



ABB panel meter portfolio

India & Global

Accurate electrical measuring and
power monitoring



- Complete portfolio
- Simple and compact design
- Digital turnkey solution for monitoring, optimization and control
- Improve reactivity and reduce uncoordinated maintenance

ABB's energy efficiency product portfolio is the new, complete assortment of product range comprising of single function, multifunction, dual source, power metering and fully connected, state-of-the-art range of network analyzers, guaranteeing basic to complete power quality analysis and accurate energy efficiency monitoring of all the energy assets: industrial and commercial buildings, facilities, data centers.

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ABB Energy Efficiency Portfolio

Metering solutions from basic to advanced

Single function and Multi-function Metering solutions

ABB analog and digital single and multi-function instruments easily allow the monitoring of all the simplest electrical parameters.

Basic Metering solutions

On top of the simplest measurements, ABB basic Multi-function meters also monitor Energy and Power. They are available with option for Modbus communication.



Modular analog instruments



Modular digital instruments



Front panel analog instruments



Front panel digital instruments



M1A



M1V



M1M 10



M1M 11



EQ meters C series



EQ meters B series



M1M 12



M1M DS

Intermediate Metering solutions

Intermediate level solutions offer a wider range of measurements - including THD, Individual Harmonics and Unbalances - and functionalities - such as I/O, Timers, RTC and Alarms as optional choice.

Advanced Metering solutions

M4M suits all power monitoring needs: from high-accuracy energy efficiency monitoring of electrical parameters to complete power quality analysis through advanced KPIs via cloud.



M1M 15



M4M 2X



M1M 20B



M1M 30B



EQ meters
B series



EQ meters
A series



M1M 20



M1M 30



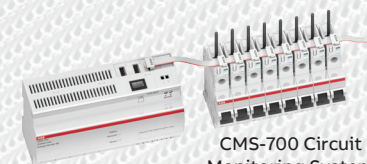
M4M 20



M4M 30



CMS-600/660 Circuit
Monitoring System



CMS-700 Circuit
Monitoring System



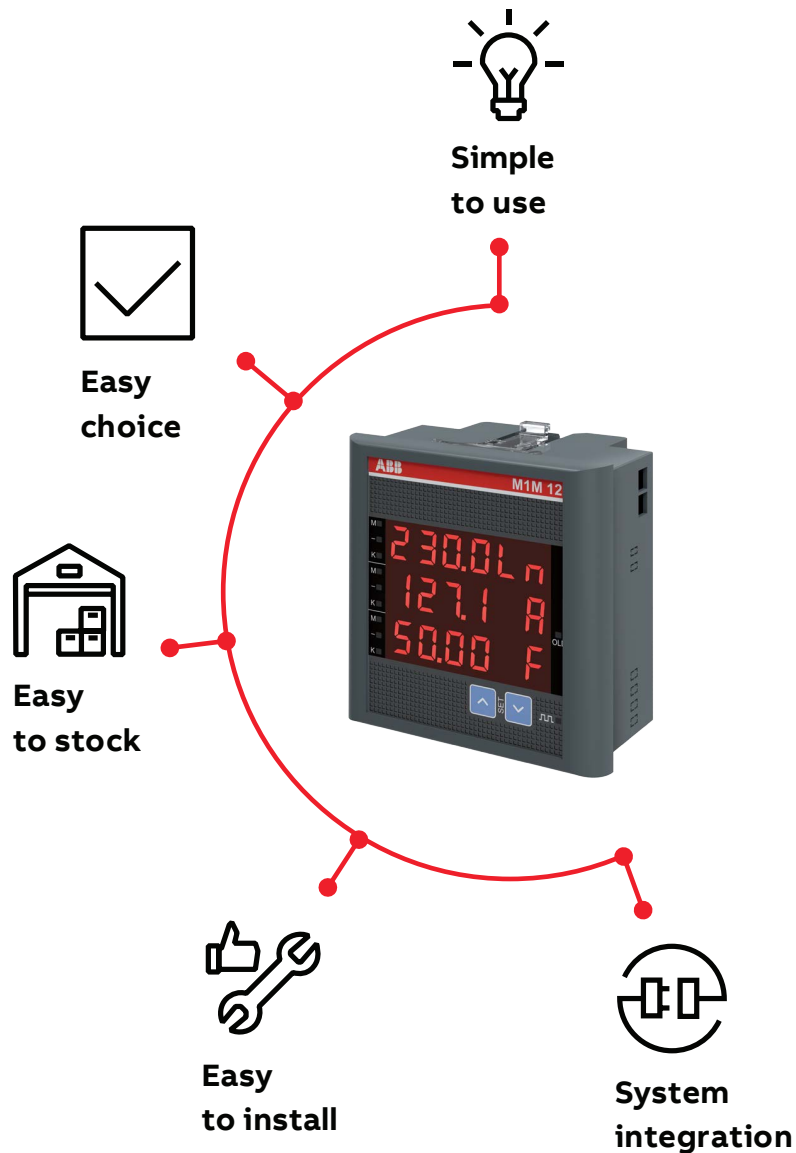
SCU-100
InSite Pro



Digital
I/O modules

Measurement made simple

Making difference with M1M range of meters in sub-distribution switchboards.



Commercial
Buildings



Industrial
Plants



Public
Buildings

Measurement made simple

Value proposition

Simple to use

- Intuitive visualization of the parameters on the bright LED display
- Enhanced clarity in data reading and device configuration

Easy choice

- Maximum 2 steps to select the correct product for your application

Easy to install and stock

- Compact product design and optimized volumetric weight of packaging
- No tools required for product mounting thanks to mounting clips

System integration

- Remote monitoring in any Modbus RTU supervision system thanks to the optional RS485 port



M1M DS

Your benefits



For distributors

- Save space needed for internal stock
- Fast selection of the correct product for your orders
- Handle a minimum set of order codes



For panel builders

- Reduce the time needed for meter installation on the panel
- Fast selection of the correct product for your application
- Increase the number of projects covered with the same product



M1 Single Function Measurement Devices

Features : M1A, M1V and M1M 11



1

Intuitive visualization

Clear and simple reading of the measurement data on the wide LED displays.

2

Compact design

Only 52mm inside the switchboard to ensure optimized logistics and reduced footprint in the panel.

3

Electrical system monitoring

Complete electrical parameters measurement, from simple VAF (voltage, current, frequency) to power and energy monitoring.

M1 Multi-function and Dual Source Measurement Devices

Features : M1M 10, M1M 12 and M1M DS



4

Easy to use

Simple front keypad to navigate in setup and menus.

5

Remote measurement

Availability of RS485 interface with the support of communication protocol Modbus RTU facilitating the communication and connection of the device with remote locations.

Technical features



Product type		Single Function and Multi-function meters M1M			
Product range		M1A 1-1 Ammeter	M1A 3-1 Ammeter	M1A 3-05 Ammeter	M1V 1-1 Voltmeter
Mounting		Front Panel	Front Panel	Front Panel	Front Panel
Standards	IEC 62053-21/22	#	#	#	#
	IEC 61557-12 PMD	–	–	–	–
	IEC 61000 4-2, 4-3, 4-4, 4-6, 4-8, 4-11	–	–	–	–
	IEC 61010-1	■	■	■	■
HMI	Display	LED	LED	LED	LED
	Accuracy Class	Class 1	Class 1	Class 0.5	Class 1
	Auxiliary Power Supply (80 - 300V AC/DC, L-N)	■	■	■	■
Measurement	Voltage measurement range	–	–	–	300V Max. AC (L-N)
	Current Measurement range	50mA - 6A	50mA - 6A	50mA - 6A	–
	Measurement via CT (.../1A or .../5A)	■	■	■	–
	Measurement via Rogowski coils	–	–	–	–
	Sample per cycle	32	32	32	32
Real-time	Current (I), Voltage (U, V), f	I	I	I	V
	Active Power (P), PF	–	–	–	–
	Reactive (Q), Apparent (S) Power	–	–	–	–
	Timers	–	–	–	–
Energy	Active energy	–	–	–	–
	Reactive, apparent energy	–	–	–	–
	4 quadrants energy (import/export)	–	–	–	–
Power Quality	THD	–	–	–	–
	Harmonics	–	–	–	–
	Unbalances	–	–	–	–
	Neutral current	–	–	–	–
Logging	Alarms	–	–	–	–
	Complex alarms with logics	–	–	–	–
	Min/max/demand	–	–	–	–
	Flash memory	–	–	–	–
	RTC	–	–	–	–
	Graphs visualization	–	–	–	–
	Homepage and favourite page	–	–	–	–
HMI	Password protection	■	■	■	■
Communication	Standard I/O	–	–	–	–
	Additional I/O	–	–	–	–
	M-bus	–	–	–	–
	Modbus RTU	–	–	–	–
	Modbus TCP/IP	–	–	–	–
	Profibus DP-V0	–	–	–	–
	BACnet/IP	–	–	–	–
	Bluetooth	–	–	–	–
	Automatic integration in System pro M compact® InSite	–	–	–	–
	Automatic integration in ABB Ability™ Energy and Asset Manager	–	–	–	–
	InSite-bus flat cable	–	–	–	–

* Available starting from 2022 Q2. # Calibration document included in the product packaging.



