



SERVICES



From planning to commissioning

After we have developed your technical solution, executed it and commissioned it, we continue to support you further:

- Training of your personnel
- Commissioning, maintenance and support of the systems
- Regular training for safe handling of energy management, power quality and our products and system solutions
- On-site power analysis of existing systems

Training: GridVis® Power Grid Monitoring Software

GridVis® is an elementary module for your energy management and power quality monitoring systems. GridVis® serves to facilitate the programming and configuration of power analysers, universal measurement devices, data loggers and power factor controllers, as well as the configuration, storage, display, processing, analysis and evaluation of the measured data. Our training courses range from training for beginners to individual training courses as well as application and industry-specific conferences. In the GridVis® basic training course you will learn on two consecutive days how to configure your meters with the GridVis® software and how to optimally evaluate and display the acquired information. In order to ensure learning objectives are achieved, each topic is enhanced through independent and practice-oriented exercises. In-house training courses take place in your company and are adapted to suit your individual needs.



The goals of the GridVis® basic training are:

- Become familiar with important functions of the hardware and software
- Be able to create and manage your own projects using the GridVis® software
- Be able to configure Janitza meters correctly
- Be able to display and evaluate measurement and consumption data
- Be able to visualize measurement data using GridVis® Desktop and the web application GridVis® Energy
- Be able to protect your projects using a user management concept
- Be able to automate processes and create your own schedules
- Know how limit values are defined
- Be able to create your own alarm plans

Further focal points of the GridVis® basic training are:

- Installation, licensing and update of the GridVis® software
- Detailed examples of many system functions
(User management, time management, automation and much more)
- Create professional evaluations and reports
- Recording configuration for power quality and residual current monitoring
- Create your own dashboards and widgets
- Generate key performance indicators with evaluation system
- Create virtual measurement points and use them correctly
- Program different UMG meters using Jasic

Training	
Description	Item no.
GridVis® Basic training for beginners , 2 days *1	DL5101135
GridVis® Expert training, main topic: Major projects & Connectivity , 1 day *1 Prerequisite: Basic knowledge of GridVis®.	DL5101136
GridVis® Expert training, main topic: Energy management , 1 day *1 Prerequisite: Basic knowledge of GridVis®.	DL5101137
GridVis® Expert training - Power quality & RCM , 2 days *1 Prerequisite: Basic knowledge of GridVis®.	DL5101138
In-house training at customer site , 1 day *2 Seminar contents after consultation.	DL5101139
GridVis® Webinar training , 1 hour *2 Seminar contents after consultation.	DL5101140

*1 The participation fee includes training materials, soft drinks, lunch and a certificate. Location: Janitza electronics GmbH / Lahnau
Travel costs and accommodation must be covered by the seminar participants.

Commissioning

Janitza possesses decades of know-how in the field of energy measurement technology and complete monitoring systems. We shall be happy to support you from concept generation right through to the commissioning of your monitoring solutions. This encompasses the complete bandwidth of tasks:

- Installation of the GridVis® Power Grid Monitoring Software
- Creation of customer projects in GridVis® with measurement point structure
- Parametrisation of the measurement devices, data loggers and other components in the system according to customer specifications (VBI form for preparation)
- Checking the bus function and accessibility of the measurement devices
- Generation of graph sets
- Generation of topology views
- Brief instruction of the operating personnel on working with the hardware and software components of the Janitza energy management system
- Official system handover



Putting into service	
Description	Item no.
<p>Installation of GridVis® up to 10 devices Installation of the GridVis® Software on a PC or server including configuration of the system by the manufacturer. Creation of a Janitza database or integration of an existing MySQL or MSSQL database, commissioning, instruction of operating personnel, creation of final protocol with transfer of relevant data in hardware and software, topology configuration and GridVis® device list to the person responsible for the entire installation. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101090
<p>Installation of GridVis® on more than 10 devices Installation of the GridVis® on a PC or server including configuration of the system by the manufacturer. Creation of a Janitza database or integration of an existing MySQL or MSSQL database, commissioning, instruction of operating personnel, creation of final protocol with transfer of relevant data in hardware and software, topology configuration and bus address list of the devices to the person responsible for the entire installation. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101091
<p>Installation of GridVis® Desktop on a further computer Installation of the GridVis® Desktop on an additional PC, including configuration of the system by the manufacturer, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101092
<p>Acceptance/Checking of cabling Commissioning/acceptance of the physical cabling of the system by qualified specialists. Check of Modbus/Ethernet cabling with regard to cable type, polarity, shield earthing, termination, patching of Ethernet connections, compliance with physical topology, etc. Creation of communication and electrical data lists in Excel format and transfer to the person responsible for the entire installation. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101093
<p>Commissioning of type 1 measurement device Programming of the measurement device parameters by the manufacturer, integration in the GridVis® software for devices UMG 509, 512, 604, 605, 801, 806, RCM202-AB commissioning of the system, instruction of operating personnel, backup of configuration data as a TXT file. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101094

