

PM5000 series

Technical Datasheet

The PowerLogic PM5000 series power meters are the new benchmark in affordable, precision metering.

The value you want, the precision you need. Compact, affordable power meters with high-end cost capabilities and basic mobile energy management.

Applications

Capable of essential cost management:

- Sub-billing/tenant metering
- Equipment sub-billing
- Energy cost allocation

Also ideal for electrical network management:

- Track real-time power conditions
- Monitor control functions
- Provide basic power quality values
- Detect and capture voltage sag and swell events
- Monitor residual current
- Analyze equipment and network status
- BACnet/IP, EtherNet/IP, and DNP3.0 protocol support



The solution for

Markets that can benefit from a solution that includes PowerLogic PM5000 series meters:

- Buildings
- Industry
- Healthcare
- Data Center and networks
- Infrastructure

Benefits

System integrators' benefit

- Ease of integration
- Ease of setup
- Cost effectiveness

Panel builders' benefit

- Ease of installation
- Cost effectiveness
- Aesthetically pleasing
- Simplified ordering

End users' benefit

- Ease of use
- Precision metering & sub-billing
- Billing flexibility
- Comprehensive, consistent and superior performance
- Maximize uptime, eliminate faults, and enhance safety

Competitive advantages

- Easy to install and operate
- Easy for circuit breaker monitoring and control
- Data logging up to 16 parameters
- Power quality analysis
- Load management combined with alarm and timestamping
- High performance and accuracy
- Residual Current Monitoring
- Voltage sag and swell detection with waveform capture
- MID ready compliance for legal billing application
- BACnet/IP, EtherNet/IP, and DNP3.0 protocol support

Power management solutions

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

Conformity of standards

- IEC 61557-12
- IEC 62053-22
- IEC 62053-24
- IEEE 802.3
- EN 50470-1
- EN 50470-3
- IEC/UL/EN 61010-1
- IEC 62052-11
- FCC part 15 Class B
- EN 55022 Class B
- ODVA certification
- ANSI C12.1-2008 (PM55xx)
- ANSI C12.20 Class 0.2 & 0.5
- Align with cyber security guidelines as per IEC 62443

PM5000 series

PowerLogic™ PM5100, PM5300 and PM5500 series

The PowerLogic™ PM5000 power meter is the ideal fit for cost management applications. Designed for use in both energy management systems and building management systems, it provides the measurement capabilities needed to allocate energy usage, perform tenant metering and sub-billing, pin-point energy savings, optimize equipment efficiency and utilization, and perform a high level assessment of the power quality of the electrical network.

In a single 96 x 96 mm unit, with a graphical display, (plus optional remote display) all three phases, neutral and ground can be monitored simultaneously.

The bright, anti-glare display features large characters and powerful backlighting for easy reading even in extreme lighting conditions and viewing angles. Easy to understand menus, text in 8 selectable languages, icons and graphics create a friendly environment to learn about your electrical network. Ethernet gateway and enhanced cyber security. These are highly accurate devices with global billing certifications.

Applications

Cost management: Cost saving opportunities become clear once you understand how and when your facility uses electricity. The PowerLogic™ PM5000 series meters are ideal for:

■ **Sub-billing / tenant metering:** allows a landlord, property management firm, condominium association, homeowners association, or other multi-tenant property to bill tenants for individual measured utility (electricity) usage. MID approved meters for billing applications across Europe.

■ **Cost allocation:** allocate energy costs between different departments (HVAC, indoor and outdoor lighting, refrigeration, etc.), different parts of an industrial process or different cost centres. Cost allocation systems can help you save money by making changes to your operation, better maintaining your equipment, taking advantage of pricing fluctuations, and managing your demand.

Network management: Improving reliability of the electrical network is key for success in any business. Monitoring values such as voltage levels, harmonics distortions, voltage unbalance, residual current, voltage sag and swell will help you to ensure proper operation and maintenance of your electrical network and equipment. PowerLogic™ PM5000 series meters are the perfect tool for:

■ **Basic Power Quality monitoring:** power quality phenomena can cause undesirable effects such as heating in transformers, capacitors, motors, generators and misoperation of electronic equipment and protection devices.

■ **Min/ Max monitoring (with timestamp):** understanding when electrical parameters, such as voltage, current and power demand, reach maximum and minimum values will give you the insight to correctly maintain your electrical network and assure equipment will not be damaged.

■ **Alarming:** alarms help you to be aware of any abnormal behaviour on the electrical network in the moment it happens.

■ **WAGES monitoring:** take advantage of the input metering on PM5000 meters to integrate measurements from third party devices such as water, air, gas, electricity or steam, meters.

■ **Residual current monitoring:** measures leakage current flowing in TN & TT network system.

■ **Voltage sags and swells:** measures and captures wave form in the event of voltage sags and swells in the network.

