

ABB Panel Meter and Energy Meter Price List PDF

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This section was extracted without changing product descriptions, prices or technical content.

ELR, Earth leakage relay - (DIN & front panel mountable)



ELR48



ELR72



ELR96PD



RD3



RD3M-48



TR

Front panel residual current relays are electronic devices used in combination with an external toroidal transformer. They are according to the protection standard IEC/EN 60947-2 Annex-M. The sensitivity can be set from 0.03 A to 30 A, while the tripping time from 0 to 5 seconds. Residual current relays are available in versions 48x48 mm, 72x72 mm, and 96x96 mm.

The Fail Safe function is available for versions ELR48P, ELR72P and ELR96P: the contacts switch when there is no auxiliary power.

The ELR96PF version is equipped with Fail Safe function, fault memory LED, and a frequency filter, that ensure continuity of service in the presence of harmonics.

ELR96PD has (in addition to these functions) a digital display for an instantaneous view of the residual current $I_{\Delta n}$.

Description	Operating voltage	Pack	Ordering code	Unit L.P. (₹)
ELR48P	110 V a.c./d.c. - 230 V a.c.	1	2CSG252211R1202	Upon request
ELR48V24P	24-48 V a.c./d.c.	1	2CSG452211R1202	
ELR72	110 V a.c./d.c. - 230 V a.c.	1	2CSG252120R1202	
ELR72V24	24-48 V a.c./d.c.	1	2CSG452120R1202	
ELR72P	110-230-400 V a.c.	1	2CSG152424R1202	
ELR72V24P	24-48 V a.c./d.c.	1	2CSG452424R1202	
ELR96	110-230-400 V a.c.	1	2CSG152130R1202	
ELR96V24	24-48 V a.c./d.c.	1	2CSG452130R1202	
ELR96P	110-230-400 V a.c.	1	2CSG152434R1202	
ELR96V24P	24-48 V a.c./d.c.	1	2CSG452434R1202	
ELR96PF	110-230-400 V a.c.	1	2CSG152435R1202	
ELR96PD	110-230-400 V a.c.	1	2CSG152436R1202	

RD3, residual current relays - (DIN-Rail mountable)

The RD3 family of electronic residual current relays provides residual current protection and monitoring functions according to IEC/EN 60947-2:2006 annex M and can be used in conjunction with all S 200 automatic devices and Tmax range moulded case devices up to T5, for industrial installations.

The RD3 residual current relays can provide status indications through two output contacts.

Description	Operating voltage	Pack	Ordering code	Unit L.P. (₹)
RD3-48	12-48 a.c./d.c.	1	2CSJ201001R0001	Upon request
RD3	230-400 a.c.	1	2CSJ201001R0002	
RD3M-48	12-48 a.c./d.c.	1	2CSJ202001R0001	
RD3M	230-400 a.c.	1	2CSJ202001R0002	
RD3P-48	12-48 a.c./d.c.	1	2CSJ203001R0001	
RD3P	230-400 a.c.	1	2CSJ203001R0002	

Toroidal transformers

Description	Toroid useful diameter (mm)	Min. measurable current (mA)	Max. rated current ¹ (A)	Max. capacity ² (A)	Pack	Ordering code	Unit L.P. (₹)
TRM	29 (modular version)	30	65	160	1	2CSM029000R1211	Upon request
TR1	35	30	75	250	1	2CSG035100R1211	
TR2	60	30	85	400	1	2CSG060100R1211	
TR3	80	100	160	800	1	2CSG080100R1211	
TR4	110	100	250	1,250	1	2CSG110100R1211	
TR4/A	110 (openable version)	300	250	1,250	1	2CSG110200R1211	
TR160	160	300	400	2,000	1	2CSG160100R1211	
TR160A	160 (openable version)	500	400	2,000	1	2CSG160200R1211	
TR5	210	300	630	3,200	1	2CSG210100R1211	
TR5/A	210 (openable version)	500	630	3,200	1	2CSG210200R1211	

¹ Shows toroidal transformers selection for use with ELR according to IEC/EN 60947-2 Annex M in combination with MCBs S200 range and MCCBs Tmax range upto T5

² Shows the technical features of the toroidal transformers



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.



M1A



M1V



M1M 11



M1M 10

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.



