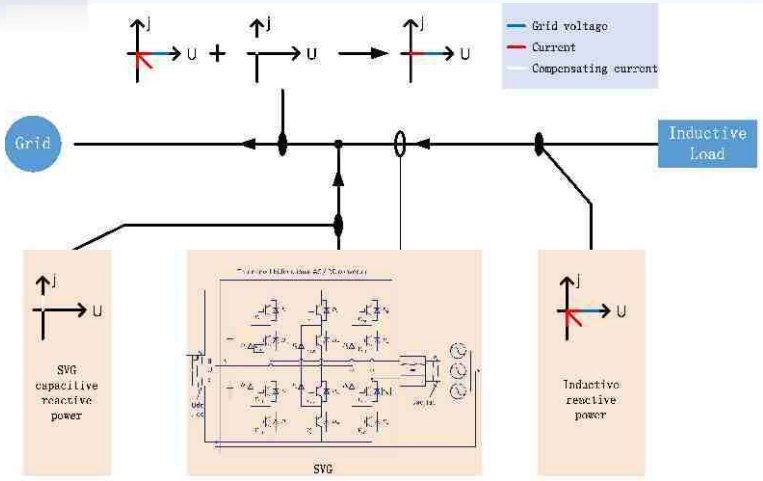
Low Voltage Static Var Generator Specification

1. Product overview

The Static Var Generator (SVG) is an advanced reactive power compensation device based on a power electronic converter. Its basic principle is to connect a voltage-source converter in parallel with the grid through an inductor, adjusting the phase and amplitude of the converter's AC-side output voltage to absorb or supply the required reactive current. This enables dynamic reactive power compensation and provides an optimal solution in the field of power quality management.



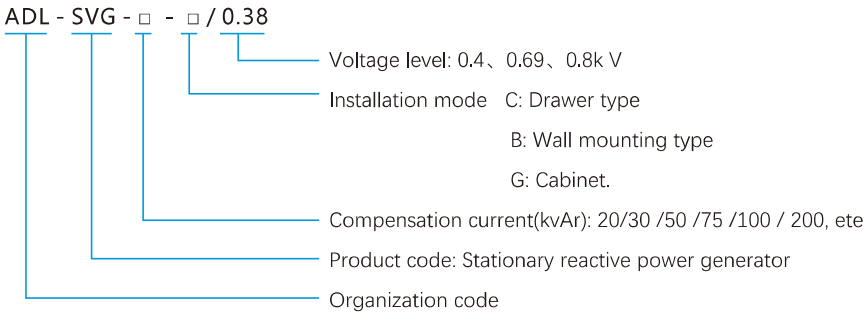
2. Features

- Theory: Use a DSP + CPLD fully digital control core, three-level topology technology, advanced reactive power detection algorithms, and PWM control strategies to achieve dynamic and precise reactive power compensation.
- Operating frequency: 50Hz.
- Power grid structure: three-phase three-wire, three-phase four-wire.
- External current sampling channel: Two current sampling channel.
- Operation Mode: Reactive power, Unbalance
- Compensation mode: Low voltage sampling low voltage compensation, High voltage sampling low voltage compensation, Reactive power component.
- Reactive power compensation: compensation rate>98%
- Full response time: <10ms
- Stability: Capacities for 100% current limiting output to ensure long-term stable operation of the equipment

3. Application

- Residential power distribution system
- Drainage and sewage treatment industry
- Distributed photovoltaic industry
- Mining and industrial enterprises
- Petrochemical industry
- Automobile manufacturing industry
- Data centers
- Hospitals
- Pharmaceutical manufacturing industry
- Semiconductor manufacturing industry

