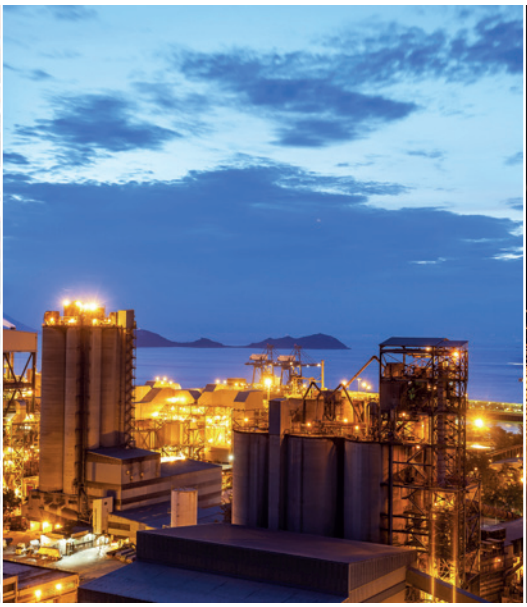
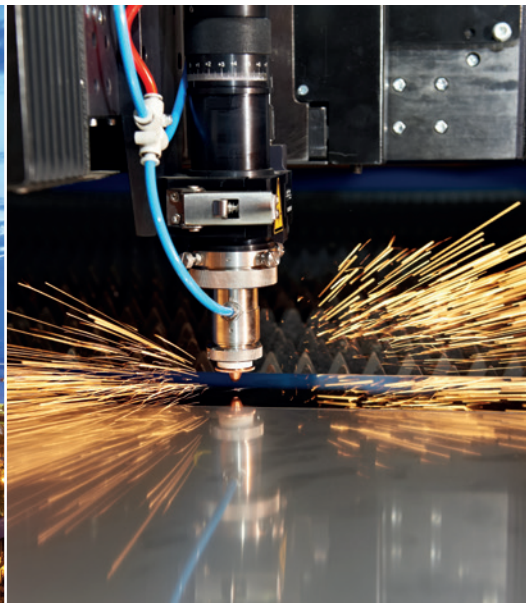
Smart Energy & Power Quality Solutions

Experts in energy measurement technology

POWER – SIMPLY SAFE

Janitza®

Smart Energy & Power Quality Solutions

Janitza energy measurement technology.

Made in Germany.

Nowadays, energy management is not only relevant for the environment and for society but is also a critical competitive factor. Only those who can keep a close eye on their energy consumption can reduce costs and increase efficiency.

This is a particular focal point for Janitza electronics GmbH, a Germany company based in the Hessian town of Lahnau which followed on in 1986 as a subsidiary of Eugen Janitza GmbH which was founded in 1961. The product range offered by Janitza provides complete system solutions for modern energy data management (e.g. ISO 50001), power quality and residual current monitoring.

FUTURE WITH TRADITION

Made in Germany

Company based in Lahnau.
Managing director Markus Janitza.

Alongside measurement devices and software, Janitza also offers the associated services – a complete solution that guarantees efficient energy management. This includes: Energy measurement technology, class A network quality analysers compliant with standard EN 50160, energy management systems, digital integrated measurement devices, mobile power quality analysers, power factor controllers, harmonic filters and compensation systems. Alongside consultation and the development of technical solutions, Janitza also carries out commissioning, courses and training with customers and provides maintenance and support for the systems.

Janitza develops and manufactures the complete range of products (hardware and software) at their site in Lahnau, Germany – just as they always have.

THE JANITZA PR

Energy and power quality measurement devices to meet every requirement

The Janitza product and service range stretches over all levels – from energy suppliers through to sub-measurements, e.g. directly on the machines. With the energy data measurement per EN ISO 50001, the power quality monitoring and the residual current monitoring, the UMG measurement devices, the GridVis® Power Grid Monitoring Software and components combine three solutions in a common system environment.

UMG 512-PRO

The class A power quality analyser with integrated residual current monitoring measures the power quality parameters per standards EN 50160, IEEE519 or EN 61000-2-4.

Powerful network analyser with Jasic (PLC functionality), comprehensive logging versatility and integrated residual current monitoring.
The network analyser measures with an accuracy of 0.2%.

UMG 509-PRO

Compact but very powerful, multifunctional measurement device that records electrical energy consumption, standard electrical variables such as current, voltage, frequency, power and much more. It measures harmonics up to 40th harmonic for example.

UMG 96RM

UMG 605-PRO

Power quality analyser with standard-compliant measurement per IEC 61000-4-30, EN 50160 or EN 61000-2-4.