M1M 12



EQ meters
D series



M1M DS



EQ meters
B series

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



M4M 20



EQ meters
D series



SCU - 200



M1M 20



M1M 30



EQ meters
A series



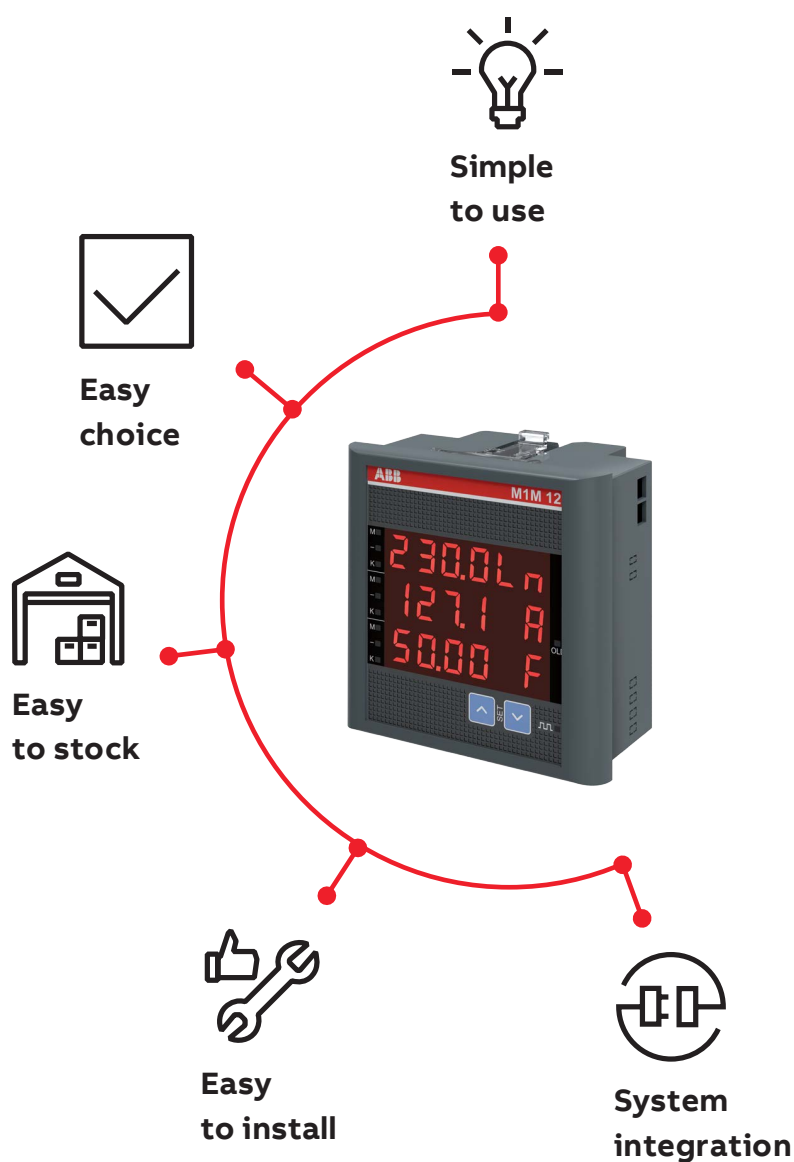
SCU-100
InSite Pro (CMS)

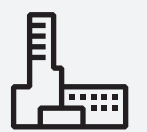


M4M 30

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



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
Measurement	Accuracy Class	Class 1	Class 1	Class 0.5	Class 1
	Auxiliary Power Supply (80 - 300V AC/DC, L-N)	■	■	■	■
	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	–	–	–	–
	On hours and load hours	–	–	–	–
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	–	–	–	–
HMI	Homepage and favourite page	–	–	–	–
	Password protection	■	■	■	■
	Standard I/O	–	–	–	–
	Additional I/O	–	–	–	–
Communication	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	–	–	–	–

Calibration document included in the product packaging.

* Only one energy parameter Active / apparent can be configured in meter setting

\$ Only one user selectable parameter can be configured in meter setting



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
-	-	-	-	-	-	-
-	-	-	-	On hours	■	■
-	-	■ ^{\$}	■ ^{\$}	-	■*	■*
-	-	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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	-	M1A 1-1 Ammeter 1Ph	1SYG235145R4051 ■	0.19	1	1,800
Class 1	-	M1A 3-1 Ammeter 3Ph	1SYG235135R4051 ■	0.19	1	2,760
Class 0.5	-	M1A 3-05 Ammeter 3Ph	1SYG234905R4051 ■	0.19	1	3,250



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	-	M1V 1-1 Volt Meter 1Ph	1SYG233965R4051 ■	0.19	1	1,800
Class 1	-	M1V 3-1 Volt Meter 3Ph	1SYG233955R4051 ■	0.19	1	2,760
Class 0.5	-	M1V 3-05 Volt Meter 3Ph	1SYG233695R4051 ■	0.19	1	3,250



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	Modbus RTU RS485	M1M 11-1 kWh Meter Modbus	1SYG233685R4051 ■	0.22	1	9,210
Class 0.5	Modbus RTU RS485	M1M 11-05 kWh Meter Modbus	1SYG232395R4051 ■	0.22	1	9,320

M1M 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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	-	M1M 10-1	1SYG235081R4051 ■	0.3	1	3,210



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	-	M1M 12-1	1SYG207591R4051 ■	0.3	1	10,380
Class 1	Modbus RTU RS485	M1M 12-1 Modbus	1SYG207581R4051 ■	0.3	1	11,490



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 0.5	-	M1M DS-05	1SYG232385R4051	0.21	1	8,910
Class 0.5	Modbus RTU RS485	M1M DS-05 Modbus	1SYG232375R4051 ■	0.21	1	9,200

M1M Power Meters

Introducing the new ABB power meter 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 a 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

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	■	–	–
	ON hours and load hours	–	■	■
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	–	–	–
HMI	Graphs visualization	–	–	–
	Homepage and favourite page	–	–	–
	Password protection	■	■	■
	Standard I/O	–	–	–
	Additional I/O	–	–	–
	M-bus	–	–	–
	Modbus RTU	■	■	■
	Modbus TCP/IP	–	–	–
	Profibus DP-V0	–	–	–
	BACnet/IP	–	–	–
Communication	Bluetooth	–	–	–
	Automatic integration in System pro M compact® InSite	■	■	■
	Automatic integration in ABB Ability™ Energy and Asset Manager	■	■	■
	InSite-bus flat cable	–	–	–

Calibration document included in the product packaging.



