PowerLogic[™]

Electrical network management

Energy management, revenue metering and power quality monitoring











POWERLOGIC CATALOG INTRODUCTION

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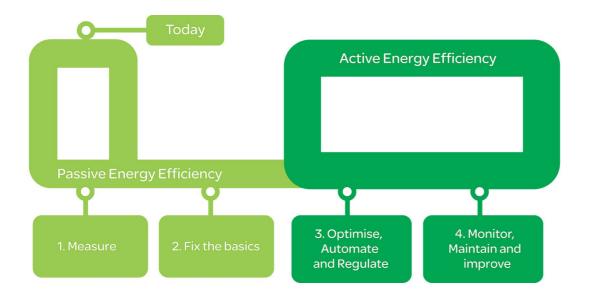
Clicking on a **Commercial Reference** Number or scanning the product's **QR Code** links you to further product information on

www.se.com

POWERLOGIC CATALOG INTRODUCTION

PowerLogic[™] System is...

Schneider Electric believes every business can increase productivity while consuming less and achieving energy savings of 10% to 30%.



PowerLogic technology forms one part of your total energy management solution from Schneider Electric. As the global energy management specialist, we offer endto-end power, building and process management solutions that help you optimize energy use and costs, improve performance, enhance comfort and safety and deliver uninterrupted service while taking responsible care of our planet.

Saving energy reduces costs and pollution, but you need the tools to uncover all opportunities, avoid risks, track progress against goals, and verify success. Schneider Electric provides these tools via the world's most advanced energy intelligence technology: PowerLogic.

A PowerLogic system of meters, software and power quality solutions help manage all energy assets, every second of the day. A PowerLogic system enables all stakeholders, from CEO to facility and engineering managers, to respond quickly to potential problems and manage energy in financial and environmental terms.

PowerLogic technology delivers the key performance indicators and analytics that you need to strategically balance emissions, efficiency, reliability and cost.

Our expert services can help you audit your energy use and build your energy action plan. From power factor correction systems, harmonic filtering and variable speed drives to HVAC and lighting controls, we offer a complete range of energy efficient technologies.

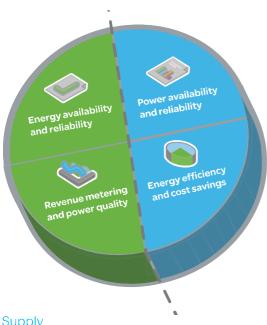
POWERLOGIC CATALOG INTRODUCTION

Gain energy insight and control with PowerLogic[™] systems

Cutting-edge technology to increase profitability

PowerLogic technology converts the complex dynamics governing the relationship between power generation and distribution on the utility side, and energy consumption, cost and reliability on the consumer side, into timely, easily understood information. Businesses can use this powerful to improve tactical actions and strategic decision making.

From a single facility to an entire enterprise, PowerLogic meters monitor key distribution points 24 hours a day. Whether from generators, substations, service entrances, mains, feeders, loads or 3rd party equipment and systems, PowerLogic technology tracks, records and reports all real-time conditions and historical performance data. Intuitive web-based interfaces give stakeholders access to this data as well as advanced analytics, alarm annunciation and control capabilities. It supports comprehensive energy management programs by tracking performance and empowering you to make effective decisions.



Supply

Energy availability and reliability

- Improve T&D network reliability
- Enhance substation automation
- Maximize the use of your existing infrastructure

Revenue metering and power quality

- Maximize metering accuracy at all interchange points
- Verify compliance with new power quality standards
- Analyse and isolate the source of power quality problems

Demand

Power availability and reliability

- Validate that power quality complies with the energy contract
- Identify power quality issues and fix them quickly with reliable mitigation solutions
- Improve response to power-related problems
- Leverage existing infrastructure capacity and avoid over-building
- Support proactive maintenance to prolong asset life

Energy efficiency and cost savings

- Measure efficiency, reveal opportunities and verify
- Manage greenhouse gas emissions
- Allocate energy costs to departments or processes
- Reduce peak demand and power factor penalties
- Enable participation in loadcurtailment programs (e.g. demand response)
- Strengthen rate negotiation with energy suppliers
- Identify billing discrepancies
- Sub-bill tenants for energy costs

POWERLOGIC CATALOG INTRODUCTION

Market segments





Industry

From finance to engineering, PowerLogic technology gives industry professionals the energy intelligence and control they need to support strategic decisions and establish best energy practices. It will help you reduce operational costs and meet new emissions standards without compromising production schedules or product quality.

Key points are monitored throughout your power distribution, building and backup systems. Enterprise-level software helps you maximize the use of your existing energy assets, increase energy efficiency and avoid demand or power factor penalties. Use it to uncover and solve hidden power problems that can shorten equipment life or cause costly downtime.

- Cost allocation
- Procurement optimization
- Power factor correction
- Continuity of service even in case of an earth fault

Buildings

Building managers through operations staff can cut energy and maintenance costs without effecting the comfort or productivity of their tenants, employees, students, patients or customers. A PowerLogic system will track all utilities and equipment conditions, and enterprise-level software will help you analyse and improve electrical reliability.

You can forecast energy requirements, optimize multi-site contracts and accurately allocate or sub-bill costs. Key performance indicators help you find and sustain energy savings, reduce emissions and meet "green" building standards in order to increase asset value and attract or retain tenants..

- Tenant sub-billing
- Cost allocation
- Energy efficiency & benchmarking
- · Procurement optimization
- Power availability
- Demand response / load curtailment

POWERLOGIC CATALOG INTRODUCTION



Utilities

Today's energy market is more complex than ever before. Whether you generate, transmit or distribute electricity, more stakeholders need shared access to timely, accurate energy data from more exchange points and you need to maintain power availability and reduce price volatility in the face of rising demand and transmission congestion. A PowerLogic energy information system helps you meet all of these challenges by:

- Metering all key interchange points with the highest possible accuracy
- Improving the quality of power delivered to your customers
- Ensuring the reliability and efficiency of your network and equipment

From advanced energy and power quality metering systems to enterprise-level analytic software and power quality mitigation solutions, PowerLogic systems deliver business-critical information that conventional metering, SCADA and billing systems cannot. It gives you the energy intelligence and control needed to track performance, stay informed of critical conditions and empower you to make strategic decisions. It will help you increase reliability, maximize the use of resources and improve service.

- Revenue metering
- Power quality monitoring
- Power availability and reliability
- Insulation monitoring

Critical infrastructure

PowerLogic technology helps keep your systems operating continuously and securely with an economical supply of energy. Whether you manage data, communication, transportation or environmental services, minimising the risk of power-related downtime and keeping costs under control is a priority.

A PowerLogic system monitors all power and cooling systems, accurately tracks their energy consumption, and allows you to identify and fix power quality issues as soon as they arise. Enterprise-level software delivers insightful diagnostics and metrics to help verify the reliability of your backup systems and maximize the use of existing capacity to defer new capital investments. You can also reveal energy inefficiencies and strengthen energy procurement across multiple sites.

- Infrastructure optimization
- · Power quality analysis compliance
- Alarming and event notification
- Energy efficiency
- Cost allocation
- Procurement optimization

Panorama of the PowerLogic range

Use this panorama to select the most efficient products for your application needs

Current transformers









Panel instruments









CTs Ip / 5 A current transformer

Name	iAMP	iVLT	AMP/VLT	iFRE	iCH/iCI
Function	ammeter, voltmeter	ammeter, voltmeter	ammeter, voltmeter	frequency meter	hour counter pulse counter

Installation

- i. Solid Core CTs
- Insulated Cable, diameter 21 to 35 mm
- busbar through transformer
- cable connections
- ii. Split Core CTs
- CT installation without the need to uninstall and reinstall power conductors
- Cable and Busbar connections

Applications

Panel instrumentation

Panel instrumentation	I/U	1/U	1/U	F	hours/pulses

Energy efficiency & cost

Sub-billing & cost allocation			
Demand & load management			
Billing analysis			

Power availability

& reliability			
Compliance monitoring			
Sag/swell, transient			
Harmonics			

Revenue metering

Revenue meter

Characteristics

- i. Solid Core CTs

 transformation ratio: 40/5 A
- to 6000/5 A
- accuracy: class 0.5 to 3 ■ maximum rated operational voltage: 720 V AC
- tropicalised range 25 °C to
- +60 °C (1)
- relative humidity > 95 % (1) Warning: some products are limited to +50 °C.
- ii. Split Core CTs
- transformation ratio: 100/5A to 4000/5A
- accuracy: class 0.5 to 3 ■ maximum rated operational
- voltage: 720 V AC

 Cable connection: -5°C to +50°C
- relative humidity 5–85 %
 Busbar connection : 5°C to
- +40°C relative humidity 5–85 %

Characteristics

Measurement accuracy	Class 1.5	± 0.5 % ± 1 digit	Class 1.5	± 0.5 % ± 1 digit	
Installation	DIN rail 4 x 18 mm modules	DIN rail 2 x 18 mm modules	flush mounted 72 x 72 mm 96 x 96 mm	DIN rail 2 x 18 mm modules	iCI, iCH: DIN rail 2 x 18 mm modules CH: flush mount
Measurement	iAMP: 30 A direct or external CT	iVLT: 600 V AC direct or external VT	VLT: 500 V AC direct or external VT AMP: external CT	400 V AC direct	
Communication ports					
Inputs / Outputs					
Memory capacity					

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Panorama of the PowerLogic range (cont'd)

Basic energy metering









Name	iEM2000/iEM2010/ iEM2000T/iEM2100	iEM3000 Series		PowerTag Energy Series
Function	kilowatt-hour meter	kilowatt-hour meters	metering & sub-metering Class 0.5S IEC 62053-22 Class 1 IEC 62053-21 Class 2 IEC 62053-23	wireless power & energy meter

Applications

Panel instrumentation

Panel instrumentation	E	(Power demand and	(Power demand and	I, U, F, P, Q, S, PF, E (Depending on reference; Power demand depending on gateway)
Energy efficiency and cost				

Sub-billing & cost allocation

Demand & load management
Billing analysis

Power availability & reliability

Compliance monitoring	
Dip/swell, transient	
Harmonics	

Revenue metering

Revenue meter

Characteristics				
Measurement accuracy	Class 0.5S / Class 1	Class 0.5S / Class 1	Class 0.5	IEC 61557-12 PMD/DD Class 1 (active energy)
Installation	DIN rail 1, 2, 5, or 7 x 18 mm modules	DIN rail	DIN rail	on product or on cables depending on the reference
Voltage measurement	400 V AC direct	50 V to 330 V (Ph-N) 80 V to 570 V (Ph-Ph) up to 1MV AC (ext VT)	50 V to 330 V AC (Ph-N) 80 V to 570 V AC (Ph-Ph) up to 1M V AC (ext VT)	up to 277 V AC (Ph-N) / 480 V AC (Ph-Ph) depending on the reference
Current measurement	40 to 125 A direct or external CT	external CT	external CT	63 to 2000 A
Communication ports		1	1	Wireless
Inputs / Outputs		2 1/0	2 1/0	
Memory capacity				

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Panorama of the PowerLogic range (cont'd)

Wireless products



Basic multi-function metering



Name	PowerTag Control	HeatTag Smart Sensor	PM5000 Series	PM5350 Series
Function	Circuit monitoring & control IEC 60364-8-1 EN 17267 ISO 50010	Early detection of overheating wire connections or overheating cables	metering & sub-metering Class 0.5S IEC 62053-22 Class 1 IEC 62053-21 Class 2 IEC 62053-23	Class 0.5S IEC 62053-22 Class 2 IEC 62053-23 Class 1 IEC 61557-12

Applications

Panel

instrumentation		
	Panel instrumentation	

Analysis of gas and
micro-particles,
Temperature, Humidity

I, U, F, P, Q, S, PF, E (Power demand and current demand) I, U, F, P, Q, S, PF, E (Power demand and current demand)

Energy efficiency and cost

Sub-billing & cost
allocation

Demand & load management
Billing analysis

Power availability & reliability

Compliance
monitoring
Dip/swell, transient
Harmonics

Revenue metering

Revenue meter

Measurement accuracy		Temperature ±-1.1 °C Humidity ± 9 RH%	Class 0.5S	Class 0.5
Installation	DIN rail	DIN rail 6 x 18 mm modules	Flush mount or DIN rail	Flush mount 96 mm x 96 mm
Voltage measurement			60 V to 400 V AC L-N 103.5 to 690 V AC L-L	PM53xx 20-400 V L-N 20-690 V L-L
Current measurement			external CT	external CT
Communication ports	Wireless		1	1
Inputs / Outputs	2 1/O		2 1/0	2 1/0
Memory capacity				

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Panorama of the PowerLogic range (cont'd)

Advanced metering





Name	PM8000 Series	ION9000
Function	energy & basic powwer quality meter IEC 62053-22 Class 0.2S ANSI C12.20 Class 0.2 IEC 61000-4-30 Class S IEC 62586-2 IEC 61557-12 PMD/Sx/K70/0.2 IEC / UL 61010-1	energy & advanced power quality meter IEC 62053-22 Class 0.1S ANSI C12.20 Class 0.1 IEC 61000-4-30 Class A IEC 62586-1/-2 IEC 61557-12 PMD/Sx/K70/0.2 IEC / UL 61010-1

Applications

Panel instrumentation

	harm, alarm, I/O (I, U unbalance, demand,
	clock/cal, dip/swell, transients, flicker, RVC, mains signalling, 1/2 cycle RMS)

Energy efficiency and cost

Sub-billing and cost allocation	
Demand and load management	
Billing analysis	

Power availability & reliability

Harmonics		
Dip/swell, transient	dip/swell	
Compliance monitoring		

Revenue metering

5	
Revenue metering	

Measurement accuracy (active energy)	IEC 62053-22 Class 0.2S ANSI C12.20 Class 0.2	IEC 62053-22 Class 0.1S ANSI C12.20 Class 0.1
Installation	Flush & DIN 96 mm x 96 mm	Flush & DIN 160 mm x 160 mm Display 96 mm or 197 mm x 175 mm
Voltage measurement	57-400 V AC L-N 3P (100-690 V AC L-L)	57-400 V L-N AC or 100-690 V L-L AC
Current measurement	external CT	external CT
Communication ports	3	4
Inputs / Outputs	up to 27 DI, 9 DO up to 16 AI, 8 AO	up to 32 DI, 4 DO, 10 RO (relay) up to 16 AI, 8 AO
Memory capacity	512 MB	2 GB

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Panorama of the PowerLogic range (cont'd)

Advanced utility metering



IEC 61557-12

IEC 62053-22

IEC 62586 ANSI C12.20 Class 0.2 PMD/Sx/K70/0.2

IEC 61000-4-30 Class S





M			
IN	aı	11	(e)

Function

ION7400 ION8650

energy & power quality meter IEC 62052-11 IEC 62053-22/23 Class 0.2S IEC 61000-4-30 Class A energy & power quality meter IEC 62052-11 IEC 62053-22/23 Class 0.2S IEC 61000-4-30

ION8800

Applications

Panel instrumentation

Panel instrumentation

I, U, F, P, Q, S, PF, E, THD, Min/Max, harm, alarm, I/O (I, U unbalance, demand, clock/cal)

energy & basic power quality meter

I, U, F, P, Q, S, PF, E (demand, minimum and maximum values) I, U, F, P, Q, S, PF, E (demand, minimum and maximum values)

Energy efficiency & cost

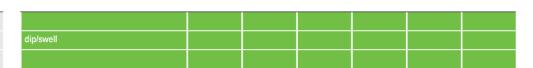
Sub-billing and cost allocation

Demand and load management

Billing analysis

Power availability & reliability

Harmonics
Dip/swell, transient
Compliance monitoring



Revenue metering

Revenue metering

Measurement accuracy (active energy)
Installation
Voltage measurement
Current measurement
Communication ports
Inputs / Outputs
Memory capacity

IEC 61053-22 Class 0.2S ANSI 12.20 Class 0.2S	Class 0.2S			Class 0.2S
Flush & DIN rail mount 96 mm x 96 mm	ANSI socket mount 9S, 35S, 36S, 39S I and 76S; FT21 switchboard case			DIN 43862 rack
57-400 V AC L-N 3P (100-690 V AC L-L)				57-288 V L-N AC or 99-500 V L-L AC
external CT	external CT			external CT
2	5			5
up to 27 DI, 9 DO up to 16 AI, 8 AO	up to 22 I/O			up to 16 I/O
512 MB	10 MB	4 MB	2 MB	up to 10 MB

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Panorama of the PowerLogic range (cont'd)

Multi-circuit metering









Name	HDPM6000	ВСРМ	EM4000	EM4800
Function	3-phase power quality meter; branch-circuit accessory module hub	branch circuit monitor IEC 61036 Class 1	multi-circuit energy meter Class 0.5 ANSI C12.1, C12.20 Class 0.5S IEC 62053-22	multi-circuit energy meter Class 0.5 ANSI C12.1, C12.20 Class 0.5S IEC 62053-22

Applications

Panel instrumentation

Panel instrumentation	PF, E	PF, E (Power demand	I, U, F, P, Q, S, PF, E (Power demand and current demand)
Energy efficiency and cost			

Sub-billing and cost allocation		
Demand and load management		
Billing analysis		

Power availability and reliability

Compliance monitoring		
Sag/swell, transient		
Harmonics		

Revenue metering

Revenue meter

Characteristics			
Measurement accuracy	Class 1 (mains active energy)	Class 0.5S	Class 0.5S
Installation	Panel or enclosure	Panel or enclosure	Panel or enclosure
Voltage measurement	90 – 277 V L-N voltage Inputs	80 - 480 V AC L-L without PTs, Up to 999 kV with external PTs	80 - 480 V AC L-L without PTs, Up to 999 kV with external PTs
Current measurement	CT strips for branch circuits and external CTs for mains	Split- or solid-core CTs	Split- or solid-core CTs
Communication ports	1 for main	2	2
Inputs / Outputs		2	2
Memory capacity			

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Panorama of the PowerLogic range (cont'd)

Multi-circuit metering

Retrofit products







power & energy meter ANSI C12.20 0.2% IEC 62053-22 Class 0.2S

EM4200

Name	EM4900	EM3500
Function	multi-circuit energy meter Class 0.5 ANSI C12.1, C12.20 Class 0.5S IEC 62	DIN rail power & energy meter ANSI 12.20 0.2% accuracy, IEC 62053-22 Class 0.2S for EM35xx models, ANSI C12.20 0.5% accuracy, IEC 62053-22 Class 0.2S for EM35xxA models

Applications

Panel instrumentation

I, U, F, P, Q, S, PF, E (Power demand and current demand)
and current demand)

I, U, F, P, Q, S, PF, E	
(Power demand and	
current demand)	

I, U, F, P, Q, S, PF, E (Power demand and current demand)

Energy efficiency and cost

Sub-billing and cost allocation	
Demand and load management	
Billing analysis	

Power availability and reliability

Compliance monitoring	
Sag/swell, transient	
Harmonics	

Revenue metering

Revenue meter

Characteristics

Measurement accuracy	Class 0.5S
Installation	Panel or enclosure
Voltage measurement	150 – 480 V AC L-L without PTs Up to 999 kV with external PTs
Current measurement	Split- or solid-core CTs
Communication ports	2
Inputs/Outputs	2
Memory capacity	

Class 1 (mains active energy)	ANSI C12.20 Class 0.2S IEC 62053-22 Class 0.2S
Panel or enclosure	DIN or screw, clip-on or hook
UL: 90 V L-N to 600 V L-L; CE: 90 V L-N to 300 V L	890 - 480 V AC L-L
EM35xxA models work exclusively with Rogowski coil CTs.	5 A to 5000 A
1 for main	2
(see Datasheet)	

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Panorama of the PowerLogic range (cont'd)

Insulation monitoring Devices



Name

Function

Vigilohm™ Insulation monitoring devices

Insulation monitoring for IT / Ungrounded networks

Features

RS-485 / Ethernet gateway
Devices supported

RS-485 Insulation Monitors: IM9, IM9-OL, IM10, IM20 IM10-H, IM20-H, IM400 series IM400THR Insulation Fault Locators: IFL 12, IFL 12C, IFL 12MC, IFL 12H Accessories: Including voltage adaptors, cardews, toroids

Web server with standard HTML pages

Web server with custom HTML pages

Real time data

Historical data

Automatic notification
Alarm and event logs
Waveform display

Custom animated graphics Manual/automatic reports

Characteristics

Ethernet ports Modbus TCP/IP protocol RS-485 (2-wire / 4-wire)

ports, Modbus protocol Number of devices connected directly

RS-232 configuration ports Miscellaneous

Installation

Available on product supervision e.g.PME, Com'X 510

Available on product supervision

Available in supervision PME

An IT earthing system -also called ungrounded system-allows the network to operate even in the presence of an insulation fault, without endangering people or property. Required as part of the IT network, an Insulation Monitoring Device (IMD) detects the insulation fault and locates it so it can be repaired.

