Smart Energy & Power Quality Solutions

BUILDINGS AND INFRASTRUCTURE

Short information

Janitza®

MODERN ENERGY AND RESOURCE MANAGEMENT

EFFICIENT BUILDINGS

Buildings and infrastructure play a pivotal role in shaping the everyday experiences and functionalities of modern society. They provide the foundations for safety and comfort to essential daily activities like living, dining, and working. This sector also underpins the frameworks for commuting, traveling, and logistics, facilitating smooth transitions and efficient movements that connect people and businesses across diverse geographies.

By developing and maintaining robust buildings and infrastructural systems, this sector not only supports economic activities but also enhances the quality of life. It creates environments that foster both personal well-being and professional productivity. In order to ensure these objectives, the sector must solve the following significant challenges in maintaining energy efficiency and ensuring a reliable power supply.

ADHERENCE TO REGULATIONS

Strict standards for energy efficiency and sustainability drive the adoption of energy management solutions.

- Adherence to relevant standards, such as DIN EN 61000-2-4, DIN ISO 50001
- Achieving energy certifications such as Leeds, Breeam, DGNB, Green Star, NABERS

SUSTAINABILITY GOALS

Organizations prioritize sustainability, with energy management playing a crucial role in reducing carbon emissions.

- Management of energy production and consumption from renewable energy sources
- Improvement of energy efficiency of the building

RISING ENERGY COSTS

Increasing utility prices compel building owners and operators to seek out systems that reduce energy consumption and operational costs.

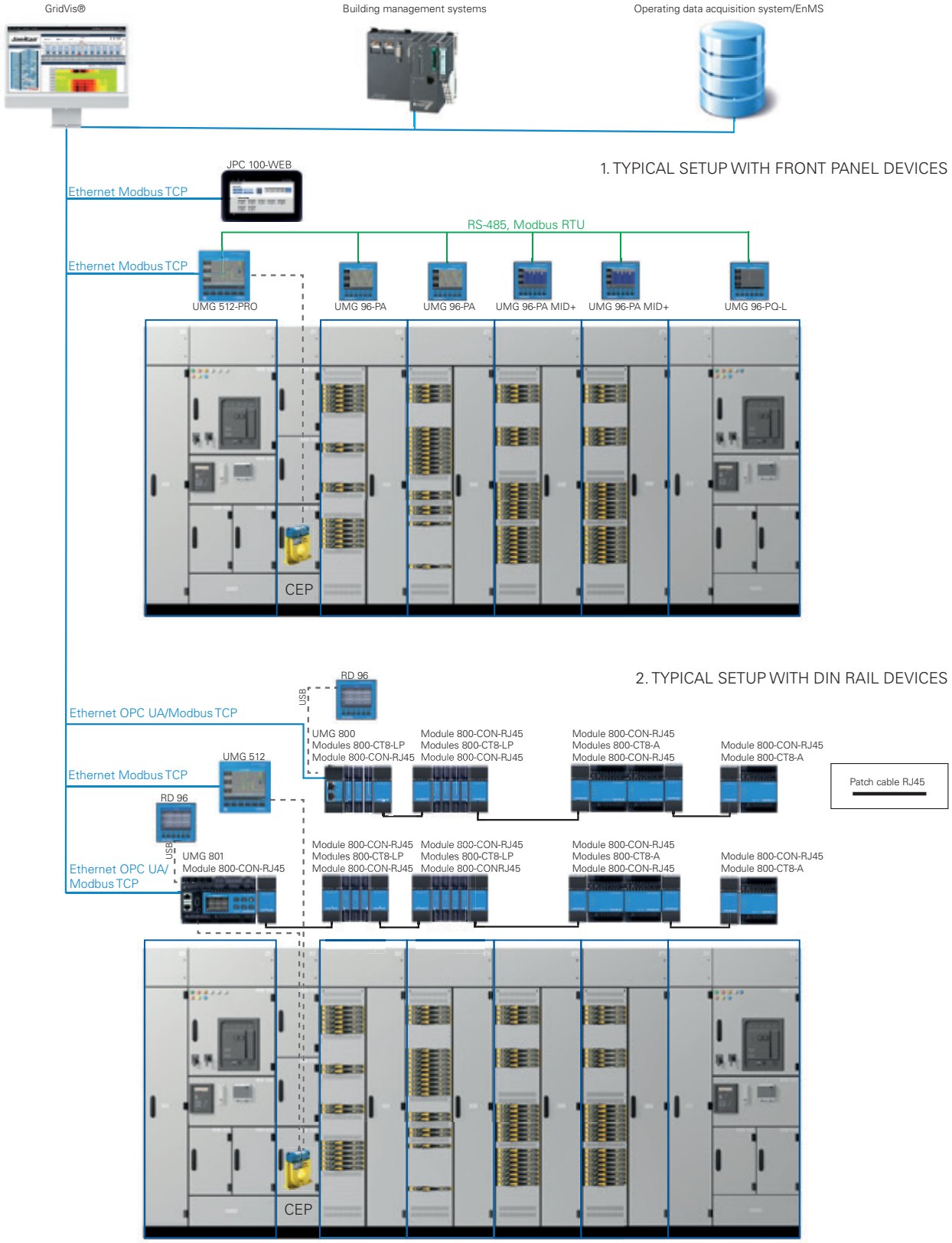
- Identify and improve inefficient processes
- Monitor energy consumption
- Total cost of ownership & sustainability

