

ASVG

Advanced Static Var Generator

Reactive Power Compensation, Harmonic Control, Three Phase Unbalance



Advanced Static Var Generator (ASVG) is a new type of dynamic reactive power compensation product, combining power factor correction and harmonic mitigation in one unit. It provides the same dynamic performance for compensating reactive power as the SVG with the added benefit of combining harmonic mitigation and controlling three phase unbalance. Advanced static var generators (ASVGs) are high-performance, compact, flexible, modular, and cost-effective to provide immediate and efficient responses to power quality problems in high and low voltage power systems.

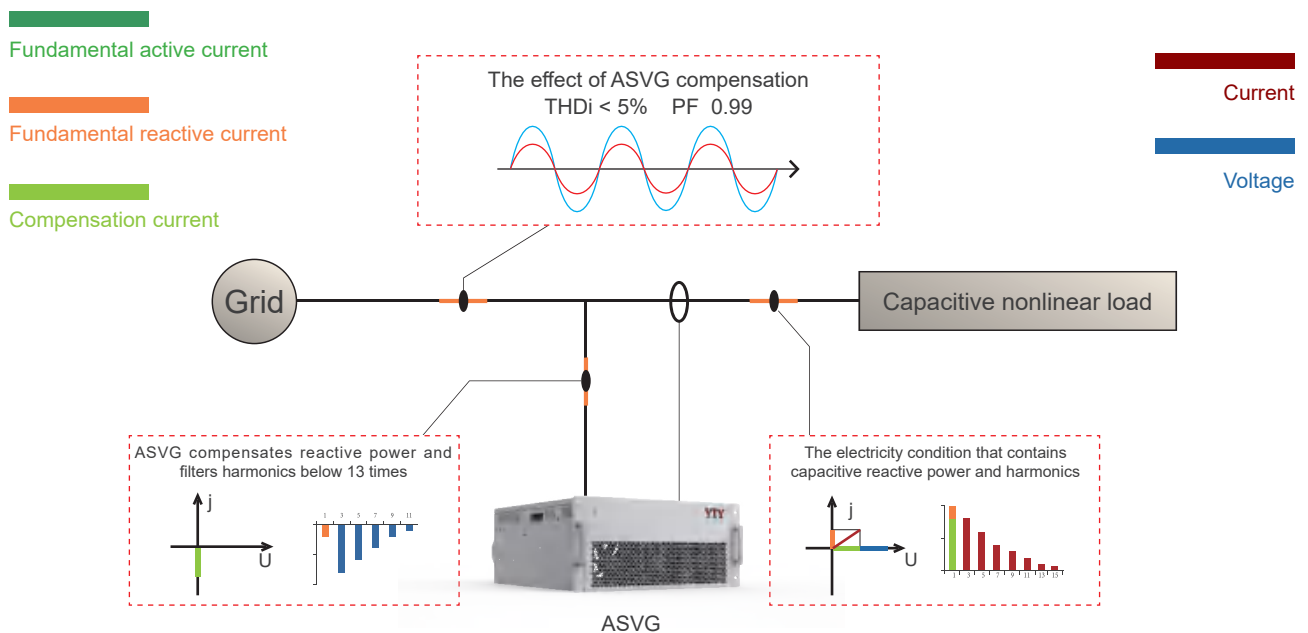
• Product Features

- Reactive power compensation: $\cos \varphi = 1.00$
- Capacitive and Inductive compensation: -1 to +1
- All the features and benefits of the SVG.
- Mitigation of 3rd, 5th, 7th, 9th, 11th harmonic orders
- Unit capacity can be selected in any proportion between power factor correction and harmonics correction
- Capacitive inductive load-1~1
- Current unbalance correction can correct for load unbalance across all three phases

