Static Var Generator(SVG)



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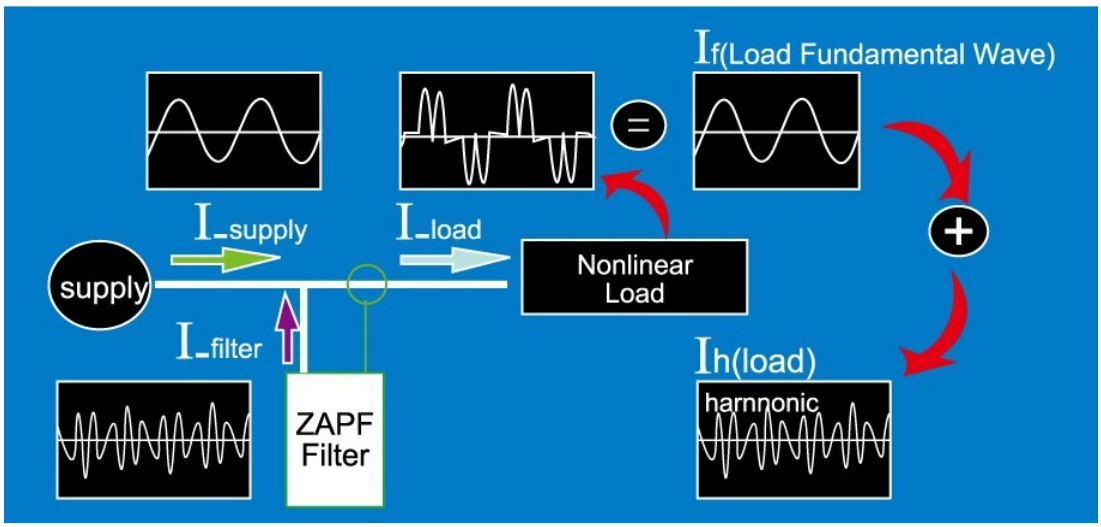
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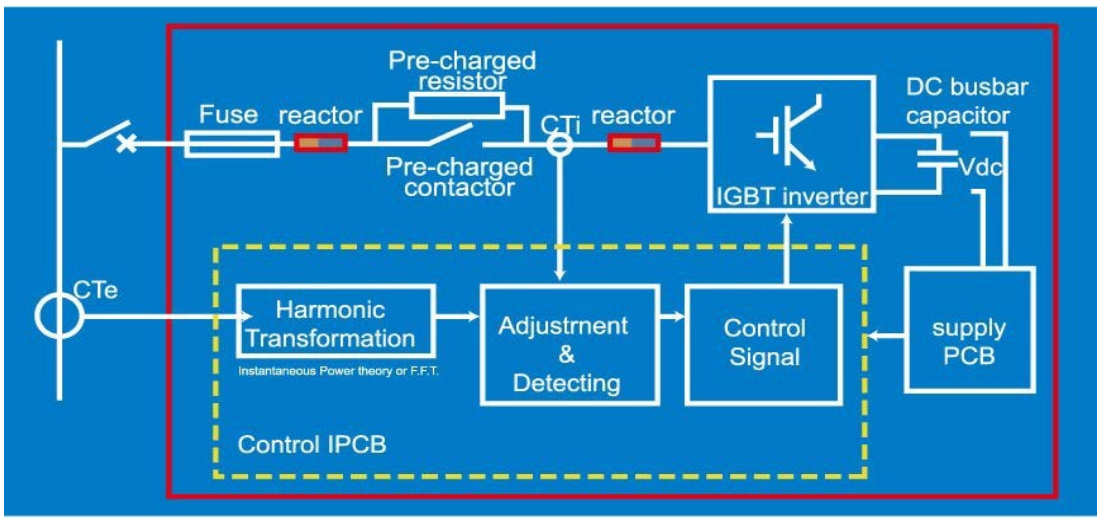
WORK PRINCIPLES

