SVGm-M

Static Var Generator with multilevel technology wall mount

20/30 kvar

40/60 kvar

69/100 kvar

Description

SVGm wall mount type static var generators with multilevel technology 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.

The implemented characteristics and functions are as follows:

— 30, 60 and 100 kvar (3W) and 20, 40 and 69 kvar (4W) single power factor correction capacity (inductive/capacitive).

— Small wall mounted type cabinet.

— Easy to install due to its dimensions.

— 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 would be overhead cranes, welding equipment, lifts, drilling/shredding systems, data centres.

Technical specifications

Network voltage	Voltage	208... 480V ~ F-F + /-10%
	Frequency	50 / 60Hz +/- 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-020M/30M: 650 W SVGm-xxx-040M/60M: 1300 W SVGm-xxx-069M/100M: 2070 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	• Up to 100 units, with different current gauges. • CTs connection only to the "master" unit • Allow redundancy (system operation in the event of device malfunction).
	User interface	3.5" colour touchscreen Web Server and 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	SVGm 20/30/40/60 kvar: Ring terminal M6. Maximum ring width 12 mm. Torque 2.2 ... 2.4 Nm. SVGm 69/100 kvar: Ring terminal M8. Maximum ring width 23 mm Torque 8... 10 Nm
	CTs	6-pole connector. Maximum conductor 2.5 mm2. Torque 0.5 ... 0.6 Nm
	RS485	3-pole connector. Maximum conductor 2.5 mm2. Torque 0.5 ... 0.6 Nm
	Ethernet	RJ45
Mechanical characteristics	Dimensions	SVGm-xxx-020M/30M 430 x 530 x 178 mm (width x height x depth) SVGm-xxx-040M/60M 430 x 530 x 348 mm (width x height x depth) SVGm-xxx-069M/100M 439 x 745 x 288 mm (width x height x depth)
	Envelope	1.5 mm galvanised steel
	Weight	SVGm-xxx-020M/30M: 21 kg SVGm-xxx-040M/60M: 39 kg SVGm-xxx-069M/100M: 56 kg
	Noise	SVGm-xxx-020M/30M: 58 dBA SVGm-xxx-040M/60M: 60 dBA SVGm-xxx-069M/100M: <60 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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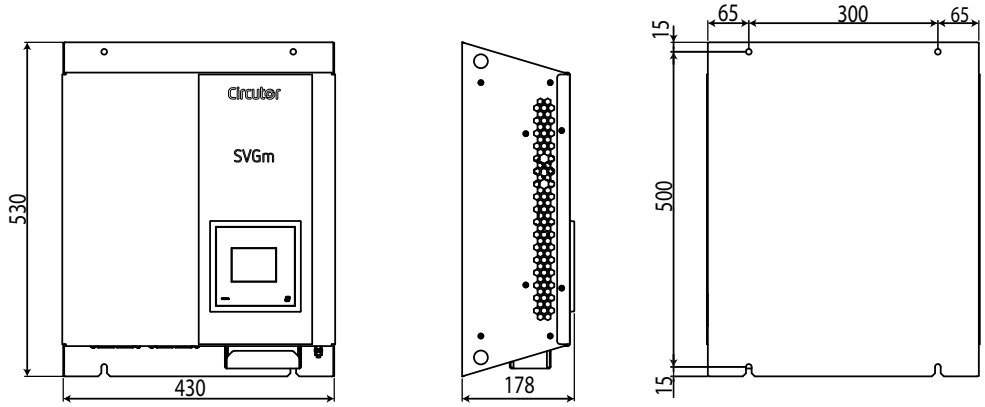
References

Maximum current A (RMS)	Maximum reactive power (kvar)	System	Type	Code
44	30	3 wires, 230... 480 V	**SVGm-3WF-030M-480**	R4P3M0.
88	60		**SVGm-3WF-060M-480**	R4P3M1.
145	100		**SVGm-3WF-100M-480**	R4P3M2.
30	20,7	4 wires, 230... 400 V	**SVGm-4WF-020M-400**	R4P4MA.
60	41,4		**SVGm-4WF-040M-400**	R4P4MB.
100	69		**SVGm-4WF-069M-400**	R4P4MC.

