

TECHNICAL DATA

# EQmatic

## Energy Analyzer, Modbus

QA/S 4.16.1

QA/S 4.64.1



### Description of product

The Energy Analyzers, Modbus RTU QA/S 4.xx.1, are modular DIN rail components (MDRC) in Pro M design for installation in distribution boards on a 35 mm mounting rail.

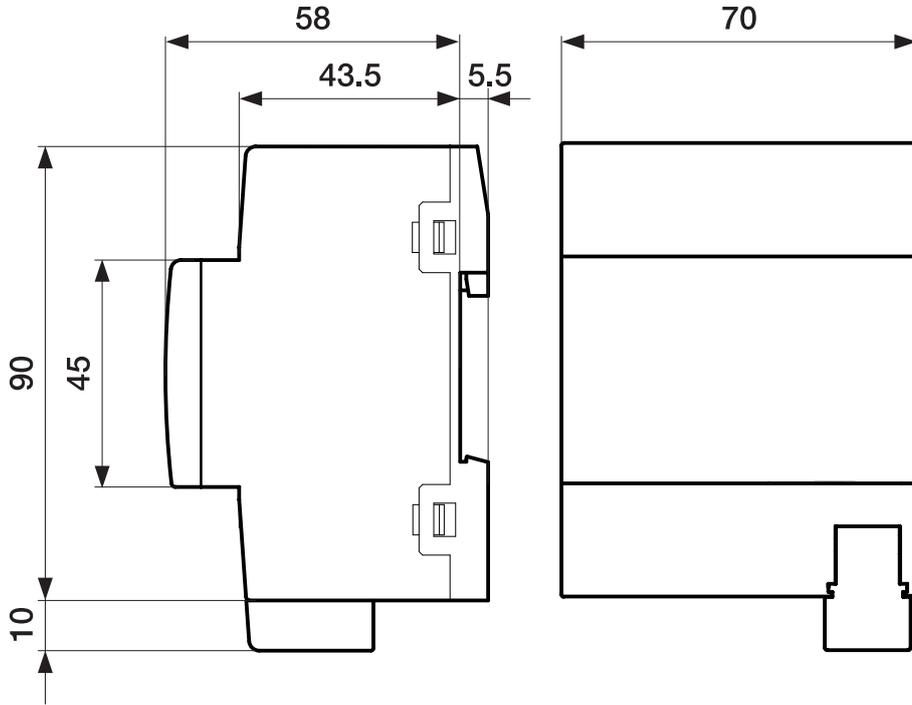
They are compact, web-based standalone devices for energy management applications in Modbus RTU networks. They log, store, display and analyze consumption data for up to 16 or 64 electricity, gas, water or heat meters. They automatically detect ABB A and B series meters during commissioning. Device access is via web browser.

Various interfaces are available for further processing the data.

The user interface provides graphic analysis features such as

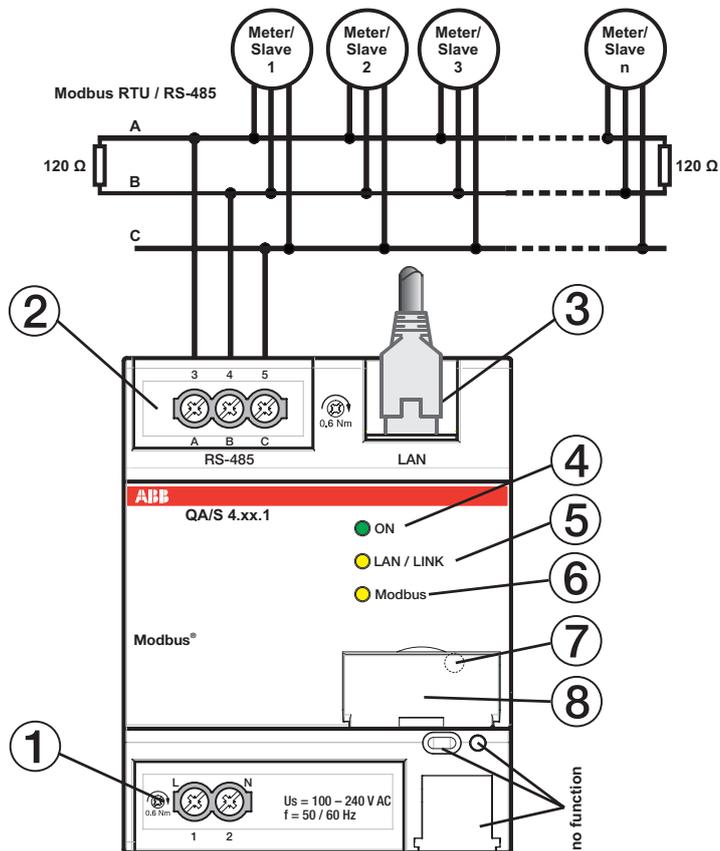
- A configurable dashboard
- Display and evaluation of historical data
- Analysis of instantaneous values
- Period comparison (before/after)
- Comparison of up to 5 consumers
- Display of cost/consumption figures by consumer groups

