Sinexcel

SINEXCEL ULTRA SVG

Static Var Generator

New Beginning, New Power
Quality Compensation Era

- Peak efficiency>99%
- Precise Reactive Power Control

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Performance breakthrough brought by SiC technology

99%

Ultra high efficiency

>24kg

Tiny dimension but huge capacity

Industry application breakthrough brought by Ultra Series

- Flexbile Top-Vent Cabinet
- Potting Protection
- Package PQ solution
- Easy Maintenance

The revolutionary SiC Mosfet technology has driven the design optimization of power quality products, which delivering unparalleled improvements in performance and application of Sinexcel Ultra Series. This transformation has reshaped the business model for power quality solutions, setting a new industry benchmark for excellence.

Ultra Series
STATIC VAR GENERATOR

ULTRA HIGH EFFICIENCY

_Performance breakthrough brought by SiC technology

Silicon carbide (SiC) MOSFETs achieve ultra-high efficiency primarily due to their wide bandgap, which leads to lower on-state resistance (Rds(on)), faster switching speeds, and reduced switching losses. These properties enable SiC MOSFETs to operate at higher frequencies and temperatures with improved overall performance, resulting in more efficient power conversion systems.

What benefit will be brought to user with 99% ultra high efficiency?

—Electricity bill saving, higher ROI

Take 400V 100kVAr SVG as an example

Efficiency Difference
>2%

Energy saving
>18,890
KWH

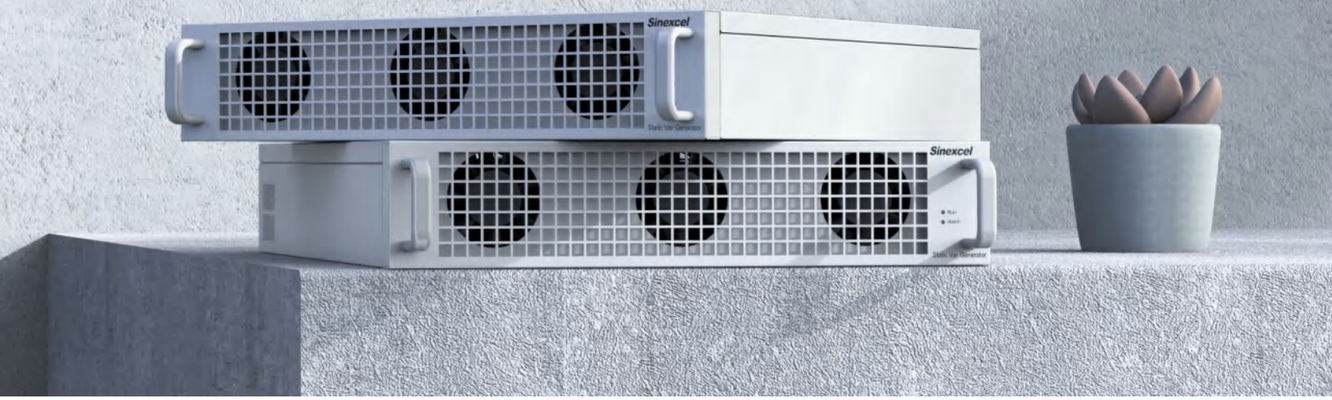
Electricity fee saving
>2.834
USD/year

Present the Sinexcel Ultra SVG Present the standard SVG in market

TINY DIMENSION BUT HUGE CAPACITY

_Performance breakthrough brought by SiC technology

High heat resistance, high thermal conductivity, and high switching frequency, these advantages of SiC bring lower heat dissipation and less ripple current output to Ultra Series SVG. With the physical upgrade of this key component and the 3-year deep research of the R&D team, Sinexcel realizes the ultra-high integration design in Ultra Series SVG



Each cabinet maximum supports 8*Ultra modules inside, maximum capacity up high to

800kVAr (8*100 kVAr)

Standard IP grade is IP20

(IP grade customized)

400V Ultra SVG 30/50 kVAr

Size is 500*470*88mm (W*D*H)

400V Ultra SVG 100 kVAr

Size is 500*520*100mm (W*D*H)

400V Ultra SVG 200 kVAr

Size is 500*646*220mm (W*D*H)

Sinexcel Ultra Series available now

FLEXBILE TOP-VENT CABINET

_Industry application breakthrough brought by Ultra Series

High power density cabinet that can be installed against the wall, space saving for distribution room

