

Panorama

Electricity meters
For reliable values of energy consumption

Power and productivity
for a better world™

Why measure Electrical Energy

Energy cost is on the rise. It is therefore in the interest of both private and commercial customers to measure energy. If you know your consumption, you are able to be energy efficient and ultimately save money. By using EQ meters from ABB it is possible to know and control consumption over time, in addition you measure cost for fair distribution/sharing. This is valid for commercial buildings, such as shopping malls and airports, for industries as well as for residential buildings. Another reason to measure energy is obvious – saving the environment. By having full control over your consumption you will be able to cut on you CO2 emissions.

New legislations and standards like ISO 50001 call for more control over your energy consumption and EQ meters from ABB will provide the electrical energy consumption data for both initial analysis and later on also monitoring the result.

Why EQ meters from ABB

EQ meters from ABB comes with a pedigree of quality and front line technology since the first ever DIN rail mounted meter produced by us in 1984. We drive the technology further and offer a wide modern range of electricity meter from small meters for basic usage up to advanced meters for demanding Customers. By using the flexible interface for communication you are able to see and control your consumption in a very efficient way. With the optional tariff handling functions EQ meters from ABB helps you on the way to accurate cost distribution even when complex tariff schemes are used. A lot of functions fit inside EQ meters from ABB despite its compact design and small dimensions. They are very easy to add or retrofit into your standard enclosure - the installers best friend.

All our meters deliver reliable values even in harsh environments, both electrical and ambient. EQ meters is a part of the well-known ABB quality from a reliable supplier. You can simply trust an EQ meter to supply the correct value.

Common features

- DIN rail mounted
- MID
- Wide temperature range
- Logical interface
- Instrumentation (P, U, I, Pf)
- Pulse output



Product overview

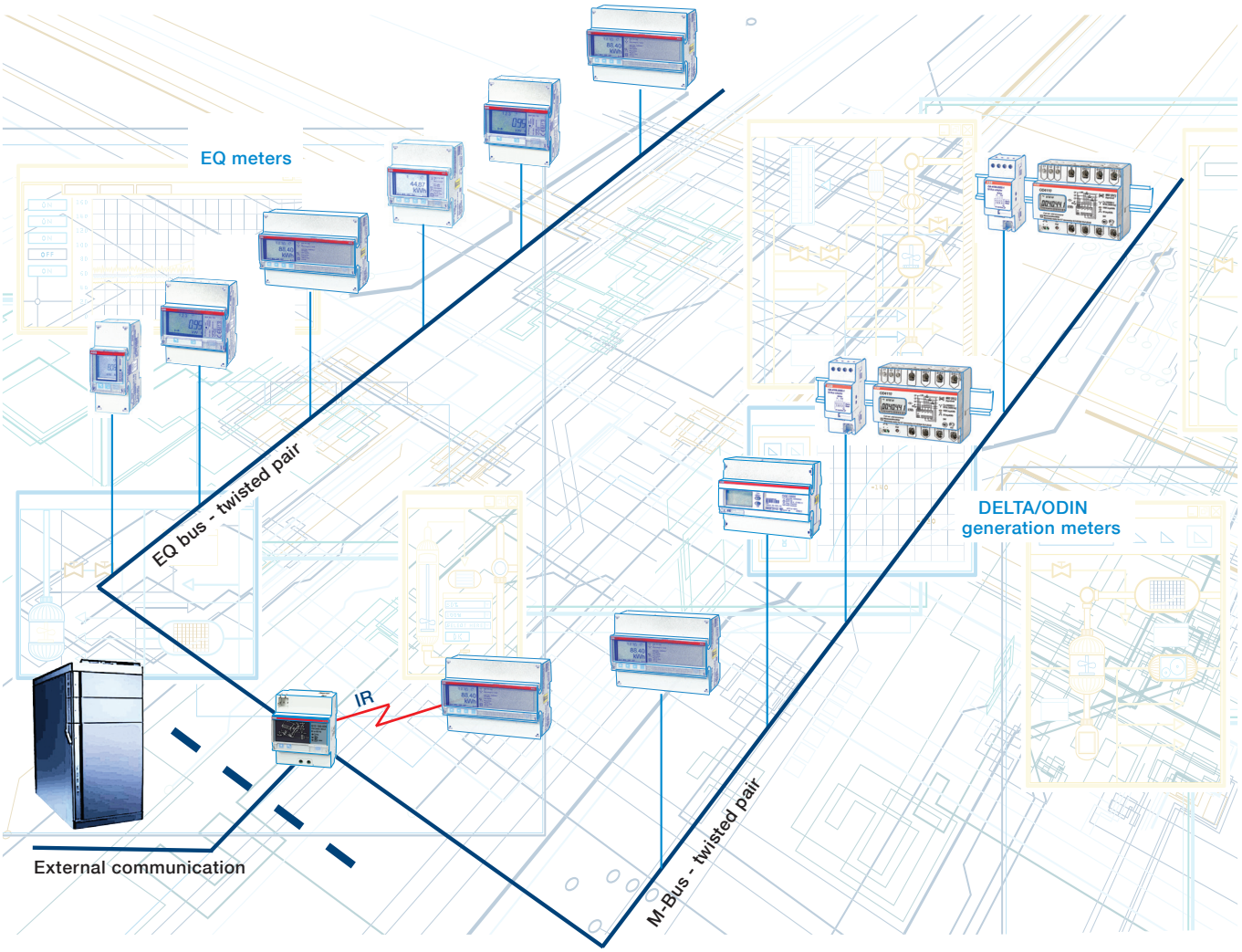
Number of phases	Three phases					Single phase			
Meter type	A43	B23	C13	A44	B24	A41	B21	C11	A42
Connection	Direct connected			Transformer connected		Direct connected			Transformer connected
Nominal voltage	3 x 230/400 V AC			3 x 230/400 V AC		230 V AC			230 V AC
Frequency	50 or 60 Hz			50 or 60 Hz		50 or 60 Hz			50 or 60 Hz
Voltage (V AC) phase to neutral phase to phase	3 x 57,7 - 288 3 x 100 - 500	3 x 220 - 240 3 x 380 - 415		3 x 57,7 - 288 3 x 100 - 500	3 x 220 - 240 3 x 380 - 415	57,7-288	220-240	230	57,7-288
Accurcy class (active energy)	Class 1 (B)			Class 1 (B) or Class 0,5 S (C)		Class 1 (B)			Class 1 (B) or Class 0,5 S (C)
Maximum current	80 A	65 A	40 A	6 A		80 A	65 A	40 A	6 A
Reference current	5 A			1 A		5 A			1 A
DIN modules	7	4	3	7	4	4	2	1	4
Meter type	A43	B23	C13	A44	B24	A41	B21	C11	A42
Pulse output	Steel			Steel		Steel			Steel
Alarm									
Reactive energy	Bronze			Bronze		Bronze			Bronze
Four quadrant measurements									
Resettable register	Silver			Silver		Silver			Silver
2 inputs and 2 outputs									
Up to 4 tariffs - controlled by externa signal or communi-cation									
Up to 4 tariffs - controlled by internal clock	Gold	No		Gold	No	Gold	No		Gold
Basic clock functions									
Advanced clock functions	Platinum			Platinum		Platinum			Platinum
Harmonics and THD									
Configurable I/O									
In-built communication M-Bus	Option			Option		Option			Option
In-built communication RS-485 (Modbus RTU or EQ bus)	Option			Option		Option			Option
KNX module via IR port	Available	2014*)		Available	2014*)	Available	2014*)		Available
Meter type	A43	B23	C13	A44	B24	A41	B21	C11	A42

