LTE 雷特电机

Power • Quality • Resource

LOFUTEC®

Static Var Generator

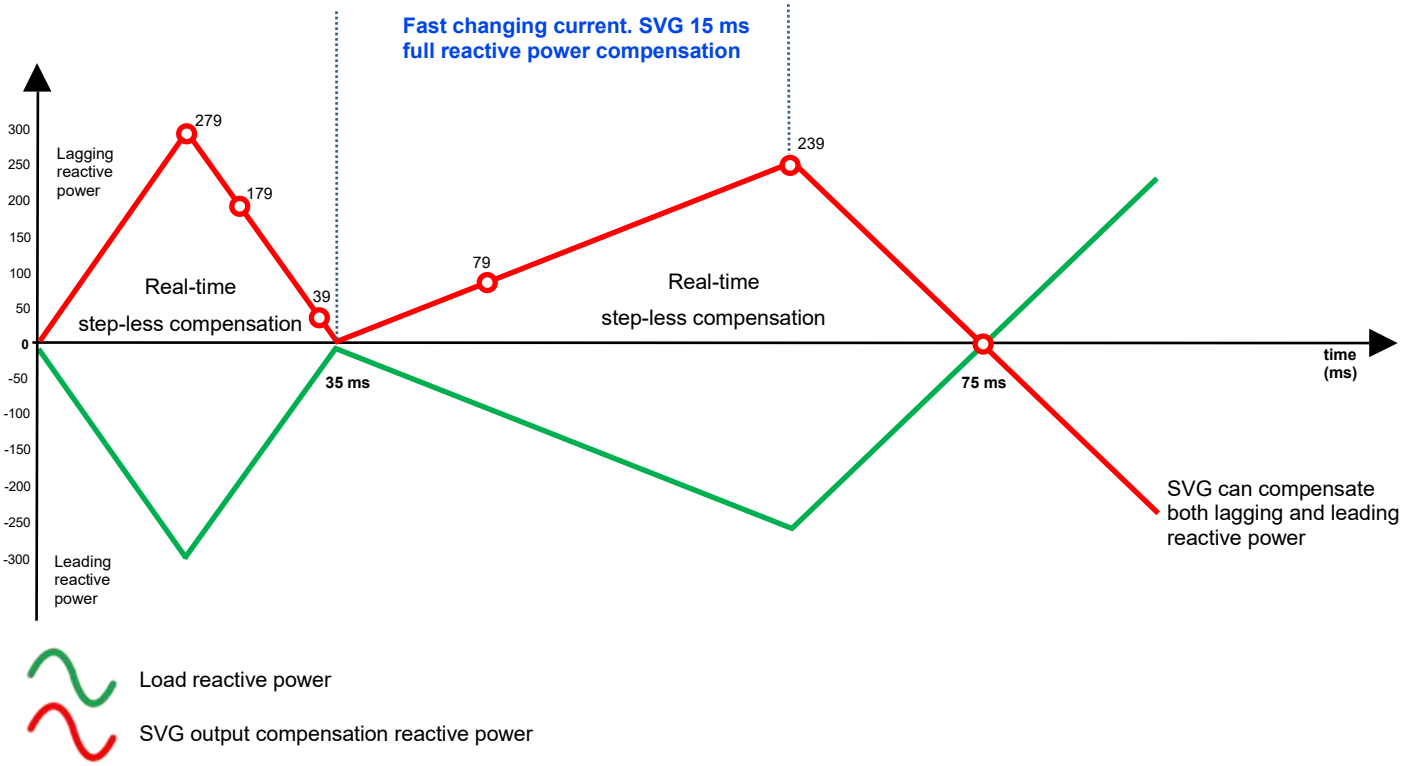
Product Guide

What are Static Var Generator?

The SVG Static Var Generator is an electronic reactive power compensation system, for both capacitive and inductive power.
It has the same operating principle as an active filter; the SVG injects a current in the opposite direction to counteract the installation's non-useful power (inductive and capacitive), thus ensuring that the target cosφ is achieved.

The SVG instantly compensates and adjusts according to demand in a matter of milliseconds.
It also compensates phase to phase in unbalanced systems.
The SVG is the perfect device for installations where there are strict penal- ties for the consumption of reactive power.

Traditional capacitor type PFC systems take 20ms-40s to respond to a change in load. Their delay combined with the stepped response performance means that they are perpetually over or under compensating.