Main characteristics

Easy to install

Mounts using two clips, in standard cut out for DIN 96 x 96 mm, no tools required. Compact meter with 72 mm (77 mm for PM5500) depth connectable up to 690 V L-L without voltage transformers for installations compliant with category III. Optional remote display (PM5563). Ethernet gateway functionality via RS-485 port.

Easy to operate

Intuitive navigation with self-guided, language selectable menus, six lines, four concurrent values. Two LEDs on the meter face help the user confirm normal operation with a green LED - heartbeat/communications indicator, and the amber LED - customizable either for alarms or energy pulse outputs. Onboard web pages (PM5500) show real-time and logged information, and verify communications.

Easy circuit breaker monitoring and control

The PM5300 provides two relay outputs (high performance Form A type) with capability to command most of the circuit breaker coils directly. For Digital Inputs, monitored switches can be wired directly to the meter without external power supply by using whetting output voltage. PM5500 series have 4 status inputs (digital) and 2 digital output (solid state) to use for WAGES monitoring, control and alarm annunciation.

Accurate energy measurement for precise cost allocation:

	PM5100	PM5300	PM5500	PM5600	PM5700
IEC 62053-22 (Active Energy)	Class 0.5S	Class 0.5S	Class 0.2S	Class 0.2S	Class 0.2S



PowerLogic™ PM5563 remote display



PowerLogic™ PM5563 remote display

PM5000 series

PB111777



PowerLogic™ PM5500 meter

PB111772



PowerLogic™ PM5300 meter

PB111768



PowerLogic™ PM5100 meter



Certified according to MID Directive, Annex "B" + Annex "D" for legal metrology relevant to active electrical energy meters (see Annex MI-003 of MID). Can be used for fiscal (legal) metrology.

MID ready compliance, EN 50470-1/3 – Class C

Native multi-protocol support

The PM55/PM56/PM5700 is now easier than ever to integrate into new and existing BMS systems. With native BACnet/IP protocol support, meters can simultaneously communicate via BACnet and Modbus in applications where multiple software systems are used (building management and energy management systems).

The PM55/PM56/PM5700 series has been tested and certified in accordance with BACnet Testing Laboratories (BTL) requirements.

PM55/PM56/PM5700 Direct metering of neutral current

The PM55/PM56/PM5700 has a fourth CT for measuring neutral current. In demanding IT applications, where loads are non-linear (i.e. switching power supplies on computers/servers), measuring neutral current is essential to avoid overload and resulting outage.

Power Quality analysis

The PM5000 offers Total Harmonic Distortion (THD/thd), Total Demand Distortion (TDD) measurements and individual harmonics (odd) magnitudes and angles for voltage and current:

	PM5100	PM5300	PM55/56/5700
Individual Harmonics	magnitudes up to 15th	magnitudes up to 31st	magnitudes & angles up to 63rd

These types of power quality parameters help to identify the source of harmonics that can harm transformers, capacitors, generators, motors and electronic equipment.

Load management

Peak demands with time stamping are provided. Predicted demand values can be used in combination with alarms for basic load shedding applications.

Alarming with time stamping

A different combination of set point driven alarms and digital alarms with 1s time stamping are available in the PM5000 family:

	PM5100	PM5300	PM55/56/5700
Set point driven alarms	29	29	29 or 33*
Unary	4	4	4
Digital	–	2	4 or 2
Boolean / Logic	–	–	10
Custom defined	–	–	5

*Applicable in specific meter models. 2 alarms for disturbance (Sag/ Swell)

Alarms can be visualized as Active (the ones that have picked up and did not drop out yet) or Historical (the ones that happened in the past). Alarms can be programmed and combined to trigger digital outputs and mechanical relays (PM5300).

The PM5000 series keeps an alarm log with the active and historical alarms with date and time stamping. SMTP protocol for receiving alarm conditions via email and text. SNTP protocol for date/time network synchronization.

Load timer

A load timer can be set to count load running hours based on a minimum current withdraw, adjustable to monitor and advise maintenance requirements on the load.

High Performance and accuracy

IEC 61557-12 Performance measuring and monitoring devices (PMD). Defines the performance expectation based on classes. It defines the allowable error in the class for real and reactive power and energy, frequency, current, voltage, power factor, voltage unbalance, voltage and current harmonics (odds), voltage THD, current THD, as well as ratings for temperature, relative humidity, altitude, start-up current and safety. It makes compliant meters readings comparable - they will measure the same values when connected to the same load.

Meets IEC 61557-12 PMD/[SD][SS]/K70/0.5 for PM5100 and PM5300

Meets IEC 61557-12 PMD/[SD][SS]/K70/0.2 for PM5500

Legal billing compliance

MID compliance is compulsory for billing applications across Europe.

In addition to billing applications, for facility managers responsible for energy cost MID means same level of quality as a billing meter.

