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ZENONE
POWER ELECTRONIC TEST EQUIPMENTS
High-power technology

AC Voltage sources GV1K series

- *powers from 600VA up to 300KVA*
- *single phase output*
- *output frequency 40 – 200Hz*
- *connectable in parallel up to 1MVA*
- *bandwidth >500Hz*
- *synchronizable for poliphase systems*
- *Sequencer timer*
- *Multiscale systems*
- *output waveforms sinusoidal or arbitrary*
- *access to PID regulation parameters*
- *easy maintenance and calibration*
- *accuracy better than 0.3%*
- *harmonic distortion lower than 0.3%*
- *insulated output*
- *software for PC control*

Typical applications

- Conversion 50/60Hz
- Test appliances and equipments with power supply different from the grid
- Trafo, coils, cores tests

Description

The voltage sources of the GV series are static constant voltage generators, the models cover the range from 600VA up to 300KVA. Synchronizabe for polyphase systems or parallelable up to 1000KVA.
The GV sources deliver very stable AC voltages in all load conditions with output frequencies from 40 to 200Hz, providing sinusoidal or arbitrary waveforms. They can have up to two voltage scales with manual or automatic switching to suit the load conditions without penalizing the output power. Equipped with a modern and simple user interface combined with a large LCD display they offer the possibility to make multiple applications. They are designed in 19" built-in or table rack (low powers), in wheeled cabinet (medium powers) or cabinet, there are also available models with electronic and power separated for mounting on board. Ideal for laboratory applications, they play an important role in the final product test. Programmable via serial RS485, RS232, optional USB, LAN or optic fiber. The analog input (BOOSTER) allows the use as power amplifier and 8 programmable digital I / O ensure perfect integration with automatic test lines.

Applications

The GV source series is very robust with low costs and it is equipped with a sequencer timer that provides the ability to set with great simplicity voltage values and dispensing times with 1 mS resolution, allowing the programming of ramps, dips, loops to create test programs according to standards or test procedures.
Following informations are provided:
voltage supplied
output current
elapsed time
active and reactive power
load impedance
these features allow the use in many fields such as:
testing on various conditions of electrical equipment
clean power independent from the grid
coil, transformers, laminated cores tests
polyphase systems with timing and voltage values that can be set on each phase
testing and calibration of measuring instruments

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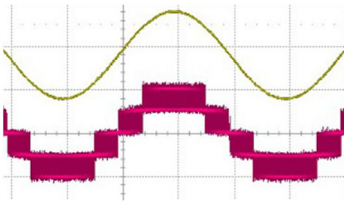
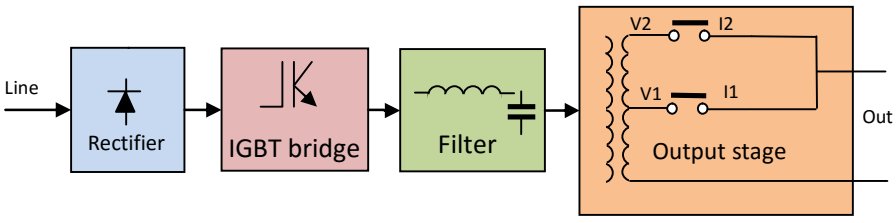
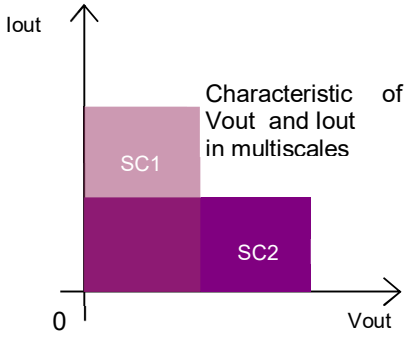
Main features

Output features	
Output voltage	100 ÷ 1000V
Output power	600VA ÷ 300KVA
Overload	120% standard Optional up to 300%
Number of scales	1 ÷ 2
Voltage resolution	0.3% F.S.
Minimum settable voltage	0V
Accuracy	0.3%F.S.
Line regulation	Typ 0.1% F.S.
Load regulation	Typ 0.2% F.S.
Linearity	0.1% F.S.
DC offset	0%
Max output ripple HF	Typ 0.3%F.S.
Output frequency	
Range	40 ÷ 200Hz
Resolution	0.01Hz
Accuracy	0.15%
Bandwidth	2500Hz
Max THD at 50-60Hz	Typ 0.2%
Sequencer timer	
Range	1mS ÷ ∞
Resolution	1mS
Max step no.	30
Mode	Auto repeat, ramp, pause-resume, continuous or pulsed
Synchronism / Phase shift	
Synchronization	Auto / grid / external
Phase shift	0 ÷ 360°
Resolution	1°
Accuracy	± 1°
Start angle	0 ÷ 360°
Resolution	1°
Accuracy	± 1°