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Current transformers

Schneider Electric is the global specialist in energy management with the most complete power monitoring product line. Current Transformers are essential components designed to be used with Schneider Electric's extensive power monitoring product portfolio. From simple energy meters to world class power quality meters, these proven products satisfy any requirement.











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PB119864





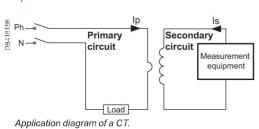






METSECT5CYL1 METSECT5GD025

Ip/5 A ratio



The Ip/5 A ratio current transformer delivers at the secondary a current (Is) of 0 to 5 A that is proportional to the current measured at the primary (Ip). This allows them to be used in combination with measurement equipment:

- Ammeters
- Kilowatt-hour meters.
- Measurement units.
- · Control relays.
- etc.

When the primary is energized, the measurement equipment nearly acts as a short circuit which keeps the secondary voltage very low. This voltage will increases significantly if the short circuit is removed.

CT selection - conductor rating aspects

The choice depends on the conductor profile and the maximum intensity of the primary circuit.

Mixed, bar		Vertical or horizontal bars	Vertical bars
		The state of the s	DB416999
415921		2983	
BO		DB41	
150 to 800		200 to 4000	5000 to 6000
Type M		Type D ⁽¹⁾	Type V
H MD	MB (MC)	G FF	NA FF V2
	150 to 800 Type M	150 to 800 Type M MA MB MC MD	150 to 800 Type M Type D ⁽¹⁾ MA MB MC MC MD

(1) Two secondary connectors (parallel internal wiring - only one secondary winding) for easier cable access. 1 lateral + 1 on one extremity. Warning: only one must be used at a time.

Specific mounting: use of cylinder

A cylindrical metallic spacer ensures a proper CT positioning when the conductor or the CT cannot be positioned perpendicular. Secured by bolt \pm nut.

CT with primary connection by screw and nut (example: use of cylinder with bar or cable) METSECT5CYL1 (aluminium) 16550 (brass)

NOTE: This document is not intended to be used as an installation guide.

CT selection - Electrical aspect Ip/5 A

- We recommend that you choose the ratio immediately higher than the maximum measured current (In).
 Example: In = 1103 A; ratio chosen = 1250/5.
- For small ratings: From 40/5 to 75/5 and for an application with digital devices, we recommend that you choose a higher rating, for example 100/5. This is because small ratings are less accurate and the 40 A measurement, for example, will be more accurate with a 100/5 CT than with a 40/5 CT.
- Specific case of the motor starter: to measure motor starter current, you must choose a CT with primary current lp = Id/2 (Id = motor starting current).

Validation of measurement solution according to accuracy class

It consists in controlling the right adaptation of the CT on the accuracy class aspect. The accuracy class is specified in the project. The total dissipated power of the measurement circuit (meter + cables) should not be superior to the specified limit of the CT. This limit is for different standard classes. If necessary, the choice of the cable section, the CT or meter should be modified to fit the requirement.

Copper cable cross-section (mm²)	Power per doubled meter at 20 °C (VA)
1	1
1.5	0.685
2.5	0.41
4	0.254
6	0.169
10	0.0975
16	0.062

Schneider Electric device	Consumption of the current input (VA)
Ammeter 72 x 72 / 96 x 96	1.1
Analog ammeter	1.1
Digital ammeter	0.3
PM8000	0.15
PM3000	0.3
PM5000	
iEM3000	

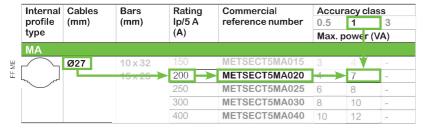
For each temperature variation per 10 °C bracket, the power drawn up by the cables increases by 4 %.

Application example

Project specification: 200 A, in Ø27 mm cable, accuracy class 1.

Our choice is **METSECT5MA020**.

For this CT selected on the chart (next page), the max acceptable power is 7 VA (for "Accuracy class 1" which is specified in the project).



Control of the conformity of the measurement chain:

- PM3000 multi-meter: 0.3 VA
- 4 meters of 2.5 mm², doubled wires: 0.41 x 4 = 1.64 VA.

Total: 0.3 + 1.64 = 1.94 VA (< 7 VA)

Conclusion: this CT is well adapted as the accuracy class will be even better than 1.

A DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPÉ) and follow safe electrical work practices. See NFPA 70E in the USA, CSA Z462 or applicable local standards.
- Turn off all power supplying this device and the quipment in which it is installed before working on the device or equipment.
- · Always use a properly rated voltage sensing device to confirm that all power is off.
- · Treat I/O wiring connected to multiple devices as hazardous live until determined otherwise.
- · Do not exceed the device's ratings for maximum limits.
- Do not use this device for critical control or protection applications where human or equipment safety relies on the operation of the control circuit.
- Disconnect all the device's input and output wires before performing dielectric (hi-pot) or Megger testing.

CT DAMAGE

- · Never open circuit a current transformer (CT)
- · Do not open the CT case
- · Do not attempt to repair any components of the CT.

Failure to follow these instructions will result in death or serious injury.

Version: 1.0 - 14/06/2021 PLSED309005EN_02

Presentation of commercial reference numbers

MET SE CT X XX XXX

1 = 1 Amp 5 = 5 Amp R = Rogowski Last 3 digits = primary rating/10

2 letters = Form Factor

Examples:

METSECT5CC008 = 5 A secondary, Cables only, 75 A primary
METSECT5MC080 = 5 A secondary, mixed for cables and bars, 800 A primary
METSECTR30500 = Rogowski CT, 300 mm length, 96 mm diameter 50 A to 5000 A



METSECT5CC•••



METSECT5MB●●●



METSECT5MA●●●



METSECT5MC•••

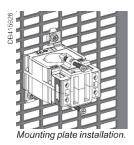
Type C - sol	id core curre	ent transform	er (cable <mark>j</mark>	orofile)
Internal profile type	Cables (mm)	Bars (mm)	Rating Ip/5 A (A)	Commercial ref number
CC				
	Ø21	-	40	METSECT5CC004
			50	METSECT5CC005
			60	METSECT5CC006
			75	METSECT5CC008
			100	METSECT5CC010
			125	METSECT5CC013
			150	METSECT5CC015
			200	METSECT5CC020
			250	METSECT5CC025

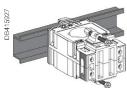
Type M - ci	urrent trans	sformers (mix	ed: cable/	bar profile)
MB	arrorre er arre	3101111010 (1111)		bar promo)
	Ø26	12 x 40	250	METSECT5MB025
		15 x 32	300	METSECT5MB030
			400	METSECT5MB040
MA				
	Ø27	10 x 32	150	METSECT5MA015
		15 x 25	200	METSECT5MA020
			250	METSECT5MA025
			300	METSECT5MA030
			400	METSECT5MA040
MC				
	Ø32	10 x 40	250	METSECT5MC025
۲ ٦		20 x 32	300	METSECT5MC030
<u>L</u>		25 x 25	400	METSECT5MC040
			500	METSECT5MC050
			600	METSECT5MC060
			800	METSECT5MC080
MD				
	Ø40	12 x 50	500	METSECT5MD050
۲ ۲		20 x 40	600	METSECT5MD060
			800	METSECT5MD080

See your Schneider Electric representative for complete ordering information.



METSECT5MD●●●





5 A Secondary current Is (A) Maximum voltage rating Ue (V) 720 V 50/60 Hz Frequency (Hz) 40 to 4000 A: sf ≤ 5 5000 to 6000 A: sf ≤ 10 Safety factor (sf) Degree of protection tropicalised range $-25^{\circ}\text{C to } +60^{\circ}\text{C}^{\text{(1)}}$ relative humidity > 95 %Operating temperature Storage temperature -40°C to +85°C Compliance with standards IEC 61869-2 VDE 0414 by terminals for lug by tunnel terminals Secondary connection (as per model) by screws

(1) Warning: some products are limited to +50°C.

Common characteristics

DIM	rail	mountina.
מווע	rall	moununa.

	Type C - solid core current transformer (cable profile)										
	Internal profile	Accur	acy cla	ss	Overall dimensions	Fastening mode	Accessories				
	type	0.5	1	3	(refer to drawing pages for details)	10	Cylinder	l			
		Max. p	ower (VA)	WxHxD	PB112451	PB112452				
		man power (vi)		,	(mm)	PB					
Ī	cc				Dimension (mm)		Commercial ref no.				
		-	-	1	44 x 66 x 37	Adapter for DIN rails.	16550	Included			
8	()	- 1.25 1.5	1.5		Mounting plate.	METSECT5CYL1					
-		-	1.25	2							
		-	1.5	2.5							
		2	2.5	3.5							
		2.5	3.5	4							
		3	4	5							
		4	5.5	6							
L		5	6	7							
	МВ										
ا 9		3	5	-	60 x 85 x 63	Adapter for DIN rails.Mounting plate.	-	METSECT5COVER			
FF MB		4	6	-							
ŀ		6	8	-							
ļ	MA		4		500000	— Adams for DIM as 2	METOFOTFOVIO	METOFOTEOOVER			
ΑM		3	4	-	56 x 80 x 63	Adapter for DIN rails.Mounting plate.	METSECT5CYL2	METSECT5COVER			
1	ا لر ب	6	7	-		Nounting plate.					
		8	10	-							
	-	10	12	-							
h	MC	10	14								
ı		3	5	_	70 x 95 x 65	■ Adapter for DIN rails.	•	METSECT5COVER			
١	ي ^ر	5	8	-		■ Mounting plate.					
FF MC	, ,	8	10	-							
	'_	10	12	-							
	_	12	15	-							
		10	12	-							
	MD										
		4	6	-	70 x 95 x 65	■ Adapter for DIN rails.	-	METSECT5COVER			
H MD	ا لا ب	6	8	-		Mounting plate.					
쁘		8	12	-							

 $See \ your \ Schneider \ Electric \ representative \ for \ complete \ ordering \ information.$

NOTE: This document is not intended to be used as an installation guide.



Type V - current transformers (vertical bar profile)									
Internal profile type	Cables (mm)	Bars (mm)	Rating Ip/5 A (A)	Commercial reference number					
VV									
	-	55 x 165	5000	METSECT5VV500 ★					
			6000	METSECT5VV600 ★					

METSECT5DA•●●



METSECT5DB●●●







METSECT5DD●●●



METSECT5DE•••



METSECT5DH•●●

Type D - current transformers						
(vertical or horizontal bar - dual secondary terminals)						
DA	ai - duai sec	oridal y te	i i i i i i i i i i i i i i i i i i i			
	32 x 65	400	METSECT5DA040			
	02 X 00	500	METSECT5DA050			
		600	METSECT5DA060			
		800	METSECT5DA080			
		1000	METSECT5DA100			
		1250	METSECT5DA100 METSECT5DA125★			
		1500	METSECT5DA150★			
DB		1900	WETOEOTODATOO A			
	38 x 127	1000	METSECT5DB100			
-	30 X 121	1250	METSECT5DB100			
		1500	METSECT5DB150 ★			
		2000	METSECT5DB200 ★			
		2500 3000	METSECT5DB250 ★ METSECT5DB300 ★			
DC		3000	WE1SEC15DB300 ×			
	52 x 127	2000	METSECT5DC200★			
-	52 X 127					
		2500	METSECT5DC250 ★			
		3000	METSECT5DC300 ★			
		4000	METSECT5DC400 ★			
DD						
-	34 x 84	1000	METSECT5DD100			
		1250	METSECT5DD125★			
		1500	METSECT5DD150 ★			
DE						
-	54 x 102	1000	METSECT5DE100			
		1250	METSECT5DE125★			
		1500	METSECT5DE150 ★			
		2000	METSECT5DE200 ★			
DH						
-	38 x 102	1250	METSECT5DH125 ★			
		1500	METSECT5DH150 ★			
		2000	METSECT5DH200 ★			

[★] Operating temperature: -25 °C to 50 °C

 $See \ your \ Schneider \ Electric \ representative \ for \ complete \ ordering \ information.$

Internal profile type	Accui	racy cla	SS	Overall dimensions	Fastening mode	Accessories	
	0.5	1	3	(refer to drawing pages for details) - W x H x D		Cylinder	Sealable cover
	Max. power (VA)			(mm)			
VV				Dimension (mm)			
	60	-	-	175 x 273.5 x 110	Insulated locking screw.	-	Included
	70	-	-				

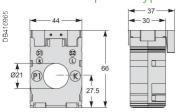
	112011tal	vai -	uuai secuilua	ry terminals)				
			Dimension (mm)					
4	8	-	90 x 94 x 90	Insulated locking screw.		Included		
8	10	-						
8	12	-						
12	2 15	-						
15	20	-						
15		-						
20) 25	-						
6	10	-	99 x 160 x 87	Insulated locking screw.	-	Included		
8	12	-						
10) 15	-						
15	20	-						
20) 25	-						
25	30	-						
	, , , , , , , , , , , , , , , , , , ,		·		·			
25	30	-	125 x 160 x 87	Insulated locking screw.	-	Included		
30	50	-						
30	50	-						
30) 50	-						
	,		·					
10) 15	-	96 x 116 x 87	■ Insulated locking screw.	-	Included		
12	2 15	-						
	5 20	-						
15			·					
15						Included		
15	2 15	-	135 x 129 x 85	Insulated locking screw.	-			
		-	135 x 129 x 85	Insulated locking screw.	-			
12	5 20	_	135 x 129 x 85	■ Insulated locking screw.	-			
12 15	20 25	-	135 x 129 x 85	Insulated locking screw.	-			
12 15 20	20 25	-	135 x 129 x 85	■ Insulated locking screw.				
12 15 20	20 25 25 25	-	135 x 129 x 85	 Insulated locking screw. Insulated locking screw. 	-	Included		
12 15 20 20	20 25 25 25 215					Included		

[★] Operating temperature: -25 °C to 50 °C

See your Schneider Electric representative for complete ordering information.

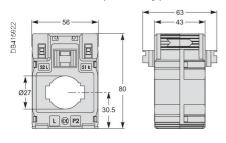
Solid core CT dimensions



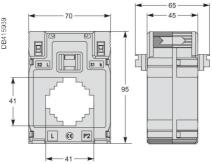


MB internal profile type L @ P2

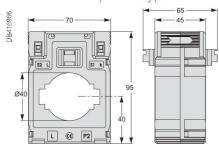
MA internal profile type



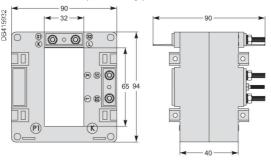
MC internal profile type



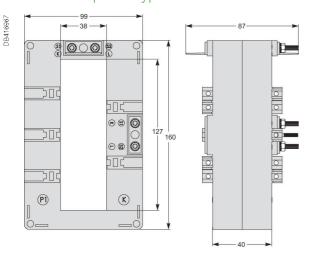
MD internal profile type



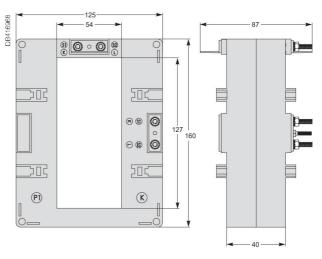
DA internal profile type



DB internal profile type

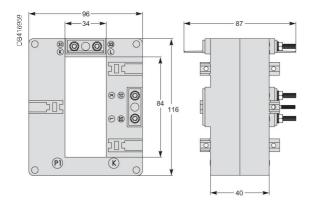


DC internal profile type

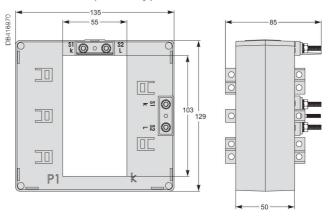


Solid core CT dimensions contd.

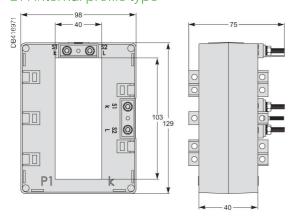
DD internal profile type



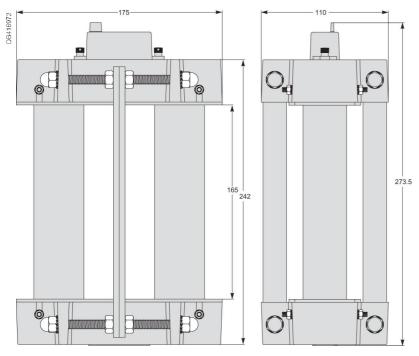
DE internal profile type



DH internal profile type

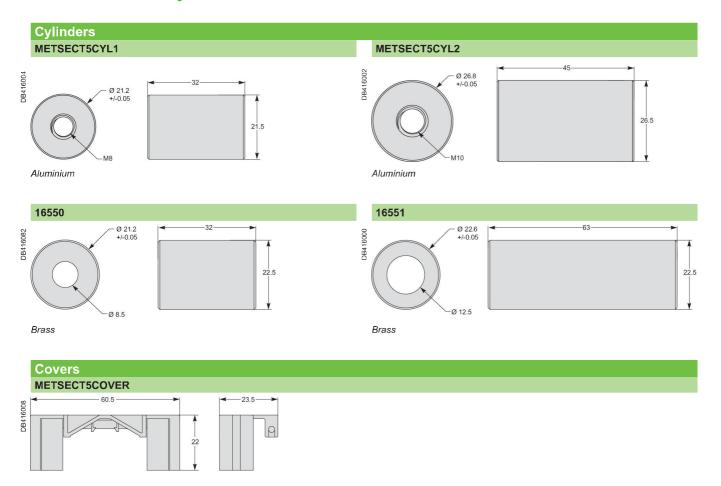


VV internal profile type



NOTE: This document is not intended to be used as an installation guide.

Solid core cylinders dimensions



Split core CTs

A DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Apply appropriate personal protective equipment (PPE) and follow safe electrical work practices. See NFPA 70E in the USA, CSA Z462 or applicable local standards.
- Turn off all power supplying this device and the quipment in which it is installed before working on the device or equipment.
- · Always use a properly rated voltage sensing device to confirm that all power is off.
- · Treat I/O wiring connected to multiple devices as hazardous live until determined otherwise.
- · Do not exceed the device's ratings for maximum limits.
- Do not use this device for critical control or protection applications where human or equipment safety relies on the operation of the control circuit.
- Disconnect all the device's input and output wires before performing dielectric (hi-pot) or Megger testing.

CT DAMAGE

- · Never open circuit a current transformer (CT)
- · Do not open the CT case.
- · Do not attempt to repair any components of the CT.

Failure to follow these instructions will result in death or serious injury.

Common characteristics	Cable CT	Bus Bar CT
Secondary current Is (A)	5 A	5 A
Maximum voltage rating Ue (V)	720 V	720 V
Frequency (Hz)	50/60 Hz	50/60 Hz
Safety factor (sf)	up to 1000 A: sf ≤ 5 greater than 1000 A: sf ≤ 10	up to 1500 A: sf ≤ 5 greater than 1500 A: sf ≤ 10
Degree of protection	IP20	IP20
Operating temperature	-5°C to +50°C relative humidity 5-85 %	-5°C to +40°C relative humidity 5-85 %
Storage temperature	-25°C to +70°C	-25°C to +70°C
Compliance with standards	IEC 61869-1 IEC 61869-2	IEC 61869-1 IEC 61869-2
Secondary connection (as per model)	by terminals for lug by tunnel terminals by screws	by terminals for lug by tunnel terminals by screws

Split core C	Split core CT							
CT internal	Type H	Type G						
	HA HD HG	GA GD GG GJ						
	HM HM							

Split core CTs



METSECT5GA●●●



METSECT5GD•••



METSECT5GG•●●



METSECT5GJ•••

Type G - s	plit co	re cu	rren	t transformers	(bus bar)	
		ıracy o power		CT window dimension (mm)	Rating Ip/5A (A)	Commercial Reference no.
	0.5	1	3			
GA						
	-	-	1.25	23 x 33	100	METSECT5GA010
	-	-	1.5		150	METSECT5GA015
	-	-	2.5		200	METSECT5GA020
	-	1.5	-		250	METSECT5GA025
	-	3.75	-		300	METSECT5GA030
	1	-	-		400	METSECT5GA040
GD						
	-	1.5	-	55 x 85	250	METSECT5GD025
	-	2.5	-		300	METSECT5GD030
	1	-	-	•	400	METSECT5GD040
	2.5	-	-		500	METSECT5GD050
	2.5	-	-		600	METSECT5GD060
	2.5	-	-		750	METSECT5GD075
	2.5	-	-		800	METSECT5GD080
	5	-	-		1000	METSECT5GD100
GG						
	-	1.5	-	85 x 125	250	METSECT5GG025
	-	2.5	-	•	300	METSECT5GG030
	-	2.5	-		400	METSECT5GG040
	2.5		-		500	METSECT5GG050
	2.5	-	-		600	METSECT5GG060
	2.5	-	-		750	METSECT5GG075
	2.5	-	-		800	METSECT5GG080
	5	-	-		1000	METSECT5GG100
	5	-	-		1200	METSECT5GG120
	7.5	-	-		1250	METSECT5GG125
	7.5	-	-		1500	METSECT5GG150
GJ						
	10	-	-	85 x 165	1000	METSECT5GJ100
	10	-	-		1200	METSECT5GJ120
	10	-	-		1500	METSECT5GJ150
	10	-	-		1600	METSECT5GJ160
	10	-	-		2000	METSECT5GJ200
	10	-	-		2500	METSECT5GJ250
	15	-	-		3000	METSECT5GJ300
	15	-	-		4000	METSECT5GJ400

See your Schneider Electric representative for complete ordering information.

