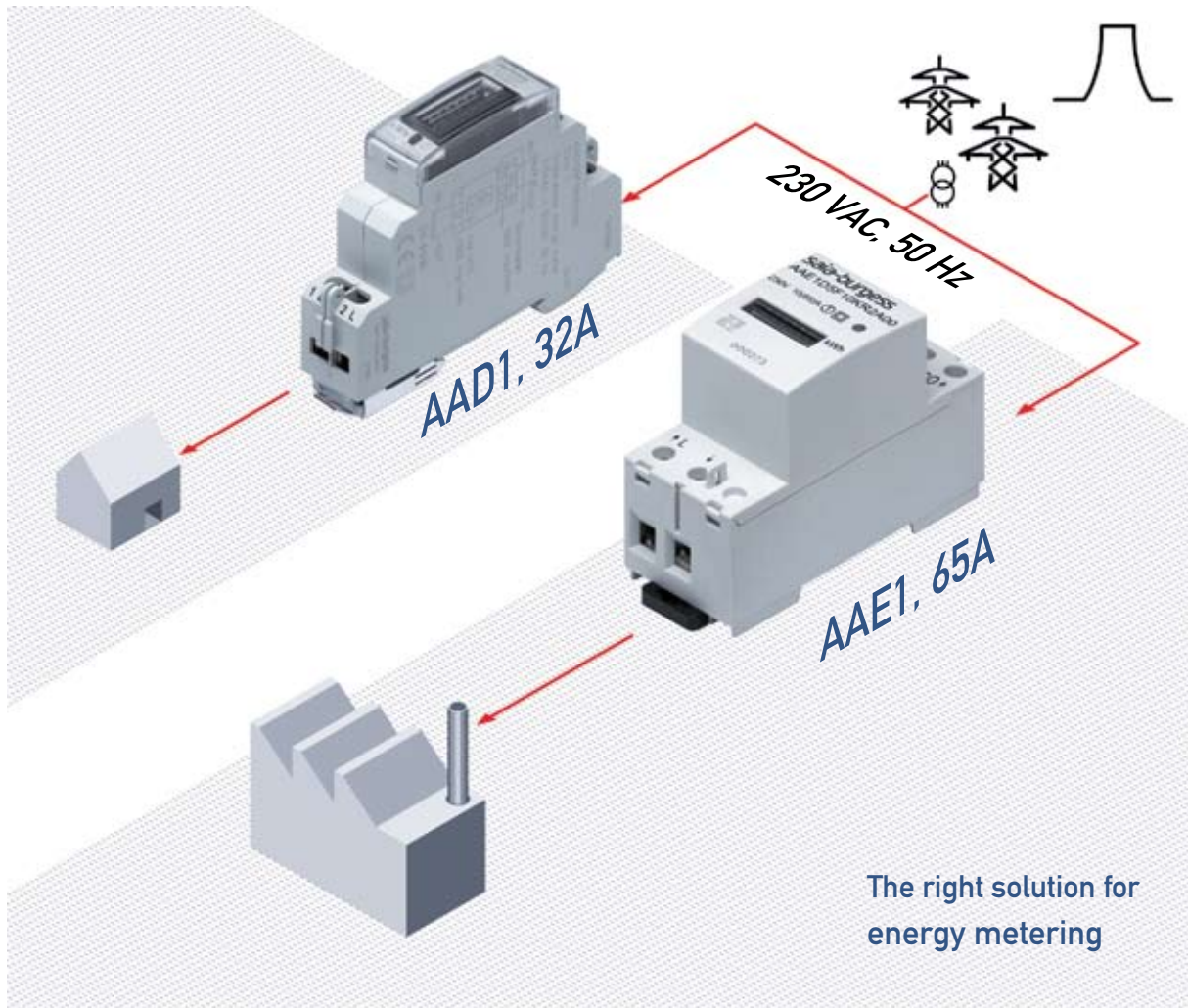


Technical information



AAD1 and AAE1 32 A and 65 A Single-phase energy meters

Division Controls

AAD1 and AAE1, the 32 Amp and 65 Amp compact single phase energy meters for primary and secondary energy metering.

