SPGL
STANDARD-POWER

Hi-Tech Power Quality/Efficiency Solution

Static Var Generator

Modular and Cabinet

Overview

STANDARD POWER SVG is a Hi-Tech power quality solution, in addition to our advanced and innovative technology, its main components are all international brands, such as:
IGBT Infineon Germany,
DPS IT USA and
PFGA Xilinx, USA etc.

Product and technology

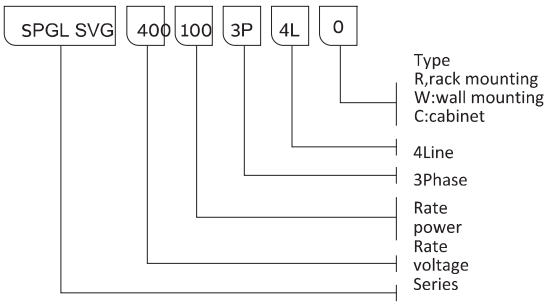
Static var generator (SVG) directly parallels the self commutation bridge circuit to the power grid through the reactor. By properly adjusting the phase and amplitude of the output voltage at the AC side of the bridge circuit or directly controlling the AC side current of the bridge circuit, the circuit can absorb or emit the required reactive current to achieve the purpose of dynamic reactive power compensation.

SPGL SVG can real-time monitor the reactive power and harmonic current demand in the power grid and can counteract the reactive current and harmonic current by injecting the reactive + harmonic current with the same reactive and harmonic current and opposite phase to the power grid.

Standard

IEC601000-3-6/EN61000-3-6,IEEE519-1992 etc.

Product series

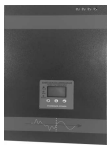


Characterisic and features

Characterisic	Features
The 3-Level Topology Design The 3-level topology technology can greatly reduce the volume of high frequency filter inductance and implement modularity of SVG. With the 3-level topology technology, the IGBT 's switch voltage stress and switching, and efficiency are improved tremendously.	Owing to its 3-level topology design based on a zero level voltage transformation (compresing IGBT of lower voltage corresponding higher switching frequency). SPGL SVG are capable of suppressing the undesirable generated ripple currents effectively and promotes ahigh compensation precision for the output waveform with respect to the sinusoidal waveform.
Smart Calculation and Treatment The reactive currents and harmonic currents at the supply side are significantly reduced	when reactive current are required, the operating circuit measures the load current and calculates the reactive current spectrum via the advanced control algorithm programmed in the Digital Signal Processor (DSP). l active filter employs Fast Fourier Transform (FFT) 4 logic calculation method for the power factor up to +1, and also harmonic current spectrum from 2nd to 50th order filtering
Intelligent FFT, Self-Learn and Adapt the System Excellent comprehensive performance within capacity range : Reactive powercompensation rate >=99% and harmonic compensation rate >=97%;	Flexible grid connection technology and perfect intelligent starting system are adopted. Flexible grid connection and slow start control loop will not produce excessive inrush current at the start moment; It supports more than 15 operation modes, including any combination of harmonic, reactive power and unbalance, independent and any priority compensation modes, and the percentage of each compensation capacity can be set With triple logic protection: software protection, hardware protection and wave by wave current limiting protection, the equipment can adapt to the harsh natural environment and power grid environment It has resonance monitoring function: in hardware, the impedance is changed by virtual resistance, and the output of harmonic current caused by resonance is intelligently turned off to reduce the risk of resonance;

Technical specification and data sheet

Specifiction and rates

Product photo			
Power rate Kvar	5,10,15,20,25,Kvar	35,50,75,100Kvar	150,200,250,300,400,500,600Kvar
Rate voltage & Hz Wiring system	400V,50/60Hz 3 phase 4 line or 3 phase 3 line	400V/480V/690V,50/60Hz 3 phase 4 line or 3 phase 3 line	400V/480V/690V,50/60Hz 3 phase 4 line or 3 phase 3 line
Overall efficiency	>97%	>97%	>97%
Power factor target	up to 1	up to 1	up to 1
Total responsation	<=10 ms	<=5 ms	<=10 ms
Mounting	wall or suspension Mounting	rack or wall	cabinet
Parallel	Max. 5 modules	Max. 5 modules	three cabinets
Harmonic filtering	up to 13th	up to 13th	up to 13th
Unbalarance	three phase compensationu	three phase compensationu	three phase
Operation condition Temperature	-25℃/+45℃ 5% to 95%	-25℃/+45℃ 5% to 95%	-25℃/+45℃ 5% to 95%
Humidity and altitude	<2000M	<2000M	<2000M
Display/controller	3.8 inch LCD	3.8 inch LCD	7.8 inch LCD
Protection level	IP20	IP20	IP20
Communication	RS485/232,modbus	RS485/232,modbus	RS485/232
Other	are available on request	are available on request	

Order selection
SPGL SVG 400-10-3P/4L-W

SPGL SVG
Rate voltage 400V
Rate power 10Kvar
3 phase 4 line
Wall mounting

Order selection
SPGL SVG 400-100-3P/4L-R

SPGL SVG
Rate voltage 400V
Rate power 100Kvar
3 phase 4 line
rack mounting

Order selection
SPGL SVG 400-500-3P/4L-C

SPGL SVG
Rate voltage 400V
Rate power 500Kvar
3 phase 4 line
cabint mounting