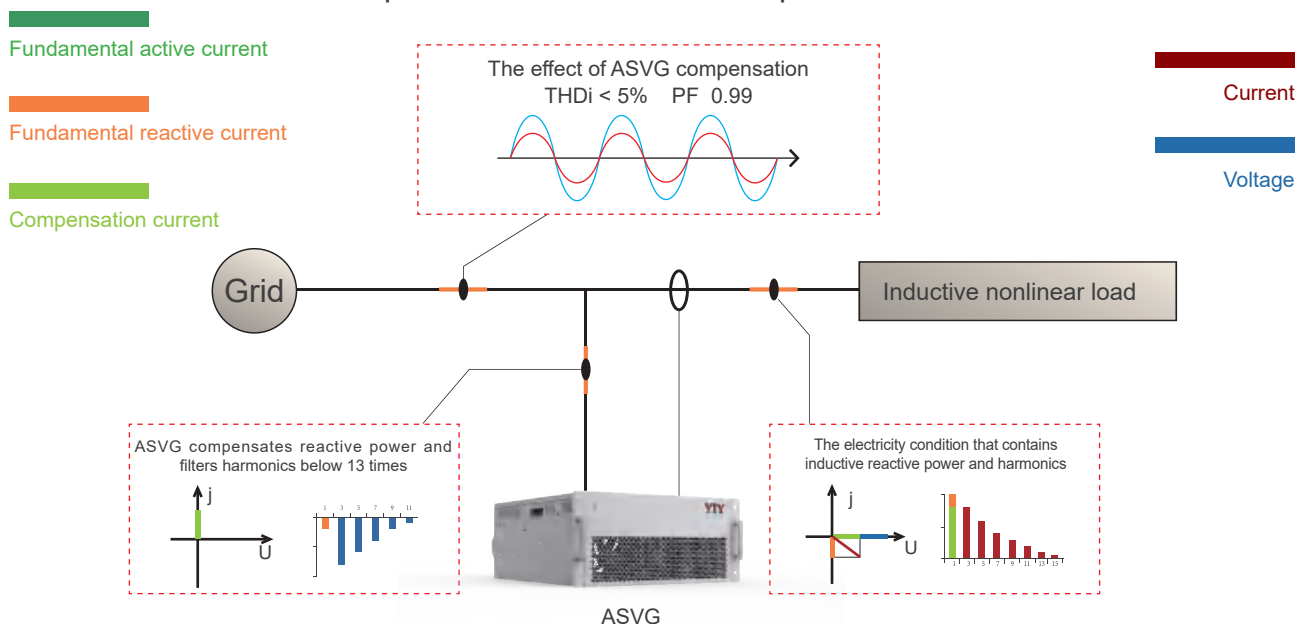
• Working Principle

With external CT detecting the load current in real time, internal DSP calculate and abstract the reactive power and harmonic content of load current, then send the PWM signal to internal IGBT and adjust the phase and amplitude of the output voltage on the AC side of the inverter or directly control the phase and amplitude of the current on the AC side of the inverter, so as to quickly absorb or emit the required reactive power and harmonic current, and realize the purpose of fast dynamic adjustment of reactive power and harmonic compensation. Not only the reactive current of the load, but also the harmonic current can be tracked and compensated.