For individual charging or precise energy management in decentralised or shared premises, installations such as:

- Shopping malls, airports and railway stations
- Shared spaces in offices, factories, shops, air-conditioned areas, advertising and lighting
- Apartments, houses, bungalows, hotels, hospitals and schools
- Camping sites, marinas, mobilhomes and any temporary facilities
- Exhibitions, markets

Accurate measurement and secure reading for fair billing or correct energy management analysis

- Registers even lowest electricity consumption including electronic devices in standby
- No false readings, no cheating. Highest level of data integrity thanks to Saia® High Level EMC Design allied with a robust mechanical construction.
- Energy metering is affordable everywhere. Thanks to the 17.5 mm width (AAD32), compact and space saving design, enables easy integration in existing and new electrical cabinets.
- Impulse outputs for remote reading or centralised data collections.
- LED signaling allows easy checking of metering status even with inverted line connections.
- PTB or MID certified.

Technical data | Function of LED | Dimensions



AAD1, 32 A



AAE1, 65 A

Technical data

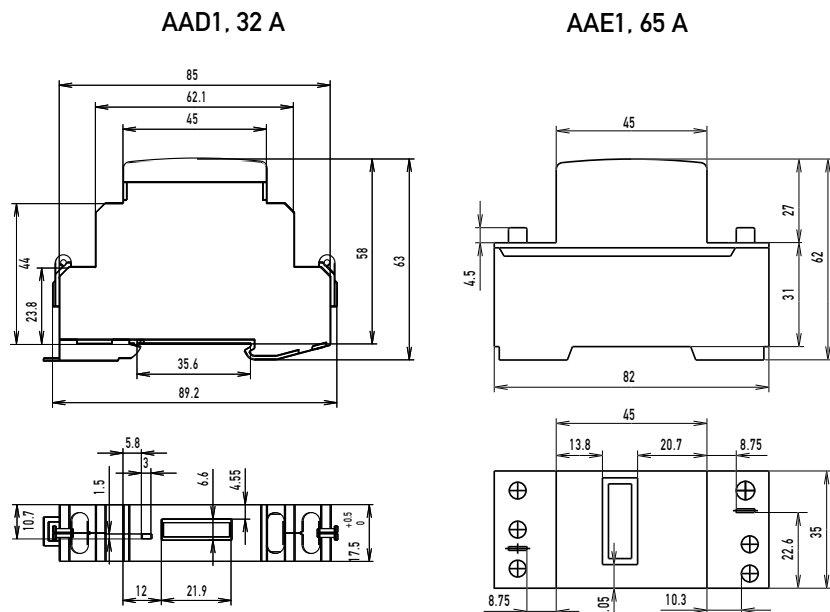
Approvals	PTB or MID approval	
Precision Class	1 (1%) according to IEC 62053-21, B according to EN 50470-3	
Protection class	IP 50 Connections IP 20	
Current		
Nominal current	AAD1, 32 A	In = 5 A
Maximum current		I _{max.} = 32 A
Minimum load current		I _{st} = 20 mA
Nominal current	AAE1, 65 A	In = 10 A
Maximum current		I _{max.} = 65 A
Minimum load current		I _{st} = 40 mA
Voltage		
Supply voltage	230 VAC, 50 Hz (115 VAC, 50 Hz as option) Tolerance -20%/+15%	
Consumption	active	0.4 W
Measurement	direct	
Counting capacity	0...999'999.9 kWh	
Counter	with 4 mm high digits, decimal places in red	
Open collector output (SO)		
Optocoupler	max. 30 V / 20 mA and 5 V min.	
Impedance	100 Ω	
Pulse duration	50 ms	
Output pulses	AAD1, 32 A = 1000 imp./kWh (option 2000) AAE1, 65 A = 1000 imp./kWh	
Communication distance	maximum 1000 m (at 30 V / 20 mA)	
LED red	AAD1, 32 A = flashing red at 2000 imp/kWh AAE1, 65 A = flashing red at 1000 imp/kWh	