M1V 3-1- Voltmeter	M1V 3-05 Voltmeter	M1M 11-1 kWh	M1M 11-05 kWh	M1M 10	M1M 12	M1M DS Dual source
Front Panel	Front Panel	Front panel	Front panel	Front panel	Front panel	Front panel
#	#	#	#	#	#	#
-	-	-	-	-	-	-
-	-	-	-	-	-	-
■	■	■	■	■	■	■
LED	LED	LED	LED	LED	LED	LED
Class 1	Class 0.5	Class 1	Class 0.5	Class 1	Class 1	Class 0.5
■	■	■	■	■	■	■
300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)
-	-	50mA - 6A	50mA - 6A	50mA - 6A	50mA - 6A	50mA - 6A
-	-	■	■	■	■	■
-	-	-	-	-	-	-
32	32	64	64	64	64	64
V, f	V, f	-	-	■	■	■
-	-	-	-	-	■	■
-	-	Apparent	Apparent	-	-	Apparent
-	-	-	-	-	-	-
-	-	■	■	-	■	■
-	-	Apparent	Apparent	-	-	Apparent
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
■	■	■	■	■	■	■
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	■	■	-	■	■
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	*	*	-	*	*
-	-	*	*	-	*	*
-	-	-	-	-	-	-

M1 Single Function Measurement Devices

M1A, M1V and M1M 11

Ordering codes



M1A

M1A

M1A is a digital ammeter for Current measurement, providing the measurement of the single-phase or three-phase Current and allowing easy replacement of different analog meters.

Accuracy Class	Communication protocol and interface	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	-	-	M1A 1-1 Ammeter 1Ph	1SYG235145R4051	0.19	1
Class 1	-	-	M1A 3-1 Ammeter 3Ph	1SYG235135R4051	0.19	1
Class 0.5	-	-	M1A 3-05 Ammeter 3Ph	1SYG234905R4051	0.19	1



M1V

M1V

M1V is a digital voltmeter for Voltage (and Frequency) measurement, providing the measurement of the single-phase or three-phase Voltage as well as Frequency (for 3Ph Voltmeter) and allowing easy replacement of different analogue meters.

Accuracy Class	Communication protocol and interface	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	-	-	M1V 1-1 Volt Meter 1Ph	1SYG233965R4051	0.19	1
Class 1	-	-	M1V 3-1 Volt Meter 3Ph	1SYG233955R4051	0.19	1
Class 0.5	-	-	M1V 3-05 Volt Meter 3Ph	1SYG233695R4051	0.19	1



M1M 11

M1M 11

M1M 11 is a digital kWh meter for energy measurement, providing the measurement of the single-phase and three-phase energy consumption.

Accuracy Class	Communication protocol and interface	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	Modbus RTU RS485	-	M1M 11-1 kWh Meter Modbus	1SYG233685R4051	0.22	1
Class 0.5	Modbus RTU RS485	-	M1M 11-05 kWh Meter Modbus	1SYG232395R4051	0.22	1

M1 Multi-function Measurement Devices

M1M 10, M1M 12 and M1M DS

Ordering codes



M1M 10

M1M 10

M1M 10 is a VAF meter for basic electrical system monitoring, providing the measurement of the main single-phase and three-phase electrical parameters and allowing easy replacement of different analogue meters.

Accuracy Class	Communication protocol and interface	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	-	350811	M1M 10-1	1SYG235081R4051	0.3	1



M1M 12

M1M 12

M1M 12 is a Multi-function meter, providing what is needed to monitor the electrical system and allowing statistical metering of active energy consumption.

M1M 12 product range includes option with built-in communication protocol (Modbus RTU) through RS485 communication port, allowing easy integration with Modbus supervision systems.

Accuracy Class	Communication protocol and interface	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	-	075912	M1M 12-1	1SYG207591R4051	0.3	1
Class 1	Modbus RTU RS485	075813	M1M 12-1 Modbus	1SYG207581R4051	0.3	1



M1M DS

M1M DS

M1M DS is a digital dual source meter for the measurement of basic electrical parameters along with power parameters for two source measurement such as EB/DG.

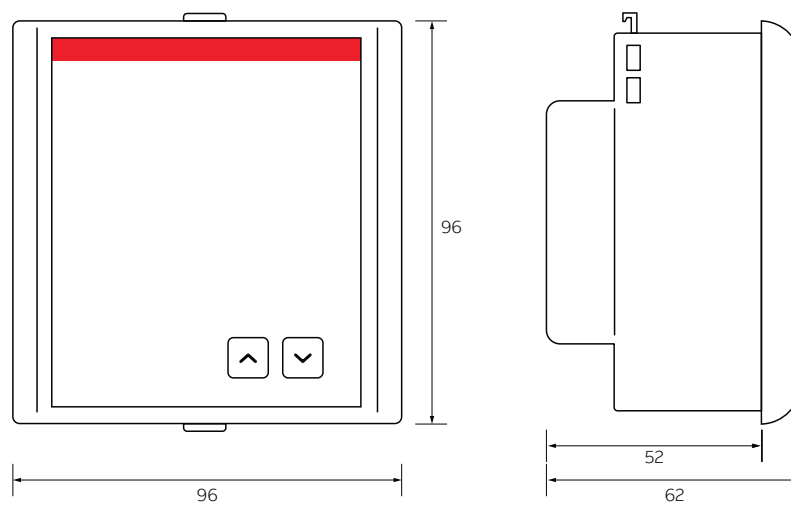
Accuracy Class	Communication protocol and interface	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 0.5	-	-	M1M DS-05	1SYG232385R4051	0.21	1
Class 0.5	Modbus RTU RS485	-	M1M DS-05 Modbus	1SYG232375R4051	0.21	1

Dimension details

M1A, M1V and M1M 11

Overall dimensions

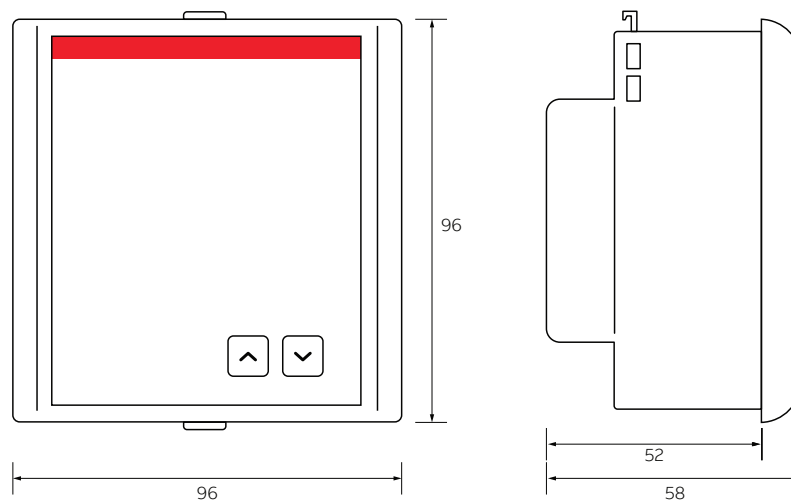
All measurements in mm



M1M 10 and M1M 12

Overall dimensions

All measurements in mm

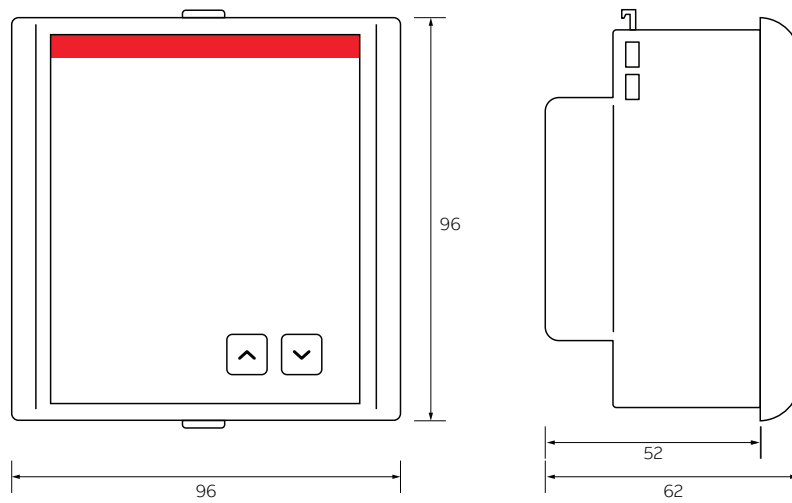


Dimension details

M1M DS

Overall dimensions

All measurements in mm



M1M Power Meters

Introducing the new ABB power meters ranges M1M 15, M1M 20B, M1M 30B, M1M 20 and M1M 30 an easy solution for any standard application in buildings and industry.

M1M 15, M1M 20B, M1M 30B, M1M 20 and M1M 30 are the new ABB ranges of power meters, offering exactly what is needed to monitor the electrical system and analyze the power quality in a single device.

The new M1M power meters offer allows to easily and cost-effectively cover the main submetering and power quality monitoring requirements in commercial and industrial buildings, either small or mid/large-sized, e.g. inside power factor correction boards, motor control center or sub-distribution switchboards.

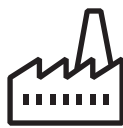
ABB's complete multifunction meters product line, now including M1M 15, M1M 20B, M1M 30B, M1M 20 and M1M 30 ranges, are capable to cover all needs, from basic electrical parameters measurement to advanced power quality analysis.

ABB's power meters are simple to use, with a common and intuitive user experience from installation to operations, allowing to fully exploit the reliable, IEC-compliant measurements.

