



POWER FACTOR CORRECTION

# SVGm

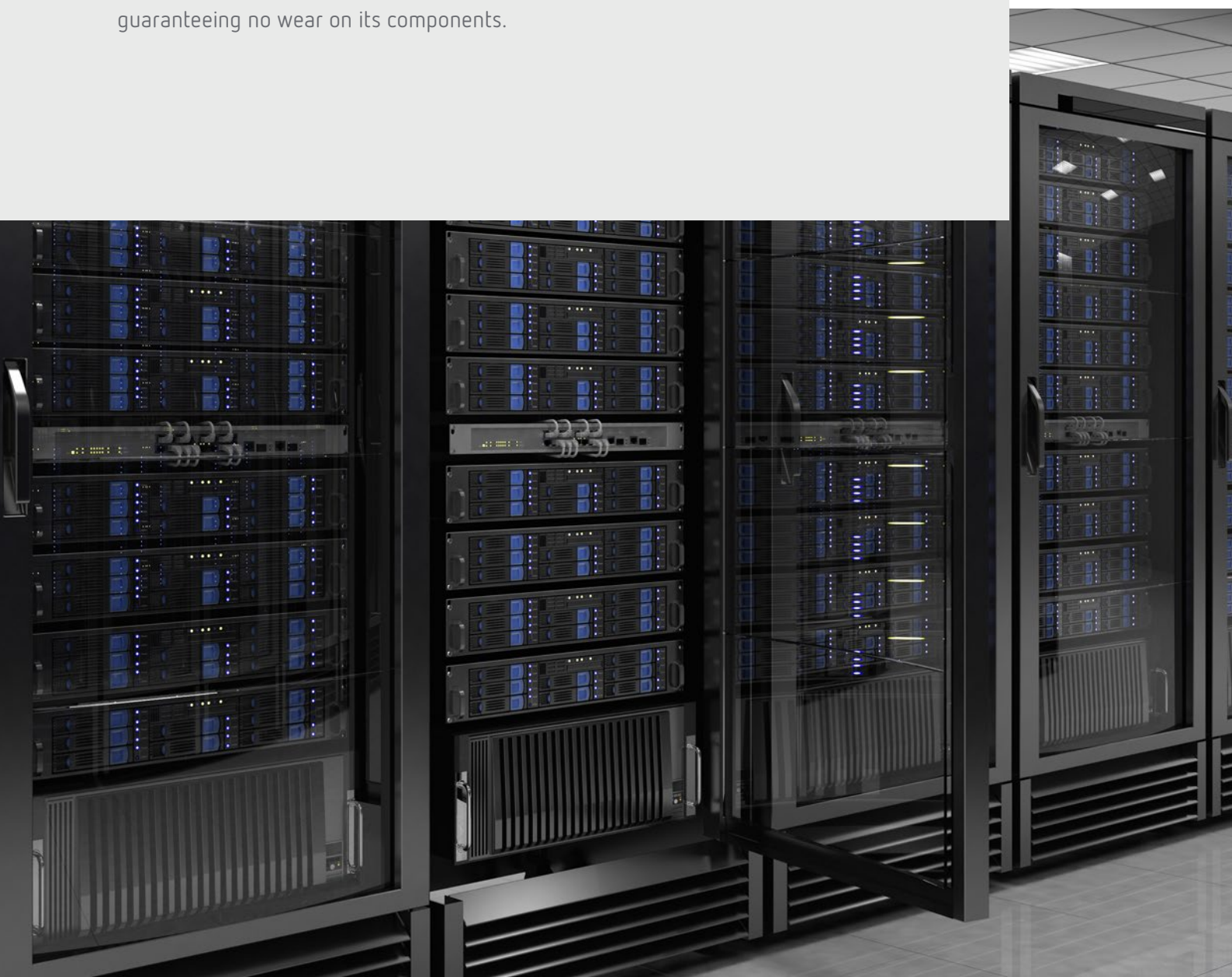
Static var generator for  
power factor correction

### The most accurate power factor correction solution.

The **SVGm** static var generator is a device based on power electronics to correct installations with both inductive and capacitive reactive energy consumption. Specially designed to instantly compensate by adjusting demand in milliseconds, both in balanced and unbalanced systems in installations with or without neutral (three or four wires).

