

# Active Harmonic Filter SFR-APF



Modular design  
easy to expand

LCD

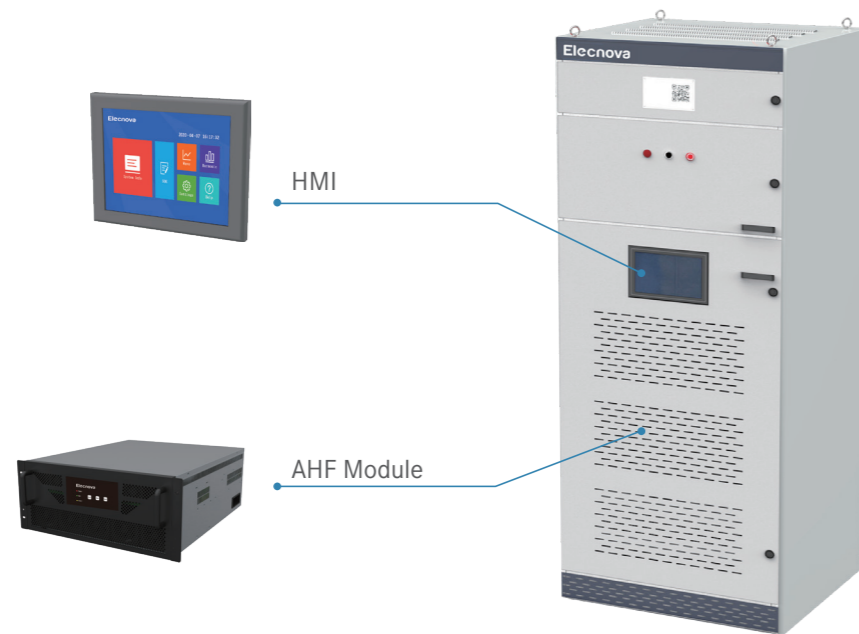
7"/10" LCD  
touch screen



2-51st Harmonic filtering  
THD < 3%

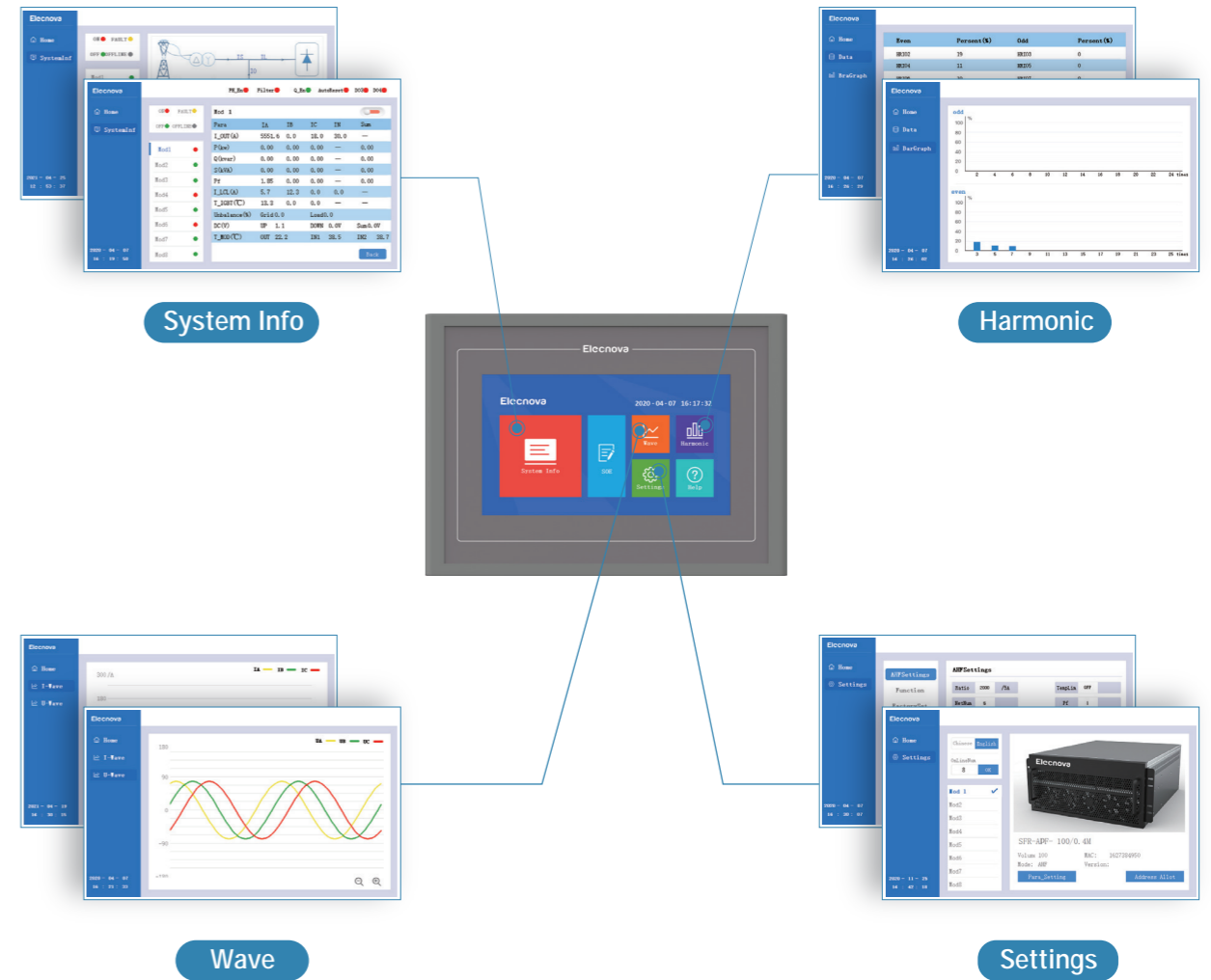


Supports parallel connection  
of modules with different  
capacities



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 is widely used in power, metallurgy, petroleum, port, chemical industry and industrial and mining enterprises.

## HMI Display



- 7/10 inch full color LCD optional
- Real time display of signal detection, data processing and calculation in power system
- Visualization of power quality data and charts
- Monitoring and function setting of module working status
- Quick view of SOE events

 Overview

## Model Description

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Annotation:

- 1 Model of the manufacturer
- 2 Wiring mode:  
3-Three-phase three-wire  
4-Three-phase four-wire
- 3 Compensation capacity(A)
- 4 Voltage level(kV)
- 5 Installation mode: G-Cabinet type

## Model Selection

## Table Of Rapid Model Selection

Transformer Capacity (kVA)	Capacity and Quantity of Active Power Filter (Three-phase Four-wire)	Capacity and Quantity of Active Power Filter (Three-phase Three-wire)
200	SFR-APF4 -50/0.4	SFR-APF4 -50/0.4
250/315	SFR-APF4 -50/0.4	SFR-APF4 -50/0.4
400	SFR-APF4 -75/0.4	SFR-APF4 -75/0.4
500/630	SFR-APF4 -75/0.4	SFR-APF4 -75/0.4
800	SFR-APF4-100/0.4	SFR-APF4-100/0.4
1000	SFR-APF4-100/0.4	SFR-APF4-100/0.4
1250	SFR-APF4-150/0.4	SFR-APF4-150/0.4
1600	SFR-APF4-200/0.4	SFR-APF4-200/0.4
2000	SFR-APF4-200/0.4	SFR-APF4-200/0.4
