

SVG

Static Var Generator



Static Var Generator(SVG) Static Var Generators (SVGs) are devices used in electrical power systems to control voltage, power factor and stabilize the system. They are a type of Static Synchronous Compensator (STATCOM) that use a voltage source converter to inject reactive power into the grid. SVGs are able to provide fast-acting reactive power compensation, which improve power quality and help to prevent voltage instability. SVGs are commonly used in industrial plants, wind farms and other applications where reactive power compensation is required. It is a reliable and efficient solution for maintaining the stability and quality of electrical power systems.

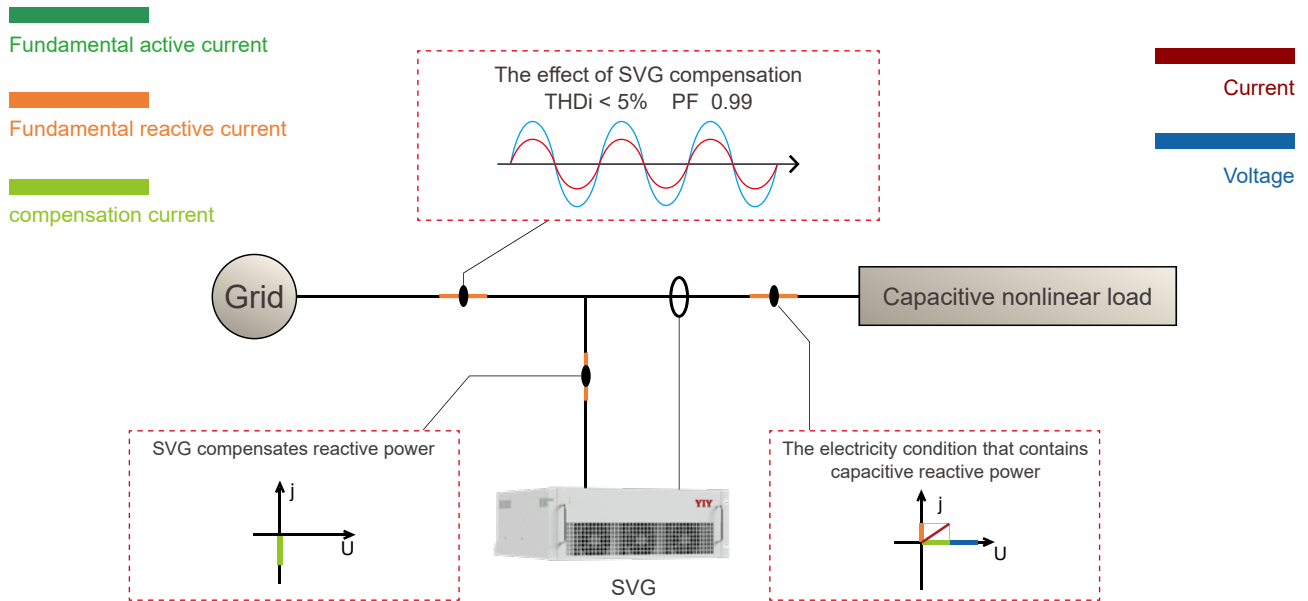
• Product Features

- No over compensation, no under compensation, no resonance
- Reactive power compensation effect
- PF0.99 level reactive power compensation
- Three-phase unbalance compensation
- Capacitive inductive load-1~1
- Real-time compensation
- Dynamic response time less than 50us
- Modular design