This makes the **SVGm** the ideal solution for use in networks with fast load variations where **instant correction is required to guarantee a target  $\cos \varphi$ , avoiding any kind of penalty in the electricity bill due to reactive consumption.**

The **SVGm**'s power factor correction technology, based on the use of semiconductors, guarantees the device's correct operation regardless of the level of harmonic distortion in the network to which it will be connected, guaranteeing no wear on its components.



# SVGm corrects your installation's power factor, helping to save energy in two ways.

30 kvar



60 kvar



100 kvar



## Avoids penalties on the energy bill

Eliminates the utility company's monthly surcharge for both inductive and capacitive energy.



## Optimises your installation

The power factor correction reduces the current flow through the installation's conductors, avoiding any overheating and the triggering of protections. It also optimizes transformer performance and its available power.



100 kvar

200 kvar

300 kvar

400 kvar

## A complete product family

**Connects up to 100 devices in parallel, using any combination of models**, to obtain the power required by the installation. Its modular system allows expansion in a simple, convenient way.

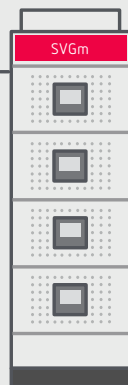
Its "Master/Slave" system enables all devices to be directly controlled from the master module, automatically managing all its slaves without the need for configuration.

Avoids any type of penalty for both inductive and capacitive energy



Billing meter

$\cos\varphi = 1$



Ø injection penalties in any type of installation

Discover all the advantages of active compensation

1 CONNECT

2 SET-UP

3 START

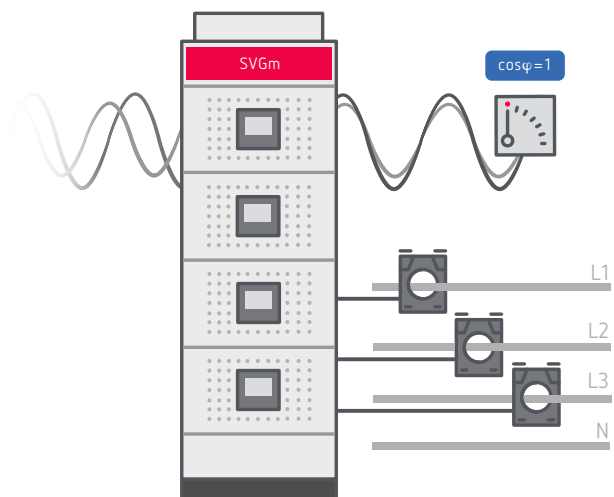
Start-up in just 3 steps



Accuracy

Possibility to set a target  $\cos\varphi$  in a 0.7 inductive to 0.7 capacitive range. The unit compensates the exact amount of reactive current to achieve the set target value.

Unlike conventional compensation units using contactors, no transients occur as the technology is not based on the connection of capacitors.





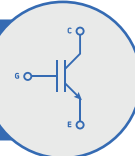
### Speed

SVGm operates using the most cutting-edge technology. With a response time under 20ms. The device is designed to instantly compensate networks where consumption is highly variable.

CONTACTORS

THYRISTORS

IGBT



Built-in IGBT technology for fast power factor correction



### Immunity and maintenance

SVGm uses power electronics to correct the power factor. As there are no passive elements, the device can be installed in any type of network with a high harmonic current presence without affecting its performance.

The SVGm operates without mechanical components, thereby avoiding maintenance and replacement of components.

Totally immune to harmonics



HARMONICS

HARMONICS

HARMONICS



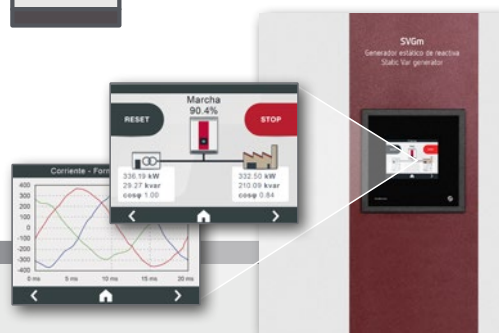
### Simple, quick installation

The unit starts compensating in just 3 steps. The initial configuration can be carried out either on-site using the touchscreen or remotely via communications.