2500	SFR-APF4-300/0.4	SFR-APF4-300/0.4
Scope of Application	Business center, office building, hotel, hospital, data center, theater and other occasions with relatively much single-phase load.	Chemical, metallurgy, communication, textile, papermaking, printing, tobacco, automobile,port and other occasions with relatively much three-phase load.

Note: Types M, B and G can be selected according to site situation.

 Technical Parameter

Item		Parameter		
SFR-APF	Grid	400V 3P3W/3P4W	690V 3P3W	
	Mounting Type	Cabinet	Cabinet	
System	Rated Input	400V LL ±15%	690V LL ±15%	
	Power Grid Frequency	50/60Hz±5%		
	Parallel Operation	8 modules, customizable		
	Overall Efficiency	≥97%(laboratory data)		
	Circuit Topology	3-level		
	Performance Indicators	Rated Capacity	Up to 600A	Up to 500A
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 and Monitoring		Communications Port	RS485	
		Communications Protocol	Modbus-RTU	
		Module Display Interface	7in/10in LCD touch screen(optional)	
	Protection Function	Automatic current limit protection for power grid over-voltage and under-voltage,power gridover-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		
Mechanical Properties	Net Weight	150kg-400kg	230kg-600kg	
	Dimensions (W*D*H mm <sup>3</sup> )	800×800×2200 1000×800×2200 1000×1000×2200	800×800×2200 1000×800×2200 1500×800×2200	
Ambient Condition Requirements	Altitude	1,000m, for every increased 100m, the power is reduced by 1%.		
	Operating Temperature	-20℃-45℃		
	Relative Humidity	5% to 95%,non-condensing		
	Protection Class	IP20(customizable)		
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		