

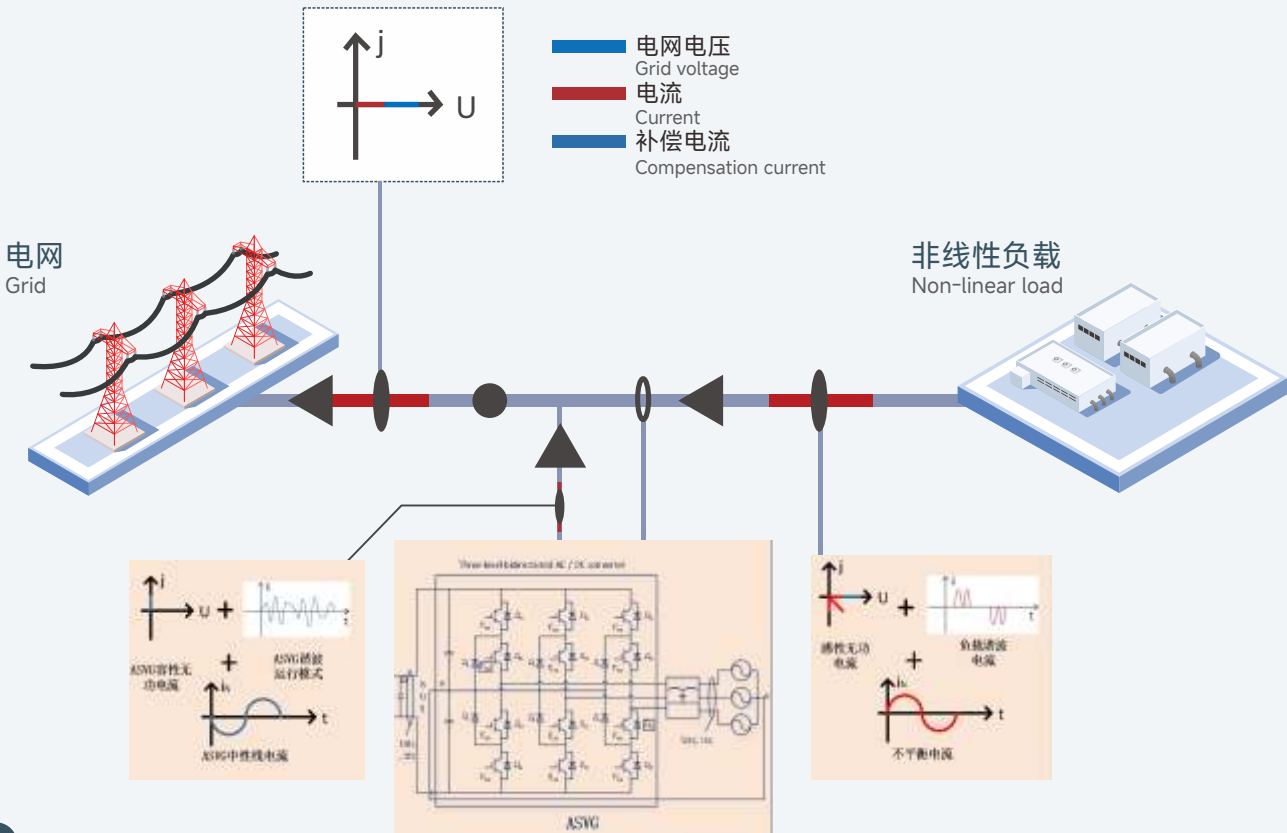


静止无功发生装置 整柜
Advanced Static Var Generator - Cabinet
GY-ASVG

增强型静止无功发生装置（GY-ASVG）主要由交流配电、ASVG模块、监控系统等组成。增强型静止无功发生装置（GY-ASVG）将电压源变流器通过滤波器并联在电网上，其工作原理是通过实时检测负载的电流，基于先进的无功、谐波及三相有功功率的检测与控制算法，生成对应的IGBT驱动信号，实现对无功电流、谐波电流以及三相不平衡电流的综合补偿。采用模块化设计，集成度高，安装方便灵活。

Enhanced Static Var Generator (GY-ASVG) is mainly composed of an AC distribution unit, ASVG modules, a monitoring system, etc. The GYASVG connects a voltage source converter (VSC) to the power grid via a filter in parallel. Its working principle is to detect the load current in real time and, based on advanced detection and control algorithms for reactive power, harmonics, and three-phase active power, generate corresponding IGBT drive signals to achieve comprehensive compensation of reactive current, harmonic current, and three-phase unbalanced current. The device adopts a modular design, offering high integration density as well as convenient and flexible installation.