Split core CTs contd.



METSECT5HA•●●



METSECT5HD●●●



The same of the sa

METSECT5HJ•••

Accuracy class Max power (VA) dimension (mm) Ip/5A (A) Reference no.
Description
- 1 - 18.4 x 19 150 METSECT5HA0 150 METSECT5HA0 150 METSECT5HA0 150 METSECT5HA0 250 METSECT5HA0 ME
- 1.5 - 150 METSECT5HA0 250 METSECT5HA0 250 METSECT5HA0 HD - 1 - 27.9 x 27 250 METSECT5HD0 - 1.5 - 300 METSECT5HD0 400 METSECT5HD0
1
HD
- 1 - 27.9 x 27 250 METSECT5HD0 - 1.5 - 300 METSECT5HD0 - 2.5 - 400 METSECT5HD0
- 1.5 - 300 METSECT5HD0 - 2.5 - 400 METSECT5HD0
- 2.5 - 400 METSECT5HD0
1 - 500 METSECTEUDO
HG
1.5 Ø32.5 100 METSECT5HG0
2.5 125 METSECT5HG0
3 150 METSECT5HG0
3 200 METSECT5HG0
3 250 METSECT5HG0
- 2.5 - 300 METSECT5HG0
- 5 - 400 METSECT5HG0
- 5 - 500 METSECT5HG0
- 5 - 600 METSECT5HG0
HJ
- 2.5 - 42.4 x 43 300 METSECT5HJ0
- 5 - 400 METSECT5HJ04
- 5 - 500 METSECT5HJ0
2.5 600 METSECT5HJ0
2.5 750 METSECT5HJ0
2.5 800 METSECT5HJ0
HM
- 5 - 400 METSECT5HM0
- 5 - 500 METSECT5HM0
2.5 600 METSECT5HM0
2.5 750 METSECT5HM0
2.5 800 METSECT5HM0
HP
- 1.5 - Ø44 250 METSECT5HP0
- 2.5 - 300 METSECT5HP0
- 5 - 400 METSECT5HP0
- 5 - 500 METSECT5HP0
- 5 - 600 METSECT5HP0
- 5 - 750 METSECT5HP0
- 5 - 800 METSECT5HP0
- 5 - 1000 METSECT5HP1

See your Schneider Electric representative for complete ordering information.



METSECT5HM●●●

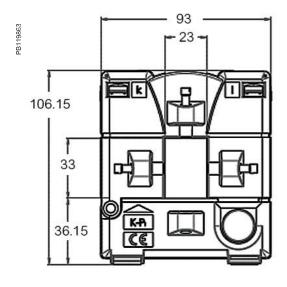


METSECT5HP•••

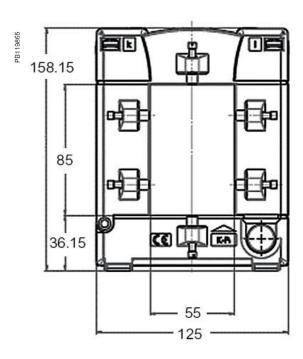
Split core CT dimensions

Gx products

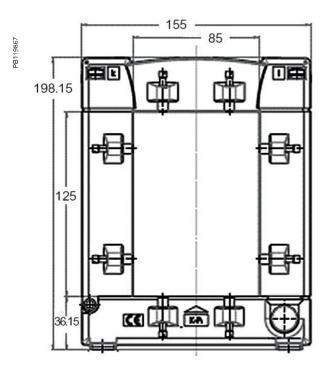
GA Dimensions



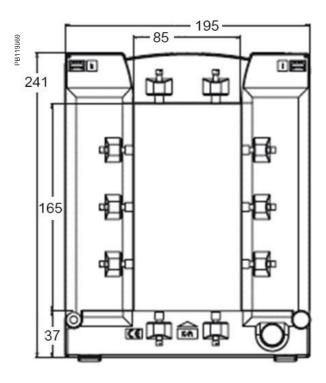
GD Dimensions



GG Dimensions



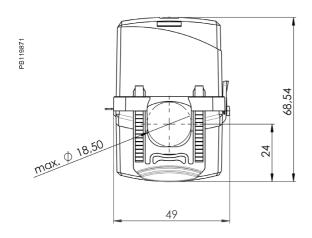
GJ Dimensions



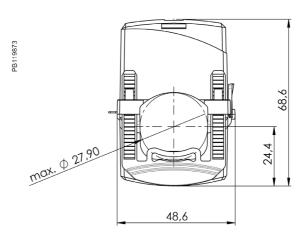
Split core CT dimensions contd.

Hx products

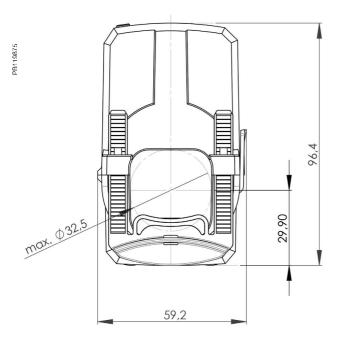
HA Dimensions



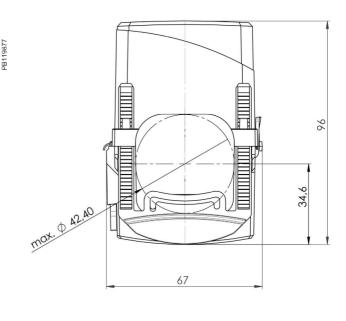
HD Dimensions



HG Dimensions

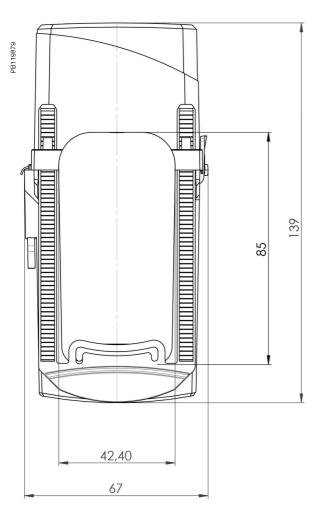


HJ Dimensions

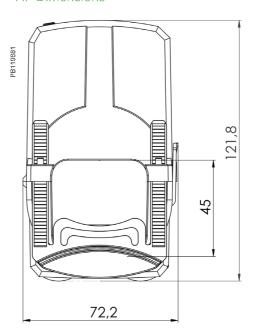


Split core CT dimensions contd.

HM Dimensions



HP Dimensions



Rogowski CTs





PowerLogic Rogowski C	Current Transformer				
Main	METSECTR30500 METSECTR46500 METSECTR60500 METSECTR90500				
Range	PowerLogic				
Product or component type	Current transducer				
Accessory / part category	Measurement accessory				
Range compatibility	PowerLogic EM3500 - EM3555A EM3502A EM3560 EM3550A EM3560 EM3561A PowerLogic EM4200 - EM4236 EM4235 Acti9 iEM3000 - iEM3555 iEM3565				
Current transformer type		Flexib	le core		
Complementary					
Electrical connection	Fly	ng lead 2.4 m 600 V AC max	κ, voltage L-N sensed conduc	tor	
Cable		1000 V AC UL style 21223	3 cable with 22 AWG leads		
Current range	50 A to 5000 A				
Network frequency	50/60 Hz				
Measurement accuracy	±1 % from 50 A to 5000 A				
Installation category	600 V AC Cat IV				
Pollution degree	2				
Dimensions	METSECTR30500	METSECTR46500	METSECTR60500	METSECTR90500	
CT core thickness	8 mm diameter	8 mm diameter	8 mm diameter	8 mm diameter	
CT core length (open)	300 mm	460 mm	600 mm	900 mm	
Diameter (closed)	96 mm 146 mm 191 mm 287 mm				
Environment					
Standards	EN 61010-1, UL 61010-1, EN 61010-2-032, UL 61010-2-032				
Product certifications	CURus UL recognized				
Ambient air temperature for operation	-15 °C to 60 °C				
Ambient air temperature for storage	-40 °C to 70 °C				
Humidity range	0 to 95 % non-condensing				
Altitude	2000 m max				
Protection degree	IP67				
Commercial Reference Numbers					
METSECTR25500	Powerlogic - Rogowski curre	Powerlogic - Rogowski current transformer, 250 mm CT core length, 80 mm dia. CT, rope, 600 V AC, 5 kA			
METSECTR30500	Powerlogic - Rogowski current transformer, 300 mm CT core length, 96 mm dia. CT, rope, 600 V AC, 5 kA				
METSECTR46500	Powerlogic - Rogowski current transformer, 460 mm CT core length, 146 mm dia. CT, rope, 600 V AC, 5 kA				
METSECTR60500	Powerlogic - Rogowski current transformer, 600 mm CT core length, 191 mm dia. CT, rope, 600 V AC, 5 kA				
METSECTR90500	Powerlogic - Rogowski current transformer, 900 mm CT core length, 287 mm dia. CT, rope, 600 V AC, 5 kA				

Version: 1.0 - 14/06/2021 PLSED309005EN_02

Panel instruments

Schneider Electric panel instruments reliably comply with the most stringent standards, including IEC, MID, UL, etc., and we thoroughly test all products with recognized, third-party laboratories.

Our products are simple to install, configure, and use. This saves our partners time and money and lets them deliver the best solutions in a timely and cost-effective manner. Whatever the size or type of application, the PowerLogic™ product line is an integral part of smart panels.















15202





16029







iVLT.

Function

iAMP

Ammeters measure the current flowing through an electric circuit in amps.

iVI T

Voltmeters measure the potential (voltage) difference of an electric circuit in volts.

Common technical data

- Accuracy: Class 1.5
- Complies with standards IEC 60051-1, IEC 61010-1 and IEC 61000-4
- · Ferromagnetic device
- Pseudo-linear scale over 90°
- Ammeters (except catalog number 16029):
 - connection on CT, ratio In/5, to be ordered separately interchangeable dials
- Temperature:
 - operating temperature: -25 °C to 55 °C
 - reference temperature: 23 °C
- Influence of temperature on accuracy: ±0.03 %/°C
- Utilisation frequency: 50 Hz to 60 Hz
- Consumption:
 - AMP: 1,1 VA
- VLT catalog number 15060: 2.5 VAVLT catalog number 16061: 3.5 VA
- Permanent overload:
 - AMP: 1,2 In
- VLT: 1.2 Un
- Maximum overload for 5 s:
 - AMP: 10 InVLT: 2 Un
- Connection: tunnel terminals for 1.5 to 6 mm² rigid cables

Commercial reference numbers

Туре	Scale	Connection with CT	Width in mod. of 9 mm	Comm. ref.
iAMP with direct connection				
	0-30 A	no	8	16029
iAMP with connection on CT				
Basic device (delivered without dial)		X/5	8	16030
Dial	0-5 A			
	0-50 A	50/5		16032
	0-75 A	75/5		16033
	0-100 A	100/5		16034
	0-150 A	150/5		16035
	0-200 A	200/5		16036
	0-250 A	250/5		16037
	0-300 A	300/5		16038
	0-400 A	400/5		16039
	0-500 A	500/5		16040
	0-600 A	600/5		16041
	0-800 A	800/5		16042
	0-1000 A	1000/5		16043
	0-1500 A	1500/5		16044
	0-2000 A	2000/5		16045
iVLT				
	0-300 V		8	16060
	0-500 V		8	16061

See your Schneider Electric representative for complete ordering information.





15202



PB112023





iVLT.





15208

Function

iAMP

Ammeters measure in amps the current flowing through an electric circuit,

iVLT

Voltmeters measure in volts the potential (voltage) difference of an electric circuit.

iFRF

Frequency meters measure in hertz the frequency of an electric circuit from 20 to $600\ \text{V}\ \text{AC}.$

Common technical data

- Supply voltage: 230 V AC
- Operating frequency: 50 Hz to 60 Hz
- Display by red LED: 3 digits, h = 8 mm (0.31 in)
- Accuracy at full-scale: 0.5 % ±1 digit.
- Consumption: max. 5 VA or rated 2.5 VA
- Degree of protection:
 - IP40 on front face
 - IP20 at terminal level
- Connection: tunnel terminals for 2.5 mm² cables

Specific data

10 A direct reading ammeter

- Minimum value measured: 4 % of rating
- Measurement input consumption: 1 VA

Multi-rating ammeter

- Ratings:
 - in direct reading: 5 A
- by CT (not supplied) configurable on the front face of the ammeter: 10, 15, 20, 25, 40, 50, 60, 100, 150, 200, 250, 400, 500, 600, 800, 1000, 1500, 2000, 2500, 4000, 5000 A
- Minimum value measured: 4 % of rating
- Measurement input consumption: 0.55 VA

Voltmeter

- Direct measurement: 0...600 V AC
- Input impedance: 2 MW
- Minimum value measured: 4 % of rating

Frequency meter

Minimum value measured: 20 HzMaximum value measured: 100 Hz

• Full-scale display: 99.9 Hz

Compliance with standards

Safety: IEC/EN 61010-1

• EMC electromagnetic compatibility: IEC/EN 65081-1 and IEC/EN 65082-2

Commercial reference numbers

Туре	Scale	Connection	Width in mod.	Comm. ref.
		with CT	of 9 mm	no.
Direct reading iAMP				
	0-10 A	No	4	15202
Multi-rating iAMP				
	0-5000 A	As per rating	4	15209
iVLT				
	0-600 V		4	15201
iFRE				
	20-100 Hz		4	15208

 $See \ your \ Schneider \ Electric \ representative \ for \ complete \ ordering \ information.$





16009

AMP for standard feeder





AMP for motor feeder



16005

Function

The 72 x 72 measurement devices are designed for flush-mounted installation on doors, wicket doors and front plates of enclosures and cubicles.

The ammeters measure in amps the current flowing through an electrical circuit.

The voltmeter measure in volts the potential difference (voltage) of an electrical circuit.

Common technical data

- Accuracy: Class 1.5
- Compliance with standard IEC 60051-1, IEC 61010-1 and IEC 61000-4
- Ferromagnetic device
- Scale length: 62 mm over 90°
- Mounting in enclosure or in cubicle
- Degree of protection: IP52
- Maximum operating position: 30° / vertical
- Temperature:
- operation: -25 °C to 50 °C
- reference: 23 °C
- Influence of temperature on accuracy: ±0,003 %/°C
- Utilisation frequency: 50 Hz to 60 Hz

AMP specific technical data

- Needs a In/5 CT to be ordered separately
- Interchangeable dials to be ordered separately
- Consumption: 1.1 VA
- Permanent overload: 1.2 In
- Maximum overload for 5 s: 10 In

VLT specific technical data

- Consumption: 3 VA
- Permanent overload: 1.2 Un
- Maximum overload for 5 s: 2 Un

Commercial reference numbers

Туре	Scale	Connection on CT	Comm. ref. no.
AMP for standard feeder			
Basic device (delivered without dial)		X/5	16004
1.3 In dial	0-50 A	50/5	16009
	0-100 A	100/5	16010
	0-200 A	200/5	16011
	0-400 A	400/5	16012
	0-600 A	600/5	16013
	0-1000 A	1000/5	16014
	0-1250 A	1250/5	16015
	0-1500 A	1500/5	16016
	0-2000 A	2000/5	16019
AMP for motor feeder			
Basic device (delivered without dial)		X/5	16003
3 In dial	0-30-90 A	30/5	16006
	0-75-225 A	75/5	16007
	0-200-600 A	200/5	16008
VLT			
	0-500 V		16005

See your Schneider Electric representative for complete ordering information.



AMP for standard feeder



16079



AMP for motor feeder



16076



16075

d00

The 96×96 measurement devices are designed for flush-mounted installation on doors, wicket doors and front plates of enclosures and cubicles.

AMP

Function

The ammeters measure in amps the current flowing through an electrical circuit.

The voltmeter measure in volts the potential difference (voltage) of an electrical circuit.

Common technical data

- Accuracy: class 1.5
- Compliance with standard IEC 60051-1, IEC 61010-1 and IEC 61000-4
- Ferromagnetic device
- Scale length: 80 mm over 90°
- · Mounting in enclosure or in cubicle
- Degree of protection: IP52
- Maximum operating position: 30° / vertical
- Temperature:
 - operation: -25 °C to 50 °C
 - reference: 23 °C
- Influence of temperature on accuracy: ±0,003 % / °C
- Utilisation frequency: 50 Hz to 60 Hz

AMP specific technical data

- Needs a In/5 CT to be ordered separately
- Interchangeable dials to be ordered separately
- Consumption: 1.1 VA
- Permanent overload: 1.2 In
- Maximum overload for 5S: 10 In

VLT specific technical data

- Consumption: 3 VA
- Permanent overload: 1.2 Un
- Maximum overload for 5S: 2 Un

Commercial reference numbers

Туре	Scale	Connection on CT	Comm. ref. no.
AMP for standard feeder			110.
Basic device (delivered without dial)		X/5	16074
1.3 In dial	0-50 A	50/5	16079
T.O IT GIGI	0-100 A	100/5	16080
	0-200 A	200/5	16081
	0-400 A	400/5	16082
	0-600 A	600/5	16083
	0-1000 A	1000/5	16084
	0-1250 A	1250/5	16085
	0-1500 A	1500/5	16086
	0-2000 A	2000/5	16087
	0-2500 A	2500/5	16088
	0-3000 A	3000/5	16089
	0-4000 A	4000/5	16090
	0-5000 A	5000/5	16091
	0-6000 A	6000/5	16092
AMP for motor feeder			
Basic device (delivered without dial)		X/5	16073
3 In dial	0-30-90 A	30/5	16076
	0-75-225 A	75/5	16077
	0-200-600 A	200/5	16078
VLT			
	0-500 V		16075

See your Schneider Electric representative for complete ordering information.

Function

The 48 x 48 selector switches are designed for flush-mounted installation on doors, wicket doors and front plates of enclosures and cubicles.

СМА

The ammeter selector switch uses a single ammeter (by means of current transformers) for successive measurement of the currents of a three-phase circuit.

CMV

The voltmeter selector switch uses a single voltmeter for successive measurement of the voltages (phase-to-phase and phase-to-neutral) of a three-phase circuit.

Common technical data

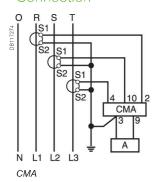
- Durability:
 - electrical: 100,000 operations
- mechanical: 2,000,000 operations
- AgNi contact
- Operating temperature: -25 °C to 50 °C
- Compliance with standards IEC/EN 60947-3
- Degree of protection:
 - IP65 on front face
 - IP20 at terminal level

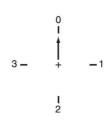
Commercial reference numbers

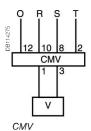
Туре	Rating (A)	Voltage (V)	Number of positions	Comm. ref. no.
CMA	20		4	16017
CMV		500	7	16018

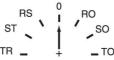
See your Schneider Electric representative for complete ordering information.

Connection









Reading 3 phase-to-earth voltages + 3 phase-to-phase voltages.

Note: when connecting do not remove the pre-cabling.





