

Introduction

DIN rail mounted electricity meters

Modular DIN Rail Products offer a wide range of functions to be integrated in electrical installations with significant benefits for the user. DIN rail mounted electricity meters are designed for high level performance and are safe and fast to install.

The DIN rail mounted electricity meters are available in several models: the brand new EQ meters C11, ODINsingle and the brand new EQ meters A41 and A42 for single phase metering, ODIN and the brand new EQ meters A43 and A44 for three phase metering.

The meters are designed for use in sub-metering and are available in various configurations to suite many applications.

ABB Low Voltage Products

The Low Voltage Products division manufactures low voltage circuit breakers, switches, control products, wiring accessories, enclosures and cable systems to protect people, installations and electronic equipment from electrical overload. The division further makes KNX systems that integrate and automate a building's electrical installations, ventilation systems, and security and data communication networks. All these products help customers to save energy, improve productivity and increase safety.

Global business

The Low Voltage Products division is a global business producing mainly low-voltage electrical equipment that is sold to wholesalers, original equipment manufacturers as well as system integrators, and has moderate service requirements. ABB's broad program of standardized products and components are the 'building blocks' of system solutions, incorporating functionalities that will allow seamless integration in real-time automation and information systems. At the product level, all the low voltage products can operate together perfectly.

To create a system solution, every product is equipped with the tools necessary to install, operate and maintain it efficiently throughout the product life cycle.

The range of low voltage products is supported by technical documentation. This together with compact design makes it easier than ever to incorporate our products in your system. Our customers can find all product related documentation such as brochures, catalogues, selection program, certificates, drawings and other information directly at www.abb.com/lowvoltage.

Features and functionality		C-series	A-series
Platinum	Reactive energy Advanced clock functions (Load profiles) Harmonics (THD) Configurable I/O		• • •
Gold	Basic clock functions		•
Silver	Class 0.5 on CTVT connected meters Tariffs Fixed I/O Resettable register		• • •
Bronze	Import/export of energy		•
Steel	Active energy Class 1 Pulse output/alarm	• • •	• • •

Pulse frequency

at different loads

Direct connected meters (Imp/KWh)	Transformer-connected meters (Imp/kWh primary registering)	Max power
-	0.01	3500 MW
-	0.1	350 MW
-	1	35 MW
10	10	3.5 MW
100	100	350 kW
500	500	70 kW
640	640	54 kW
1000	1000	35 kW
5000	-	7 kW

Cable length for connection

This table is valid for copper cable

Transformer Secondary side	Cable area mm ²	Double cable (meters)						VA
		0.5	1	2.5	5	10		
5A	1.5	0.3	0.6	1.5	2.9	5.8	VA	
5A	2.5	0.2	0.4	0.9	1.8	3.6	VA	
5A	4	0	0	0.6	1.1	2.3	VA	
5A	6	0	0	0.1	0.3	0.6	VA	
1A	1	0.02	0.04	0.09	0.18	0.35	VA	
1A	1.5	0.01	0.03	0.06	0.12	0.23	VA	
1A	2.5	0.01	0.01	0.04	0.07	0.14	VA	

Note: Cable length is depending on max. transformer VA.
Max. cable area is depending of max entry of the transformer.

A-series

Product brief



Key applications

- Applications in Industry
- Applications in commercial buildings
- Object metering
- Billing applications

Meter performance

- Three phase and single phase
- Direct connected up to 80 A
- Transformer connected 1, 2 or 5 A
- Active or active and reactive energy
- Accuracy class C, B or A (Cl. 0.5, 1 or 2)
- Import or import and export measurement of energy
- Wide voltage range (100 – 500 V or 173 – 690 V)
- Pixel-oriented display
- Up to 4 tariffs
- Up to 4 inputs and outputs
- Low power consumption
- Optional clock functionality with tariff control, previous values, max demand, load profiles
- Harmonics measurement up to 16th harmonic and THD evaluation

Communication

- Pulse output
- Built-in M-Bus
- Built-in RS-485 for Modbus RTU
- IR port for Serial Communication Adapters

Installation

- Terminal according to DIN 43857 ("Utility terminal")
- Wide temperature range
- Sealable push buttons for configuration

Approvals

- MID type approval "annex B"
- MID initial verification "annex D"
- IEC type approval

A-series

Description

The EQ meters, A-series is a range of meters for single phase and three phase metering. The A-series meters are mounted on a DIN rail and are suitable for installation in distribution boards and small enclosures such as consumer units. With the main terminals in accordance with DIN 43857 and accessible from the below the meters, the A-series is suitable for many applications.

