

PowerLogic products: High-accuracy energy and power quality¹



	Advanced metering					Intermediate metering			Basic multi-function metering							Basic energy metering		Multi-circuit and wireless metering							
	ION9000	ION8650			CM4000T	ION7650	ION7550	ION7400	PM8000	PM5000 series				ION6200	EM3500		PM3000 series	EM4200	iEM3000 series	PowerLogic energy meter	EM4900	BCPM	EM4800	EM4000	
Features ²		A	B	C						PM5500	PM5340	PM5330	PM5110		EM3500	EM3555									
Inputs, outputs and control power																									
3-phase / single-phase	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	
Digital in and out / analog in and out	46 / 24	16 / 4	16 / 4	16 / 4	24 / 4	20 / 8	20 / 8	36 / 24	36 / 24	6 / 0	4 / 0	4 / 0	1 / 0	2 / -	2 or 3 / 0	2 or 3 / -	up to 2/2	- / -	up to 1/1	1 / -	- / -	- / -	2 / -	2 / -	
Power supply options	AC / -	AC / DC	AC / DC	AC / DC	■/■	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / DC	AC / -	AC	AC	AC	AC	AC	AC	
Power and energy measurements																									
Voltage, current, frequency, power factor	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
Power / demand	■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	
Energy / time-of-use (energy per shift)	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	
IEC / ANSI energy accuracy class (% of reading)	0.1	0.2(1)	0.2(1)	0.2(1)	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5	0.5	0.2	0.5	0.5	0.2	0.5	1	1	1	.5	.5	
Loss compensation	■	■	■	■	-	■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Power quality analysis																									
EN50160 compliance reporting / IEC 61000-4-30 Class A or S	A	■/A	■/S	- / -	■/ -	■/A	- / -	■/S	■/S	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Flicker measurement	■	■	■	-	■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Transient detection duration	20 μs	17 μs	20 μs	-	200 ns	17 μs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Sag and swell monitoring / disturbance direction detection	■/■	■/ -	■/ -	■/ -	■/■	■/■	■/■	■/■	■/■	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Harmonic distortion: total / individual / inter	■/■/■	■/■/■	■/■/ -	■/■/ -	■/■/ -	■/■/■	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	■/■/ -	
Waveform capture	■	■	-	-	■	■	■	■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
On-board data and event logging																									
Trending / forecasting / billing	■/■/■	■/ - / ■	■/ - / ■	■/ - / ■	■/■/■	■/■/■	■/■/■	■/■/■	■/■/■	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	- / - / -	
Minimum / maximum	■/■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	-	■	-	-	-	-	-	-	-	
Events and alarms with timestamps	■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	-	■	-	-	-	-	-	-	-	
Timestamp resolution (seconds)	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	1	1	1	1	-	1	1	1	-	-	-	-	-	1	1	
Time sync.: Network / GPS / IRIG-B / DCF77-B / PTP	■/■/■/■/■	■/■/■/ - / -	■/■/■/ - / -	■/■/■/ - / -	■/■/■/ - / -	■/■/■/ - / -	■/■/■/ - / -	■/■/■/ - / -	■/■/■/ - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	- / - / - / -	
Setpoints, alarms and control																									
Log alarm conditions / call out on alarm	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	- / -	- / -	- / -	- / -	■/ -	- / -	-	-	-	- / -	- / -	
Trigger data logging / waveform capture	■/■	■/■	■/ -	■/ -	■/■	■/■	■/■	■/■	■/■	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	-	- / -	- / -	- / -	
Trigger relay or digital output	■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	-	■	-	■	-	-	-	-		
Special features																									
Custom programming: arithmetic / boolean / modular	■/■/■	■/■/■	■/■/■	■/■/■	■/■/■	■/■/■	■/■/■	■/■/■	■/■/■	-	-	-	-	-	-	-	-	- / - / -	-	-	-	- / - / -	- / - / -	- / - / -	
Downloadable firmware	■	■	■	■	■	■	■	■	■	■	■	■	■	-	-	-	-	■	-	-	-	-	-	-	
Communications																									
Ports: Ethernet: Copper / Fiber	2 / -	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	2 / -	2 / -	2 / -	1 / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	- / -	
Ethernet-to-serial gateway	■	■	■	■	■	■	■	■	■	1	■	■	-	-	-	-	-	-	-	-	-	-	-	-	
Telephone modem	-	■	■	■	-	■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	■	■	
Modem-to-serial gateway	-	■	■	■	-	■	■	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Infrared port	■	■	■	■	-	■	■	■	■	-	-	-	-	-	-	-	-	-	-	-	-	- / -	-	-	
RS485 / RS232	■/ -	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/■	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -	■/ -
Misc: Web server / email / SNMP / XML	■/■/■/■	■/■/ - / -	■/■/ - / -	■/■/ - / -	■/■/ - / -	■/■/ - / -	■/■/ - / -	■/■/ - / -	■/■/ - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	
Protocols: Modbus ³ / DNP / MV-90 / DLMS	■/■/■/ -	■/■/■/ -	■/■/■/ -	■/■/■/ -	■/ - / - / -	■/■/■/ -	■/■/■/ -	■/■/■/ -	■/■/■/ -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	
Protocols: IEC61850 / Jbus / M-Bus / LON / BACnet	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	- / - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	■/ - / - / -	

¹ This is not a complete list of meter models, features and specifications; please refer to the website www.schneider-electric.us/powermonitoring, catalog, technical data sheets or product brochures for more detail.

² Specifications represent maximum capabilities with all options installed; some options are not available concurrently.

³ ION8600, ION7650, ION7550 offer Modbus Master capabilities.