4. Model Definition

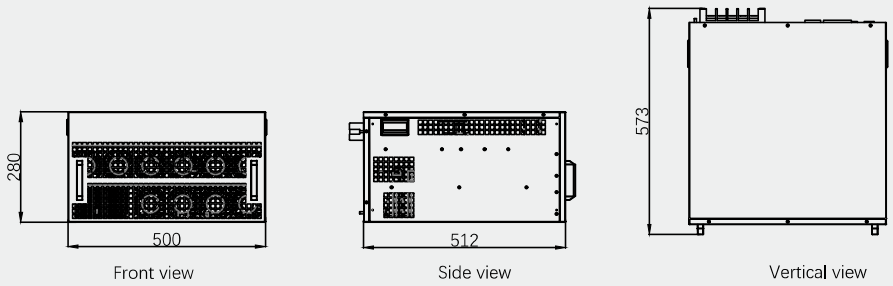


Module Model				
Models	Compensation Capacity (kvar)	System Voltage(V)	Dimensions Width*Depth*Height (mm)	Cooling System
ADL SVG-0.4-20k/4L-R	20	400	461*430*163	Forced air cooling
ADL SVG-0.4-30k/4L-R	30	400	461*430*163	Forced air cooling
ADL SVG-0.4-50k/4L-R	50	400	510*430*163	Forced air cooling
ADL SVG-0.4-75k/4L-R	75	400	643*496*213	Forced air cooling
ADL SVG-0.4-100K/4L-R	100	400	643*496*213	Forced air cooling
ADL SVG-0.4-150k/4L-R	150	400	573*500*280	Forced air cooling
ADL SVG-0.69-120k/4L-R	120	690	737*495*275	Forced air cooling
ADL SVG-0.80-140k/4L-R	140	800	737*495*275	Forced air cooling
ADL SVG-0.4-200k/4L-C	200	400	1000*1000*2200	Forced air cooling
ADL SVG-0.4-250k/4L-C	250	400	1000*1000*2200	Forced air cooling
ADL SVG-0.4-300k/4L-C	300	400	1000*1000*2200	Forced air cooling
ADL SVG-0.4-400k/4L-C	400	400	1000*1000*2200	Forced air cooling
ADL SVG-0.69-240k/4L-C	240	690	1000*1000*2200	Forced air cooling
ADL SVG-0.69-360k/4L-C	360	690	1000*1000*2200	Forced air cooling
ADL SVG-0.69-480k/4L-C	480	690	1000*1000*2200	Forced air cooling
ADL SVG-0.80-280k/4L-C	280	800	1000*1000*2200	Forced air cooling
ADL SVG-0.69-420k/4L-C	420	800	1000*1000*2200	Forced air cooling
ADL SVG-0.69-560k/4L-C	560	800	1000*1000*2200	Forced air cooling

