

# Advanced Static Var Generator

## ASVG-100kVAR



### Features :

- Real time, dynamic step-less compensation
- Instant response time of 50  $\mu$ sec & full response in less than 1 cycle
- Capacitive (Leading) & Inductive (Lagging) reactive power mitigation
- Advance feature- Harmonic correction up to 15th order
- RS485, Optional Wi-Fi/Ethernet
- Modular Arrangement-Parallel operation up to 8 Module
- Can be installed with conventional capacitor banks

### Main

Product name	ASVG
Product or component type	Advanced Static Var Generator

### System Parameter

Line - Line Voltage	308V to 450V
Operating voltage range (P-N)	178V to 262V
Frequency	50 / 60 Hz ( $\pm 2.5$ Hz)
Power efficiency	>97%
Compensation efficiency	> 98%
Power grid structure	3P3W/3P4W
Incomer protection	External MCCB or ACB Mandatory
CT ratio	Settable through HMI up to 10000/5A
CT location	Load side (default)/ Grid side
Rated RMS Current	140A
Reactive power compensation and load balancing	As Per Priority & based on site (Q+B,Q+H)
Circuit topology	3 level IGBT Inverter Topology

### Performance

Response time	< 50 $\mu$ sec and full response less than 1 Cycle.
Target power factor	Adjustable from -1 to +1
Cooling mode	Forced air cooling
Operating modes	Power Factor Correction, Harmonic Mitigation, Load Balancing
Noise level	< 65 dB
Normal spectrum of compensation	Up to 15 <sup>th</sup> order of Harmonics
Harmonic mitigation	75A
Overall response time	< 5ms
Protection Functions	Over Current, Over Voltage, Over Temperature, IGBT Saturation, Grid Fault, Surge, DC Bus protection, EEPROM Fault, CT Detection fault

### Communications and Monitoring Capabilities

Local monitoring	4.3"HMI Display
Communication ports	RS485 (Default ), Ethernet & WiFi (Optional )
Communication protocols	MODBUS-RTU (Default ), MODBUS TCP-IP (Optional )
Software updates	Through RS485 port using Customised utility