Thanks to their connectivity capabilities, M1M can get leverage on the integration in ABB scalable energy and asset management solutions to monitor, optimize and control the complete electrical system, such as System pro M compact® InSite and ABB Ability™ Energy and Asset Manager cloud-computing platform.



Commercial
Buildings



Industrial
Plants



Public
Buildings



M1M 15



M1M 20B



M1M 30B



M1M 20



M1M 30

Measurement made simple

The complete M1M range, offering all the measurement features required for basic power quality monitoring and submetering in a single power meter; making measurement simple.



— Complete offer

ABB meters to cover all needs

Select in maximum 2 steps the right and most competitive power meter to cover all basic electrical system measurement needs. Thanks to integrated functionalities and communication protocols, the same product version fits an increased number of projects and wide applications range.



— Easy to use

Common user experience

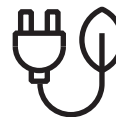
Common and intuitive menu structure all over the different ranges on clear and large backlit LCD/LED displays, helping to reduce the time needed to operate the power meters. Feedback on correct operations and quick reactivity on the system events are ensured by alarms icons and frontal LEDs on all product versions.



— Easy to install

Optimized installation process

Compact power meters, ensuring a very limited footprint inside the panel, provide a common, vertical disposition of the terminals for easy wiring of cables directly from the sides. No special tool is required for product mounting thanks to mounting clips.



— Energy Efficiency

Reliable and accurate measurement

Complete set of measurement functionalities, from Multi-function meters to intermediate power meters, compliant with accuracy standard IEC 61557-12 to allow improving energy efficiency of the electrical system. Remote communication on main communication protocol, Modbus RTU and Modbus TCP/IP.

—

Your benefits

For distributors

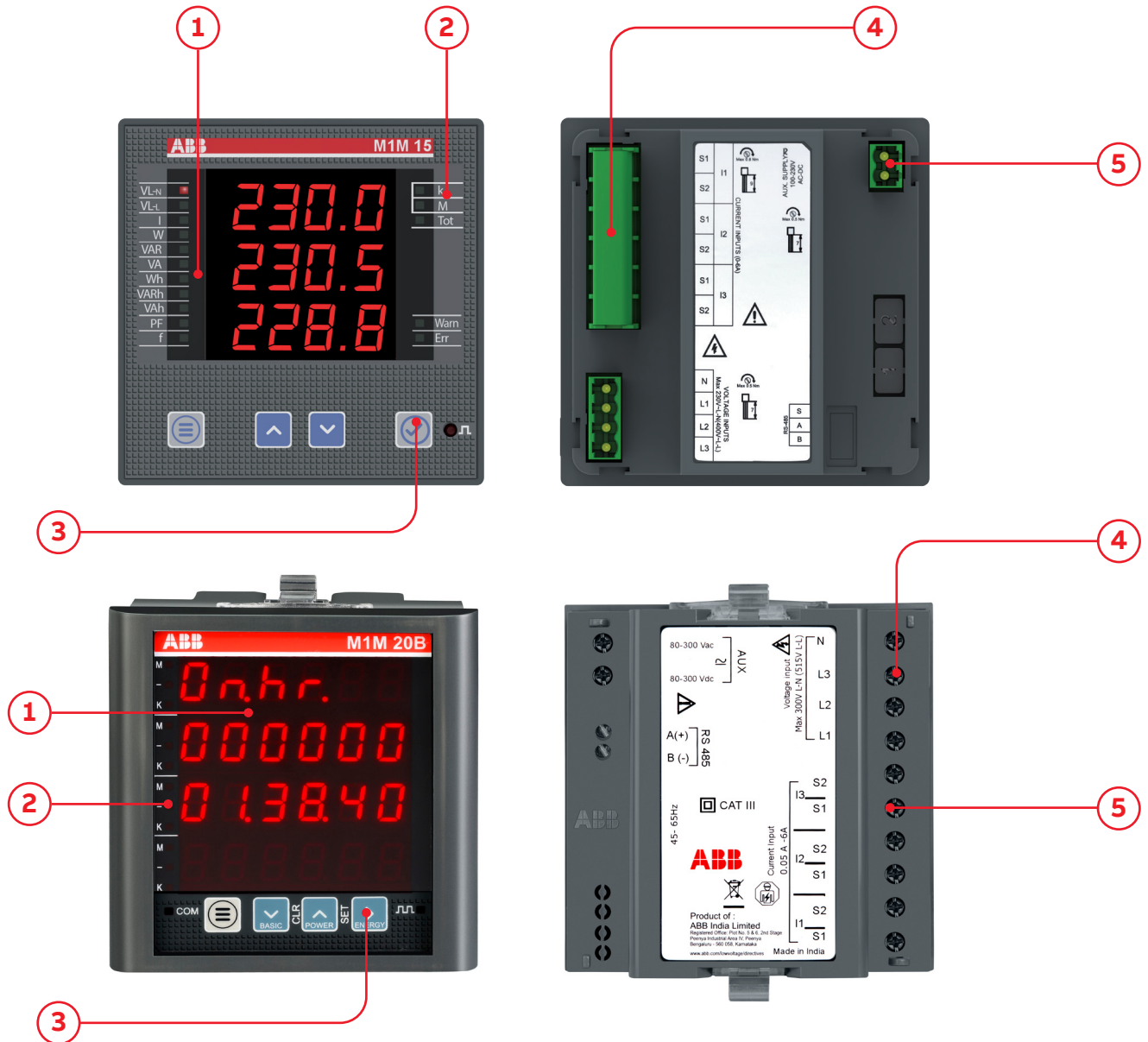
- Reduce selection time of the correct product thanks to reduced range complexity
- Manage a limited number of order codes from a single supplier
- Save space needed for internal stock
- Have the product on stock when needed and reduce delivery time

For panel builders

- 1 supplier only for all measurement products covering wide range of projects
- Increase competitiveness in projects
- Reduce time needed for product selection thanks to simple range composition
- Reduce time for installation and operations
- Minimum space requirements in the panel

M1M Power Meters - features

M1M 15, M1M 20B, M1M 30B, M1M 20 and M1M 30



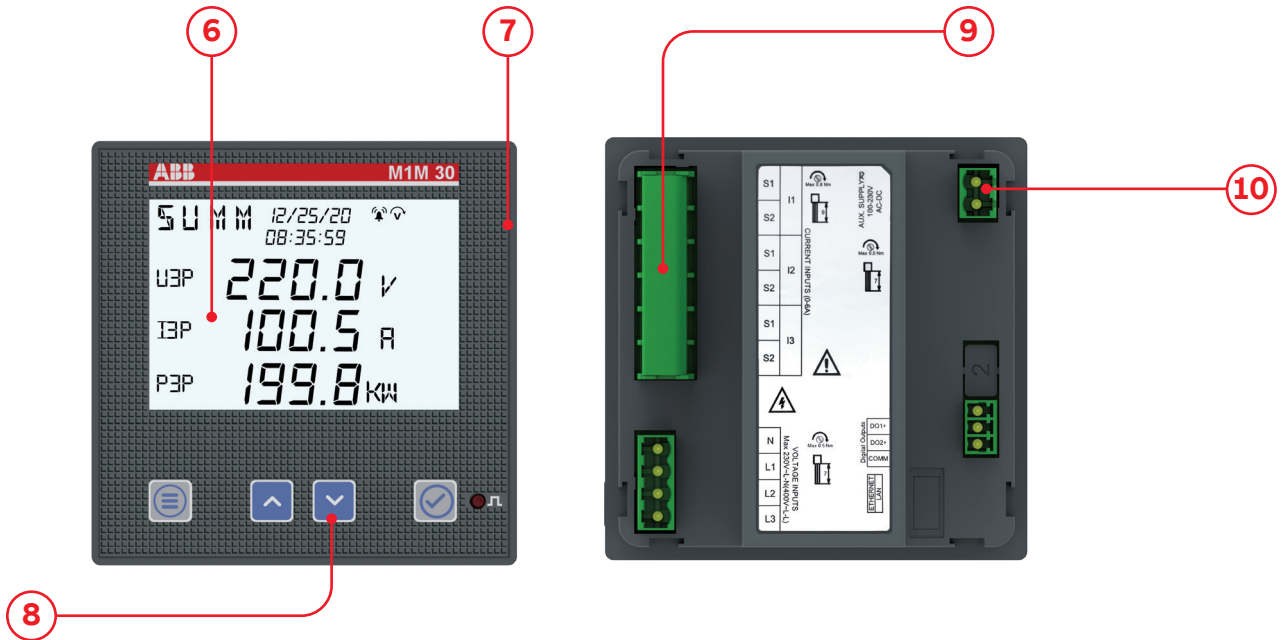
1 Bright display
Simple reading of the measurement data for all 3 phases on the wide LCD/LED display.

2 Easy navigation
LEDs on the sides to help during the navigation in the menu pages.

3 Common experience
Same intuitive menu structure all over the different M1M meters, with 4 pushbuttons keyboard for simplified access to the device.

4 Electrical system monitoring
Reliable electrical parameters measurement for basic applications compliant with IEC 61557-12, including voltage, current, frequency, power, energy.

5 Comfortable wiring
Vertical disposition of the removable terminals all over M1M range makes the cabling inside the switchboard easy to be completed.



6 Intuitive visualization
Clear visualization of the measurements with self-guided menus on the bright backlit LCD/LED displays.