PM5000 series

PM5000 series feature selection								
	PM5100		PM5300					
	PM5100	PM5110	PM5310	PM5310R	PM5320	PM5320R	PM5330	PM5340
Installation								
Fast installation, panel mount with integrated display	■	■	■	■	■	■	■	■
Fast installation, DIN rail mountable	—	—	—	—	—	—	—	—
Accuracy	CL 0.5S	CL 0.5S	CL 0.5S	CL 0.5S	CL 0.5S	CL 0.5S	CL 0.5S	CL 0.5S
Display								
Backlit LCD, multilingual, bar graphs, 6 lines, 4 concurrent values	■	■	■	■	■	■	■	■
Power and energy metering								
3-ph voltage, current, power, demand, energy, frequency, power factor	■	■	■	■	■	■	■	■
Multi-tariff	—	—	4	4	4	4	4	4
MID ready compliance, EN50470-1/3, Annex B & Annex D Class C	—	PM5111	—	—	—	—	PM5331	PM5341
Power quality analysis								
THD, thd, TDD	■	■	■	■	■	■	■	■
Harmonics, individual (odd) up to	15th	15th	31st	31st	31st	31st	31st	31st
Waveform capture & sag/swell detection	—	—	—	—	—	—	—	—
I/Os and relays								
I/Os	1DO	1DO	2DI/2DO	2DI/2DO	2DI/2DO	2DI/2DO	2DI/2DO	2DI/2DO
Relays	0	0	0	0	0	0	2	2
Analog inputs	—	—	—	—	—	—	—	—
Residual Current inputs	—	—	—	—	—	—	—	—
Alarms and control								
Alarms	33	33	35	35	35	35	35	35
Set point response time, seconds	1	1	1	1	1	1	1	1
Single and multi-condition alarms	—	—	■	■	■	■	■	■
Boolean alarm logic	—	—	—	—	—	—	—	—
Memory for data logging	—	—	256KB	256KB	256KB	256KB	256KB	256KB
Communications								
Serial ports with modbus protocol	—	1	1	1	—	—	1	—
Ethernet port with Modbus TCP protocol	—	—	—	—	1	1	—	1
BACnet/IP protocol	—	—	—	—	■	■	—	■
EtherNet/IP protocol	—	—	—	—	—	—	—	—
DNP3.0 over Ethernet	—	—	—	—	—	—	—	—
Onboard web server with web pages	—	—	—	—	—	—	—	—
Serial to Ethernet gateway	—	—	—	—	—	—	—	—
Short ref. numbers	PM5100	PM5110	PM5310	PM5310R	PM5320	PM5320R	PM5330	PM5340
(See table below for complete commercial reference numbers)								

NOTE: PM5310R and PM5320R must be used with Schneider Electric's "Quick Click" 3-in-1 LVCTs

PM5000 series

PM5000 series feature selection

	PM5500					PM5600		PM5700
	PM5560	PM5563	PM5563RD	PM5570	PM5580	PM5650	PM5660	PM5760
Installation								
Fast installation, panel mount with integrated display	■	–	–	■	■	■	■	■
Fast installation, DIN rail mountable	–	■	■	–	–	–	–	–
Accuracy	CL 0.2S	CL 0.2S	CL 0.2S	CL 0.2S	CL 0.2S	CL 0.2S	CL 0.2S	CL 0.2S
Display								
Backlit LCD, multilingual, bar graphs, 6 lines, 4 concurrent values	■	–	■	■	■	■	■	■
Power and energy metering								
3-ph voltage, current, power, demand, energy, frequency, power factor	■	■	■	■	■	■	■	■
Multi-tariff	8	8	8	8	8	8	8	8
MID ready compliance, EN50470-1/3, Annex B & Annex D Class C	PM5561	–	–	–	–	–	PM5661	PM5761
Power quality analysis								
THD, thd, TDD	■	■	■	■	■	■	■	■
Harmonics, individual (odd) up to	63rd	63rd	63rd	63rd	63rd	63rd	63rd	63rd
Waveform capture & sag/swell detection	–	–	–	–	–	8 cycles @ 128 samples/cycle	–	8 cycles @ 128 samples/cycle
I/Os and relays								
I/Os	4DI/2DO	4DI/2DO	4DI/2DO	2DI/2DO	4DI/2DO	4DI/2DO	2DI/2DO	2DI/2DO
Relays	0	0	0	0	0	0	0	0
Analog inputs	0	0	0	2	0	0	0	0
Residual Current inputs	0	0	0	0	0	0	2	2
Alarms and control								
Alarms	52	52	52	50	52	54	54	56
Set point response time, seconds	1	1	1	1	1	1	1	1
Single and multi-condition alarms	■	■	■	■	■	■	■	■
Boolean alarm logic	■	■	■	■	■	■	■	■
Memory for data logging	1.1 MB	1.1 MB	1.1 MB	1.1 MB	1.1 MB	1.1 MB	1.1 MB	1.1 MB
Communications								
Serial ports with modbus protocol	1	1	1	1	1	1	1	1
Ethernet port with Modbus TCP protocol	2★	2★	2★	2★	2★	2★	2★	2★
BACnet/IP protocol	■	■	■	■	■	■	■	■
EtherNet/IP protocol	■	■	■	■	■	■	■	■
DNP3.0 over Ethernet	■	■	■	■	■	■	■	■
Onboard web server with web pages	■	■	■	■	■	■	■	■
Serial to Ethernet gateway	■	■	■	■	■	■	■	■
Short ref. numbers	PM5560	PM5563	PM5563RD	PM5570	PM5580	PM5650	PM5660	PM5760
(See table below for complete commercial reference numbers)								