- **Mathematic model**

$$i_1 = (i_1 + \Sigma i_h) + (-\Sigma i_h)$$



- **Flow diagram**



PERFORMANCE CHARACTERISTICS

- EMS to control the SVG can be used to remove harmonic of HV grid with step up transform
- Up to 60 units of SVG can be parallelled
- Complete protection includes over voltage, under voltage, over current, over heat, under voltage of control supply and so on
- LCD is adopted for interface operation, which can live indicate voltage, current and harmonic. Log record is available
- Directly applicable for system below 430V, and applicable for system with voltage higher than 430V when transformer is added
- Independent compartment for control board to tackle dusty environment

STANDARD ADOPTED & WORKING ENVIRONMENT

- IEC60947-1:2007
- IEC61439-1:2009
- CE marking
- IEC61000-6
- IEC61000-4
- IEC61000-3

- Ambient temperature: -10℃~50℃
- Temperature for storage: -40℃~65℃
- Relative humidity: up to 99%
- Altitude above sea: 1000 meters

SPECIFICATION

3 Phase 3 Wire AHF Module 380V/415V Series

Model	MSVG-35-380/415	MSVG-50-380/415	MSVG-75-380/415	MSVG-100-380/415	MSVG-135-380/415	MSVG-150-380/415
Rated power	35kVar	50kVar	75kVar	100kVar	135kVar	150kVar
DC support capacitor	Self-healing metal film capacitors					
Designed life	20 years for the SVG, 5 year for cooling fan					
Grid voltage	330V~450V					
Grid frequency	45Hz ~ 65Hz					
Grid system	Three-phase three-line/three-phase four-line					
Maximum efficiency	>96%	>96.5%	>96.5%	>97%	>97%	>97%
Extension in parallel	No restrictions					
Range of compensation	Leading 100% to lagging 100%					
Initial response time	<100us					
Full response time	20ms					
Switch frequency	20kHz					
Compensation effect	0.99 (programmable)					
Communication interface	RS485, MODBUS					
How to install	Drawer/wall-mounted					
Dimensions (WDH, mm)	200x500x550	200x500x550	200x500x550	220x500x675	240*500*665	280*500*665
weight	25KG	35KG	41KG	46KG	56KG	68KG
Cooling method	Forced air cooling					
IP	IP20 Standard					
Display	LDC HMI					
Language	English standard, other language optional					

SPECIFICATION

3 Phase 3 Wire AHF Module 690/800/1000V Series

Model	MSVG-35-690	MSVG-75-690	MSVG-300-800	MSVG-300-1000
Rated power	35kVAR	75kVAR	300KVAR	300KVAR
DC support capacitor	Self-healing metal film capacitors			
Designed life	20 years for the SVG, 5 year for cooling fan			
Grid voltage	690V	690V	800V	1000V
Grid frequency	45Hz ~ 65Hz			
Grid system	Three-phase three-line/three-phase four-line			
Maximum efficiency	98.2%	98.3%	98.6%	98.6%
Extension in parallel	No restrictions			
Range of compensation	Leading 100% to lagging 100%			
Initial response time	<100us			
Full response time	20ms			
Switch frequency	20kHz			
Compensation effect	0.99 (programmable)			
Communication interface	RS485, MODBUS			
How to install	Drawer/wall-mounted			
Dimensions (WDH, mm)	200x500x550	200x500x550	300x500x600	300x500x600
weight	27	51	71	71
Cooling method	Forced air cooling			
IP	IP20 Standard			
Display	LDC HMI			
Language	English standard, other language optional			

INDUSTRIES APPLICABLE

- Automotive
- Pharmaceuticals
- Cement
- Pulp & paper
- Oil, gas & petrochemicals

- Textiles industries
- Steel rolling mills
- Plastic extrusion
- IT/ITES
- Water & water treatment Industry

- Shopping Malls
- Hospitals
- Hotels
- Food & beverage
- Banks & data centers





