



Hoteam HTSVG STATCOM (Static Synchronous Compensator)

Enhancement Of Power Quality In All Aspects

Based on the proven technologies of active harmonic filters and decades of experience in the power quality field, Hoteam HTSVG STATCOM is a cutting-edge dynamic var compensation solution presented by Shandong Hoteam Electric.

Network stabilization

- High dynamic performance: very fast response time less than 10ms for flicker mitigation
- Excellent undervoltage performance: highly efficient voltage support for weak grid

Super harmonic performance

- Proven inverter topology: the HTSVG STATCOM inherits the double-interleaved inverter topology that has already installed on thousands of AHFs worldwide, guaranteeing the maximum reliability and, more importantly, minimum output ripple current and power loss.
- Harmonic mitigation: the H model of HTSVG STATCOM is capable of assigning its 30% current capacity to compensate harmonics up to 50th order.

User-friendly LCD control

- 7-inch English language menu-based touch screen featuring harmonic order selection, waveform display for easy commissioning and operation

Easy dispatchability and scalability

- Up to ten units can operate in parallel for capacity expansion
- Modular construction allowing quick deployment and future flexibility
- Low space requirements due to the reduced size and fewer passive components.

Customer benefits

- Improved power quality and energy efficiency
- Enhanced grid reliability by regulating and stabilizing voltage
- Increased power transfer capacity of grids
- Grid codes and interconnection requirements are met.
- No risk of harmonic resonance

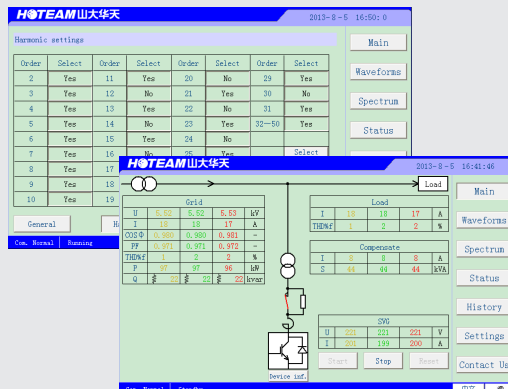
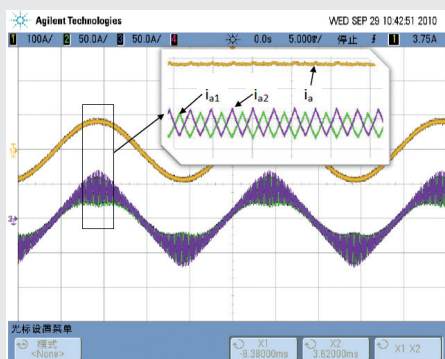
Typical applications

- Mining industry
- Steel plants
- Welding machines
- Chemical industry
- Wind and solar farms
- Harbor cranes
- Utilities

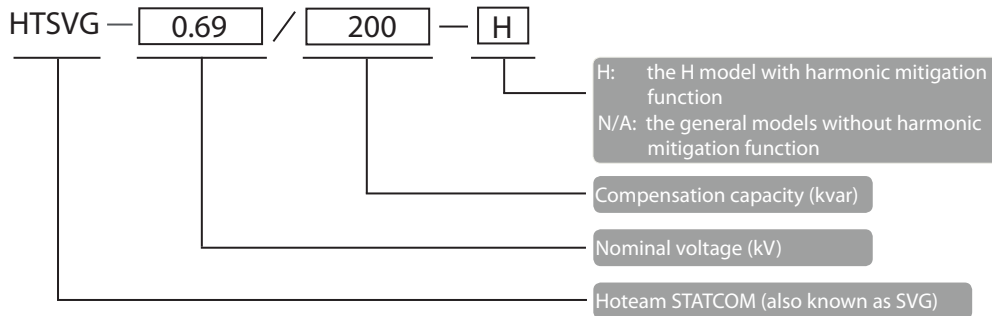
Smooth output waveform with double interleaving ripple cancellation

User-friendly interface featuring harmonic order selection and grid parameters

3-units parallel configuration with a step-up transformer



Model description system



Specifications

Model name	HTSVG STATCOM (SVG)
General electrical parameters	
Nominal voltage	0.4/0.69 kV $\pm 15\%$ ⁽¹⁾
Nominal frequency	50/60 Hz $\pm 2\%$
Performance specifications	
Rated capacity	20kvar ~ 400kvar per unit
Var compensation range	100% of rated capacity, from capacitive to inductive continuously adjustable
Functionality	Power factor correction, flicker mitigation, harmonic mitigation ⁽²⁾ , load balancing
Resonse time	Instantaneous response time < 0.1ms Full response time < 10ms
Inverter topology	Patented interleaved inverter topology for ripple current cancellation
Overload protection	Automatic limitation of 100% of rated capacity
Power loss	3% when at the full load
Harmonic mitigation performance for the H model of HTSVG STATCOM	
Harmonic spectrum	2 nd to 50 th harmonics
Harmonic selective compensation	2 nd to 31 st harmonics all can be selected individually, 32 nd to 50 th harmonics can be selected simultaneously
Compensation capacity	30% of rated current capacity ⁽³⁾
HMI & communication	
Display	7-inch English language menu-based touch screen (10-inch version available on request)
Communication interface	RS-232, RS-485, TCP/IP
Communication protocol	MODBUS-RTU
Digital I/O	4 digital inputs, 2 digital outputs
Operation configuration	
Parallel operation	Up to 10 units
CT requirement	3 CTs required (class 0.2 or better) Secondary rating: 5A
CT location	Supply side or load side, please specify when placing order
Color	RAL 7035, other color on request
Environmental conditions	
Operation environment	Indoor
Protection class	IP3X (higher protection classes available on request)
Operation temperature	-10 ~ 40°C (higher operation temperature allowed with derating)
Storage temperature	-25 ~ 70°C
Cooling type	Forced air cooling
Humidity	Maximum 95% non-condensation
Altitude	1000m (higher operation altitude allowed with derating)

(1) Other nominal voltages available on request. For medium voltage applications a step-up transformer is required.

(2) Harmonic mitigation function only applies to H model.

(3) And the rated current capacity of the HTSVG STATCOM equals to 1.5 times of the rated capacity based on kvar.



Product Selection Tables

Hoteam HTSVG -0.4 400V STATCOM				
Model	Capacity (kvar)	Reference dimensions		
		Width (mm)	Depth (mm)	Height (mm)
HTSVG - 0.4 / 20	20	440	630	176
HTSVG - 0.4 / 33	33	440	630	176
HTSVG - 0.4 / 50	50	440	630	264
HTSVG - 0.4 / 66	66	440	630	264
HTSVG - 0.4 / 100	100	600	800	2200
HTSVG - 0.4 / 133	133	800	800	2200
HTSVG - 0.4 / 165	165	1000	800	2200
HTSVG - 0.4 / 200	200	1000	800	2200
HTSVG - 0.4 / 266	266	1000	1000	2200
HTSVG - 0.4 / 330	330	1200	1000	2200
HTSVG - 0.4 / 400	400	1200	1000	2200

Hoteam HTSVG -0.69 690V STATCOM				
Model	Capacity (kvar)	Reference dimensions		
		Width (mm)	Depth (mm)	Height (mm)
HTSVG - 0.69 / 120	120	800	1000	2200
HTSVG - 0.69 / 180	180	800	1000	2200
HTSVG - 0.69 / 240	240	1000	1000	2200
HTSVG - 0.69 / 360	360	1000	1000	2200

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