Elektrizität

SGS static VAR compensation device

SGS static VAR compensation device

Product Usage

The static reactive power compensation device uses dual digital signal processors (DSP) as the core. The self-commutated bridge circuit is connected in parallel to the power grid through the reactor. It uses real-time data acquisition technology and dynamic tracking technology to continuously monitor the voltage and voltage of the power grid and system. Current, while quickly and continuously compensating and adjusting the system's reactive power, can also significantly improve the power quality at the point of continuity between the load and the public grid, improve the power factor, overcome three-phase imbalance, eliminate voltage flicker and voltage fluctuations, and suppress Harmonic pollution, etc., can increase the power factor to a level close to 1.

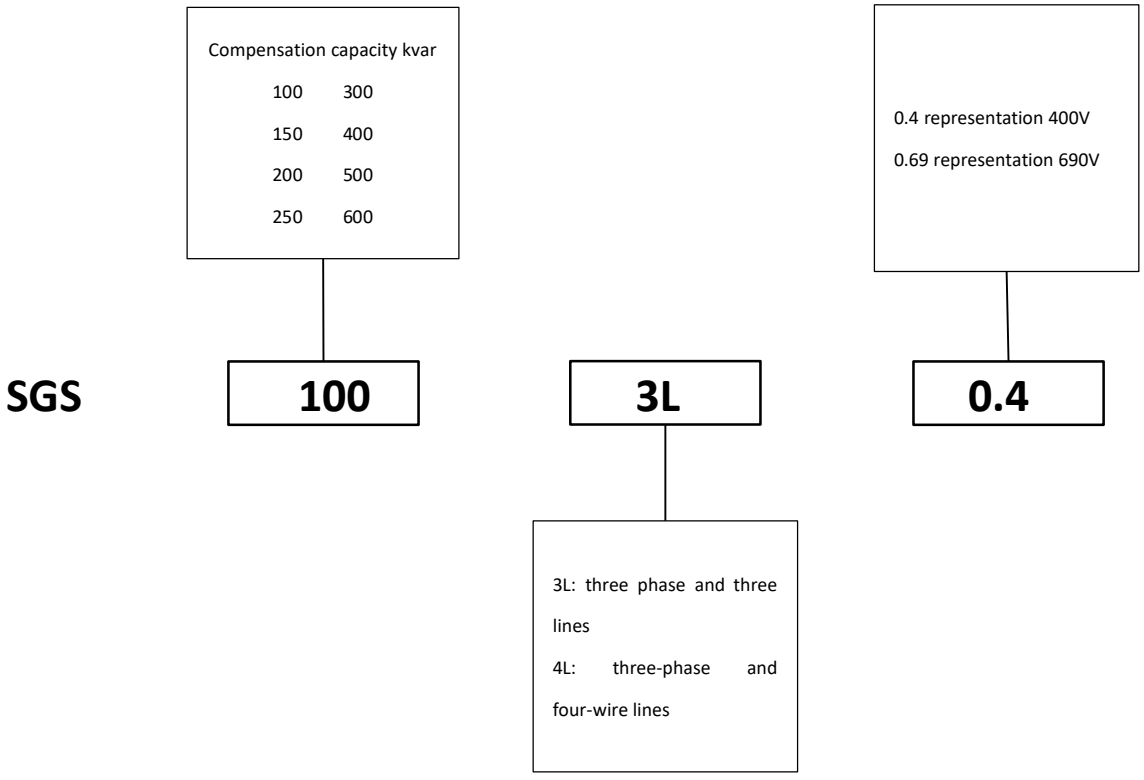
Features

1. The reactive current output can be constant within a large voltage variation range, and can still provide strong reactive power compensation when the voltage is low, and can be continuously adjusted in the full range from inductive load to capacitive load, making its reactive power compensation equivalent. 1.4 times to 2 times the same capacity;
2. Continuous and efficient reactive power compensation can be achieved, and the power factor after compensation is >0.98 without overcompensation;
3. The response is faster and can completely replace the original low-voltage reactive power compensation equipment;
4. Active equipment has a wider operating range; it can provide active power within a certain range;
5. Strong ability to suppress specific harmonics; electromagnetic wave noise is significantly reduced;
6. Low power loss and significant power saving effect; it can solve the problem of three-phase unbalance.