### Interaction with the device via touch screen

The status of the compensation and the electrical parameters can be displayed on the screen, using colour diagrams and graphs for a simplified interpretation and an instantaneous reading of the unit's operating condition.

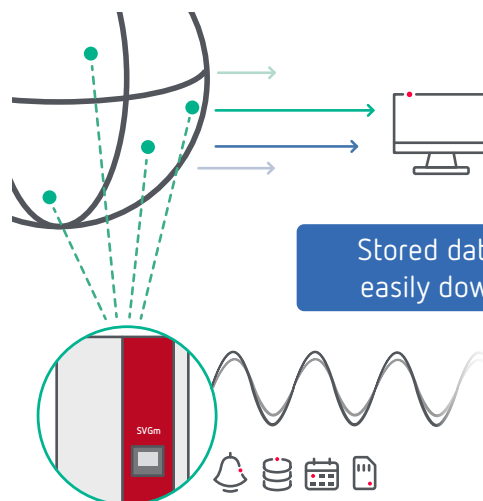


### Remote management

SVGm includes a datalogger for alarm logging and storage of basic electrical parameter readouts.

Up to 7 years of data logging stored in its 2 Gb memory, ready for download via integrated web server.

It features Ethernet connectivity for a comprehensive management of the unit, whether locally or remotely; to access logs stored on the memory; and to configure it and start it up. The web server is accessed from any browser, via a mobile device or PC.



