

Overview

PQI120 (PQI96) is a IEC 61850 ready digital measurement instrument, providing accurate three-phase measurements of AC electrical quantities. It enables power quality assessment according to present standards and also functions as a commercial revenue meter

Areas of application

The Power Quality Analyzer is intended for continuous measurements of electrical power and power quality parameters in three-phase AC grids. It can be used to monitor and control the power quality according to EN 50160 norms and for IEC 62053-22 revenue metering

Features

High accuracy

Current and Voltage measurement accuracy 0.1% in range up to 200%.

Standard compliance

All power quality measurements are made according to IEC 61000-4-30 ed.2 Class A. Harmonic and interharmonic components are measured according to IEC 61000-4-7 Class I. Flicker is measured according to IEC 61000-4-15. Active energy measurement is IEC 62053-22 class 0.2S. Reactive energy measurement is IEC 62053-23 class I.

Smart Grid ready

Out-of-the-box support of the IEC 61850 protocols and communication interfaces.

Increased LED indicator height

provides comfortable local meter readings.

Ethernet based synchronization

NTP or PTP IEEE 1588, requires no additional synchronization circuits .

Competitive price

compared to other PQ measurement devices

IEC 61850



IEC 61000-4-30 Class A

Wide range of measured qualities

- Frequency (f , Δf)
- Voltage and current magnitudes (U, I)
- Phasors and phase angles ($\phi_U, \phi_I, \phi_{UI}$)
- Unbalance ($U_1, U_2, U_0, K_{2U}, K_{0U}$)
- Flicker (P_{st}, P_{lt})
- Dips, swells, interruptions
- Harmonics ($K_{U(n)}, THD, U_{sg,n}, \phi_{sg,n}$)
- Interharmonics
- Under- and overdeviation
- Active, reactive, apparent powers (P, Q, S)
- Active and reactive energies (W_p, W_Q)
- ... and much more

Power Quality Analyzer PQI



		PQI120	PQI96
Physical	Dimensions (W x H x D)	120 x 120 x 75 mm 4.7 x 4.7 x 3.0 "	96 x 96 x 75 mm 3.8 x 3.8 x 3.0 "
	Weight	0.7 kg (1.54 lbs)	0.5 kg (1.10 lbs)
Environmental	Temperature range	-40..+55 °C (-40..+131 °F)	
	Humidity	30 to 80% non-condensing	
	IP class	ANSI/IEC 60529 IP51	
Interfaces	Voltage	3 x AC inputs (650VAC max) 57.7/133/230VAC line-to-neutral 100/230/400VAC line-to-line	
	Current	3 x AC inputs 5A secondary (10A RMS max) / 1A secondary (2A RMS max)	
	Communication ports	2 x Ethernet (100 BASE-T / FX), 2 x RS-485	1 x Ethernet (100 BASE-T / FX), 1 x RS-485
	Display	3-row 4-digit LED display+1-row 8- digit energy LEDs	3-row 4-digit LED display / QVGA 320x240 LCD display
Communications	Remote HMI and Control	HTTP (WEB interface)	
	Communication protocols	IEC 61850-8-1, IEC 61850-9-2, IEC 60870-5-104, IEC 60870-5-101 Modbus TCP, Modbus RTU	
	Synchronization	NTP (RFC 5905) / PTP (IEEE-1588)	
Power Supply	Characteristics	AC: 90...264 VAC, 47...63 Hz DC: 130...370 VDC Power: < 5W	
Measurements	Current and Voltage	0.1% (full scale accuracy)	
	Power quality	IEC 61000-4-30 (Class A)	
	Harmonics/Interharmonics	IEC 61000-4-7 (Class I)	
	Flicker	IEC 61000-4-15 (Class F3)	
	Active Energy	IEC 62053-22 (Class 0.2S)	
	Reactive Energy	IEC 62053-23 (Class 1)	