SMART BUILDINGS

New tech advancements such as smart sensors, data analytics and AI enhance the capabilities of energy management systems.

- Detailed analyses of power quality and energy efficiency
- Reliable power supply
- Fire protection & EMC

TYPICAL MEASUREMENT TOPOLOGY



Comprehensive measurement with Janitza measuring devices

MEASURING TECHNOLOGY

Modern energy measurement technology enables buildings to be operated more efficiently and sustainably. It provides valuable insights into energy usage patterns, helping building managers to uncover inefficiencies and optimize operating processes.

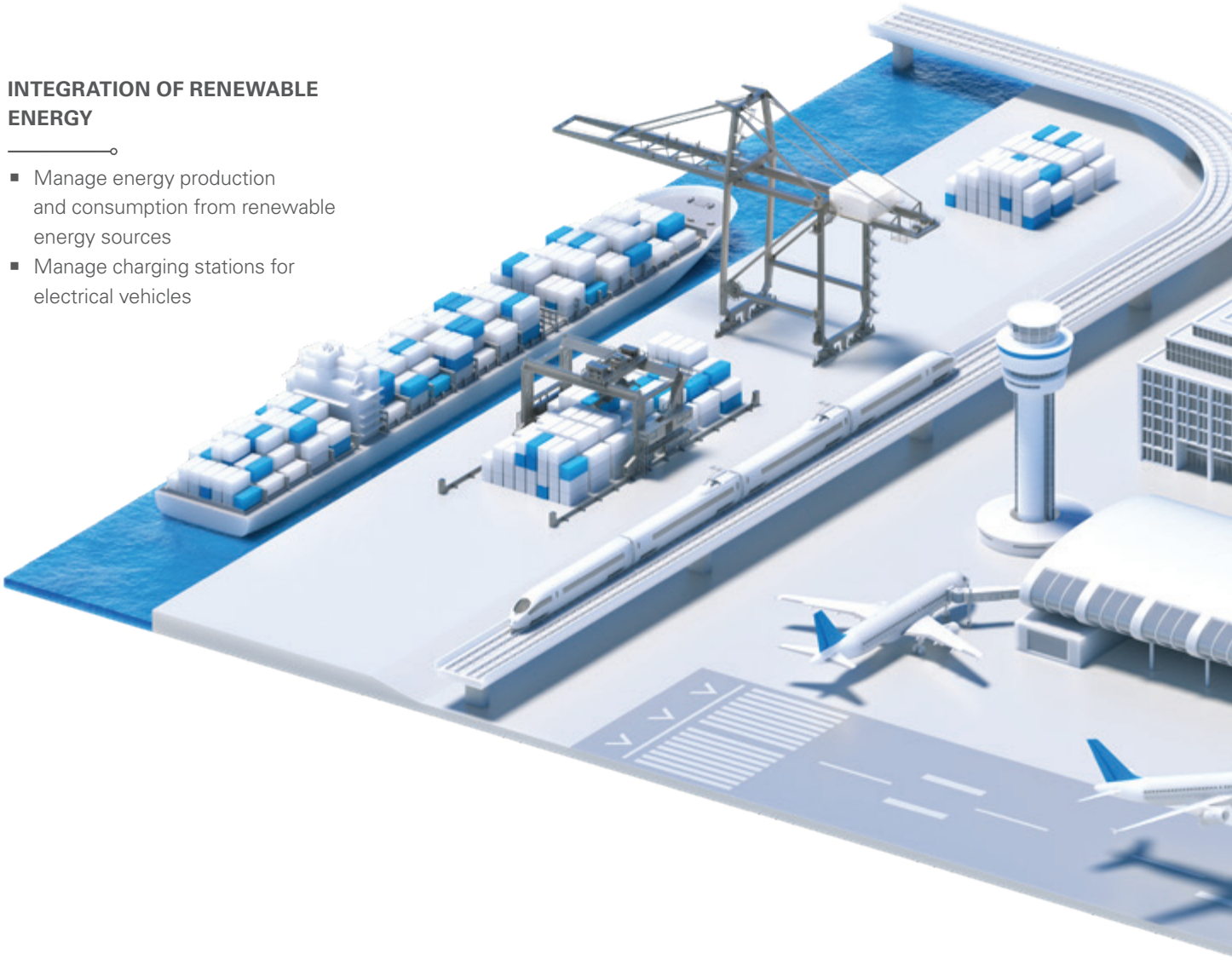
The use of advanced energy measurement technologies not only helps to decrease operating costs, but also reduces the environmental footprint of buildings. Precise measuring devices and intelligent software solutions can increase efficiency while protecting the environment as well.

COST MANAGEMENT

- Receive certified measurements (MID and MID+) for billing and demarcation from third parties

INTEGRATION OF RENEWABLE ENERGY

- Manage energy production and consumption from renewable energy sources
- Manage charging stations for electrical vehicles



ENSURE RELIABLE POWER SUPPLY

- Ensure the reliability of sensitive electronic equipment through power quality monitoring solutions
- Enhance overall building operations, safety, and comfort