*) Available from 2014



For ABB current/voltage transformers range, please see System proM catalog 2CSC400002D0208
For further information, see catalog 2CMC480022C0003

Communication network



The EQ meter gateway is used as an access point to all of the EQ meters and allows the user to perform settings using high level programming language JSON or through a web browser. When safety and maximum functionality is of importance the EQ bus will make it fully utilized over the EQ meter gateway. Meters with RS-485 can be used for Modbus or EQ bus.

General features

The gateway is the interface between EQ meters and the system side. The gateway features both RS-485 and M-Bus interfaces towards the meter side. On the up-stream side there is a RJ 45 connector for Ethernet. Security is ensured on the Ethernet by the use of SSL encryption.

This QR-code is linked to the latest version of our folder 2CMC481006B0201 in PDF format.

You will have to download a QR-code reader app to your phone in order to use it.

Features

C series

Key applications

- HVAC applications
- Stand alone applications
- Domestic applications
- Charging stations
- Etc.

Key performance

- Single phase or three phase
- Very compact, 1 & 3 modules.
- Direct connected up to 40 A
- Active energy measurement
- Instrument values
- Accuracy class 1
- Alarm function
- Optional MID

B series

Key applications

- Cost transfer/billing
- Solar power
- Elevators/escalators
- Lighting
- Installation on machines
- Etc.

Key performance

- Single phase or three phase
- Direct connected up to 65 A or CT connected (three phase types)
- Active energy measurement Class B (Cl. 1) or Class C (Cl. 0,5 S)
- Alarm function
- MID
- Reactive energy measurement
- Import/export measurement of energy
- Optional communication via M-Bus or RS-485[1)]
- 4 tariffs controlled by input or communication

A series

Key applications

- Facility management installations
- Critical power
- Production lines
- System solutions
- Power quality
- Etc.

Key performance

- Single phase or three phase
- Direct connected up to 80 A or transformer current- and/or voltage transformers (CTVT)
- Active energy measurement Class B (Cl. 1) or Class C (Cl. 0,5 S) on CTVT connected meters
- Wide voltage range
  100 - 500 V phase to phase
  57,7 - 288 V phase to neutral
- Alarm function
- MID
- Reactive energy measurement
- Import/export measurement of energy
- Optional communication via M-Bus or RS-485[1)]
- 4 tariffs controlled by inputs, communication or built-in clock
- Previous values (by day, week or month)
- Demand measurement (max and min)
- Load profiles (8 channels)
- Harmonics measurement up to 16th harmonic and evaluation of THD

Gateway

Key applications

- Meter management/configuration
- Remote reading of meter data
- Integration of meters in system solution
- Etc.

Key performance

- Connection to meters via RS-485 EQ bus
- Connection to meters via M-Bus
- Ethernet connection (https, JSON)
- Built-in webserver
- Meter readout via webserver
- Meter configuration via webserver
- Upgradeable

[1)] For Modbus RTU or EQ bus



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Panorama 2CMC481005B0201, June 2013, Ver A , Prod ABB AB, Meters/XM

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