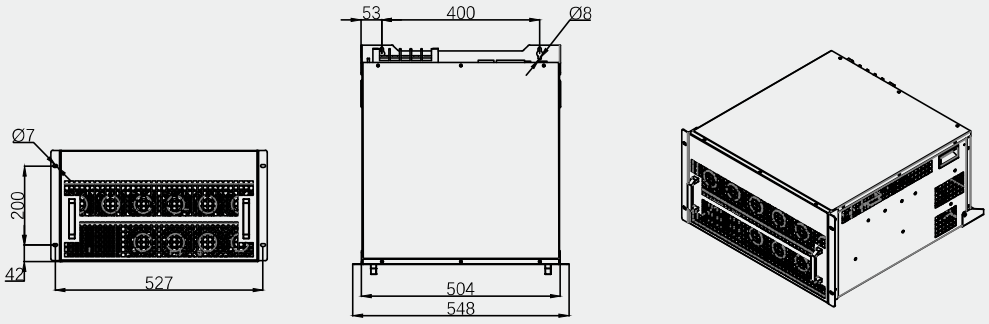
5. Technical Specification

	400V series	690V series	800V series
Altitude	< 2000m, Usage should be de-rated according to the international standard IEC 3859-2 for altitudes above 2000 meters.		
Ambient Temperature	-10~+50 ℃ (derated above 40 ℃)		
Relative Humidity	≤ 90%, monthly minimum temperature 25 ℃, no condensation on the surface		
Pollution Level	Below Level III		
Operating Voltage	AC400V （-20%~+20%）	AC690V (-20%~+20%)	AC800V （-20%~+15%）
Operating Frequency	50Hz		
Rated Compensation Capacity	30kvar, 50kvar, 75kvar, 100kvar,150 kvar	120 kvar	140kvar
Power Grid Structure	Three-Phase Three-Wire, Three-Phase Four-Wire		
Numbers in Parallel	Unlimited		
System Efficiency	≥97%		
Switching Frequency	16kHz	12.8kHz	
Function Selection	Reactive Power, Reactive Power + Unbalanced		
Full Response Time	<10ms		
Noise	≤65dB		
Communication	Rs485 Communication Port		
Protection	Overload, Software/Hardware Overcurrent, Grid Over/Under Voltage, Voltage Imbalance, Power Supply Fault, Overtemperature, Frequency Abnormality, Short Circuit Protection		
Installation	Rack-Mounted, Wall-Mounted	Rack-Mounted	
Entry Line Method	Rear Inlet		
Protection Level	Ip20		

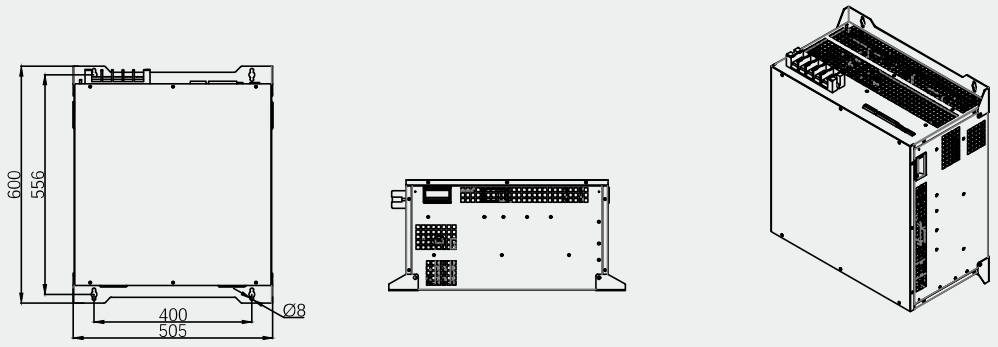
POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE



APF-200A、SVG-150Kvar Module Size

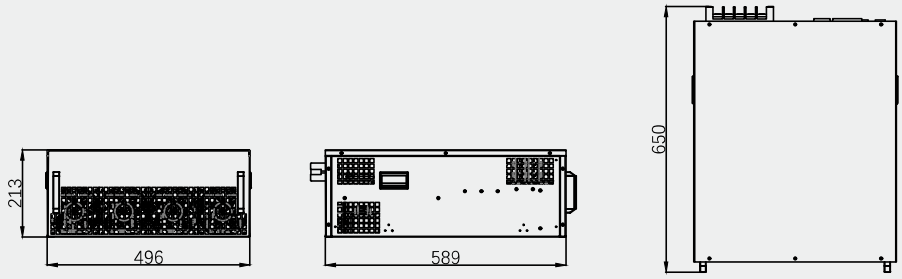


APF-200A、SVG-150Kvar Drawer style installation dimensions

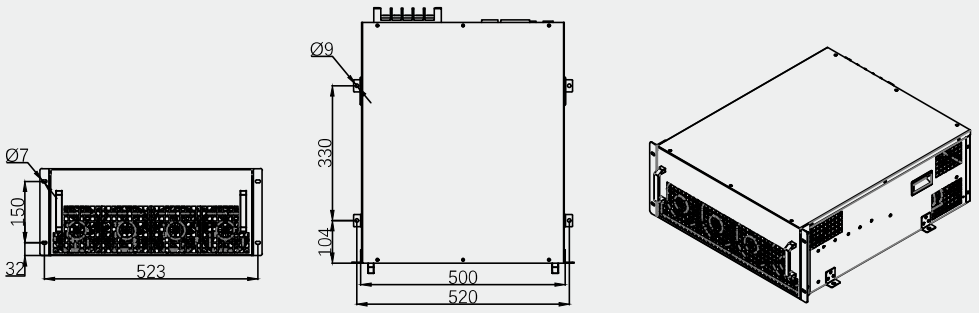


APF-200A、SVG-150Kvar Wall mounted installation size

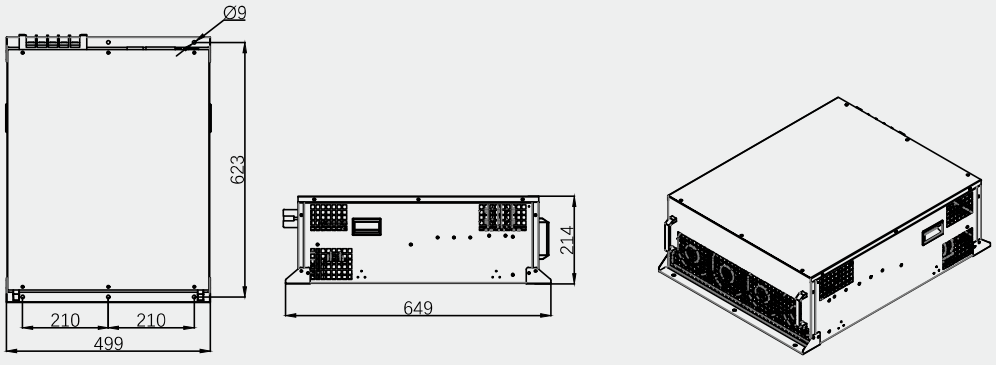
POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE



APF-150A、SVG-100Kvar Module Size

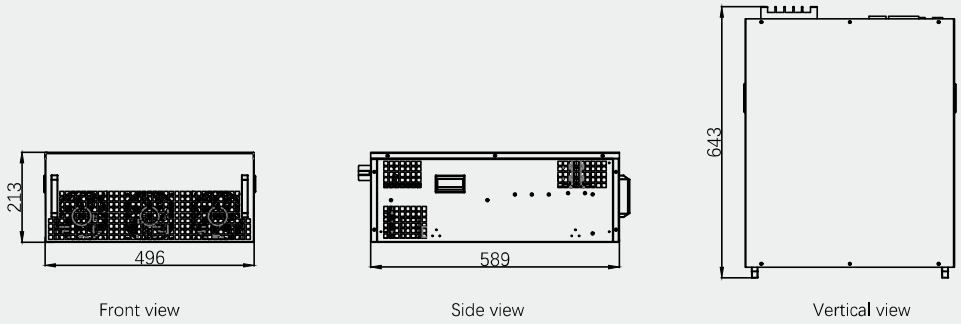


APF-150A、SVG-100Kvar Drawer style installation dimensions

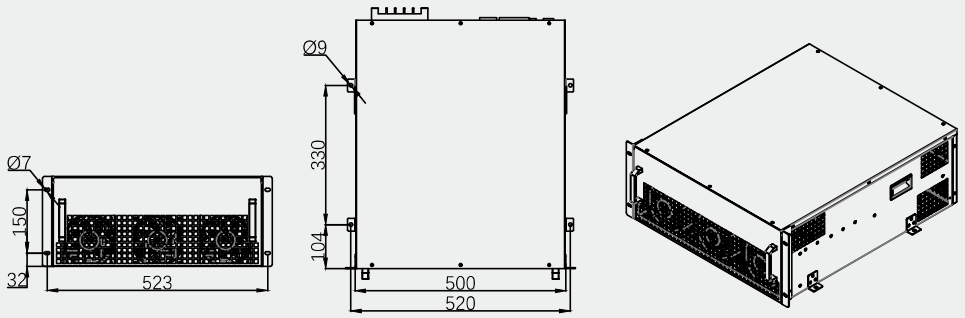


APF-150A、SVG-100Kvar Wall mounted installation size

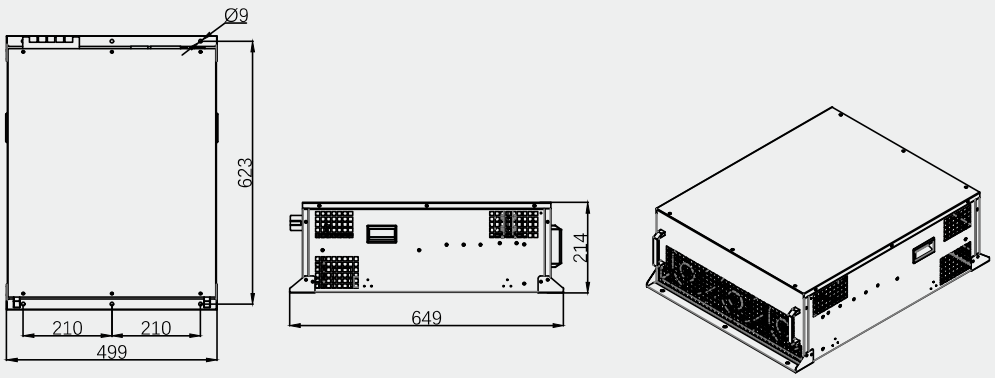
POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE



APF-120A、APF-100A、SVG-80Kvar、SVG-75Kvar Module Size

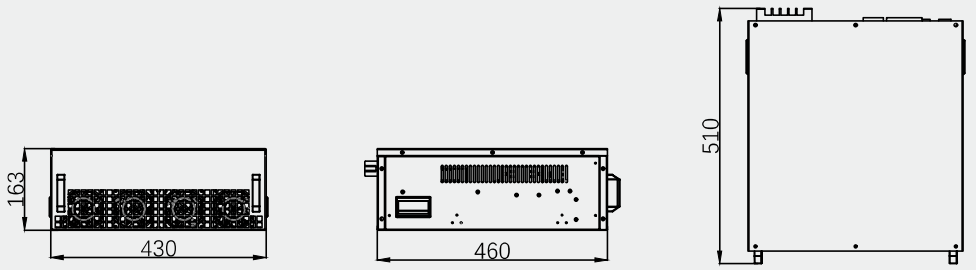


APF-120A、APF-100A、SVG-80Kvar、SVG-75Kvar Drawer style installation dimensions

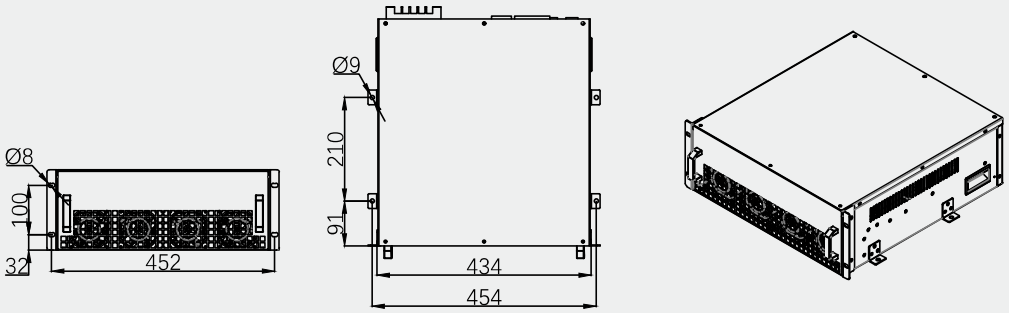


APF-120A、APF-100A、SVG-80Kvar、SVG-75Kvar Wall mounted installation size

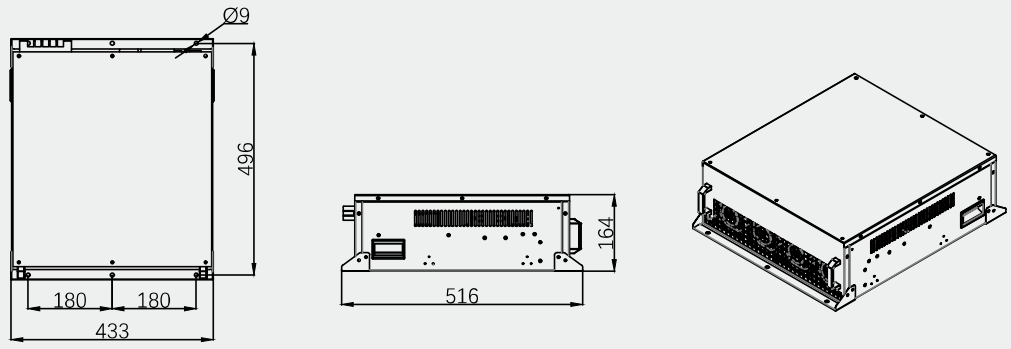
POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE



APF-75A、SVG-50Kvar Module Size

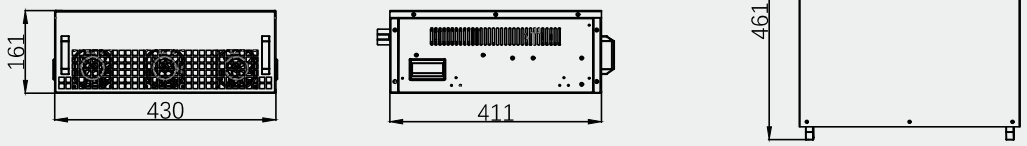


APF-75A、SVG-50Kvar Drawer style installation dimensions



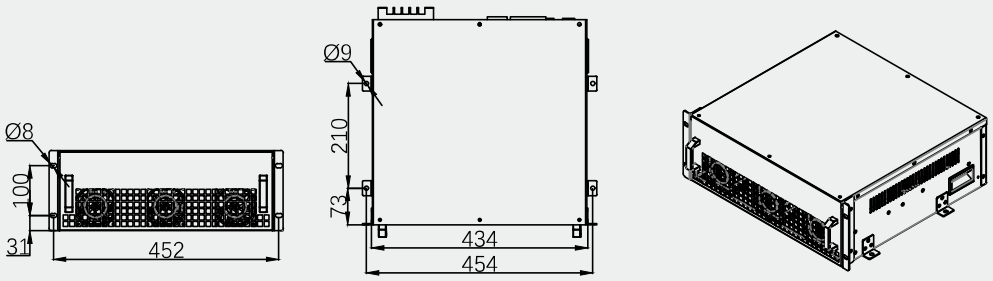
APF-75A、SVG-50Kvar Wall mounted installation size

POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE

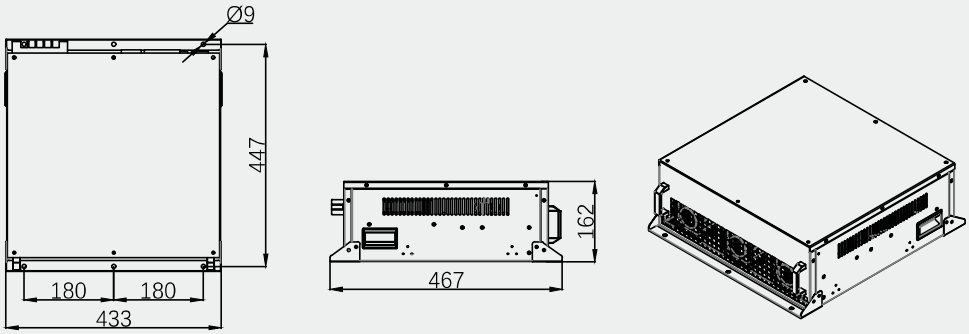


Front view Side view Vertical view

APF-50A、APF-30A、SVG-30Kvar、SVG-20Kvar Module Size

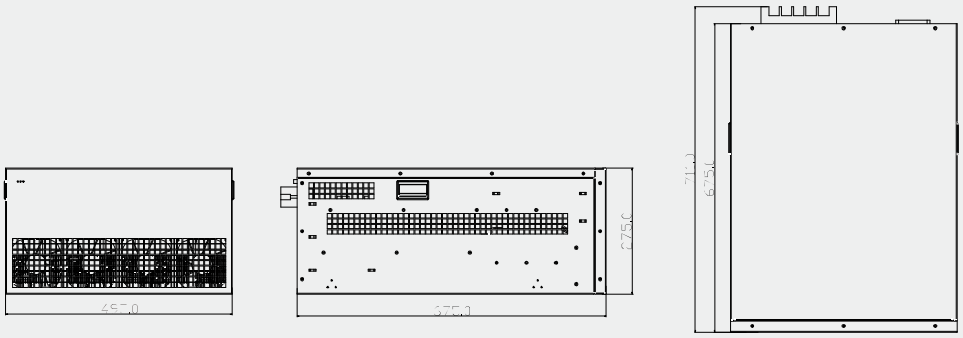


APF-50A、APF-30A、SVG-30Kvar、SVG-20Kvar Drawer style installation dimensions

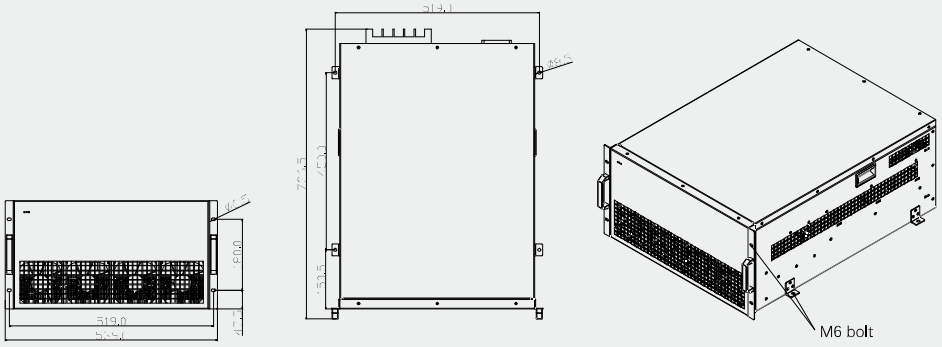


APF-50A、APF-30A、SVG-30Kvar、SVG-20Kvar Wall mounted installation size

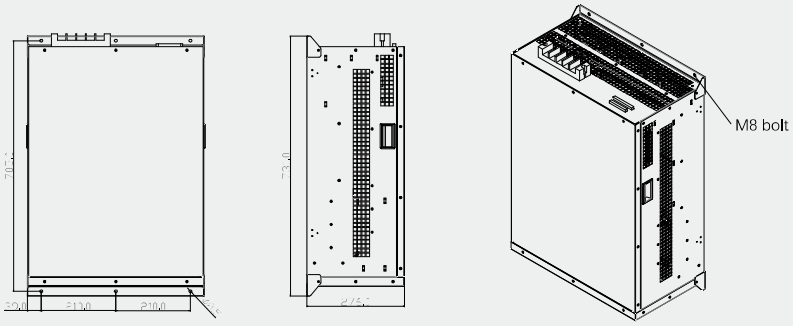
POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE



690V-APF-100A Module Size
690V-SVG-120kvar Module Size

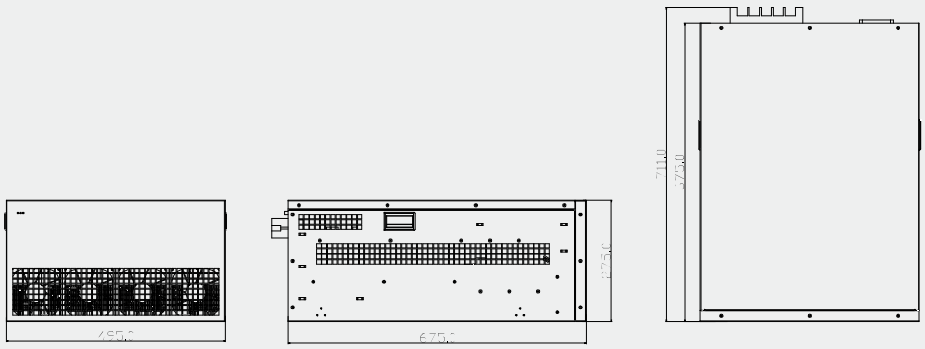


690V-APF-100A Drawer (rack) installation dimensions
690V-SVG-120kvar Drawer (rack) installation dimensions

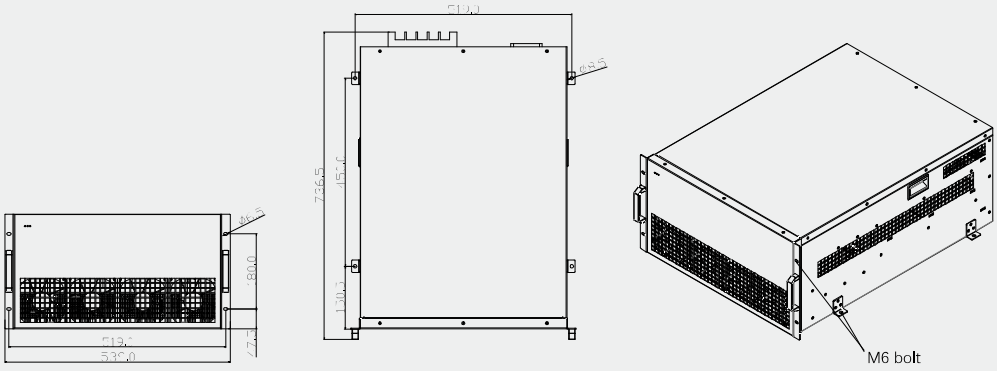


690V-APF-100A Wall mounted installation size
690V-SVG-120kvar Wall mounted installation size

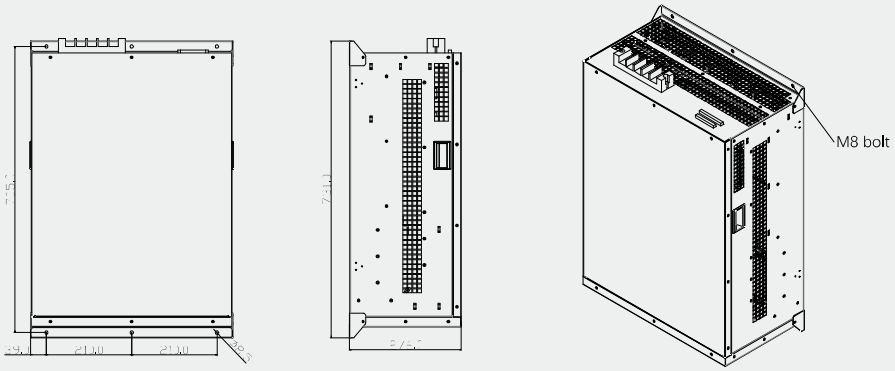
POWER QUALITY MANAGEMENT PRODUCT MODULE SIZE



800V-APF-100A Module Size
800V-SVG-140kvar Module Size



800V-APF-100A Drawer (rack) installation dimensions
800V-SVG-140kvar Drawer (rack) installation dimensions



800V-APF-100A Wall mounted installation size
800V-SVG-140kvar Wall mounted installation size