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 0.5	Class 0.5
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) 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)	80-265 VAC (L-N) 138-458 VAC (L-L)	80-265 VAC (L-N) 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 multi-function 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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	-	-	M1M 15-1	2TAZ661010R2000	0.31	1	26,000
Class 1	Modbus RTU	-	M1M 15-1 Modbus	2TAZ661012R2000	0.31	1	27,920



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 1	Modbus RTU RS485	-	M1M 20B-1 Modbus	1SYG231445R4051 ■	0.26	1	20,090
Class 0.5	Modbus RTU RS485	-	M1M 20B-05 Modbus	1SYG230355R4051	0.26	1	25,540
Class 0.2	Modbus RTU RS485	-	M1M 20B-02 Modbus	1SYG230295R4051	0.26	1	31,880



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 0.5	Modbus RTU RS485	-	M1M 30B-05 Modbus	1SYG230185R4051 ■	0.27	1	31,120
Class 0.2	Modbus RTU RS485	-	M1M 30B-02 Modbus	1SYG229775R4051	0.27	1	34,940



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 0.5	-	-	M1M 20-05	2TAZ662010R2000	0.31	1	36,940
Class 0.5	Modbus RTU	-	M1M 20-05 Modbus	2TAZ662012R2000	0.32	1	41,050
Class 0.5	Modbus TCP/IP	-	M1M 20-05 Ethernet	2TAZ662014R2000	0.33	1	49,250
Class 0.5	Modbus RTU	2 Digital Out. 2 Digital In.	M1M 20-05 I/O	2TAZ662012R2001	0.33	1	51,290



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	Order details Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
Class 0.5	Modbus RTU	2 Digital Out.	M1M 30-05 Modbus	2TAZ663012R2000	0.32	1	52,220
Class 0.5	Modbus TCP/IP	2 Digital Out.	M1M 30-05 Ethernet	2TAZ663014R2000	0.34	1	62,680
Class 0.5	Modbus RTU	2 Digital Out. 2 Digital In.	M1M 30-05 I/O	2TAZ663012R2001	0.33	1	65,290

■ Stock items



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 fulfil 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 un-coordinated 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

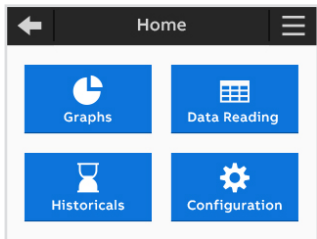
Control on the system, thanks to I/O options including digital outputs, programmable I/O or programmable analogue outputs.

Datalogger

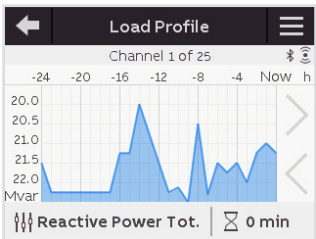
M4M 30 data logging features are available, from complete notification logs to flash memory and RTC for 1-year data logging of trends.

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 30 Homepage

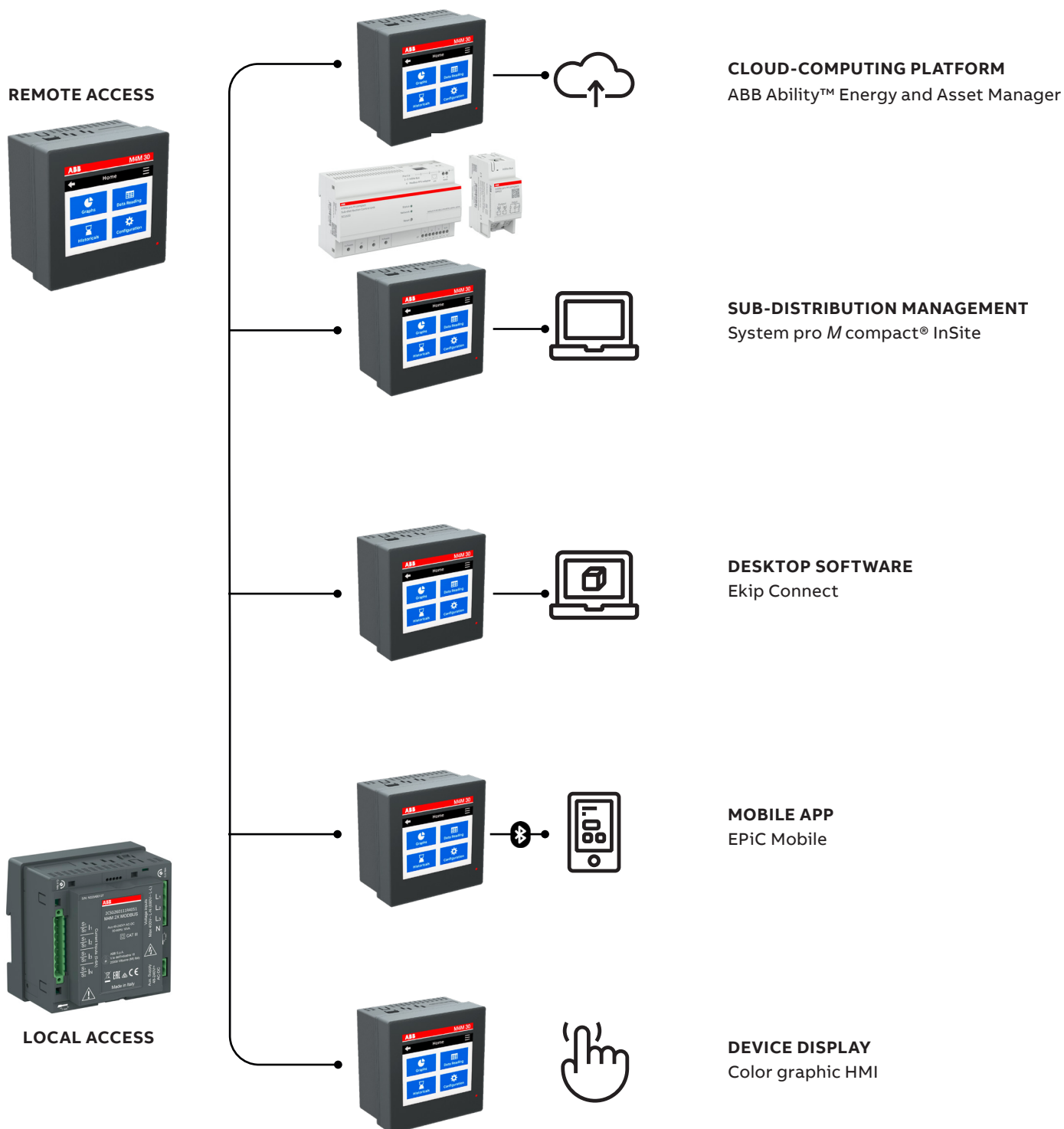
02 Trending graphs of load profiles for M4M 30

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.