General features

The A-series meters are ideal for many applications and installations. The meters support a wide voltage range as well as a wide temperature range. The display is pixel-oriented and can display up to four quantities at the same time. Navigating the meter is easily done via the push-buttons below the display. To configure the meter settings, the set button must be accessed and this button is protected against unauthorized use when the “glass lid” on the front of the meter is closed and sealed. The power consumption of the meter is very low, less than 0.8 VA

Communication

Data from the A-series meters can be collected via pulse output or serial communication. The pulse output is a solid state relay that generates pulses proportionally to the measured energy. The meters can also be equipped with built-in serial communication interfaces for M-Bus or Modbus RTU (RS-485). All meters in the A-series come with an infrared port for communication with an external Serial Communication Adapter (SCA). There are SCAs for M-Bus, RS-232, Ethernet, GSM/GPRS, Modbus and KNX.

Instrumentation

The A-series meters support reading of instrument values. A large number of electrical properties can be read. Depending on version of the meter the following data is available:

- Active power
- Apparent power
- Reactive power
- Current
- Voltage
- Frequency
- Power factor
- Harmonics
- Total harmonic distortion

Inputs and outputs

The A-series support up to four I/O's. It can be two inputs and two outputs in a fixed configuration or four I/O points that are



freely configured to input or output. Inputs can be used for counting pulses from e.g. a water meter, or reading status from external devices. Outputs can be used as pulse outputs or controlling external apparatus like a contactor or an alarm (connected via an external relay).

Approvals

The A-series meters are type approved according to IEC and they are both type approved and verified according to MID. MID is the Measuring Instruments Directive 2004/22/EC from the European Commission. MID type approval and verification is mandatory for meters in billing applications within EU and EEA. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

Tariffs

The tariffs are controlled via inputs, via communication or via an internal clock.

Optional functionality

A-series meters with a functionality level of Gold or Platinum have an internal clock for advanced functionality. The clock functions are briefly presented below.

A-series

Description

Internal clock

The internal clock, sometimes called real time clock or RTC, has a built-in calendar and keeps automatically track of leap year and daylight savings time (DST). The DST function is optional. Backup of the clock during a power failure is provided by a supercapacitor. The time is controlled from a quartz crystal based clock. Time and date is set via push buttons or via communication. The internal clock is approved according to IEC 62052-21 and IEC 62054-21. These standards specify the requirements for time switches in electricity meter related products. The accuracy is better than 5 ppm at room temperature.

Previous values

The previous value feature is available on Gold and Platinum meters and will store all energy registers and input counter values together with a date/time stamp upon change of day, week or month. All total values are stored and in meters equipped with the tariff feature all the tariff registers will also be stored.

Maximum Demand

The maximum demand function is available on Gold and Platinum meters. In the maximum demand function, the mean power in each interval is measured and the maximum mean values are stored together with a date/time stamp. For each set of maximum demand values the end date/time of the period is stored. The quantities that can be stored for each interval are active, reactive and apparent power (imported power only), and the number of pulses registered on inputs. Storage of reactive and apparent power is only possible on meters measuring combined energy and storing of pulses requires that the meter is equipped with the corresponding number of inputs. In tariff meters, the maximum demand can be stored for each tariff.

Event log

Gold and Platinum meters have an event log function. The event log will log overvoltage, undervoltage, phase voltage outage, negative power, total power outage and presence of harmonics.

Load Profile

The load profile function is available on the Platinum meters. The load profile stores the energy consumption at pre-defined intervals. The quantities that can be stored for each interval are active and reactive energy, both imported and exported energy, and the number of pulses registered on inputs. Storage of reactive energy is only possible on meters measuring combined energy and storing of pulses requires that the meter is equipped with the corresponding number of inputs. The load profile function uses the standard time setting irrespective if the daylight savings time function is activated or not.

