

# Active Harmonic Filter

## SFR-APF



Various application



Excellent filtering performance



Excellent protection for equipment and system



User-friendly HMI



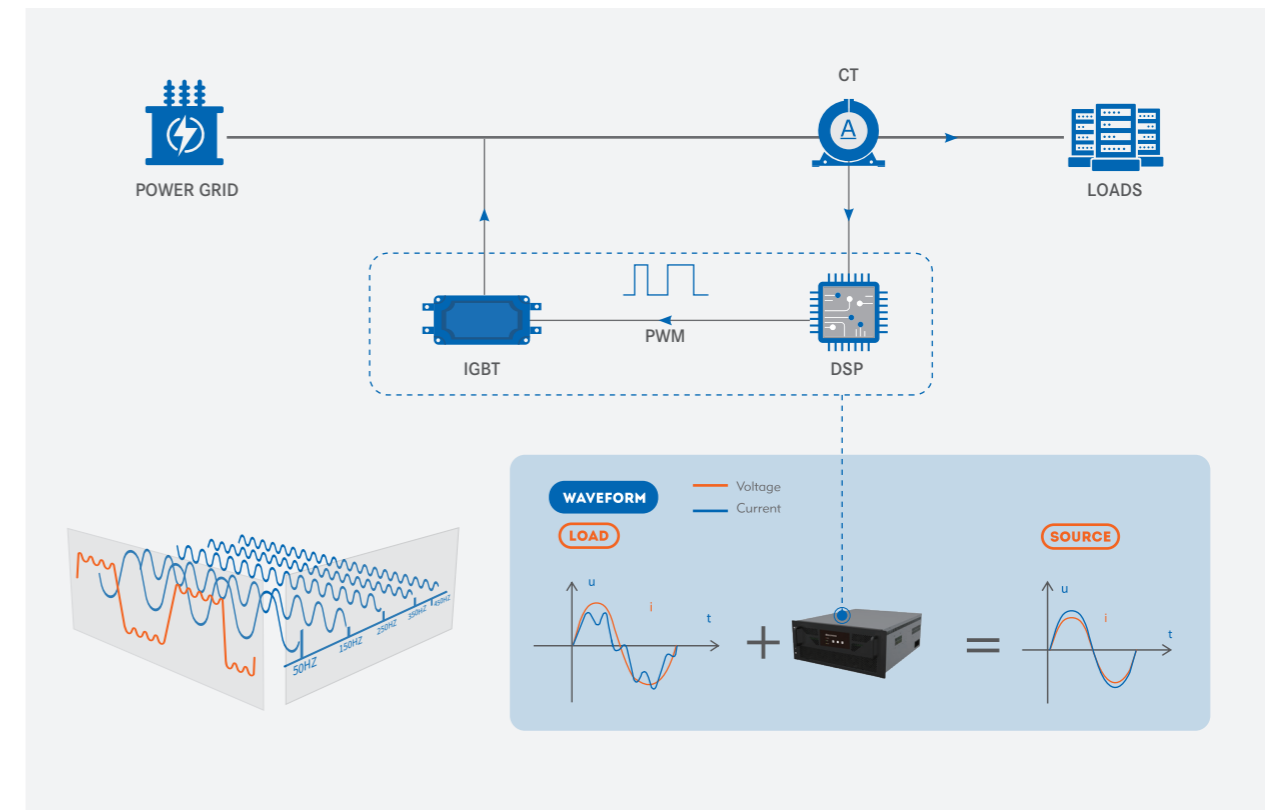
Rack-mounted

Wall-mounted

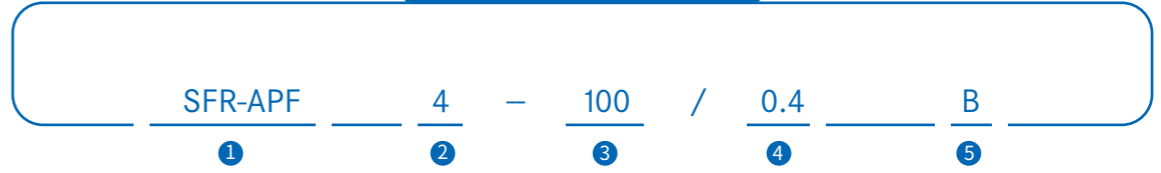
SFR-APF active harmonic filter is a new type of power quality improvement production for dynamically filtering harmonics and compensating reactive power. It can filtering and compensate harmonic (variable in orders and frequency) and dynamic reactive power in real time. It is used to overcome the shortcomings of conventional harmonic suppression and reactive power compensation methods such as passive harmonic filters, and achieve the harmonic filtering function and reactive power compensation function of the system. SFR-APF active harmonic filter is widely used in power, metallurgy, petroleum, port, chemical industry and industrial and mining enterprises.

### Overview

The increase in power energy productivity has improved the standard of living, and most of the electrical loads used in the intelligent power consumption are nonlinear nowadays. Harmonic current is generated by these nonlinear loads, and is formed by the superposition of countless sinusoidal currents whose frequencies are integer multiples of the fundamental current. When all the waveforms are superimposed, they will become distorted waveform.



### Model Description



Annotation:

- ① Model of the manufacturer
- ② Wiring mode:  
3-Three-phase three-wire  
4-Three-phase four-wire
- ③ Compensation capacity(A):  
15A/30A/50A/75A/100A/125A/150A
- ④ Voltage level(kV)
- ⑤ Installation mode:  
M-Rack-mounted type, B-Wall-mounted type

Technical Parameter

Item	Parameter			
SFR-APF	Grid	208V, 400V 3P3W/3P4W* 690V 3P3W		
	Mounting Type	Wall-mounted	Rack-mounted	
System	Rated Input	208V, 400V ±10% 690V ±10%		
	Power Grid Frequency	50/60Hz ±5%		
	Parallel Operation	8 modules, customizable		
	Overall Efficiency	≥97%(laboratory data)		
	Circuit Topology	3-level		
Performance Indicators	Rated Capacity	15-150A	100A/125A/150A	
	Compensation Mode	Harmonic, reactive power, unbalance		
	Filtering Range	2 to 51 orders		
	Filtering Order	Selectable from 2 to 51		
	Filtering Degree	Adjustable from 2 to 51		
	Reaction Time	<100μs		
	Response Time	<5ms		
	Target Power Factor	Adjustable from -1 to +1		
	Control Algorithm	FFT, Intelligent FFT and instantaneous reactive power		
	Switching Frequency	20kHz		
	Cooling Mode	Forced air cooling		
	Noise Level	≤65dB		
	Communications & Display	Communications Port	RS485	
		Communications Protocol	Modbus-RTU	
		Module Display Interface	4.3in LCD	LED indicator
Protection Function		Automatic current limit protection for power grid over-voltage and under-voltage, power grid over-frequency and under-frequency, inverted sequence of input voltage, over-current, over-heating and over-load, and busbar short-circuit.		
Monitoring Alarm	Available			
Monitoring	Independent monitoring and centralized monitoring			
Ambient Standards	Altitude	1,000m, for every increased 100m, the power is reduced by 1%.		
	Operating Temperature	-20°C-45°C		
	Relative Humidity	5% to 95%, non-condensing		
	Protection Class	IP20		
Related Standards	Directive	2014/30/EU 2014/35/EU		
	Standards Compliance	EN 61000-6-2:2005+AC:2005 EN 61000-6-4:2007+A1:2011 EN 50178:1997 IEC61000-4-30:2002		

\*: Please check other voltage levels, such as 480V, in the specifications of user manual.

Dimensions