Mounting	Snap on DIN rail 35 mm	
Terminal connections	For Pozidrive N°1, Philips N°1 or slot screw drivers N°1 (AAE1 mains N°2)	
Mains	AAD1, 32 A	max. 6 mm ² , M4, N°1
Output SO		max. 2.5 mm ² , M3, N°1
Mains	AAE1, 65 A	max. 16 mm ² , M4, N°1/N°2
Output SO		max. 2.5 mm ² , M3.5, N°1
Weight	AAD1, 32 A	75 g (without packing)
	AAE1, 65 A	100 g (without packing)
Insulation characteristics	4 kV/50 Hz test according to VDE 0435 6 kV 1.2/50 μs surge voltage according to IEC 61000-4-5 Protection class II	
Ambient Conditions		
Temperature	-10°C...+45°C (according to IEC 62053-21, class 1)	
Extended temperature range	-20°C...+55°C (outside accuracy class 1)	
Humidity	25...40°C 95 % R.H. (according to IEC 60068-2-30)	
EMC/Interference immunity	<ul style="list-style-type: none"> Surge voltage according to IEC 61000-4-5 on the mains, 4 kV 1.2/50 μs Surge voltage according to IEC 61000-4-5 on the output SO, 1 kV 1.2/50 μs Burst according to IEC 61000-4-4, level 4 (4 kV) ESD according to IEC 61000-4-2, contact (8 kV), air (15 kV) 	

Function of LED

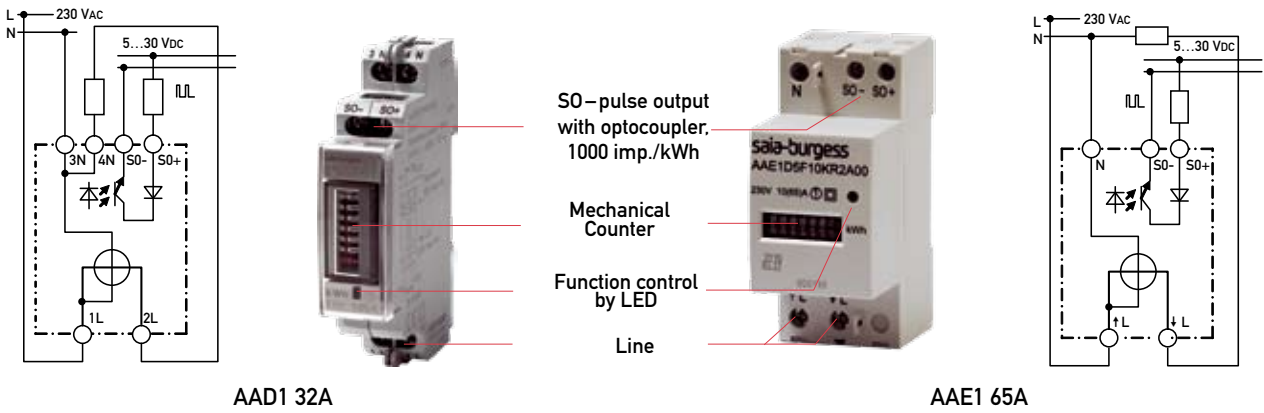
Normal operation		
Measured power	2000 pulses per kWh	
AAD1, 32A	Pmoment. in kW	33,4 × imp./min.
AAE1, 65A	Pmoment. in kW	16,7 × imp./min.
LED		
Zero	No pulses	
Low	Pulse pause 100 ms	
High	Pulse length depending on consumption	
Error (Line inverted)	Cycle time: 600 / 600 ms	

