

SVGm-C

Cabinet Static Var Generator with multilevel technology



69/100 kvar



276/400 kvar

Description

SVGm cabinet-type static var generators are the most accurate power factor correction solution in both unbalanced three-phase systems and installations with inductive and capacitive reactive power. They can be used in three-phase industrial, commercial or service installations, and they are not affected by the installation's harmonics. Much safer device with minimal maintenance. This product range features rack assembly in standard cabinets, designed to simplify installation.

The implemented characteristics and functions are as follows:

- Power factor correction (inductive/capacitive) from 69 to 400 kvar per cabinet.
- The 69 kvar (3W) and 100 kvar (4W) rack-type module's compact dimensions make it easy to install in standard cabinets.
- Multi-range voltage and frequency (50/60 Hz).
- Harmonic current immunity.
- Cos φ range from 0.7 inductive...to...0.7 capacitive.
- Web-based performance monitoring.
- Internal short-circuit protection.

If higher reactive power compensation capacity is required, up to 100 devices can be connected in parallel.

Application

Ideal solution for individual loads or installations with numerous single-phase and three-phase loads, whether inductive or capacitive. Also, for installations whose load fluctuates over short time frames, typical loads being overhead cranes, welding equipment, lifts, drilling/shredding systems, data centres.

Technical specifications

Network voltage	Voltage	208... 480V ~ F-F +/-10%
	Frequency	50 / 60 Hz +/- 5%
	Maximum THD V	25 %
Power	Maximum power	See according to type in the table
	maximum current	See according to type in the table
	Maximum consumption	SVGm-xxx-069C/100C: 2070 W SVGm-xxx-138C/200C: 4140 W SVGm-xxx-207C/300C: 6210 W SVGm-xxx-276C/400C: 8280 W
Current measurement	Type	Transformer: 5/5A... 5000/5A
	Consumption	1.5 VA per transformer

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Features / performance	Reactive power compensation	Selectable, target 0.7 inductive ... 0.7 capacitive
	Parallel installation	<ul style="list-style-type: none"> • Up to 100 devices/racks of 100 kvar • CTs connection only to the "master" unit • Allow redundancy (system operation in the event of device malfunction).
	User interface	Pantalla táctil 3,5" color Servidor web y datalogger
	RS485	Modbus RTU Speed 9600 Bd Stop Bits 1 Parity No
	Ethernet	TCP/IP Modbus TCP
Environmental characteristics	Installation category	Cat III 300V
	Contamination level	2
	Operating temperature	- 10... + 45°C
	Storage temperature	- 20... + 50°C
	Relative humidity	0 ... 95% (without condensation)
	Maximum height	3000 m (2000 m without performance restriction)
	Protection degree	IP20/IK10 (or other protection degrees upon request)
Connection	Network	Busbar with M10 drill holes. Torque 45 Nm.
	CTs	6-pole connector. Maximum conductor 2.5 mm ² . Spring loaded terminals
	RS485	3-pole connector. Maximum conductor 2.5 mm ² . Torque 0.5 ... 0.6 Nm
	Ethernet	RJ45
Mechanical characteristics	Dimensions	608 x 1890 x 812 mm (width x height x depth)
	Envelope	Self-supporting sheet steel cabinet, to be installed indoors without removable parts
	Weight	SVGm-xxx-069C/100C: 190 kg SVGm-xxx-135C/200C: 245 kg SVGm-xxx-207C/300C: 300 kg SVGm-xxx-276C/400C: 355 kg
	Noise	SVGm-xxx-069C/100C: < 60 dBA SVGm-xxx-135C/200C: < 63 dBA SVGm-xxx-207C/300C: < 66 dBA SVGm-xxx-276C/400C: < 69 dBA
Standards	UNE-EN 62477-1, UNE-EN 55011, UNE-EN 61000-6-2, UNE-EN 61000-6-4, IEC 61439-1	