Extremely compact and cost-effective universal measurement device with clock, battery and measurement data memory. It is an ideal building block for measurement data acquisition at the front line. Together with master devices (e.g. UMG 604E or UMG 96RM-E) and the GridVis® Power Grid Monitoring Software, this allows scalable solutions to be realised.

UMG 103-CBM

Janitza®

ODUCT RANGE

Maximum transparency – Janitza software solutions

Janitza GridVis® Power Grid Monitoring Software, the Janitza APPs and the Janitza energy portal make energy data transparent and therefore form a decision-making basis for implementing measures for the optimisation of energy efficiency and power quality. Energy data can be called up any time and anywhere, online through the GridVis® Power Grid Monitoring Software and the energy portal. The APPs simplify the devices in terms of reading out, processing and visualising the energy data. These can be interrogated via a browser.

The Janitza Cloud solution
The cloud-based **energy portal** saves the customer acquisition and operating costs for software, database, server, and maintenance. It guarantees the highest levels of data security and more than anything else, is simple to use. The system architecture is flexible, scalable and can be individually configured. This enables the optimising of energy efficiency in the company, on the basis of key figures and their progressions – but also the current, gas and water consumption.

GridVis®

Network visualisation software for energy management systems and power quality monitoring

ENERGY-PORTAL

Cloud solution for energy management (SaaS)

APPs

Software expansions with know-how

Janitza®


Janitza
UMG 96 RM

GLOBAL PROJECTS – LOCAL SUPPORT

60 countries – various market segments

With local sales partners, Janitza carries out projects around the world in the areas of energy management, power quality and residual current monitoring. In doing so, it is particularly important to us to be able to provide direct local support to the customer.

Alongside sophisticated logistics, this also concerns all types of services, such as technical consultancy and development of customer-specific monitoring solutions, commissioning, employee training, analysis of the measurement data and regular maintenance of the systems, for example.

With reference projects spread across all continents, we cover all important market segments such as building management, energy suppliers, industry and infrastructure.

THE JANITZA 3-IN-1 SOLUTION

The solutions from Janitza are based on three pillars: The UMG measurement devices, the GridVis® Power Grid Monitoring Software and components combine three solutions in a common system environment (3-in-1):

1. Energy management (as per DIN EN ISO 50001)

– Reduces CO_2 emissions
– Reduces energy costs
– Improves energy efficiency

2. Power quality monitoring (PQ)

– Secures availabilities
– Reduces downtimes
– Optimises maintenance

3. Residual current monitoring / fault current monitoring (RCM)

– Minimum effort for DGUV V3
– Improves supply reliability
– Identifies insulation faults faster
– Improves fire protection

3in1

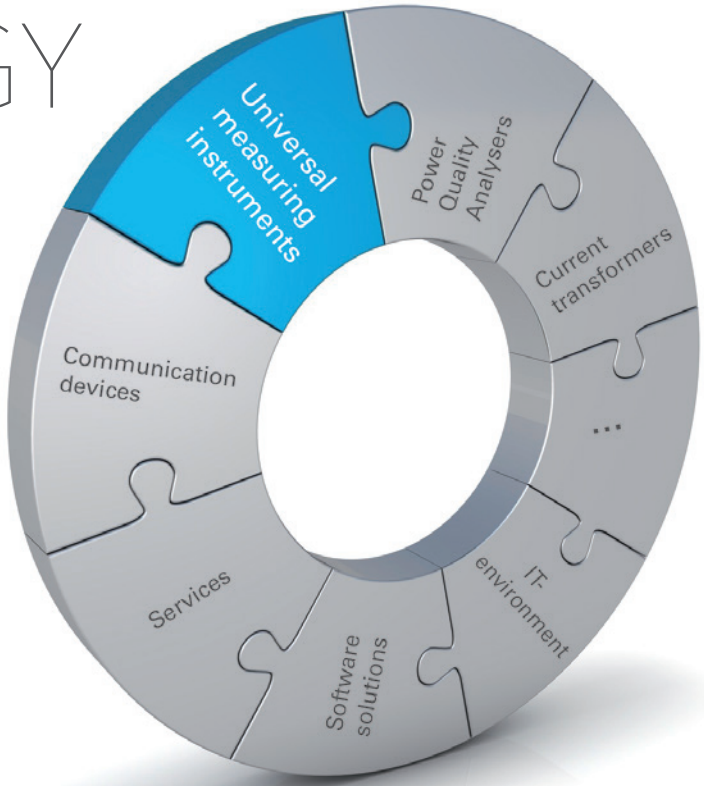
Energy management DIN EN ISO 50001

Power quality DIN EN 50160

Residual current monitoring (RCM)

Janitza®

AROUND MEASURING TECHNOLOGY



Janitza offers one of the most comprehensive ranges of energy and power quality measurement products. With this we can tailor-make an individual solution to suit our customers' requirements – and optimally match the software and hardware components to one another.