CO_2 TRANSPARENCY

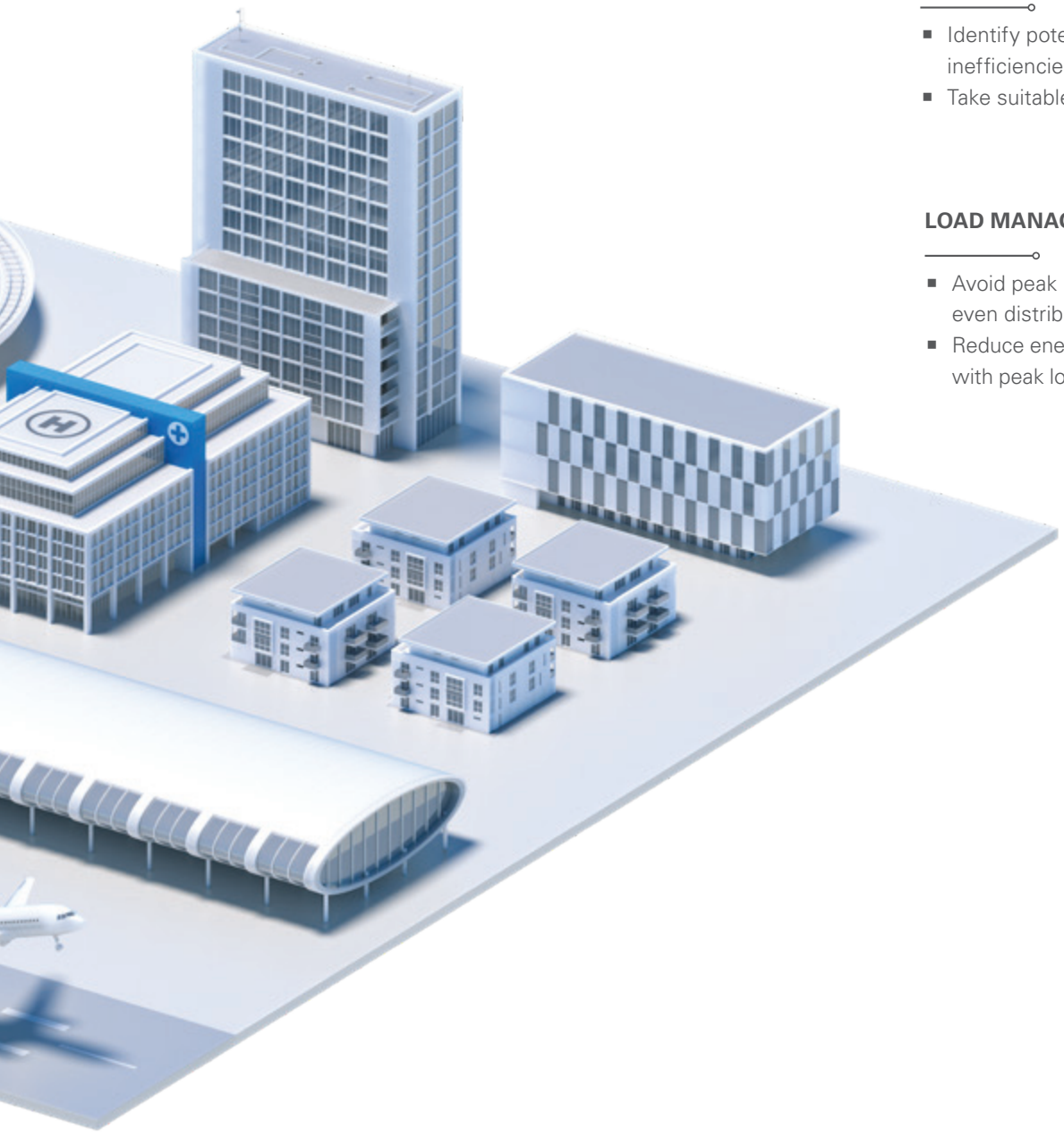
- Record carbon emissions, waste heat and energy consumption
- Integrate all energy sources and media (e.g. water, gas, heat)

ANALYZE CONSUMPTION

- Identify potential sources of inefficiencies
- Take suitable measures

LOAD MANAGEMENT

- Avoid peak loads and ensure an even distribution of energy
- Reduce energy costs associated with peak loads



JANITZA SOLUTIONS FOR SMART BUILDINGS AND INFRASTRUCTURE

*Product no.: 52.26.001 95 ... 240 V AC / 80 ... 300 V DC**
*52.26.002 48 ... 110 V AC / 24 ... 150 V DC**

UMG 509 PRO
MULTIFUNCTIONAL POWER QUALITY ANALYZER

- Continuous monitoring of power quality and residual current monitoring
- Analysis of electrical disturbances in the event of power quality problems
- Visualization of the energy supply in the LVMDB
- Remote monitoring in property operation
- Master device with Ethernet gateway for subordinate measuring points

*Product no.: 52.36.021 (Class S) 90 ... 277 V AC / 90 ... 250 V DC**
*52.36.022 (Class S) 24 ... 90 V AC / 24 ... 90 V DC**