★ 2 Ethernet ports for daisy chain, one IP address.

PM5000 series

PM5000 technical specifications						
		PM5100	PM5300	PM5500	PM5600	PM5700
Use on LV and MV systems		■				
Basic metering with THD and min/max readings		■				
Instantaneous rms values						
Current	per phase, neutral and ground (PM5500)	■				
Voltage	Total, per phase L-L and L-N	■				
Frequency		■				
Real, reactive, and apparent power	Total and per phase	Signed, Four Quadrant				
True Power Factor	Total and per phase	Signed, Four Quadrant				
Displacement PF	Total and per phase	Signed, Four Quadrant				
% Unbalanced I, V L-N, V L-L		■				
Direct monitoring of neutral current			■			
Energy values						
Accumulated Active, Reactive and Apparent Energy		Received/Delivered; Net and absolute; Time Counters				
Demand value						
Current average		Present, Last, Predicted, Peak, and Peak Date Time				
Active power		Present, Last, Predicted, Peak, and Peak Date Time				
Reactive power		Present, Last, Predicted, Peak, and Peak Date Time				
Apparent power		Present, Last, Predicted, Peak, and Peak Date Time				
Peak demand with timestamping D/T for current and powers		■				
Demand calculation	Sliding, fixed and rolling block, thermal methods	■				
Synchronisation of the measurement window to input, communication command or internal clock		■				
Settable Demand intervals		■				
Demand synchronization with pulse input			■			
Other measurements						
I/O timer		■				
Operating timer		■				
Load timer		■				
Alarm counters and alarm logs		■				
Power quality measurements						
THD, thd (Total Harmonic Distortion) I, VLN, VLL		I, VLN, VLL				
TDD (Total Demand Distortion)		■				
Individual harmonics (odds)		15 th (PM5110)	31 st	63 rd		
Neutral Current metering with ground current calculation				■		
Waveform capture and sag/swell detection				8 cycles @ 128 samples/cycle		
Data recording						
Min/max of instantaneous values, plus phase identification★		■				
Alarms with 1s timestamping★		■				
Data logging			2 fixed parameters kWh and kVAh with configurable interval & duration (e.g. 2 parameters for 60 days at 15-minute intervals)	Up to 14 selectable parameters with configurable interval and duration (e.g. 6 parameters for 90 days at 15-minute intervals)		
Min/max log		■	■	■		
Maintenance, alarm and event logs			■	■		
Customisable data logs				■		