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	-
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)	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)
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



	M4M 20 - Class 0,5S	M4M 30 - Class 0,5S
Accuracy		
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		
Historical logs		Intermediate
RTC		
+PQ2		
Individual Harmonics		40 th
Unbalances		
Historical 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	Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
BLE	2 Digital out.	M4M 20	2CSG251151R4051	0.400	1	Upon request
BLE, Modbus RTU	2 Digital out.	M4M 20 Modbus	2CSG251141R4051	0.400	1	
BLE, Modbus TCP/IP	2 Digital out.	M4M 20 Ethernet	2CSG204471R4051	0.400	1	
BLE, Profibus DP-V0	2 Digital out.	M4M 20 Profibus	2CSG251131R4051	0.400	1	
BLE, BACnet/IP	2 Digital out.	M4M 20 Bacnet	2CSG236831R4051	0.400	1	
BLE, Modbus RTU	2 Progr. I/O, 2 Digital out., 2 Analogue out.	M4M 20 I/O	2CSG251161R4051	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 zero downtime.

Communication protocol	I/O	Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
BLE, Modbus TCP/IP	2 Digital Outputs	M4M 20 Rogowski	2CSG207081R4051	0.400	1	Upon request

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	Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
BLE, Modbus RTU	4 Progr. I/O	M4M 30 Modbus	2CSG274761R4051	0.400	1	Upon request
BLE, Modbus TCP/IP	4 Progr. I/O	M4M 30 Ethernet	2CSG274681R4051	0.400	1	
BLE, Profibus DP-V0	4 Progr. I/O	M4M 30 Profibus	2CSG236791R4051	0.400	1	
BLE, BACnet/IP	4 Progr. I/O	M4M 30 Bacnet	2CSG202451R4051	0.400	1	
BLE, Modbus RTU	6 Progr. I/O, 2 Analogue out.	M4M 30 I/O	2CSG202471R4051	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 zero downtime.

Communication protocol	I/O	Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
BLE, Modbus RTU	4 Progr. I/O	M4M 30 Rogowski	2CSG202461R4051	0.400	1	Upon request