UMG 96 PQ-L
MODULARLY EXPANDABLE POWER ANALYZER

- Power quality monitoring, residual current monitoring and temperature recording
- Class S certified according to IEC 61000-4-30
- Display of full-wave results directly on color display
- Retrofit module and firmware packages
- Low-power variant with direct operation of passive Rogowski coils and variant for IT networks available

*Product no.: 52.32.004 90 ... 277 V AC / 90 ... 250 V DC**

UMG 96-PA-MID+
MODULARLY EXPANDABLE POWER ANALYZER (MID)

- Precise and tamper-proof recording of billing-relevant energy values
- MID-certified in accordance with 2014/32/EU
- Recording, billing and cost center allocation of rental areas or delimitation of third-party consumers
- RCM, MID+ and temperature (via additional module)
- Ethernet, masterfunction for Modbus RTU (additional module)

Product no.: 14.01.353 (Type B21 311-10J, 1P, 65A)
14.01.356 (Type B23 311-10J, 3P 65 A)
14.01.359 (Type B24 311-10J, Transformer-connected, 3P, 1/5 A)

B21 / B23 / B24
MID-ENERGY METERS

- Tamper-proof and legally compliant recording of energy data, acc. to MID and IEC
- With measured values and alarm function
- Can be used for direct measurement and for transformer measurement
- Integrated tariff selection
- Optional interfaces for M-Bus, RS 485 (Modbus RTU), pulse output included

These products only represent a selection. For a complete overview of measurement technology please visit www.janitza.com or contact us.
*Supply voltage

Product no.: *52.38.001 (UL)* *External 24 V DC, PELV**
52.38.002 *External 24 V DC, PELV**

UMG 800
MODULARLY EXPANDABLE ENERGY ANALYZER

- Flexible and efficient recording of energy consumption
- Modules available to add current measurement inputs or other functions to basic device
- Small size of 2 division units, e.g. for retrofit solutions, perfect for distribution cabinets
- Potential energy savings, load peaks and grid faults can be detected
- OPC UA, RS485 interface and Modbus TCP/IP gateway
- Ideal for the enhancement of the energy management system, e.g. acc. to DIN ISO 50001

GridVis® – POWER GRID MONITORING SOFTWARE

GridVis® power grid monitoring software is a powerful solution that helps your facility infrastructure to become more efficient and sustainable. It creates transparency and provides more detailed insights into your energy data, helping you to evaluate the carbon emissions of your facility and to detect unnecessary consumption.

In addition, the software enables the evaluation of energy costs for various media, e.g. gas, water or heat. It also provides the option of clearly displaying and evaluating energy costs for customers and tenants. With the GridVis® software, you can optimize facility management whilst also reducing your operational costs and carbon emissions.

ADVANTAGES

ENERGY MANAGEMENT
according to DIN ISO 50001

SECURITY
Alarm management, threshold monitoring

CONNECTIVITY
OPC UA, CSV, REST API, M-Bus, Modbus

VISUALIZATION & DOCUMENTATION
Report editor, dashboards

GRID MONITORING & ANALYSIS
Event browser, utilization and high availability reports
RCM monitoring

ABOUT JANITZA

Janitza is a German manufacturer of energy measurement technology, specializing in improving energy efficiency and ensuring a secure energy supply. The company offers tailored solutions designed to meet individual customer requirements across a wide range of industries, such as data centers, manufacturing, buildings & infrastructure, utilities and renewable energy.

PRODUCT RANGE

Janitza's portfolio includes innovative measuring devices and the perfectly integrated Power Grid Monitoring Software GridVis®, complemented by high-quality components. Customers worldwide benefit from solutions in energy data management, power quality monitoring, and residual current monitoring, all within a unified system environment – Made in Germany.

Janitza electronics GmbH
Vor dem Polstück 6, 35633 Lahnau,
Germany

Tel.: +49 6441 9642-0
Mail: info@janitza.com
www.janitza.com

Further information about solutions
for buildings and infrastructure:

Item no.: 8501131 ▪ Doc. no.: 2.500.336.0 ▪ Version 12/2024 ▪ Subject to technical changes.

Janitza®