15126

iCMA





15125

iCMV

Function

iCMA

This 4-position ammeter selector switch uses a single ammeter (using current transformers) for successive measurement of the currents of a three-phase circuit.

iCMV

This 7-position voltmeter selector switch uses a single voltmeter for successive measurement of voltages (phase-to-phase and phase-to-neutral) of a three-phase circuit,

Common technical data

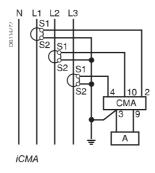
- Rotary handle
- Maximum operating voltage: 440 V, 50/60 Hz
- Nominal thermal current: 10 A
- Operating temperature: -20 °C to 55 °C
- Storage temperature: -25°C to 80°C
- Mechanical durability (AC21A-3 x 440 V): 2,000,000 operations
- Degree of protection:
 - IP66 on front face
- IP20 at terminal level
- Electrical durability: 1,000,000 operations
- Connection: jumper terminals with captive screws, for cables up to 1.5 mm²
- Complies with standards: IEC/EN 60947-3

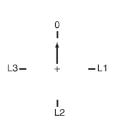
Commercial reference numbers

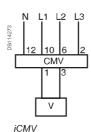
Туре	Rating (A)		Width in mod. of 9 mm	Comm. ref. no.
iCMA	10	415	4	15126
iCMV	10	415	4	15125

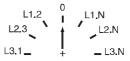
See your Schneider Electric representative for complete ordering information.

Connection













15440

iCH "DIN"





CH "48 x 48"

Function

Electromechanical counter that counts the operating hours of a machine or piece of electrical equipment. Giving a precise indication of operating time, the counter is used to decide when to carry out preventive maintenance.

Common technical data

- Electromechanical display.
- Maximum display: 99999.99 hours.
- Display accuracy: 0.01 %.
- · Without reset.
- Storage temperature: -25 °C to 85 °C.
- · Connection: tunnel terminals for 2.5 mm2 cable.

Specific technical data

iCH "DIN"

- Consumption: 0.15 VA.
- Operating temperature: -10 °C to 70 °C.
- · Mounting on DIN rail.

CH "48 x 48"

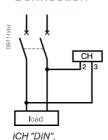
- Consumption:
 - 15607: 0.25 VA
 - 15608: 0.15 VA
- 15609: 0.02 VA to 12 V and 0.3 VA to 36 V.
- Operating temperature: -20 °C to 70 °C.
- Degree of protection: IP65 on front face.
- Mounting on front face of monitoring switchboards.

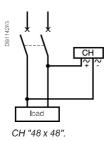
Commercial reference numbers

Туре	Voltage (V)	Width in mod. of 9 mm	Comm. ref. no.
iCH "DIN"	230 V AC ± 10 %/50 Hz	4	15440
CH "48 x 48"	24 V AC ± 10 %/50 Hz		15607
	230 V AC ± 10 %/50 Hz		15608
	12 to 36 V DC		15609

 $See \ your \ Schneider \ Electric \ representative \ for \ complete \ ordering \ information.$

Connection









15443

iCl impulse counter

Function

Electromechanical counter designed to count impulses emitted by: kilowatt-hour meters, temperature overrun detectors, people meters, speed meters, etc.

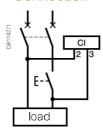
Common technical data

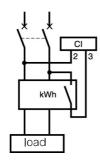
- Supply and metering voltage: 230 V AC ± 10 %, 50/60 Hz
- Consumption: 0.15 VA
- Maximum display: 9 999 999 impulses
- Without reset
- Metering data:
 - minimum impulse time: 50 ms
 - minimum time between 2 impulses: 50 ms
- Storage temperature: -25 °C to 85 °C
- Operating temperature: -10 °C to 70 °C
- Connection: tunnel terminals for 2.5 mm² cable

Commecial reference numbers

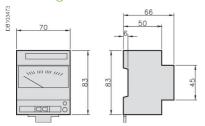
Туре	Width in mod. of 9 mm	Comm. ref. no.
iCl	4	15443

Connection

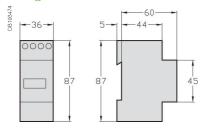




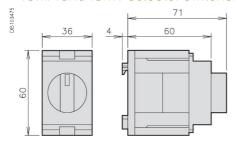
Analog ammeters and voltmeters iAMP, iVLT



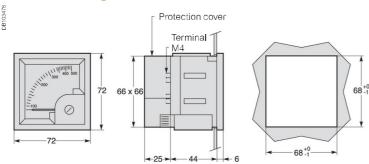
Digital ammeters, voltmeter and frequency meter iAMP, iVLT



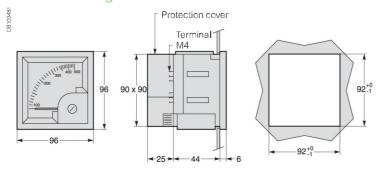
iCMA and iCMV selector switches



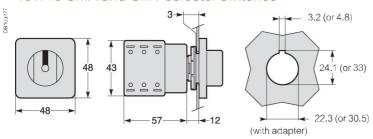
72 x 72 analog ammeters and voltmeter



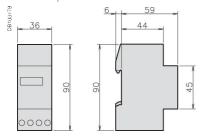
96 x 96 analog ammeters and voltmeter



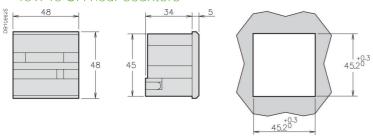
48 x 48 CMA and CMV selector switches



iCI impulse counter and iCH hour counter



48 x 48 CH hour counters



Basic energy metering

Basic energy meters comply with a variety of applications: single-phase or three-phase circuits, basic kWh meters for elementary applications, to full-featured, dual tariff energy meters and power metering for network monitoring applications. Data is visible locally or accessible remotely. Wireless communication energy sensors with compact design allow to optimize panel size.

- PowerLogic iEM2000 series
- PowerLogic iEM2100 series
- PowerLogic iEM3000 series
- PowerLogic PM3000 series
- PowerLogic PowerTag Energy series





















A9MEM2000

A9MEM2100

A9MEM1521

Acti9 iEM2000 Series

The Acti9 iEM2000 series energy meters offer a cost-attractive, competitive range of single-phase DIN rail-mounted energy meters ideal for sub-billing and cost allocation applications.

Applications

- Monitor power consumption for each floor, office sector, or unit
- · Allocate energy cost to lower cost of operations, optimise your building's power efficiency
- Connect to power management software to take full advantage of the IoT digital power installation

PB1052







The solution for:

All markets that can benefit from a solution that includes PowerLogic iEM2000 series meters:

- Buildings
- Industry
- Data Centre & networks
- Infrastructures (airport, road tunnels, telecom).

Benefits

The Acti9 iEM2000 series meters are economical and easy to install in panelboards and switchboards:

- DIN rail mounted, compact size
- Accurate data measurement with Class 1 accuracy

Advantages

- Active energy Class 1 accuracy, with LCD display
- Modbus RS-485 and pulse output
- Direct connect, self-powered
- MID approved
- Two tariffs

Energy management system:

To get the most effective use from your Schneider Electric measurement and metering devices, we offer a range of dedicated data loggers and gateways for your building energy management.

Conformity of standards

- IEC 62053-21
- EN 50470-3

iEM2000 feature selection

	iEM2000T	iEM2000	iEM2010	iEM2050	iEM2055
Self-powered	-	•	•	-	•
Display		•	•	(6 digit LCD)	(6 digit LCD)
Width (mm)	18	18	18	17.5	17.5
Current input	40 A	40 A	40 A	45 A	45 A
Multi-tariff				2 tariffs	2 tariffs
Communication				Modbus	Modbus
Active Energy accuracy	Class 1 IEC 62053-21	Class 1 IEC 62053-21 Class B EN 50470-3	Class 1 IEC 62053-21 Class B EN 50470-3	Class 1 IEC 62053-21	Class 1 IEC 62053-21 Class B EN 50470-3
Digital outputs	1 P/O		1 P/O	1 P/O	1 P/O
MID for billing application		•	•		-
Commercial reference number	A9MEM2000T	A9MEM2000	A9MEM2010	A9MEM2050	A9MEM2055

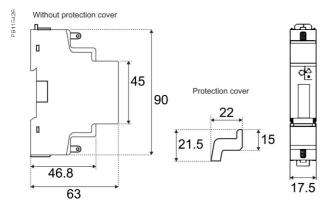
See your Schneider Electric representative for complete ordering information.

iEM2000 series technical specifications

Technical specifications

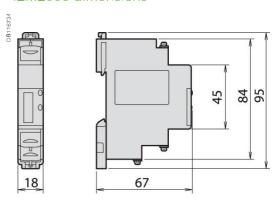
	iEM2000T	iEM2000	iEM2010	iEM2050	iEM2055	
COMM reference number	A9MEM2000T	A9MEM2000	A9MEM2010	A9MEM2050	A9MEM2055	
Direct connection	Up to 40 A	Up to 40 A	Up to 40 A	Up to 45 A	Up to 45 A	
Pulse output operation	10	0 pulses/kwh (120ms lo	ng)		100, 10, 1, 0.1, 0.01 s/kWh	
Display capacity		999999.9 kWh			99 kWh 9 when over this value)	
Voltage range (L-N)		184 to 276 V AC		195 to 2	253 V AC	
Operating frequency		50/60 Hz		50	Hz	
Meter constant LED		3200 flashes per KWh	10000 flash	nes per KWh		
Wiring capacity (Power)		4 mm²	2.5 mm ²			
Wiring capacity (Communications)		10 mm²	8-10 mm ²			
Consumption			<10 VA			
IP protection	IP40) front panel and IP20 ca	asing	IP51 front panel		
Temperature		-10°C to 55°C		-25°C to 55°C		
Active energy	•	•	•	-		
Reactive energy				-		
Active power				-		
Reactive power					-	
Power Factor				-	-	
Current and voltage				•	-	
Frequency				-	-	

iEM2050/iEM2055 dimensions



Maximum diameter power connection clamps 8 $\rm mm^2$ (solid copper). See the appropriate product Installation Guide for complete instructions.

iEM2000 dimensions



Maximum diameter power connection clamps 8 mm² (solid copper). See the appropriate product Installation Guide for complete instructions.

Acti9 iEM2100 Series

The Acti9 iEM2100 series energy meters are ideal for basic kWh metering and billing applications and support two protocols (Modbus and M-bus) that allow them to integrate seamlessly into your customers' existing networks.

Applications

- Monitor the power consumption of each sector, unit, workshop...
- Manage an electrical installation and optimise your building's power efficiency
- Various business, industrial and residential applications





PB11805

The solution for

All markets that can benefit from a solution that includes PowerLogic iEM2100 series meters:

- Buildings
- Industry
- Data Centre & networks
- Infrastructures (airport, road tunnels, telecom).

Benefits

The Acti9 iME kilowatt-hour meters are specially economic and easy to install in all switchboards.

Competitive advantages

- Compact size
- MID compliant (selected models) providing certified accuracy and data security
- Four quadrant measurement
- Electrical parameter measurement eg. V, I, P, PF
- Onboard Modbus or M-bus communication
- A complete range of energy meters
- Compatible with Acti9 range

Energy management system:

To get the most effective use from your Schneider Electric measurement and metering devices, we offer a range of dedicated data loggers and gateways for your building energy management.

Conformity of standards

- IEC 62052-11
- IEC 62053-21
- IEC 62053-23
- EN 50470-1
- EN 50470-3

iEM2100 feature selection

	iEM2100	iEM2105	iEM2110	iEM2135	IEM2150	iEM2155
Self-powered	-	-	-	•	-	-
Display	•	-	-	•		-
Width (mm)	36	36	36	36	36	36
Current input	63 A	63 A	63 A	63 A	63 A	63 A
Active Energy accuracy	Class 1	Class 1	Class 1	Class 1	Class 1	Class 1
Reactive Energy accuracy	Class 2	Class 2	Class 2	Class 2	Class 2	Class 2
Four quadrant Energy measurement			-	•	-	•
Multi-tariff			2	2		2
Digital inputs			1 (tariff switching)	1 (tariff switching)		1 (tariff switching)
Digital outputs		1 P/O	2 P/O's			
Communication protocol				M-bus	Modbus RS-485	Modbus RS-485
MID for billing application			•	•		
Commercial reference number	A9MEM2100	A9MEM2105	A9MEM2110	A9MEM2135	A9MEM2150	A9MEM2155

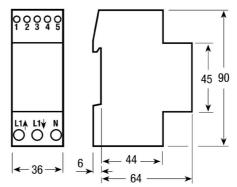
Acti9 iEM2100 series technical specifications

Technical spec	ifications							
	iEM2100	iEM2105	iEM2110	iEM2135	IEM2150	iEM2155		
Direct connection	63 A	63 A	63 A	63 A	63 A	63 A		
Pulse output operation		1 pulse/kwh (200ms long)	1 to 1000 pulses / kwh or kvarh (30 to 100ms long)					
Display capacity	99999 KWh c	or 999.99 MWh		999999	.99KWh			
Voltage range (L-N)	184 to 2	276 V AC		92 to 27	76 V AC			
Operating frequency			50/6	0 Hz				
Meter constant LED			1000 flashe	es per KWh				
Wiring capacity (Top)	6 r	nm²	4 mm²					
Wiring capacity (Bottom)	32 mm2 (16 mm2 iEM2100/iEM2105)							
Consumption	2.5	5 VA	3 VA					
IP protection			IP40 front panel	and IP20 casing				
Temperature			-25°C t	o 55°C				
Active energy	•		•		•			
Reactive energy			•	•	•			
Active power			•		•			
Reactive power			-		-	-		
Power Factor			-		-	-		
Current and voltage			•		-	-		
Frequency			-		-	-		

iEM2100/iEM2105 dimensions

5 60 44 44 44 44

iEM2110/iEM2135/iEM2150/iEM2155 dimensions



See the appropriate product Installation Guide for complete instructions.

Version: 1.0 - 02/07/2021 PLSED309005EN_04

iEM2000 and iEM2100 series commercial reference numbers

Comm. reference number	Product
A9MEM2000T	iEM2000T basic energy meter, no display
A9MEM2000	iEM2000 basic energy meter
A9MEM2010	iEM2010 energy meter, kWh pulse output
A9MEM2100	iEM2100 basic energy meter
A9MEM2050	iEM2050 modular single phase power meter 230 V - 45 A with Modbus
A9MEM2055	iEM2055 modular single phase power meter 230 V - 45 A with Modbus, MID
A9MEM2105	iEM2105 energy meter, kWh pulse output with partial meter
A9MEM2110	iEM2110 energy meter, kWh and kvarh pulse outputs with two tariffs, four quadrant energy measurement, MID certified
A9MEM2135	iEM2135 energy meter, M-Bus communication, four quadrant energy measurement, two tariffs, MID certified
A9MEM2150	iEM2150 energy meter, Modbus communication, four quadrant energy measurement
A9MEM2155	iEM2155 energy meter, Modbus communication, four quadrant energy measurement, two tariffs, MID certified

See your Schneider Electric representative for complete ordering information.

Acti9 iEM3000 Series

The Acti9 iEM3000 series energy meters is a cost-attractive, feature-rich energy metering offer for DIN rail, modular enclosures. With Modbus, BACnet, M-bus and LON protocol support, you can easily integrate these meters into commercial and non-critical buildings to add simple energy management applications to any BMS, AMR or EMS system.

Applications

Cost management applications

- · Bill checking to verify that you are only charged for the energy you use
- · Sub-billing individual tenants for their energy consumption, including WAGES
- Aggregation of energy consumption, including WAGES, and allocating costs per area, per usage, per shift, or per time within the same facility

Network management applications

· Basic metering of electrical parameters to better understand the behaviour of your electrical distribution system







More than just kWh meters, the Acti9 iEM3000 series meters provide a full view of both energy consumption and on-site generation with full four-quadrant measurement of active and reactive energy delivered and received. Additionally, extensive real-time measurements (V, I, P, PF) give customers greater detail on their energy usage, and multiple tariffs give customers the flexibility to match the billing structure of their utility.

The solution for

All markets that can benefit from a solution that includes PowerLogic iEM3000 series meters:

- Buildings & industry
- Data centres and networks
- Infrastructure (airports, road tunnels, telecom)

Benefits

Optimise your energy consumption & enable energy efficiency practices

- Collect and analyse energy consumption data from each area for each type of load or circuit
- Gain an accurate understanding of business expenses by allocating the energy-related costs
- Use information to implement actions designed to reduce energy consumption

Monitor the energy consumption of your tenants or customers and establish accurate invoices

- Drive energy-efficient behaviour
- Allow building owners to bill tenants for individual measured utility usage
- Give accurate and achievable objectives for energy savings

Competitive advantages

- Compact size
- MID compliant (selected models) providing certified accuracy and data security
- Programmable digital inputs/ouputs
- Multi-tariff capability
- Onboard Modbus, LON, M-bus or BACnet communication
- A complete range of energy meters
- Compatible with Acti9 range

Energy management system:

To get the most effective use from your Schneider Electric measurement and metering devices, we offer a range of dedicated data loggers and gateways for your building energy management.

Conformity of standards

- IEC 61557-12
- EN 50470-3
- IEC 62053-21/22
- EN 50470-1 IEC 61036
- IEC 62053-23
- IEC 61010

Acti9 iEM3000 Series

		iEM3100 iEM3200 iEM3300	iEM3110 iEM3210 iEM3310	iEM3115 iEM3215	iEM3150 iEM3250 iEM3350	iEM3135 iEM3235 iEM3335	iEM3155 iEM3255 iEM3355	iEM3165 iEM3265 iEM3365	iEM3175 iEM3275 iEM3375
Self-po	owered	-	-	-	-	-	•	-	-
Width (18m	nm module)	5/5/7	5/5/7	5/5	5/5/7	5/5/7	5/5/7	5/5/7	5/5/7
Direct measu	rement (up to)	63 A/-/125 A	63 A / -/125 A	63 A/-	63 A/-/125 A	63 A/-/125 A	63 A/-/125 A	63 A/-/125 A	63 A/-/125 /
	put through CTs 5A)	-/ 🔳 / -	-/■/-	- / 🔳	-/■/-	-/ 🔳 / -	-/ 🔳 / -	-/ 🔳 / -	-/ 🔳 / -
Measurement in	put through VTs				-/ -/ -	-/ 🔳 / -	-/ 🔳 / -	-/ -/ -	-/ 🔳 / -
Active Energy me	asurements class	1/0.5S/1	1/0.5S/1	1/0.5S	1/0.5S/1	1/0.5S/1	1/0.5S/1	1/0.5S/1	1/0.5S/1
Four Quadrant En	ergy measurement					•		-	•
Electrical parame (I, V,	ter measurements P,)				-	-	-	-	
Multi-tariff (ir	nternal clock)			4		4	4	4	4
Multi-tariff (ex	ternal control)			4		2	2	2	2
Measurement dis	splay (no. of line)	3	3	3	3	3	3	3	3
Digital inputs	Programmable (Tariff control or WAGES input)					1	1	1	1
	Tariff control only			2					
Digital outputs	Programmable (Kwh pulse or KW overload alarm)					1	1	1	
	Kwh pulse only		1						
	M-bus					•			
Communication	Modbus				-		-		
protocols	BACnet							•	
	Lon								
MID (legal metro	logy certification)		•	•		•	•	•	
		A9MEM3100	A9MEM3110	A9MEM3115	A9MEM3150	A9MEM3135	A9MEM3155	A9MEM3165	A9MEM3178
		7.011121110100							

See your Schneider Electric representative for complete ordering information.

A9MEM3300

A9MEM3310

How to read table: If a cell contains a single value, that value applies to all meter models identified in the header cell(s). For cells with multiple values, the values correspond from left to right with the meter models listed from top to bottom for each associated header cell. For example, a cell with "A / B / C" means A for iEM31xx models, B for iEM32xx models, and C for iEM33xx models

A9MEM3350

A9MEM3335 A9MEM3355 A9MEM3365

A9MEM3375

53

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Acti9 iEM3000 Series

EM3400/iEM3500 tec	chnical specification	S				
	iEM3455 iEM3465 iEM33555 iEM3					
Max current	0.333V-1.0V LVCTs	0.333V-1.0V LVCTs	Rogowski coils	Rogowski coils		
Meter constant LED		5000,	/kWh			
Pulse output frequency		Up to 50	00p/kWh			
Multi-tariff		4 ta	riffs			
Communication	Modbus	BACnet	Modbus	BACnet		
DI/DO		1/	/1			
Network		1P+N, 3 support LVCTs, Rogo				
Wiring capacity		6 mm² for currents an	nd 4 mm² for voltages			
Display max		LCD 9999999.9kWh	or 99999999.9MWh			
Voltage (L-L)		3 x 100/173 V AC to 3 x 2	277/480 V AC (50/60 Hz)			
IP protection		IP40 front panel	and IP20 casing			
Temperature		-25°C to 7	0°C (K55)			
Product size		5 steps o	of 18 mm			
Overvoltage & measurement		Category III, Deg	ree of pollution 2			
kWh		•	•			
kVARh		•	•			
Active power			•			
Reactive power		•	•			
Currents & voltages		•	•			
Overload alarm		•	•			
Hour counter			1			

See your Schneider Electric representative for complete ordering information.

