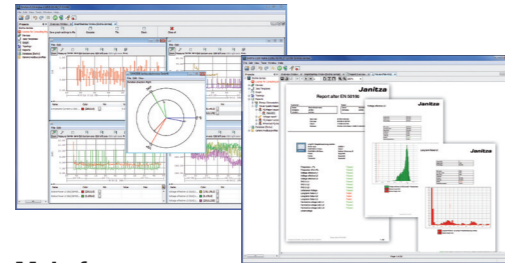


GridVis Software





Energy Management (ISO 50001) and Power Quality (EN 50160, ITIC, IEEE 519)

GridVis Software included in the content of delivery of all UMG measurement devices is used for Energy Management Systems and Power Quality Solutions. GridVis provides historical values, e.g. load profiles, which allow a trend analysis as well as online measurement values for monitoring the actual load scenario and much more.

GridVis is a powerful tool for automatic collection of measurement data, for analyzing and visualizing the measurement results, e.g. the topology-view provides a quick overview of an actual online situation. Automatically generated reports for most common Power Quality Standards as well as reports for energy consumption can be freely scheduled by the user.



Main features

-  Integrated reporting and statistic
-  Configurable user access
-  Export of historical data (CSV-files)
-  Easy linking with Building Automation Systems (BAS), PLCs, SCADA

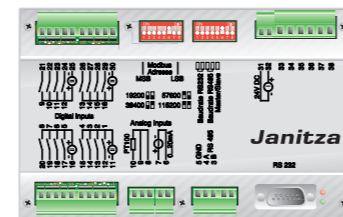
ProData® data logger

Powerfull data logging

Data loggers are a mandatory equipment in energy management solutions, cost center applications or process data logging.

ProData® is a powerful data logger suitable for collecting data and consumption meter values, operating conditions and process data.

The data can be used for analyzing energy consumption, operating hours or for monitoring switch conditions and faults in buildings, factories ...



Main features

- Collection and recording of meter values, operating conditions and process data
- 16 digital inputs
- 64 bit counter
- 128 programmable comparators
- RS232, RS485, modem, LON, Modbus or Modbus-master
- 1 analogue input
- 1 temperature input
- 2 relay outputs
- Including GridVis software

Peak demand management systems

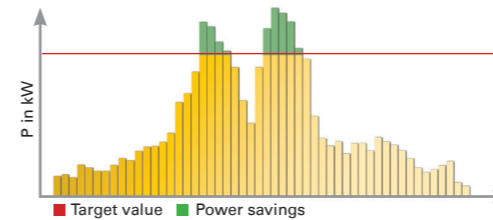
The intelligent reduction of peak loads

Peak demand management systems are essential to minimize costly power peaks and avoid electrical distribution systems overloads.

The energy bill is made up of three contributing factors, which are:

- basic charges
- demand charges
- energy charge (kWh)

Load profile over a period of 24 hours



These charges individually contribute to your energy bill and have to be in line with your requirements. Managing your Peak Demand is an option that can be altered and has great potential to reduce your energy account by still allowing the same amount of electricity use.

Main features

- Optimum limitation of effective power peaks
- Up to 64 load shedding stages
- Intelligent algorithm for controlling the peak demand well within the specified limits
- Wide range of communications: RS232, RS485, Modbus, Ethernet, Profibus
- Including GridVis software
- Harmonics display, monitoring of short-term interruptions

Power Quality Solutions

Improve your Power Quality Power Factor Correction

Power quality as well as supply reliability are of major importance and matter a lot in nowadays business environment. Highly sensitive equipments and processes are heavily depending on a clearly defined power quality. In order to provide stable processes and an adequate power quality, despite increasing number of "polluting" equipments, countermeasures for power quality improvements are necessary.

Janitza electronics® is offering a comprehensive package of power quality solutions:

- Power Factor Correction
- Harmonic Filters (detuned & tuned)
- Dynamic PFC
- As well as key components for all above systems



Typically return on investment (ROI) within less than 2 years by:

- Reduction of reactive power and saving of consumed real energy (kWh)
- Reduction of harmonic loading (THD-V)
- Elimination of transients and voltage sags
- Compensation of fast changing loads
- Cutting demand peaks

Reduction of: electricity costs, maintenance costs, cost for production losses and capital expenditure.