Dimensions

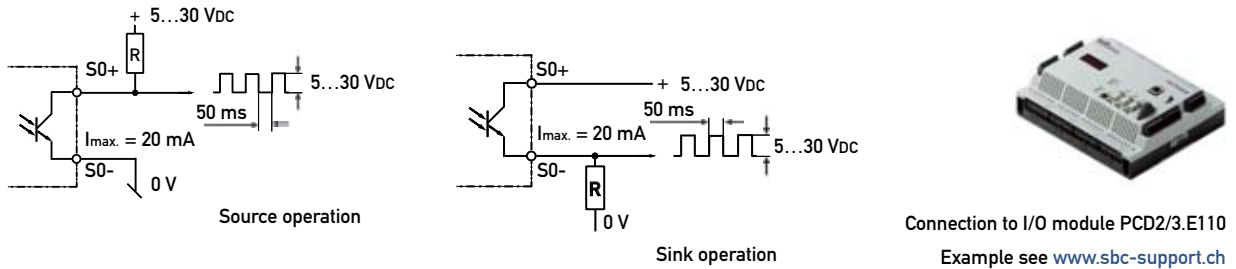


Connections | External pulse counting

Connections and display elements



External pulse counting/energy metering with Saia® PCD

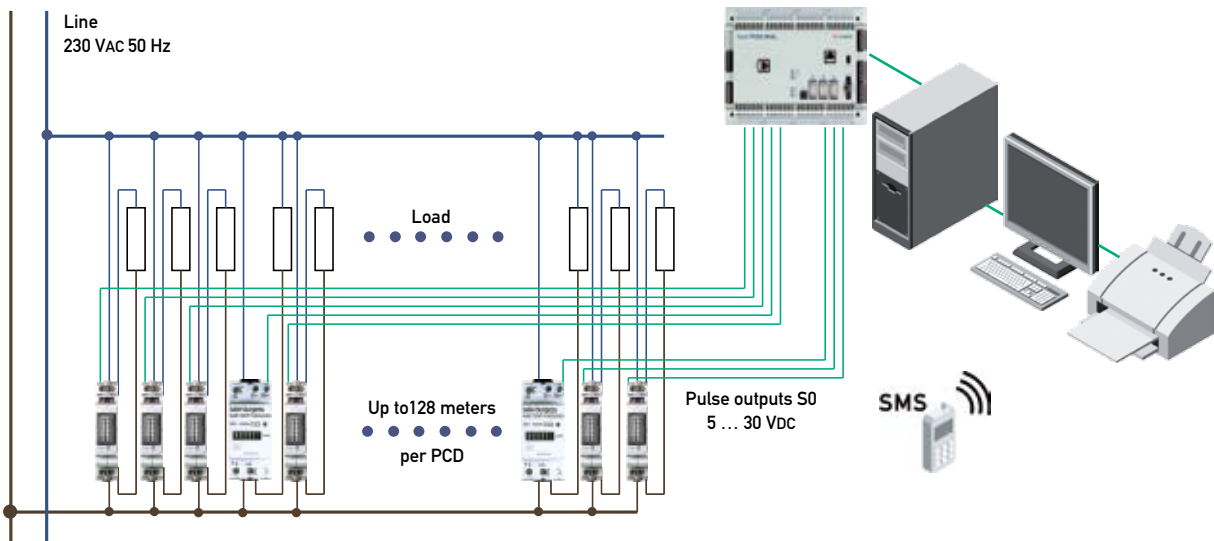


Centralised meter reading and billing with Saia® PCD

Complete solutions for centralised data collection of many AAD and AAE energy meters is possible in combination with Saia® PCD controllers for:

- Data acquisition, data storage, data transmission to other systems
- Extraction of data for energy billing and automatic generation of invoices
- Transmission of energy data via modems, TCP/IP and all commonly used protocols
- Data visualisation via direct access to integrated web server

Application example



... a wealth of applications



Accurate, secure billing for energy consumption on camping sites, marinas etc.



Consumption based billing of energy used during industrial exhibitions and local trade fairs.



Individual billing of power consumption for jointly used premises in offices or industry.



On weekly street markets, even the most varied consumers can be charged fairly.



Residential renewable energy generation with photovoltaics, wind, fuel cells etc.

By courtesy of
Schweiz, Vereinigung für Sonnenenergie «SSES»



Registering the used energy, is important for energy-management in hostels, motels, hotels, hospitals, etc.

Ordering information

Type	Description	Dimensions	Weight
AAD1D5F10KR2A00	1 × 5 (32) A	17.5 × 85 × 63 mm	75 g
AAD1D5F10KR3A00	1 × 5 (32) A, MID approval	17.5 × 85 × 63 mm	75 g
AAE1D5F10KR2A00	1 × 10 (65) A	35.0 × 85 × 62 mm	100 g
AAE1D5F10KR3A00	1 × 10 (65) A, MID approval	35.0 × 85 × 62 mm	100 g
4 104 7420 0	Sealing cover for AAD 32 A ¹⁾	17.5 × 19 × 26 mm	1 g
4 104 7485 0	Sealing cover for AAE 65 A ¹⁾	35.0 × 28 × 39 mm	5 g

¹⁾ For protection against contact two pieces are recommended.

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