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Benefits

1. Instant compensation

The system has a response time below 20 ms, offering highly efficient operation thanks to the development of IGBT technology.

2. Minimal maintenance

It has no electromechanical components, so no spare parts are required.

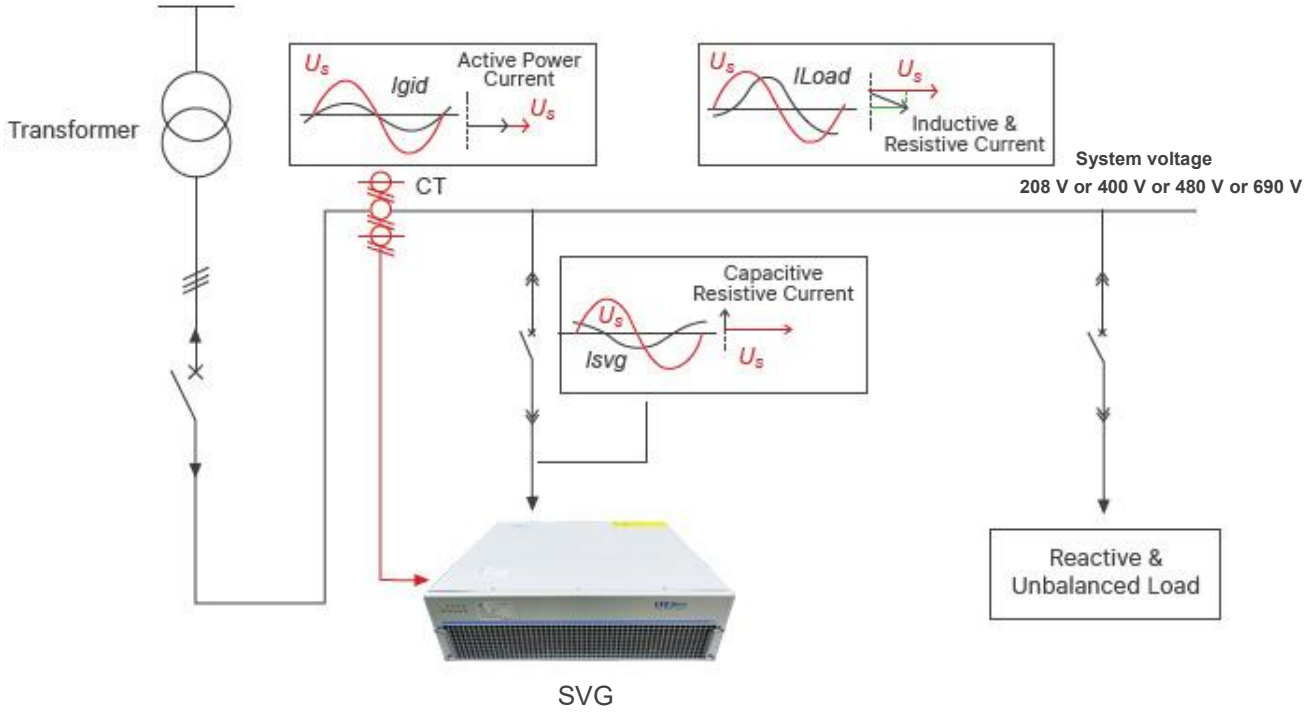
3. Stable network voltage

The output current is not affected by fluctuations in the network voltage.

4. No resonance

SVG technology generates no resonance with the installation's harmonics.

