



GI 2500 A / 15kVA

- *Output Current: up to 50kA*
- *Output Frequency: 40-200Hz*
- *Single and Three-Phase System*
- *Possibility of Paralleling*
- *Continuous or Pulse Mode Operation*
- *Up to 3 Output Current Ranges*
- *Integrated Timer and Sequencer with up to 30 steps*
- *Measurement of Trip Time*
- *Ramp, Drop-out, Loop Modes*
- *Easy Maintenance and Calibration*
- *Access to PID Regulation Parameters*
- *Windows® Software GI-Manager*
- *Customized Units*

Main Applications:

- Thermal and magnetical tests of switches, breakers, relays, fuses with trip-time measurements
- Heating tests of electrical contacts
- Tests of coils and transformers
- Tests and calibration of measurement instruments

Description

Current generators of the GI Series are static sources of AC constant current. Models up to 50kA/1000kVA for continuous or pulse operation make up one of the largest range of 1- and 3-phase system available today on the market.

Current generators of the **GI Series** supply a very stable AC current at a variable frequency from 40 to 200Hz. Up to 3 current ranges per unit can be realized, with manual or automatic selection. Equipped with a modern and easy to use front panel interface with a large LCD display, the controllers of the **GI Series** offer advanced capabilities for current test applications.

Standard low power units are built into 19" racks of table cases, high power units are built into 19" cabinets on wheels.

Ideally suited for lab applications (R&D), the **GI Series** finds a great role in final product testing. Remote control is ensured via the standard isolated RS232 and RS485, or optional USB, LAN, and Fiber Optic Interfaces. Analog inputs (Booster inputs) are available as well and allow the units to be remoted via external signals, they can for example be used as amplifier to reproduce arbitrary current waveforms. In addition, 8 Digital inputs/outputs allow finally the **GI Series** to be perfectly integrated in manufacturing lines.

Application

Especially developed for the test of circuit breakers, the **GI Series** is equipped with a sequencer and timer, allowing to set current and test time and measuring accurately the trip time with a resolution up to 1ms. Different modes like ramp, drop out and loop are available in order to create test program and sequences following norms or custom manufacturer procedures. Following information will be measured and displayed during the test:

- Output current
- Time of supply
- Voltage on the load
- Active power and reactive power consumption
- Complex load impedance

All these features allow the **GI Series** to be used in the following main range of applications:

- Thermal and magnetical tests of switches, breakers, relays, fuses with trip-time measurement
- Heating tests of electrical contacts
- Tests of coils and transformers
- Tests and calibration of measurement instruments

Specifications

Output Specifications	
Output current	40A up to 50kA (100kA in pulse)
Output power	100VA up to 1MVA
Output current ranges	1 to 3
Current resolution	0.3% FS
Minimum setting current	1/20 of FS
Accuracy	0.3% FS
Line accuracy	typ. 0.1% FS
Load accuracy	typ. 0.2% FS
Linearity	0.1% FS
DC offset	0%
Max output ripple at HF	typ. 0.3% FS
Output Frequency	
Range	40-200Hz
Resolution	0.01Hz
Accuracy	0.15%
Bandwidth	500Hz
Max THD at 50-60Hz	0.2%
Timer / Sequencer	
Range	1ms to infinite
Resolution	1ms
Max n. of steps	30
Modes	Auto-Repeat, Loop, Ramp, Pause-Resume, continuous or pulse



Mobile solution



Table or 19" unit

Measurements	
Current Measurement	
Range	+10% FS
Resolution	0.2%
Accuracy	0.3%
Voltage Measurement	
Range	+10% FS
Resolution	0.5%
Accuracy	0.5%
Additional Measurements	Active/Reactive/Apparent Power, Power Factor, Frequency, Complex Impedance, Ambient T°
Line supply	
Line voltage	230V 1F ± 10% - 400V 3F ± 10%
Line frequency	45-65Hz
Cosphi	0.85
Line protection	automatic MCB
Line connection	External or internal (depending on power)
More	
Dimensions	depending on model, 19" rack or cabinet
Weight	depending on model
Output connection	Front or rear
Operating temperature	5-40°C
Storage temperature	-5-60°C
Protection rating	IP20B
Cooling	Forced air
Acoustic noise at 1m	typ. 65dBA
Safety and EMC	CE (EMC e LVDT)
Isolation	
line / output-gnd	2500Vrms
output / gnd	1500Vrms
Max operation voltage each output to gnd	depending on output voltage
Interface	
Communication	isolated RS232/RS485 std.; USB, LAN, Fiber Optic opt.
Digital Inputs	4x no contact no voltage isolated programmable inputs. Available functions: Start, Stop, Start/Stop, Enable, Status (1 to 4), Test End, Pause, Resume, etc.
Digital Outputs	4x 24V isolated programmable outputs. Available functions: Ready, Test started, Abnormal status, Failure, Test completed, etc.
Booster inputs for external analog control	0-20Vpk-pk (use as power amplifier)
External connections	Sync (Trig In / Trig Out)