Other services

Other services	
Description	Item no.
<p>Commissioning of type 2 measurement device Programming of the measurement device parameters by the manufacturer, integration in the GridVis® software for devices UMG 103, UMG 96RM series, UMG 96-PA series, module 800-CT8-A, module EC1, ED1, EI1, commissioning of the system, instruction of operating personnel, backup of configuration data as a TXT file. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101095
<p>Commissioning of type 3 measurement device Programming of the UMG20CM parameters by the manufacturer, recording of data on site, integration in the GridVis® software, commissioning of the system, instruction of operating personnel, backup of configuration data as a TXT file. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101096
<p>Commissioning of type 4 measurement device Programming of the ProData 2 parameters by the manufacturer, integration in the GridVis® software, commissioning of the system, instruction of operating personnel, backup of configuration data as a TXT file. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101097
<p>Commissioning of generic Modbus counter Programming of Modbus measurement devices parameters in accordance with make approved list of Janitza electronics GmbH regarding generic Modbus, implementation in the system, instruction of operating personnel, backup of configuration data as a TXT file. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101102
<p>Commissioning of pulse media counter Programming of pulse media counter parameters, setting of the pulse values, implementation in the system, instruction of operating personnel. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101103
<p>Commissioning of MBus Gateway Solvimus Commissioning of the gateway by Janitza, recording of the data on site, integration in the GridVis® software, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101104
<p>Commissioning of the MBus media counter Programming of the M-Bus media counter parameters for connecting to the MBus Gateway Solvimus, recording of the data on site, setting of the M-Bus parameters, implementation in the system, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged additionally at cost. Note: From 25 media counters upwards, an overnight stay is required.</p>	DL5101105
<p>Commissioning of the Multi Protocol Server Installation/commissioning of the Multi Protocol Server by Janitza. Commissioning of the system, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged at cost.</p>	DL5101106
<p>Integration in the Multi Protocol Server Integration of a measurement device in the Multi Protocol Server, recording of the data on site, creation of approx. 5 measured values per measurement device, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101107
<p>Upgrade of GridVis® Upgrade of the existing and installed GridVis® software to a higher edition, including programming of the system by the manufacturer, commissioning, instruction of operating personnel. Creation of final protocol. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101108

Other services

Other services	
Description	Item no.
<p>VISU type 1 service Creation of topology pages in the GridVis®, virtual measuring points (PUE + key figures), cost centre/power quality reports (EN 50160/EN 61000-2-4) upon customer request. Instruction of the operating personnel, creation of final protocol. A specification sheet must be provided by the customer. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101109
<p>VISU type 2 service Creation of a dashboard page in the GridVis® software with approx. 5 standard widgets, 5 measurement devices and 20 measured values. A specification sheet must be provided by the customer. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101110
<p>VISU type 3 service Creation of a template page in the GridVis® software with approx. 5 standard widgets and 20 measured values. A specification sheet must be provided by the customer. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101111
<p>VISU type 4 service Creation of a dashboard overview page in the GridVis® software with links to up to 10 subpages. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101112
<p>VISU type 5 service Creation of a Sankey diagram or KPI widget with approx. 20 measured values. Creation of a specification sheet in consultation with the client. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101113
<p>VISU type 6 service Creation of customer-specific graphics for the dashboard pages. A specification sheet must be provided by the customer.</p>	DL5101114
<p>Commissioning of type 5 measurement device Programming of the energy counter parameters by the manufacturer, recording of data on site, integration in the GridVis®, commissioning of the system, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101123
<p>Checking of difference/PE current measurement Checking of difference/PE current measurement by qualified specialists. A live simulation (e.g. test transformer) must be carried out to check the entire alarm/signalling loop of the Janitza system for compliance with the set threshold value as well as when it is exceeded. This must be carried out for each individually monitored inlet/outlet. The results must be logged and given to the specialist engineer in hardware and software form (Excel). Minimum requirement of the log: Project name, distribution list name, outlet designation, measurement device designation, company name, tester name, measured value, signalling chain function, imprinted current magnitude, type of test device, signature and date, price per diff/converter. Travel expenses/overnight stays will be charged at cost.</p>	DL5101125
<p>Adaptation of the existing software Adaptation of the existing software to the new constellation of the system including software and device updates, integration of the new devices in the software, optional creation of an additional database connection, instruction of operating personnel, creation of final protocol. Travel expenses/overnight stays will be charged at cost.</p>	DL5101126
<p>Instruction Project-based instruction in using the software after commissioning, instruction in the functionality of the entire system. Operation of the software with setting options, analysis representations, visualisation, etc. Travel expenses/overnight stays will be charged at cost.</p>	DL5101127

