

## Modular network analyzer – UMG 96-PQ-L



# RELIABLE & TREND-SETTING

Complete power quality transparency



# FULL-WAVE EVENTS DIRECTLY ON THE DISPLAY

Whether power quality analysis, residual current monitoring or temperature monitoring, the UMG 96-PQ-L offers the right functions for every application. With the UMG 96-PQ-L, it is now possible to cost-effectively ensure complete power quality transparency at every level and thus avoid system failures.

Full-wave event measurements can be shown and analyzed directly on the display. In addition, the modular network offers a large memory, which thanks to a special data compression method, ensures several years' worth of storage.

Memory partitioning preserves the long term storage for current and power data and allows the combination of storing high-resolution power quality measurements. This storage partitioning helps extend the amount of data that is being stored at a higher performance while keeping costs of hardware low.

All values can be conveniently displayed and graphically represented on the color graphic display. In addition, the UMG 96-PQ-L offers plug-on modules for functional enhancements and firmware activation for Class S.



## Product variants and modules



### UMG 96-PQ-L

**52.36.001 (230 V; TN & TT networks)**

**52.36.002 (24 V; TN & TT networks)**

**52.36.005 (230 V; TN, TT & IT networks)**

- Full-wave events
- High memory depth
- Analysis option on the display
- Suitable for TT, TN and IT networks



### Module 96-PA-RCM-EL

**52.32.010**

- Ethernet interface
- 2 residual current inputs
- Temperature measurement
- 4th current input
- DC measurement

## ADDITIONAL OPTIONS

### Software activation

**52.36.020**

- Firmware activation of the UMG 96-PQ-L for IEC 61000-4-30 Class S
- Only necessary for devices purchased without Class S Flicker, interharmonics

### UMG 96-PQ-L

**52.36.021 (230 V; TN & TT networks)**

**52.36.022 (24 V; TN & TT networks)**

**52.36.025 (230 V; TN, TT & IT networks)**

- IEC 61000-2-4 Class S pre installed
- Flicker, interharmonics

# AT A GLANCE

## POWER QUALITY

- Harmonics current up to the 65th harmonic
- High sampling rate with 280 sampling points per full wave
- 1 ms digital input event capture rate
- 20 ms RMS value memory
- Full-wave events

## VISUALIZATION

- Oscilloscope function
- Phasor diagram on the display
- Drag indicator history on the display
- Resetting of the drag indicators via display or remotely

## MEMORY

- High memory depth with low memory requirements
- Storage depth up to 15 years with 23 measured values of 15 min. each and 8 measured values of 1 h each
- Memory partitioning into long-term memory and high-resolution PQ short-term memory

## CLASS S

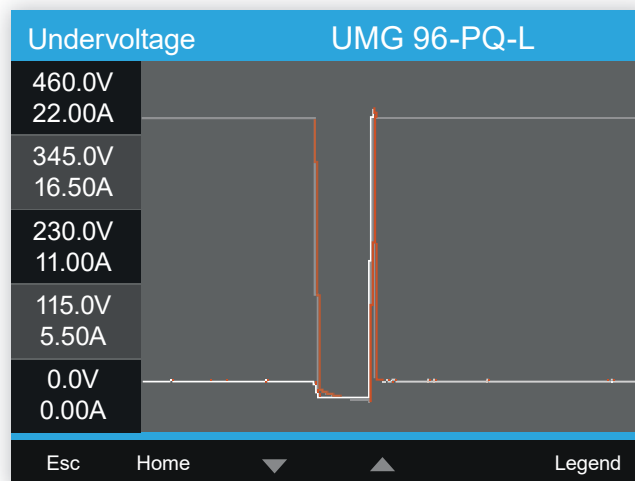
- Standard-compliant PQ data
- Flicker
- Interharmonic

## INSTALLATION & INTEGRATION

- Overvoltage category 600 V CAT III
- Easy installation thanks to 96 x 96 mm front panel
- Use in IT networks with variants 52.36.005 and 52.36.025

## ENERGY MANAGEMENT

- Identify savings potentials
- Active energy class 0.2S
- Compliance with regulatory and tax requirements



Analyse the rms value curve on the display



The UMG 96-PQ-L is being enhanced continuously. A full overview of all current variants and functions is available at <https://www.janitza.com/umg-96-pq-l.html>



# Modular network analyzer – UMG 96-PQ-L

## MODULARITY

- Temperature measurement with monitoring via integrated comparator
- Ethernet interface and Modbus gateway
- Multifunction inputs for residual current measurement or DC power measurement
- Neutral conductor measurement (I4 – current measurement)

## OPERATION

- 6-button operation on the color graphic display
- Intuitive operation
- Configuration directly on the display
- On-site and remote operation with GridVis®
- Configurable home screen and jump-back point

## PERIPHERALS

- 3 digital outputs
- 1 analog output
- 3 digital inputs

## COMMUNICATION

- Modbus Client/Server gateway functionality
- Gateway function
- Ethernet interface
- RS485
- 5 simultaneous Modbus TCP connections