★Stored in non-volatile memory

PM5000 series

PM5000 technical specifications

		PM5100	PM5300	PM5500	PM5600	PM5700
Inputs / Outputs / Mechanical Relays						
Digital inputs			2	4 in PM5560, PM5563, PM5580, PM5650 2 in PM5570, PM5660, PM5760		
Digital outputs		1 (kWh only)	2	2		
Form A Relay outputs			2			
Analog inputs				2 for PM5570		
Residual Current inputs					2 for PM5660	2 for PM5760
Timestamp resolution in seconds		1	1	1	1	1
Whetting source			24 V DC, 8 mA			
Type of measurement: True rms on three-phase (3P, 3P + N)		64 samples per cycle		128 samples per cycle		
Measurement accuracy	IEC 61557-12	PMD/[SD]SS]/K70/0.5		PMD/[SD]SS]/K70/0.2		
	Active Energy	Class 0.5S as per IEC 62053-22		Class 0.2S as per IEC 62053-22		
	Reactive Energy	Class 2 as per IEC 62053-23		Class 2 as per IEC 62053-23		
	Active Power	Class 0.5 as per IEC 61557-12		Class 0.2 as per IEC 61557-12		
	Apparent Power	Class 0.5 as per IEC 61557-12				
	Current, Phase	Class 0.5 as per IEC 61557-12 ±0.15 %				
	Voltage, L-N	Class 0.5 as per IEC 61557-12 ±0.1 %				
	Frequency	±0.005 %				
	Power Factor	±0.005 count				
	MID Directive EN50470-1, EN50470-3	Annex B and Annex D (Optional model references) Class C				
Input-voltage (up to 1.0 MV AC max, with voltage transformer)	Nominal Measured Voltage range	20 V L-N / 35 V L-L to 400 V L-N /690 V L-L absolute range 35 V L-L to 760 V L-L		20 V L-N / 20 V L-L to 400 V L-N /690 V L-L absolute range 20 V L-L to 828 V L-L		
	Impedance	5 MΩ				
	Frequency nom	50 or 60 Hz ±5 %		50 or 60 Hz ±10 %		
Input-current (configurable for 1 or 5 A secondary CTs)	I nom	5 A				
	Measured Amps with over range and Crest Factor	Starting current: 5 mA Operating range: 50 mA to 8.5 A		Starting current: 5 mA Operating range: 50 mA to 10 A		
	Withstand	Continuous 20 A, 10 s/hr 50 A, 1s/hr 500 A				
	Impedance	< 0.3 mΩ				
	Frequency nom	50 or 60 Hz ±5 %		50 or 60 Hz ±10 %		
	Burden	<0.026 VA at 8.5 A				
AC control power	Operating range	100 - 277 V AC L-N / 415 V L-L +/-10 % CAT III 300V class per IEC 61010		100-480 V AC ±10 % CAT III 600V class per IEC 61010		
	Burden	<5 W,11 VA at 415V L-L		<5W/16.0 VA at 480 V AC		
	Frequency	45 to 65 Hz				
	Ride-through time	80 mS typical at 120V AC and maximum burden. 100 mS typical at 230 V AC and maximum burden 100 mS typical at 415 V AC and maximum burden		35 ms typical at 120 V L-N and maximum burden 129 ms typical at 230 V L-N and maximum burden		
DC control power	Operating range	125–250 V DC ±20 % (100 to 300 V DC)				
	Burden	<4 W at 250 V DC		typical 3.1W at 125 V DC, max. 5W		
	Ride-through time	50 mS typical at 125 V DC and maximum burden				
LV DC control power	20-60 V DC ±10 % CAT III Burden 4.1 W max.			■ PM5580		

PM5000 series

PM5000 technical specifications

			PM5100	PM5300	PM5500	PM5600	PM5700	
Outputs	Relay	Max output frequency		0.5 Hz maximum (1 second ON / 1 second OFF - min times)				
		Switching current		250 V AC at 8.0 Amps, 25 k cycles, resistive 30 V DC at 2.0 Amps, 75 k cycles, resistive 30 V DC at 5.0 Amps, 12.5 k cycles, resistive				
		Isolation		2.5 kV rms				
		Max load voltage	40 V DC			30 V AC / 40 V DC PM5570, PM5560, PM5561, PM5760, PM5761		
		Max load current	20 mA			125 mA		
		On Resistance	50 Ω max			8 Ω		
		Meter constant	from 1 to 9,999,999 pulses per kWh					
		Pulse width for Digital Output	50 % duty cycle					
		Pulse frequency for Digital Output	25 Hz max.					
		Leakage current	0.03 micro Amps			1 micro Amps		
		Isolation	5 kV rms			2.5 kV rms		
	Optical outputs	Pulse width (LED)	200 ms					
		Pulse frequency	2.5 kHz. max			2.5 kHz. max		
Meter constant		from 1 to 9,999,999 pulses per k_h						
Status Inputs	ON Voltage			18.5 to 36 V DC	30 V AC / 60 V DC max			
	OFF Voltage		0 to 4 V DC					
	Input Resistance			110 k Ω	100 k Ω			
	Maximum Frequency			2 Hz (T ON min = T OFF min = 250 ms)	25 Hz (T ON min = T OFF min = 20 ms)			
	Response Time			20 ms				
	Opto Isolation			5 kV rms	2.5 kV rms			
	Whetting output			24 V DC/ 8 mA max				
	Input Burden			2mA @24V DC	2 mA @ 24 V AC/DC			
Analog inputs				4 - 20 mA DC (nominal) Accuracy: 1% of full-scale reading < 20 ohm Operating voltage: 24 V DC max				
Residual Current inputs						5 uA to 1,200 uA (nominal), 1,500 uA max (continuous)Input type: AC 45 to 65 Hz Burden: 150 ohms Default toroid: 1000 turns		
Mechanical characteristics								
Product weight			380 g	430 g	450 g	450 g	450 g	
IP degree of protection (IEC 60529)			IP54 front display, IP30 rear side, IP65 front side with Optional accessory kit METSEIP65OP96X96FF					
Dimensions W x H x D [protrusion from cabinet]			96 x 96 x 72 mm (77 mm for PM5500) (depth of meter from housing mounting flange) [13 mm]					
Mounting position			Vertical					
Panel thickness			6 mm maximum					