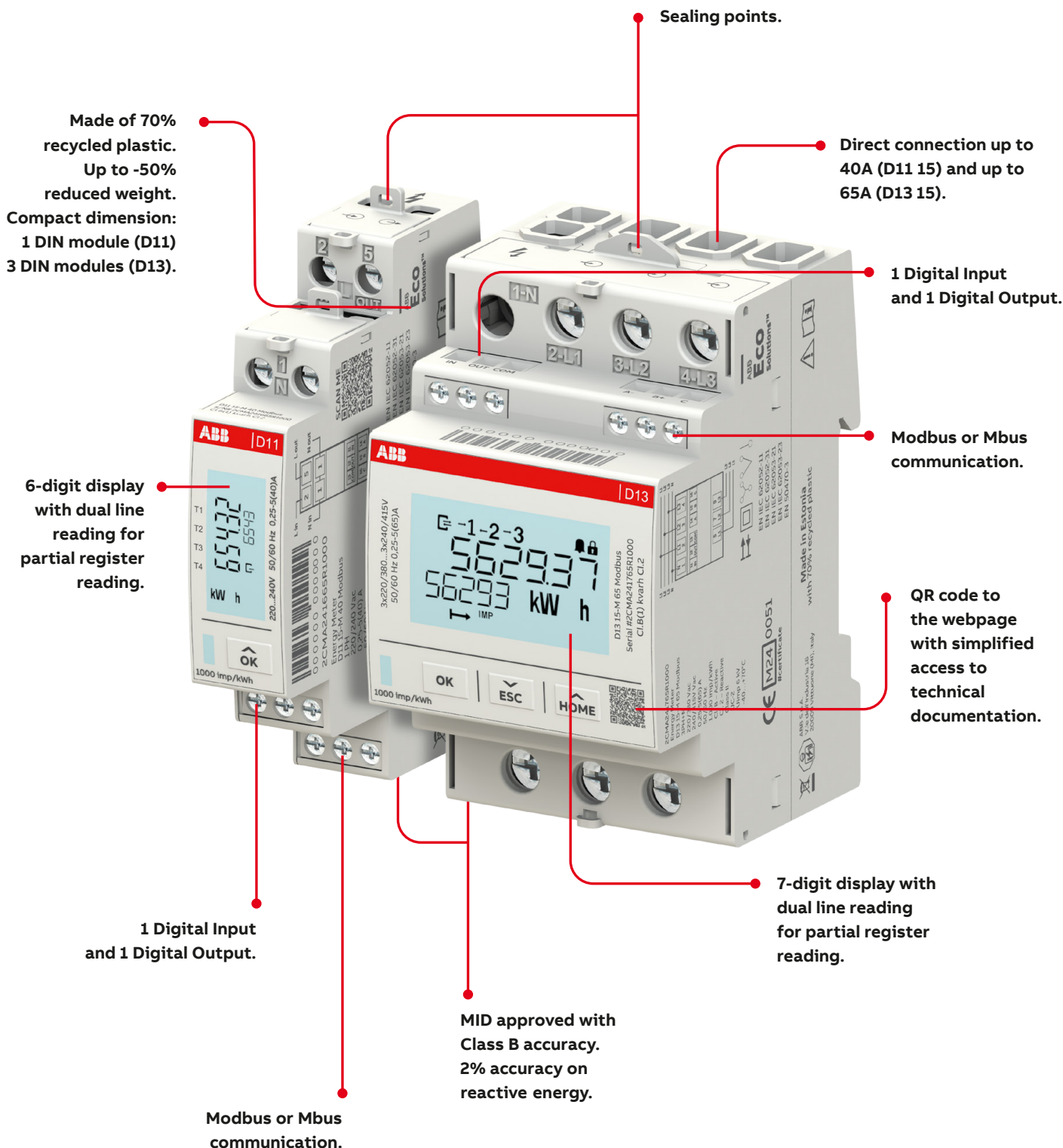
R4M ROGOWSKI COILS

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)	Type code	Order code	Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
80	R4M-80	2CSG202160R1101	0.150	1	Upon request
200	R4M-200	2CSG202150R1101	0.250	1	

Energy meters **NEW**

The details that make the difference



Energy meters

Selection framework

The below framework is designed to streamline the process of choosing the right energy meter tailored to individual needs. By considering factors such as accuracy of energy measurement and desired features, the framework guides customers towards optimal selections. With a focus on accuracy, efficiency, and compatibility, users can confidently identify the perfect energy meter solution for their residential, commercial, or industrial requirements.

	STEEL	BRONZE	15 NEW	SILVER	GOLD	PLATINUM
Active energy	✓	✓	✓	✓	✓	✓
Class 1	✓	✓	✓	✓	✓	✓
Class 0.5				Optional	Optional	Optional
Pulse output	✓	✓	✓	✓	✓	✓
Alarm	✓	✓	✓	✓	✓	✓
Reactive energy		✓	✓	✓	✓	✓
Apparent energy		✓	✓	✓	✓	✓
Import/Export energy		✓	✓	✓	✓	✓
Tariffs			2/4* *4 via Communication	4	4	4
Resettable energy register			✓	✓	✓	✓
Fixed I/O			1DI/1DO	2DI/2DO	2DI/2DO	2DI/2DO
Configurable I/O						4
Harmonics						2-16th
Clock functions*					✓	✓
Advanced clock functions**						✓

* Tariff control, previous values, max/min demand, event log - ** Load profiles

D11 and D13

available in:

15

voltage:

220-240 VAC

3x230/400 VAC

D11

Single phase, up to 40A

D13

Three phase, up to 65A



NEW

A series

available in:

STEEL

BRONZE

SILVER

GOLD

PLATINUM

voltage:

57.7...288 VAC

57.7.../100...288 VAC

3x57.7/100 ... 288/500 VAC

3x57.7/100 ... 400/690 VAC

A41

Single phase, up to 80A

A42

Single phase, with CT/VT

A43

Three phase, up to 80A

A44

Three phase, with CT/VT



B series

available in:

STEEL

BRONZE

SILVER

voltage:

220-240 VAC

3x230/400 VAC

B21

Single phase, up to 65A

B23

Three phase, up to 65A

B24

Three phase, with CT



Energy meters

Functionalities

NEW



	Single phase - Direct		Single phase - In direct	
Energy Meters	D11	B21	A41	A42
Mechanical properties				
DIN modules	1	2	4	4
Overall Dimensions [mm]	65x92x17,5	35x97x65	70x97x65	70x97x65
Voltage/current inputs				
Operating voltage	220 - 240 VAC +/- 20%	220 - 240 VAC +/- 20%	57.7 - 288 VAC	57.7 - 288 VAC
Maximum current	40 A	65 A	80 A	6A
Rated frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Indirect connection	-	-	-	CT/VT
Energy Measurements				
Active energy	■	■	■	■
Reactive energy	■	□	□	□
Apparent energy	■	□	□	□
Import/Export	■	□	□	□
Instantaneous measurements				
Voltage	■	■	■	■
Current	■	■	■	■
Neutral Current (calculated)	■	■	■	■
Frequency	■	■	■	■
Active, Reactive and Apparent power	■	■	■	■
Power quantity measurements				
Power Factor	■	■	■	■
CosPhil	■	□	□	□
Current quadrant	■	■	■	■
Harmonics analysis (2-16th)	-	-	□	□
Function				
Tariffs	■	□	□	□
Single Alarms	25	25	25	25
Max/Min demand	-	-	□	□
Load profiles	--	--	□	□
Resettable registers	■	□	□	□
event logs	■	-	□	□
Communication				
Digital Input	1	2(□)	2(□)	2(□)
Digital Output		2(□)	2(□)	2(□)
Configurable i/O	-	-	■	■
Pulse output	■	■	■	■
Profr. I/O (4I/O channels)	-	-	-	□
Infrared MBus	-	■	■	■
MBus	□	□	□	□
RS-485 Modbus RTU	□	□	□	□

■ Standard feature

□ Optional feature according to order codes in the following pages

- No

Electrification products price list 285

DC Energy meters

NEW

Designed for EV chargers



D1D 15 –ME 200



D1D 15 –ME 650

D1D 15-ME DC Energy Meter

Smart, Compact and Reliable

The **D1D 15-ME** series is a smart and compact, **MID & PTB certified DC energy meter** designed for accurate measurement and fiscal billing, enabling charging station providers to offer a seamless, gas-station-like experience. It accurately records measurement data with timestamps, captures loading process details, and includes a digital signature to ensure compliance with legal billing requirements. Additionally, all charging data is securely stored in the meter’s internal memory for persistent record-keeping.