Quick Overview

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Janitza®

Janitza®



UMG 103



UMG 104



UMG 604



UMG 605



UMG 96L



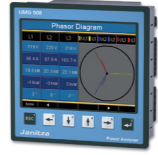
UMG 96S



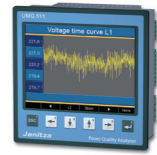
UMG 96RM



UMG 508



UMG 511



Type	UMG 103		UMG 104		UMG 604			UMG 605	UMG 96L	UMG 96S						UMG 96RM						UMG 508	UMG 511
Item number	52.18.001		52.20.001	P 52.20.002	E 52.16.002	EP 52.16.001	DE 52.16.041	52.16.027	52.14.001 (52.14.005)	52.13.001	52.13.005	52.13.017	52.13.025	52.13.045	52.13.029	52.22.001	P 52.22.002	M ⁷ 52.22.003	E ⁸ 52.22.004	CBM 52.22.005	EL ⁷ 52.22.006	52.21.001	52.19.001
Nominal grid voltages	240/414 V AC		277/480V AC		277/480V AC			277/480V AC	240/414 V AC ⁵	277/480 V AC						277/480 V AC						417/720V AC	417/720V AC
For using in three phase / 4 wire systems with grounded neutral up to maximum	-		480V AC		480V AC			480V AC	-	-						480V AC						480V AC	480V AC
For using in three phase systems without grounded neutral	-		95 - 240V AC; 135 - 340V DC ¹		95 - 240V AC; 135 - 340V DC ¹			95 - 240V AC; 135 - 340V DC ¹	-	only 52.13.029: 18 - 70V DC, 18 - 33V AC						95 - 240V AC; 100 - 300V DC						95 - 240V AC; 135 - 340V DC	95 - 240V AC; 135 - 340V DC
Auxiliary voltage	-		-		-			-	-	-						-						95 - 240V AC; 135 - 340V DC	95 - 240V AC; 135 - 340V DC
Three phase/four phase	-/*		*/•		*/•			*/•	-/*	-/*						*/•						*/•	*/•
Quadrants	4		4		4			4	4 ⁴	4						4						4	4
Scan frequency 50/60Hz	5.4kHz		20kHz		20kHz			20kHz	2.5/3kHz	1.5kHz						21.3 / 25.6kHz						20kHz	20kHz
Measurement points per sec.	5,400		20,000		20,000			20,000	50	180						21,300 / 25,600						20,000	20,000
Continuous measurement	•		•		•			•	-	-						•						•	•
Effective value from periods (50/60 Hz)	10/12		10/12		10/12			10/12	1/1	6/6						10/12						10/12	10/12
Harmonics V/A	1.3 ... 25		1 - 40		1 - 40			1 - 63	-	1.3 ... 15						1 - 40						1 - 40	1 - 63
Distortion factor THD-V / THD-I in %	•		•		•			•	-	•						•						•	•
Unbalance	•		•		•			•	-	-						-						•	•
Short/long-term flicker	-		-		-			-	-	-						-						•	•
Transients	-		-		50µs			50µs	-	-						-						50µs	50µs
Short-term interruptions	-		-		•			•	-	-						-						•	•
Accuracy V, A	+0.2%		+0.2%		+0.2%			+0.2%	+1%	+0.5%						+0.2%						+0.1%	+0.1%
Class A acc. EN 61000-4-30	-		-		-			-	-	-						-						-	-
Effective energy classification (kWh)	0.5 (.../5A)		0.5 (.../5A); 1 (.../1A)		0.5 (.../5A); 1 (.../1A)			0.5 (.../5A); 1 (.../1A)	2	1 (.../5A)						0.5 (.../5A); 1 (.../5A)						0.2 (.../5A)	0.2 (.../5A)
Digital inputs	-		2		2			2	-	-						-						8	8
Digital/pulse output	-		2		2			2	-	-						-						5	5
Temperature input	-		1		1			1	-	-						-						-	-
Integrated logic	-		-		Jasic® (7 Prg.)			Jasic® (7 Prg.)	-	-						-						• Jasic® (7 Prg.)	• Jasic® (7 Prg.)
Min/max value memory	•		•		•			•	•	•						•						•	•
Memory size	-		4 MB		128 MB			128 MB	-	-						-						256MB	256MB
Clock	-		•		•			•	-	-						-						•	•
Bi-metallic function A/kWh	•		•		•			•	•	•						•						•	•
Fault recording function	•		•		•			•	•	•						•						•	•
Peak demand management	-		-		• ³			• ³	-	-						-						• ³	• ³
Software for energy management and power quality	GridVis		GridVis		GridVis			GridVis	-	GridVis						GridVis						GridVis	GridVis
Interfaces	-		•		•			•	-	-						-						-	-
RS 232	-		•		•			•	-	-						-						•	•
RS 485	•		•		•			•	•	•						•						•	•
USB	-		-		-			-	-	-						-						-	-
Profibus DP	-		-		-			-	-	-						-						-	-
M-Bus	-		-		-			-	-	-						-						-	-
Ethernet	-		-		•			•	-	-						-						•	•
Web server / e-mail	-		-		•/*			•/*	-	-						-						•/*	•/*
Protocols	-		-		-			-	-	-						-						-	-
Modbus RTU	•		•		•			•	•	•						•						•	•
ISDN router	-		-		-			-	-	-						-						-	-
Modbus gateway	-		-		-			-	-	-						-						-	-
Profibus DP V0	-		-		-			-	-	-						-						-	-
Modbus TCP/IP, Modbus over TCP, SNMP	-		-		-			-	-	-						-						-	-
BACnet IP/MSTP	-		-		• ³			• ³	-	-						-						• ³	• ³

The Compact for master-slave-operation

The Professional for the light tariff

WEB - Email - Ethernet - easily integrated into the network

Power quality analyser EN 50160 - IEEE 519

The most economic instrument for basic applications

The best-selling instrument with bus interface and memory

Top Class Energy Management at economic cost

Multifunctional power analyser - Ethernet, Profibus, Modbus, Bacnet, SNMP

Class A (IEC 61000-4-30) power quality analyser (EN 50160 incl.)

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*1 Other voltages are available as options
 (2) Combination options for inputs and outputs:
 a) 2 digital outputs, b) 2 digital inputs, c) 2 analogue outputs, d) 1 digital output and 1 analogue output, e) 1 digital output and 1 digital input
 *3 Option
 *4 Not for effective and reactive power
 *5 In the 230 V version
 *6 Anticipated availability from 2nd quarter of 2012
 *7 Anticipated availability from 4th quarter of 2012
 *8 Combination options for inputs and outputs:
 a) 5 digital outputs and 3 digital inputs
 *9 192 MB for records
 *10 combined function: Either analog/temperature/ RCM input
 • : Included
 - : not included