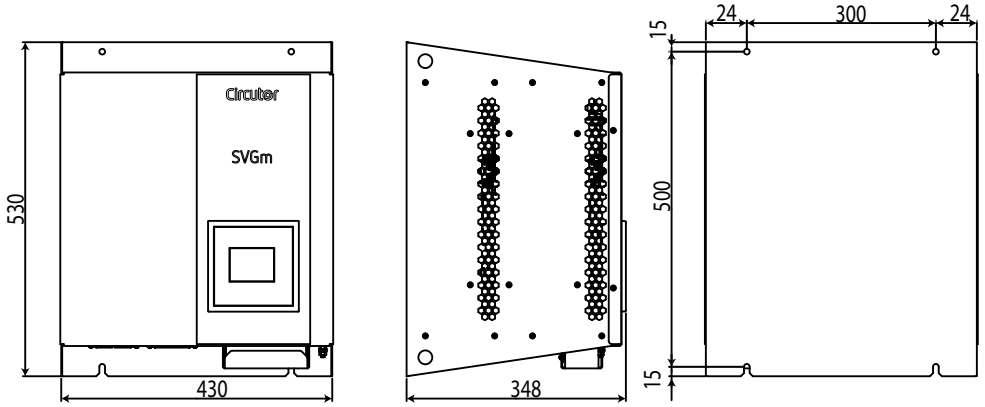
All devices have built-in **EMI** filter.

Dimensions

20/30 kvar



40/60 kvar



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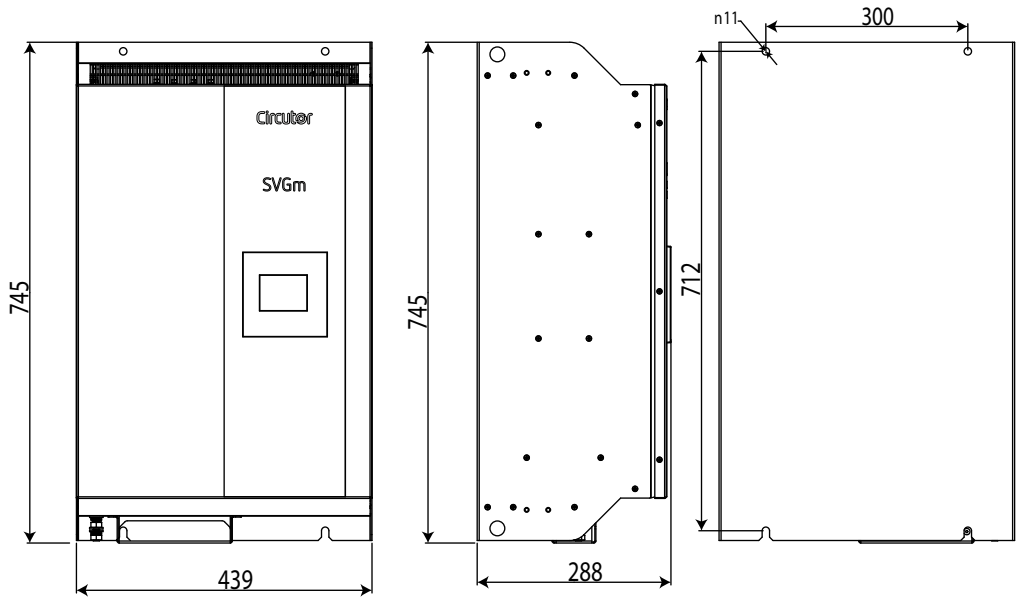
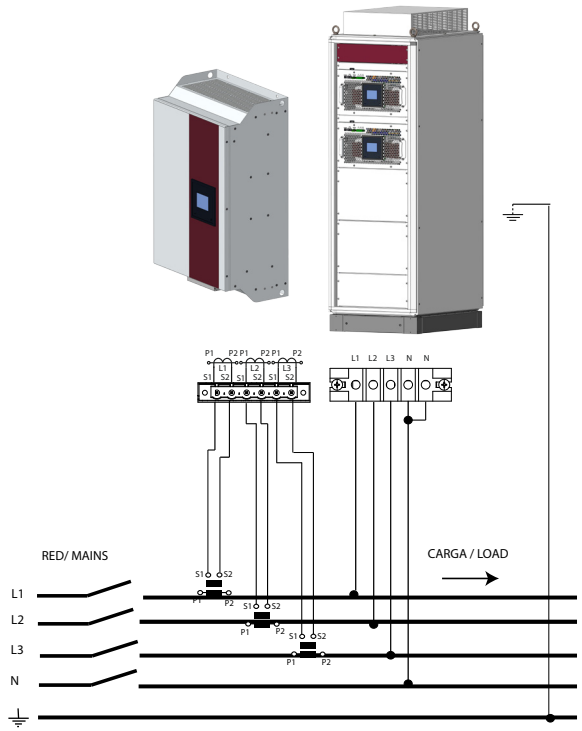
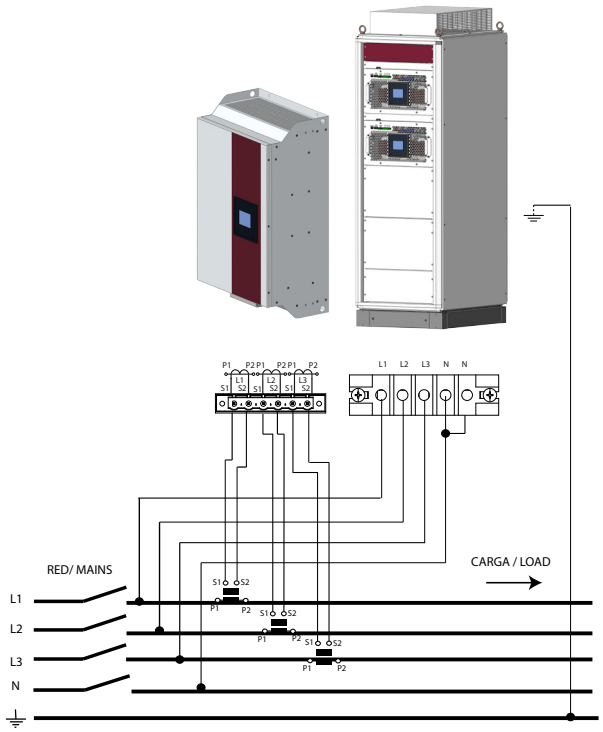