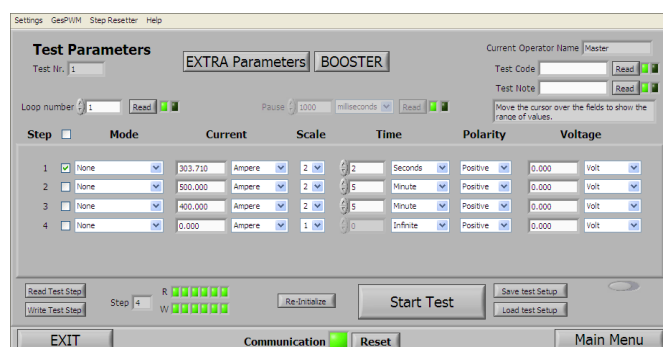
Available Standard Specs

Power Module	Output Current (Continuous Mode)	Output Current (Pulse Mode)
500VA	10A	900A
1200VA	50A	1300A
2500VA	120A	2500A
5000VA	240A	3500A
7500VA	350A	5000A
10kVA	500A	6000A
15kVA	750A	8000A
20kVA	1000A	10000A
30kVA	2000A	15000A
40kVA	4000A	20000A
50kVA	5000A	30000A
60kVA	6000A	
80kVA	8000A	
100kVA	10000A	
120kVA	12000A	
150kVA	15000A	
	20000A	

Options

Name	Description
/Pulse	Pulse mode
/M-GI-SW	Software including arbitrary waveforms for single phase unit
/M3-GI-SW	Software including arbitrary waveforms for 3 phase system
/PID	PID software, access to PID-regulation parameters
/Rack	19" Rack instead of cabinet (available up to 5kVA)
/3-Rack	19" Rack with connections for 3 phase systems
/Wheels	Cabinet with wheels max weight 800kg
/USB	USB interface
/LAN	LAN interface
/FO	Fiber Optic interface
/ROUT	Rear output connections
/FOUT	Front output connections
/SOUT	Special output connections
/TCASE	Tablet case
/Axxxx	Special output current range (P.E. A8000 = 8000A f.s.)
/MRange	Manual Switching of current range
/ARange	Automatic Switching of current range
/IP	Special IP protection
/ATE Unit	Without Front panel control and display, for system integration
/DC-CTRL	DC control mode of output (0-10V)

GI-Software

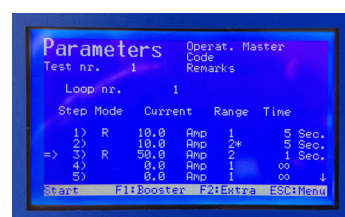


The optional GI-Software allows to remote the GI Series through various available interfaces.

Product Pictures



Front panel and user interface

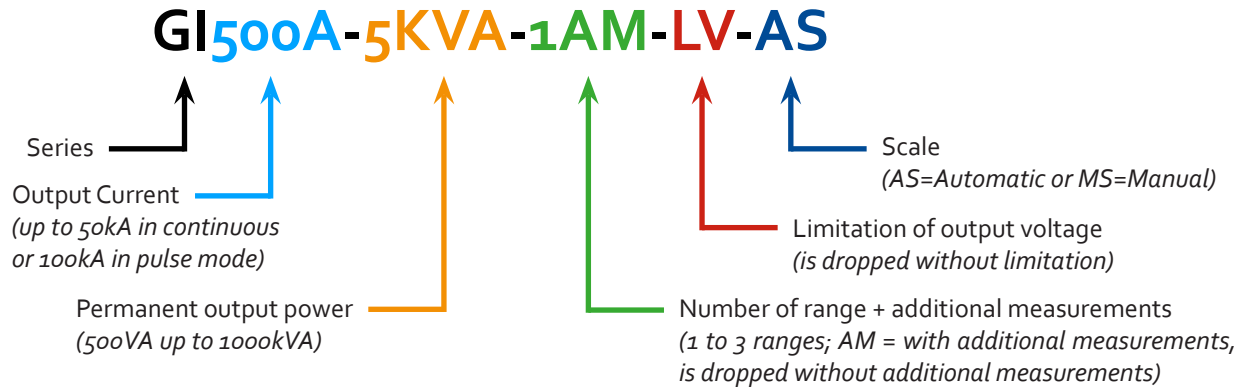


Parameter input



Test results

Model / Order Example



Standard Delivered Items

- GI current generator
- English manuals
- Compliance and calibration certificate
- CE conformity document

Other Products

Frequency and Voltage Converters: FVC Series

- 1- and 3-phase frequency and voltage converters
- Power from 5kVA up to 1,000kVA
- Output frequency from 40 to 200Hz, optional 200-450Hz / 15-80Hz
- Robust design with overload capability up to 200%

DC Power Sources for medium and high power applications: AL3000 Series

- Output voltage: 5VDC to 1000VDC
- Output power: 2kW to 1000kW
- Output current: 10A to 10000A
- Operation in CV/CC/CP mode
- Fully bidirectional versions



FVC frequency converter



DC-Source AL3000

About Zenone Elettronica

Founded in 1990 in Mirabella, Italy, by engineers with many years of experience in the power electronic industry, Zenone Elettronica has quickly become a leader in the design and manufacturing of complex power electronic systems with a high level of technology.

With the focus in converting static energy of medium and high power, the current product program includes:

- Static AC and DC current generators up to 50 kA
- Single and three-phase frequency converters up to 1 MVA
- Single and three phase programmable AC sources up to 1MVA
- High Power DC Power Supplies up to 1200V and 1MW
- High Power Bidirectional DC Power Supplies
- AC loads up to 500kVA