

SVGm

100 / 200 / 300 / 400 kvar



SVGm-xxx-100C kvar



SVGm-xxx-400C kvar

Static Var Generator with multilevel technology

Description

SVGm Static Var Generator cabinet type are the most accurate reactive power compensation solution, for both unbalanced three-phase systems and facilities with inductive and capacitive reactive power. It can be used in three-phase industrial, commercial or service installations and is not affected by the harmonics of the installation. A system with greater safety and very little maintenance. In this series, the racks are mounted in the standard cabinets available on the market and are designed for ease of installation.

The following features and functions are implemented:

- Reactive power compensation (inductive/capacitive) of 100 to 400 kvar per cabinet
- Compact rack-type module of 100 kvar for ease of installation in standard cabinets.
- Voltage and frequency multi-range (50/60 Hz)
- Immunity to harmonic currents.
- Cos ϕ range of 0.7 inductive ... 1 ... 0.7 capacitive.
- Online operation monitoring
- Short circuit protection in the power module

If higher power factor correction capacities are required, up to 100 units can be connected in parallel.

Application

The perfect solution for individual loads or facilities with a large number of single-phase or three-phase loads, both inductive and capacitive. Also for facilities where the load fluctuates over short periods of time, e.g. loads from bridge cranes, welding kits, lifts, drilling/grinding operations, and data centres.

Technical features

Network voltage	Voltage	230 ... 480 V ~ Ph-Ph +/- 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-100C: 2070 W SVGm-xxx-200C: 4140 W SVGm-xxx-300C: 6210 W SVGm-xxx-400C: 8280 W
Current measurement	Type	Transformer: 5/5 A ... 5000/5 A
		Frequency response up to 2500Hz / 3000 Hz (60 Hz)
	Consumption	1.5 VA per transformer

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Features	Power factor correction	Adjustable, target 0.7 inductive...0.7 capacitive
	Parallel installation	<ul style="list-style-type: none"> •Up to 100 devices/racks 100 kvar •Connection of CTs, only to the "master" unit •Allows redundancy (system operation in the event of unit failure).
	User interface	Colour 3.5" touch screen Web server and datalogger
	RS-485	Modbus RTU Transmission speed Baud Rate 9600 Bd Stop bits 1 Parity None
	Ethernet	TCP/IP Modbus TCP
Ambient conditions	Installation category	CAT III 300V
	Pollution degree	2
	Operating temperature	-10 ... +45°C
	Storage temperature	-20 ... +50°C
	Relative humidity	0 ... 95% (without condensation)
	Maximum altitude	3000 m (2000 m without performance degradation)
	Degree of protection	IP20 / IK 10 (or other degrees of protection on request)
Connection	Grid	Plate with drills M10. Tightening torque 45 Nm.
	CTs	6-pole connector. Maximum conductor cross-section 2.5 mm ² .
	RS-485	3-pole connector. Maximum conductor cross-section 2.5 mm ² . Tightening torque 0.5 ... 0.6 Nm
	Ethernet	RJ45
Construction features	Dimensions	608 x 1890 x 812 mm (width x height x depth)
	Weight	SVGm-xxx-100C: 190 kg SVGm-xxx-200C: 245 kg SVGm-xxx-300C: 300 kg SVGm-xxx-400C: 355 kg
	Noise	SVGm-xxx-100C: < 60 dBA SVGm-xxx-200C: < 63 dBA SVGm-xxx-300C: < 66 dBA SVGm-xxx-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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References

Maximum current A (RMS)	Maximum reactive power (kvar)	System	Type	Code
145	100	3 wires, 230...400 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-100C-400	R4P4F2.
200	138		SVGm-4WF-200C-400	R4P4F3.
300	207		SVGm-4WF-300C-400	R4P4F4.
400	276		SVGm-4WF-400C-400	R4P4F5.