How Static Var Generator Work



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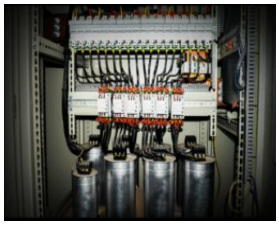
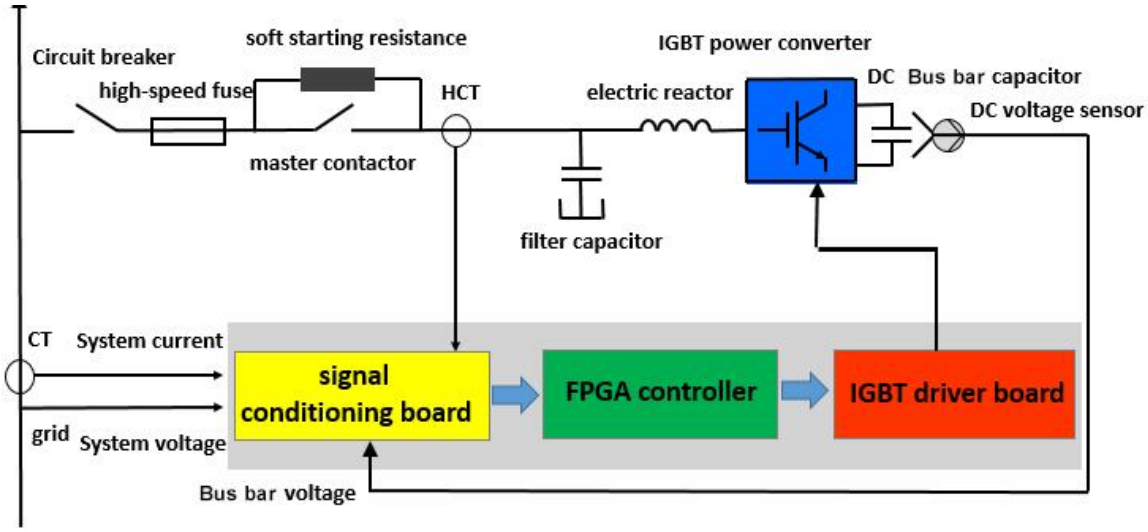
The Evolution of Power Factor Correction

Fixed Compensation	Automatic Switching	Thyristor Half Controlled Switching	SVG Intelligent Controlled Switching
			
Passive PFC	Switchable PFC	Automatic PFC	Dynamic Transient Free Compensation

Schematic Diagram of SVG Internal Control



SVG specifications

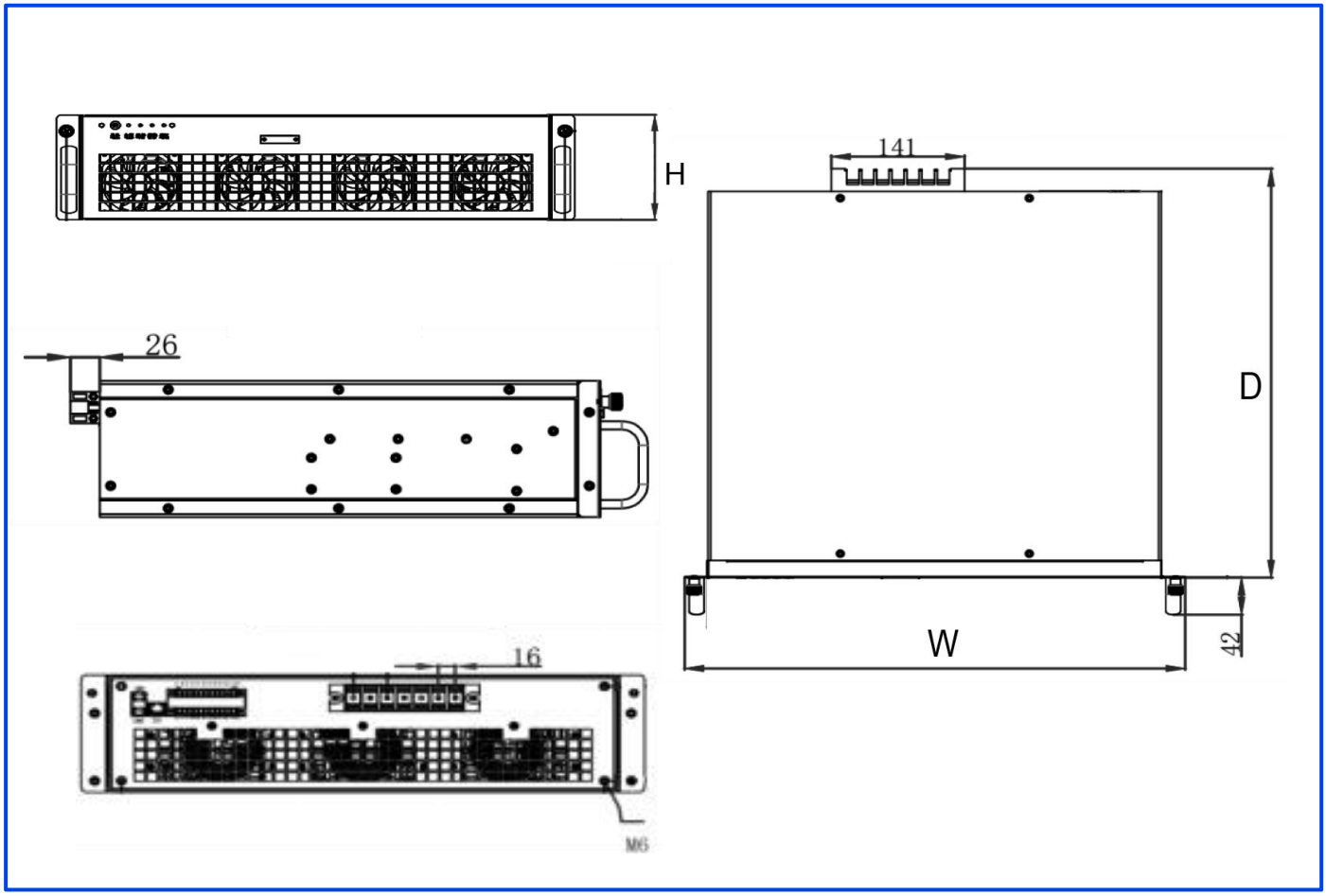
Network voltage			
Voltage	230 - 480 V phase-phase +/-10%		
Frequency	50/60 Hz +/-5%		
Maximum THDv	25%		
Maximum consumption	1050 W	4000 W	8000 W
Maximum reactive power	30 kvar	100 kvar	200 kvar
Maximum current (phase)	44 Arms	145 Arms	290 Arms
Current measurement			
Type	3 or 2x transformer: 5/5 ... 5000/5 A Class 1 or higher (0.5 - 0.2-0.2 S)		
Features			
Power factor correction	Adjustable, target 0.7 inductive...0.7 capacitive		
Parallel installation	› Up to 100 devices/racks (SVG 30 kvar / SVG 100 kvar) › Up to 50 devices/racks (SVG 200 kvar) › Connection of CT, only to the "master" unit Advanced processing algorithm: › Maximisation of the working life of units (alternating unit operation). › Maximisation of operating efficiency (only the required filters are activated). › Allows redundancy (system operation in the event of unit failure).		
User interface	Colour 3.5" touch screen Web server and data logger		
Ethernet	› TCP/IP › Modbus TCP		
Installation			
Installation category	CAT III 300 V		
Pollution degree	2		
Operating temperature	-10 ... 45 °C		
Storage temperature	-20 ... 50 °C		
Relative humidity	0...95% (without condensation)		
Maximum altitude	2000 m		
Degree of protection	IP20		
Build features			
Noise	< 65 dBA		
Standards	EN 62477-1:2012, EN 55011:2011, EN 61000-6-2:2006, EN 61000-6-4:2007, IEC 61439		