Key Features

- Voltage up to 1000V
- Current up to 650A
- Charging data recording
- Charging duration monitoring
- Line loss energy measurement
- Signed and encrypted charging data
- PTB compliant (Eichrecht) for charging
- MID certified for billing purposes
- Certified with S.A.F.E transparency software
- Encrypted message (OCMF) for secure transmission
- OCMF format compliant with S.A.F.E. Software

Standards

- EN50470- 4
- IEC62053-41
- IEC62052-11
- PTB-A 20.1
- PTB-A 50.7
- OCMF1.2.0
- VDE-AR-E 2418-3- 100

Communication protocol	Type code	Order code	Current	Voltage	Certific.	Accuracy	Unit L.P. (₹)
Modbus RTU	D1D 15 –ME 200 Modbus	2TAZ666012R2001	200 A	1000 V	MID + PTB	Cl. B/1 - Active	Upon request
Modbus RTU	D1D 15 –ME 650 Modbus	2TAZ666012R2000	650 A				

Energy meter NEW

Technical features



Terminal characteristics		D1D 15-ME 650	D1D 15-ME 200
Installation	Installation	DIN Rail	
Auxiliary power supply	Auxiliary power supply	9-40V DC	
Voltage	U _{max}	1000V	
	U _{min}	150 V	
Current	Starting current I _{st}	0.52A	0.08A
	Minimum current I _{min}	6.50A	1.00A
	Transitional Current I _{tr}	13A	4A
	Normal current I _{ref}	130A	40A
	Maximum current I _{max}	650A	200A
Accuracy	Accuracy class	Class B	
Measuring Active Energy	Energy Direction	+A with -A	
Energy Register	Total Mains Energy	+A / -A / total	
Meter constant	LED-Output	1000 Imp/kWh, Total Mains Energy	
Display	LCD	"Dot Matrix Display with 7+4 digits"	
	Life cycle	> 12 years	
Modbus communication - RS 485	Connector	Port 1: terminal 7/8 Port 2 & 3: RJ12	
	Baud rate	4800~115.200 bps	
	Address	1-247	
	Transmission distance	Up to 1000m	
	Parity	None(default), Odd, Even	
	Stop bits	1 or 2	
Data Storage	Capacity for Start- and Stop-Charge Records	> 225.000	
	Capacity of Logbook	> 3000	
Power Consumption	Voltage circuit	≤ 0.5 W at U _n	
	Current circuit	≤ 0.12 W/A * I _{max}	
	Auxiliary power supply	< 2 W	
Environmental conditions	Operation Temperature	-40°C to +80°C	
	Storage Temperature	-40°C to +85°C	
	Humidity	Max 98%	
	Mechanical	M1	
	Electromagnetic	E2	
Dimension	Size (mm)	115 x 103 x 64	
Product Material	Material	Polycarbonate, UL94-V0	
Standards & Approvals	Certificate & Approval	EN50470- 4:2023, IEC62053-41:2021, IEC62052-11:2020, EN-IEC 62052-11/A11:2022, VDE-AR-E 2418-3- 100, PTB-A 20.1, PTB-A 50.7, OCMF1.2.0	

