

# SVG

## STATIC VAR GENERATORS

### SVG reactive power compensators

Our static reactive power compensators (SVG) provide an optimal solution for issues related to network stability, power factor, and reactive power demand in various industrial applications. The devices feature extremely fast operation, compact design, and exceptional cost efficiency, ensuring immediate response to disturbances in medium- and low-voltage power systems. By compensating reactive power, they significantly increase the lifespan of installations, enhance the reliability of production processes, improve system performance, and reduce transmission losses, all while meeting the most stringent energy quality standards.

The consumption of reactive power involves additional charges levied by operators, which is why the use of an SVG compensator effectively reduces electricity bills, completely eliminating the costs associated with reactive power consumption.

- Immediate and precise reactive power compensation
- Active harmonic suppression
- Dynamic adaptation to changing operating conditions

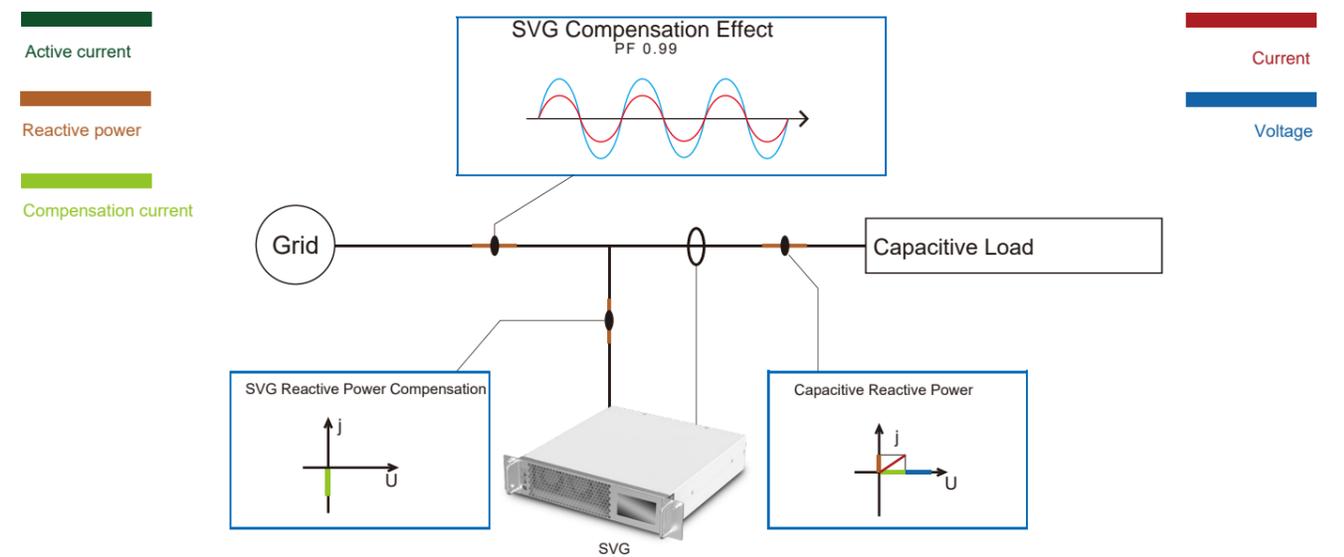


### SVG principle of operation:

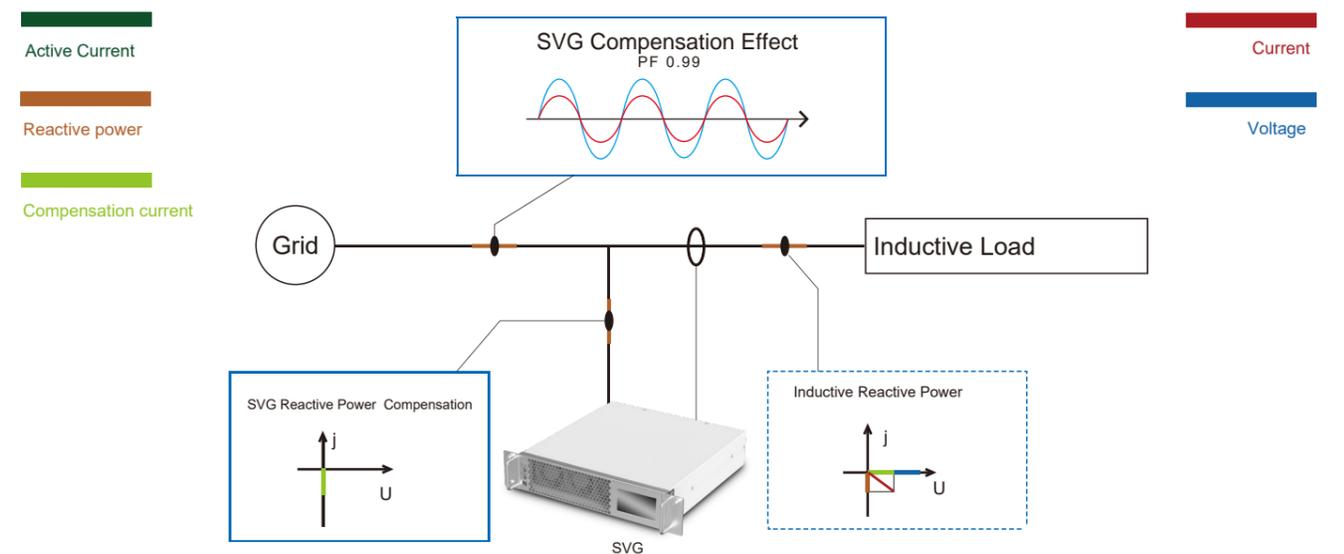
The operating principle of the SVG compensator is based on continuously monitoring the current and voltage waveforms in the network.