7 Compact design
Only 52mm inside the switchboard to ensure optimized logistics and reduced footprint in the panel.

8 Manual-less configuration
Guided wizard for first commissioning helping to save time for the basic configuration.

9 Power quality measurement
Complete set of power quality features according to IEC 61557-12, including main KPIs and datalogger functionality on flash memory.

10 Remote measurement
Availability of Modbus RTU and Modbus TCP/IP communication protocols and I/O options for easy integration in any system.

Technical features



Product type		Power meters M1M		
Product range		M1M 15	M1M 20B-1	M1M 20B-05
Mounting		Front panel	Front panel	Front panel
Standards	IEC 62053-21/22	■	■	■
	IEC 61557-12 PMD	■	–	–
	IEC 61000 4-2, 4-3, 4-4, 4-6, 4-8, 4-11	■	■	■
	IEC 61010-1	■	■	■
HMI	Display	LED	LED	LED
Measurement	Accuracy Class	Class 1	Class 1	Class 0.5
	Auxiliary Power Supply (L-N)	100-230 V AC/DC ±15%	80-300V AC/DC	80-300V AC/DC
	Current Measurement range	50mA - 6A	50mA - 6A	50mA - 6A
	Voltage measurement range	80-265 VAC (L-N) 138-458 VAC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)	300V Max. AC (L-N) 80-515V AC (L-L)
	Measurement via CT (.../1A or .../5A)	■	■	■
	Measurement via Rogowski coils	–	–	–
	Sample per cycle	128	128	128
Real-time	Current (I), Voltage (U, V), f	■	■	■
	Active Power (P), PF	■	■	■
	Reactive (Q), Apparent (S) Power	■	■	■
	Timers	■	–	–
Energy	Active energy	■	■	■
	Reactive, Apparent energy	■	■	■
	4 quadrants energy (import/export)	–	Delivered, Received	Delivered, Received
	Multi-tariffs	–	–	–
Power Quality	THD	–	■	■
	Individual Harmonics	–	–	–
	Unbalances	–	■	■
	Neutral current	–	Calculated	Calculated
	Phasors, waveforms	–	–	–
Logging	Alarms	–	–	–
	Complex alarms with logics	–	–	–
	Min/max/demand	–	■	■
	Flash memory	–	–	–
	RTC	–	–	–
	Graphs visualization	–	–	–
	Homepage and favourite page	–	–	–
HMI	Password protection	■	■	■
Communication	Standard I/O	–	–	–
	Additional I/O	–	–	–
	M-bus	–	–	–
	Modbus RTU	■	■	■
	Modbus TCP/IP	–	–	–
	Profibus DP-V0	–	–	–
	BACnet/IP	–	–	–
	Bluetooth	–	–	–
	Automatic integration in System pro M compact® InSite	*	*	*
	Automatic integration in ABB Ability™ Energy and Asset Manager	*	*	*
	InSite-bus flat cable	–	–	–

* Available starting from 2022 Q2



M1M 20B-02	M1M 30B-05	M1M 30B-02	M1M 20	M1M 30
Front panel	Front panel	Front panel	Front panel	Front panel
■	■	■	■	■
–	–	–	■	■
■	■	■	■	■
■	■	■	■	■
LED	LED	LED	LCD	LCD
Class 0.2	Class 0.5	Class 0.2	Class 1/Class 0.5 (IO Version)	Class 1/Class 0.5 (IO Version)
80-300V AC/DC	80-300V AC/DC	80-300V AC/DC	100-230 V AC/DC ±15%	100-230 V AC/DC ±15%
50mA - 6A	50mA - 6A	50mA - 6A	50mA - 6A	50mA - 6A
300V Max. AC (L-N)	300V Max. AC (L-N)	300V Max. AC (L-N)	80-265 VAC (L-N)	80-265 VAC (L-N)
80-515V AC (L-L)	80-515V AC (L-L)	80-515V AC (L-L)	138-458 VAC (L-L)	138-458 VAC (L-L)
■	■	■	■	■
–	–	–	–	–
128	128	128	128	128
■	■	■	■	■
■	■	■	■	■
■	■	■	■	■
–	■	■	■	■
■	■	■	■	■
■	■	■	■	■
Delivered, Received	Delivered, Received, Total, Net, Last cleared	Delivered, Received, Total, Net, Last cleared	■	■
–	–	–	–	–
■	■	■	■	■
–	31st	31st	–	40th
■	■	■	–	■
Calculated	Calculated	Calculated	Calculated	Calculated
–	–	–	–	–
–	–	–	15	15
–	–	–	–	–
■	■	■	–	Basic
–	–	–	–	■
–	■	■	–	■
–	–	–	–	–
–	–	–	–	–
■	■	■	■	■
–	–	–	–	2 Digital Outputs
–	–	–	2 Digital Inputs. 2 Digital Outputs	2 Digital Inputs. 2 Digital Outputs
–	–	–	–	–
■	■	■	■	■
–	–	–	■	■
–	–	–	–	–
–	–	–	–	–
–	–	–	–	–
*	*	*	■	■
*	*	*	■	■
–	–	–	–	–

M1M Power Meters

M1M 15, M1M 20B, M1M 30B, M1M 20 and M1M 30

Ordering codes



M1M 15

M1M 15

M1M 15 is a complete multifunction meter for electrical system monitoring, mainly targeting measurement of basic electrical parameters and applications for cost allocation of energy consumptions.

Accuracy Class	Communication Protocol	I/O	Bbn EAN 6941593	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	-	-	406982	M1M 15-1	2TAZ661010R2000	0.31	1
Class 1	Modbus RTU	-	406999	M1M 15-1 Modbus	2TAZ661012R2000	0.31	1



M1M 20B

M1M 20B

M1M 20B is a power meter including THD and import/export (4 quadrants) measurement for basic power quality analysis applications such as power factor management and local energy generation monitoring.

Accuracy Class	Communication protocol and interface	I/O	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	Modbus RTU RS485	-	-	M1M 20B-1 Modbus	1SYG231445R4051	0.26	1
Class 0.5	Modbus RTU RS485	-	-	M1M 20B-05 Modbus	1SYG230355R4051	0.26	1
Class 0.2	Modbus RTU RS485	-	-	M1M 20B-02 Modbus	1SYG230295R4051	0.26	1



M1M 30B

M1M 30B

M1M 30B is a power meter providing complete features in terms of power quality analysis such as measurement up to 31st harmonic allowing to target demand management applications.

Accuracy Class	Communication protocol and interface	I/O	Bbn EAN 8012542	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 0.5	Modbus RTU RS485	-	-	M1M 30B-05 Modbus	1SYG230185R4051	0.27	1
Class 0.2	Modbus RTU RS485	-	-	M1M 30B-02 Modbus	1SYG229775R4051	0.27	1



M1M 20

M1M 20

M1M 20 is a power meter including THD and import/export (4 quadrants) measurement for basic power quality analysis applications such as power factor management and local energy generation monitoring.

Accuracy Class	Communication Protocol	I/O	Bbn EAN 6941593	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	-	-	407002	M1M 20-1	2TAZ662010R2000	0.31	1
Class 1	Modbus RTU	-	407019	M1M 20-1 Modbus	2TAZ662012R2000	0.32	1
Class 1	Modbus TCP/IP	-	407026	M1M 20-1 Ethernet	2TAZ662014R2000	0.33	1
Class 0.5	Modbus RTU	2 Digital Out. 2 Digital In.	407033	M1M 20-05 I/O	2TAZ662012R2001	0.33	1



M1M 30

M1M 30

M1M 30 is a power meter providing complete features in terms of power quality analysis such as measurement up to 40th harmonic and internal memory for datalogging, allowing to target e.g. demand management applications.

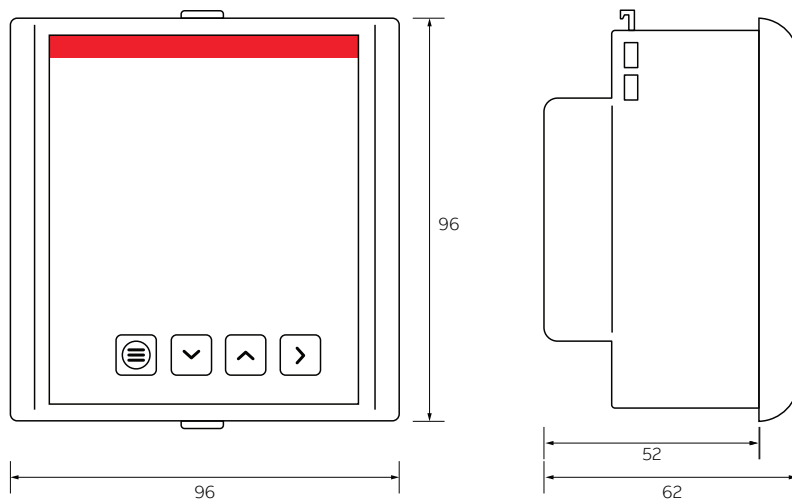
Accuracy Class	Communication Protocol	I/O	Bbn EAN 6941593	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.
Class 1	Modbus RTU	2 Digital Out.	407040	M1M 30-1 Modbus	2TAZ663012R2000	0.32	1
Class 1	Modbus TCP/IP	2 Digital Out.	407057	M1M 30-1 Ethernet	2TAZ663014R2000	0.34	1
Class 0.5	Modbus RTU	2 Digital Out. 2 Digital In.	407064	M1M 30-05 I/O	2TAZ663012R2001	0.33	1