normal usage conditions

1. Normal temperature -25℃~45℃, relative humidity <90% (at 25℃);
2. Storage temperature -20℃~65℃.

Quick selection table



Technical Parameters

SGS Static VAR Compensation Device Series Products		
Harmonic frequency that	Rated	50×(1±2%)Hz, 60×(1±2%)Hz
Harmonic filtering degree	Compensation	Three-phase three-wire (3L), three-phase four-wire (4L)
Total harmonic current	Compensation	Within the equipment output capacity range , the set
Total response time	Reactive	0.98≤PF＜1
Compensation	Compensation	Mainly reactive power compensation , harmonic compensation
On-off level	Total response	＜ 1ms
Parallel operation	Overload	Automatically limits output current to rated current
Effective power loss	Overall power	＜ 3% device capacity
Display function (user	noise	＜ 65dB（A）
Protection method	Operating	-25℃~45℃
cooling method	stored	-20℃~65℃
noise	Relative	＜ 90%（at 25℃）
Operating mode		Automatic continuous operation
Communication Interface		Remote RS485/RS232/Ethernet communication function (optional); host computer communication software (optional)
Operation Display		LED monitoring panel; operating parameter setting; touch button
Display accuracy		Current ± 5%FS
Scalability		The same model can be directly connected in parallel , the
Protect		Grid over-voltage and under-voltage , device over-current , device overheating , DC bus over-voltage and under-voltage ,
Installation Requirements		The installation point has no violent vibration , no conductive and explosive dust , no corrosive gas , and the slope is no more than
Protection level		IP20 (higher protection level can be customized)

Model (three-phase	Compensation	System	Reference	Remark
SGS-100-3L-0.4	100	400/690	600*800*2200 800*800*2200 800*1000*2200	Other dimensions can also be customized
SGS-150-3L-0.4	150			
SGS-200-3L-0.4	200			
SGS-250-3L-0.4	250			
SGS-300-3L-0.4	300		800*1000*2200 1000*1000*2200	
SGS-400-3L-0.4	400			
SGS-500-3L-0.4	500			
SGS-600-3L-0.4	600			

SGS static VAR compensation module

Product Usage

The static reactive power compensation module uses dual digital signal processors (DSP) as the core. The self-commutated bridge circuit is connected in parallel to the power grid through the reactor. It uses real-time data acquisition technology and dynamic tracking technology to continuously monitor the voltage and voltage of the power grid and system. Current, while quickly and continuously compensating and adjusting the system's reactive power, can also significantly improve the power quality at the point of continuity between the load and the public grid, improve the power factor, overcome three-phase imbalance, eliminate voltage flicker and voltage fluctuations, and suppress Harmonic pollution, etc., can increase the power factor to a level close to 1.