Version: 1.0 - 02/07/2021 PLSED309005EN_04

Acti9 iEM3100/iEM3300 series technical specifications

Technical specificatio	ns							
	iEM3100 iEM3300	iEM3110 iEM3310	iEM3115	iEM3150 iEM3350	iEM3135 iEM3335	iEM3155 iEM3355	iEM3165 iEM3365	iEM3175 iEM3375
Max current (direct connection)			63 A for iEN	M3100 models,	125 A for iEM33	300 models	1	1
Meter constant LED				500	/kWh			
Pulse output		Up to 1000 p/kWh			Up to 1000 p/kWh		o to p/kWh	
Multi-tariff			4 tariffs		4 tariffs		4 tariffs	
Communication				Modbus	Modbus	Modbus	BACnet	LON
DI/DO		0/1	2/0		1/1	1/1	1/1	1/0
MID (EN50470-3)		-			•	-	-	
Network				1P+N, (3P, 3P+N			
Accuracy class	Class 1 (IEC 62053-21 and IEC 61557-12) Class B (EN 50470-3)							
Wiring capacity	16 mm² for iEM3100 models, 50 mm² for iEM3300 models							
Display max.				LCD 9999	9999.9kWh			
Voltage (L-L)			3 × 100/1	73 V AC to 3 x	277/480 V AC (50/60 Hz)		
IP protection			II	P40 front panel	I and IP20 casin	g		
Temperature				-25°C to	55°C (K55)			
Product size		5	× 18 mm for iE	M3100 models	, 7 x 18 mm for	EM3300 mode	ls	
Overvoltage and measurement			С	ategory III, Deg	gree of pollution	2		
kWh		-		-	-		-	-
kVARh					-	-	-	-
Active power				-	-	-	-	-
Reactive power					-	-	-	
Currents and voltages				-	-	-	-	
Overload alarm					-		-	
Hour counter					-		•	-

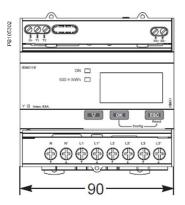
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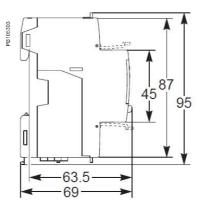
Acti9 IEM3200 series technical specifications

	iEM3200	iEM3210	iEM3215	iEM3250	iEM3235	iEM3255	iEM3265	iEM327
Max current (1A/5A CT connected)				6	А			
Meter constant LED				5000)/kWh			
Pulse output frequency		Up to 500p/kWh			Up to 500p/kWh	Up to 50	00p/kWh	
Multi-tariff			4 tariff		4 tariffs		4 tariffs	
Communication				Modbus	Modbus	Modbus	BACnet	LON
DI/DO		0/1	2/0		1/1	1/1	1/1	1/0
MID (EN50470-3)(1)		•	-		-	•	-	-
Network		1P+N, 3P, 3P+N support CTs 1P+N, 3P, 3P+N support CTs support CTs &VTs						
Accuracy class		Class 0.5S (IEC 62053-22 and IEC61557-12) Class C (EN50470-3) ⁽¹⁾						
Wiring capacity	6 mm² for currents and 4 mm² for voltages							
Display max.	LCD 9999999.9kWh or 9999999.9MWh							
Voltage (L-L)	3 x 100/173 V AC to 3 x 277/480 V AC (50/60 Hz)							
IP protection		IP40 front panel and IP20 casing						
Temperature		-25°C to 55°C (K55)						
Product size				5 steps	of 18 mm			
vervoltage & measurement			С	ategory III, Deg	gree of pollution	2		
kWh	-			-		-	-	-
kVARh					-	-	-	-
Active power				-	-	-	-	-
Reactive power					-	-	-	-
Currents and voltages				-	-	-	-	-
Overload alarm					-	-	-	-
Hour counter							_	_

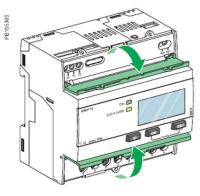
 $^{^{\}mbox{\tiny (1)}}\mbox{ If used for MID purposes, iEM32xx must use CT secondary set to 5 A.$

iEM3000/iEM3200 series dimensions





Acti9 iEM3100/iEM3200 Series front flaps open and closed



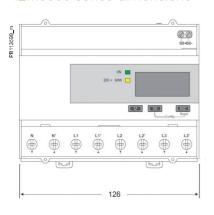


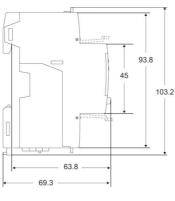
Acti9 iEM3000 Series parts

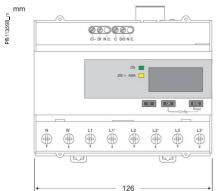
- 1. Digital inputs for tariff control (iEM3115 / iEM3215)
- 2. Display for measurement and configuration
- 3. Pulse out for remote transfer (iEM3110 / iEM3210)
 4. Cancellation
 5. Confirmation

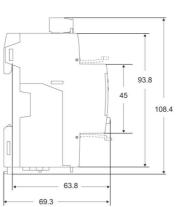
- 6. Selection
- 7. Flashing yellow meter indicator to check accuracy
- 8. Green indicator: on/off, error

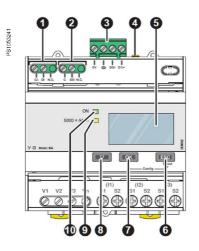
iEM3300 series dimensions











Acti9 iEM3000 Series parts

- 1. Digital inputs for tariff control (iEM3115 / iEM3215)
- 2. Display for measurement and configuration
- 3. Pulse out for remote transfer (iEM3110 / iEM3210)
- 4. Esc Cancellation
 5. OK Confirmation
- 6. Selection
- 7. Flashing yellow meter indicator to check accuracy 8. Green indicator: on/off, error

Please see the appropriate Installation Guide for accurate and complete information on the installation of this product.

The PowerLogic PM3000 series power meters are a cost-attractive, feature-rich range of DIN rail-mounted power meters that offers all the measurement capabilities required to monitor an electrical installation.

Ideal for power metering and network monitoring applications that seek to improve the availability and reliability of your electrical distribution system, the meters are also fully capable of supporting sub-metering and cost allocation applications.

Applications

Cost management applications

- · Bill checking to verify that you are only charged for the energy you use
- Aggregation of energy consumption, including WAGES, and cost allocation per area, per usage, per shift or per time within the same facility
- · Energy cost and usage analysis per zone, per usage or per time period to optimise energy usage

Network management applications

Metering of electrical parameters to better understand the behaviour of your electrical distribution system

PB1084





METSEPM3250

The solution for

All markets that can benefit from a solution that includes PowerLogic PM3000 series meters:

- Buildings
- Industry
- Data centres and networks
- Infrastructure (e.g. airports, road tunnels, telecom)

Benefits

Optimise your energy consumption & enable energy efficiency practices

- Collect and analyse energy consumption data from each area for each type of load or circuit
- Gain an accurate understanding of business expenses by allocating the energy-related costs
- Identify savings opportunities
- Use information to implement actions designed to reduce energy consumption

Competitive advantages

Connectivity advantages

- Programmable digital input
 - External tariff control signal (4 tariff)
 - Remote reset partial counter
 - External status like breaker status
 - Collect WAGES pulses
- Programmable digital output
 - Alarm (PM3255)
 - KWh pulses
- Graphic LCD display
- Modbus RS-485 with screw terminals

Multi-tariff capability

The PM3000 series allows users to arrange KWh consumption in four different registers. This can be controlled by:

- Digital inputs. Signal can be provided by PLC or utilities
- Internal clock programmable by HMI
- Through communication

This function allows users to:

- Make tenant metering for dual source applications to differentiate backup source or utility source
- Understand well the consumption during peak time and offpeak time, weekdays and weekends, holiday and working days etc.
- Follow up feeders consumption in line with utility tariff rates

Power management solutions

Schneider Electric provides innovative power management solutions to increase your energy efficiency and cost savings, maximise electrical network reliability and availability, and optimise electrical asset performance.

Conformity of standards

- IEC 61557-12
- IEC 62053-23
- IEC 61326-1
- EN 50470-1
- IEC 62052-11IEC 62053-21
- EN 50470-3IEC 61010-1
- IEC 62053-22
- EN 55022

PM3000 series feature selection				
	PM3200	PM3210	PM3250	PM3255
Performance standard				
IEC61557-12 PMD/Sx/K55/0.5	-	-	-	-
General				
Use on LV and HV systems	-	-	-	•
Number of samples per cycle	32	32	32	32
CT input 1A/5A	•	-	-	•
VT input	•	-	-	•
Multi-tariff	4	4	4	4
Multi-lingual backlit display	•	-	-	•
Instantaneous rms values				
Current, voltage Per phase and average	-	-	-	•
Active, reactive, apparent power Total and per phase	•	-	-	-
Power factor Total and per phase	-	-	-	•
Energy values				
Active, reactive and apparent energy; import and export	•	-	-	•
Demand value				
Current, power (active, reactive, apparent) demand; present	-	•	•	•
Current, power (active, reactive, apparent) demand; peak		-	•	•
Power quality measurements				
THD Current and voltage		•		•
Data recording				
Min/max of the instantaneous values	-	-	-	•
Power demand logs				
Energy consumption log (day, week, month)				•
Alarms with timestamping		5	5	15
Digital inputs/digital outputs		0/1		2/2
Communication				
RS-485 port				
Modbus protocol				•
Commercial reference number	METSEPM3200	METSEPM3210	METSEPM3250	METSEPM3255

See your Schneider Electric representative for complete ordering information.

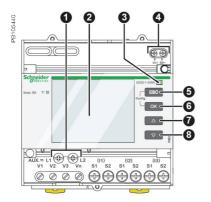
PM3000 technical specifica	tions		
Type of measurement	True rms up to the 15th harmonic on three-phase (3P,3P+N) and single-phase AC systems. 32 samples per cycle		
Measurement accuracy			
Current with x/5A CTs	0.3 % from 0.5 A to 6 A		
Current with x/1A CTs	0.5 % from 0.1 A to 1.2 A		
Voltage	0.3 % from 50 V to 330 V (Ph-N), from 80 V to 570 V (Ph-Ph)		
Power factor	±0.005 from 0.5 A to 6 A with x/5 A CTs; from 0.1A to 1.2 A with x/1 A CTs and from 0.5 L to 0.8 C		
Active/Apparent Power with x/5A CTs	Class 0.5		
Active/Apparent Power with x/1A CTs	Class 1		
Reactive power	Class 2		
Frequency	0.05 % from 45 to 65 Hz		
Active energy with x/5A CTs	IEC 62053-22 Class 0.5s		
Active energy with x/1A CTs	IEC 62053-21 Class 1		
Reactive energy IEC 62053-23 Class 2			
Data update rate			
Update rate	1s		
Input-voltage characteristics			
Measured voltage	50 V to 330 V AC (direct / VT secondary Ph-N) 80 V to 570 V AC (direct / VT secondary Ph-Ph) up to 1 MV AC (with external VT)		
Frequency range	45 Hz to 65 Hz		
Input-current characteristics			
CT primary	Adjustable from 1 A to 32767 A		
CT secondary	1 A or 5 A		
Measurement input range with x/5A CTs	0.05 A to 6 A		
Measurement input range with x/1A CTs	0.02 A to 1.2 A		
Permissible overload	10 A continuous, 20 A for 10s/hour		
Control Power			
AC	100/173 to 277/480 V AC (+/-20%), 3 W/5 VA; 45 Hz to 65 Hz		
DC	100 to 300 V DC, 3 W		
Input			
Digital inputs (PM3255)	11 to 40 V DC, 24 V DC nominal, <=4mA maximum burden, 3.5kVrms insulation		
Output			
Digital output (PM3210)	Optocoupler, polarity sensitive, 5 to 30 V, 15 mA max, 3.5kVrms insulation		

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PM3000 technical specificat	ions
Mechanical characteristics	
Weight	0.26 kg
IP degree of protection (IEC 60529)	IP40 front panel, IP20 meter body
Dimension	90 x 95 x 70 mm
Environmental conditions	
Operating temperature	-25 °C to 55 °C
Storage temperature	-40 °C to 85 °C
Humidity rating	5 to 95% RH at 50 °C (non-condensing)
Pollution degree	2
Metering category	III, for distribution systems up to 277/480 V AC
Dielectric withstand	As per IEC61010-1, Doubled insulated front panel display
Altitude	3000 m max
Electromagnetic compatibility	
Electrostatic discharge	Level IV (IEC 61000-4-2)
Immunity to radiated fields	Level III (IEC 61000-4-3)
Immunity to fast transients	Level IV (IEC 61000-4-4)
Immunity to surge	Level IV (IEC 61000-4-5)
Conducted immunity	Level III (IEC 61000-4-6)
Immunity to power frequency magnetic fields	0.5mT (IEC 61000-4-8)
Conducted and radiated emissions	Class B (EN 55022)
Safety	
	CE as per IEC 61010-1★
Communication	
RS-485 port	Half duplex, from 9600 up to 38400 baud, Modbus RTU (double insulation)
Display characteristics	
Dimensions (VA)	43 mm x 34.6 mm
Display resolution	128 x 96 dots
Standard compliance	
	IEC 61557-12, EN 61557-12 IEC 61010-1, UL 61010-1 IEC 62052-11, IEC 62053-21, IEC 62053-22, IEC 62053-23 EN 50470-1, EN 50470-3

[★] Protected throughout by double insulation

PM3200 series front of meter

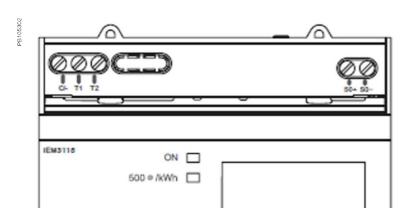


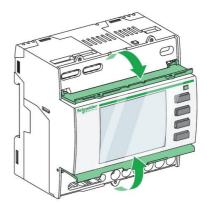
Front of meter parts

- Control power
 2 Display with white backlight
 3 Flashing yellow meter indicator (to check accuracy)
 4 Pulse output for remote transfer (PM3210)
 5 ESC Cancellation

- 6 OK Confirmation
- ∆ Up ♥ Down

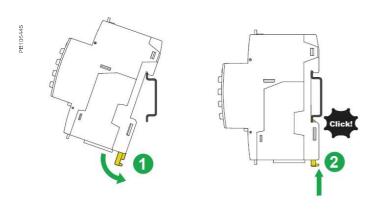
PM3200 series dimensions





PM3200 top and lower flaps

PM3200 series easy installation



Please see the appropriate Installation Guide for accurate and complete information on the installation of this product.



PowerLogic[™] PowerTag Energy series

PowerTag Energy is a wireless-communication energy sensor

PowerTag Energy is designed specifically for Energy Management, Load Monitoring and Power Availability applications. Associated to a concentrator or a gateway, PowerTag Energy provides a full wireless class 1 solution to monitor energy at any level of a distribution panel.

Applications:

- Monitors your electrical installation from main incomer down to load level
- Suitable for various businesses, buildings, industrial and residential applications with easy integration in upper systems
- Supports and enables Energy Efficiency programs and standards such as:
 - European Energy Efficiency Directive (EED)
 - Energy Performance of Buildings Directive (EPBD)
 - IEC 60364-8-1 "Low Voltage Electrical installations Energy Efficiency"
 - EN 17267 "Energy Measurement and Monitoring plan"
 - ISO 50001 "Energy Management System"







PowerTag Energy Flex 160 A (F160)



PowerTag Energy PhaseNeutral 63 A (P63)



PowerTag Energy Monoconnect 63 A (M63)



PowerTag Energy Monoconnect 250 A (M250)



PowerTag Energy Rope 2000 A (R2000)



PowerTag Energy

The solution for

Markets that benefit from a solution that includes PowerLogic PowerTag Energy series:

- Residential
- Small business
- Medium & large buildings
- Industrial sites

Benefits

PowerTag Energy sensor incorporates all features required to perform accurate real-time measurements (U, V, I, P, PF) and energy values up to 2000 A.

Different designs of PowerTag Energy are available to ensure it fits the protective device on which it is mounted.

- PowerTag Energy Monoconnect (M): can be mounted directly on the device, no additional wiring is required
- PowerTag Energy PhaseNeutral (P): for DIN offers with 9 mm pitch between phase and neutral
- PowerTag Energy Flex (F): can be mounted on a wide range of protective devices thanks to its design
- PowerTag Energy Rope (R) thanks to its openable current sensors can be easily installed on busbars or wires in new installations and in retrofit applications

PowerTag Energy sensor is acting as an autonomous meter. Energy counters are stored inside PowerTag Energy sensor.

Energy management system

To get the most effective use from your Schneider Electric measurement and metering devices, we offer a range of dedicated gateways / concentrators depending on your application.

Advantages

- Wireless-communication
- Range up to 2000 A
- Voltage loss alarming
- Class 1 accuracy
- Compact design
- Easy installation and commissioning
- Scalable solution
- Perfect for retrofit or new panels

Conformity of standards

- IEC 61557-12
- IEC 61010-1
- IEC 61010-2-030
- IEC 61326-1
- ETSI EN 300 328



Feature selection









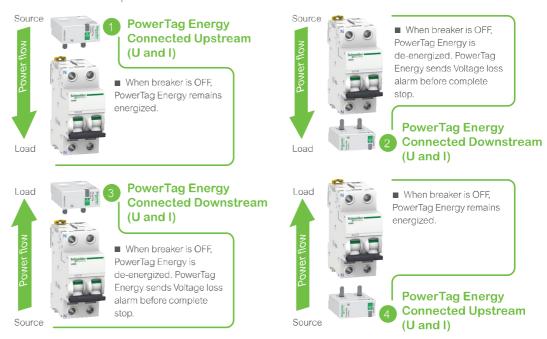


	A9MEM15••	A9MEM15••	A9MEM15••	A9MEM1580	LV434020/LV434021
Product name	M63	P63	F63	F160	M250
Max current (I Max) A	63	63	63	160	250
Starting current (Ist)	40 mA	40 mA	40 mA	100 mA	160 mA
Design	Monoconnect	PhaseNeutral	Flex	Flex	Monoconnect
Mounting type	On device	On device	On wires	On wires	On device
Current sensors type	Solid core	Solid core	Solid core	Solid core	Solid core
Poles	1P + W / 1P+N / 3P / 3P+N	1P+N / 3P+N	1P+N / 3P / 3P+N	3P / 3P+N	3P / 3P+N
Self-powered	✓	✓	✓	✓	✓
Voltage (L-N)	Depends on ref	200 - 240 V AC	Depends on ref	100 - 277 V AC	230 V AC
Measurements*					
Nb quadrant	2	2	2	4	4
Active Energy	Class 1	Class 1	Class 1	Class 1	Class 1
Reactive Energy				☑	✓
Apparent Energy				☑	
Active Power	✓	✓			✓
Reactive Power				✓	☑
Apparent Power	✓	✓	✓	✓	✓
Power Factor	☑	☑	✓	✓	☑
Frequency				✓	☑
Current and Voltage	✓	✓	✓	✓	✓
* Data availability depending	on the concentrator / gatewa	Ry	*	•	

	LV434022/LV434023	A9MEM1590	A9MEM1591	A9MEM1592	A9MEM1593	
Product name	M630	R200	R600	R1000	R2000	
Max current (I Max) A	630	200	600	1000	2000	
Starting current (Ist)	400 mA	120 mA	400 mA	600 mA	1.2 A	
Design	Monoconnect	Rope	Rope	Rope	Rope	
Mounting type	On device	On wires	On wires	On wires	On wires	
Current sensors type	Solid core	Split core	Split core	Split core	Split core	
Poles	3P / 3P+N	3P / 3P+N	3P / 3P+N	3P / 3P+N	3P/3P+N	
Self-powered		☑	☑	☑	☑	
Voltage (L-N)	230 V AC	100 - 277 V AC	100 - 277 V AC	100 - 277 V AC	100 - 277 V AC	
Measurements*						
Nb quadrant	4	4	4	4	4	
Active Energy	Class 1	Class 1	Class 1	Class 1	Class 1	
Reactive Energy	✓	☑	✓	☑	✓	
Apparent Energy		☑	☑	☑	✓	
Active Power		☑	☑	☑	☑	
Reactive Power		☑	☑	☑	☑	
Apparent Power		☑	✓	☑	✓	
Power Factor	☑	☑	☑	☑	☑	
Frequency		☑	☑	☑	☑	
Current and Voltage	✓	☑	☑	☑	☑	
* Data availability depending on the concentrator / gateway						



Connection possibilities



Note

- In association with a contactor, a Variable Speed Drive or a motor starter: PowerTag Energy can ONLY be installed UPSTREAM these devices.
- Some PowerTag Energy can be installed either on the TOP or on the BOTTOM of the protective devices.
- Check the possible mounting position as indicated in the "Catalog numbers" chapter.