When the system detects phase deviations caused by the nature of the load, it immediately generates a compensating current with the opposite characteristics. Thanks to the use of German IGBT modules from Infineon and precise PWM control, the device corrects the power factor in real time, compensating both inductive and capacitive reactive power. This active mode of operation ensures the maintenance of ideal power supply parameters regardless of load fluctuations, guaranteeing exceptional reliability and the highest precision of compensation.

### SVG - Compensations of Selective Capacitive Power



### SVG Compensation of Inductive Reactive Power





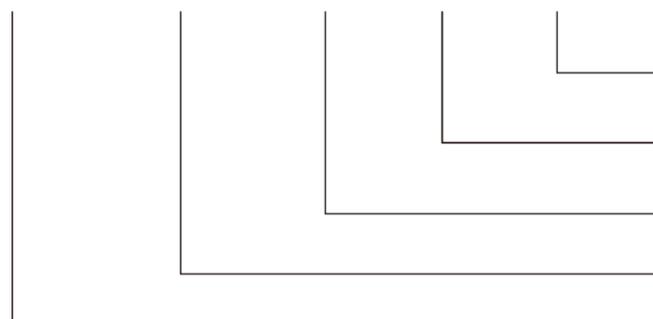
# Rack-mounted SVG

## TECHNICAL SPECIFICATION

TYPE	Series 230V	Series 400V	Series 500V	Series 690V
Capacity	20kVar/30kVar/35kVar/ 50kVar/70kVar/100kVar	10kVar/15kVar/20kVar/ 30kVar/35kVar/50kVar/ 75kVar/100kVar/150kVar	85kVar	120kVar
Voltage	230V(+/- 20%)	400V(+/- 20%)	500V(+/- 20%)	690V(+/- 20%)
Frequency	50Hz(+/-5%)			
Phase	1 Phase	3 Phases		
Response time	<10ms			
Compensation factor	>95%			
Device efficiency	>97%			
Switching frequency	32kHz	16kHz	12,8kHz	12,8kHz
Function	Reactive power compensation			
Number of modules	No limitations. One monitoring module can be equipped with 32 actuator/execution modules			
Communication	Dual-channel RS485 (Support for wireless WiFi/GPRS communication)			
Altitude above sea level	<2000m			
Temperature	-20~+50 C			
Humidity	<90%			
Pollution Degree	Below Level 2			
Protections	Overload, Overcurrent, Overvoltage, Against supply network asymmetry, Thermal/Overtemperature, Frequency fluctuations, Short-circuit			
Noise	<50dB	<60dB	<65dB	
Installation method	Rack-mount			
Connection	From the back (Rack)			
Degree of protection	IP20			