Dimension details

M1M 20B and M1M 30B

Overall dimensions

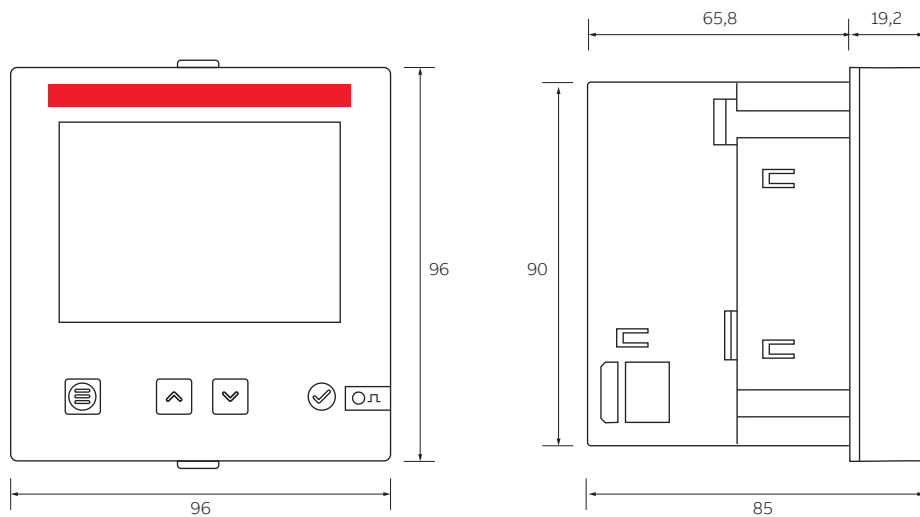
All measurements in mm



M1M 15, M1M 20 and M1M 30

Overall dimensions

All measurements in mm



M4M Network Analyzers

Discover the benefits

M4M as a stand-alone network analyzer guarantees all power monitoring needs in the energy distribution system: from high-accuracy energy efficiency monitoring of electrical parameters to complete power quality analysis. Thanks to its connectivity capabilities, M4M can get leverage on the integration in ABB scalable energy and asset management solutions. Thanks to MID certification, M4M allows now to fulfill all legal requirements for accounting and energy acquisition.



—
-50% Time for integration
in the ABB turnkey solution

Full connectivity

Natively integrated in sub-distribution management System pro M compact® InSite and ABB Ability™ Energy and Asset Manager cloud-solution, M4M benefits from the scalability of the ABB digital solutions: from stand-alone visualization and commissioning to monitoring, optimization and control of the complete electrical system.



—
Reliable and accurate power
monitoring

Energy Efficiency

ABB's M4M range of network analyzers gathers data from the electrical system and provides a complete power quality analysis and high accuracy energy monitoring. MID certification available to ensure certified and tamper-proof measurement for billing applications and fulfilment of legal requirements for accounting and energy acquisition.



—
-40% Time for installation
and commissioning

Simple and Intuitive

M4M makes configuration and operations simple and fast, from easy installation and wiring thanks to compact dimensions, all-removable terminals and Rogowski coils, to intuitive use and data access thanks to touchscreen color display, mobile APP and desktop software.



—
Improve reactivity and reduce
uncoordinated maintenance

Realtime supervision

M4M network analyzers make information easy to access from any area of the system, providing a comprehensive range of accurate data and notifications that enhance reactivity to the events on the electrical system and allowing to avoid overloads, outages and uncoordinated maintenance.



Explore the M4M ranges

M4M network analyzers are available in different versions which ensure all power monitoring needs, from basic to more complete power quality analysis.



EQUIPPED WITH GRAPHIC COLOR DISPLAY AND 5 PUSHBUTTONS KEYBOARD, M4M 20 RANGE ALLOWS COMPLETE MONITORING AND BASIC POWER QUALITY ANALYSIS.



EQUIPPED WITH TOUCHSCREEN COLOR DISPLAY, M4M 30 RANGE ALLOWS COMPLETE POWER QUALITY ANALYSIS AND ENERGY EFFICIENCY EVALUATIONS.



M4M 2X ON DIN-RAIL WITHOUT DISPLAY, ENSURING HIGH FLEXIBILITY TO PROJECT SPECIFICATIONS COMPARED TO STANDARD NETWORK ANALYZERS.

MID-certification

Availability of MID approval to ensure certified and tamper-proof measurement for billing applications.

Graphic color display

M4M 20 and M4M 30 are equipped with a graphic color display and common app-based menu for an intuitive visualization.

Bluetooth-enabled

All M4M network analyzers are equipped with Bluetooth module for smart commissioning via mobile app.

Full communication

A complete set of embedded communication protocols, including Modbus RTU, Modbus TCP/IP, Profibus DP-V0 and BACnet/IP

Input/Output

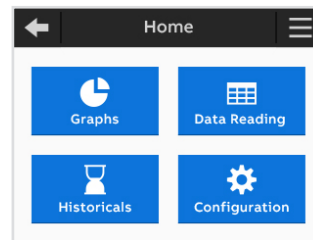
Control on the system thanks to I/O options including digital outputs, programmable I/O or programmable analogue outputs.

Datalogger

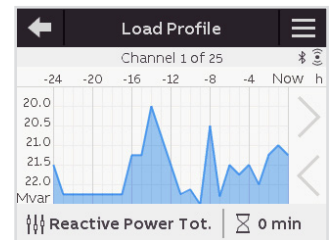
Data logging features are available, from complete notification logs to flash memory and RTC for 1-year data logging of trends.

Rogowski version

M4M Rogowski versions are compatible with ABB's R4M Rogowski coils for easy retrofit in existing installations.



01



02



03



04

01 M4M Homepage

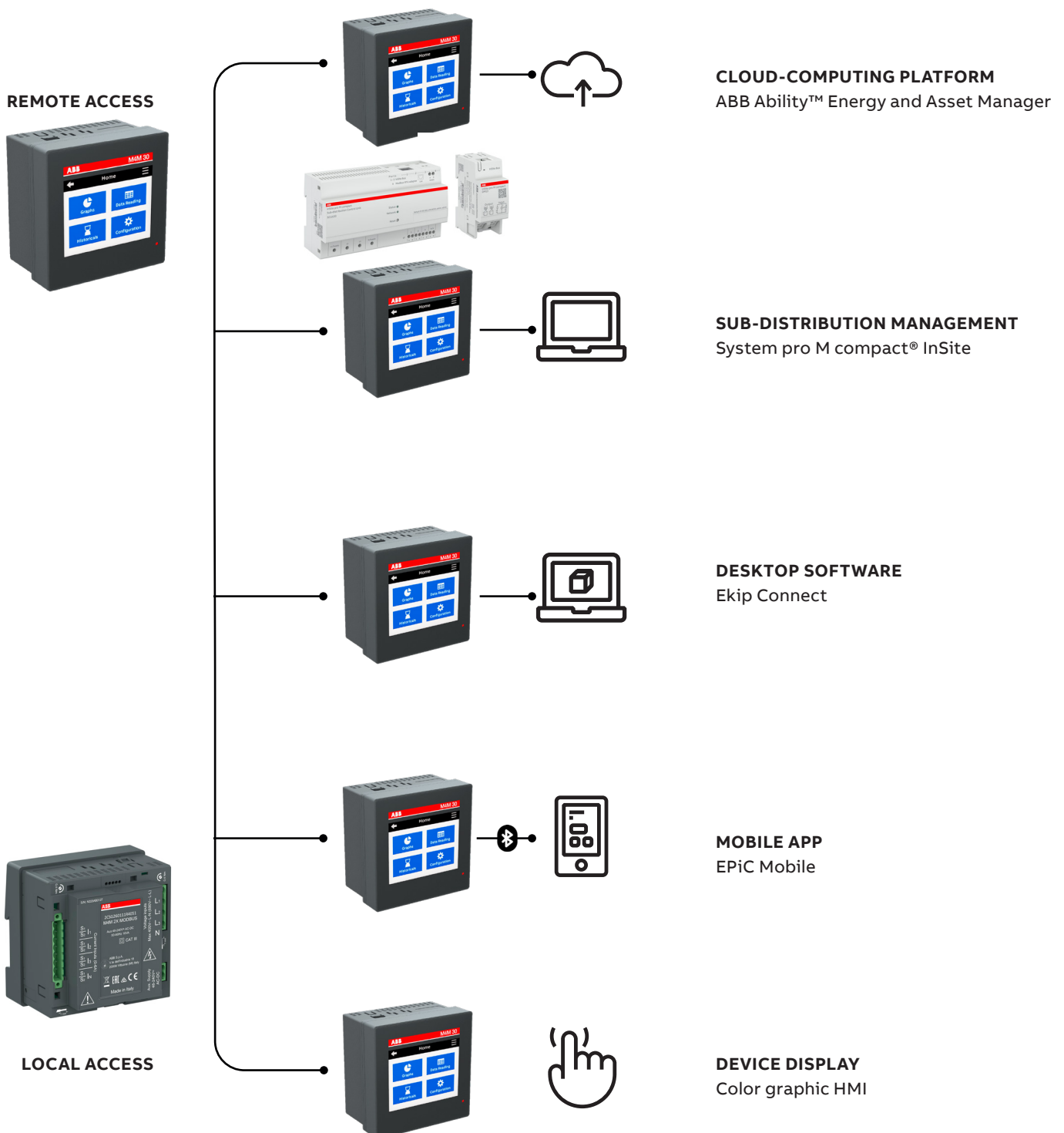
02 Trending graphs of load profiles

03 R4M Rogowski coils

04 M4M with MID certification

Access to M4M network analyzers

M4M network analyzers offer the strongest scalability to access the measurement data, from color graphic display to smartphone app and desktop software, up to webserver and cloud-platform when integrated in the ABB digital solutions.