THD

The THD and harmonics measurement is available on the Platinum meters. The voltage and current harmonics (2-16) together with the fundamental is measured sequentially one at a time. The total harmonic distortion is evaluated and displayed in percent. The separate harmonic frequencies measured are multiples of the fundamental frequency (normally around 50 or 60 Hz) up to the 16th harmonic. THD data as well as individual harmonics are shown on the display. THD data and data for individual harmonics can also be read out via serial communication.



A-series Ordering data



Single phase meter

80A, 4 DIN with IR port

Verified and approved according to MID

IEC approval

Direct connected electricity meter

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import measurement							
Steel	57 ... 288 V AC	B (Cl. 1)	Pulse output	A41 111 - 100	2CMA170554R1000	1	0.23
Silver	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A41 311 - 100	2CMA170502R1000	1	0.23

Direct connected electricity meter, RS-485

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import measurement							
Steel	57 ... 288 V AC	B (Cl. 1)	Pulse output	A41 112 - 100	2CMA170500R1000	1	0.23
Active import and export measurement							
Bronze	57 ... 288 V AC	B (Cl. 1)	Pulse output	A41 212 - 100	2CMA170501R1000	1	0.23
Silver	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A41 312 - 100	2CMA170503R1000	1	0.23
Gold	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A41 412 - 100	2CMA170505R1000	1	0.23

Direct connected electricity meter, M-Bus

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import and export measurement							
Silver	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A41 313 - 100	2CMA170504R1000	1	0.23
Gold	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A41 413 - 100	2CMA170506R1000	1	0.23
Active and reactive import and export measurement							
Platinum	57 ... 288 V AC	B (Cl. 1) Reactive Cl 2	Configurable	A41 513 - 100	2CMA170508R1000	1	0.23

A-series

Ordering data



Single phase meter

6A, 4 DIN with IR port
Verified and approved according to MID
IEC approval

CTVT connected electricity meter

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import measurement							
Steel	57 ... 288 V AC	B (Cl. 1)	Pulse output	A42 111-100	2CMA170555R1000	1	0.20

CTVT connected electricity meter, RS-485

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import measurement							
Steel	57 ... 288 V AC	B (Cl. 1)	Pulse output	A42 112 - 100	2CMA170510R1000	1	0.20
Active import and export measurement							
Bronze	57 ... 288 V AC	B (Cl. 1)	Pulse output	A42 212 - 100	2CMA170511R1000	1	0.20
Silver	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A42 312 - 100	2CMA170512R1000	1	0.20
Gold	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A42 412 - 100	2CMA170513R1000	1	0.20
Active and reactive import and export measurement, 16.7 Hz							
Platinum	57 ... 288 V AC	C (Cl. 0.5) Reactive Cl.2	Configurable	A42 552 - 120	2CMA170518R1000	1	0.20

CTVT connected electricity meter, M-Bus

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import and export measurement							
Gold	57 ... 288 V AC	B (Cl. 1)	2 output, 2 input	A42 413 - 100	2CMA170514R1000	1	0.20
Active and reactive import and export measurement, 16.7 Hz							
Platinum	57 ... 288 V AC	C (Cl. 0.5) Reactive Cl.2	Configurable	A42 553 - 120	2CMA170519R1000	1	0.20

A-series

Ordering data



Three phase meter

80A, 7 DIN with IR port
Verified and approved according to MID
IEC approval

Direct connected electricity meter

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import measurement							
Steel	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	Pulse output	A43 111 - 100	2CMA170520R1000	1	0.44
Steel	3 x 57/100 ... 288/500 V AC	A (Cl. 2)	Pulse output	A43 121 - 100	2CMA170521R1000	1	0.44
Active import and export measurement							
Silver	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	2 output, 2 input	A43 311 - 100	2CMA170524R1000	1	0.44