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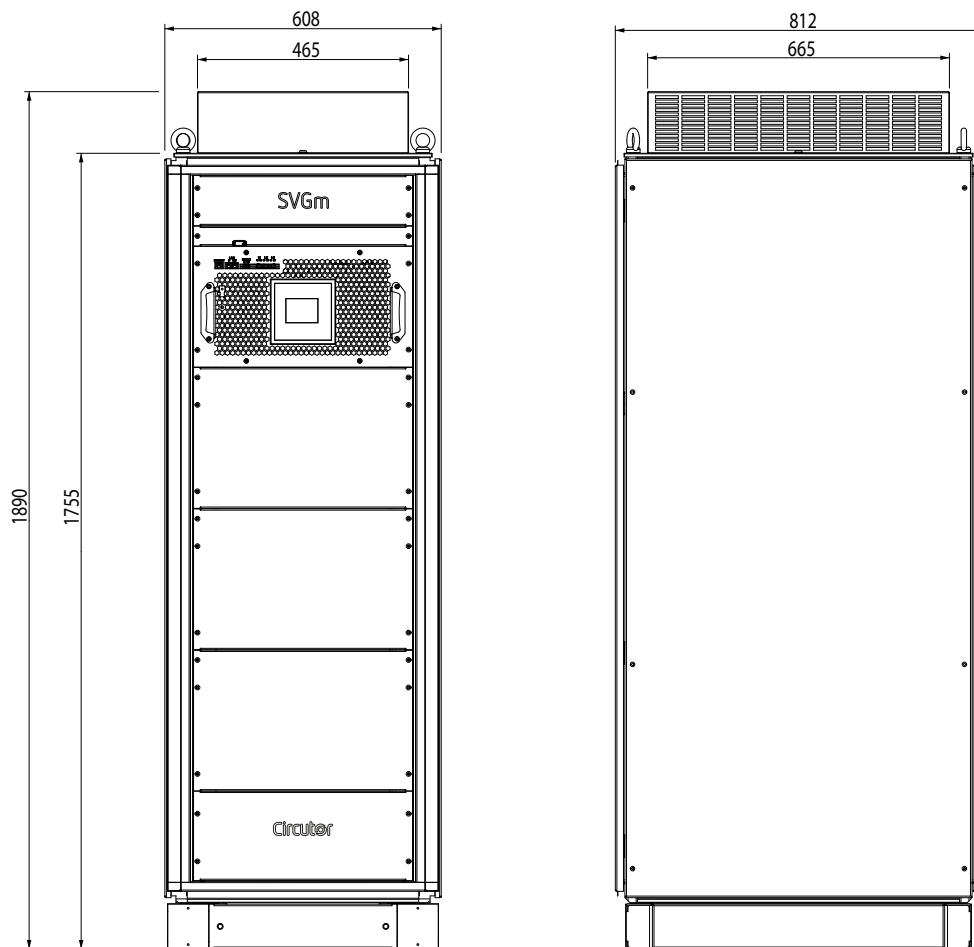
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References

Maximum current A (RMS)	Maximum reactive power (kvar)	System	Type	Code
145	100	3 wires, 230...480 V	SVGm-3WF-100C-480	R4P3F2.
290	200		SVGm-3WF-200C-480	R4P3F3.
435	300		SVGm-3WF-300C-480	R4P3F4.
580	400		SVGm-3WF-400C-480	R4P3F5.
100	69	4 wires, 230...400 V	SVGm-4WF-069C-400	R4P4FC.
200	138		SVGm-4WF-138C-400	R4P4FD.
300	207		SVGm-4WF-207C-400	R4P4FE.
400	276		SVGm-4WF-276C-400	R4P4FF.

All devices have built-in **EMI** filter.