Connection (Voltage and Current)	Features
Upstream	Energy management: consumption in kWh Load monitoring: real-time measurements
Downstream Preferred installation to take full benefit of voltage loss alarming in diagnosing the load	 Energy management: consumption in kWh Load monitoring: real-time measurements Power availability: voltage loss alarming

Main associated concentrators / gateways (*)





(*) Refer to Selection Guide for complete compatibility pages 95 to 102. Refer to the concentrator catalogs for more information (CA907030, CA907032, CA907035).





PowerLogic[™] PowerTag Energy 63 A

IEC 61557-12 PMD-I/DD/K55/1

As per the above standard:

With its compact design and innovative concept, PowerTag Energy 63 A fits directly on the protective device and as a result has no impact on DIN rail occupancy and switchboard size.

It is therefore well adapted to be mounted from head of group down to final circuits.

Since voltage and current are measured directly at the same point on the circuit to be monitored, it provides accurate measurement and relevant information such as voltage loss.

PowerTag Energy is compatible with SE product ranges as per the selection guide CA908058.

Main characteristics

PowerTag Energy measures the following values in accordance with the IEC 61557-12 standard PMD-I/DD/K55/1:

- Energy.
 - Active energy (kWh): total and partial, delivered and received.
- Real-time measurement values:
 - Voltages (V): phase-to-phase and phase-to-neutral.
 - Currents (A): per phase.
 - Power:
 - Active power (W): total and per phase.
 - Apparent power (VA): total.
 - Power factor.
- Voltage loss alarms:
 - PowerTag Energy sends a "voltage loss" alarm and the current-per-phase value before being de-energized.
 - At "voltage loss", PowerTag Energy adds an overload alarm if the current is higher than the rated current of the associated protective device.

Note: Functions listed above depends on Concentrator/Gateway.









Flex 63 A (F63)

PowerTag Energy PhaseNeutral 63 A (P63)



Product selection

Neutral position

Some references of PowerTag Energy 63 A (Monoconnect and PhaseNeutral) exist in Top or Bottom version.

This is linked to the position of the neutral of the PowerTag Energy.





Note:

- Some PowerTag Energy can be installed either on the TOP or on the BOTTOM of the protective devices.
- Check the possible mounting position as indicated in the "Catalog numbers" chapter.
- In association with a contactor, a Variable Speed Drive or a motor starter: PowerTag Energy can ONLY be installed UPSTREAM these devices.

Number of poles

Choose the PowerTag Energy according to the number of poles of the protective device: one PowerTag Energy per protective device.

Ex.: 3 Pole PowerTag Energy 63 A for a 3 pole CB.







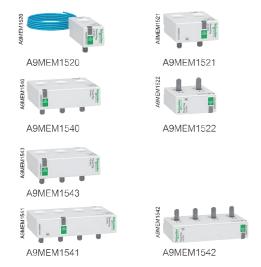
PowerLogic[™] PowerTag Energy 63 A

Technical specifications

Main characteristics					
Rated voltage	1P+N / 1P+W	Un	Phase-to-neutral	200 240 V AC ± 20 %	
_	3P	Un	Phase-to-phase	380 415 V AC ± 20 %	
	3P+N	Un	Phase-to-neutral	220 240 V AC ± 20 %	
			Phase-to-phase	380 415 V AC ± 20 %	
	A9MEM1543	Un	Phase-to-phase	200 240 V AC ± 20 %	
	A9MEM1564	Un	Phase-to-neutral	100 127 V AC ± 20 %	
	A9MEM1574	Un	Phase-to-neutral	120 137 V AC ± 20 %	
			Phase-to-phase	208 240 V AC ± 20 %	
Frequency				50/60 Hz	
Maximum current	,	Imax		63 A	
Basic current		lb		10 A	
Saturation current	,			130 A	
Maximum consumption			1P+N	≤ 1 VA	
·			3P/3P+N	≤ 2 VA	
Starting current	,	Ist		40 mA	
Additional characteristic	s	<u> </u>			
Operating temperature				-25°C to +60°C	
Storage temperature				-40°C to +85°C	
Overvoltage category		-	As per IEC 61010-1	Cat. III	
Measuring category			As per IEC 61010-2-030	Cat. III	
Pollution degree				3	
Altitude				≤2000 m	
Degree of protection		Device only	IP20		
		IK	05		
Radio-frequency commi	unication				
ISM band 2.4 GHz		·		2.4 GHz to 2.4835 GHz	
Channels			As per IEEE 802.15.4	11 to 26	
Isotropic Radiated Power			Equivalent (EIRP)	0 dBm	
Maximum transmission time	→			< 5 ms	
Channel occupancy			Messages sent every	5 seconds minimum	
Characteristics of meas	urina functions		,		
Function Symbol		ymbol Performance category as per IEC 61557-12 Measuring range (PMD-I/DD/K55/1)			
			Class		
Active power		Р	1	9 W to 63 kW	
Active energy		Ea	1	Total and partial 0 to 99999999.9 kWh	
Current		1	1	40 mA to 63 A	
Voltage		U	0.5	Un ± 20 %	
Power factor		PFA	1	0 to 1	



PowerLogic™ PowerTag Energy 63 A





PowerTag Energy for Acti9 and Multi9 Monoconnect offers: «Single-terminal» circuit breakers, RCDs and switches with 18 mm pitch between phase and neutral, rating

Designed to fit the following devices: iC60, Reflex iC60, DT60, iID For additional information and the list of Schneider Electric compatible devices and Concentrators/Gateways, refer to the Selection Guide pages 95 to 102.

(1) Not compatible with Acti9 Smartlink SI D (A9XMWA20) and Acti9 Smartlink SI B (A9XMZA08)

A9MEM1561





A9MEM1562 A9MEM1563





A9MFM1572

PowerTag Energy PhaseNeutral 63 A Commercial reference numbers

PowerTag Energy Flex 63 A

PowerTag Energy Monoconnect 63 A Commercial reference numbers

less than or equal to 63 A

PowerTag Energy for Acti9 and Multi9 **PhaseNeutral** offers: «Single-terminal» circuit breakers, RCDs and switches at pitch of 9 mm between phase and neutral, rating less than or equal to 63 A.

1))	Commercial reference number	Туре	Mounting	Description
	A9MEM1561	1P+N	Тор	PowerTag Energy P63 1PN T
	A9MEM1562	1P+N	Bottom	PowerTag Energy P63 1PN B
	A9MEM1563	1P+N RCBO	Bottom	PowerTag Energy P63 1PN B RCBO 18mm
	A9MEM1571	3P+N	Тор	PowerTag Energy P63 3PN T
	A9MEM1572	3P+N	Bottom	PowerTag Energy P63 3PN B

Designed to fit the following devices: DT40, iDPN, C40, i DPN Vigi. For additional information and the list of Schneider Electric compatible devices and Concentrators/Gateways, refer to the Selection Guide pages 95 to 102.

A9MEM1564

A9MEM1560

A9MEM1570



A9MEM1573

Commercial reference numbers PowerTag Energy Flex for other devices and specific installations, rating less than or equal to 63 A.

М.				
,	Commercial reference number	Туре	Mounting	Description
	A9MEM1560	1P+N	Top or bottom	PowerTag Energy F63 1PN
	A9MEM1564 (2)	1P+N	Top or bottom	PowerTag Energy F63 1PN 110V
	A9MEM1573 (2)	3P	Top or bottom	PowerTag Energy F63 3P
	A9MEM1570	3P+N	Top or bottom	PowerTag Energy F63 3PN
	A9MEM1574 (2)	3P+N	Top or bottom	PowerTag Energy F63 3PN 127/220V

Designed to fit the following devices: Vigi iDT40, Vigi iC40, Vigi iC60, iC60 double terminal, iID double terminal.

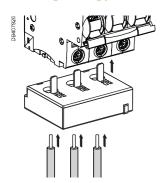
For additional information and the list of Schneider Electric compatible devices and concentrators/ gateways, refer to the Selection Guide pages 95 to 102.

(2) Not compatible with Acti9 PowerTag Link C (A9XELC10), Smartlink SI D (A9XMWA20) and Smartlink SI B (A9XMZA08)

Contact your Schneider Electric representative for complete ordering information.



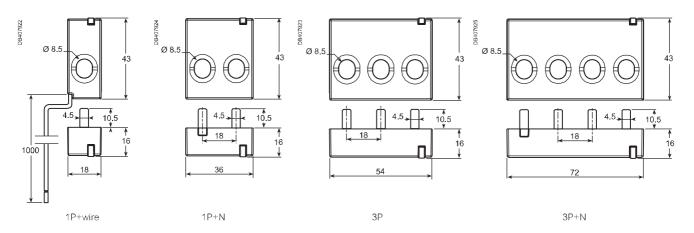
PowerTag Energy Monoconnect 63 A connection



Stripping	Copper ca	bles				
length	Rigid		Flexible		Flexible wi	th ferrule
	DB122945	DB112804	DB123553	DB112805	DB123554	DB/23008
18 mm		2 x 1.5 to 2.5 mm ² AWG: 1614				2 x 1.5 to 2.5 mm ² AWG: 1614

Mounting with 18 mm ferrule recommended.

PowerTag Energy Monoconnect 63 A dimensions (mm)



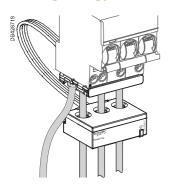
PowerTag Energy Monoconnect 63 A weight

Type	Weight (g)
1P+wire	16.4
1P+N	17.5
3P	28
3P+N	35

Please refer to PowerTag Energy 63 A Installation Sheet for accurate and complete information on the installation of this product.



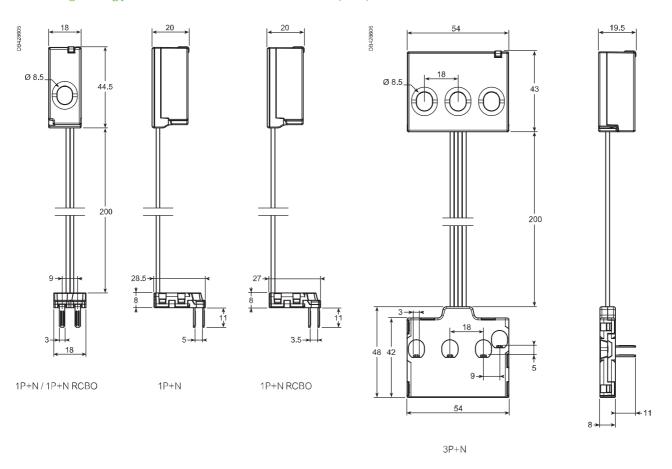
PowerTag Energy PhaseNeutral 63 A connection



Copper cables						
Rigid	Rigid		Flexible		Flexible with ferrule	
DB:122946	DB112804	DB123553	DB112805	DB123554	DB123008	
	2 x 1.5 to 2.5 mm ² AWG: 1614		2 x 1.5 to 2.5 mm ² AWG: 1614			

Stripping length: respect the stripping length stated on the device the PowerTag Energy is associated with.

PowerTag Energy PhaseNeutral 63 A dimensions (mm)



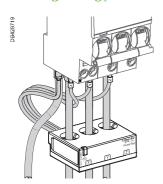
PowerTag Energy PhaseNeutral 63 A weight

Туре	Weight (g)
1P+N	18
3P+N	48

Please refer to PowerTag Energy 63 A Installation Sheet for accurate and complete information on the installation of this product.



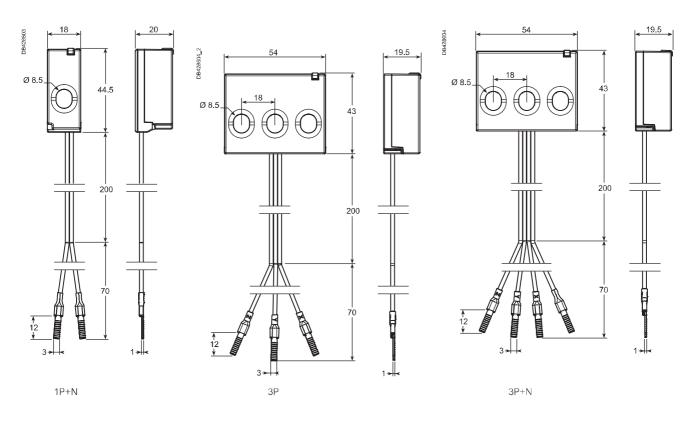
PowerTag Energy Flex 63 A connection



Copper cables					
Rigid		Flexible		Flexible wi	th ferrule
DB122946	DB112804	DB123553	DB112805	DB123854	DB123008
	2 x 1.5 to 2.5 mm ² AWG: 1614		2 x 1.5 to 2.5 mm ² AWG: 1614		

Stripping length: respect the stripping length stated on the device the PowerTag Energy is associated with.

PowerTag Energy Flex 63 A dimensions (mm)



PowerTag Energy Flex 63 A weight

Туре	Weight (g)
1P+N	16
3P	38
3P+N	40

Please refer to PowerTag Energy 63 A Installation Sheet for accurate and complete information on the installation of this product.



IEC 61557-12 PMD-I/DD/K55/1

As per the above standard:

With its compact design and innovative concept, PowerTag Energy 63 A Resi9 fits directly on the Resi9 protective device and as a result has no impact on DIN rail occupancy and switchboard size.

It is therefore well adapted to be mounted from head of group down to final circuits.

Since voltage and current are measured directly at the same point on the circuit to be monitored, it provides accurate measurement and relevant information such as voltage loss.

PowerTag Energy 63 A Resi9 is dedicated to the Resi9 range of devices and compatible with the concentrator/gateway Wiser IP Module.

Main characteristics

PowerTag Energy measures the following values in accordance with the IEC 61557-12 standard PMD-I/DD/K55/1:

- Energy:
- Active energy (kWh): total and partial, delivered and received.
- Voltage loss alarms:
 - PowerTag Energy sends a "voltage loss" alarm before being de-energized.
 - At "voltage loss", PowerTag Energy adds an overload alarm if the current is higher than the rated current of the associated protective device.



PowerTag Energy Monoconnect 63 A (M63)



PowerTag Energy Monoconnect 63 A (M63)



Installation

Some references of PowerTag Energy 63 A Resi9 (Monoconnect) exist in Top or Bottom version. This is linked to the position of the neutral of the PowerTag Energy.



Note:

- Some PowerTag Energy 63 A Resi9 can be installed either on the TOP or on the BOTTOM of the protective devices.
- Check the possible mounting position as indicated in the "Catalog numbers" chapter.
- In association with a contactor, a Variable Speed Drive or a motor starter: PowerTag Energy can ONLY be installed UPSTREAM these devices.

Number of poles

Choose the PowerTag Energy according to the number of poles of the protective device: one PowerTag Energy per protective device.

Ex.: 3 pole PowerTag Energy 63 A Resi9 for a 3 pole CB.







Technical specifications

rechnical specifica	tionio			
Main characteristics				
Rated voltage	1P+N / 1P+W	Un	Phase-to-neutral	200 240 V AC ± 20 %
	3P	Un	Phase-to-phase	380 415 V AC ± 20 %
	3P+N	Un	Phase-to-neutral	220 240 V AC ± 20 %
			Phase-to-phase	380 415 V AC ± 20 %
	R9M43	Un	Phase-to-phase	200 240 V AC ± 20 %
Frequency				50/60 Hz
Maximum current		Imax		63 A
Basic current		lb		10 A
Saturation current				130 A
Maximum consumption			1P+N	≤1 VA
			3P/3P+N	≤2 VA
Starting current		lst		40 mA
Additional characteristics				
Operating temperature				-25°C to +60°C
Storage temperature				-40°C to +85°C
Overvoltage category			As per IEC 61010-1	Cat. III
Measuring category		As per IEC 61010-2-030	Cat. III	
Pollution degree			3	
Altitude				≤2000 m
Degree of protection		Device only	IP20	
			IK	05
Radio-frequency commun	ication			r i
ISM band 2.4 GHz				2.4 GHz to 2.4835 GHz
Channels			As per IEEE 802.15.4	11 to 26
Isotropic Radiated Power			Equivalent (EIRP)	0 dBm
Maximum transmission time		1		< 5 ms
Channel occupancy			Messages sent every	5 seconds minimum
Characteristics of measur	ing functions			
		Symbol	Performance category as per IEC 61557-12 (PMD-I/DD/K55/1)	Measuring range
			Class	
Active energy (delivered and	received)	Ea	1	Total and partial 0 to 99999999.9 kWh
Current	,	1	1	40 mA to 63 A
Voltage		U	0.5	Un ± 20 %

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PowerTag Energy Monoconnect 63 A Resi9 Commercial reference numbers

PowerTag Energy for Resi9 **Monoconnect** offers: «Single-terminal» circuit breakers, RCDs and switches with **18 mm pitch between phase and neutral**, rating less than or equal to 63 A.

	51 64441 to 667 t.				
v))	Commercial reference number	Туре	Mounting	Description	
	R9M20	1P+wire	Top or bottom	PowerTag Energy R9 M63 1PW	
	R9M21	1P+N	Тор	PowerTag Energy R9 M63 1PN T	
	R9M22		Bottom	PowerTag Energy R9 M63 1PN B	
	R9M40	3P	Top or bottom	PowerTag Energy R9 M63 3P	
	R9M43			PowerTag Energy R9 M63 3P 230V LL	
	R9M41	3P+N	Тор	PowerTag Energy R9 M63 3PN T	
	R9M42		Bottom	PowerTag Energy R9 M63 3PN B	

Refer to the Resi9 catalog in your country to select the right PowerTag Energy model to fit on the Resi9 protective device you want to equipped.



R9M41





R9M70

R9M42

PowerTag Energy Flex 63 A Resi9 Commercial reference numbers

PowerTag Energy ${\it Flex}$ for other Resi9 devices and specific installations, rating less than or equal to 63 A.



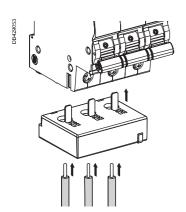
Commercial reference number	Туре	Mounting	Description
R9M60	1P+N	Top or bottom	PowerTag Energy R9 F63 1PN
R9M70	3P+N	Top or bottom	PowerTag Energy R9 F63 3PN

Refer to the Resi9 catalog in your country to select the right PowerTag Energy model to fit on the Resi9 protective device you want to equipped.

To allow PowerTag Energy Resi9 F63 to adapt to different types of terminals, the voltage tap lugs can be replaced with other end-pieces or lugs for AWG22/0.33 mm2 wires.

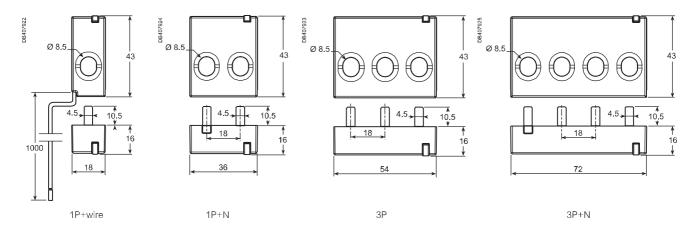


PowerTag Energy R9 M63 connection



Stripping length: 18 mm

PowerTag Energy R9 M63 dimensions (mm)

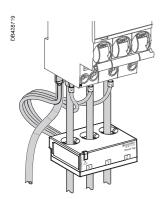


PowerTag Energy R9 M63 weight

Type	Weight (g)
1P+wire	16.4
1P+N	17.5
3P	28
3P+N	35

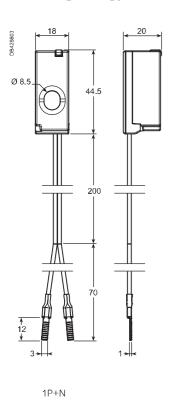


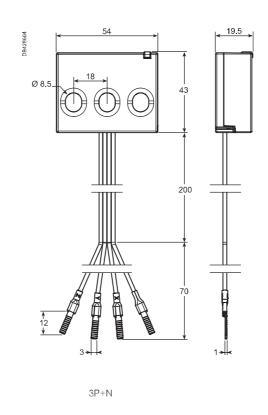
PowerTag Energy R9 F63 connection



Stripping length: respect the stripping length stated on the device the PowerTag Energy is associated with.