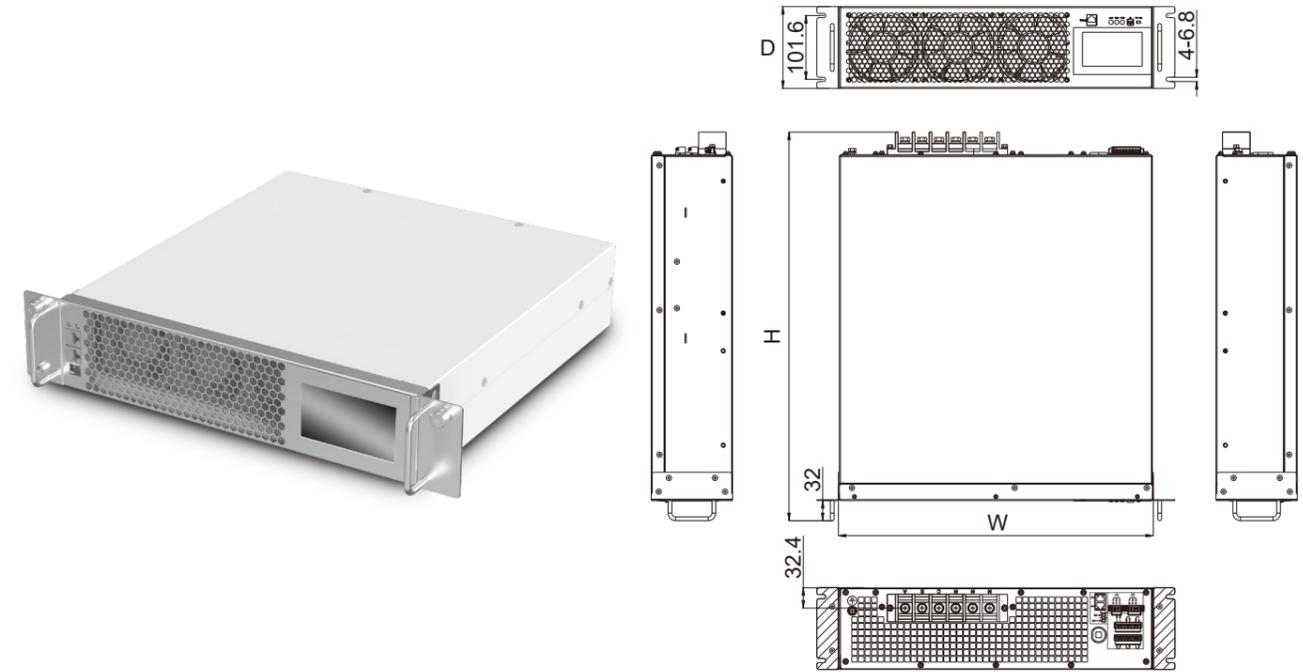
## MODEL RANGE

### SVG - 075 - 0.4 - 4L - R



W: Wall Mounting  
 R: Rack-mount Design  
 C: Floor-mounted Version  
 3L: Three-wire System  
 4L: Four-wire System  
 0.4:400V Supply Voltage  
 0.5:500V Supply Voltage  
 0.69:690V Supply Voltage  
 Rated Capacity  
 (kVar):010/015/035/050/075/100

# Product Size Information



Model	Capacity(kvar)	Voltage(V)	Size(W*H*D)(mm)	Cooling
SVG-0.23-2L-R	20Kvar/ 30Kvar /35Kvar	230V	380x424x88	Forced Air Cooling
SVG-0.23-2L-R	50Kvar/70Kvar/100Kkvar	230V	500x550x130	Forced Air Cooling
SVG-0.4-4L-R	10Kvar/15Kvar/20Kvar/ 30Kvar /35Kvar	400V	380x424x88	Forced Air Cooling
SVG-0.4-4L-R	50Kvar/75Kvar/100Kkvar/150Kvar	400V	500x550x130	Forced Air Cooling
SVG-0.5-4L-R	85Kvar	500V	500x550x130	Forced Air Cooling
SVG-0.69-4L-R	120Kvar	690V	500x550x131	Forced Air Cooling

The specification is limited to standard types; other dimensions are available upon request.