The Janitza measurement devices and components for measurement systems of all sizes have distinguished themselves in countless applications and installations. Our customers have been measuring and managing their electrical energy with Janitza for more than thirty years. Because we guarantee reliable technical solutions as well as cost-optimised solutions from a single source:

- Flexible and scalable system architectures
- Simple integration of non communications-capable meters via digital inputs
- Acquisition of all media such as electrical power, gas, water or steam consumption
- Utilisation of your existing infrastructure – or our simple expandable system architecture (thanks to the master-slave concept)

Janitza offers customers complete system solutions – from current transformers through measurement devices, from communications devices through the IT environment and on to software and databases as well as data analysis and assessment.

From planning to commissioning

After the development, implementation and commissioning of the customer-specific monitoring solution, Janitza continues to provide support through:

Data analysis	Analysis of the measurement data
Maintenance	Maintenance and support of the monitoring systems
Training	Regular training for safe handling of energy management, power quality and the Janitza products and system solutions

SUPPLY

The voltage in the grid nowadays is far removed from the ideal sinusoidal waveform. Voltage interruptions, transients, harmonics, flickers or start-up currents: Various different “grid feedback effects” change the sinusoidal character of the current and thus also the power quality.

This causes significant damage to our customers’ equipment. Impermissible electrical loading and increased thermal losses are then a daily occurrence. This can result in the equipment operating in a restricted manner or failing completely. This risks a production failure.

So it is a great advantage to identify grid feedback effects early - and to implement countermeasures. Our TÜV approved GridVis® Power Grid Monitoring Software offers our customers all of the tools necessary for this.

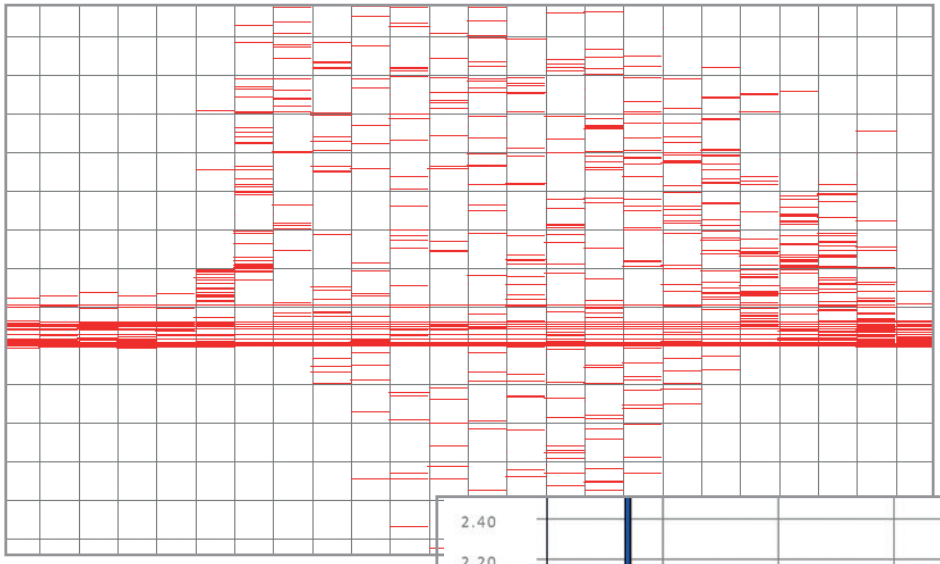
The GridVis® reporting system is the heart of the network analysis. This allows a clear presentation of whether the power quality in the time period in question is adequate or not.