Other services

Other services	
Description	Item no.
<p>Programming of the compensation system Programming of the compensation network system parameters by the manufacturer, recording of data on site, commissioning, instruction of operating personnel, creation of final protocol with transfer of relevant data in hardware and software, such as bus, ring buffer, measurement devices, topology configuration, to the specialist engineer. Travel expenses/overnight stays will be charged at cost.</p>	DL5101128
<p>UMG 20CM Channels Programming of the parameters of the channels, recording of the data on site, setting of the pulse valencies, implementation in the system, instruction of operating personnel, final protocol creation, without travel to and from site.</p>	DL5101130
<p>Changing of the system parameters Changing of individual system parameters on site, per bus participant after commissioning by the service technician within the first 12 months after initial commissioning, e.g. - Changing of the recording configuration per device - Changing of the nominal values per device - Changing of the current converter settings per device - Changing of the reports per device in the report - Updating of the firmware per device - Software update if necessary Necessary hardware on loan included if required. Changing of the parameters via the option of VPN or remote access included. Access must be guaranteed and made available by the customer. Alternative: Access per TeamViewer. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101133
<p>Creation of a virtual device Creation of virtual measuring points (devices) in the GridVis[®] with max. 10 input and output measurements. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101134
<p>Commissioning and Parametrization JPC100 Programming of the JPC100 parameters by the manufacturer, IP configuration, configuration of the alarm system, email configuration, backup of the configuration data Travel expenses/overnight stays will be charged additionally at cost. Note: For the integration of devices, the articles „IBN measurement devices type 1 to type 5“ must also be selected.</p>	DL5101151
<p>Commissioning and Parametrization AHF / SVG Programming of the AHF / SVG system parameters by the manufacturer, recording of the data on site, commissioning, instruction of operating personnel, final protocol creation with handover of the relevant data in hardware and software to the specialist engineer. Travel expenses/overnight stays will be charged additionally at cost.</p>	DL5101152
<p>Project planning of an energy monitoring or power quality monitoring system Discussion and analysis of the actual status on site, formulation of a customer-specific solution</p>	51.01.011
<p>Integration test of generic Modbus devices</p>	51.01.014
<p>PQ QuickCheck to EN 61000-2-4/EN50160 Analysis and evaluation of recorded power quality parameters according to the standards EN 50160 and/or EN 61000-2-4 with recommendation for action in the case of limit value violations or critical parameters. The measured data to be evaluated are read out by the customer in the GridVis[®] software and transferred to the company Janitza via data transfer. Requirement: Installed measurement devices UMG 604-PRO, UMG 605-PRO, UMG 509-PRO, UMG 512-PRO. Each with activated PQ recording and at least data from a coherent calendar week. Alternatively, the measurement can be done by a measuring case on loan.</p>	51.01.024

Checking the power quality and IT-compliant energy distribution

Energy and system check: Checking the power quality quality and TNS system-compliant electrical installation for IT and other systems.

In order to prevent damage and faults in the systems, a link with fault-free electrical supply systems must be created. If this unit is not established, faults can have a negative effect on operating equipment. Such operating equipment includes in particular sensitive operating equipment such as data transfer systems, PLC controls, as well as supply lines for gas and water (alternating current corrosion).