408 V / 400 V System voltage (50 Hz / 60 Hz)

Dimensions	Specification of module	30 Kvar	50 Kvar	75 Kvar	100 Kvar	150 Kvar
	Weight of module	13 kg	24 kg or 25 kg	24 kg or 25 kg	38 kg	39 kg
	Size of module W*D*H (rack type)	480*130*140	480*200*530 or 680*200*530	480*200*530 or 680*200*530	680*200*580	680*200*580
	Size of module **with controller** W*D*H (wall-mounted type)	480*130*140	480*200*530 or 680*200*530	480*200*530 or 680*200*530	680*200*580	
	Color	Standard color 7035, black and blue can be customized				

480 V / 690 V System voltage (50 Hz / 60 Hz)

Dimensions	Specification of module	50 Kvar	100 Kvar
	Weight of module	55 kg	55 kg
	Size of module W*D*H (rack type)	680*200*580	680*200*580
	Size of module **with controller** W*D*H (wall-mounted type)	680*200*580	680*200*580
	Color	Standard color 7035, black and blue can be customized	



Sino-German joint venture

About LTEC

We have specialized in the production of reactors, capacitors, filters, and transformers since 2004.Our primary production plant in Kunshan City spans an area of 20,000 square meters and is located just a one-hour drive from Shanghai Pudong International Airport (PVG).

Our R&D teams are based in Gelsenkirchen and Taipei, and we hold approximately 120 patents related to our products.

In 2023, ***Drosseln GmbH*** invested in ***Jiangsu LTEC Electric Co., Ltd.,*** forming a Sino-German joint venture with the purpose of enhancing competitiveness in the Asian market.

We provide our customers with world-class LV and HV products, along with reliable technology and friendly, flexible customer support. Additionally, we develop ***"tailor-made"*** products and solutions tailored to your applications.

Our products have been exported to the United States, Germany, the United Kingdom, Israel, Australia, and more than ***60*** countries and regions worldwide.

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