RELIABILITY & POWER QUALITY

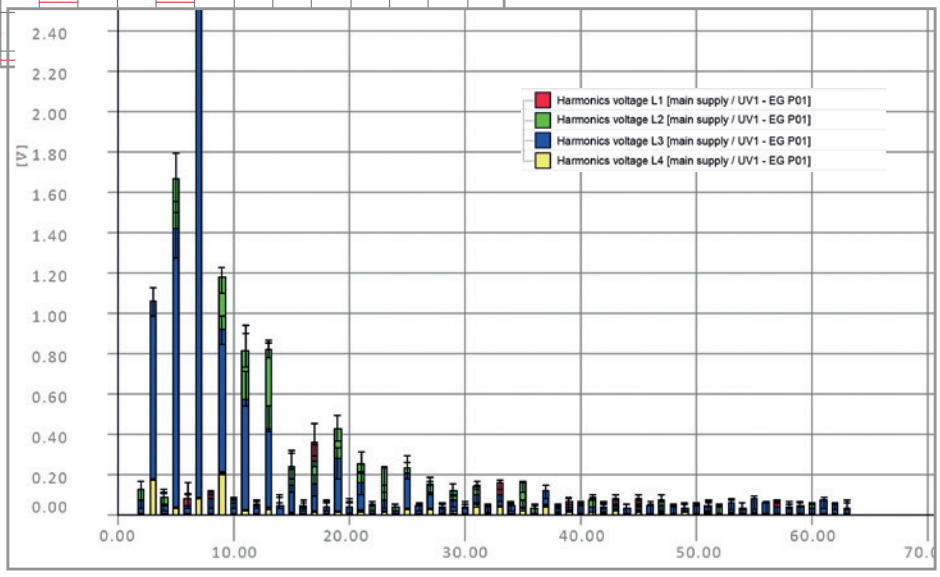
Only those who can keep a close eye on the power quality can reduce costs and increase quality and efficiency. Poor power quality sometimes leads to a shorter service life for equipment, increased operating costs and higher energy consumption. For this reason it is particularly important to tackle the power quality.

Power quality management can be used to continually pursue the objective of measuring, analysing and optimising power quality in order to reduce maintenance costs.

For example, the class A voltage quality analyser UMG 512-PRO enables the power quality to be monitored in accordance with the established standards, e.g. EN 50160, IEEE 519 or EN 61000-2-4. In addition, the device also measures flicker and harmonics up to the 63rd. harmonic. The UMG 509-PRO also continuously monitors the power quality and provides analysis of electrical disturbances in the event of network problems. On the lower network levels, the UMG 96RM serves to record energy consumers, standard variables and basic parameters for the power quality.



The "power distribution" over 24 hours can be displayed with the statistics graph (value distribution over the day) in GridVis®.



The GridVis® analysis software provides a graphical display of harmonics up to the 63rd. harmonic.

EVERYTHING IS POSSIBLE

Open communication architecture – simple integration

Janitza®

INDUSTRY 4.0

Linking of production and communication

Now more than ever, our daily lives are defined by media and digital end devices that should make working tasks easier. Objects have become „intelligent objects“ and are internet-based. „Internet of Things“ is the term for this trend – the linking of physical objects with a virtual representation in a structure similar to the internet.

Similarly, Industry 4.0, is the linking of industrial production with the most advanced information and communications technology.

Janitza in particular know how to utilise this development with great skill: This means that GridVis® Power Grid Monitoring Software, the energy portal and the Janitza APPs are tightly meshed with the UMG measurement devices. Hardware and software go hand-in-hand.

Data can be more easily assessed with the help of our communications architecture with numerous interfaces and protocols, making it more understandable for the user.

MEASURE ON FIVE LEVELS

Measure with system
Measure from the supply right to the sub-distribution. Measure continuously!
Only in this way are your values transparent and traceable.

Maximum transparency with Janitza energy measurement devices – from the energy supplier to the sub-measurement.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CERTIFICATION & INVESTMENT SECURITY

Janitza plans the quality systematically, implements it, coordinates it and monitors it. For this reason, all Janitza measurement devices (UMGs) are tested and certified by independent institutes (also for the most diverse protocols such as PROFIBUS, PROFINET, Modbus or BACnet).

In addition, our energy management systems fulfil the ISO 50001 standard as well as the requirements for a quality management system per DIN EN ISO 9001.

The GridVis® Power Grid Monitoring Software for energy management systems is also TÜV approved. The software enables the creation of EnMs and PQ reports in accordance with freely-defined time schedules. Thus customers have their energy supply automatically within their sight and can identify any need for correction in good time.

The PQM standard IEC 61000-4-30 is fulfilled by all of the corresponding class A devices. These are some of the most innovative, compact and competitive devices on the market.

In order to ensure a reliable energy supply, various different standards around the world define different aspects of the "Power quality". With Janitza products and solutions, the power quality can be monitored in accordance with the standards EN 50160, EN 610002-4, IEEE 519 or ITIC/CBEMA.

Smart Energy & Power Quality Solutions

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Sales partner

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