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PM5000 technical specifications						
		PM5100	PM5300	PM5500	PM5600	PM5700
Environmental characteristics						
Operating temperature	Operating temperature	-25 °C to 70 °C				
	Display (Display functions to -25 ° C with reduced performance)	-25 °C to 70 °C				
Storage temp.		-40 °C to 85 °C				
Humidity range		5 to 95 % RH at 50 °C (non-condensing)				
Pollution degree		2				
Altitude		2000 m CAT III / 3000 m CAT II	3000 m max. CAT III			
Electromagnetic compatibility						
Harmonic current emissions		IEC 61000-3-2				
Flicker emissions		IEC 61000-3-3				
Electrostatic discharge		IEC 61000-4-2				
Immunity to radiated fields		IEC 61000-4-3				
Immunity to fast transients		IEC 61000-4-4				
Immunity to surge		IEC 61000-4-5				
Conducted immunity 150 kHz to 80 MHz		IEC 61000-4-6				
Immunity to magnetic fields		IEC 61000-4-8				
Immunity to voltage dips		IEC 61000-4-11				
Radiated emissions		FCC part 15, EN 55022 Class B				
Conducted emissions		FCC part 15, EN 55022 Class B				
Safety						
Europe		CE, as per IEC 61010-1 Ed. 3, IEC 62052-11 & IEC 61557-12				
U.S. and Canada		cULus as per UL 61010-1 (3rd Edition)				
Measurement category (Voltage & Current inputs)		CAT III up to 400 V L-N / 690 V L-L				
Dielectric		As per IEC/UL 61010-1 Ed. 3				
Protective Class		II, Double insulated for user accessible parts				
Communication						
RS-485 port Modbus RTU, Modbus ASCII (7 or 8 bit), JBUS		2-Wire, 9600,19200 or 38400 baud, Parity - Even, Odd, None, 1 stop bit if parity Odd or Even, 2 stop bits if None; (Optional in PM51x and PM53x)				
Ethernet port: 10/100 Mbps; Modbus TCP/IP			1 Optional	2 (daisy chain only, 1 IP address)		
Native Ethernet/IP & DNP3.0 over Ethernet				Yes	Yes	Yes
Firmware and language file update		Meter firmware update via the communication ports				
Isolation		2.5 kVrms, double insulated				
Human machine interface						
Display type		Monochrome Graphics LCD				
Resolution		128 x 128				
Backlight		White LED				
Viewable area (W x H)		67 x 62.5 mm				
Keypad		4-button				
Indicator Heartbeat / Comm activity		Green LED				
Energy pulse output / Active alarm (configurable)		Optical, amber LED				
Wavelength		590 to 635 nm				
Maximum pulse rate		2.5 kHz				

PM5000 series commercial reference numbers

Comm ref numbers	Description
METSEPM5100	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 15th harmonic, no communication, 1DO
METSEPM5110	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 15th harmonic, RS-485 Modbus, 1DO
METSEPM5111	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 15th harmonic, RS-485 Modbus, 1DO, MID certified.
METSEPM5310	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, RS-485 Modbus, 2DI/2DO
METSEPM5310R	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, RJ45 LVCT, RS-485 Modbus, 2DI/2DO
METSEPM5320	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, Ethernet, 2DI/2DO
METSEPM5320R	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, RJ45 LVCT, Ethernet, 2DI/2DO
METSEPM5330	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, RS-485 Modbus, 2DI/2DO, 2Relay
METSEPM5331	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, RS-485 Modbus, 2DI/2DO, 2Relay, MID certified.
METSEPM5340	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, Ethernet, 2DI/2DO, 2Relay
METSEPM5341	Power Meter range 72 mm depth, control power to 415 V AC, CI 0.5S, 31st harmonic, 256 kB, Ethernet, 2DI/2DO, 2Relay, MID certified.
METSEPM5560	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, Modbus and Ethernet, 4DI/2DO
METSEPM5561	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, Modbus and Ethernet, MID certified.
METSEPM5562	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, RMICAN approved, HW lockable, 4DI/2DO
METSEPM5562MC	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, RMICAN approved, factory sealed, 4DI/2DO
METSEPM5563	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, DIN mount, no display, 4DI/2DO
METSEPM5563RD	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, DIN mount, remote display, 4DI/2DO
METSEPM5570	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, Modbus and Ethernet, 2DI/2DO/2AI
METSEPM5580	Power Meter range 77 mm depth, control power 24-60 VDC, CI 0.2S, 63rd harmonic, 1.1 MB, Modbus and Ethernet, 4DI/2DO
METSEPM5650	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, waveform capture and sag/swell, 1.1 MB, Modbus and Ethernet, 2DI/2DO
METSEPM5660	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, Modbus and Ethernet, 2DI/2DO, RCM
METSEPM5661	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, 1.1 MB, Modbus and Ethernet, 2DI/2DO, RCM, MID certified.
METSEPM5760	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, waveform capture and sag/swell, 1.1 MB, Modbus and Ethernet, 2DI/2DO, RCM, MID certified.
METSEPM5761	Power Meter range 77 mm depth, control power to 480 V AC, CI 0.2S, 63rd harmonic, waveform capture and sag/swell, 1.1 MB, Modbus and Ethernet, 2DI/2DO, RCM, MID certified.
Residual Current Monitoring Toroids (Vigirex)	
Closed Toroids, A Type	
50437	TA30 - 30 mm inside diameter, le (A) 65, 1000 turns
50438	PA50 - 50 mm inside diameter, le (A) 85, 1000 turns
50439	IA80 - 80 mm inside diameter, le (A) 160, 1000 turns
50440	MA120 - 120 mm inside diameter, le (A) 250, 1000 turns
50441	SA200 - 200 mm inside diameter, le (A) 400, 1000 turns
50442	GA300 - 300 mm inside diameter, le (A) 630, 1000 turns
Accessories for Closed Toroids	
56055	Magnetic ring for TA30 toroid
56056	Magnetic ring for PA50 toroid
56057	Magnetic ring for IA80 toroid
56058	Magnetic ring for MA120 toroid
Split Toroids, OA Type	
50420	TOA80 - 80 mm inside diameter, le (A) 160, 1000 turns
50421	TOA120 - 120 mm inside diameter, le (A) 250, 1000 turns
56053	L1 - 280 x 115 mm inside diameter, le (A) 1600, 1000 turns
56054	L2 - 470 x 160 mm inside diameter, le (A) 3200, 1000 turns