Direct connected electricity meter, RS-485

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import and export measurement							
Bronze	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	Pulse output	A43 212 - 100	2CMA170522R1000	1	0.44
Silver	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	2 output, 2 input	A43 312 - 100	2CMA170525R1000	1	0.44
Gold	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	2 output, 2 input	A43 412 - 100	2CMA170528R1000	1	0.44
Active and reactive import and export measurement							
Platinum	3 x 57/100 ... 288/500 V AC	B (Cl. 1) Reactive Cl.2	Configurable	A43 512 - 100	2CMA170531R1000	1	0.44

Direct connected electricity meter, M-Bus

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import and export measurement							
Bronze	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	Pulse output	A43 213 - 100	2CMA170523R1000	1	0.44
Silver	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	2 output, 2 input	A43 313 - 100	2CMA170526R1000	1	0.44
Gold	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	2 output, 2 input	A43 413 - 100	2CMA170529R1000	1	0.44
Active and reactive import and export measurement							
Platinum	3 x 57/100 ... 288/500 V AC	B (Cl. 1) Reactive Cl.2	Configurable	A43 513 - 100	2CMA170532R1000	1	0.44

A-series Ordering data



Three phase meter

6A, 7 DIN with IR port
Verified and approved according to MID
IEC approval

CTVT connected electricity meter.

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import measurement							
Steel	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	Pulse output	A44 111 - 100	2CMA170533R1000	1	0.35
Active import and export measurement							
Silver	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	2 output, 2 input	A44 311 - 100	2CMA170536R1000	1	0.35

CTVT connected electricity meter, RS-485

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import and export measurement							
Bronze	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	Pulse output	A44 212 - 100	2CMA170534R1000	1	0.35
Silver	3 x 57/100 ... 288/500 V AC	C (Cl. 0.5)	2 output, 2 input	A44 352 - 100	2CMA170537R1000	1	0.35
Gold	3 x 57/100 ... 288/500 V AC	C (Cl. 0.5)	2 output, 2 input	A44 452 - 100	2CMA170540R1000	1	0.35
Active and reactive import and export measurement							
Platinum	3 x 57/100 ... 288/500 V AC	C (Cl. 0.5) Reactive Cl.2	Configurable	A44 552 - 100	2CMA170545R1000	1	0.35
Active and reactive import and export measurement, 690 V AC							
Platinum	3 x 100/173 ... 400/690 V AC	C (Cl. 0.5) Reactive Cl.2	2 output, 2 input	A44 552 - 110	2CMA170549R1000	1	0.35

CTVT connected electricity meter, M-Bus

Functionality	Voltage V	Accuracy Class	I/O	Type	Order code	Pkg qty	Weight (1 pce) kg
Active import and export measurement							
Bronze	3 x 57/100 ... 288/500 V AC	B (Cl. 1)	Pulse output	A44 213 - 100	2CMA170535R1000	1	0.35
Silver	3 x 57/100 ... 288/500 V AC	C (Cl. 0.5)	2 output, 2 input	A44 353 - 100	2CMA170538R1000	1	0.35
Gold	3 x 57/100 ... 288/500 V AC	C (Cl. 0.5)	2 output, 2 input	A44 453 - 100	2CMA170541R1000	1	0.35
Active and reactive import and export measurement							
Platinum	3 x 57/100 ... 288/500 V AC	C (Cl. 0.5) Reactive Cl.2	Configurable	A44 553 - 100	2CMA170546R1000	1	0.35
Active and reactive import and export measurement, 690 V AC							
Platinum	3 x 100/173 ... 400/690 V AC	C (Cl. 0.5) Reactive Cl.2	2 output, 2 input	A44 553 - 110	2CMA170548R1000	1	0.35