Connections

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**



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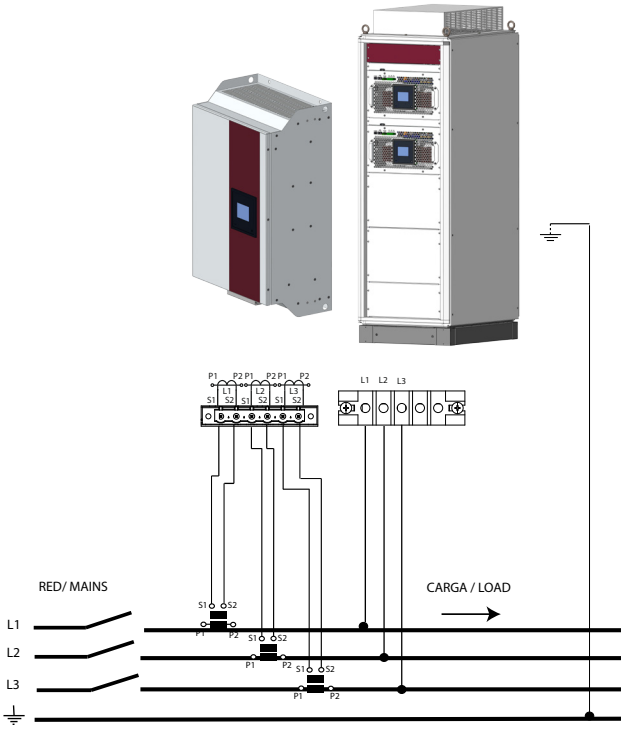
Three-phase measurement
with 3-wire connection
and current measurement
on the **Network side**



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