

# ASVG

## Advanced Static Var Generator

Reactive Power Compensation, Harmonic Control, Three Phase Balance



**Advanced Static Var Generator (ASVG)** is a new type of dynamic reactive power compensation product, combining power factor correction harmonic mitigation and three phase balance 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.

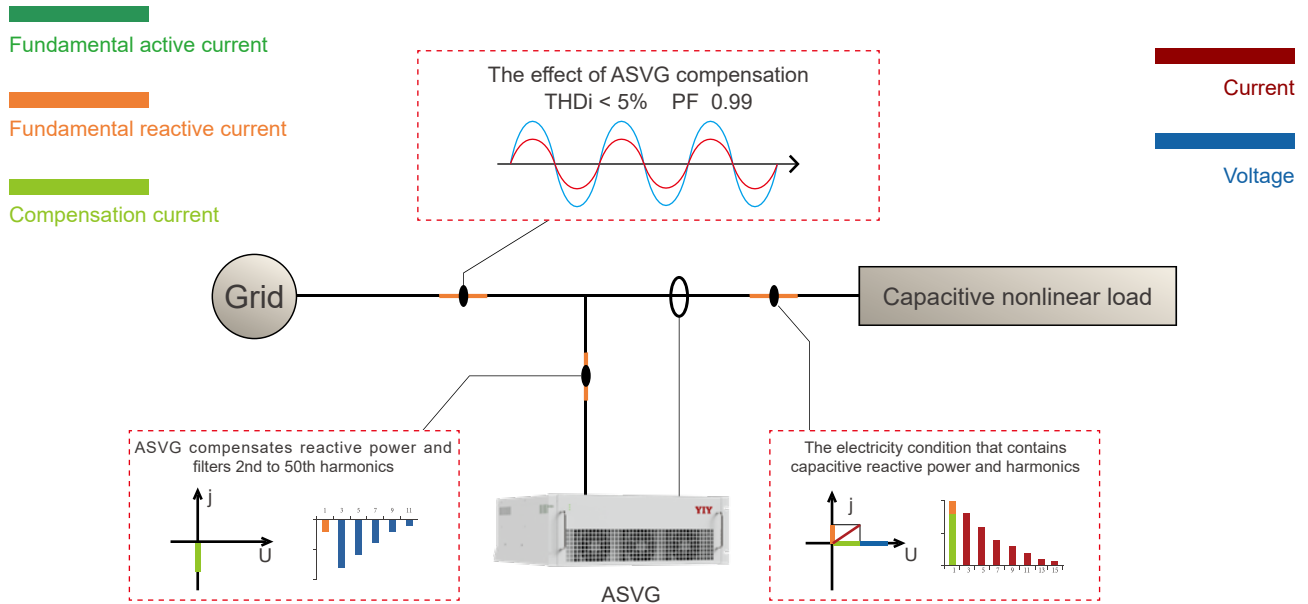
### • Product Features

- Reactive power compensation:  $\cos \varphi = 1.00$
- Capacitive and Inductive compensation: -1 to +1
- All the features and benefits of the SVG.
- Mitigation of 2nd to 50th harmonic mitigation.
- 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.