Occurrences such as faults in the IT system due to EMC problems, damage to systems through hazardous energy peaks, as well as strongly accelerated appearances of corrosion in buildings can lead to severe damage and production failures. Likewise, the personal safety of personnel and that of the system can also be endangered.

Scope of performance

- Measurement and analysis of the electrical supply system
- Detecting potential error sources and fault factors
- Creation of a detailed report, which provides information on the actual status of the system
- Creation of a measures catalogue for the improvement and optimisation of the energy supply
- Further optional measures such as thermographic investigations, online monitoring including recurrent reporting, system monitoring for monitoring the improved systems, etc. on request

Benefits

- High operational reliability
- Reduction of production downtimes
- Substantiation of the system state
- Rapid overview of error sources
- Unique error code analysis
- Timely detection of system problems
- Cost centre optimisation of procurement material and repairs
- Extended service life of machines and systems
- Rapid data transfer
- Reports on damaging events
- Improvement of personnel and system protection



Fig.: Avoidance of stray currents on data lines



Fig.: Corrosion of pipes

Customer-side prerequisites for execution

- Current transformers and voltage transformers must be available for measurement in the medium voltage power grid
- Presence of the system supervisor or a representative in their absence

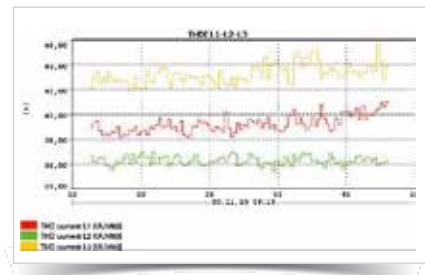


Fig.: Heating up of neutral conductors through high current harmonics

Other services	
Description	Item no.
<p>Design of compensation system/network analysis Network analysis to assess the network conditions for designing the compensation system with regard to power quality and energy load profiles. The measurement is made in the low voltage network (230/400 V 50 Hz). Recorded and logged in selectable intervals of 5 sec. – 15 min. over a period of 7 days per measuring point. The measurement must be carried out during representative operation of the plant section in consultation with the specialist planner. Creation of final protocol with transfer of the relevant data in hardware and software in graphical (pdf/bmp) and numeric (csv/xls) form to the specialist engineer. It is assumed that an electrical specialist with the appropriate specific knowledge of the plant is present during the set-up and dismantling of the measurement. Travel expenses/overnight stays will be charged at cost.</p>	<p>DL510129</p>

Power analysers for leasing

Who is not familiar with the problems of grid distortion effects caused by non-linear loads?

Typical problems such as defective LED lamps, exploded capacitors, short service lives of converters or other electrical loads, flicker occurrences, production failures due to voltage dips, etc. arise frequently in practice. With concrete power quality problems, whereby no fixed installation power analysers are available, we offer mobile power analysers from the MRG (UMG) range for temporary measurement and fault analysis. The network visualisation software GridVis® Essentials is made available in the portable measuring device and in the fixed installation UMG measurement devices. As such, no time-consuming training period is required.



Fig.: MRG portable PQ measuring device

Other services	
Description	Item no.
<p>Loan device mobile energy measurement device MRG 96RM-E RCM Flex</p> <ul style="list-style-type: none"> • Loan device for one week • For measuring, monitoring and the control of electrical characteristics in power distributions incl. residual current monitoring. • Evaluation with the Power Grid Monitoring Software GridVis® • Incl. Rogowski coil, Item no. 15.03.604 (Ø 95 mm) or 15.03.605 (Ø 190 mm). The size of the Rogowski coil must also be specified in the order. • Current transformer for residual current monitoring on request. 	51.01.030
<p>Loan device power quality analyser MRG 512 PQ Flex for a power analysis according to EN 50160</p> <ul style="list-style-type: none"> • Loan device for one week • Extensive network data collection with recording of faults • Evaluation of critical network parameters (harmonics, short-time interruptions, ...) and PFC design as well • Evaluation with the Power Grid Monitoring Software GridVis® • Incl. Rogowski coil, Item no. 15.03.604 (Ø 95 mm) or 15.03.605 (Ø 190 mm). The size of the Rogowski coil must also be specified in the order. • Current transformer for residual current monitoring on request. 	51.01.031

PFC maintenance with performance per the maintenance contract

Annual reactive power check – function and safety checking of a PFC system

With the aid of a power factor correction system it is possible on the one hand to avoid superfluous reactive power costs by the energy provider, whilst also guaranteeing the optimisation of the energy costs. Furthermore, an improvement in the power quality is also guaranteed with a detuned PFC system because the harmonic currents can be effectively filtered from the network. Checking of the PFC system, which should take place once annually, ensures a long service life and optimum power capability.