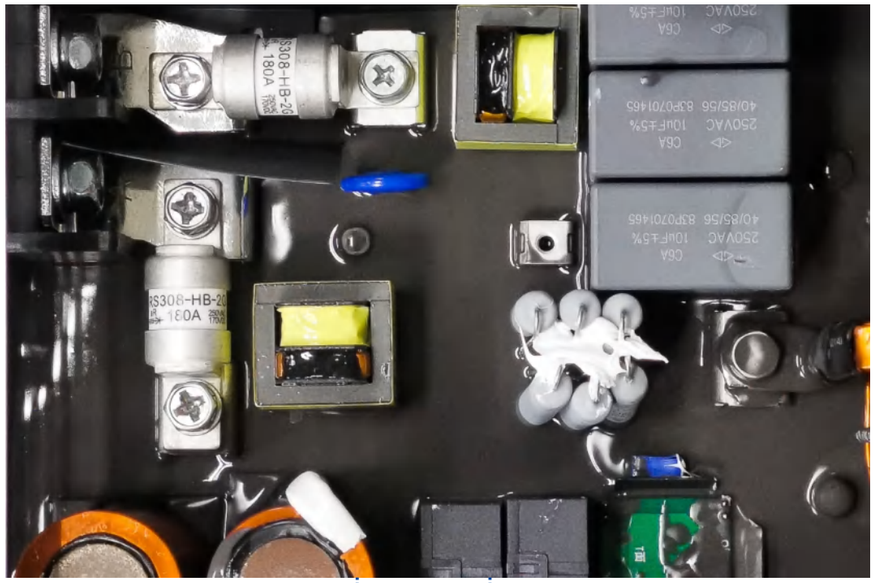
Size optional, cabinet capacity optional and IP class optional

Collapsible design, small packing size, cost-effective for transportation

POTTING PROTECTION

_Industry application breakthrough brought by Ultra Series

Special glue is used inside the Ultra Series SVG, and brings better anti-corrosion and anti-conductive dust performance. This makes the Ultra Series SVG able to survive in harsh environments and increase its lifespan.



FLEXBILE TOP-VENT CABINET

_Industry application breakthrough brought by Ultra Series

—More optional for user; More suitable for reconstruction projects

Module hybrid application

A more economical power quality solution, AHF compensates harmonic, and SVG compensates reactive power at same time

