

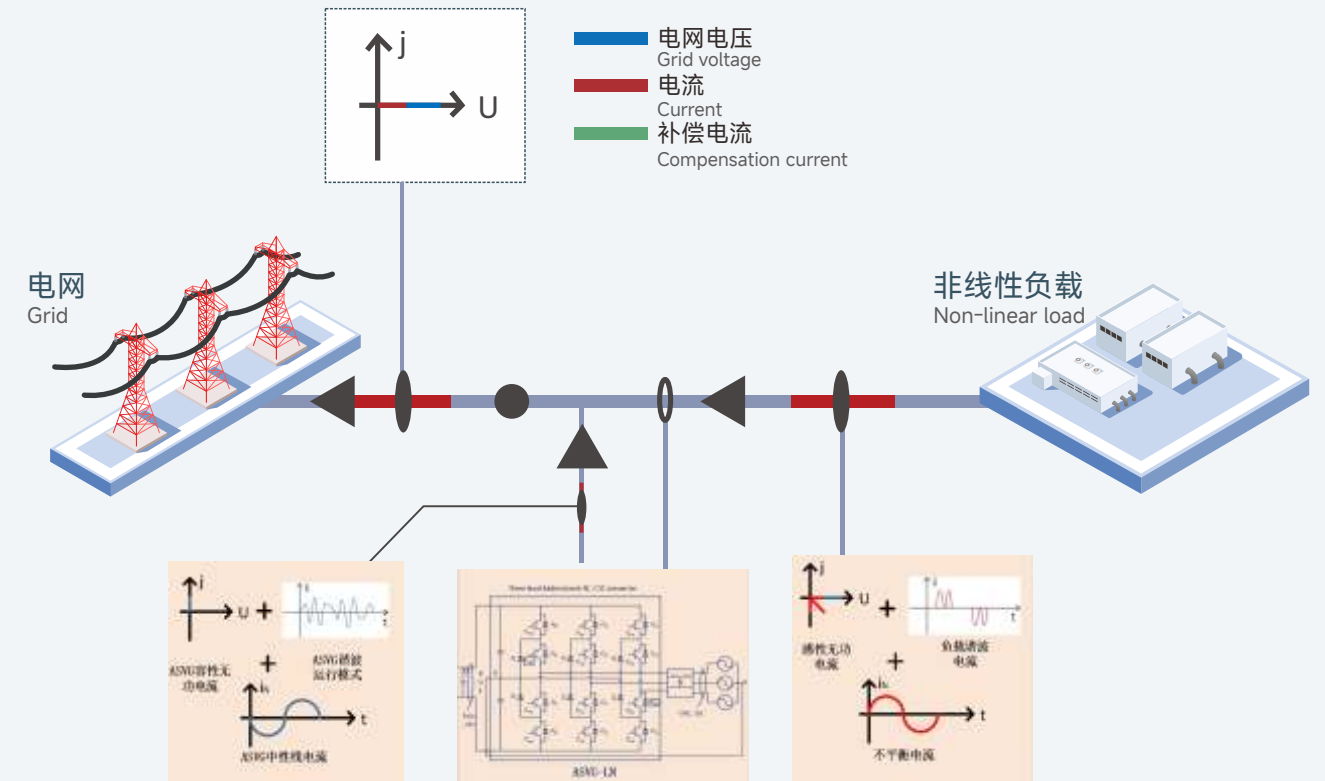
低噪音增强型静止无功发生装置

Low-noise Advanced Static Var Generator

GY-ASVG-LN

低噪音增强型静止无功发生装置（GY-ASVG-LN）采用低噪音设计，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有功功率的综合补偿。装置噪音在 45dB以内，同时支持内置网侧采样 CT，安装维护方便。

Low-Noise Enhanced Static Var Generator (GY-ASVG-LN)
The device adopts a low-noise design and 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 active power. The device noise level is within 45 dB. It also supports a built-in grid-side sampling CT (current transformer), offering easy installation and maintenance.



性能特点 Performance characteristics

- 1) DSP+CPLD 全数字控制核心、三电平拓扑技术。2) 低噪音设计，噪音在 45dB 以内，同时支持内置网侧采样 CT，安装维护方便。
3) 模块化设计，可多模块并联，占地空间小、维护方便。4) 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。
5) 无功补偿能力：补偿率≥99%。6) 不平衡补偿能力：补偿后不平衡度≤5%。7) 电流谐波补偿能力：补偿率≥95%；2~50 次，单次补偿率可调。8) 可设定 100%限流输出，保证设备长期稳定运行。
- 1)DSP+CPLD full-digital control core, three-level topology technology.
2)Low noise design with noise level ≤45 dB; also supports built-in grid-side sampling CT, easy installation and maintenance.
3)Modular design with multi-module parallel connection; small footprint, easy maintenance.
4)Supports any one, any two, or all three of reactive power compensation, harmonic compensation, and three-phase unbalance compensation as selectable options.
5)Reactive power compensation capability: compensation rate ≥99%. 6)Unbalance compensation capability: unbalance degree after compensation ≤5%.
7)Current harmonic compensation capability: compensation rate ≥95%; 2nd to 50th harmonics, individual compensation rate adjustable.
8)Supports 100% current-limiting output to ensure long-term stable operation of the equipment.

技术参数 Technical parameters

机型 Model	220V	380V
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℃(40℃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℃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%)
工作频率 Operating frequency	50Hz/60Hz (45Hz~63Hz)	
额定补偿容量 Rated compensation capacity	2Kvar、3Kvar、5Kvar	3Kvar、5Kvar、10Kvar
电网结构 Grid configuration	三相三线，三相四线 Three-phase three-wire Three-phase four-wire	三相四线 Three-phase four-wire
负载电流范围 Load current range	0~100A	
并联台数 Number of parallel units	2kvar（不支持并联）、3kvar、5kvar（不限） 2kvar (no parallel), 3kvar, 5kvar (parallel allowed)	3kvar（不支持并联）、5kvar、10kvar（不限） 3kvar (no parallel), 5kvar, 10kvar (parallel allowed)
整机效率 Overall efficiency	≥97%	
开关频率 Switching frequency	30kHz（2kvar）、16kHz（3kvar、5kvar）	30kHz（3kvar）、16kHz（5kvar、10kvar）
功能选择① Function selection	A、B、A+B、B+A、B+C、A+C、B+C+A、A+C+B	
无功补偿率 Reactive compensation rate	无功补偿≥99% Reactive power compensation ≥99%	
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	电流谐波补偿≥95% Current harmonic compensation ≥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 1.5 倍 Neutral line filtering capacity is 1.5 times that of phase filtering capacity.	
全响应时间 Full response time	无功 < 10ms，谐波<40ms Reactive power: <10ms, Harmonics: <40ms	
冷却方式 Cooling mode	强制风冷 Forced air cooling	
噪音 Noise level	2kvar≤38dB / 3kvar≤40dB / 5kvar≤45dB	3kvar≤38dB / 5kvar≤40dB / 10kvar≤45dB
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、谐振保护等 Overload, software/hardware overcurrent, grid overvoltage/undervoltage, grid voltage unbalance, power supply failure, overtemperature, frequency anomaly, short circuit protection, resonance 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 (W*D*H) Size	390*525*90.2mm	

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