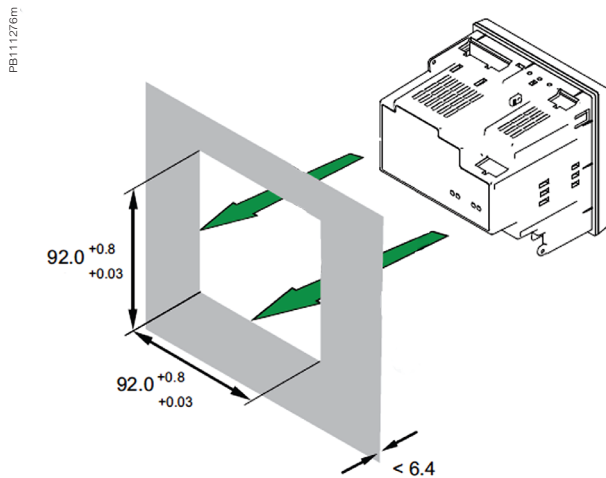
PM5300R series commercial reference numbers

Comm. ref numbers	Description
0.333V 3-in-1 CTs with RJ45 for PM53x0R	
METSECTV25006	LVCT SolidC 3in1 RJ45 25mmCtr 60A:1/3V
METSECTV25010	LVCT SolidC 3in1 RJ45 25mmCtr 100A:1/3V
METSECTV25013	LVCT SolidC 3in1 RJ45 25mmCtr 125A:1/3V
METSECTV25016	LVCT SolidC 3in1 RJ45 25mmCtr 160A:1/3V
METSECTV35006	LVCT SolidC 3in1 RJ45 35mmCtr 60A:1/3V
METSECTV35010	LVCT SolidC 3in1 RJ45 35mmCtr 100A:1/3V
METSECTV35012	LVCT SolidC 3in1 RJ45 35mmCtr 120A:1/3V
METSECTV35013	LVCT SolidC 3in1 RJ45 35mmCtr 125A:1/3V
METSECTV35015	LVCT SolidC 3in1 RJ45 35mmCtr 150A:1/3V
METSECTV35016	LVCT SolidC 3in1 RJ45 35mmCtr 160A:1/3V
METSECTV35020	LVCT SolidC 3in1 RJ45 35mmCtr 200A:1/3V
METSECTV35025	LVCT SolidC 3in1 RJ45 35mmCtr 250A:1/3V
METSECTV45025	LVCT SolidC 3in1 RJ45 45mmCtr 250A:1/3V
METSECTV45030	LVCT SolidC 3in1 RJ45 45mmCtr 300A:1/3V
METSECTV45040	LVCT SolidC 3in1 RJ45 45mmCtr 400A:1/3V
METSECTV45050	LVCT SolidC 3in1 RJ45 45mmCtr 500A:1/3V
METSECTV45060	LVCT SolidC 3in1 RJ45 45mmCtr 600A:1/3V
METSECTV45063	LVCT SolidC 3in1 RJ45 45mmCtr 630A:1/3V
METSECTV29006	LVCT SolidC 3in1 RJ45 29mmCtr 60A:1/3V
METSECTV29010	LVCT SolidC 3in1 RJ45 29mmCtr 100A:1/3V
METSECTV29012	LVCT SolidC 3in1 RJ45 29mmCtr 120A:1/3V
METSECTV29013	LVCT SolidC 3in1 RJ45 29mmCtr 125A:1/3V
METSECTV29015	LVCT SolidC 3in1 RJ45 29mmCtr 150A:1/3V
METSECTV29016	LVCT SolidC 3in1 RJ45 29mmCtr 160A:1/3V
METSECTV29020	LVCT SolidC 3in1 RJ45 29mmCtr 200A:1/3V
METSECTV70080	LVCT SolidC 3in1 RJ45 70mmCtr 800A:1/3V
METSECTV70100	LVCT SolidC 3in1 RJ45 70mmCtr 1000A:1/3V
METSECTV70125	LVCT SolidC 3in1 RJ45 70mmCtr 1250A:1/3V
Cables	
DCEPCURJX5GYM	Category 5e, Patch Cord, UTP, 0.5 M, Grey
DCEPCURJ01GYM	Category 5e, Patch Cord, UTP, 1 M, Grey
DCEPCURJ02GYM	Category 5e, Patch Cord, UTP, 2 M, Grey
DCEPCURJ03GYM	Category 5e, Patch Cord, UTP, 3 M, Grey
DCEPCURJ05GYM	Category 5e, Patch Cord, UTP, 5 M, Grey
DCEPCURJ10GYM	Category 5e, Patch Cord, UTP, 10 M, Grey
Other related products	
METSEPM5RD	Remote display for PM5563
METSEPM51HK	Hardware kit for PM51xx
METSEPM53HK	Hardware kit for PM53xx
METSEPM51_3RSK	Revenue sealing kit for PM51XX & PM53XX
METSEPM55RSK	Revenue sealing kit for PM55XX
METSEPM55HK	Hardware kit for PM55xx
METSEPM5CAB3	Remote Display cable