All devices incorporate an **EMI** filter

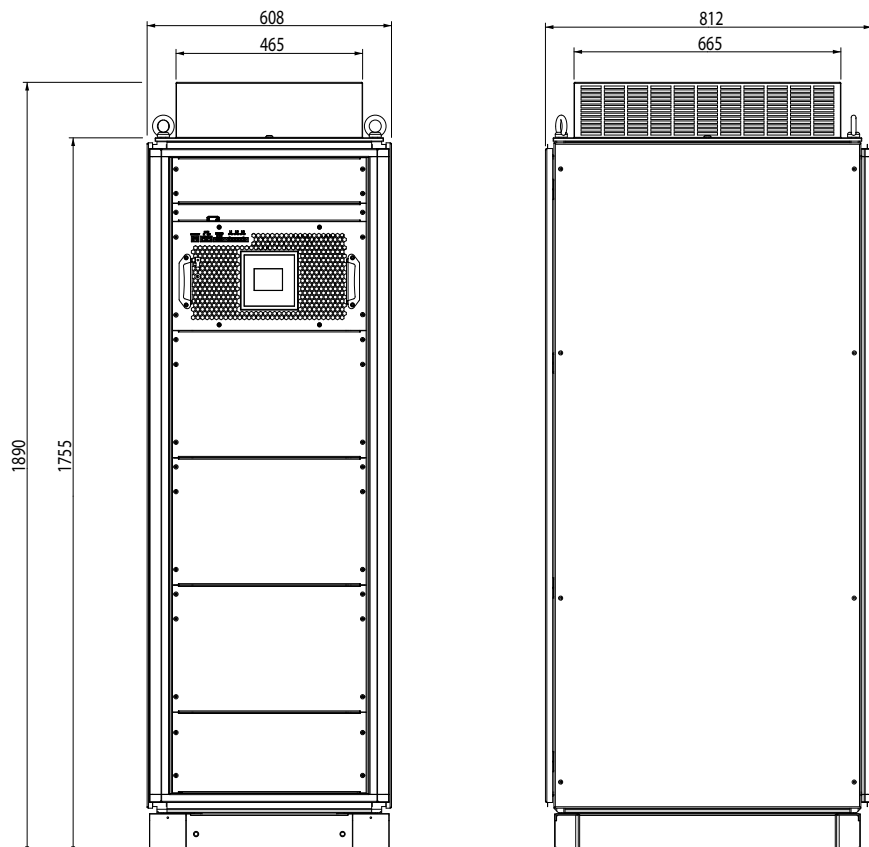
Dimensions

SVGm 100C kvar

SVGm 200C kvar

SVGm 300C kvar

SVGm 400C kvar



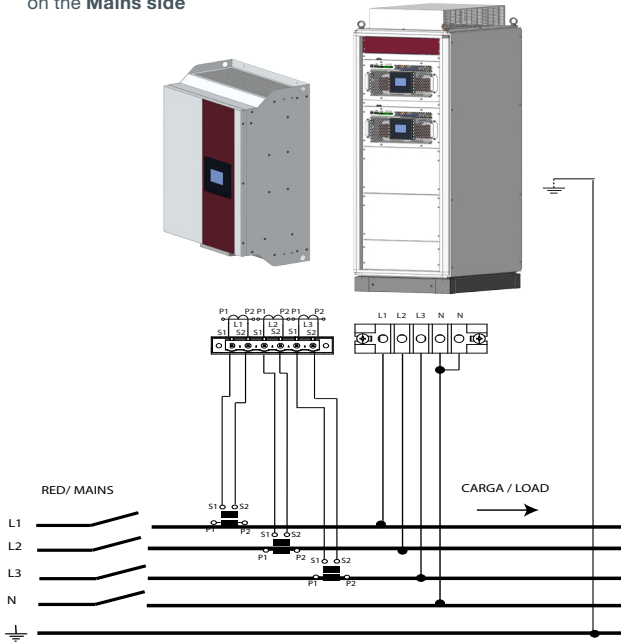
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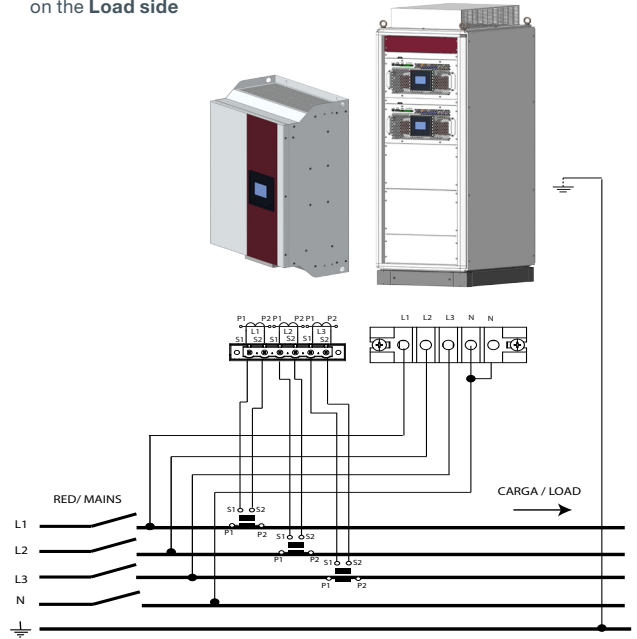
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Connections

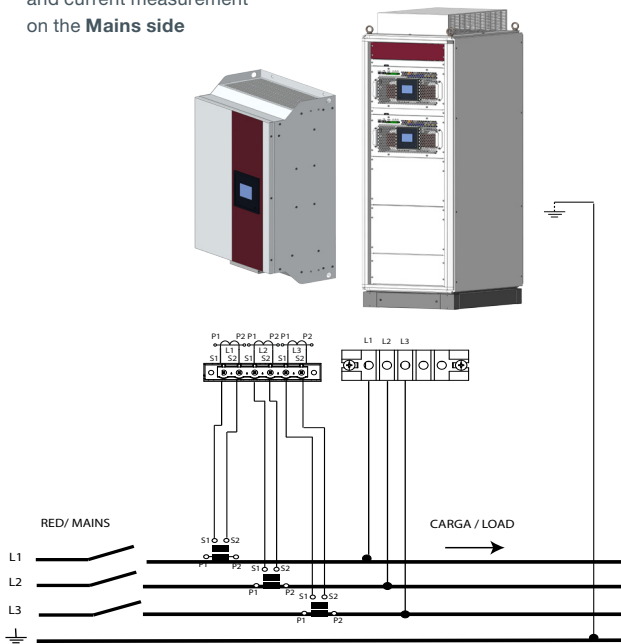
Three-phase measuring with 4-wire connection and current measurement on the **Mains side**



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



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



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