ASVG Compensates capacitive reactive power and harmonics



ASVG Compensates inductive reactive power and harmonics

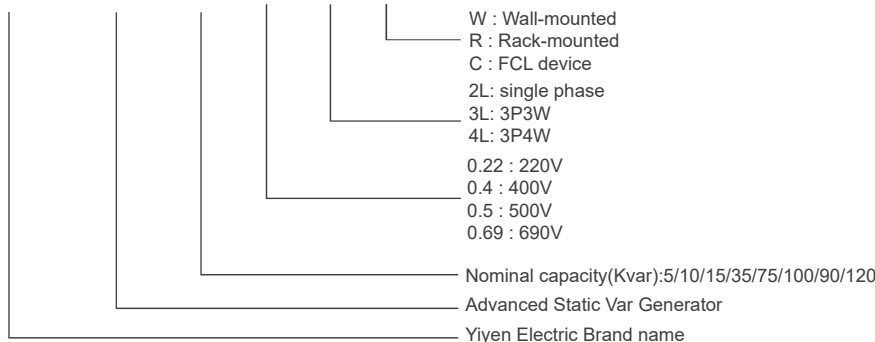


• Technical Specifications

Technical Specification	220V Series	220V Series	400V Series	500V Series	690V Series
Rated Compensation Capacity	5KVar	10kvar/20kvar/ 30kvar/45kvar/ 60kvar	10KVar/15KVar/ 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%				
Grid Structure	Single phase	3 phase 3 wire/3 phase 4 wire			
Number of parallel	No limitation. A single centralized monitoring module can be equipped with up to 8 power modules.				
Machine Efficiency	>97%				
Switching Efficiency	32kHz	16kHz	16kHz	12.8kHz	12.8kHz
Function	Reactive / Reactive and Harmonic	Reactive / Reactive and harmonic / Reactive and imbalance (optional)			
Reactive Power Compensation Rate	>99%				
Harmonic Compensation Capacity	70%SOC				
Harmonic Compensation Times	2-13 times				
Response Time	<10ms				
Noise	<50dB	<65dB	<60dB	<65dB	
Communication Method	Two-channel RS485 communication interface (support GPRS/WIFI wireless communication)				
Monitoring Method	4.3 inch LCD small-sized screen / 7 inch LCD centralized monitoring screen				
Protection	Over load protection, hardware/software over current protection, over grid power protection /under grid power protection, grid power voltage imbalance protection, power failure protection, over temperature protection, frequency anomaly protection, short circuit protection, etc				
Altitude	≤2000Meters		≤2000Meters	≤2000Meters	≤2000Meters
Ambient Temperature	-20~+50 C		-20~+50 C	-20~+50 C	-20~+50 C
Relative Humidity	<90% ,The average monthly minimum temperature is 25°C without condensation on the surface				
Pollution Level	Below level III				
Installation	Rack/Wall-mounted				
Wiring Patter	Back entry (rack-mounted type) Top entry (wall-ounted type)				
Protection Grade	IP20				
Color	White				

