

POWERLOGIC

Power Meter Series 800

POWERLOGIC Systems help you control the Cost, Quality and Reliability of Electric Power. They provide savings through reduced utility costs, effective power equipment management, increased power system reliability and downtime avoidance.

The **POWERLOGIC PM800** series is a high-performance power monitoring unit, providing all the measurement capabilities required to monitor an electrical installation in a single 96 x 96 mm unit. With its large, easy-to-read display, you can monitor all three phases and neutral at the same time.

In addition, the anti-glare and scratch resistant display, features an intuitive interface with self guiding menus. The PM800 series features as standard an RS485 communication port, 1 digital input, 1 digital output, THD, and alarming in the base unit. In addition to these capabilities, the PM820 and PM850 offer custom onboard logging and individual harmonic values for current and voltage. The PM850 is the first meter in this range to offer waveform captures.



Applications

- Panel instrumentation
- Sub-billing / cost allocation / bill checking
- Remote monitoring of an electrical installation
- Basic power quality monitoring
- Contract optimization and load curves

Characteristics

Large, easy-to-read back lit display

Multiple values displayed at the same time on an antiglare and white back light display.

Easy to operate

Intuitive navigation with self-guided menus makes it easy to use.

High functionality in a compact size

Integrates Modbus communications and I/O in a reduced case (96 x 96 x 70mm).

Harmonics analysis

Monitor individual harmonic magnitudes and angles to troubleshoot your system.

On-board memory

Store in non-volatile memory critical information for billing and troubleshooting.

IEC60687 class 0.5S or IEC61036 class 1 for energy

Sub-metering and cost allocation in 4 quadrants.

Modular and upgradable

Downloadable firmware and optional modules enable to grow the meter capability.

Trend curves and short-term forecasting

Rapid trending and forecasting of upcoming values for better decision making.

Selection guide		PM810MG	PM820MG	PM850MG
General				
Use on LV and HV systems		■	■	■
Current and voltage accuracy		0.1%	0.1%	0.1%
Energy and power accuracy		1.0%	0.5%	0.5%
Number of samples per cycle		128	128	128
Instantaneous rms values				
Current, voltage, frequency		■	■	■
Active, reactive, apparent power		total and per phase	■	■
Power factor		total and per phase	■	■
Energy values				
Active, reactive, apparent energy		■	■	■
Settable accumulation mode		■	■	■
Demand values				
Current		present and min. / max. values	■	■
Active, reactive, apparent power		present and min. / max. values	■	■
Predicted active, reactive, apparent power		■	■	■
Synchronization of the measurement window		■	■	■
Setting of calculation mode		block, sliding	■	■
Power-quality measurements				
Harmonic distortion		current and voltage	■	■
Individual harmonics		With option PM810MLOG	31	63
Waveform capture				■
I/O				
Digital input		1	1	1
Digital output or pulse output		1	1	1
Electrical characteristics				
Measurement accuracy		Current and voltage	±0.075% of reading + ±0.025% of full scale	
		Power	±0.015% of reading + ±0.025% of full scale	
Mechanical characteristics				
Weight		0.6 kg		
IP degree of protection (IEC 60529)		IP52 front display, IP30 meter body		
Dimensions		96 x 96 x 88 mm (meter with display) 96 x 96 x 70 mm (behind mounting surface)		
Environmental conditions				
Operating temperature		Meter	-25°C to +70°C ⁽¹⁾	
		Display	-10°C to +50°C	
Pollution degree		2		
Dielectric withstand		As per EN61010, UL508		
Electromagnetic compatibility				
Electrostatic discharge		Level III (IEC 61000-4-2)		
Immunity to radiated fields		Level III (IEC 61000-4-3)		
Immunity to magnetic fields		Level III (IEC 61000-4-8)		
Conducted and radiated emissions		CE industrial environment / FCC part 15 class A EN55011		
Harmonics emissions		IEC 61000-3-2		
Flicker emissions		IEC 61000-3-3		
Safety				
Europe		CE, as per IEC 61010		
U.S. and Canada		UL 508		

(1) 65°C if control power is above 305V AC.