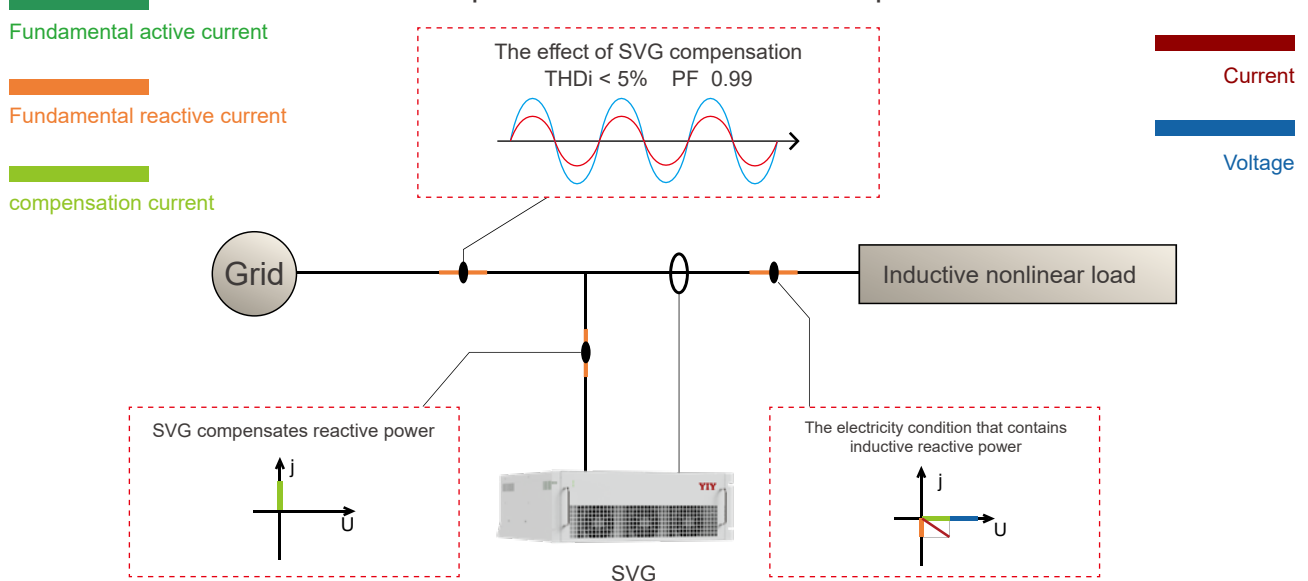
• Working Principle

The principle of the SVG is very similar to that of Active harmonic Filter, When the load is generating inductive or capacitive current, it makes load current lagging or leading the voltage. SVG detects the phase angle difference and generates leading or lagging current into the grid, making the phase angle of current almost the same as that of voltage on the transformer side, which means fundamental power factor is unit. YIY-SVG is also capable of correcting load imbalance.

SVG compensates capacitive reactive power



SVG compensates inductive reactive power



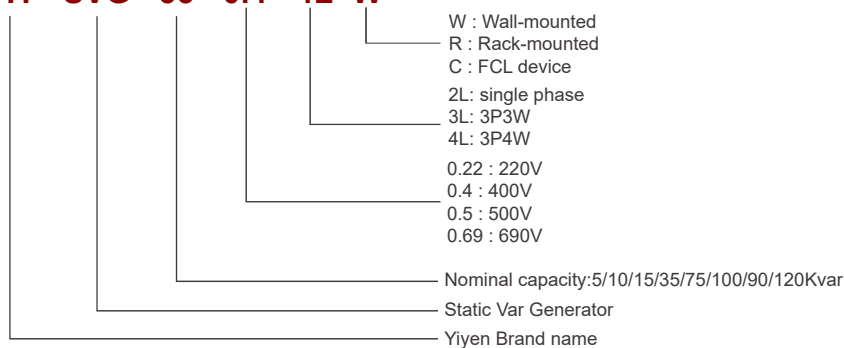


• Technical Specifications

TYPE	220V Series	220V Series	400V Series	500V Series	690V Series
Rated compensation capacity	5KVar	5KVar/7KVar/ 10KVar/17KVar/25KVar/ 37KVar/50KVar	10KVar/15KVar/ 20KVar/35KVar/50KVar/ 75KVar/100KVar	90KVar	100KVar/120KVar
Nominal voltage	AC220V (-20%~+20%)	AC220V (-20%~+20%)	AC400V (-40%~+15%)	AC500V (-20%~+15%)	AC690V (-20%~+15%)
Rated frequency	50/60Hz±5%				
Network	Single phase	3 phase 3 wire/3 phase 4 wire			
Response time	<10ms				
Reactive power compensation rate	>95%				
Machine efficiency	>97%				
Switching frequency	32kHz	16kHz	16kHz	12.8kHz	12.8kHz
Function	Reactive power compensation				
Numbers in parallel	No limitation. A single centralized monitoring module can be equipped with up to 8 power modules.				
Communication methods	Two-channel RS485 communication interface (support GPRS/WIFI wireless communication)				
Altitude without derating	<2000m				
Temperature	-20~+50℃				
Humidity	<90% RH, The average monthly minimum temperature is 25℃ without condensation on the surface				
Pollution level	Below level III				
Protection Function	Overload protection, hardware over-current protection,over-voltage protection,power grid voltage protection, power failure protection,over-temperature protection,frequency anomaly protection, short circuit protection, etc				
Noise	<50dB	<65dB	<60dB	<65dB	
Installation	Rack/Wall-mounted				
Into the way of line	Back entry (rack-mounted type), top entry (wall-mounted type)				
Protection grade	IP20				