A-series

Technical data

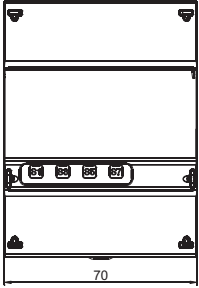
	A41	A42	A43	A44
Voltage/current inputs				
Nominal voltage	230 V AC		3x230/400 V AC	
Voltage range	57.7 - 288 V AC (-20% - +15%) 100 ... 288 V AC (-20% - +15%)		3x57.7/100 ... 288/500 V AC (-20% - +15%) 3x100/173 ... 400/690 V AC (-20% - +15%)	
Power dissipation voltage circuits	0.8 VA (0.8 W) total		0.8 VA (0.8 W) total	
Power dissipation current circuits	0.007 VA (0.007 W) at 230 VAC and I_b	0.001 VA (0.001 W) at 230 VAC and I_b	0.007 VA (0.007 W) per phase at 230 VAC and I_b	0.001 VA (0.001 W) per phase at 230 VAC and I_b
Base current I_b	5 A	-	5 A	-
Rated current I_r	-	1 A	-	1 A
Reference current I_{ref}	5 A	-	5 A	-
Transitional current I_t	0.5 A	0.05 A	0.5 A	0.05 A
Maximum current I_{max}	80 A	6 A	80 A	6 A
Minimum current I_{min}	0.25 A	0.02 A	0.25 A	0.02 A
Starting current I_s	< 20 mA	< 1 mA	< 20 mA	< 1 mA
Terminal wire area	1 - 25 mm ²	0.5 - 10 mm ²	1 - 25 mm ²	0.5 - 10 mm ²
Recommended tightening torque	2.5 Nm	2 Nm	2.5 Nm	2 Nm
General data				
Frequency	50 or 60 Hz ± 5%	50 or 60 Hz ± 5% or 16.7 Hz (optional)	50 or 60 Hz ± 5%	
Accuracy Class	B (Cl.1) or Reactive Cl. 2	B (Cl.1), C (Cl.0.5) or Reactive Cl. 2	A (Cl.2), B (Cl.1) or Reactive Cl. 2	B (Cl.1), C (Cl.0.5) or Reactive Cl. 2
Active energy	1%	0.5%, 1%	1%, 2%	0.5%, 1%
Display of energy	pixel oriented		pixel oriented	
Mechanical				
Material	Polycarbonate in transparent front glass, bottom case, upper case and terminal cover, Glass reinforced polycarbonate in terminal block.		Polycarbonate in transparent front glass, bottom case, upper case and terminal cover, Glass reinforced polycarbonate in terminal block.	
Environmental				
Operating temperature	-40°C - +70°C		-40°C - +70°C	
Storage temperature	-40°C - +85°C		-40°C - +85°C	
Humidity	75% yearly average, 95% on 30 days/year		75% yearly average, 95% on 30 days/year	
Resistance to fire and heat	Terminal 960°C, cover 650°C (IEC 60695-2-1)		Terminal 960°C, cover 650°C (IEC 60695-2-1)	
Resistance to water and dust	IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.		IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.	
Mechanical environment	Class M1 in accordance with the Measuring Instrument Directive (MID), (2004/22/EC).		Class M1 in accordance with the Measuring Instrument Directive (MID), (2004/22/EC).	
Electromagnetic environment	Class E2 in accordance with the Measuring Instrument Directive (MID), (2004/22/EC).		Class E2 in accordance with the Measuring Instrument Directive (MID), (2004/22/EC).	