Scope of performance

- Visual inspection of the system, which encompasses the following points: Parts, contactors, fans, connections, capacitors, reactors, lines, checking the housing for damage and deformation
- The regular elimination of dust and pollution prevents creepage distances and short circuits from arising and safeguards the air cooling
- Measurement and recording of the power values for function testing
- Creation of a test report for the actual status of the system
- Further measures: Thermographic testing, etc.

Benefits

Through consistent care and ensuring the functionality of the system, the following desired beneficial effects and advantages are attained:

- Avoidance of reactive energy costs on a monthly basis, e.g. it is possible to save up to € 500 per month in Germany through the economical configuration of a PFC system with 300 kvar
- Only a carefully maintained system guarantees a long service life; insufficiently cared for systems can also pose a safety risk
- Very short amortisation times of just 1 to 2 years can be guaranteed through a functional PFC system

Other services	
Description	Item no.
Annual PFC check	51.01.025
PFC maintenance with performance per the maintenance contract	51.01.017



TeamViewer sessions

Our engineers and service technicians possess many years of experience and are frequently able to support you without difficulty by way of a remote session in the event of problems and new systems. Furthermore, remote commissioning and training are also possible via remote maintenance.

Other services	
Description	Item no.
TeamViewer sessions	DL5101050

Remote maintenance contracts on an annual basis

Safeguard your monitoring and energy management system by having it checked once annually, and keep it in line with the latest engineering practice! Janitza remote maintenance contracts encompasses services including the following:

- Database: Availability, size, available storage
- Availability of the measurement devices (communication to the UMGs)
- Measurement device settings
- Verification of the recorded measured data
- Running test reports
- Under certain circumstances upgrade of the GridVis® Power Grid Monitoring Software
- Under certain circumstances upgrade of the UMG firmware

Other services	
Description	Item no.
Remote maintenance contracts on an annual basis	DL5101060



Calibration with calibration reports

Calibration includes the following services:

- Visual inspection for external damage
- Opening the device and visual inspection for observable damage to electronics and circuit paths
- Comprehensive function check with automatic testing
- Firmware update
- Calibration
- High voltage test (safety check)
- Provision of a factory calibration report

Other services	
Description	Item no.
Calibration type 1: UMG 604 / UMG 604-PRO / UMG 605 / UMG 605-PRO / UMG 96RM / UMG 96-PA / UMG 509 / UMG 509-PRO / UMG 512 / UMG512-PRO – Visual inspection for external damage – Opening of the device and visual inspection for visible damage of conductor tracks – Function control with an automatic inspection – Firmware update – Calibration – High-voltage test (safety review) – Delivery of the manufacturer's calibration protocol	DL5101143
Calibration type 2: UMG 103-CBM / UMG 96-S2 – Visual inspection for external damage – Opening of the device and visual inspection for visible damage of conductor tracks – Function control with an automatic inspection – Firmware update – Calibration – High-voltage test (safety review) – Delivery of the manufacturer's calibration protocol	DL5101144
Calibration type 3: MRG portable energy measurement device – Visual inspection for external damage – Opening of the device and visual inspection for visible damage of conductor tracks – Function control with an automatic inspection – Firmware update – Calibration – High-voltage test (safety review) – Delivery of the manufacturer's calibration protocol	DL5101145
Firmware update type 1: UMG 604 / UMG 604-PRO / UMG 605 / UMG 605-PRO / UMG 96RM / UMG 96-PA / UMG 509 / UMG 509-PRO / UMG 512 / UMG 512-PRO – Visual inspection for external damage – Opening of the device and visual inspection for visible damage of conductor tracks – Function control with an automatic inspection – Firmware update – Calibration – High-voltage test (safety review)	DL5101146
Firmware update type 2: UMG 103-CBM / UMG 96-S2 – Visual inspection for external damage – Opening of the device and visual inspection for visible damage of conductor tracks – Function control with an automatic inspection – Firmware update – Calibration – High-voltage test (safety review)	DL5101147