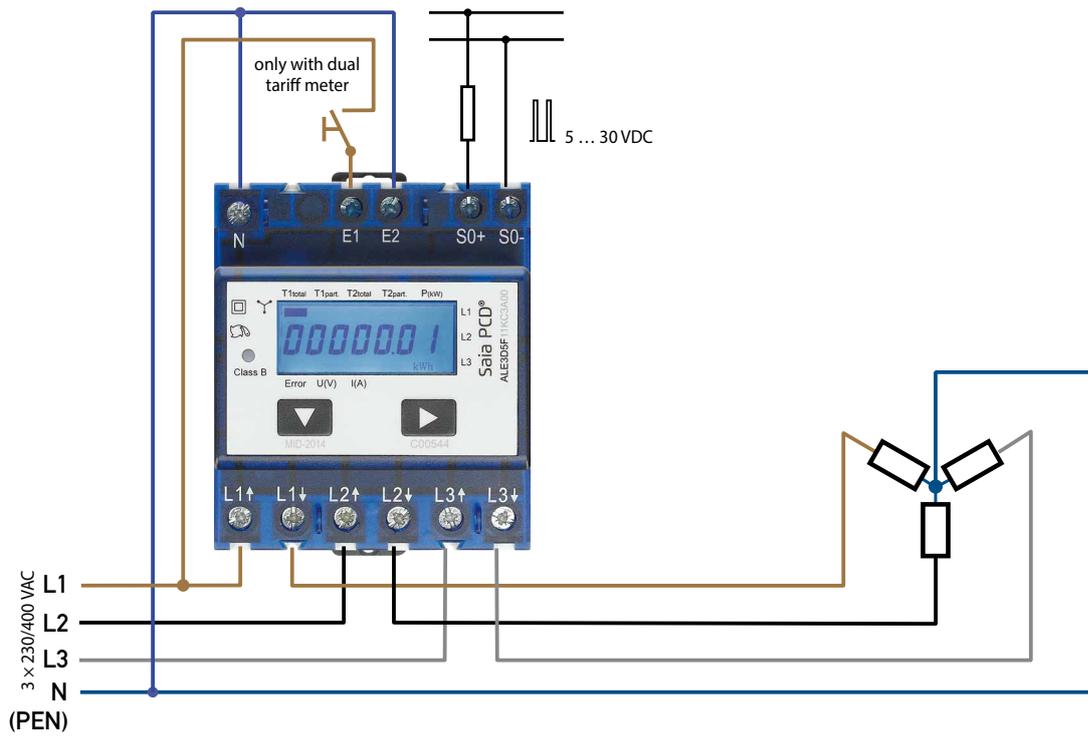


- ▶ T1 total Indicates the total consumption for tariff 1
- ▶ T1 part Indicates the partial consumption for tariff 1. This value can be reset
- ▶ T2 total Indicates the total consumption for tariff 2
- ▶ T2 part Indicates the partial consumption for tariff 2. This value can be reset
- ▶ P (kW) Indicates the instantaneous output per phase or for all phases
- ▶ U (V) Indicates the voltage per phase
- ▶ I (A) Indicates the current per phase
- ▶ kWh Indicates the unit kWh for display of consumption
- ▶ L1 / L2 / L3 Whenever the display shows P, U, I or Error. The corresponding phase will be indicated
- ▶ Error When phase is absent or current direction is wrong. The corresponding phase will also be indicated

Menu to display the values on the LCD



Wiring diagram



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