M4M Network analyzers

Accurate electrical measuring and power monitoring.

Simple in every aspect, M4M enables accurate energy efficiency evaluations and perfectly fits the ABB solution for monitoring, optimization and control of electrical system.



Accurate measurement
Class 0,5 measurement according to IEC 61557-12 and advanced power quality functionalities, including historical measurements.

Option for MID Approval
Class C accuracy in accordance with 2014/32/EU for billing applications

Clear visualization
Color display and App-structured menu for advanced graphic visualization.

Smart commissioning
Bluetooth module for easy configuration through EPiC Mobile App unique commissioning tool.

Intuitive access
Simplified access to the device via touch screen display or 5 pushbuttons keypad.

Easy to install
Fast one-hand mounting and comfortable installation with clips in only 57 mm depth inside the panel.

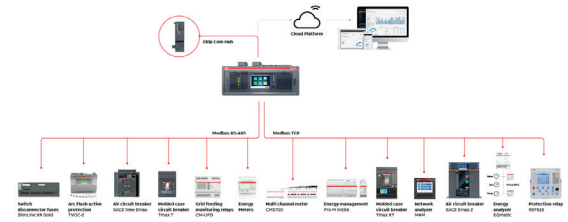
Fast wiring
All-removable terminals and one tool process to speed up the wiring activities.

Full communication
ABB Ability™ native network analyzers with complete communication protocols and I/O options for integration in any system.



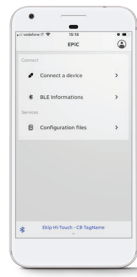
Intuitive interface

Touchscreen display and easy-to-access App-structured menu make network analyzers' configuration and operation simple and quick. Graphic color display for advanced visualization of the Class 0,5S accurate parameters, interactive pop-ups and complete notifications. Quick navigation is ensured by Homepage and favorite page setting.



Full integration

Natively integrated in sub-distribution management System pro M compact InSite and ABB Ability™ Energy and Asset Manager cloud-solution. To allow monitoring, optimization and control of the complete electrical system. Wide integration in all main applications through embedded communication protocols (Modbus RTU, Modbus TCP/IP, BACnet/IP, Profibus DP V0).



Smart commissioning

All M4M network analyzers are equipped with Bluetooth BLE module, ensuring smart configuration and quick visualization via unique EPiC commissioning tool, both available as mobile App and desktop software. Availability of remote firmware update regularly at any time guarantees the latest and the most secure version of the device with no impact on operations.



Installation in any panel

Comfortable installation and secure fix on the panel is ensured by the easy-to-use clips, with different thickness setup for compatibility with any panel. One-hand mounting of the device thanks to the hooks on the housing. The reduced depth of only 57 mm inside the panel makes M4M suitable even in small-size switchboards.



Fast installation and wiring

All terminals on M4M are removable, including the current transformers (CTs) inputs for current measurement, allowing to carry out the wiring directly on the terminals and speeding up the process. Moreover, the vertical disposition of the terminals makes the cabling inside the switchboard more comfortable.



Rogowski coils compatibility

Specific M4M versions compatible with ABB's R4M Rogowski coils allow to retrofit in existing installations, integrating power quality metering with 0 downtime. The pre-wired terminals of R4M coils allow to save up to 70% time for current transformers cabling compared to standard CTs.

Technical features



M4M 20



M4M 30



M4M 2X

Auxiliary power supply			
Voltage range	[V]	48 - 240 V AC/VDC ±15 %	
Frequency	[Hz]	50 - 60	
Power consumption	[VA]	10 VA max	
Installation category		CAT III 300V class per IEC 61010-1 edition 3	
Protection fuse		T1 A - 277 VAC	
Measurement accuracy			
Measurement type		True RMS up to the 40 th harmonic 128 samples per cycle, zero blind	
IEC 61557-12		IEC 61557-12 PMD/S/K70/0,5	
Active energy		Class 0,5 acc. to IEC 61557-12 [*] Class 0,5S acc. to IEC 62053-22	
Reactive energy		Class 2 acc. to IEC 61557-12 Class 2S acc. to IEC 62053-23	
Active power		Class 0,5 acc. to IEC 61557-12	
Reactive power	Class 2 acc. to IEC 61557-12	Class 1 acc. to IEC 61557-12	Class 1 acc. to IEC 61557-12
Apparent power		Class 0,5 acc. to IEC 61557-12	
Voltage		Class 0,2 acc. to IEC 61557-12	
Current		Class 0,2 acc. to IEC 61557-12	
Neutral current	Calculated	Class 0,2 acc. to IEC 61557-12	Calculated (2X, 2X PQ1, 2X RTS) Class 0,2 acc. to IEC 61557-12 (2X PQ2)
Frequency		Class 0,1 acc. to IEC 61557-12	
Unbalances (Current, Voltage)		Class 0,2 acc. to IEC 61557-12	
Harmonics, THD (Current, voltage)		Class 1 acc. to IEC 61557-12	
Voltage measurement inputs			
Measurement range	[V]	50 - 400 V AC (L-N) 87 - 690 V AC (L-L)	
Measurement category		400V~ (CAT III)	
Rated frequency	[Hz]	50/60 Hz	
Max. VT Primary (indirect connection)	[V]	500 kV AC (L-N)	
Max over voltage	[V]	800 V AC (L-L)	
Protection fuse	[V]	T1 A - 277 V AC	
Insulation characteristics			
Test Voltage impulse @230V to accessible parts		6,4 kV 1,2/50 μS	
Test Voltage impulse @400V to accessible parts		9 kV 1,2/50 μS	
Test Voltage @230V to accessible parts		3 kV 60s @2000m	
Test Voltage @400V to accessible parts		3,6 kV 60s @2000m	
Current measurement inputs			
Number of current inputs	3 (L1, L2, L3)	4 (L1, L2, L3, N)	3 (2X, 2X PQ1, 2X RTS), 4 (2X PQ2)

**M4M 20****M4M 30****M4M 2X****Indirect insertion with CT**

CT rated secondary current	5 A (Class 0,5S)
	1 A (Class 0,5S)
Max primary CT	50kA
Measurement range without accuracy derating	10 mA - 6 A
Starting current	1 mA
Burden	0,024 VA at 6 A

Indirect insertion with Rogowski coils	M4M 20 Rogowski	M4M 30 Rogowski	M4M 2X
Rated current	10.000 A		-
Measurement range without accuracy derating	100 A - 12 kA		-
Length of coils connections cable to M4M	3m		-
Starting current [A]	10 A		-

I/O**Digital Output**

Voltage (min - max)	5 - 240 V AC/DC
Current (min - max)	2 - 100 mA
Max ON state drop voltage	1,5 V
Max R value at Min voltage conditions (5 V)	1750 Ohm
Min R value at Max voltage conditions (240 V)	2400 Ohm
Pulse duration [ms]	20 ms ON, 20 ms OFF
Pulse frequency	25 Hz
Alarm activation delay [s]	1 - 900 s (programmable)
Alarm return hysteresis	0 - 40 % (programmable)

Digital Input

Maximum voltage	240 V AC/DC
Max voltage for OFF state on input	20 V AC/DC
Min voltage for ON state on input	45 V AC/DC

Analogue Output

Programmable electrical span	Span [0 - 20 mA or 4 - 20 mA]	-
Load	Typical 250 Ohm, max 500 Ohm	-

Technical data for MID version	M4M 20-M	M4M 30-M	M4M 2X
MID standards		EN 50470-1, EN 50470-3	
Voltage measurement (type of network and rated voltage)		3Ph/4W - 3Ph/3W - 1Ph/2W, 3x230/400...3x400/690V	
Current rating (I min- I ref(I _{max}))		0,01-1(6) A	
Rated frequencies		50 Hz and 60 Hz	
Active Energy accuracy class		Class C	
Pulse value S0 (pulse constant)		200000 imp/kWh	
Electromagnetic ambient conditions		Class E2	
Mechanical ambient conditions		Class M1	
LED indicator pulse frequency [s]		200000 imp/kWh	
LED indicator pulse length		1ms	

