

## ADVANCED STATIC VAR GENERATOR (ASVG)

Advanced Static Var Generator (ASVG) is a hybrid IGBT based device connected in parallel with a non-linear load that requires harmonic mitigation as well as power factor correction.

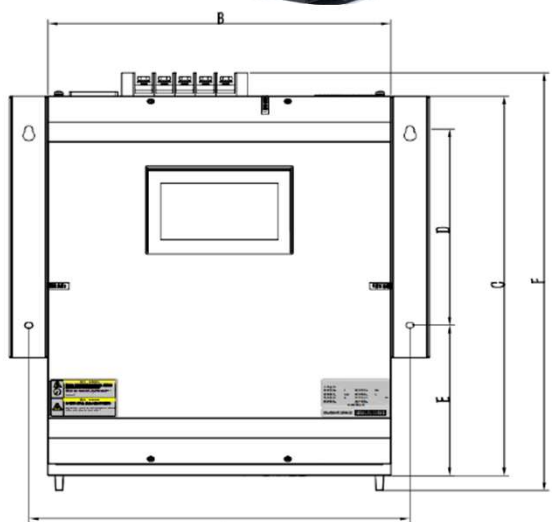
ASVG works by injecting compensating harmonic currents by generating an equal compensation current for each selected harmonic order 180° phase shifted to the incident harmonic. It also monitors the power factor and injects required reactive currents. The result in simultaneous power factor & harmonics correction.

### PRODUCT INFORMATION - ELCO SYSTEMS - ADVANCED STATIC VAR GENERATOR (ASVG)

System Parameter	17kvar + 25A	26kvar + 37.5A	34kvar + 50A	52kvar + 75A
Rated Voltage	400V/415V ±15%			
Frequency	50 Hz -10% +20%			
Parallel	Max 15 for 7'HMI			
Efficiency	Up to 98%			
Wiring	3P4W + PE			
Inverter topology	3-level IGBT Inverter with PWM			
Protection Functions	Over or under -voltage/grid voltage unbalance, over or under-current/over or under-temperature/voltage abnormality/ over or underfrequency, pre-charge fault, IGBT overheat, sequence fault and CT fault			
Heat Loss	< 2.5%			
CT	100/5 ~ 10000/5			
MTBF	Up to 100,000 hours			
Switching Frequency	20kHz			
Unbalanced current compensation	Negative sequence/zero sequence			
Cable Entry	Rear of Module			
Harmonic compensation capacity	≤ 50% of rated [minimum]			
Overcurrent	Up to 120%			
Alarm record	Available			
Cooling Direction	Front Entry			
Performance				
Instantaneous response time	<0.05 ms			
Full Response Time	< 5 ms			
Target Power Factor	1.0 or as setting			
Cooling Mode	Fan cooling			
Noise	≤ 55db			
Fixing Type	Drawer and Wall Mounted Type			
Drawer Type Size (WxHxD)	450 x 88 x 580	450 x 110 x 580	450 x 160 x 580	450 x 192 x 580
Net Weight	18kg	21kg	30kg	38kg
Environment Condition				
Altitude	≤1000m			
Operating Temperature	-10°C~+50°C			
Relative Humidity	5%~95% without condensation			
Communication Function				
RS485 Communication	RS485 parallel communication connection			
Module Display	64.5mm*13.8mm LCD screen			
HMI Monitoring Screen	7-inch LCD touch screen (155mm x 88mm) - with IP65 Display with USB Port for export data			
	Display Function - % working of SVG that compensate to system and internal temperature, Voltage, Current, THDv, THDi, Harmonic Spectrum, Power Factor, Active Power, Reactive Power, Apparent Power in grid and load side.			
	Control Fuction - Current Compensation, Current Vectors, Compensation Priority, change limit temperature of internal IGBT.			
Standards and Certifications				
Electrical Safety	Low Voltage Directive 2014/35/EU, EN 62477-1:2012+A11:2014+A1:2017, EIT022001			
Electromagnetic Compatibility	IEC 61000-3-2 : 2019, IEC 61000-3-3 : 2019, IEC 61000-6-1:2019, IEC 61000-6-3 : 2007/A1:2011 IEC 61000-4-2 , IEC 61000-4-3, IEC 61000-4-4 , IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-11, 2014/30/EU, G 5/4-1, BS EN 61000-6-4, BS EN 61000-6-2			
Third Party Approvals	CE Certificate, CQC, Type Test Report , ISO9001 Certificate			

### FEATURES

- Protection of loads and equipment from waveform distortions, voltage variations, harmonics mitigation, low power factor and load imbalance.
- Energy efficiency and savings: Lower energy losses and a higher efficiency of the system.
- Allows reduced production downtime.
- Increase lifetime of the electrical equipment.
- Real time compensation of current harmonics.
- Flexibility: Take care of individual disturbance patterns and automatically adapt to changing load conditions and sudden network load changes
- Simple dimensioning and installation.
- Default 50% Power Split but it is adjustable.
- Allows compliance to ER UK G5/4 Harmonics Standard

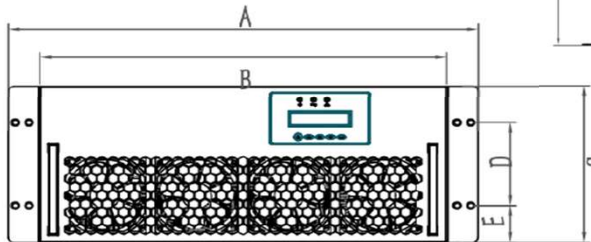


Wall Mounted Type (50A / 75A / 100A/ 150A)

### PRODUCT INFORMATION - ASVG

Product Code	Type	kvar	amp	Dimension (mm)							
				A	B	C	D	E	F	G	H
ASVGELCO0050400D	Drawer Type	17	25.0	520	450	88	50	19	450	580	643
ASVGELCO0075400D		26	37.5	520	450	110	72	19	450	580	643
ASVGELCO0100400D		34	50.0	520	450	160	70	45	450	580	639
ASVGELCO0150400D		52	75.0	520	450	192	102	45	450	580	639
ASVGELCO0050400W	Wall Mounted	17	25.0	500	450	580	300	230	643	63.5	88
ASVGELCO0075400W		26	37.5	500	450	580	300	230	643	85.5	130
ASVGELCO0100400W		34	50.0	500	450	580	300	230	639	123.5	190
ASVGELCO0150400W		52	75.0	500	450	580	300	230	639	148.5	222

### PRODUCT DIMENSION



Drawer Type