Drag indicator history on the display

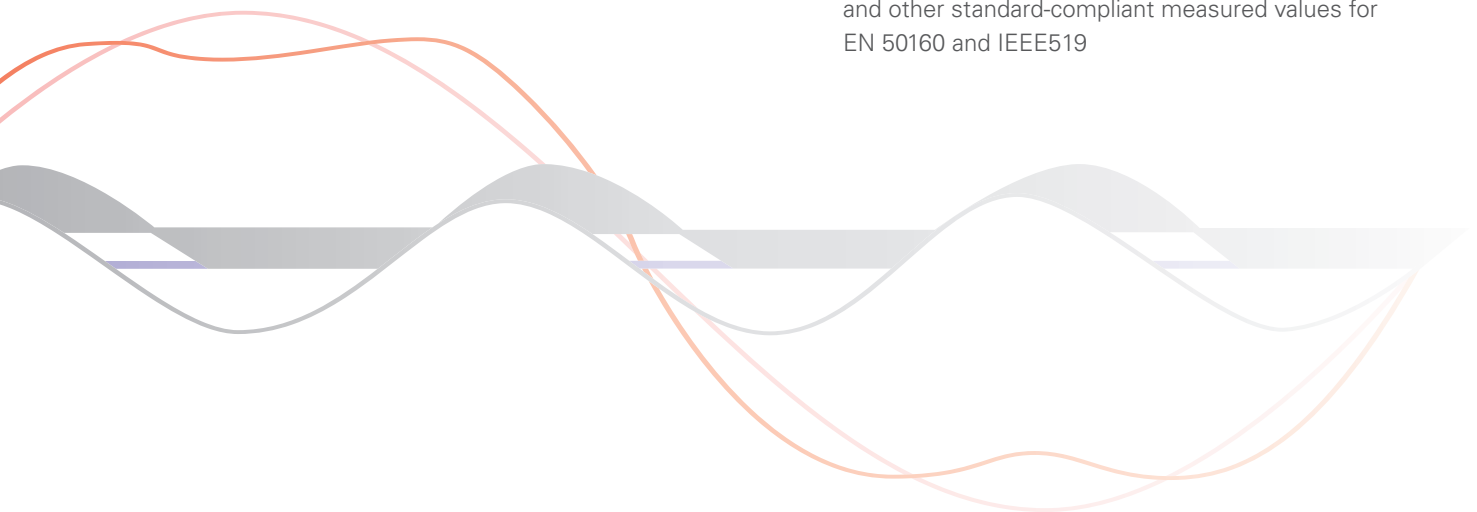
## TRANSPARENCY AT ALL LEVELS

### Capture

Numerous power quality parameters can be captured with the UMG 96-PQ-L, such as events and harmonics. This provides a perfect overview across power distribution levels normally not monitored for power quality. In the 52.36.005 and 52.36.025 variants, the UMG 96-PQ-L has no effect on the mains impedance and is therefore, ideally suited for use in IT networks.

The Class S variants provide additional power quality parameters, such as flicker and interharmonics, as well as additional event triggers. Activation for this feature is possible for devices that have already been delivered via software update.

- Harmonic measurements up to the 65th harmonic
- Full-wave events and RMS values with a resolution of 20 ms
- 1 ms digital input event capture rate
- 280 sampling points per full wave
- Detection and recording of events such as undervoltage, overvoltage and overcurrent
- Trigger via Modbus or a digital input with a 20 s lead time and 20 s lag time
- Recording of the type of event, duration, deviation, date and RMS value
- IEC 61000-4-30 Class S: Flicker, interharmonics and other standard-compliant measured values for EN 50160 and IEEE519



### Store

Thanks to the innovative memory configuration and the division into individual partitions, the measured values can be recorded exactly as they are needed. Recording sets allow bundling and common configuration of measurement data.

The high-resolution partition can be enabled and disabled via the settings or selected triggers. This allows for accurate viewing of selected time periods or events without affecting the storage duration of important data. Thanks to the live calculation of the memory space, it is possible to see at any time, how long the measurement data can be stored in the device with the current configuration.

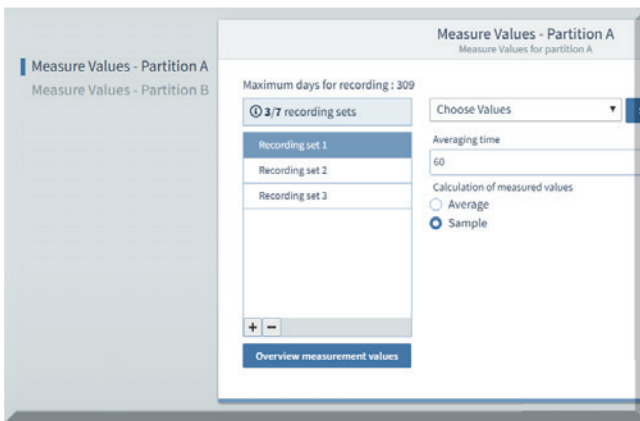
- Activate user-defined high-resolution recording via events with 15 min lag time or manually via Modbus
- Memory partitioning into long-term memory and high-resolution short-term memory
- Calculation of the storage duration during configuration
- Configuration of up to 14 recording sets
- Record and investigate specific events and time periods with a clear focus
- Separate event memory
- Fast and easy evaluation via the event and transient browser
- Averaging time down to 3 s for standard-compliant recording (EN 50160 and IEEE519)

# Power quality

## Visualize and analyze

Waveform, harmonics current and drag indicator can be displayed and analyzed directly on the color graphic display. Use the GridVis® power grid monitoring software to evaluate your data quickly and easily with tools such as the event and transient browser. The device configuration feature in GridVis® offers graphical and user-friendly configuration options on the web – online and offline.

- Direct representation of the waveform on the display
- Drag indicator history on the display and in GridVis®
- Recognize overloads and peaks at a glance on the display
- Quick and easy evaluation via the GridVis® event and transient browser
- Automated evaluation of the power quality standards with the GridVis® reports



Configuration of storage partitions and recording sets

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