Dimension drawing



2CDC072033F0015

**Connection**



**LEGEND**

- 1  $U_s$  supply voltage connection
- 2 RS-485 Modbus slaves/meter connection
- 3 Ethernet/LAN connection
- 4 ON LED (green)
- 5 LAN/LINK LED (yellow)
- 6 Modbus RTU LED
- 7 Reset button (behind label carrier)
- 8 Label carrier

**IMPORTANT**

The bus cable must be terminated with resistors (120  $\Omega$ , 0.25 W) at both ends so that only minimal reflections are produced. The serial communication on the RS485 interface operates most efficiently if the source and load impedance are matched at 120 Ohm. The EOL resistors are connected in parallel with terminals A and B and are included in the scope of delivery.

2CDC072005F0018

<b>Technical data</b>		
<b>Energy Analyzer, Modbus</b>	Modbus RTU master	According to DIN EN 13757-2
	Max. number of Modbus RTU slaves	QA/S 4.16.1    QA/S 4.64.1
		16                    64
<b>Supply</b>	Operating voltage $U_s$	100 – 240 V AC, 50/60 Hz
	Power consumption at 230 V AC	< 10 W
	Current consumption at 230 V AC	< 50 mA
	Device power loss at 230 V AC	< 3 W at 230 V AC
<b>Web server and device properties</b>	Simultaneous access to web server	Max. 10 users
	Retrieval/storage of meter data	Every 5 minutes
	IP security	HTTPS, SSL
	Data export	JPG, PNG, CSV, XLSX, PDF, JSON
	Data transfer	Modbus-TCP, REST API, web sockets
	Report	FTP or e-mail
	Storage capacity with up to 64 Modbus slaves/devices	Min. 3 years
<b>Network</b>	Ethernet	10/100 Mb
<b>Connections</b>	Operating voltage and RS-485/Modbus	Screw terminal, universal head
		0.2...4 mm <sup>2</sup> stranded
		0.2...6 mm <sup>2</sup> solid core
	Tightening torque	Maximum 0.6 Nm
	LAN	RJ45 connector for 10/100BaseT IEEE 802.3 networks, autosensing
<b>Operating and display elements</b>	ON LED (green)	Ready indicator
	LAN/LINK LED (yellow)	Network connection/ telegram traffic indicator
	Modbus LED (yellow)	Modbus ready indicator
	Reset button	Rear label carrier
<b>Degree of protection</b>	IP 20	According to EN 60529
<b>Protection class</b>	II	According to EN 61140
<b>Isolation category</b>	Overtoltage category	III according to EN 60664-1
	Pollution degree	2 according to EN 60664-1
<b>Temperature range</b>	Operation	-5...+45 °C
	Storage	-25...+55 °C
	Transport	-25...+70 °C
<b>Environmental conditions</b>	Humidity	Maximum 93%, moisture condensation is to be excluded
	Atmospheric pressure	Atmosphere up to 2,000 m
<b>Design</b>	Modular DIN rail component (MDRC)	Pro M design
	Dimensions	90 x 72 x 64 mm (H x W x D)
	Installation width/installation depth	4 modules with 18 mm/68 mm
<b>Mounting</b>	On 35 mm mounting rail	According to DIN EN 60 715
<b>Mounting position</b>	Any	
<b>Weight</b>	Approx. 0.15 kg	
<b>Housing, color</b>	Plastic, light gray	Halogen-free Flammability V-0 as per UL94
<b>CE marking</b>	In accordance with the EMC and Low Voltage Directives	

<b>Software</b>	
<b>Device type</b>	<b>Max. number of Modbus RTU slaves</b>
<b>QA/S 4.16.1</b>	16
<b>QA/S 4.64.1</b>	64

<b>Ordering details</b>					
<b>Device type</b>	<b>Product Name</b>	<b>Order No.</b>	<b>bbn 40 16779 EAN</b>	<b>Weight 1 pcs. [kg]</b>	<b>Packaging [pcs.]</b>
<b>QA/S 4.16.1</b>	Energy Analyzer, 16-fold, Modbus, MDRC	2CDG110228R0011	99777 5	0.15	1
<b>QA/S 4.64.1</b>	Energy Analyzer, 64-fold, Modbus, MDRC	2CDG110229R0011	99778 2	0.15	1

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**NOTE**

Please refer to the EQmatic Energy Analyzer product manual for a detailed description of the application. It is available free of charge at [www.abb.com/knx](http://www.abb.com/knx).



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