

Panorama of the PowerLogic™ range

Whatever the size or type of application, this proven PowerLogic™ product line is a reliable and an integral part of any energy management and power monitoring system.

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

Panorama of the PowerLogic range

Current transformers



Panel Instruments



CTs Ip / 5 A

current transformer

Installation

- insulated cable, diameter 21 to 35 mm, through transformer
- busbar through transformer
- cable connections

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

Applications

Panel instrumentation

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

- transformation ratio: 40/5 A to 6000/5 A
- accuracy: class 0.5 to 3
- maximum rated operational voltage: 720 V AC
- tropicalised

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



Basic multi-function metering



Name	iEM2000/ iEM2010/ iEM2000T/ iEM2100	iEM3000 Series	ION6200	PM3000 Series	PM5350 Series
Function	kilowatt-hour meters	kilowatt-hour meters	metering & sub-metering Class 0.5S IEC 62053-22 Class 1 IEC 62053-21 Class 2 IEC 62053-23	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 IEC 62053-23 Class IEC 61557-12

Applications

Panel instrumentation

Panel instrumentation	E	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)	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					
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Characteristics

	Class 0.5S / Class 1	Class 0.5S / Class 1	Class 0.5S	Class 0.5	Class 0.5
Measurement accuracy					
Installation	DIN rail 1, 2, 5, or 7 x 18 mm modules	DIN rail	Flush mount or DIN rail	DIN rail	Flush mount 96 mm x 96 mm
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)	60 V to 400 V AC L-N 103.5 to 690 V AC L-L	50 V to 330 V AC (Ph-N) 80 V to 570 V AC (Ph-Ph) up to 1MV AC (ext VT)	PM53xx 20-400 V L-N 20-690 V L-L
Current measurement	40 to 125 A direct or external CT	external CT	external CT	external CT	external CT
Communication ports		1	1	1	1
Inputs / Outputs		2 I/O	2 I/O	2 I/O	2 I/O
Memory capacity					

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Panorama of the PowerLogic range (cont'd)

Basic multi-function (contd) Advanced metering



Name	PM5000 Series	PM8000 Series	ION9000
Function	metering & sub-metering Class 0.5S IEC 62053-22 Class 0.2S (PM55xx) IEC 62053-22 Class 1/2 IEC 62053-24 IEC 61557-12	energy & basic power 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

Panel instrumentation	I, U, F, P, Q, S, PF, E (Power demand and current demand)	I, U, F, P, Q, S, PF, E, THD, Min/Max, harm, alarm, I/O (I, U unbalance, demand, clock/cal, dip/swell)	I, U, F, P, Q, S, PF, E, THD, Min/Max, harm, alarm, I/O (I, U unbalance, demand, clock/cal, dip/swell, transients, flicker, RVC, mains signalling, 1/2 cycle RMS)
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Energy efficiency and cost

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

Power availability &

Harmonics			
Dip/swell, transient		dip/swell	
Compliance monitoring			

Revenue metering

Revenue metering			
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Characteristics

Measurement accuracy (active energy)	Class 0.2S (PM55xx) Class 0.5S	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 96 mm x 96 mm	Flush & DIN 160 mm x 160 mm Display 96 mm or 197 mm x 175 mm
Voltage measurement	20-400 V L-N 20-690 V L-L (PM55xx) 20-277 V L-N 35-690 V L-L (PM51/53xx)	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	external CT
Communication ports	2	3	4
Inputs / Outputs	1 DO for PM51xx 4/6 I/O PM53xx based on model 6 I/O for PM55xx	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	256 kb 1.1 MB (PM55xx)	512 MB	2 GB

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Panorama of the PowerLogic range (cont'd)

Advanced utility



Name	ION7400	ION8650	ION8800
		A B C	A B C
Function	energy & basic power quality meter IEC 61557-12 IEC 62053-22 IEC 61000-4-30 Class S IEC 62586 ANSI C12.20 Class 0.2 PMD/Sx/K70/0.2	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
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)	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	dip/swell		
Compliance monitoring			
Revenue metering			
Revenue metering			
Characteristics			
Measurement accuracy (active energy)	IEC 61053-22 Class 0.2S ANSI 12.20 Class 0.2S	Class 0.2S	Class 0.2S
Installation	Flush & DIN rail mount 96 mm x 96 mm	ANSI socket mount 9S, 35S, 36S, 39S and 76S; FT21 switchboard case	DIN 43862 rack
Voltage measurement	57-400 V AC L-N 3P (100-690 V AC L-L)	57-277 V L-N AC (9S, 36S); 120-480 V L-L AC (35S)	57-288 V L-N AC or 99-500 V L-L AC
Current measurement	external CT	external CT	external CT
Communication ports	2	5	5
Inputs / Outputs	up to 27 DI, 9 DO up to 16 AI, 8 AO	up to 22 I/O	up to 16 I/O
Memory capacity	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	BCPM	EM4000	EM4800	EM4900
Function	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	multi-circuit energy meter Class 0.5 ANSI C12.1, C12.20 Class 0.5S IEC 62