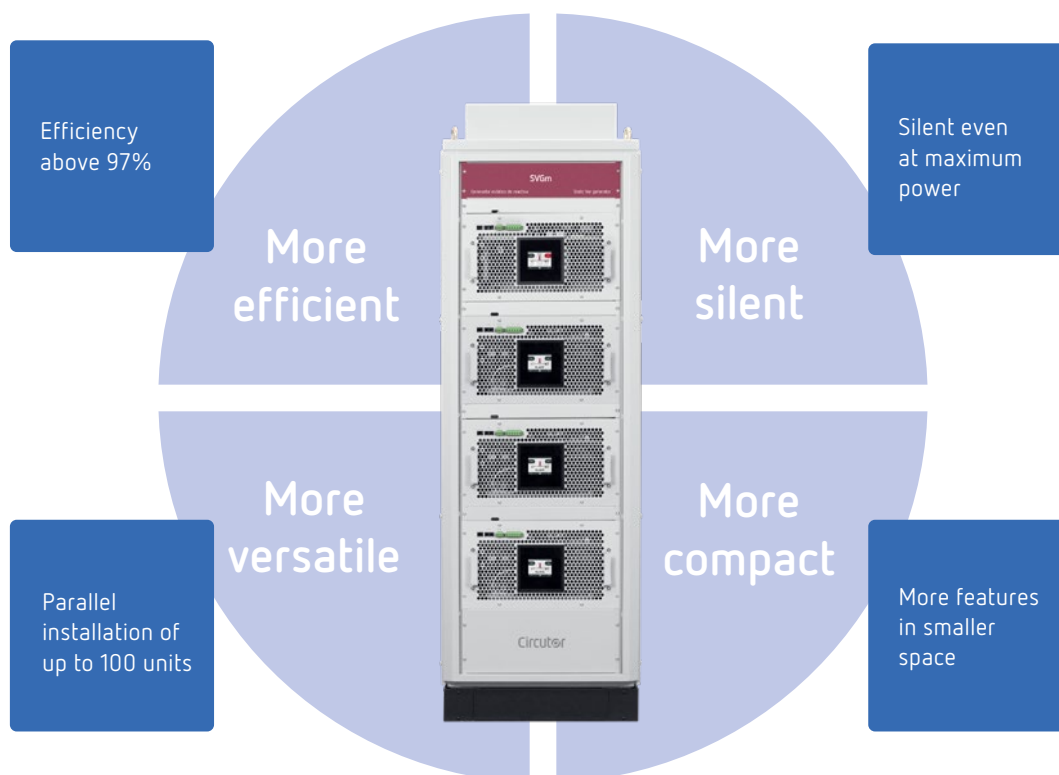
Stored data can be easily downloaded

# The safety of your installation is paramount



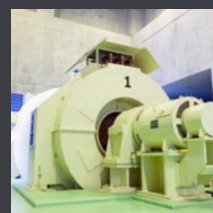
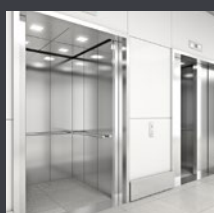
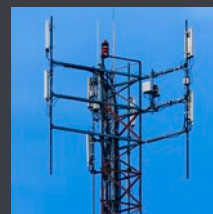
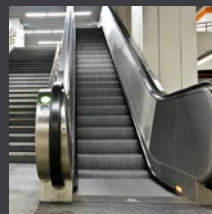
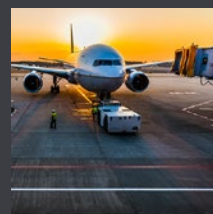
## Safety

- › Automatic power regulation system based on the detected temperature, aimed at protecting the unit in maximum operating conditions.
- › Auto-diagnosis system guaranteeing a safe start-up.
- › In the event of fault detection, **SVGm** will switch to safe mode to prevent damage to the device and record the alarm in its memory.
- › The ventilation system is adjusted automatically according to the temperature detected by its sensors.
- › Alarm log queried via screen or communications.



# Applications

- › Its characteristics make the **SVGm** a multipurpose device that can be installed in a wide range of applications, both at an industrial level and in the service or infrastructure sectors.
- › Industrial furnaces, welding equipment, electric motors with frequency drives, telecommunications infrastructures, hospitals or airports (lifts and escalators), data centres, paper industry, electric generators...



## References

Description	Code	System	Q (kvar)	Maximum current (A)	Size mm. (width x height x depth)
<b>Wall mount assembly (wall)</b>					
SVGm-3WF-030M-480	R4P3M0.	3 wires; 230...480V	30	44	430 x 530 x 178
SVGm-3WF-060M-480	R4P3M1.	3 wires; 230...480V	60	88	430 x 530 x 348
SVGm-3WF-100M-480	R4P3M2.	3 wires; 230...480V	100	145	439 x 745 x 288
SVGm-4WF-030M-400	R4P4M0.	4 wires; 230...400V	20,7	30	430 x 530 x 178
SVGm-4WF-060M-400	R4P4M1.	4 wires; 230...400V	41,4	60	430 x 530 x 348
SVGm-4WF-100M-400	R4P4M2.	4 wires; 230...400V	69	100	439 x 745 x 288
<b>Floor assembly cabinet</b>					
SVGm-3WF-100C-480	R4P3F2.	3 wires; 230...480V	100	145	608 x 1890 x 812
SVGm-3WF-200C-480	R4P3F3.	3 wires; 230...480V	200	290	608 x 1890x 812
SVGm-3WF-300C-480	R4P3F4.	3 wires; 230...480V	300	435	608 x 1890 x 812
SVGm-3WF-400C-480	R4P3F5.	3 wires; 230...480V	400	580	608 x 1890 x 812
SVGm-4WF-100C-400	R4P4F2.	4 wires; 230...400V	69	100	608 x 1890 x 812
SVGm-4WF-200C-400	R4P4F3.	4 wires; 230...400V	138	200	608 x 1890 x 812
SVGm-4WF-300C-400	R4P4F4.	4 wires; 230...400V	207	300	608 x 1890 x 812
SVGm-4WF-400C-400	R4P4F5.	4 wires; 230...400V	276	400	608 x 1890 x 812
<b>RACK module for cabinet</b>					
SVGm-3WF-100R-480	R4P3R2.	3 wires; 230...480V	100	145	482.5 x 265.9 x 714.5
SVGm-4WF-100R-400	R4P4R2.	4 wires; 230...400V	69	100	482.5 x 265.9 x 714.5

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