ANSVG

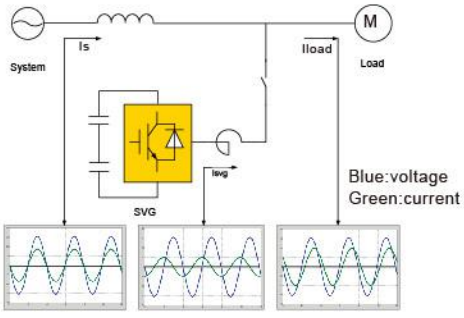




Principles of ANSVG

Static var generator is a new type of power electronics used to compensate for reactive power, harmonics, and regulation imbalances.

ANSVG is a kind of static var generator device which integrates an intelligent control system. The equipment is generally put into operation in the form of a complete machine which composed of multiple ANSVG modules to meet the actual requirements of compensating for the reactive power of a larger capacity. In addition, the device also has a 7-inch LCD screen that communicates with the module in real time via the RS485 protocol, enabling users to interact with the device. The schematic is shown as bellow.



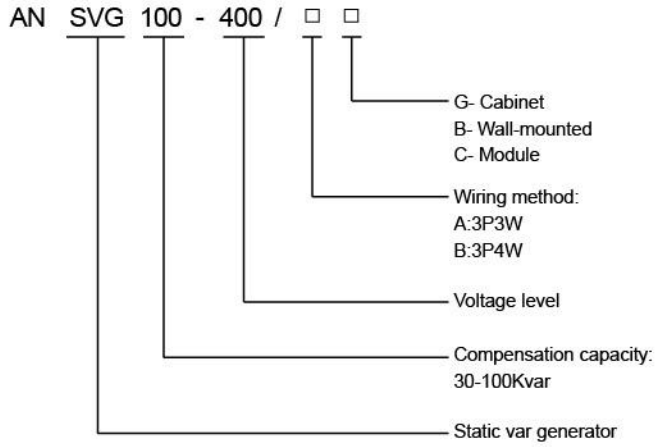
The schematic of ANSVG

Technical Parameter

Rated voltage	380V ±15%
Rated frequency	50Hz ±2%
Compensation method	Linear compensation
Response time	Full response time≤5ms，Instantaneous response time≤100μs
Switching frequency	20kHz
Compensation effect	≥0.99，Compensates for capacitive reactive and inductive reactiver
Self-loss	≤2%
Efficiency	≥98%
Total harmonic compensation rate	≥ 97%

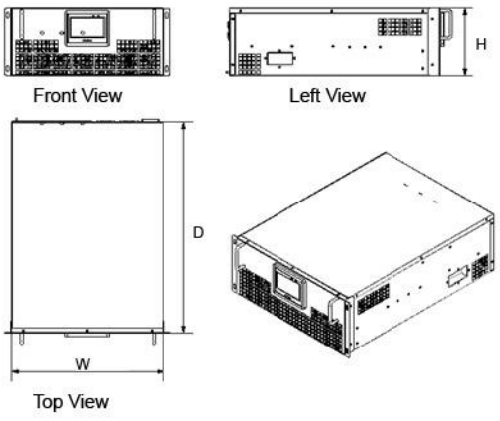
Cooling method	Forced air cooling
Noise	≤60dB
Operation temperature	-10℃～+45℃
Storage temperature	-25℃～+60℃
Relative humidity	≤95% (No condensation)
Altitude	≤1000m
Protection level	IP20
Communication	RS485(Modbus-RTU) or Ethernet(Modbus-TCP)
Module capacity	30kvar,50kvar,75kvar or 100kvar
Working mode	Automatic or manual
Overload protection	Automatic limit to rated current output

Model Description

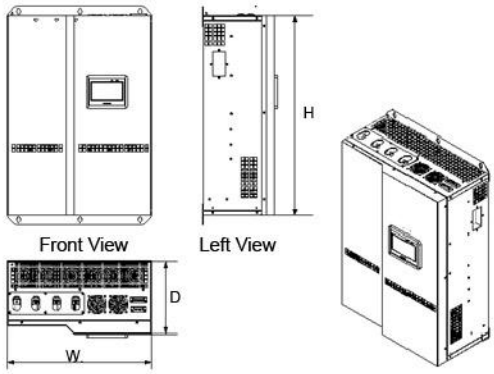


Structure and size

MODULE:



Wall-mounted:



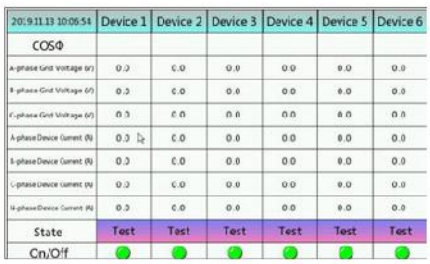
Capacity	Module size(W*D*H)(mm)	Weight(kg)
30Kvar	480*440*130	25
50Kvar	450*622*201	35
75Kvar	450*622*201	35
100Kvar	500*533*280	50

Capacity	Wall-mounted size(W*D*H)(mm)	Weight(kg)
30Kvar	480*130*440	25
50Kvar	450*201*622	35
75Kvar	450*201*622	35
100Kvar	500*280*533	50

LCD operation

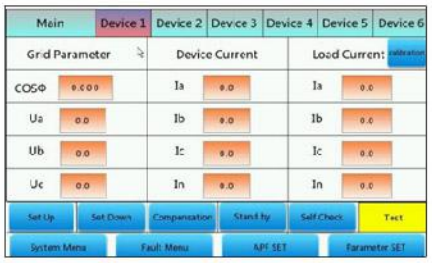
■ Main interface

The main interface is used to display the grid parameters of all modules. Besides that, the communication connection status of each module could be switched through the green button at the bottom, and the specific parameters and control interface of each module could be entered by clicking the device name at the top. The interface is shown as below.



■ System information interface

The system information interface is used to display the electrical parameters of each module and control the running state of them. The interface is shown as below.



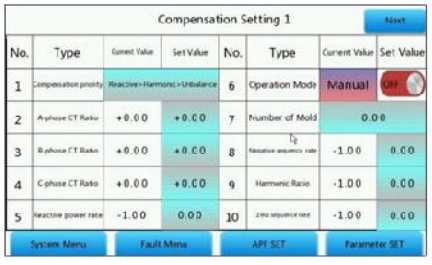
■ Fault information interface

The fault interface allows users to view the faults of every equipment and it also indicates the trigger time and recovery time for each fault. The interface is shown as below. The interface is shown as below.



■ Parameter setting interface

The parameter setting interface is used to set the parameters of every module. In addition, the compensation priority and the operation mode could also be switched on this interface. The interface is shown as below.



Wiring Diagram