Dimensions

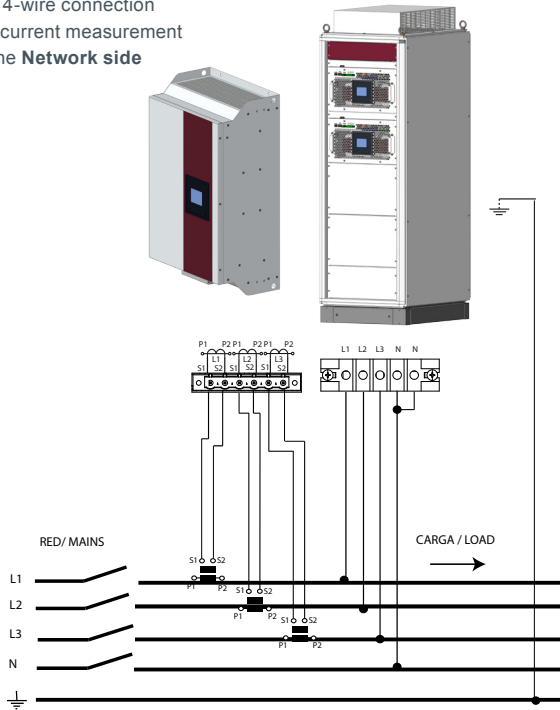


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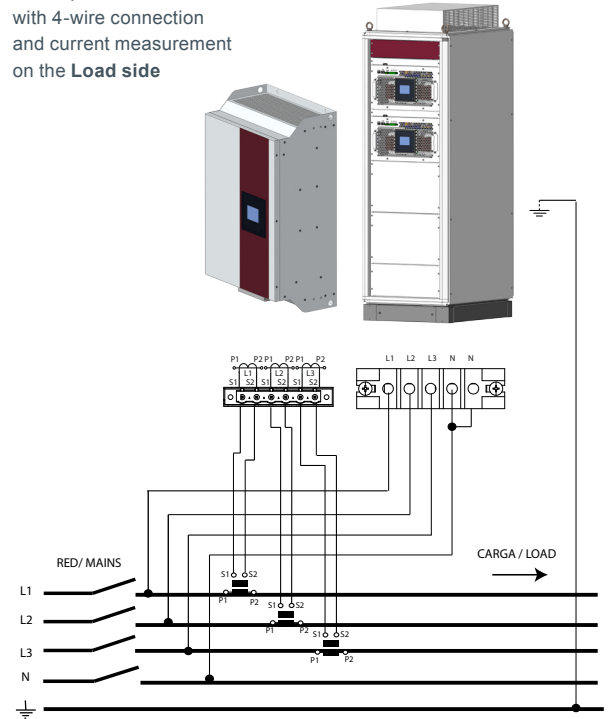
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Connections

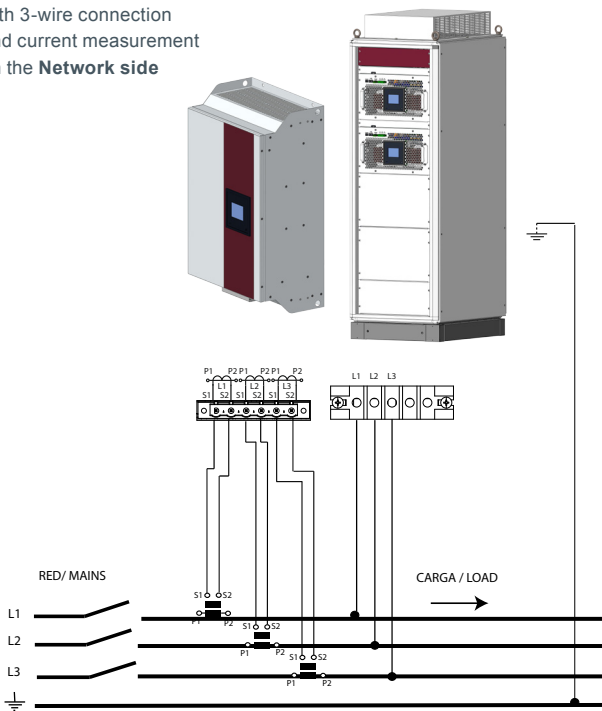
Three-phase measurement with 4-wire connection and current measurement on the **Network side**



Three-phase measurement with 4-wire connection and current measurement on the **Load side**



Three-phase measurement with 3-wire connection and current measurement on the **Network side**



Three-phase measurement with 3-wire connection and current measurement on the **Load side**