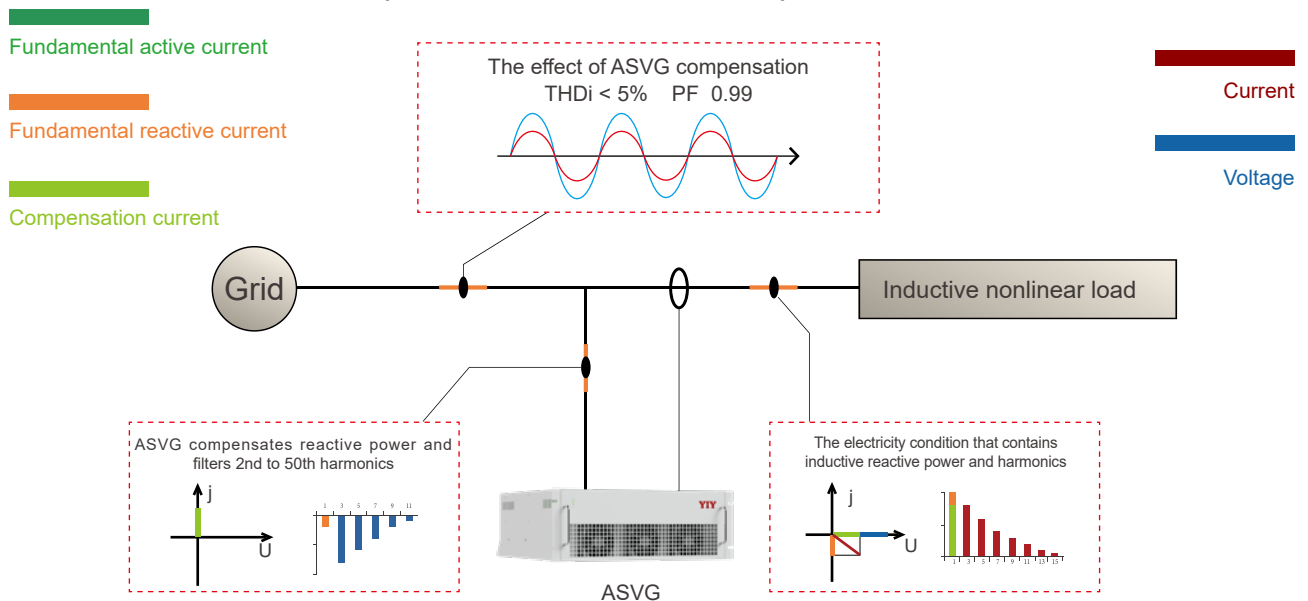
## • Working Principle

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

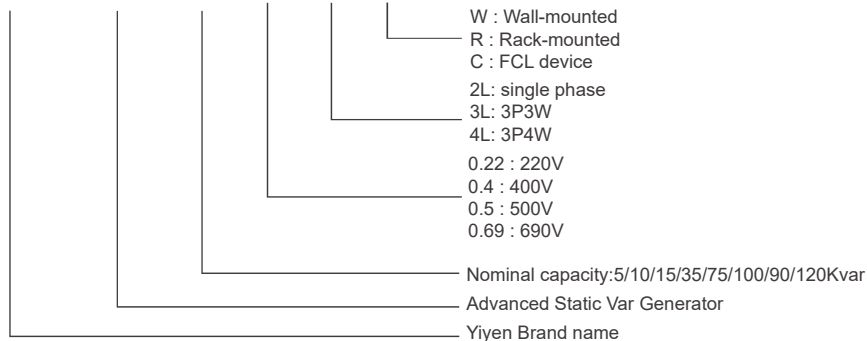


## • Technical Specifications

Technical Specification	220V Series		220V Series	400V Series	500V Series	690V Series
Rated Compensation Capacity	5KVar	3KVar/5KVar/7KVar/ 10KVar/17KVar/25KVar/ 37KVar/50KVar		5KVar/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%					
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	2nd to 50th 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					
Ambient Temperature	-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					

