Power Quality Analyzer SHMK96

Overview

SHMK96 is a modern digital measurement instrument, providing accurate three-phase measurements of AC electrical quantities. It also enables power quality assessment according to present standards.

Areas of application

The Power Quality Analyzer SHMK96 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.

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.

Ultra compact design (96 x 96 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 ±1µs.

Competitive price
compared to existing power quality instruments.

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
# Power Quality Analyzer SHMK96

| **Physical** | **Dimensions (W x H x D)** | 96 x 96 x 75 mm  
3.8 x 3.8 x 3.0 inch |
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<tbody>
<tr>
<td><strong>Weight</strong></td>
<td>0.5 kg (1.10 lbs)</td>
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<tr>
<td><strong>Environmental</strong></td>
<td><strong>Temperature range (operating)</strong></td>
<td>-40..+55 °C (-40..+131 °F)</td>
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<td><strong>Humidity</strong></td>
<td>30 to 80% non-condensing</td>
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<td><strong>IP class</strong></td>
<td>ANSI/IEC 60529 IP51</td>
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| **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 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 | |