Outputs				
Current	2 - 100 mA		2 - 100 mA	
Voltage	24 VDC - 240 VAC. For meters with only 1 output, 5 - 40 VDC.		24 VDC - 240 VAC. For meters with only 1 output, 5 - 40 VDC.	
Pulse output frequency	Prog. (1 - 9999 imp/MWh, 1 - 9999 imp/kWh, 1 - 9999 imp/Wh)		Prog. (1 - 9999 imp/MWh, 1 - 9999 imp/kWh, 1 - 9999 imp/Wh)	
Pulse length	10 - 990 ms		10 - 990 ms	
Terminal wire area	0.5 - 1 mm ²		0.5 - 1 mm ²	
Recommended tightening torque	0.25 Nm		0.25 Nm	
Inputs				
Voltage	0 - 240 V AC/DC		0 - 240 V AC/DC	
OFF	0 - 12 V AC/DC		0 - 12 V AC/DC	
ON	24 - 240 V AC/DC		24 - 240 V AC/DC	
Min. pulse length	30 ms		30 ms	
Terminal wire area	0.5 - 1 mm ²		0.5 - 1 mm ²	
Recommended tightening torque	0.25 Nm		0.25 Nm	
Communication				
Terminal wire area	0.5 - 1 mm ²	-	0.25 Nm	0.5 - 1 mm ²
Recommended tightening torque	0.25 Nm	-	0.25 Nm	0.25 Nm
Transformer ratios				
Configurable voltage ratio (VT)	-	1 - 9999 (Programmable)	-	1 - 9999
Configurable current ratio (CT)	-	1 - 9999 (Programmable)	-	1 - 9999
Max total transformer ratio (VT*CT)	-	999999	-	999999
Pulse indicator (LED)				
Pulse frequency	1000 imp/kWh	5000 imp/kWh	1000 imp/kWh	5000 imp/kWh
Pulse length	40 ms	40 ms	40 ms	40 ms
EMC compatibility				
Impulse voltage test	6 kV 1.2/50 µs (IEC 60060-1)		6 kV 1.2/50 µs (IEC 60060-1)	
Surge voltage test	4 kV 1.2/50 µs (IEC 61000-4-5)		4 kV 1.2/50 µs (IEC 61000-4-5)	
Fast transient burst test	4 kV (IEC 61000-4-4)		4 kV (IEC 61000-4-4)	
Immunity to electromagnetic HF-fields	80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3)		80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3)	
Immunity to conducted disturbance	150 kHz - 80 MHz, (IEC 61000-4-6)		150 kHz - 80 MHz, (IEC 61000-4-6)	
Radio frequency emission	EN 55022, class B (CISPR22)		EN 55022, class B (CISPR22)	
Electrostatic discharge	15 kV (IEC 61000-4-2)		15 kV (IEC 61000-4-2)	
Standards	IEC 62052-11, IEC 62053-21 class 1 & 2, IEC 62053-22 class 0.5s, IEC 62053-23 class 2, IEC 62054-21, GB/T 17215.211-2006, GBT 17215.321-2008 class 1 & 2, GB/T 17215.322-2008 class 0.5s, GB 4208-2008, EN 50470-1, EN 50470-3 category A, B & C		IEC 62052-11, IEC 62053-21 class 1 & 2, IEC 62053-22 class 0.5s, IEC 62053-23 class 2, IEC 62054-21, GB/T 17215.211-2006, GBT 17215.321-2008 class 1 & 2, GB/T 17215.322-2008 class 0.5s, GB 4208-2008, EN 50470-1, EN 50470-3 category A, B & C	
Dimensions				
Width	70 mm		123 mm	
Height	97 mm		97 mm	
Depth	65 mm		65 mm	
DIN modules	4		7	