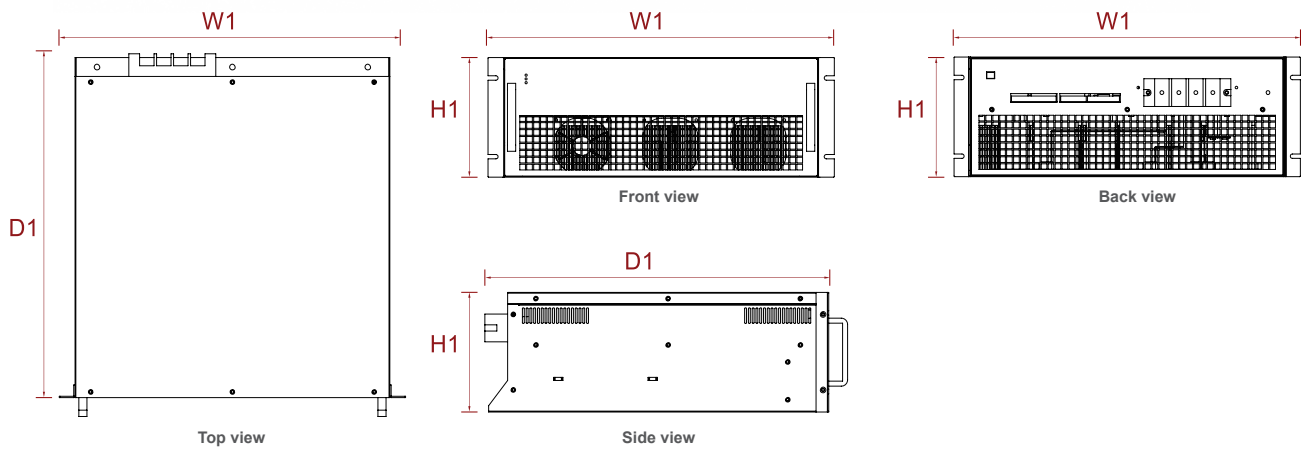
• Type Code

YIY ASVG - 35 - 0.4 - 4L -W



• Product Dimensions

Rack-Mount



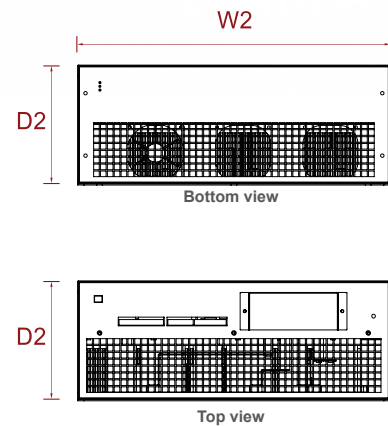
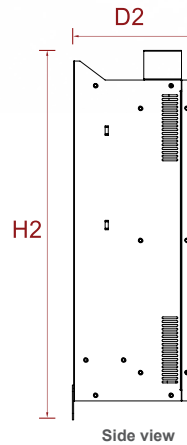
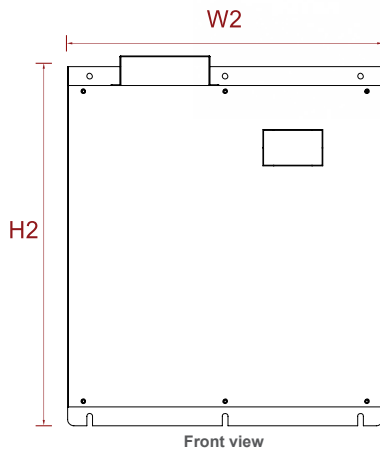
• Models

Model	Capacity	System Voltage	Size(W1*D1*H1)(mm)	Cooling Mode
YIY ASVG-5-0.22-2L-R	5Kvar	220V(-20%~+15%)	250*355*161	Forced air cooling
YIY ASVG-10-0.4-4L-R	10Kvar	400V(-40%~+15%)	550*520*89	Forced air cooling
YIY ASVG-15-0.4-4L-R	15Kvar	400V(-40%~+15%)	550*520*89	Forced air cooling
YIY ASVG-35-0.4-4L-R	35Kvar	400V(-40%~+15%)	550*520*89	Forced air cooling
YIY ASVG-50-0.4-4L-R	50Kvar	400V(-40%~+15%)	550*540*190	Forced air cooling
YIY ASVG-75-0.4-4L-R	75Kvar	400V(-40%~+15%)	550*580*240	Forced air cooling
YIY ASVG-100-0.4-4L-R	100Kvar	400V(-40%~+15%)	550*580*240	Forced air cooling
YIY ASVG-90-0.5-4L-R	90Kvar	500V(-20%~+15%)	539*711*275	Forced air cooling
YIY ASVG-100-0.69-4L-R	100Kvar	690V(-20%~+15%)	539*711*275	Forced air cooling
YIY ASVG-120-0.69-4L-R	120Kvar	690V(-20%~+15%)	539*711*275	Forced air cooling

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

• Product Dimensions

Wall-Mounted



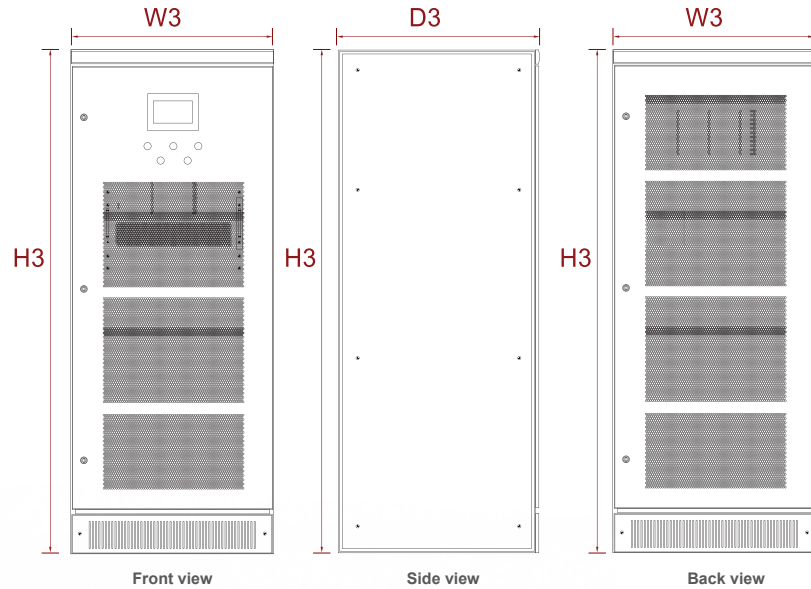
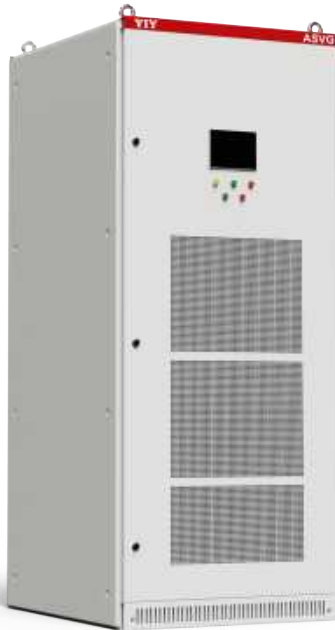
• Models