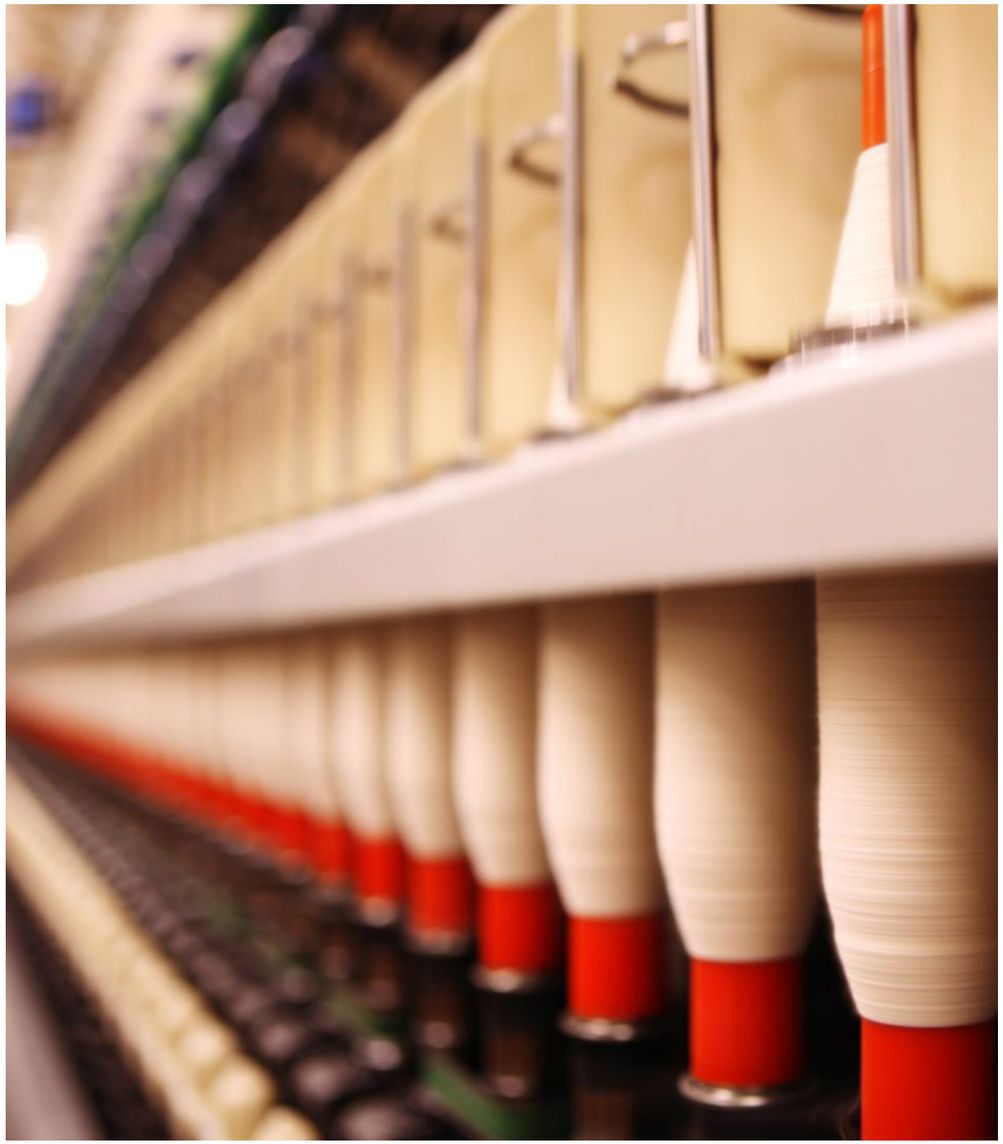
SINEXCEL ULTRA SVG SPECIFICTION

Items	Sinexcel Ultra Series SVG			
Rating	30K	50K	100K	200K
Function	Reactive power and three-phase unbalance compensation			
System parameters				
Nominal voltage	380/400/415V（228-456V）			
L-N voltage	220/230/240V (132-264V)			
Nominal frequence	50/60Hz, auto sensing（Range : 45Hz～62.5Hz）			
Parallel quantities	Unlimited			
Efficiency	99%			98.5%
Connection type	3 Phase 3 Wire / 3 Phase 4 Wire			
CT location	Load / Supply side			
Performance indicators				
Control algorithm	FFT, intelligent FFT, and instantaneous reactive power			
Fast response Time	< 50us			
Full response Time	< 15ms			
Target power factor	Adjustable from -1 to +1			
Switching frequency	Average 40kHz,up to 95kHz			
Cooling air requirement	180CFM	240CFM	480CFM	
Noise level	<60dB (Full load)	<65dB (Full load)	<68dB (Full load)	
Communications ports	RS485 and Ethernet port(RJ45)			
Communications protocols	Modbus RTU, TCP/IP			
Module display interface	4.3-inch HMI(module), 7-inch HMI(central monitor) and LED			
Protection functions	Over-voltage protection, under-voltage protection, inverter bridge inverse protection, over-compensation protection and so on			
Mounting type	Wall-mounted, Rack-mounted and Cabinet			Wall-mounted and Rack-mounted
Dimensions(W x D x H mm)	500*470*88	500*520*100	500*646*220	
Net weight	24kg	31kg	63kg	
Storage temperature	-40°C～70°C			
Operating Ambient temperature	-10°C～40°C (may derate capacity if ambient temperature exceeds 40°C)			
Relative humidity	5% to 95%, non-condensing			
Altitude	⩽1500m, 1500-4000m, capacity is derating 1% for every 100m altitude increased			
Protection class	IP20 (IP degree can be customizable)			

SINEXCEL SVG 50000KVAR+

_Safeguarding Operations at Texhong Textile Factory in Vietnam

In a textile factory located in Vietnam, Texhong faced a significant challenge when their existing capacitor cabinet, operating in a poor power grid environment that caused exploded. This event not only disrupted operations but also posed a serious safety hazard to the factory workers. Seeking a



Sinexcel SVG stepped in as the perfect replacement for the traditional capacitor cabinet. With its robust design and advanced features, Sinexcel SVG was well-equipped to handle the demanding power grid environment at Texhong. Unlike the capacitor cabinet, Sinexcel SVG could function normally and ensure power factor (PF)

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Sinexcel SVG

Technology Boosts Canadian Urbanmine's Non-Ferrous Metal Recycling Plant Efficiency

Sinexcel, a leading provider of power quality solutions, has successfully implemented its Static Var Generator (SVG) technology at the Canadian Urbanmine's non-ferrous metal recycling plant. This innovative solution has significantly improved the plant's Power Factor (PF) to 0.99, helping the company avoid fines

CANADIAN