InSite energy management system - SCU100

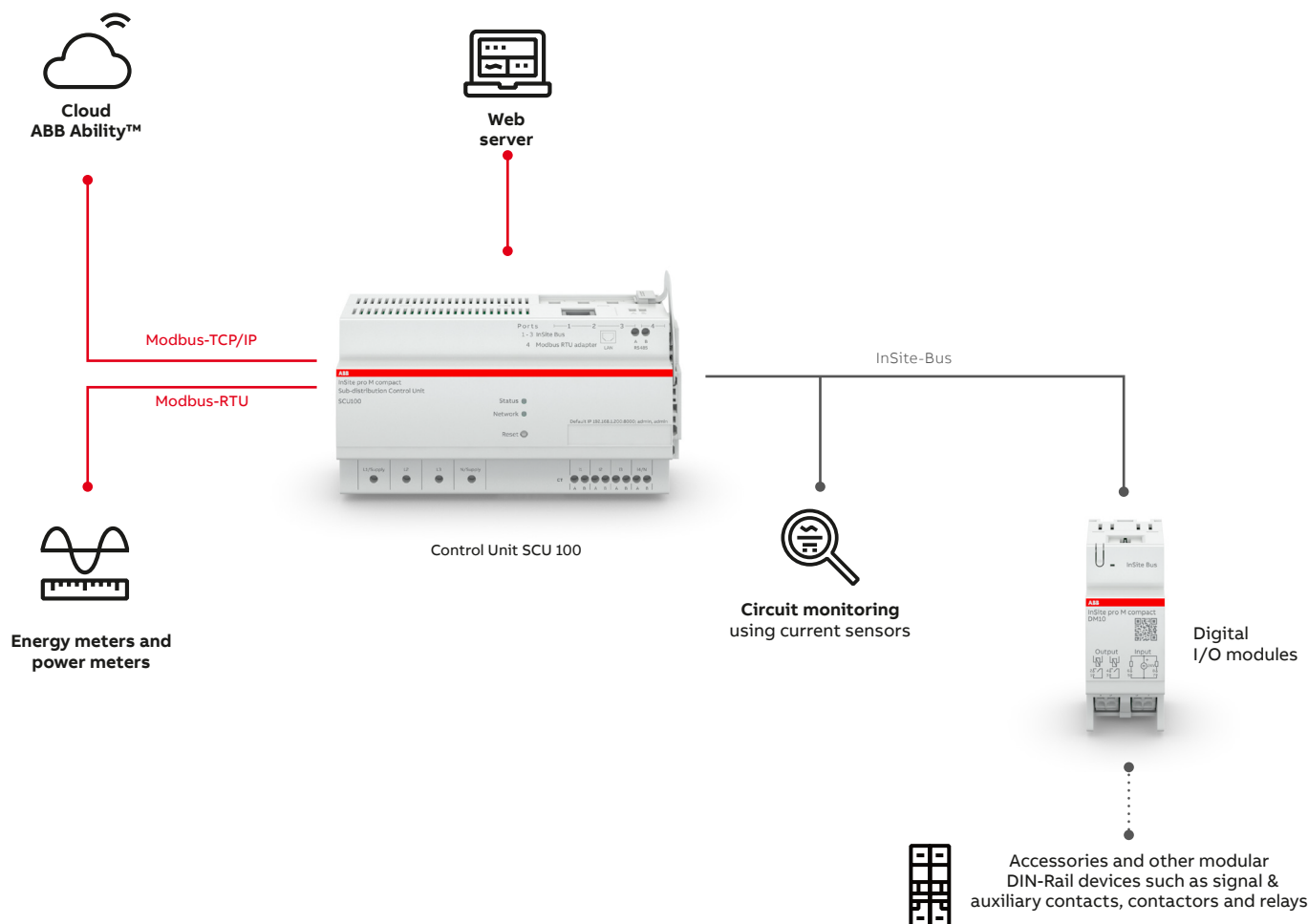
Connected solution for sub-distribution

The InSite energy management system allows you to collect data from field devices in electrical distribution, as well as control and automate them through the use of accessories. Specifically recommended for large commercial and industrial applications, the SCU100 control unit is capable of simultaneously gathering measurement data from up to 16 energy and power meters, as well as 96 current sensors and digital sensors.

Thanks to its modular system, InSite is designed to easily upgrade new and existing installations, reducing installation and configuration time to near zero and minimizing disruption and costly downtime.

In addition to the current sensors, the range is complemented by a selection of Digital Input and Output Modules that can be easily connected to ABB System pro *M* compact® protection devices and accessories, as well as to pulse meters such as gas or water meters to collect consumption data.

Based on a variety of data, the available functionalities range from simple monitoring of the plant to analysis of historical data, customized alarms and implementation of automatic measures to reduce energy consumption identify potential risks and ensure business continuity.



InSite energy management system

The evolution of the system - SCU200

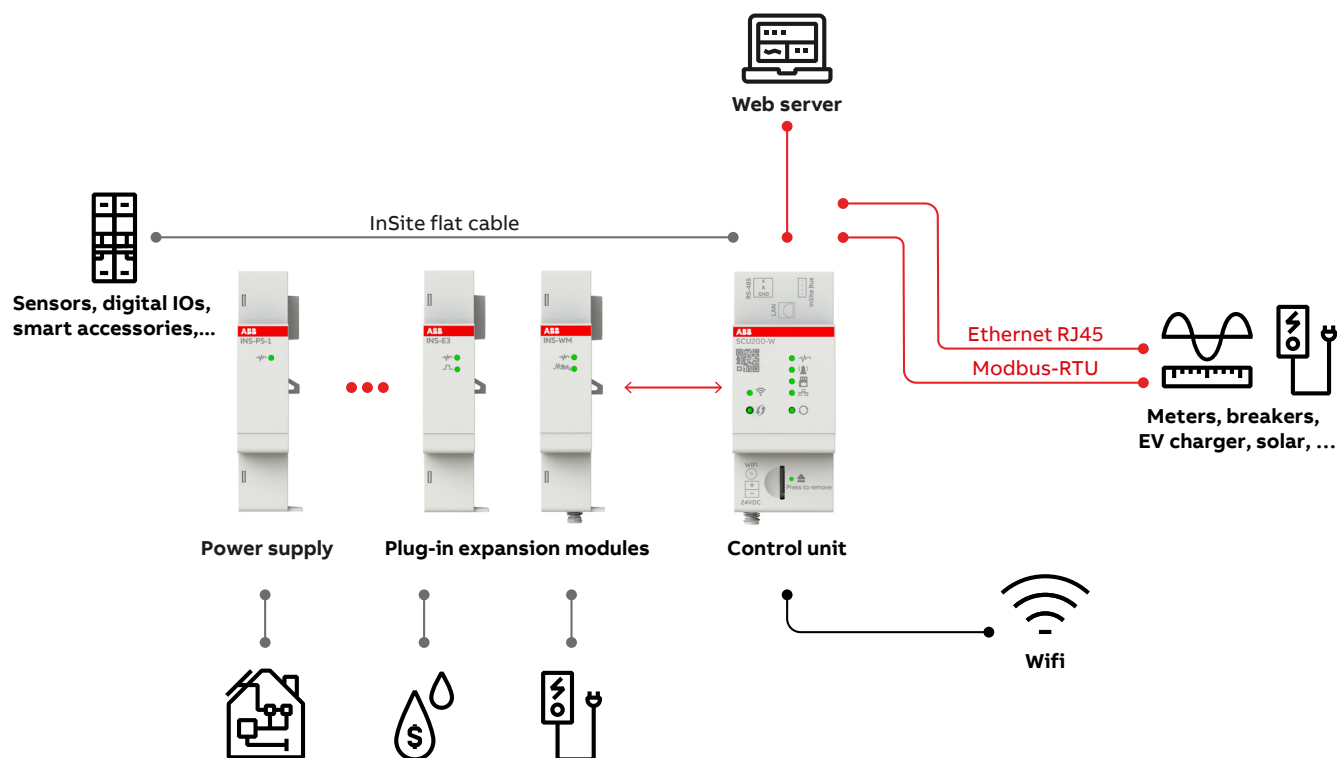
The InSite system takes smart energy and load management to the next level, providing a complete solution to optimize energy usage in both sub and final distribution. Through the compact control unit SCU200, data is gathered from the field devices, and then can be accessed via the InSite web server, the ABB Ability™ Energy & Asset Manager or any third-party application.

The new plug-in expansion modules allow the system to be adapted even better to the respective application needs.

Depending on measurement and optimization goals, Wireless M-Bus and Energy Meter modules can be used and plugged to the control unit without tools.