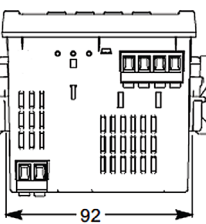
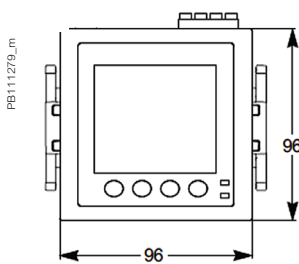
See your Schneider Electric representative for complete ordering information.

PM5000 series

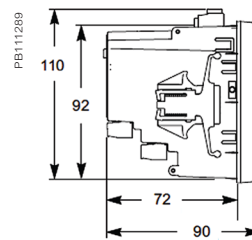
PM5000 Series meter flush mounting



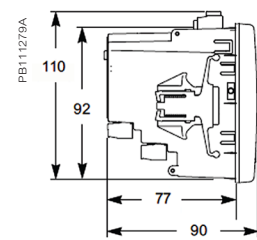
PM5000 series meter dimensions



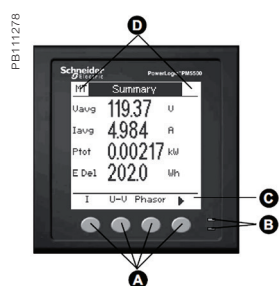
PM5000



PM5100 / PM5300

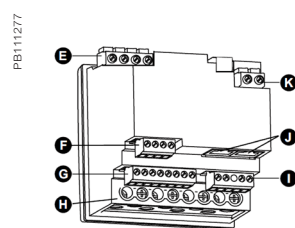


PM5500 / PM5600



PM5000 meter parts

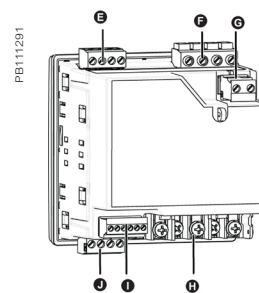
- A Menu selection buttons
- B LED indicators
- C Navigation or menu selections
- D Maintenance and alarm notification area



PM5500

PM5500 / PM5600 meter parts

- E Voltage inputs
- F RS-485 comms
- G Digital inputs
- H Current inputs
- I Digital outputs
- J Ethernet ports
- K Control power



PM5100 / PM5300 meter parts

- E Relay output (PM5300 only)
- F Voltage inputs
- G Control power
- H Current inputs
- I Status inputs/digital outputs
- J Communications port: Ethernet (PM5300 only) or RS-485

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

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March 2021

PowerLogic™ PM5000 series
PLSED310052EN

As standards, specifications and designs develop from time to time, please ask for confirmation of the information given in this document.

Design: Schneider Electric
Photos: Schneider Electric

Over 75 % of Schneider Electric products
have been awarded the Green Premium ecolabel.

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