



Cabinet-mounted

Wall-mounted

Rack-mounted

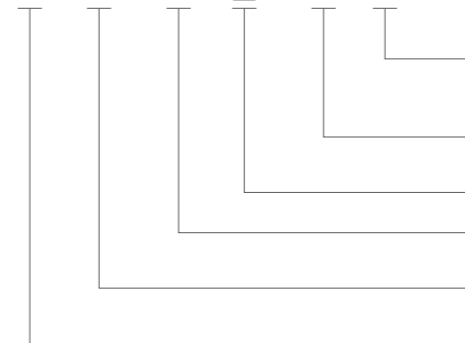
3 Active Power Filter Series (HY-APF)

Active Power Filter Series

HY-APF active power filter is a product that is redefined based on the damage caused by the high harmonics (more than 25 times) to the power equipment and the power grid, And let active filter play to the extreme. HY - APF with low loss, high power electronic devices, can filter the 2~51 times harmonic, with the characteristics of high efficiency, strong function, high reliability and nice appearance, concise and easy to use, so as to increase the power factor, filter harmonic current, ensure the safety of power system. This series of products is the first choice for the solution of harmonic pollution and is suitable for situations with nonlinear loads.

MODEL

HY-APF-0.4 / □ - 4L - W



Installation method: W Wall-mounted / R Rack-mounted / C Cabinet-mounted
Method of connecting wire: 3L Three-phase three-wire system/4L Three-phase four-wire system
Rated compensation capacity (Unit : A)
Voltage classes: 0.4kV
Active power filter
Huayi LV electric brand name

PRODUCT FEATURE

Strong filtering capability

- filter 2-51 times harmonic
- The maximum harmonic filtration rate $\geq 97\%$

Response quickly

- The total response time $\leq 10\text{ms}$

Good extensibility

- can increase capacity by adding modules

Better reliability

- The core components are imported
- Performance parameters online automatic proofreading
- Over voltage, under voltage, over temperature, overload and other protections

Remote monitoring

- Multiple communication interface (RS485/RS232/WIFI/ bluetooth), standard communication protocol
- Cloud monitoring platform, big data analysis

Easy to install, debug and maintain

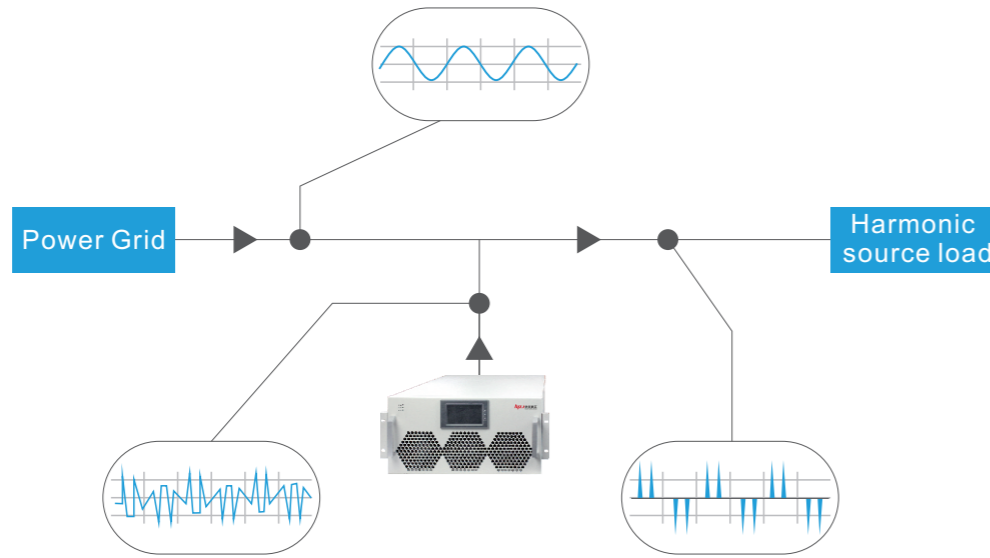
- Modular design, wall-mounted or rack-mounted or cabinet-mounted installation
- Phase sequence automatic identification, no need to distinguish positive sequence
- The current transformer direction can be automatically identified

Man-machine coordination

- Real-time display waveform and data of power quality
- Waveform and data comparison before and after filtering

WORKING PRINCIPLE

HY-APF active power filter detects the harmonics of the current in the system in real time, uses power electronics to control the triggering of the IGBT, and outputs a compensation current of the same magnitude as the harmonic (instruction) current to inject into the power supply system, realize filtering (offsetting) harmonic, dynamic compensation reactive power, increase power factor.



TECHNICAL PARAMETERS

Item	Parameters
Rated Voltage	AC400V ± 20%
Rated frequency	50Hz
Method of connecting wire	three-phase three-wire/three-phase four-wire
Single module compensation capacity	35A、50A、75A、100A、150A
Filter range	2~51 times
Harmonic filtration rate	The maximum harmonic filtration rate is greater than 97%
Fast response time	<50us
Total reponse time	<10ms
Active power loss	<3%
Noise	≤65dB
In parallel operation mode	up to 10 sets in parallel operation
IP Grade	IP20
Cooling mode	intelligent air cooling
Protection function	overvoltage, undervoltage, over temperature, overload, phase loss, short circuit, lightning protection, anti-jamming and other hardware and software protection
Communication function	RS485/232, Ethernet, WIFI/ bluetooth, GPRS (optional); use Modbus protocol (optional for other protocols)
Equipment weight	20 ~ 50 kg (according to the model)
Display function	touch liquid crystal display
Ambient temperature	-10℃~+40℃
Storage Temperature	-20℃~+70℃
Altitude	≤2000m, Other elevations are used according to the national standard

PRODUCT DIMENSION

Capacity /KVar	Rack-mounted	Wall-mounted	Cabinet-mounted
	Dimension (W*D*H)/mm	Dimension (W*D*H)/mm	
50	359*557*200	379*200*522	The standard model is GGD cabinet, dimension(W*D*H) /mm : 800*800*2200, If the user has other requirements, it is customizable.
75	399*612*200	419*200*545	
100	484*646*232	500*232*611	
150	554*656*250	570*250*621	

Note: The above dimensions are for reference only

EXPERIENCE VALUE AND RECOMMENDATION SCHEME OF HARMONIC CURRENT DISTORTION IN VARIOUS INDUSTRIES

Industry type	Harmonic source	Experience value (transformer rated capacity)	Governance mode
Rail transit, airport, tunnel	converter fan, frequency conversion elevator, energy saving lamp, light modulation	15%	Centralized management
Data center, communication machine room, bank	UPS, switching power supply, frequency conversion air conditioning, frequency conversion elevator, energy saving lamp	20%	Centralized management
Commercial complex, office building	energy saving lamp, switching power supply, frequency conversion air conditioning, frequency conversion elevator	15%	Centralized management
The theater, stadium, broadcasting center	UPS, dimming equipment, energy-saving lamps	25%	Centralized management
Automobile manufacturing	welding machine	25%	Centralized management
Hospital	ultrasonic instrument, nuclear magnetic resonance, CT machine, X-ray machine, frequency conversion air conditioning, frequency conversion pump	15%	Centralized management or local management
Oil, chemical	large rectifier, frequency converter	35%	Centralized management or local management
Metallurgical	medium frequency furnace, electric arc furnace, rolling mill	40%	Centralized management or local management
Sewage treatment	variable frequency water pump, ozone power	20%	Centralized management
Thermal power generation	frequency conversion fan, water pump, electric dust power supply, air cooling island	40%	Centralized management or local management
New energy	large rectifier, frequency converter	40%	Centralized management or local management