Current measurement	
Range	+10% F.S.
Resolution	0.5%
Accuracy	0.5%
Voltage measurement	
Range	+10% F.S.
Resolution	0.2%
Accuracy	0.3%
Additional measures	PF, Impedance, Frequency
Supply	
Line voltage	230V 1F ±10% / 400V 3F ± 10%
Frequency	45 ÷ 65Hz
Cosphi	Typ 0.85
Line protection	Automatic switch
Connections	Internal or external
Others	
Dimensions	According to the model 19" rack or cabinet
Weight	According to the model
Output connections	Front or back-side
Operating temperature	5 ÷ 40°C
Storage temperature	-5 ÷60°C
Protection	IP20
Cooling	Forced air
Noise at 1mt	Typ 65dbA
Safety and EMC	CE (EMC and LVDT)
Insulation	
Line / output / GND	2500Vrms
Output / GND	1500Vrms
Maximum output voltage applicable / GND	It depends on the output voltage
Interfaces	
Communication	RS232 and 485 isolated Optional USB,LAN, Optic fibre
Digital inputs	4, 24V NPN programmable
Digital outputs	4, 24V PNP programmable
Booster for external Analog control	0 ÷ 20pk-pk (use as amplifier)
Other	Trig-in, Trig-out for synchronism







Principled and modulation schemes

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Available Powers
600VA
1200VA
2500VA
5KVA
7.5KVA
10KVA
15KVA
20KVA
30KVA
50KVA
75KVA
100KVA
150KVA
200KVA
300KVA

Available standard voltages
150V
300V
500V
700V
900V
1000V
Double scale
150/300V
250/500V
350/700V
450/900V
500/1000V
Other voltages on request

Options / Finishings on request	
/M-GI-SW	Software GImanager with single phase arbitrary function
/M3-GI-SW	Software GImanager with three phase arbitrary function
/Rack	Rack for built-in mounting (up to 5KVA)
/Rack-V	Rack for vertical built-in mounting (up to 5KVA)
/3-Rack	Cabinet with three phase sources
/LAN	LAN interface
/Rout	Output on the back side
/Fout	Output on the front side
/Sout	Access to particular output (to be specified)
/ATE	Without display
/Cons	Separate control unit (3 mt cable)
/USB	USB interface
/F-I/O	Connections I/O and serial on the front side
/R-I/O	Connections I/O and serial on the back side
/F-ms	Main switch on the front side
/R-ms	Main switch on the back side

Avallarle designs
Horizontal built-in Rack
Vertical built-in Rack
Table Rack
Wheeled Cabinet
Cabinet
Electronics and power separated for mounting on board

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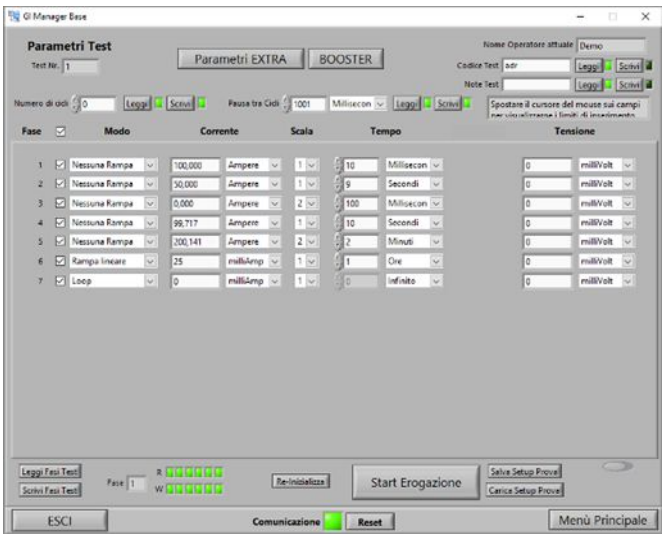
Software GVmanager



Screens

Other Zenone Elettronica products

- Current Sources GI1K series
- Pulsed Current Sources GI1K xxx SI series
- Voltage sources GIS1K series with bandwidth from DC up to 2.5KHz
- Single-phase voltage sources GTS1K series with bandwidth from DC up to 2.5KHz
- Frequency converters FVC1K three-phase series with high overload and output frequency up to 450Hz

- Fast Power Supplies AL3000 and AL3000R series with voltages from 10V to 1200V, currents up to 10KA and power ratings from 10KW to 1MW
- Fully bidirectional R Models

ZENONE ELETTRONICA HISTORY

Founded in 1990 in Mirabella Eclano (AV) by a staff with high experience in the power electronics sector, Zenone Elettronica has quickly become a leader in the development and manufacture of power electronics with a high technological level, focusing on testing equipments for measurement laboratories and production lines

ORDERS INFORMATIONS