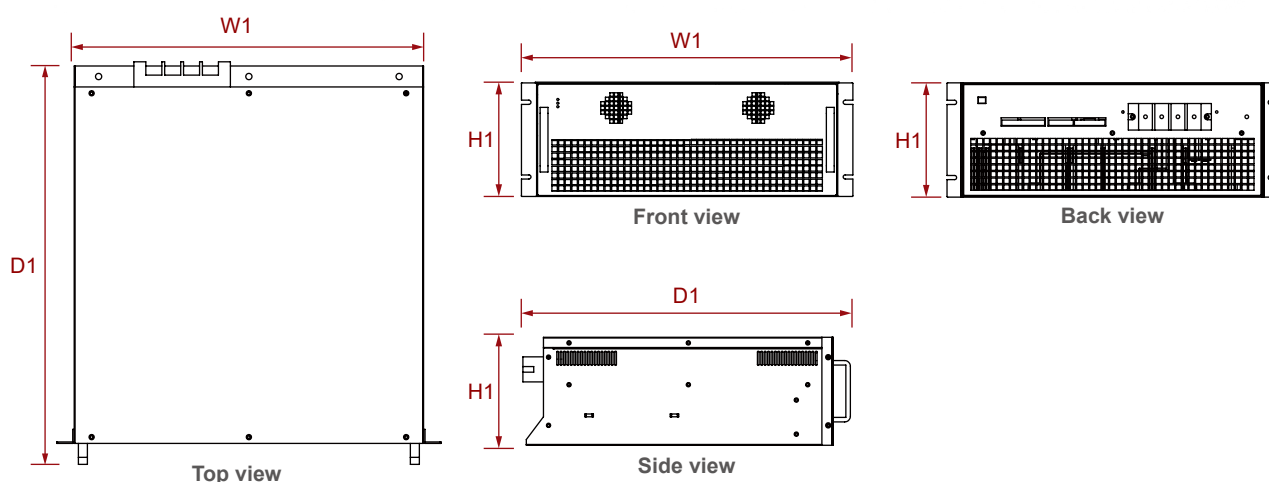
• Type Code

YIY SVG - 35 - 0.4 - 4L -W



• Product Dimensions

Rack-Mount



• Models

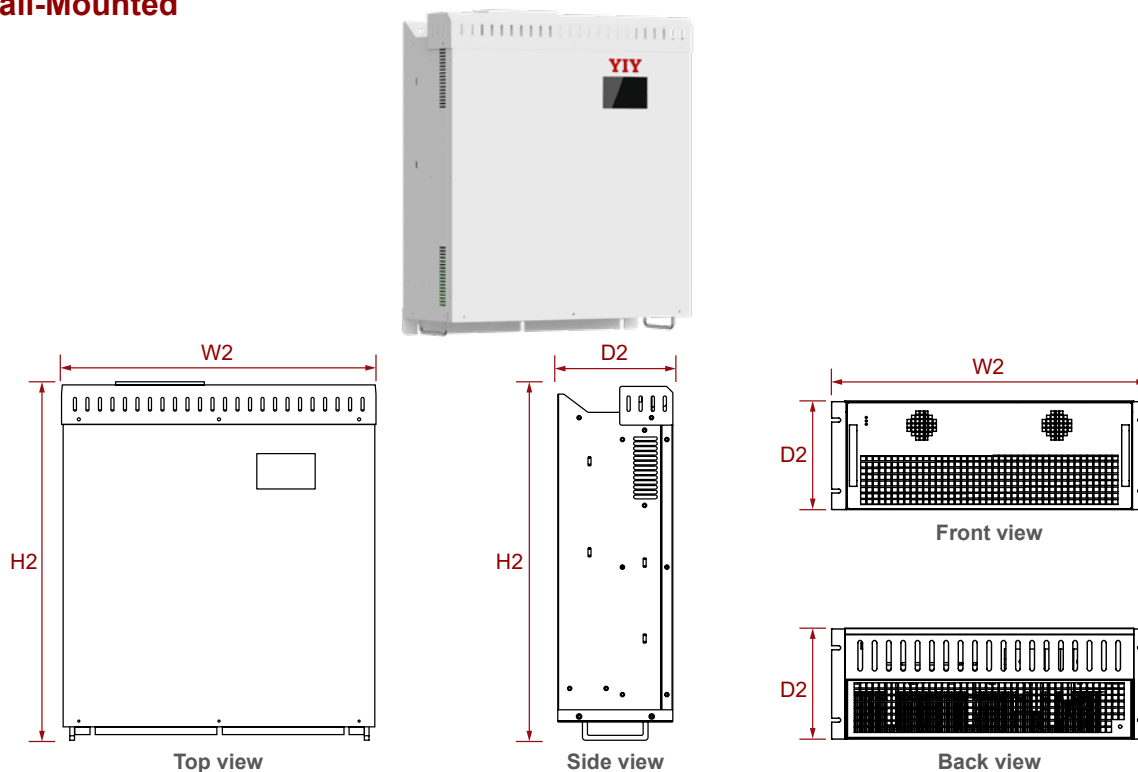
Model	Capacity	System Voltage	Size(W1*D1*H1)	Cooling Mode
YIY SVG-5-0.22-2L-R	5Kvar	220V	220*375*167mm	Forced air cooling
YIY SVG-10-0.4-4L-R	10Kvar	400V	500*535*89mm	Forced air cooling
YIY SVG-15-0.4-4L-R	15Kvar	400V	500*535*89mm	Forced air cooling
YIY SVG-20-0.4-4L-R	20Kvar	400V	500*535*89mm	Forced air cooling
YIY SVG-35-0.4-4L-R	35Kvar	400V	500*535*89mm	Forced air cooling
YIY SVG-50-0.4-4L-R	50Kvar	400V	550*584*190mm	Forced air cooling
YIY SVG-75-0.4-4L-R	75Kvar	400V	550*624*240mm	Forced air cooling
YIY SVG-100-0.4-4L-R	100Kvar	400V	550*624*240mm	Forced air cooling
YIY SVG-90-0.5-4L-R	90Kvar	500V	550*722*275mm	Forced air cooling
YIY SVG-100-0.69-4L-R	100Kvar	690V	550*722*275mm	Forced air cooling
YIY SVG-120-0.69-4L-R	120Kvar	690V	550*722*275mm	Forced air cooling

Model	Capacity	System Voltage	Size(W1*D1*H1)	Cooling Mode
YIY SVG-5-0.22-4L-R	5Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-7-0.22-4L-R	7Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-10-0.22-4L-R	10Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-17-0.22-4L-R	17Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-25-0.22-4L-R	25Kvar	220V	550*584*190mm	Forced air cooling
YIY SVG-37-0.22-4L-R	37Kvar	220V	550*624*240mm	Forced air cooling
YIY SVG-50-0.22-4L-R	50Kvar	220V	550*624*240mm	Forced air cooling

*If you need any other sizes, please contact us for customization.