PowerTag Energy R9 F63 dimensions (mm)





PowerTag Energy R9 F63 weight

Туре	Weight (g)
1P+N	16
3P	40

Please refer to PowerTag Energy 63 A Resi9 Installation Sheet for accurate and complete information on the installation of this product.



PowerLogic[™] PowerTag Energy Flex 160 A

IEC 61557-12 PMD-II/DD/K70/1

As per the above standard:

With its flex design this PowerTag Energy can be used on many products or group of loads up to 160 A on 3P or 3P+N networks. Its removable spring connector for voltage picking facilitates its installation, and shapes for brackets allows to mount and maintain it where needed in a panel.

Main characteristics

PowerTag Energy Flex 160 A measures the following values in accordance with the IEC 61557-12 standard PMD-II/DD/K70/1:

- Energy (4 quadrants):
 - Active energy (kWh): total and partial, delivered and received.
 - Active energy per phase (kWh): total and partial, delivered and received.
 - Reactive energy (kVARh): total and partial, delivered and received.
 - Reactive energy per phase (kVARh): total and partial, delivered and received.
 - Apparent energy (kVAh): total and partial.
 - Apparent energy per phase (kVAh): total and partial.
- Real-time measurement values:
 - Voltages (V): phase-to-phase (U12, U23, U31) and phase-to-neutral (V1N, V2N, V3N).
 - Currents (A): per phase (I1, I2, I3), calculated neutral current when connected (IN) .
 - Power:
 - Active power (W): total and per phase.
 - Reactive power (VAR): total and per phase.
 - Apparent power (VA): total and per phase.
- Frequency (Hz).
- Power factor: total and per phase.
- Voltage loss alarms:
 - PowerTag Energy Flex sensor sends a "voltage loss" alarm and the current-per-phase value before being de-energized.
 - At "voltage loss", PowerTag Energy Flex adds an overload alarm if the current is higher than the rated current of the associated protective device

Note: Functions listed above depends on Concentrator/Gateway.



PowerTag Energy Flex 160 A



PowerLogic[™] PowerTag Energy Flex 160 A

Installation

PowerTag Energy Flex 160 A can be installed in a panel directly on cables or busbars, associated to a product or not. Voltage pickings removable spring terminal has to be wired by 1 copper wire per phase with following characteristics:

Wire range

Solid	Stranded	Stranded with terminal ends
0.21.5 mm²	0.22.5 mm²	0.251.5 mm²
2416 AWG	2414 AWG	2416 AWG

Neutral picking shall be connected to have phase-to-neutral voltages, energy per phase and power per phase provided.

PowerTag Energy Flex 160 A is mainly advised for ComPact NSXm, ComPact INS160, Acti9 NG125, Acti9 C120, PowerPact B, TeSys GV4, and all other devices with a rating between 63 A and 160 A.





PowerLogic[™] PowerTag Energy Flex 160 A

Technical specifications

Main characteristics (as per le	EC 61557-12)			
Rated voltage	Un	Phase-to-r	neutral	100277 V AC ± 20 %
o e		Phase-to-p	phase	173480 V AC ± 20 %
requency				50/60 Hz
Maximum current	Imax			160 A
Maximum operating current				1.2 x Imax
Saturation current	2 x Imax			
Maximum consumption	3 VA			
Starting current	Ist		100 mA	
Basic current	lb			25 A
Additional characteristic				
Operating temperature				-25 °C to +70 °C
Storage temperature				-40 °C to +85 °C
Overvoltage category		As per IEC	61010-1	Cat. IV
Measuring category		As per IEC	61010-2-030	Cat. IV
Pollution degree		7 / 10 PC. 120		3
Altitude				Up to 2000 m without derating (1)
Degree of protection device				IP20
2 3 9 1 protection de 1,00				IK05
Radio-frequency communicati	on			11700
SM band 2.4 GHz	011			2.4.047+0.2.4935.047
SM band 2.4 GHZ Channels		As per IEE	T 900 15 4	2.4 GHz to 2.4835 GHz 11 to 26
		As per IEE	E 8UZ. 15.4	0 dBm
Isotropic Radiated Power Equivalent (EIRP)				
Maximum transmission time				< 5 ms
Channel occupancy		For 1 devic	:e	messages sent every 5 seconds
Characteristics of measuring	functions			
Function	Symbol	Performa (PMD-II/E	nce category as per IEC 61557-12 DD/K70/1)	Measuring range
		Class	Measuring range	
Total active power (Active power per phase)	Р	1	2.5 to 160 A	24 W (8 W) to 192 kW
Total reactive power (Reactive power per phase)	Q _A	2		30 VAR (10 VAR) to 192 kVAR
Total apparent power (Apparent power per phase)	S _A	2		38 VA (13 VA) to 192 kVA
Active Energy: per phase, total, partial, delivered and received	E _a	1		0 to 281.10° kWh
Reactive energy: per phase, total, partial, delivered and received	E _{rA}	2		0 to 281.10 ⁹ kVARh
Apparent energy: per phase, total, partial	E _{apA}	2		0 to 281.10° kVAh
requency	f	0.5	50 / 60 Hz ± 2 %	45 to 65 Hz
Phase current		1	5 to 160 A	100 mA to 320 A
Neutral current	1	2		
	I _{NC}		Un ± 20 %	120 to F70 V AO
Voltages (Line to Line)	U	0.5		138 to 576 V AC
Power factor (per phase, total)	PF_A	1	From 0.5 inductive to 0.8 capacitive	-1 to 1

⁽¹⁾ Above 2000 m, please consult Schneider Electric.

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PowerLogic[™] PowerTag Energy Flex 160 A



A9MEM1580

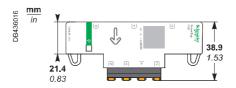
PowerTag Energy Flex 160 A Commercial reference numbers

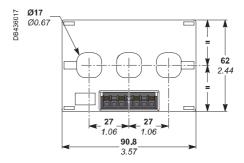
v))	Commercial reference number	Туре	Description
	A9MEM1580	F160 3P/3P+N	PowerTag Energy Flex 160 A 3P / 3P+N

For the list of Schneider Electric compatible devices and concentrators, refer to the Selection Guide pages 95 to 102.

Contact your Schneider Electric representative for complete ordering information.

PowerTag Energy Flex 160 A dimensions





PowerTag Energy Flex 160 A weight

Type	Weight (g)
F160 3P/3P+N	100

Please refer to PowerTag Energy Flex 160 A Installation Sheet for accurate and complete information on the installation of this product.



IEC 61557-12 PMD-II/DD/K70/1

As per the above standard:

PowerTag Energy M250/M630 is designed for Molded Case Circuit Breakers and Switches (ComPact and TeSys) for 3P and 3P+N electrical networks. This PowerTag Energy is mounted directly on the bottom side of the circuit breaker or the Vigi add-on if any. Thanks to its integrated design, it does not require any specific wiring, and is compatible with the same connection accessories than the device it is mounted on.

Main characteristics

PowerTag Energy M250/M630 measures the following values in accordance with the IEC 61557-12 standard PMD-II/DD/K70/1:

- Energy (4 quadrants):
 - Active energy (kWh): total and partial, delivered and received.
 - Active energy per phase (kWh): total.
 - Reactive energy (kVARh): partial, delivered and received.
- Real-time measurement values:
 - Voltages (V): phase-to-phase (U12, U23, U31) and phase-to-neutral (V1N, V2N, V3N).
 - Currents (A): per phase (I1, I2, I3).
 - Power:
 - Active power (W): total and per phase.
 - Reactive power (VAR): total.
 - Apparent power (VA): total.
 - Frequency (Hz).
 - Power factor.
- Voltage loss alarms:
 - PowerTag Energy sends a "voltage loss" alarm and the current-per-phase value before being de-energized.
 - At "voltage loss", PowerTag Energy adds an overload alarm if the current is higher than the rated current of the associated protective device.

Note: Functions listed above depends on Concentrator/Gateway.



PowerTag Energy Monoconnect 250 A

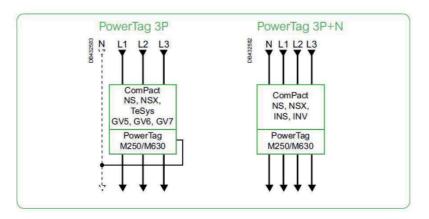


Installation

The module is self-powered and is installed for fixed devices directly on the bottom side of the circuit breaker or Vigi add-on terminals. For plug-in devices, it has to be installed on the base itself, top or bottom.

PowerTag Energy M250/M630 3P has to be used with 3P devices, and an external neutral voltage tap is provided in case of the installation has a neutral to provide phase-to-neutral voltages, active energy per phase and power per phase.

PowerTag Energy M250/M630 3P+N has to be used with 4P devices and with ComPact INS/INV switches.



PowerTag M250/M630 modules are compatible with ComPact NSX100/160/250, ComPact NSX400/630, ComPact INS250-100A to 250A, ComPact INS320/400/500/630, ComPact INV100/160/250, ComPact INV320/400/500/630, ComPact NS400/630, TeSys GV5, TeSys GV6 and TeSys GV7.

In case of retrofit, following points have to been checked:

- Clearance to be able to add PowerTag Energy module and to respect bending radius of cables.
- · Condition of power connectors: to be replaced if damaged.
- Tightening torques depending of the connector used.





Technical specifica	ations					
Main characteristics						
Rated voltage	Un	Phase-to-r	eutral	230 VAC ± 20 %		
_		Phase-to-p	phase	400 VAC ± 20 %		
Frequency				50/60 Hz		
Maximum current	Imax			250 A / 630 A		
Maximum operating current				1.2 x Imax		
Saturation current				2 x Imax		
Maximum consumption				3.7 VA		
Starting current	Ist			160 mA / 400 mA		
Basic current	lb			40 A / 100 A		
Additional characteristic						
Operating temperature				-25 °C to +70 °C		
Storage temperature				-50 °C to +85 °C		
Overvoltage category		As per IEC	61010-1	Cat. IV		
Measuring category		As per IEC	61010-2-030	Cat. III		
Pollution degree				3		
Altitude				Up to 2000 m without derating (1)		
Degree of protection device				IP20		
				IK07		
Radio-frequency commun	nication					
ISM band 2.4 GHz				2.4 GHz to 2.4835 GHz		
Channels		As per IEEI	E 802.15.4	11 to 26		
Isotropic Radiated Power		Eguivalent	(EIRP)	0 dBm		
Maximum transmission time		· ·		< 5 ms		
Channel occupancy		For 1 devic	e	messages sent every 5 seconds		
Characteristics of measur	ing functions					
Function	Symbol	Performai (PMD-II/D	nce category as per IEC 61557-12 DD/K70/1)	Measuring range (250 A / 630 A)		
		Class	Measuring range (250 A / 630 A)			
Total active power (Active power per phase)	Р	1	4 to 250 A / 10 to 630 A	88 W (29 W) to 416 kW / 222 W (74 W) to 1048 kW		
Total reactive power	Q _A	2		88 VAR to 416 kVAR / 221 VAR to 1048 kVAR		
Total apparent power	S _A	2		88 VA to 416 kVA / 221 VA to 1048 kVA		
Active Energy: per phase, total, partial	E _a	1		0 to 281.10° kWh		
Partial Reactive Energy	Partial Reactive Energy E _{rA} 2			0 to 281.10° kVARh		
Frequency	f	1	45 to 55 Hz	45 to 65 Hz		
Phase current	I	1	8 to 250 A / 20 to 630 A	160 mA to 500 A / 400 mA to 1260 A		
Voltages (Line to Line)	U	0.5	Un ± 20 %	320 to 480 VAC		
Power factor	PF _A	1	From 0.5 inductive to 0.8 capacitive	-1 to 1		
1 CWOI IGOTOI	Ι Ι Λ	1	Trom 0.0 inductive to 0.0 capacitive	1.01		

⁽¹⁾ Above 2000 m, please consult us.

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LV434020







LV434022

LV434023



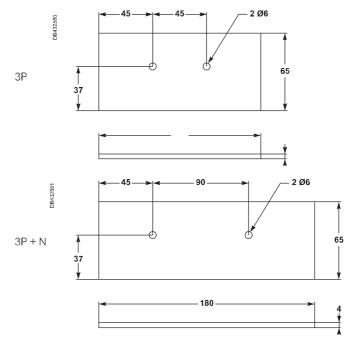
PowerTag Energy Monoconnect 250 A & 630 A Commercial reference numbers

001111110101		0011011110010			
Commercial reference number	Туре	Description	Connection adapter for mounting on plug-in base only		
LV434020	M250 3P	PowerTag Energy 250 A 3P	LV429306		
LV434021	M250 3P+N	PowerTag Energy 250 A 3P+N	LV429307		
LV434022 (1)	M630 3P	PowerTag Energy 630 A 3P	LV432584		
LV434023 (1)	M630 3P+N	PowerTag Energy 630 A 3P+N	LV432585		

For the list of Schneider Electric compatible devices and concentrators, refer to the Selection Guide pages 95 to 102.

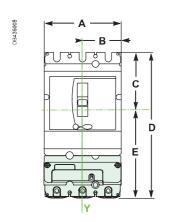
Contact your Schneider Electric representative for complete ordering information.

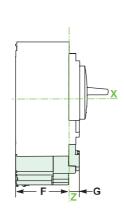
(1) For plug-in devices only: when plate mounted, need to add an intercalary wedging plate under the PowerTag Energy module with following dimensions:

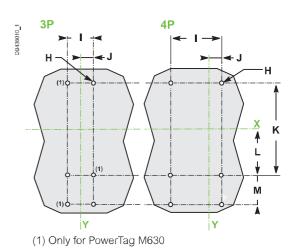


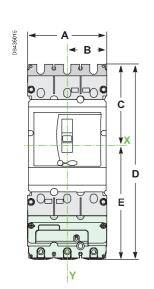


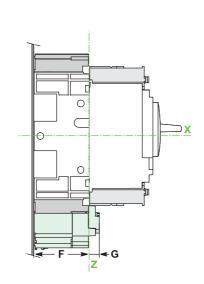
NSX100-250 / NSX400-630

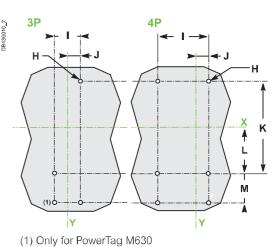












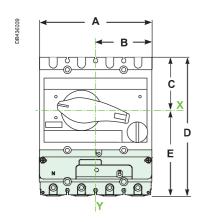
mm	,	Д	В		D	F	E	G		+		1		J	K	1	М
in		4P							3P		3P		3P	4P			101
NSX100-250	105	140	52.5	80.5	201	120.5	72	14	3 Ø6	6 Ø6	35	70	17. 5	17. 5	125	62.5	40
	4.13	5.51	2.06	3.17	7.91	4.74	2.83	0.55	3 Ø0.23	6 Ø0.23	1.34	2. 7 5	0.68	0.68	4.92	2.46	1.57
NSX400-630	140	185	70	127.5	320	192.5	96	14	6 Ø6	6 Ø6	45	90	22.5	22.5	200	100	65
	5.51	7.28	2.75	5.02	12.59	7.57	3.78	0.55	6 Ø0.23	6 Ø0.23	1.77	3 .5	0.88	0.88	7.87	3.93	2.56
NSX100-250	105	140	52.5	109	260	151	72	14	3 Ø6	6 Ø6	35	70	17. 5	17. 5	155	77.5	55
with plug-in base	4.13	5.51	2.06	4.29	10.23	5.94	2.83	0.55	3 Ø0.23	6 Ø0.23	1.34	2. 7 5	0.68	0.68	6.10	3.05	2.16
NSX400-630	140	185	70	153	406	253	100	14	4 Ø06	6 Ø6	45	90	22.5	22.5	250	125	83
with plug-in base	5.51	7.28	2.75	6.02	15.98	9.96	3.93	0.55	4 Ø0.23	6 Ø0.23	1.77	3.5	0.88	0.88	9.84	4.92	3.26

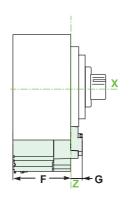
Please refer to PowerTag Energy 250 A & 630 A Installation Sheet for accurate and complete information on the installation of this product.

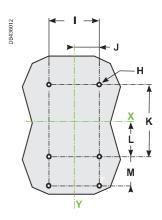
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INS250 / INV100-250 INS320-630 / INV320-630







mm in	А	В	С	D	Е	F	G	Н	1	J	К	L	М
INS250	140	70	68	176	108	72	14	6 Ø6	70	35	100	50	40
INV100-250	5.51	2.75	2.67	6.93	4.25	2.83	0.55	6 Ø0.23	2.75	1.37	3.93	1.96	1.57
INS320-630	185	92.5	102.5	270	167.5	96	14	6 Ø6	90	45	150	75	65
INV320-630	7.28	3.64	4.03	10.62	6.59	3.78	0.55	6 Ø0.23	3.5	1.77	5.9	2.95	2.56

PowerTag Energy Monoconnect 250 A & 630 A weight

Туре	Weight (g)
M250 3P	250
M250 3P+N	300
M630 3P	800
M630 3P+N	1000

Please refer to PowerTag Energy 250 A & 630 A Installation Sheet for accurate and complete information on the installation of this product.



PowerLogic[™] PowerTag Energy Rope 200 A to 2000 A

IEC 61557-12 PMD-II/DD/K70/1

As per the above standard:

With its flexible and openable current sensors, this PowerTag Energy Rope can be installed easily on busbars and cables without having to disconnect the conductors, and is suitable for 3P or 3P+N networks. Its removable spring connector for voltage picking facilitates its installation, and the module can be mounted on a DIN rail or maintained with brackets where needed in a panel.

Main characteristics

PowerTag Energy Rope measures the following values in accordance with the IEC 61557-12 standard PMD-II/DD/K70/1:

- Energy (4 quadrants):
 - Active energy (kWh): total and partial, delivered and received.
 - Active energy per phase (kWh): total and partial, delivered and received.
 - Reactive energy (kVARh): total and partial, delivered and received.
 - Reactive energy per phase (kVARh): total and partial, delivered and received.
 - Apparent energy (kVAh): total and partial.
 - Apparent energy per phase (kVAh): total and partial.
- Real-time measurement values:
 - Voltages (V): phase-to-phase (U12, U23, U31) and phase-to-neutral (V1N, V2N, V3N).
 - Currents (A): per phase (I1, I2, I3), calculated neutral current when connected (IN).
 - Power:
 - Active power (W): total and per phase.
 - Reactive power (VAR): total and per phase.
 - Apparent power (VA): total and per phase.
 - Frequency (Hz).
 - Power factor: total and per phase.
- Voltage loss alarms:
 - PowerTag Energy Rope sensor sends a "voltage loss" alarm and the current-per-phase value before being de-energized.
 - At "voltage loss", PowerTag Energy Rope adds an overload alarm if the current is higher than the rated current of the associated protective device.

Note: Functions listed above depends on Concentrator/Gateway.



PowerTag Energy Rope



Installation

PowerTag Energy Rope 18 mm module can be mounted on DIN rail or fastened with brackets anywhere in a panel. Then its openable current sensors have to be installed around conductors, cables or busbars, whatever they are insulated or not. Voltage pickings removable spring terminal has to be wired by 1 copper wire per phase with following characteristics:

Wire range

Solid	Stranded	Stranded with terminal ends		
0.21.5 mm²	0.22.5 mm²	0.251.5 mm²		
2416 AWG	2414 AWG	2416 AWG		

Neutral picking shall be connected to have phase-to-neutral voltages, energy per phase and power per phase provided.

PowerTag Energy Rope is mainly advised for ComPact NS, MasterPact NT and NW, MasterPact MTZ NA and HA, for retrofit, for group of loads, and for all other devices with a rating up to 2000 A.