Applications

Panel instrumentation

Panel instrumentation	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)	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)
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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				
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Characteristics

Measurement accuracy	Class 1 (mains active energy)	Class 0.5S	Class 0.5S	Class 0.5S
Installation	Panel or enclosure	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	150 – 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	Split- or solid-core CTs
Communication ports	1 for main	2	2	2
Inputs / Outputs		2	2	2
Memory capacity				

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Panorama of the PowerLogic range (cont'd)

Retrofit & wireless products



Name	EM3500	EM4200
Function	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	power & energy meter ANSI C12.20 0.2% IEC 62053-22 Class 0.2S

Applications

Panel instrumentation

Panel instrumentation	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)
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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		
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Characteristics

Measurement accuracy	Class 1 (mains active energy)	ANSI C12.20 Class 0.2S IEC 62053-22 Class 0.2S
Installation	Panel or enclosure	DIN or screw, clip-on or hook
Voltage measurement	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
Current measurement	EM35xxA models work exclusively with Rogowski coil CTs.	5 A to 5000 A
Communication ports	1 for main	2
Inputs/Outputs	(see Datasheet)	
Memory capacity		

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Panorama of the PowerLogic range (cont'd)

Communications & gateways



Insulation monitoring Devices



Monitoring software



Name	Link150	Com'X 210 Com'X 510	ION7550 RTU	Vigilohm™ Insulation monitoring devices	EcoStruxure™ Energy & power management software
Function	Modbus Serial to Modbus TCP/IP protocol gateway	Modbus gateway plus Energy Server and Cloud connector	Ethernet gateway-server + onboard I/O	Insulation monitoring for IT / Ungrounded networks	Power management, network protection and control

Features

RS-485 / Ethernet gateway	Ethernet Gateway	Ethernet Gateway	
Devices supported	All Modbus devices	100+ known Schneider Electric devices and the ability to create custom Modbus models. EM3000 Series, iEM3000 Series, Acti9 Smartlink Masterpact, PM5000 Series, Compact NSX, iEM1, iEM2000 series, PM3000 Series, PM5350, PM5000, PM8000, ION9000, CM4000	ION8800, ION9000, Modbus devices PM5350 PM5000 PM8000
Web server with standard HTML pages	Configuration only	Com'X 510 - full support Com'X 210 - config. only	
Web server with custom HTML pages		Custom web page support	
Real time data		Available on Com'X 510	
Historical data		Com'X 510 onboard storage Com'X 210 - publish to database server	
Automatic notification		Event Notification to FI	
Alarm and event logs			
Waveform display			RTU includes alarm and event logs
Custom animated graphics			
Manual/automatic reports			

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	EcoStruxure™ Power Monitoring Expert, EcoStruxure™ Power SCADA Operation 100+ Schneider Electric devices

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

Available in supervision PME
Available in supervision PME

Characteristics

Ethernet ports	2 (switch mode only)	2	10/100 Base TX port
Modbus TCP/IP protocol			
RS-485 (2-wire / 4-wire) ports, Modbus protocol	2w/4w - 1 (rj45)	1	3
Number of devices connected directly	32	64 devices/32 max Modbus, 2 analog sensors	64
RS-232 configuration ports	1		1
Miscellaneous	Serial line to Ethernet connectivity - serial or Ethernet master	Connectivity: WiFi, Ethernet, Zigbee, GPRS, + 3G	modem port I/O (20 I / 12 O)
Installation	9 DIN rail	DIN rail	DIN 192 cutout 186 x 186 mm

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.

EcoStruxure™ is an architecture of interoperable, and scalable supervisory software dedicated to power monitoring that enables you to maximize operational efficiency, optimize power distribution systems, and improve bottom-line performance.

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