系统图：



性能特点 Performance characteristics

(1) DSP+CPLD全数字控制核心，三电平拓扑技术。(2) 模块化设计，可多模块并联，占地空间小、维护方便。(3) 独立风道和独立板仓结构设计，保证设备的稳定运行。(4) 具有两路外部电流采样通道，可支持低压侧采样低压侧补偿、高压侧采样低压侧补偿、无功分量补偿等多种补偿方式。(5) 支持无功补偿、谐波补偿、三相不平衡补偿任意一种、两种或三种搭配可选。(6) 无功补偿能力：补偿率≥99%。(7) 不平衡补偿能力：补偿后不平衡度≤5%。(8) 电流谐波补偿能力：补偿率≥95%。2~50次，单次补偿率可调。(9) 中性线零序电流滤波能力为相线两倍（三倍可定制）。

- (1) DSP+CPLD full-digital control core, three-level topology technology.
- (2) Modular design with multi-module parallel connection; small footprint, easy maintenance.
- (3) Independent air duct and independent board compartment design to ensure stable operation of the equipment.
- (4) Equipped with two external current sampling channels, supporting various compensation modes such as low-voltage side sampling with low-voltage side compensation, high-voltage side sampling with low-voltage side compensation, and reactive component compensation.
- (5) Supports any one, any two, or all three of reactive power compensation, harmonic compensation, and three-phase unbalance compensation as selectable options.
- (6) Reactive power compensation capability: compensation rate ≥99%.
- (7) Unbalance compensation capability: unbalance degree after compensation ≤5%.
- (8) Current harmonic compensation capability: compensation rate ≥95%; 2nd to 50th harmonics, individual compensation rate adjustable.
- (9) Neutral line zero-sequence current filtering capacity is twice that of the phase line (triple customizable).

技术参数 Technical parameters

机型 Model	220V	380V	500V	690V	800V
海拔高度 Altitude	<2000m,2000米以上按照GB/T3859.2降额使用 <2000 m; above 2000 m, derate according to GB/T 3859.2				
环境温度 Ambient temperature	-10~+50°C(40°C以上降容不超过30%) -10 to +50 °C (above 40 °C, capacity derating ≤30%)				
相对湿度 Relative humidity	≤90%，月最低温度25°C表面无凝露 ≤90% relative humidity, no condensation on the surface at a monthly minimum temperature of 25 °C				
污秽等级 Pollution degree	III级以下 Pollution degree ≤ Class III				
工作电压 Operating voltage	AC220V (-20%~+20%)	AC380V (-20%~+20%)	AC500V (-20%~+20%)	AC690V (-20%~+15%)	AC800V (-20%~850V Max)
工作频率 Operating frequency	50Hz/60Hz (45Hz~63Hz)				
额定补偿容量 Rated compensation capacity	50kvar~ 300kvar	100kvar~ 600kvar	90kvar~ 540kvar	100kvar~ 720kvar	150kvar~ 900kvar
电网结构 Grid configuration	三相三线，三相四线 Three-phase three-wire Three-phase four-wire				三相三线 Three-phase three-wire
并联台数 Number of parallel units	不限 No restrictions				
整机效率 Overall efficiency	≥97%				
开关频率 Switching frequency	16kHz		12.8kHz		
功能选择① Function selection	A、B、A+B、B+A、B+C、A+C、B+C+A、A+C+B				A、B、 A+B
无功补偿率 Reactive compensation rate	无功补偿≥95% Reactive power compensation ≥95%				无 NO
不平衡补偿能力 Unbalance compensation capability	补偿后不平衡度≤5% Unbalance degree after compensation ≤5%				
电流谐波补偿能力 Harmonic comp. (current)	电流谐波补偿≥95% Harmonic comp. (current) ≥95%				
中性线滤波能力 Neutral line filtering capability	中性线滤波能力为相滤波能力的 2 倍（3 倍可定制） Neutral line filtering capacity is twice that of phase filtering capacity (triple customizable).				
全响应时间 Full response time	无功 < 10ms，谐波<40ms Reactive power: <10ms, Harmonics: <40ms				
噪音 Noise level	≤75dB				
通讯方式 Communication method	2 路 RS485 通信接口（支持 Wi-Fi） 2 RS485 communication interfaces (Wi-Fi supported)				
保护功能 Protection functions	过载、软/硬件过流、电网过欠压、电网电压不平衡、电源故障、过温、频率异常、短路保护等 Overload, software/hardware overcurrent, grid overvoltage/undervoltage, grid voltage unbalance, power supply failure, overtemperature, frequency anomaly, short circuit protection, etc.				
过载能力 Overload capability	额定1.2倍过载60秒 Rated overload 1.2 times for 60 seconds				
安装方式 Installation method	机架/壁挂 Rack-mount / Wall-mount				
进线方式 Cable entry	后进线(机架式)、上进线(壁挂式) Rack-mount / Wall-mount				
防护等级 Protection rating	IP20(IP54可定制) IP20 (IP54 available on request / customizable)				
尺寸 Size	1250*1000*2200				

① A:无功补偿 Reactive compensation B:谐波补偿 Harmonic compensation
C:三相不平衡补偿 Three-phase unbalance compensation