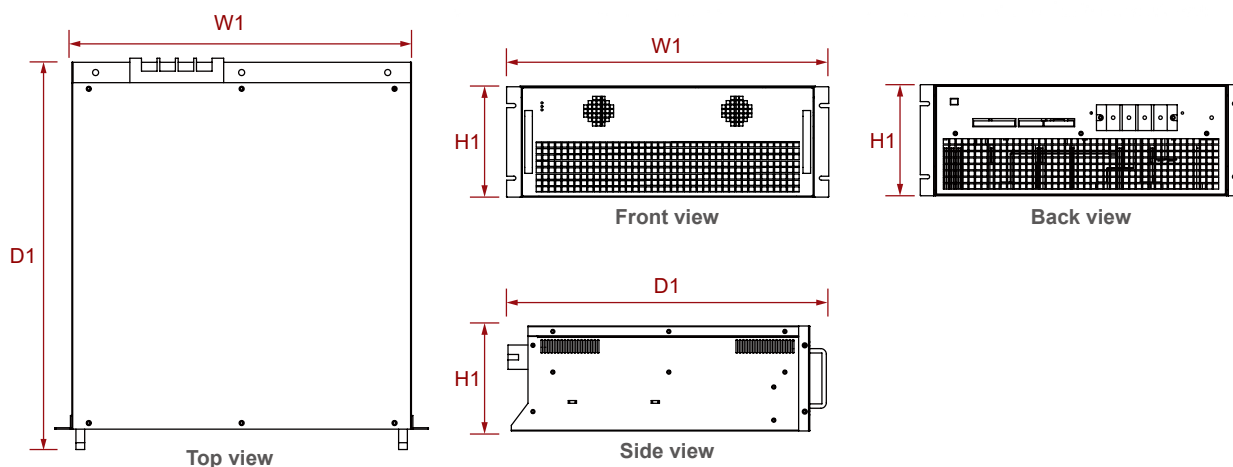
## • Type Code

YIY ASVG - 35 - 0.4 - 4L -W



### • Product Dimensions

#### Rack-Mount



### • Models

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

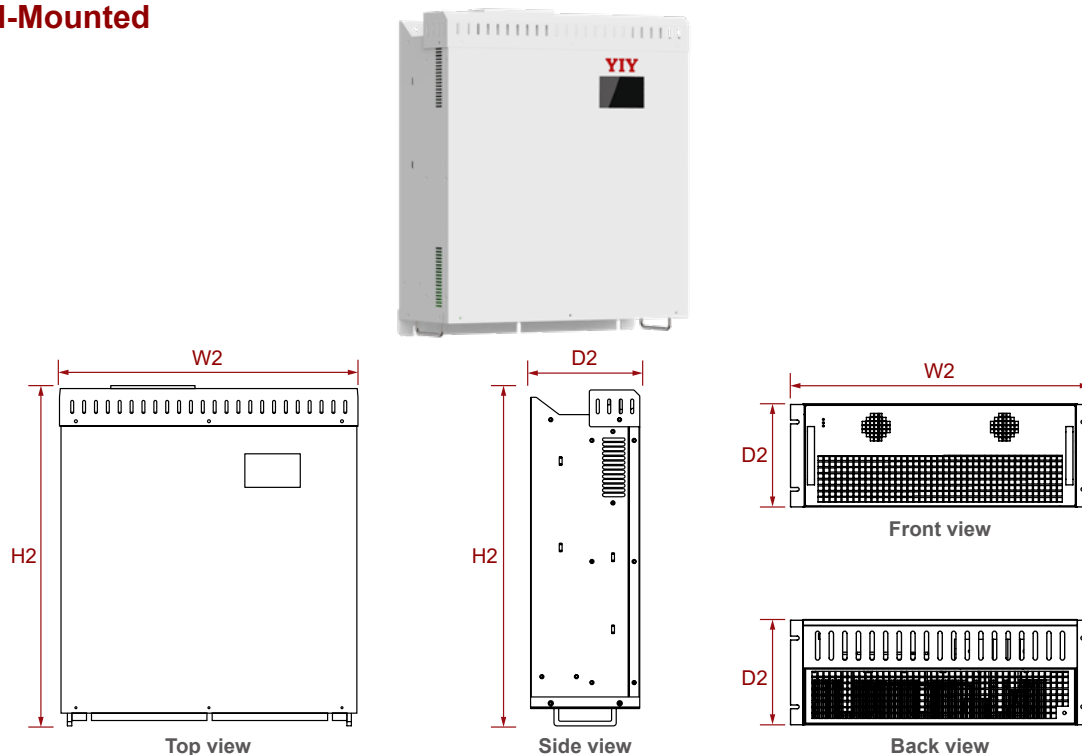
  

Model	Capacity	System Voltage	Size( $W1 \times D1 \times H1$ )	Cooling Mode
YIY ASVG-3-0.22-4L-R	3Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-5-0.22-4L-R	5Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-7-0.22-4L-R	7Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-10-0.22-4L-R	10Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-17-0.22-4L-R	17Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-25-0.22-4L-R	25Kvar	220V	550*584*190mm	Forced air cooling
YIY ASVG-37-0.22-4L-R	37Kvar	220V	550*624*240mm	Forced air cooling
YIY ASVG-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