Model	Capacity	System Voltage	Size(W2*D2*H2)(mm)	Cooling Mode
YIY ASVG-5-0.22-2L-W	5Kvar	220V(-20%~+15%)	250*161*351	Forced air cooling
YIY ASVG-10-0.4-4L-W	10Kvar	400V(-40%~+15%)	460*89*557	Forced air cooling
YIY ASVG-15-0.4-4L-W	15Kvar	400V(-40%~+15%)	460*89*557	Forced air cooling
YIY ASVG-35-0.4-4L-W	35Kvar	400V(-40%~+15%)	460*89*557	Forced air cooling
YIY ASVG-50-0.4-4L-W	50Kvar	400V(-40%~+15%)	500*190*587	Forced air cooling
YIY ASVG-75-0.4-4L-W	75Kvar	400V(-40%~+15%)	500*240*627	Forced air cooling
YIY ASVG-100-0.4-4L-W	100Kvar	400V(-40%~+15%)	500*240*627	Forced air cooling
YIY ASVG-90-0.5-4L-W	90Kvar	500V(-20%~+15%)	495*275*735	Forced air cooling
YIY ASVG-100-0.69-4L-W	100Kvar	690V(-20%~+15%)	495*275*735	Forced air cooling
YIY ASVG-120-0.69-4L-W	120Kvar	690V(-20%~+15%)	495*275*735	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)(mm)	Cooling Mode
YIY ASVG-50-0.4-4L-C	50Kvar	400V(-40%~+15%)	800*1000*2200(Cabinet 1) 800*1000*1600(Cabinet 2) optional	Forced air cooling
YIY ASVG-100-0.4-4L-C	100Kvar	400V(-40%~+15%)	800*1000*2200(Cabinet 1) 800*1000*1600(Cabinet 2) optional	Forced air cooling
YIY ASVG-200-0.4-4L-C	200Kvar	400V(-40%~+15%)	800*1000*2200(Cabinet 1) 800*1000*1600(Cabinet 2) optional	Forced air cooling
YIY ASVG-250-0.4-4L-C	250Kvar	400V(-40%~+15%)	800*1000*2200(Cabinet 1) 800*1000*1600(Cabinet 2) optional	Forced air cooling
YIY ASVG-300-0.4-4L-C	300Kvar	400V(-40%~+15%)	800*1000*2200(Cabinet 1) 800*1000*1600(Cabinet 2) optional	Forced air cooling
YIY ASVG-400-0.4-4L-C	400Kvar	400V(-40%~+15%)	800*1000*2200(Cabinet 1) 800*1000*1600(Cabinet 2) optional	Forced air cooling
YIY ASVG-270-0.5-4L-C	270Kvar	500V(-20%~+15%)	800*1000*2200(Cabinet 1)	Forced air cooling
YIY ASVG-360-0.69-4L-C	360Kvar	690V(-20%~+15%)	800*1000*2200(Cabinet 1)	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.