• Product Dimensions

Wall-Mounted



• Models

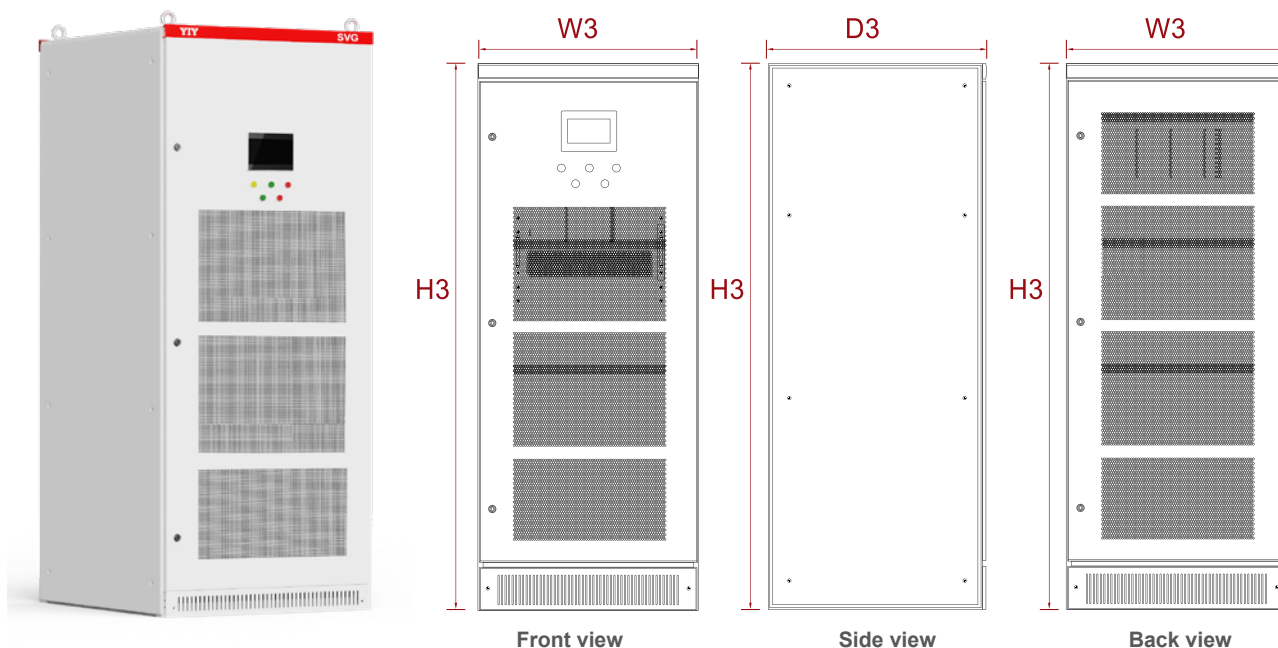
Model	Capacity	System Voltage	Size(W2*D2*H2)	Cooling Mode
YIY SVG-5-0.22-2L-W	5Kvar	220V	220*167*375mm	Forced air cooling
YIY SVG-10-0.4-4L-W	10Kvar	400V	500*89*535mm	Forced air cooling
YIY SVG-15-0.4-4L-W	15Kvar	400V	500*89*535mm	Forced air cooling
YIY SVG-20-0.4-4L-W	20Kvar	400V	500*89*535mm	Forced air cooling
YIY SVG-35-0.4-4L-W	35Kvar	400V	500*89*535mm	Forced air cooling
YIY SVG-50-0.4-4L-W	50Kvar	400V	550*190*584mm	Forced air cooling
YIY SVG-75-0.4-4L-W	75Kvar	400V	550*240*624mm	Forced air cooling
YIY SVG-100-0.4-4L-W	100Kvar	400V	550*240*624mm	Forced air cooling
YIY SVG-90-0.5-4L-W	90Kvar	500V	550*275*722mm	Forced air cooling
YIY SVG-100-0.69-4L-W	100Kvar	690V	550*275*722mm	Forced air cooling
YIY SVG-120-0.69-4L-W	120Kvar	690V	550*275*722mm	Forced air cooling

Model	Capacity	System Voltage	Size(W1*D1*H1)	Cooling Mode
YIY SVG-5-0.22-4L-W	5Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-7-0.22-4L-W	7Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-10-0.22-4L-W	10Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-17-0.22-4L-W	17Kvar	220V	500*535*89mm	Forced air cooling
YIY SVG-25-0.22-4L-W	25Kvar	220V	550*584*190mm	Forced air cooling
YIY SVG-37-0.22-4L-W	37Kvar	220V	550*624*240mm	Forced air cooling
YIY SVG-50-0.22-4L-W	50Kvar	220V	550*624*240mm	Forced air cooling

*If you need any other sizes, please contact us for customization.

• Product Dimensions

FCL



• Models

Model	Capacity	System Voltage (V)	Size(W3*D3*H3)	Cooling Mode
YIY SVG-50-0.4-4L-C	50Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY SVG-100-0.4-4L-C	100Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY SVG-200-0.4-4L-C	200Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY SVG-250-0.4-4L-C	250Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY SVG-300-0.4-4L-C	300Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY SVG-400-0.4-4L-C	400Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY SVG-270-0.5-4L-C	270Kvar	500V	800*1000*2200mm	Forced air cooling
YIY SVG-360-0.69-4L-C	360Kvar	690V	800*1000*2200mm	Forced air cooling

*Cabinet 1 can accommodate 5 modules. Cabinet 2 can accommodate 3 modules.

*If you need any other sizes, please contact us for customization.