Technical features



M4M 20



M4M 30



M4M 2X

Mechanical characteristics			
Overall dimensions		96 mm x 96 mm x 77 mm (Depth inside the switchboard: 57 mm)	96 mm x 96 mm x 77 mm (DIN-rail mounting)
IP degree of protection (acc. to IEC 60529)		Front: IP54	-
		Terminals: IP20	
Weight	[g]	400	
Terminal characteristics			
Voltage inputs		Nominal cross section: 2,5 mm ² Solid/stranded wire: 0,2 - 2,5 mm ² (AWG 24 - 12) Pitch: 7,62 mm Poles: 4	
Current inputs		Nominal cross section: 2,5 mm ² Solid/stranded wire: 0,2 - 2,5 mm ² (AWG 24 - 12) Pitch: 5,08 mm Poles: 6 Screw flanges for fixing	Nominal cross section: 2,5 mm ² Solid/stranded wire: 0,2 - 2,5 mm ² (AWG 24 - 12) Pitch: 5,08 mm Poles: 8 Screw flanges for fixing
RS-485 Serial port		Nominal cross section: 2,5 mm ² Solid/stranded wire: 0,2 - 2,5 mm ² (AWG 24 - 12) Pitch: 5,08 mm Poles: 3	
I/O		Nominal cross section: 2,5 mm ² Solid/stranded wire: 0,2 - 2,5 mm ² (AWG 24 - 12) Pitch: 5,08 mm Poles: 3 (Programmable I/O, only on M4M 20 I/O) Poles: 3 (Digital outputs) Poles: 3 (Analogue outputs, only on M4M 20 I/O)	Nominal cross section: 2,5 mm ² Solid/stranded wire: 0,2 - 2,5 mm ² (AWG 24 - 12) Pitch: 5,08 mm Poles: 5 (Programmable I/O) Poles: 3 (Programmable I/O only on M4M 30 I/O) Poles: 3 (Analogue outputs, only on M4M 30 I/O)
Rogowski current probes		Only with ABB Rogowski probes: - R4M-200 2CSG202150R1101 (200 mm diameter) - R4M-80 2CSG202160R1101 (80 mm diameter)	
Climatic conditions			
Operating temperature		-25 to 70 °C (K70 acc. to IEC 61557-12)	
Storage temperature		-40 to 85 °C (K70 acc. to IEC 61557-12)	
Relative humidity		Max 93 % (non-condensing) at 40 °C	
Pollution degree		2	
Altitude		< 2.000 m	
User Interface			
Access to device		5 pushbuttons	Touchscreen
Display type		Graphic color display	
Display dimensions		70 x 52 mm (3.5")	



M4M 20



M4M 30



M4M 2X

Communication protocol			
Modbus RTU	M4M 20 Modbus, M4M 20 I/O, M4M 20 Rogowski, M4M 20-M Modbus	M4M 30 Modbus, M4M 30 I/O, M4M 30 Rogowski, M4M 30-M Modbus	M4M 2X Modbus
Communication interface	RS485 with optical isolation		
Baud rate	9600, 19200, 38400, 57600, 115200 bps		
Parity number	Odd, Even, None		
Stop bit	1, 2		
Address	1-247		
Connector	3 pole terminal		
Profibus DP-V0	M4M 20 Profibus	M4M 30 Profibus	-
Protocol	Profibus with slave DP-V0 function in compliance with IEC 61158 regulations		-
Communication interface	RS485 with optical isolation		-
Baud rate	Automatic detection [9,6 kpbs - 12 Mbps]		-
Address	0-126		-
Connector	DB 9 female connector (do not use connectors with 90° cable outlet)		-
LED indicators	Green for communication status		-
	Red for communication error		-
Modbus TCP/IP	M4M 20 Ethernet, M4M 20-M Ethernet	M4M 30 Ethernet, M4M 30-M Ethernet	M4M 2X Ethernet
Protocol	Modbus TCP/IP		
Communication interface	RJ45	RJ45 (2 ports for daisy-chain)*	
BACnet	M4M 20 Bacnet	M4M 30 Bacnet	-
Protocol	BACnet/IP		-
Communication interface	RJ45		-
Bluetooth			
Type	BLE (Bluetooth Low Energy)		
Real-time clock	Available on 2X PQ1, 2X PQ2, 2X RTS		
Clock drift	-	~ 0,4 seconds per day	
Battery backup time	-	~ 3 days without aux supply	
Standards			
Power metering and monitoring devices (PMD)	IEC 61557-12 (IEC 62053-22, IEC 62053-23)		
Electrical safety	IEC 61010-1		
EMC	IEC 61326-1 (IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11)		

* 1x RJ45 port available on M4M 30-M

M4M 20 and M4M 30

Comparing the two versions



Accuracy

M4M 20 - Class 0,5S

M4M 30 - Class 0,5S

MID approval	Optional	Optional
Real-time		
TRMS current	•	•
TRMS voltage	•	•
Frequency	•	•
Active, Reactive and Apparent power	•	•
Power factor	•	•
Operating timer, countdown timer	•	•
Energy		
Active, Reactive and Apparent energy	•	•
4 quadrants Energy (Import/Export)	•	•
Tariffs	/	•
Power Quality		
THD (I, VLN, VLL)	•	•
Individual Harmonics	/	40 th
Unbalances (I, VLN, VLL)	/	•
Neutral current	Calculated	Measured
Phasors (I, VLN)	/	•
Waveforms (I, VLN, VLL)	/	•
Data recording and logs		
Single alarms	25	25
Warnings, alarms and errors logs	•	•
Complex alarms with logics	/	4
Demand values (average)	Basic	Advanced
Min/Max Demand values	Basic	Advanced
Energy Trending logs	/	•
RTC	/	•
HMI		
	Graphic color	Graphic color touchscreen
Graphs visualization	Basic	Advanced
Notifications	•	•
Homepage and favourite page	•	•
Password protection	•	•
Connectivity		
Automatic integration in ABB Ability™ Energy and Asset Manager	•	•
Automatic integration in System pro M compact InSite	•	•
Bluetooth Low Energy	•	•
Communication Protocols	Modbus RTU, Modbus TCP/IP, Profibus DP-V0, BACnet/IP	Modbus RTU, Modbus TCP/IP, Profibus DP-V0, BACnet/IP
RJ45 Daisy Chain (Ethernet version)	/	•*

* daisy chain not available on M4M 30-M

M4M 2X

Functionality packages



Accuracy

M4M 2X - Class 0,5S

TRMS current	●
TRMS voltage	●
Frequency	●
Active, Reactive and Apparent power	●
Power factor	●
Operating timer, countdown timer	●
Active, Reactive and Apparent energy	●
4 quadrants Energy (Import/Export)	●
THD (I, VLN, VLL)	●
Neutral current	Calculated
Single alarms	25
Demand values (average)	Basic
Max/min values	Basic
Warnings, alarms and errors logs	●
Digital Outputs	2
+PQ1	
Individual Harmonics	25 th
Unbalances	●
Historicals logs	Intermediate
RTC	●
+PQ2	
Individual Harmonics	40 th
Unbalances	●
Historicals logs	Advanced
RTC	●
Neutral current	Measured
+RTS	
Tariffs	6
Complex alarms with logics	4
RTC	●
Programmable I/O ¹	4
Connectivity	
Automatic integration in ABB Ability™ Energy and Asset Manager	●
Automatic integration in System pro M compact InSite	●
Bluetooth Low Energy	●
Communication Protocols	Modbus RTU, Modbus TCP/IP
RJ45 Daisy Chain (Ethernet version)	●

¹ instead of 2 Digital Outputs

Ordering codes



M4M 20

M4M 20 is ABB's network analyzer range that provides complete and accurate electrical parameters monitoring and basic power quality analysis.

Equipped with graphic color display for advanced visualization of the measured parameters and Bluetooth module for smart commissioning.

Communication protocol	I/O	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
			Type code	Order code		
BLE	2 Digital out.	511519	M4M 20	2CSG251151R4051	0,400	1
BLE, Modbus RTU	2 Digital out.	511410	M4M 20 Modbus	2CSG251141R4051	0,400	1
BLE, Modbus TCP/IP	2 Digital out.	044710	M4M 20 Ethernet	2CSG204471R4051	0,400	1
BLE, Profibus DP-V0	2 Digital out.	511311	M4M 20 Profibus	2CSG251131R4051	0,400	1
BLE, BACnet/IP	2 Digital out.	368311	M4M 20 Bacnet	2CSG236831R4051	0,400	1
BLE, Modbus RTU	2 Progr. I/O, 2 Digital out., 2 Analogue out.	511618	M4M 20 I/O	2CSG251161R4051	0,400	1
MID BLE, Modbus RTU	2 Digital Out.	390558	M4M 20-M MODBUS	2CSG239055R4051	0,400	1
MID BLE, Modbus TCP/IP	2 Digital Out.	390657	M4M 20-M ETHERNET	2CSG239065R4051	0,400	1



M4M 20 - ROGOWSKI VERSION

M4M 20 is also available as compatible with ABB's R4M Rogowski coils for current measurement, increasing the flexibility of network analyzers offer and allowing retrofit in any existing installations.

M4M 20 Rogowski together with R4M Rogowski coils ensures the integration of basic power quality metering in any existing system with 0 downtime.

Communication protocol	I/O	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
			Type code	Order code		
BLE, Modbus RTU	2 Digital Outputs	070818	M4M 20 Rogowski	2CSG207081R4051	0,400	1

Ordering codes



M4M 30

M4M 30 is ABB's network analyzer range that allows complete power quality analysis and energy efficiency evaluations.

Equipped with touchscreen color display for simplified access to the device and with Bluetooth module for smart commissioning.