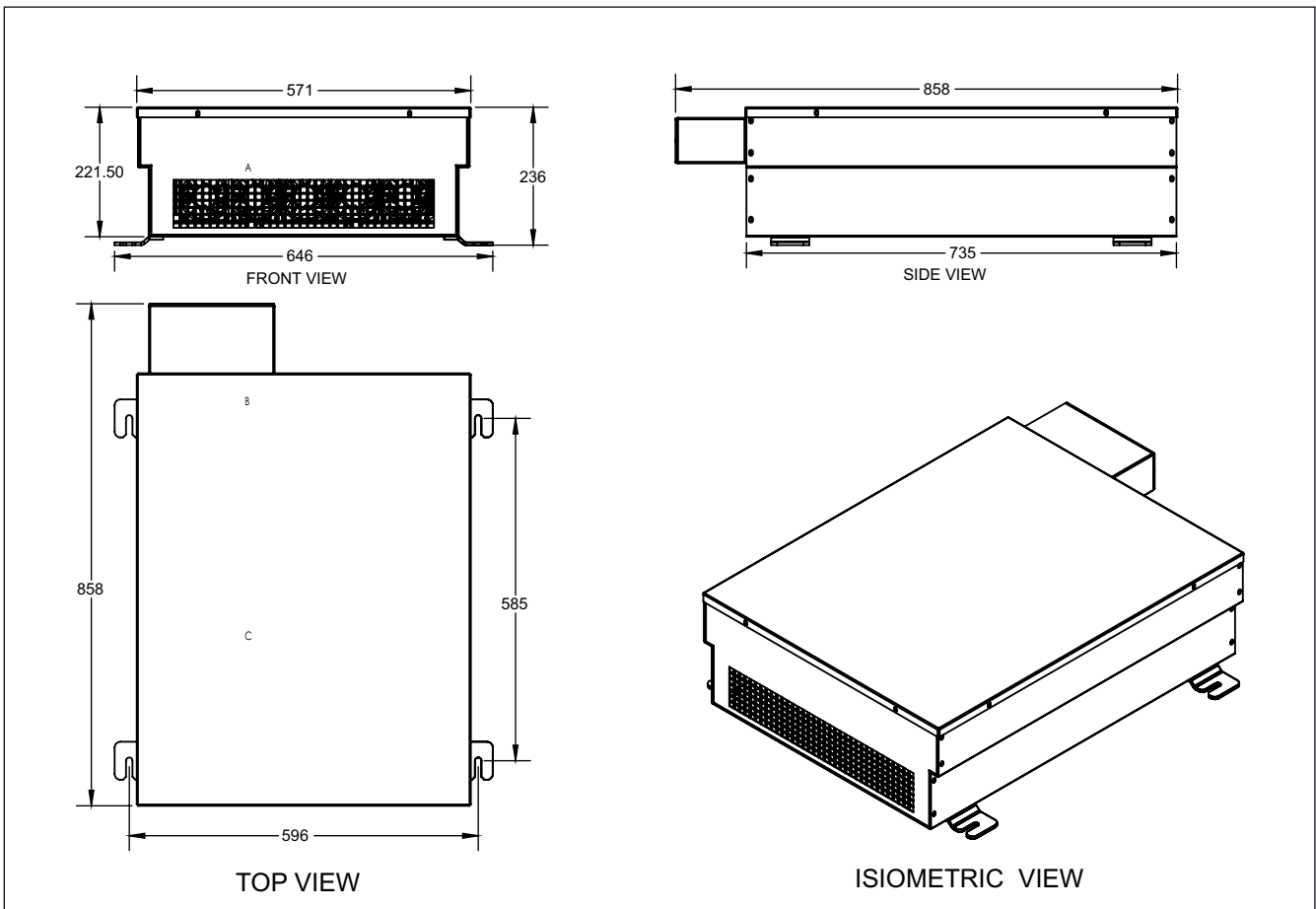
### Mechanical Properties

Mounting type	Wall/Rack Mount
Dimensions (W × D × H) mm	571*236*858
MCCB	200A
Colour	RAL7035

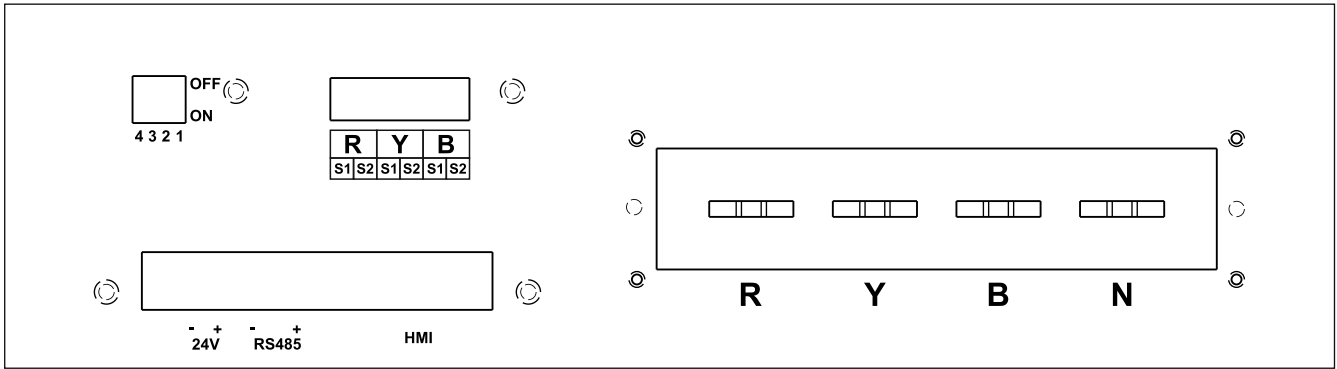
### Environment Conditions

Altitude	<2000m
Operating temperature	-10 to 45°C
Relative humidity	95% RH; Non condensing
Protection class	IP 20
Certification and standard	EN 50178:1997/ IEC 50178:1997
Certification	EN 61000_6_2(2005) / EN55011, GROUP1, CLASS A IEC 61000_6_2(1999) / CISPR11, GROUP1, CLASS A
ASVG Series performance requirement	EN 50091-3 / IEC 62040-3 / AS 62040-3 (VFI SS 111)

