

Power Quality Analyzer SHMK120S



IEC 61000-4-30 Class A compliant

Overview

SHMK120S is a modern 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 revenue power meter

Areas of application

The Power Quality Analyzer SHMK120S is intended for continuous measurements of electrical power and power quality parameters in three-phase AC networks. It can be used to control the conformity of power quality with EN 50160 norms as well as power metering per IEC 62053-22 class 0.2S.

Features

Multifunctionality

Device measures harmonics, interharmonics, unbalance, flicker, active, reactive and apparent powers, phase angles of fundamental and harmonic components, etc.

High accuracy and standard compliance

Current and Voltage measurement accuracy 0.1%. 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 Class F3. Active energy measurement is IEC 62053-22 class 0.2S. Reactive energy measurement is IEC 62053-23 class 1.

Compact design (120 x 120 x 75 mm) enables fast and easy installation.

Increased LED indicator height (25 mm) provides comfortable local meter readings.

Ethernet based synchronization

(NTP or PTP IEEE 1588) requires no additional synchronization circuits and is accurate up to $\pm 1\mu\text{s}$.

Competitive price

Measurements

- Power frequency
- Voltage and current magnitudes
- Flicker perceptibility
- Dips, swells, interruptions
- Voltage unbalance
- Voltage harmonics
- Voltage interharmonics
- Under- and overdeviation
- Relative phase angles
- Active, reactive, apparent powers
- Active and reactive energies

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Physical	Dimensions (W x H x D)	120 x 120 x 75 mm 4.7 x 4.7 x 3.0 inch
	Weight	0.7 kg (1.54 lbs)
Environmental	Temperature range (operating)	-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	Ethernet (10/100BASE-T or 100BASE-FX), RS-485
	Display	3-row 4-digit LED display+1-row 8-digit energy LED display or QVGA 320x240 LCD color display
Communications	Remote HMI and Control	HTTP (WEB interface)
	Communication protocols	IEC 60870-5-104 (Ethernet) IEC 60870-5-101 (EIA RS-485)
	Synchronization	NTP (RFC 5905) / PTP (IEEE-1588)
Power Supply	Voltage	90...264 VAC, 47...63 Hz DC 130-370V
Measurements	Current and Voltage	0.1%
	Power quality	IEC 61000-4-30 : Class A
	Harmonics and 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