Communication protocol	I/O	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
			Type code	Order code		
BLE, Modbus RTU	4 Progr. I/O	747611	M4M 30 Modbus	2CSG274761R4051	0,400	1
BLE, Modbus TCP/IP	4 Progr. I/O	746812	M4M 30 Ethernet	2CSG274681R4051	0,400	1
BLE, Profibus DP-V0	4 Progr. I/O	367918	M4M 30 Profibus	2CSG236791R4051	0,400	1
BLE, BACnet/IP	4 Progr. I/O	024514	M4M 30 Bacnet	2CSG202451R4051	0,400	1
BLE, Modbus RTU	6 Progr. I/O, 2 Analogue out.	024712	M4M 30 I/O	2CSG202471R4051	0,400	1
MID BLE, Modbus RTU	4 programmable I/O	390350	M4M 30-M MODBUS	2CSG239035R4051	0,400	1
MID BLE, Modbus TCP/IP	4 programmable I/O	390459	M4M 30-M ETHERNET	2CSG239045R4051	0,400	1



M4M 30 - ROGOWSKI VERSION

M4M 30 is also available as compatible with ABB's R4M Rogowski coils for current measurement, increasing the flexibility of network analyzers and allowing retrofit in any existing installations. M4M 30 Rogowski together with R4M coils ensure integration of complete PQ analysis in any existing system with 0 downtime.

Communication protocol	I/O	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
			Type code	Order code		
BLE, Modbus RTU	4 Prog. I/O	024613	M4M 30 Rogowski	2CSG202461R4051	0,400	1



R4M ROGOWSKI COILS

R4M Rogowski coils are flexible current transformer based on Rogowski technology, ideal to retrofit existing installations up to 12kA. Available in two different sizes (80mm or 200mm diameters), R4M coils are directly equipped with pre-wired removable terminals that perfectly fit M4M 20 Rogowski (3 Rogowski coil inputs) and M4M 30 Rogowski (4 Rogowski coil inputs), with no need for external integrators.

Diameter (mm)	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
		Type code	Order code		
80	021605	R4M-80	2CSG202160R1101	0,150	1
200	021506	R4M-200	2CSG202150R1101	0,250	1

Ordering codes



M4M 2X

M4M 2X is ABB's network analyzer range that ensuring higher flexibility to project specifications compared to standard network analyzers. M4M 2X is available without display, only communicating via protocols and Bluetooth module for smart remote commissioning.

Communication protocol	I/O	Functionality package	Bbn 8012542 EAN	Order details		Weight 1 piece kg	Pack unit pc.
				Type code	Order code		
BLE, Modbus RTU	2 Digital out.	2X	601111	M4M 2X Modbus	2CSG260111R4051		
BLE, Modbus TCP/IP	2 Digital out.	2X	600619	M4M 2X Ethernet	2CSG260061R4051		
BLE, Modbus RTU	2 Digital out.	2X+PQ1	390756	M4M 2X Modbus PQ1	2CSG239075R4051		
BLE, Modbus TCP/IP	2 Digital out.	2X+PQ1	391258	M4M 2X Ethernet PQ1	2CSG239125R4051		
BLE, Modbus RTU	2 Digital out.	2X+PQ2	390855	M4M 2X Modbus PQ2	2CSG239085R4051		
BLE, Modbus TCP/IP	2 Digital out.	2X+PQ2	391357	M4M 2X Ethernet PQ2	2CSG239135R4051		
BLE, Modbus RTU	4 Progr. I/O	2X+RTS	390954	M4M 2X Modbus RTS	2CSG239095R4051		
BLE, Modbus TCP/IP	4 Progr. I/O	2X+RTS	391456	M4M 2X Ethernet RTS	2CSG239145R4051		
BLE, Modbus RTU	4 Progr. I/O	2X+PQ1+RTS	391050	M4M 2X Modbus PQ1+RTS	2CSG239105R4051		
BLE, Modbus TCP/IP	4 Progr. I/O	2X+PQ1+RTS	391555	M4M 2X Ethernet PQ1+RTS	2CSG239155R4051		
BLE, Modbus RTU	4 Progr. I/O	2X+PQ2+RTS	391159	M4M 2X Modbus PQ2+RTS	2CSG239115R4051		
BLE, Modbus TCP/IP	4 Progr. I/O	2X+PQ2+RTS	391654	M4M 2X Ethernet PQ2+RTS	2CSG239165R4051		

Overall dimensions

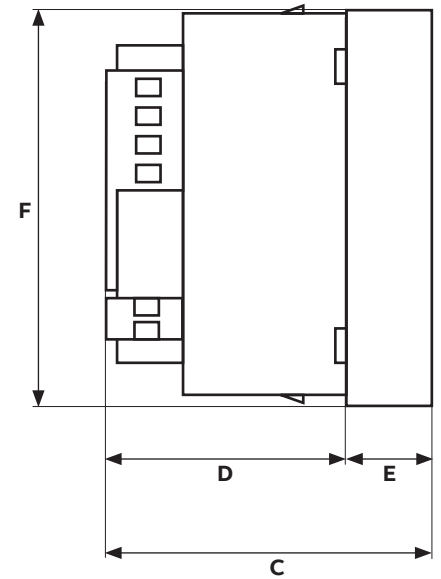
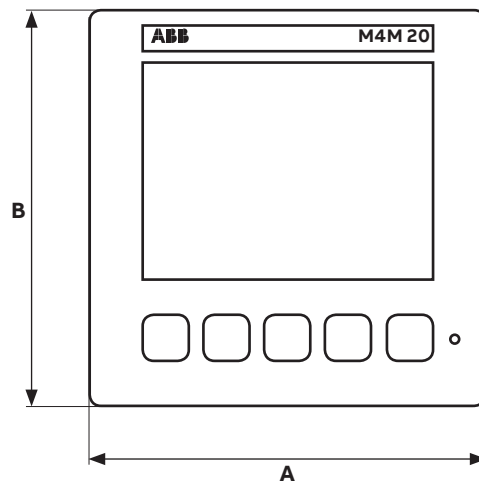
M4M 20 and M4M 30

Overall dimensions

All measurements in mm

Dimensions

A: 96 mm
B: 96 mm
C: 77,5 mm
D: 57 mm
E: 20,5 mm
F: 92 mm



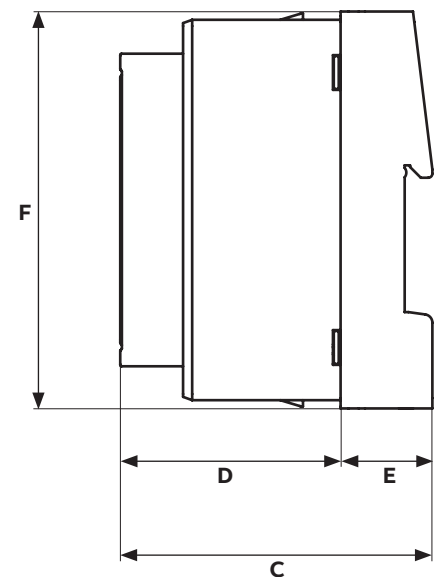
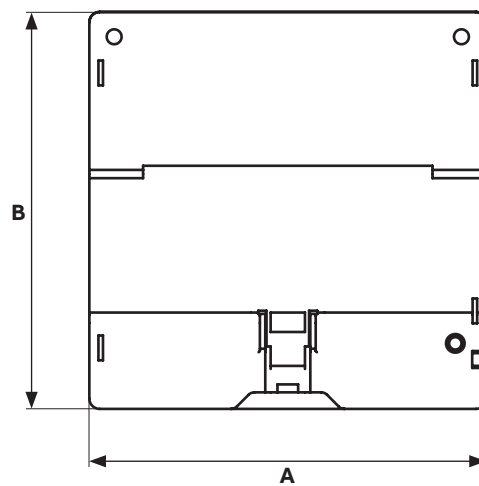
M4M 2X

Overall dimensions

All measurements in mm

Dimensions

A: 96 mm
B: 96 mm
C: 77.5 mm
D: 53.5 mm
E: 22 mm
F: 92 mm



Quick reference links

Scan for more details

M1 Single Function Meters



Catalogue



User manual

M1M 15 Power Meter



Catalogue



Installation
Manual



Communication
Manual



User manual

M1M 10 Multi Function Meters



Catalogue



User manual

M1M 20 Power Meter



Catalogue



Installation
Manual



Communication
Manual



User manual

M1M 12 Multi Function Meters



Catalogue



User manual

M1M 30 Power Meter



Catalogue



Installation
Manual



Communication
Manual



User manual

M1M DS Dual Source Meters



Catalogue



User manual

M4M 20



Catalogue



Installation
Manual
M4M 20 and
M4M 20-M



Installation
Manual
M4M 20
Rogowski



Installation
Manual
M4M 2X

M1M 20B Power Meter



Catalogue



User manual



Communication
Manual
Modbus
communication
manual (valid for
M4M Modbus and
M4M Ethernet)



Communication
Manual
Profibus
communication
manual



Communication
Manual
BACnet
communication
manual



Communication
Manual
M4M Modbus map



User Manual

M1M 30B Power Meter



Catalogue



User manual

Quick reference links

Scan for more details

M4M 30



Catalogue



Installation
Manual
M4M 30 and
M4M 30-M



Installation Manual
M4M 30 Rogowski



Communication
Manual
Modbus
communication
manual (valid for
M4M Modbus and
M4M Ethernet)



Communication
Manual
Profibus
communication
manual



Communication
Manual
BACnet
communication
manual



Communication
Manual
M4M Modbus map



User Manual

EQ Meters



Catalogue



Manual
A41/A42/A43/
A44



Manual
A44 552-110/
A44 553-110



Manual
B21/B23/B24



Manual
C11/C13



Manual
Front mounting
kit 37052

Insite Pro



Catalogue



Manual
Installation
Manual SCU100



Manual
Installation
Manual DMs



User Manual

CMS



Catalogue
CMS-700



Catalogue
CMS-660



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CMS-700



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CMS-600



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CMS open-core
sensors



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