A-series

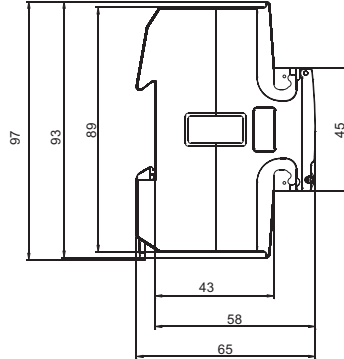
Dimensions, wiring diagrams, A41 and A42

Dimensions

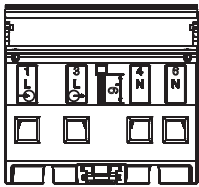
Front view



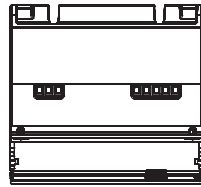
Side view,



Bottom view, terminal area

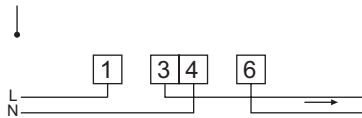


Top view

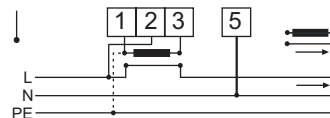


Wiring diagrams

A41

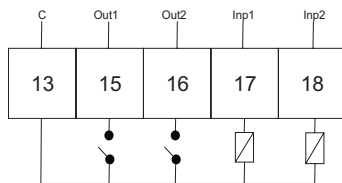


A42

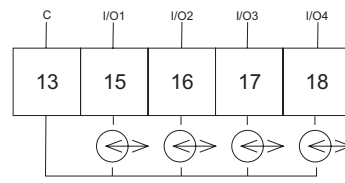


Inputs/Outputs

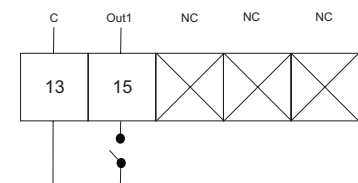
2 outputs, 2 inputs



4 Configurable inputs/outputs

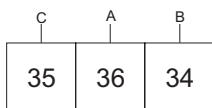


1 output

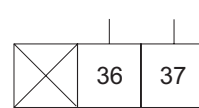


Communication

RS 485



M-Bus

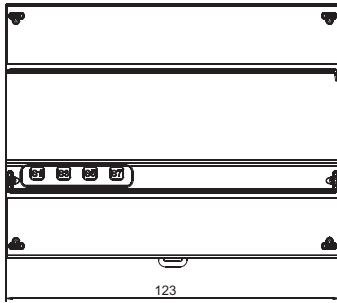


A-series

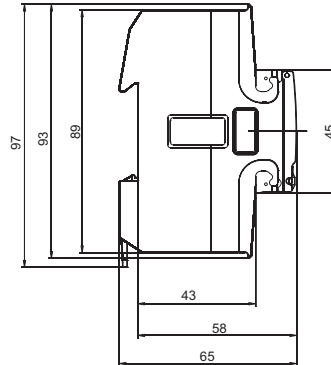
Dimensions, wiring diagrams, A43 and A44

Dimensions

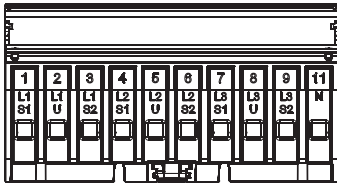
Front view



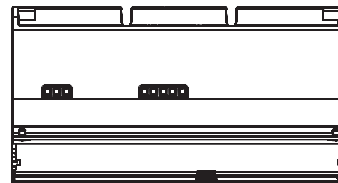
Side view



Bottom view, terminal area



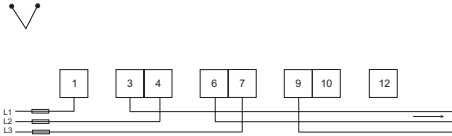
Top view



Wiring diagrams

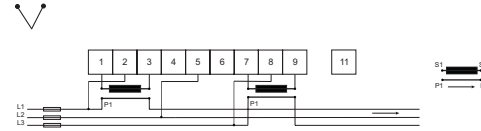
3 wire connection, 2 elements

A43



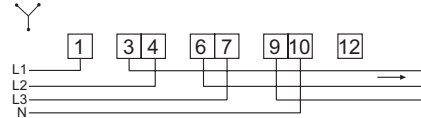
3 wire connection, 2 elements

A44



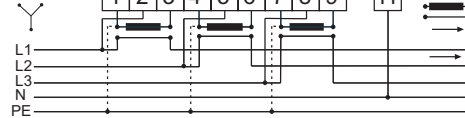
4 wire connection, 3 elements

A43



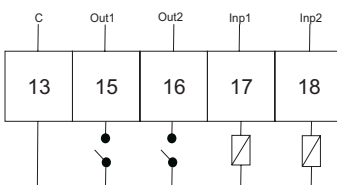
4 wire connection, 3 elements

A44

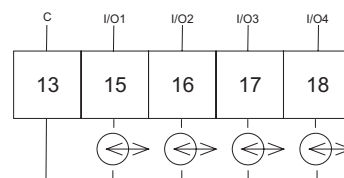


Inputs/Outputs

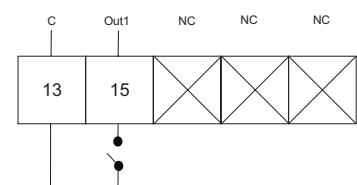
2 outputs, 2 inputs



4 Configurable inputs/outputs

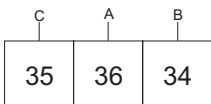


1 outputs



Communication

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