PowerLogic[™] PowerTag Energy Rope 200 A to 2000 A

Technical specifications

Technical specification	18					
Main characteristics (as per l	EC 61557-12)					
Rated voltage	Un	Phase-to-nei	utral	100277 VAC ± 20 %		
3		Phase-to-pha	ase	173480 VAC ± 20 %		
Frequency				50/60 Hz		
Maximum current	Imax			200 A / 600 A / 1000 A / 2000 A		
Maximum operating current				1.2 x Imax		
Saturation current				2 x Imax		
Maximum consumption				3 VA		
Starting current	Ist			120 mA / 400 mA / 600 mA / 1.2 A		
Basic current	lb			30 A / 100 A / 150 A / 300 A		
Additional characteristic						
Operating temperature				-25 °C to +70 °C		
Maximum primary conductor temp	erature			105 °C (2)		
Storage temperature	Cratare			-40 °C to +85 °C		
Overvoltage category		As per IEC 6	1010 1	Cat. IV		
Measuring category		As per IEC 6	1010-2-030	Cat. IV		
Pollution degree				1 line to 0000 as without store line of (1)		
Altitude				Up to 2000 m without derating (1)		
Degree of protection device				IP20 (IP40 front face)		
				IK05		
Radio-frequency communicati	on					
ISM band 2.4 GHz				2.4 GHz to 2.4835 GHz		
Channels		As per IEEE 8	302.15.4	11 to 26		
Isotropic Radiated Power		Equivalent (E	IRP)	0 dBm		
Maximum transmission time				< 5 ms		
Channel occupancy		For 1 device		messages sent every 5 seconds		
Characteristics of measuring	functions	,				
Function			ce category as per IEC 61557-12	Measuring range		
		(PMD-II/DD	,	(200 A / 600 A / 1000 A / 2000 A)		
		Class	Measuring range (200 A / 600 A / 1000 A / 2000 A)			
Total active power (Active power per phase)	Р	1	3 to 200 A / 10 to 600 A / 15 to 1000 A / 30 to 2000 A	29 W (10 W) to 240 kW / 96 W (32 W) to 720 kW / 144 W (48 W) to 1200 kW / 288 W (96 W) to 2400 kW		
Total reactive power (Reactive power per phase)	$Q_{_{\!A}}$	2		36 VAR (12 VAR) to 240 KVAR / 120 VAR (40 VAR) to 720 KVAR / 180 VAR (60 VAR) to 1200 KVAR / 360 VAR (120 VAR) to 2400 KVAR		
Total apparent power (Apparent power per phase)	$S_{_{A}}$	2		46 VA (15 VA) to 240 kVA / 154 VA (51 VA) to 720 kVA / 231 VA (77 VA) to 1200 kVA / 461 VA (154 VA) to 2400 kVA		
Active Energy: per phase, total, partial, delivered and received	E_{a}	1		0 to 281.10 ⁹ kWh		
Reactive energy: per phase, total, partial, delivered and received	E _{rA}	2		0 to 281.10 ^a kVARh		
Apparent energy: per phase, total, partial	E _{apA}	2		0 to 281.10° kVAh		
Frequency	f	0.5	50 / 60 Hz ± 2 %	45 to 65 Hz		
Phase current		1	6 to 200 A / 20 to 600 A /	120 mA to 400 A / 400 mA to 1200 A /		
Neutral current	I _{NC}	2	30 to 1000 A / 60 to 2000 A	600 mA to 2000 A / 1.2 A to 4000 A		
	U NC	0.5	Un ± 20 %	138 to 576 VAC		
Voltages (Line to Line)	-					
Power factor (per phase, total)	PF _A	1	From 0.5 inductive to 0.8 capacitive	-1 to 1		

⁽¹⁾ Above 2000 m, please consult us.

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⁽²⁾ For higher value, please consult us.



PowerLogic[™] PowerTag Energy Rope 200 A to 2000 A



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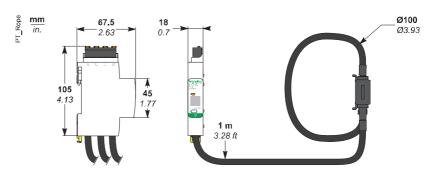
PowerTag Energy Rope 200 A to 2000 A Commercial reference numbers

Commercial reference numbers								
	Commercial reference number	Туре	Description					
	A9MEM1590	R200 3P/3P+N	PowerTag Energy Rope 200 A 3P / 3P+N					
	A9MEM1591	R600 3P/3P+N	PowerTag Energy Rope 600 A 3P / 3P+N					
	A9MEM1592	R1000 3P/3P+N	PowerTag Energy Rope 1000 A 3P / 3P+N					
	A9MEM1593	R2000 3P/3P+N	PowerTag Energy Rope 2000 A 3P / 3P+N					

For the list of Schneider Electric compatible devices and concentrators, refer to the Selection Guide pages 95 to 102.

Contact your Schneider Electric representative for complete ordering information.

PowerTag Energy Rope 200 A to 2000 A dimensions



PowerTag Energy Rope 200 A to 2000 A weight

Type	Weight (g)
R200 3P/3P+N	360
R600 3P/3P+N	
R1000 3P/3P+N	
R2000 3P/3P+N	

Please refer to PowerTag Energy Rope 200 A to 2000 A Installation Sheet for accurate and complete information on the installation of this product.

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PowerLogic[™] PowerTag Energy Selection guide for product compatibility*

(Compatibility for terminal not equipped with comb busbar)

PowerTag Energy 63 A



		H H	Name of the second seco		188
Products	Mounting	A9 M63	A9 P63	A9 P63	A9 F63
(AC network)	position			RCBO	
Acti9/Multi9					
Circuit breakers					
iC60/iK60/DT60	Тор	✓		_	-
	Bottom	✓	_	_	_
iC60 (double terminal)	Тор	-	-	_	
,	Bottom	-	-	-	
iC40	Тор	-		-	-
	Bottom	-			_
DT40/iDPN/C40	Тор	_			_
5.16.15.14.5.16	Bottom	-		-	_
C120 ≤ 63 A	Тор	_	-	-	☑ (1)
NG125 ≤ 63 A	Bottom	-	-	-	☑ (1) ☑ (1)
iC65N-K (China)	Тор	✓	-	-	-
iC65 (China)	Bottom	✓	-	-	-
iDPN (China)	Тор	-	<u> </u>	-	-
IDFN (Clina)	Bottom	-		-	-
iKQ				-	
(1P+W PowerTag on each pole)	Top Bottom	NA ☑ (1P+W only)	-	-	-
N40	Тор	-		1_	_
	Bottom	_		1_	_
Reflex iC60	Тор	✓	-	-	-
	Bottom		_	1_	_
Reflex XC40	Тор	✓	_		
None To	Bottom	-	-	-	☑ (1)
C32/C45/C60/C65/K60/T60/	Тор		-	-	-
Multi9 OEM (C60N/H/L)	Bottom	M	-	-	
Circuit brookers equippe		<u> </u>		1-	
Circuit breakers equippe iC60/iC65/iC60/iC65N-K	Top	☑ (CB)	T-	T -	T -
with Vigi module	Bottom	<u> </u>	1-	-	☑ (1) (Vigi)
iC40	Top CB	-	☑ (CB)	-	- (1) (Vigi)
with Vigi iCG40	Top (Vigi)	-		-	-
	Bottom (Vigi)	-	☑ (2) (Vigi 1P+N)	-	F4 () (: -: 2D + N)
iC40		-	FA (CD)	-	☑ (Vigi 3P+N)
with "outgoer" Vigi module	Top Bottom	-	☑ (CB)	-	- F4 () (i gi)
DT40/DPN/C40	Top CB	-		-	☑ (Vigi)
with "group feeder" Vigi module			☑ (CB)		E4 0 (= 1 OP : N)
DT40/DPN/C40	Top Vigi	-	☑ (Vigi 1P+N)	-	☑ (Vigi 3P+N)
with "outgoer" Vigi module	Тор	-	☑ (CB)	-	-
	Bottom	-	-	-	☑ (Vigi)
DT60 with Vigi TG60	Top CB	☑ (CB) only A9MEM1541	-	-	-
	Top Vigi	-	-	-	☑ (1) (Vigi)

⁽¹⁾ You may need to change the voltage measurement cable terminals of the PowerTag Energy F63 by other cable ends (wire AWG22/0.33 mm²) for a more suitable connection to this product.
(2) Product usually associated with a comb busbar

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^(*) Refer to the product catalog for technical characteristics

PowerLogic[™] PowerTag Energy Selection guide for product compatibility*

(Compatibility for terminal not equipped with comb busbar)

PowerTag Energy 63 A



		A STATE OF THE STA	Appeter II		666
Products	Mounting	A9 M63	A9 P63	A9 P63	A9 F63
(AC network)	position			RCBO	
Acti9/Multi9					
Circuit breakers equippe	ed with Vigi m	nodule (cont')			
C120 ≤ 63 A	Тор	-	-	-	☑ (1) (CB)
NG125 ≤ 63 A with Vigi module	Bottom	-	-	-	
Residual current device	9		<u> </u>		
iID/iID K	Тор	✓	-	-	-
	Bottom		-	-	-
iID (double terminal)	Тор	-	-	-	✓
,	Bottom	-	-	-	M
iID40	Тор	-	☑ (2) (1P+N)	-	☑ (2) (3P+N)
	Bottom		-	-	-
iDPN Vigi	Тор	-		-	-
"outgoer" 1P+N	Bottom	=		-	-
iC60H RCBO/iC60H2 RCBO/	Тор	NA (fishbone)	-	-	_
IKQE RCBO	Bottom	-	-	☑	-
iC60 RCBO	Тор	☑	-	-	-
	Bottom	☑	-	-	-
iCV40 "outgoer" 1P+N	Тор	-	✓	-	-
	Bottom	-	☑	-	-
iCV40 "outgoer" 3P+N	Тор	-	☑	-	-
	Bottom	-	-	-	✓
DPN Vigi/DT40 Vigi/C40 Vigi	Тор	-	☑	-	-
"outgoer" 1P+N	Bottom	-	☑	-	-
DPN Vigi/DT40 Vigi/C40 Vigi/	Тор	-	☑	-	-
iDPN Vigi "outgoer" 3P+N	Bottom	-	-	-	✓
DPN Vigi K	Тор	-	-	-	☑ (1)
	Bottom	-	-	-	☑ (1)
N40 Vigi	Тор	-	☑	-	-
"outgoer"	Bottom	-	☑	-	-
iDc/ITG40/C40	Top Left	-	☑	-	-
	Top Right	-	☑	-	-
DCP Vigi	Тор	✓	-	-	-
	Bottom	✓	-	-	-
C60H RCBO (Multi9)	Тор	NA (fishbone)	-	-	-
	Bottom	-	-	☑	-
ID ≤ 63 A/ID K biconnect/	Тор	☑	-	-	-
ID Type B ≤ 63 A	Bottom		-	-	-
RED/REDs/REDTest	Тор	-	-	-	☑ (1)
	Bottom	-	-	-	☑ (1)

⁽¹⁾ You may need to change the voltage measurement cable terminals of the PowerTag Energy F63 by other cable ends (wire AWG22/0.33 mm²) for a more suitable connection to this product.
(2) Product usually associated with a comb busbar

^(*) Refer to the product catalog for technical characteristics

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PowerLogic[™] PowerTag Energy Selection guide for product compatibility*

(Compatibility for terminal not equipped with comb busbar)

PowerTag Energy 63 A



			And And		9 6 4 4
Products	Mounting	A9 M63	A9 P63	A9 P63	A9 F63
(AC network)	position			RCBO	
Acti9/Multi9					
Switches					
iSW ≤ 63 A	Тор		-	_	-
	Bottom		-	-	-
iSW-NA ≤ 63 A	Тор		-	-	-
	Bottom		-	-	-
iSW 20/32 A	Тор	-	-	-	
	Bottom	-	-	-	
i-NA ≤ 63 A	Тор	✓	_	_	-
	Bottom				
NG125 NA ≤ 63 A	Тор	-	_		☑ (1)
110120114 2004	Bottom	-		-	
Fire diagrams store	Bottom	-			☑ (1)
Fuse disconnectors STI	Тор	-			-
511	· .		<u> </u>	-	
	Bottom	-	⊻	-	-
SBI 14x51/SBI 22x58 ≤ 63 A	Тор	-	-	-	☑ (1)
	Bottom	-	-	-	☑ (1)
D01/D02	Тор	-	=	-	☑ (1)
	Bottom	-	-	-	☑ (1)
TeSys					
Motor circuit breakers					
GV2	Тор	-	-	-	☑ (1) (2)
	Bottom	-	-	-	☑ (1) (2)
GV3 ≤ 63 A	Тор	-	-	-	☑ (1) (2)
	Bottom	-	-	-	☑ (1) (2)
Contactors		_			
TeSys D ≤ 63 A	Тор	-	-	-	✓ Upstream only (1)
	Bottom	-	-	-	
TeSys K	Тор	-	-	-	☑ Upstream only (1)
	Bottom	-	-	-	
Motor starter					
TeSys U	Тор	-	-	-	✓ Upstream only (1)
	Bottom	-	-	-	

(1) You may need to change the voltage measurement cable terminals of the PowerTag Energy F63 by other cable ends (wire AWG22/0.33 mm²) for a more suitable connection to this product.
(2) PowerTag Energy sensors withstand motor starting in-rush currents. Environmental mission profile: Buildings as per 60721-3-3.

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^(*) Refer to the product catalog for technical characteristics

PowerLogic[™] PowerTag Energy Selection guide for product compatibility*

(Compatibility for terminal not equipped with comb busbar)

PowerTag Energy 160 A



Products		Mounting	F160 3P / 3P+N		
(AC network)		position			
Acti9					
Circuit breakers					
C120 (with or without Vigi module)	3P/3P+N	Top / Bottom	✓		
NG125 (with or without Vigi module)	3P/3P+N	Top / Bottom	✓		
Residual current devices					
iID > 63 A	3P+N	Top / Bottom	✓		
RCCB-ID 125 A	3P+N	Top / Bottom	✓		
Fuse disconnectors					
SBI > 63 A	3P/3P+N	Top / Bottom	✓		
Switches					
NG125 NA	3P/3P+N	Top / Bottom	✓		
iSW > 63 A	3P/3P+N	Top / Bottom	✓		
iSW NA > 63 A	3P+N	Top / Bottom	✓		
ComPact					
Circuit breakers					
NSXm	3P/3P+N	Top / Bottom	☑ (5)		
Switches					
NSXm NA	3P/3P+N	Top / Bottom	☑ (5)		
INS 80/100/125/160	3P/3P+N	Top / Bottom	✓		
PowerPact					
Circuit breakers					
В	3P/3P+N	Top / Bottom	☑ (6)		
TeSys					
Motor circuit breakers					
GV3 > 65 A	3P	Top / Bottom			
GV4	3P	Top / Bottom			
Contactors	'	<u> </u>			
63 A < TeSys D ≤ 160 A	3P/3P+N	Тор	✓ Upstream only		
TeSys F ≤ 160 A	3P/3P+N	Тор	☑ Upstream only		
		-			

⁽⁵⁾ It is advised to use EverLink connectors with control wire terminal (LV426970 for 3P / LV426971 for 4P)

(*) Refer to the product catalog for technical characteristics

⁽⁶⁾ It is advised to use EverLink connectors with control wire terminal (LV426974 for 3P / LV426975 for 4P)

PowerLogic[™] PowerTag Energy Selection guide for product compatibility* (Compatibility for terminal not equipped with comb busbar)

			PowerTag Energy 250 A		PowerTag Energy 630 A		
Products		Mounting	M250 3P	M250 3P+N	M630 3P	M630 3P+N	
(AC network)		position					
ComPact							
Circuit breakers							
NSX100/160/250	3P	Bottom		-	-	-	
B/F/N/H/S/L/R/NA Fixed	4P	Bottom	-	M	-	-	
NSX400/630	3P	Bottom	-	-	✓	-	
F/N/H/S/L/R/NA Fixed	4P	Bottom	-	-	-	☑	
NSX100/160/250	3P	Top / Bottom	✓	-	-	-	
B/F/N/H/S/L/R/NA Plug-In (mounted on the base)	4P	Top / Bottom	-	☑ (3)	-	-	
NSX400/630	3P	Top / Bottom	_	-	☑ (4)	_	
F/N/H/S/L/R/NA Plug-In	4P	Top / Bottom	-	-	-	☑ (3) (4)	
(mounted on the base) NS100/160/250	3P	Bottom	✓	_	-	_ () ()	
N/SX/H/L/NA Fixed	4P	Bottom			-	-	
NS400/630	3P	Bottom	-	-		-	
N/H/L/NA Fixed	4P	Bottom	_		-	✓	
NS100/160/250	3P	Top / Bottom	✓	_	_	-	
N/SX/H/L/NA Plug-In	4P	Top / Bottom	-	☑ (3)	-	_	
(mounted on the base) NS400/630	3P	Top / Bottom	_	-			
N/H/L/NA Plug-In	4P	Top / Bottom	-	-	☑ (4)	- F4 (0) (4)	
(mounted on the base)		'			-	☑ (3) (4)	
Circuit breakers ed						T.	
NSX100/160/250 B/F/N/H/S/L/R/NA Fixed	3P	Bottom	✓	=	=	=	
	4P	Bottom	-	✓	-	=	
NSX400/630 F/N/H/S/L/R/NA Fixed	3P	Bottom	-	-	✓	-	
	4P	Bottom	-	-	-	✓	
NSX100/160/250 B/F/N/H/S/L/R/NA Plug-In (mounted on the base)	3P	Тор		-	-	-	
NSX400/630 F/N/H/S/L/R/NA Plug-In (mounted on the base)	3P	Тор	-	-	☑ (4)	-	
Switches							
INS250/INV -	3P	Bottom	-	✓	-	-	
100/160/200/250	4P	Top / Bottom	-	☑ (3)	-	-	
INS/INV -	3P	Bottom	-	-	-		
320/400/500/630	4P	Top / Bottom	-	-	-	☑ (3)	
TeSys					·	, <u> </u>	
Motor circuit breakers							
GV5, GV7	3P	Bottom		-	-	-	
GV6	3P	Bottom	-	-		-	
			1	1		1	

⁽³⁾ neutral on the right when mounted on top side

(*) Refer to the product catalog for technical characteristics

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⁽⁴⁾ when plate mounted, need to add a 4 mm intercalary under the PowerTag module (see ComPact NSX catalog)

PowerLogic[™] PowerTag Energy Selection guide for product compatibility*

(Compatibility for terminal not equipped with comb busbar)

PowerTa	g Energy	/ Rope
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			rewei rag Energy Rope				
Products		Mounting	R200 3P / 3P+N	R600 3P / 3P+N	R1000 3P / 3P+N	R2000 3P / 3P+N	
(AC network)		position				1,2000 01 1 01 11	
ComPact							
Circuit breakers							
NS 630b	3P/3P+N	Top / Bottom	-		-	-	
NS 800/1000		Top / Bottom	-	-		-	
NS 1250/1600/1600b/2000		Top / Bottom	-	-	-		
Switches			I .				
INS/INV 630b	3P/3P+N	Top / Bottom	-		-	-	
INS/INV 800/1000	3P/3P+N	Top / Bottom	-	-	☑	-	
INS/INV 1250/1600/2000	3P/3P+N	Top / Bottom	-	-	-		
NS 630b NA	3P/3P+N	Top / Bottom	-	✓	-	-	
NS 800/1000 NA	3P/3P+N	Top / Bottom	-	-	☑	-	
NS 1250/1600/1600b/2000 NA		Top / Bottom	-	-	-		
MasterPact							
Circuit breakers							
NT 06	3P/3P+N	Top / Bottom	-		-	_	
NT 08/10		Top / Bottom	-	-		_	
NT 12/16		Top / Bottom	-	_	-	✓	
NW 08/10		Top / Bottom				-	
NW 12/16/20		Top / Bottom	-	-	-		
Switches							
NT 06 HA	3P/3P+N	Top / Bottom	-		-	-	
NT 08/10 HA		Top / Bottom	-	-	✓	-	
NT 12/16 HA		Top / Bottom	-	-	-		
NW 08/10 NA/HA/HF		Top / Bottom	-	-		-	
NW 12/16/20 NA/HA/HF		Top / Bottom	-	-	-		
MTZ1 06 HA		Top / Bottom	-	✓	-	-	
MTZ1 08/10 HA	3P/3P+N	Top / Bottom	-	-	☑	-	
MTZ1 12/16 HA	3P/3P+N	Top / Bottom	-	-	-	✓	
MTZ2 08/10 NA/HA/HA10	3P/3P+N	Top / Bottom	-	-	✓	-	
MTZ2 12/16/20 NA/HA/HA10	3P/3P+N	Top / Bottom	-	-	-	M	
TeSys							
Contactors							
TeSys D > 160 A	3P / 3P+N	Тор	☑ Upstream only	-	-	-	
160 A < TeSys F ≤ 2000 A	3P/3P+N		☐ Upstream only	☑ Upstream only	☑ Upstream only	☑ Upstream only	
Others			_ = орансангонну	_ opstream only	_ орзисантонку	= opstream only	
Circuit breakers / Switches / Motor circuit breakers							
All products below 200 A		Top / Bottom	<u></u> ✓	_	_	-	
All products between 200 A		Top / Bottom	-		-	-	
and 600 A		<u> </u>		-			
All products between 600 A and 1000 A		Top / Bottom	-	-	☑	-	
All products between 1000 A and 2000 A	3P/3P+N	Top / Bottom	-	-	-	✓	

^(*) Refer to the product catalog for technical characteristics