With more automation logics available, load prioritization is optimized, enabling the most efficient use of energy in any residential, commercial or industrial space. And thanks to the openness to third-party integration, loads such as heat pumps, Electrical Vehicle chargers or energy storage units can also be easily connected to the system, further increasing the potential for energy savings.

The integrated InSite web server has evolved to now include a cost calculation feature, a step-by-step installation wizard and advanced options for setting automated actions to control loads in residential, commercial and industrial buildings, enabling energy savings of up to 20%.



Integrate however you want, thanks to multiple mounting options.

Depending on the application, choose between up to four different mounting options to make integrating the CMS sensors in your installation as simple and as uncomplicated as possible.

Sensors for ABB devices



System pro M installation, SMISSLINE

The sensors of the CMS-120LA and CMS-120FH series allow easy retrofit installation on S200 MCBs, SMISSLINE devices and E90 fuseholders(1000VDC).

Universally usable sensor designs



Cable tie mounting

If space is at a real premium, CMS-120CA, CMS-100CA, and CMS-200CA series sensors can be secured directly to the cable(s) to be measured by means of cable ties.

Tangible value-addition for you. ABB circuit monitoring pays off two-fold.



Early warning system (predictive maintenance) for increasing the availability of critical consumers

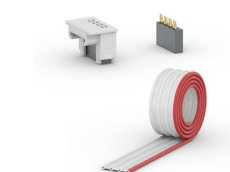
Continuous monitoring of the current flow at the circuit breaker makes it possible to detect overloaded lines before they lead to a service interruption. Apart from this, monitoring individual circuits indicates whether the loads are in the desired operating mode or not. In this way, system deviations can be ascertained instantaneously. What's more, the CMS can be used to detect unbalanced loads before they result in failure of the neutral conductor and consequently load failure.

Cost analysis to reduce and assign energy costs

The cost of energy will rise continuously. In order to cut costs, you first have to know where they arise. The Control Unit helps illustrate and analyze the instantaneous energy consumption levels. Furthermore, the calculated active energy can be used to roughly allocate the costs at the output level.

Ordering data

System pro M compact® InSite



Accessories

The Control Unit needs a flat cable to gather information from current sensors and digital I/O modules. The flat cable should be a 4-pin cable, flexible in length. Devices can be placed at customizable distances required by the specific application.

Control units

Description	Ordering details		Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
	Brief description	Product no.			
Sub-distribution Control Unit	SCU100	2CCG000242R0001	0.329	1	Upon request
Control Unit	SCU200	2CCG001158R0001	0.101	1	
Control Unit with wireless interface	SCU200-W	2CCG001157R0001	0.105	1	

Sensors

Description Type	ABB code	Weight 1 piece kg	Unit conf. Pcs)	Unit L.P. (₹)	
Open-core sensors 18 mm for retrofit of MCBs (S200, SMISSLINE) and RCBOs (SMISSLINE)					
80 A	CMS-120LA	2CCA880225R0001	0.012	1	Upon request
40 A	CMS-121LA	2CCA880226R0001	0.012	1	
20 A	CMS-122LA	2CCA880227R0001	0.012	1	
Open-core sensors 18 mm for cable tie mounting (universal use)					
80 A	CMS-120CA	2CCA880220R0001	0.011	1	Upon request
40 A	CMS-121CA	2CCA880221R0001	0.011	1	
20 A	CMS-122CA	2CCA880222R0001	0.011	1	
Solid-core sensors 18 mm for pro M & SMISSLINE installation devices with twin terminals					
80 A	CMS-100PS	2CCA880100R0001	0.012	1	Upon request
40 A	CMS-101PS	2CCA880101R0001	0.012	1	
20 A	CMS-102PS	2CCA880102R0001	0.012	1	
Solid-core sensors 18 mm for cable tie mounting (universally usable)					
80 A	CMS-100CA	2CCA880107R0001	0.011	1	Upon request
40 A	CMS-101CA	2CCA880108R0001	0.011	1	
20 A	CMS-102CA	2CCA880109R0001	0.011	1	
Solid-core sensors 25 mm for cable tie mounting (universal use)					
160 A	CMS-200CA	2CCA880117R0001	0.026	1	Upon request
80 A	CMS-201CA	2CCA880118R0001	0.026	1	
40 A	CMS-202CA	2CCA880119R0001	0.026	1	

Accessories

Description	Ordering details		Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
	Brief description	Product no.			
Flat cable 2m	INS102	2CCG001491R0001	0.017	1	Upon request
Flat cable 5m	INS105	2CCG000243R0001	0.046	1	
Flat cable 10m	INS110	2CCG001493R0001	0.09	1	
Flat cable 30m	INS130	2CCG001494R0001	0.27	1	
Connector set (35pcs)	INS135	2CCG000244R0001	0.024	35	
Energy Meter Module* - 40mA	INS-E3	2CCG001159R0001	0.052	1	
Power Supply Module* - 15W	INS-PS-1	2CCG001160R0001	0.077	1	
Smart Signal/Auxiliary Contact	INS-S/H	2CCG001213R0001	0.028	1	
Energy Meter Module* - 5A	INS-E3-5	2CMA268055R1000	0.052	1	
Tap-off Box Module*	INS-TB	2CMA268075R1000	0.045	1	

* Note - Applicable only for SCU 200 control units

Digital Input and Output modules

Description	Ordering details		Weight 1 piece kg	Pack unit pc.	Unit L.P. (₹)
	Brief description	Product no.			
Digital Input Module	DM11	2CCG000245R0001	0.075	1	Upon request
Digital Output Module	DM00	2CCG000246R0001	0.085	1	
Digital Input and Output Module	DM10	2CCG000247R0001	0.08	1	