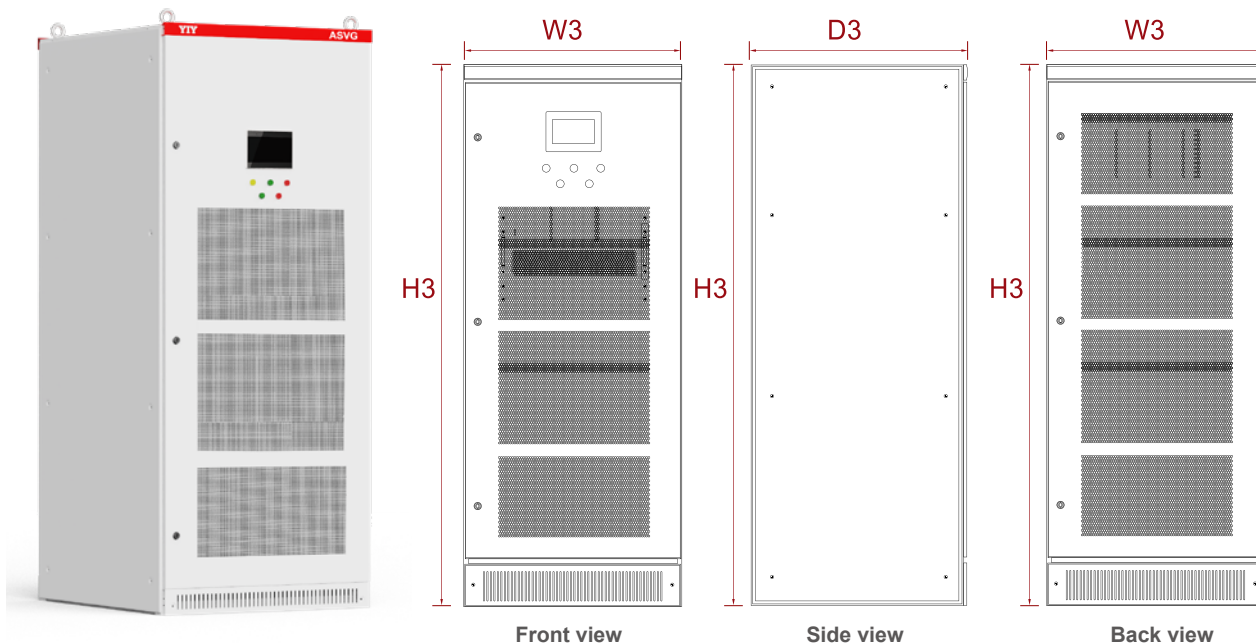
Model	Capacity	System Voltage	Size(W2*D2*H2)	Cooling Mode
YIY ASVG-5-0.22-2L-W	5Kvar	220V	220*167*375mm	Forced air cooling
YIY ASVG-5-0.4-4L-W	5Kvar	400V	500*89*535mm	Forced air cooling
YIY ASVG-10-0.4-4L-W	10Kvar	400V	500*89*535mm	Forced air cooling
YIY ASVG-15-0.4-4L-W	15Kvar	400V	500*89*535mm	Forced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

Model	Capacity	System Voltage	Size(W1*D1*H1)	Cooling Mode
YIY ASVG-3-0.22-4L-W	3Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-5-0.22-4L-W	5Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-7-0.22-4L-W	7Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-10-0.22-4L-W	10Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-17-0.22-4L-W	17Kvar	220V	500*535*89mm	Forced air cooling
YIY ASVG-25-0.22-4L-W	25Kvar	220V	550*584*190mm	Forced air cooling
YIY ASVG-37-0.22-4L-W	37Kvar	220V	550*624*240mm	Forced air cooling
YIY ASVG-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 ASVG-50-0.4-4L-C	50Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY ASVG-100-0.4-4L-C	100Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY ASVG-200-0.4-4L-C	200Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY ASVG-250-0.4-4L-C	250Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY ASVG-300-0.4-4L-C	300Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY ASVG-400-0.4-4L-C	400Kvar	400V	800*1000*2200mm 800*1000*1600mm optional	Forced air cooling
YIY ASVG-270-0.5-4L-C	270Kvar	500V	800*1000*2200mm	Forced air cooling
YIY ASVG-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.