

# Static Var Generator (SVG)



Static Var Generator (SVG) employs a three-level topology and advanced control algorithms, delivering significant advantages including high power density, exceptional efficiency, low cost, and minimal noise emission. The core module dynamically eliminates harmonics and precisely regulates reactive power, enabling rapid, continuous output of capacitive or inductive reactive power. This effectively:

- Enhances system power factor
- Reduces system losses
- Suppresses harmonic pollution

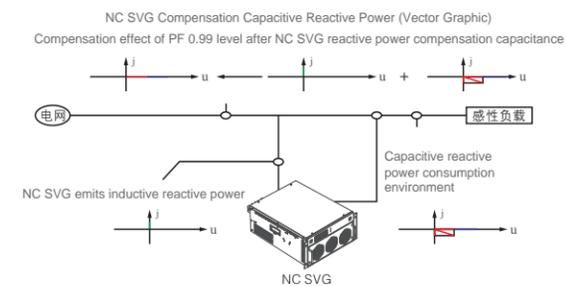
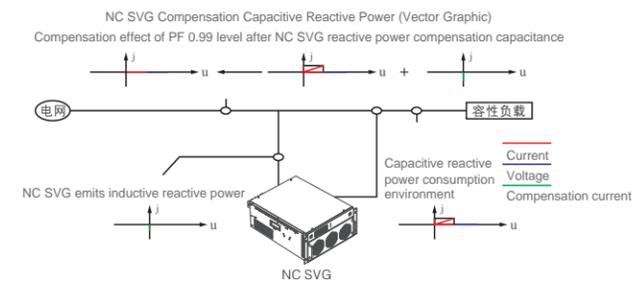
### Reliability Features:

- Single modules operate independently with robust reliability
- During multi-unit compensation: failure of one unit does not compromise operation of others
- Industry-leading N+1 redundancy architecture

Recognized as the most advanced solution in reactive power compensation systems.

### Operational Principle:

The static VAR generator (SVG) detects the load current in real time through an external current transformer (CT), and analyzes the reactive content of the load current through internal DSP calculation, and then controls the PWM signal generator to send a control signal to the internal IGBT according to the set value to make the inverter generate reactive compensation current that meets the requirements, ultimately achieving the purpose of dynamic reactive compensation, and at the same time has a certain harmonic compensation capability.



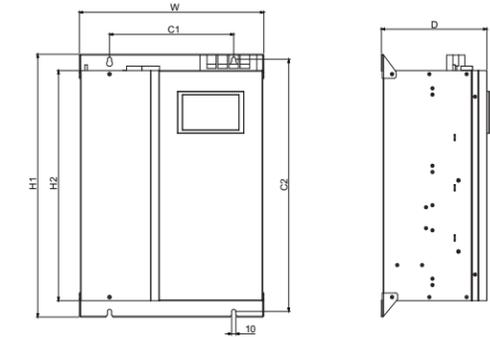
### 技术参数 Technical parameters

Capacity	30 Kvar				50 Kvar				75 Kvar				100 Kvar			
	Larger capacity can be achieved through parallel expansion and coordinated by a centralized control system															
Rated Voltage	400V/(±20%)															
Phase / Wire	3 phase 3 wires / 3 phase 4 wires															
Frequency	50Hz/60Hz (± 5%)															
Topology	Three-Level NPC															
Reactive compensation	-1~1 adjustable															
3 phase unbalance compensation capacity	< 3%															
Compensation method	Primarily designed for reactive power compensation, with optional harmonic compensation capability															
Reactive compensation rate	≥98%															
Efficiency	0.975															
Inrush Current	Less than rated current value															
Current limiting operation	Compensation current limited to rated value															
Transient response time	≤0.1ms															
Full response time	≤8ms															
Noise	≤60dB															
HMI	7" (4.3")															
Hardware interface	RS485, RJ45															
Communication protocol	RS485, 232, TCP/IP selectable															
Cooling method	Intelligent air cooling															
Protection function	Short circuit, overcurrent, overvoltage, overheating, etc.															
Protection rating	IP20															
Ambient temperature	-10°C to +40°C															
Storage temperature	-20°C to +70°C															
	Maximum humidity 95%, no condensation															
Altitude	< 1500 metres (capacity decreases by 1% for every additional 100 metres)															
Module weight																

### 产品尺寸 Product dimensions

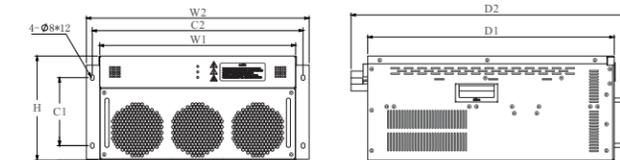
#### 壁挂式 Wall-mounted

Specifications	External dimensions(mm)				Centre distance between mounting holes(mm)	
	(H1)	(H2)	(W)	(D)	(C1)	(C2)
35Kvar	628	550	445	254	300	602.5
50Kvar	628	550	445	254	300	602.5
75Kvar	628	550	445	254	300	602.5
100Kvar	628	550	445	254	300	602.5
150Kvar	768	690	500	254	300	602.5

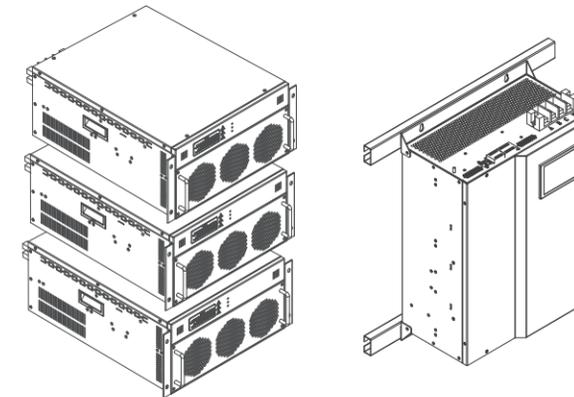


#### 抽屉式 Drawer style

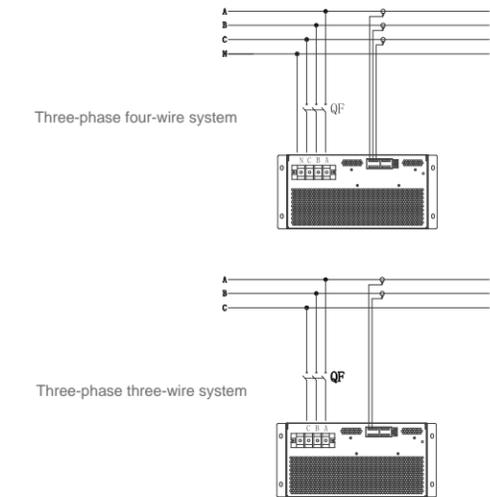
Specifications	External dimensions(mm)				Centre distance between mounting holes(mm)			
	(H1)	(W1)	(W2)	(D1)	(D2)	(C2)	(C2)	
35Kvar	230	440	497	550	620	150	470	
50Kvar	230	440	497	550	620	150	470	
75Kvar	230	440	497	550	620	150	470	
100Kvar	230	440	500	550	620	150	470	
150Kvar	230	495	552	690	760	150	525	



### 安装方式 Installation method



### 接线方式 Wiring method



### Model Description