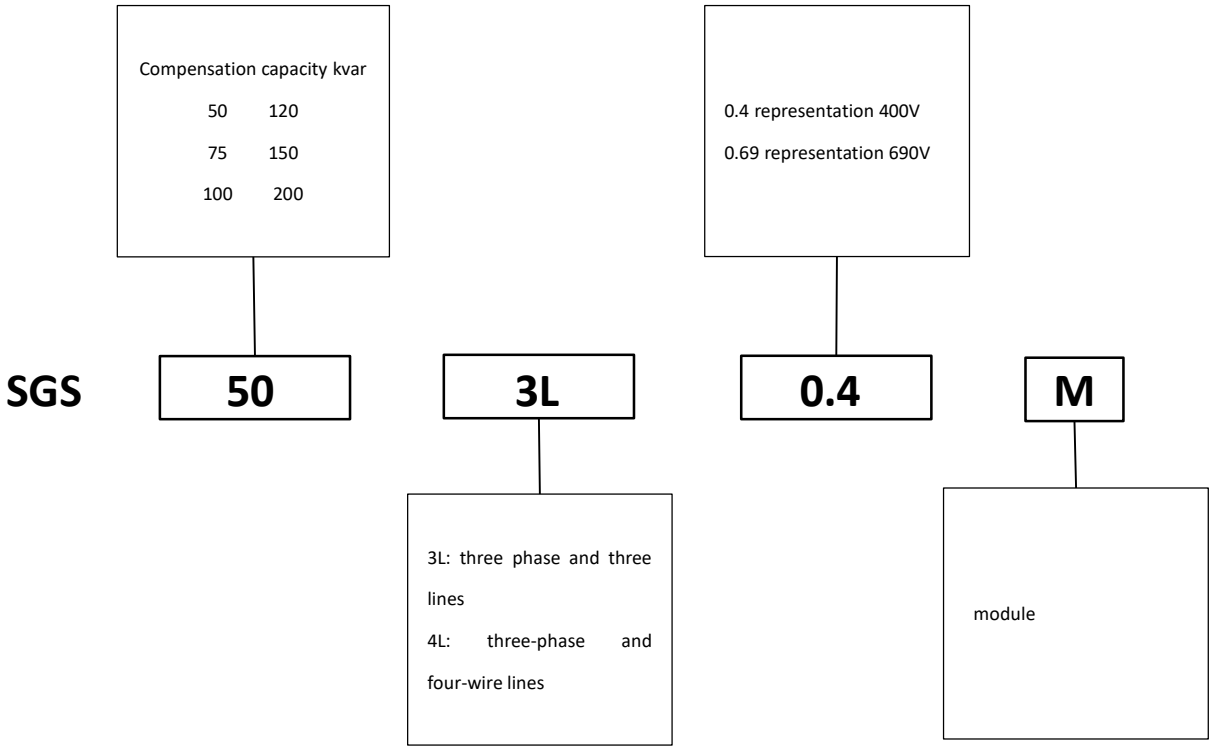
Features

1. Quick melt protection;
2. Voltage loss and over-voltage protection (to prevent reclosing power shock);
3. Double protection of voltage and current hardware and software;
4. Over-temperature protection switch;
5. Equipment soft start function.

normal usage conditions

1. Normal temperature -25℃~45℃, relative humidity <90% (at 25℃);
2. Storage temperature: -20℃~65℃.

Quick Selection Table



Technical Parameters

SGS Static VAR Compensation Device Series Products		
Harmonic frequency that	Rated	50×(1±2%)Hz, 60×(1±2%)Hz
Harmonic filtering degree	Compensation	Three-phase three-wire (3L), three-phase four-wire (4L)
Total harmonic current	Compensation	Within the equipment output capacity range , the set
Total response time	Reactive	0.98≤PF＜1
Compensation	Compensation	Mainly reactive power compensation , harmonic compensation
On-off level	Total response	＜ 1ms
Parallel operation	Overload	Automatically limits output current to rated current
Effective power loss	Overall power	＜ 3% device capacity
Display function (user	noise	＜ 65dB（A）
Protection method	Operating	-25℃~45℃
cooling method	stored	-20℃~65℃
noise	Relative	＜ 90%（at 25℃）
Operating mode		Automatic continuous operation
Communication Interface		Remote RS485/RS232/Ethernet communication function (optional); host computer communication software (optional)
Operation Display		LED monitoring panel; operating parameter setting; touch button
Display accuracy		Current ± 5%FS
Scalability		Direct parallel connection of the same model
Protect		Grid over-voltage and under-voltage , device over-current , device overheating , DC bus over-voltage and under-voltage ,
Installation Requirements		The installation point has no violent vibration , no conductive and explosive dust , no corrosive gas , and the slope is no more than
Protection level		IP20 (higher protection level can be customized)

Model (three-phase	Compensation	System	Reference	Remark
SGS-50-3L-0.4/M	50	400	470*570*250	Other dimensions can also be customized
SGS-75-3L-0.4/M	75			
SGS-100-3L-0.4/M	100		530*650*320	
SGS-120-3L-0.4/M	120			
SGS-150-3L-0.4/M	150			
SGS-200-3L-0.4/M	200			