# Advanced Static Var Generator

# ASVG-50kVAr




## Features:

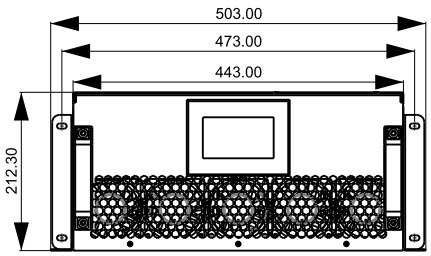
- Real time, dynamic step-less compensation
- Instant response time of 50 µsec & full response within 1 cycle
- Capacitive (Leading) & Inductive (Lagging) reactive power mitigation
- Advance feature- Harmonic correction up to 15th order
- RS485, Optional Wi-Fi / Ethernet modular arrangement-parallel operation up to 8 module
- Can be installed with conventional capacitor banks

## Technical specifications

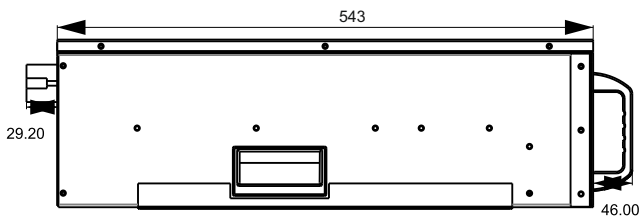
| | |
|---|---|
| **Main** | |
| Product name | ASVG |
| Product or component type | Advanced static var generator |
| **System Parameter** | |
| Network configuration | 3P-3W / 3P-4W |
| Line - Line voltage | 308V to 460V |
| Operating voltage range (P-N) | 178V to 265V |
| Frequency | 50/60 Hz (±2.5 Hz) |
| Power efficiency | >97% |
| Compensation efficiency | >98% |
| Incomer protection | External short circuit protection device mandatory |
| CT Ratio | Settable through HMI up to 30000/5A |
| CT Location | Load side (Default) / Grid side |
| Rated RMS Current | 70A |
| Reactive power compensation and load balancing | As per priority & based on site (Q+H+B, H+Q+B) |
| Inverter topology | Three level neutral point clamped |
| **Performance** | |
| Response time | < 50µsec and full response within 1 cycle |
| Overall response time | <5ms |
| Target power factor | Adjustable from -1 to +1 |
| Cooling | Forced air cooling,188L / Sec |
| Operating modes | Power factor correction, Harmonic mitigation, Load balancing |
| Noise level | <65dB |
| Normal spectrum of compensation | Up to 15th order of harmonics |
| Harmonic mitigation | 35A |
| Protection type | Built in semi conductor fuse |
| Protection function | Over-voltage protection, Under-voltage protection, IGBT desaturation protection, over temperature protection desaturation , over-current protection |
| **Communications and monitoring capabilities** | |
| Local monitoring | 4.3" HMI display |
| Digital Inputs | 1 DI - Programmable for DG input |
| Digital outputs | 2 DO - Programmable for alarms |
| Communication ports | RS485 (default) |
| Communication protocols | MODBUS-RTU (default) |
| Software updates | Through RS485 port using customised utility |

| Mechanical properties | |
|---|---|
| Mounting type | Wall / Rack mount |
| Dimensions (W × D × H) mm | 503*212*617 |
| MCCB | 100A |
| Colour | RAL9004 |
| **Environment conditions** | |
| Altitude | <2000m |
| Operating temperature | -10 ºC to 45 ºC |
| Relative humidity | 95% RH; Non condensing |
| Protection class | IP20 |
| 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) |