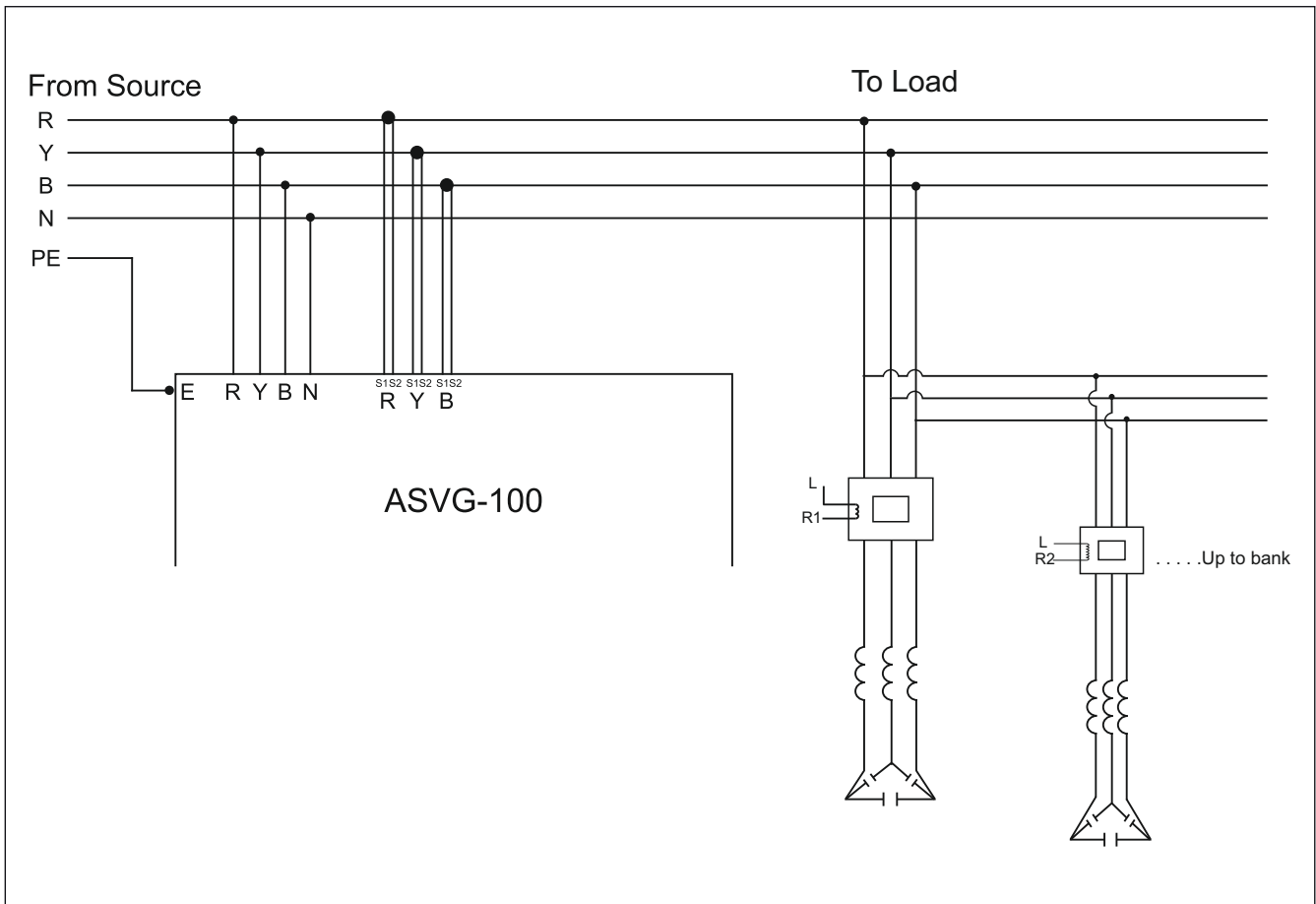
### Mechanical dimensions



Terminal diagram



Terminal connection



Ordering information

Ordering information	Description
ASVG-100-RCK-4P-04	Advance Static Var Generator 100kVAR, Rack mounted, 3P-4W with 4.3 inch HMI
ASVG-100-WLL-4P-04	Advance Static Var Generator 100kVAR, Wall mounted, 3P-4W with 4.3 inch HMI
ASVG-100-WLL-4P-XX	Advance Static Var Generator 100kVAR, Wall mounted, 3P-4W without display

**Note :** For XX Model separate common controller is mandatory

**Selec Controls Pvt. Ltd.**

EL-27/1, Electronic Zone, TTC Industrial Area, MIDC,  
Mahape, Navi Mumbai 400 710, INDIA  
Tel.: +91-22-4141 8468 / 452. Email: sales@selec.com

**Selec Subsidiaries:**  
**Selec USA:** www.selec.com/us/en  
**Selec GmbH:** www.selec-europe.com  
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