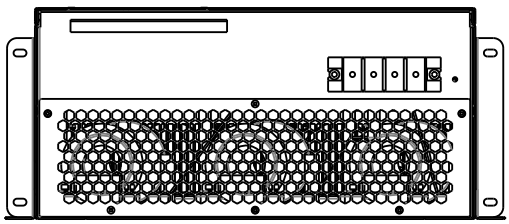
## Mechanical diamensions



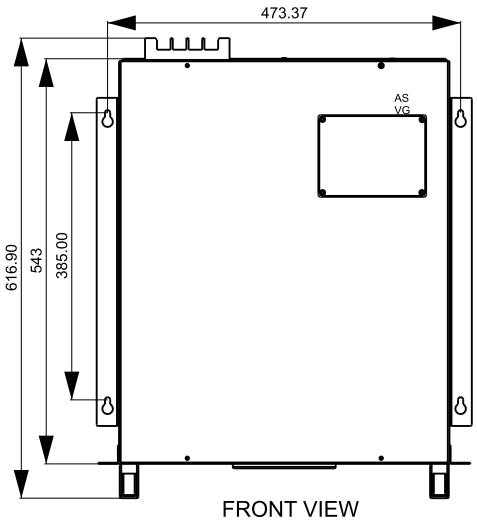

BOTTOM VIEW



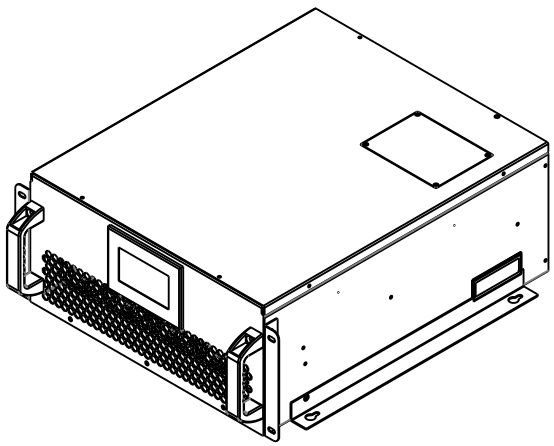

SIDE VIEW



TOP VIEW

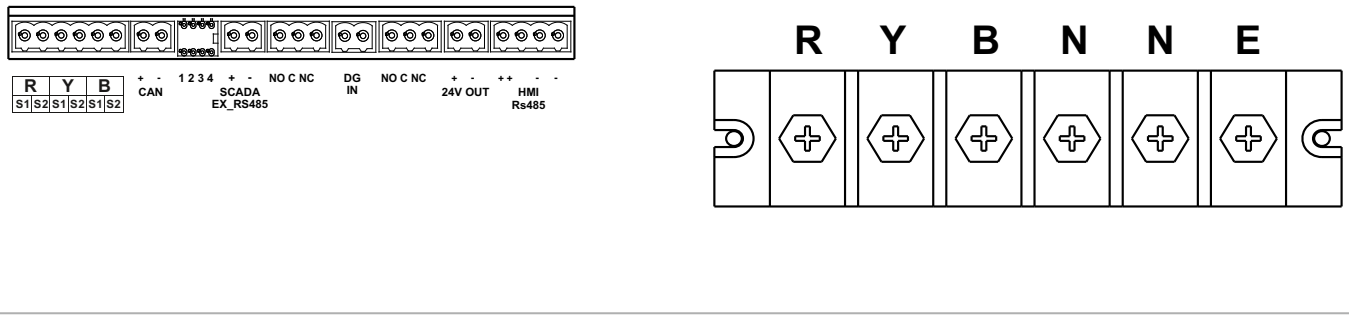



FRONT VIEW

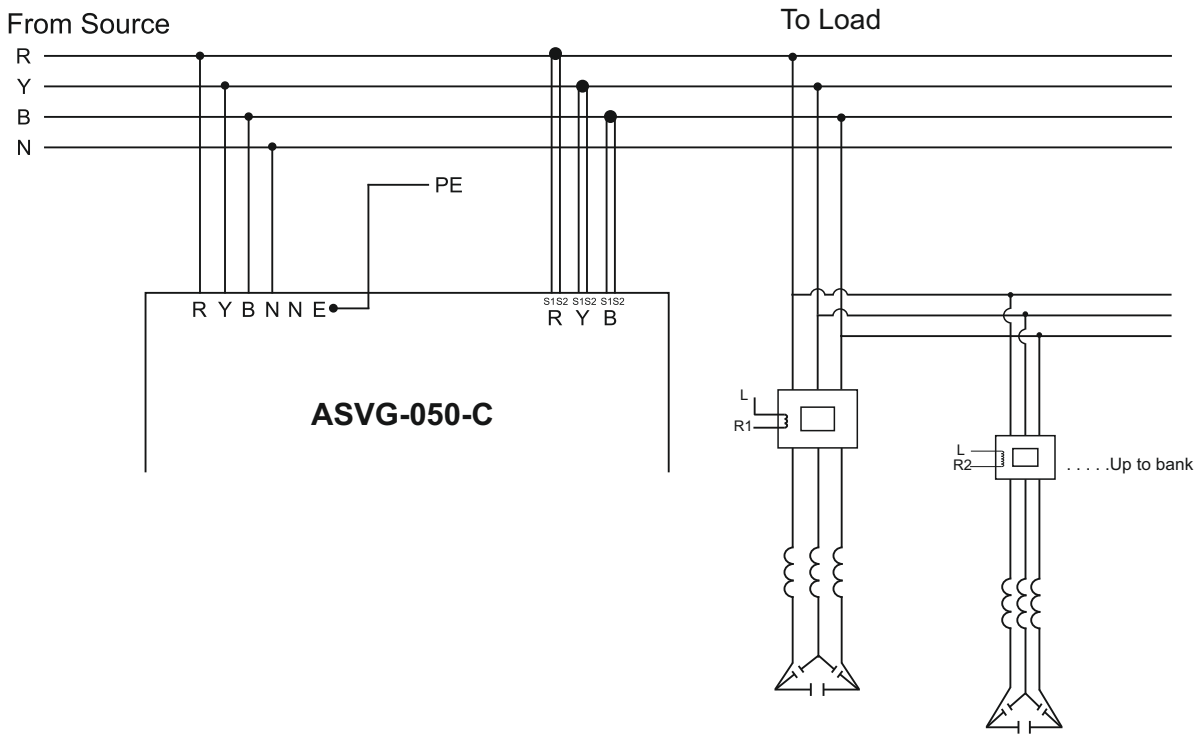


ISOMETRIC VIEW

## Terminal diagram




## Terminal connection




## Ordering information

| Product code | Description |
|---|---|
| **ASVG-050-RCK-4P-04-C** | Advance Static Var Generator 50kVAR C, Rack mounted, 3P-4W with 4.3 inch HMI |
| **ASVG-050-WLL-4P-04-C** | Advance Static Var Generator 50kVAR C, Wall mounted, 3P-4W with 4.3 inch HMI |
| **ASVG-050-WLL-4P-XX-C** | Advance Static Var Generator 50kVAR C, Wall mounted, 3P-4W without display |

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