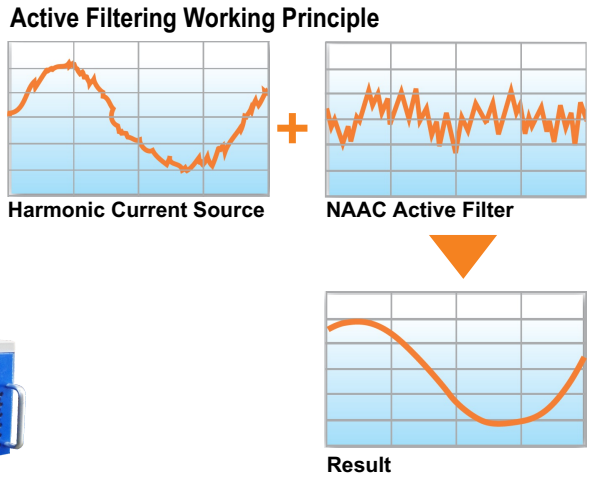
NECPL NAAC ENERGY CONTROLS PVT LIMITED

Active Harmonic Filter (Series - ACTIVEPHASE)



Our ACTIVEPHASE series is an advanced modular Active Harmonic Filter (AHF) system. The AHF system is constructed of one or several filter modules with the system controller.

Filter modules and controller, both are embedded in our standard cabinets. CT terminations are fixed in a standard cabinet, and the AHF capacity can be configured accordingly to user requirement.

The filter capacity can be easily expanded at the user's site by adding extra filter modules as per site requirement.

Features

- Supports flexible configuration and capability to expand vertically as well as horizontally
- Compatible with diesel generators & harsh ambient (Temp up to 50°C)
- Eliminates Harmonics, avoiding risk of resonance.
- Highly flexible and scalable solution
- Lower Current could reduce thermal loss in power cables & transformer
- Reduce Voltage Distortion and Fluctuation to extend
- Service time of electric devices
- Suppressing harmonics & reactive power reduces the Total current, so more loads can be driven by the same transformer
- Increase power factor, avoid reactive power penalty. Can compensate from 2nd to 51st order harmonics

Adaptability

- Compatible with diesel generators
- Wider range of input voltage, frequency and faster response time
- Low thermal loss
- Compensates a wide range of harmonics from 2nd order to 51st order harmonics

Flexibility

- Designers have more choices with flexible configuration
- Capability to expand vertically as well as horizontally
- Higher operating temperature up to 50°C

Reliability

- IGBT parallelling technology
- Intelligent air cooling technology
- High quality components of international brands
- Advanced production technology

Hybrid Harmonic Filter

To improve the capability of Filters - Hybrid Solutions is the best option comprising of Tuned / Detuned Thyristor Switching Passive Filters and modular Active Harmonic Filters. Tuned filter circuit improves the power factor of the network, absorbs the basic harmonics and Active Harmonic Filter module feeder improve the network quality by reducing the harmonics from the network. It is a very cost effective solution for improving power factor and at the same time mitigating harmonics.

Application of AHF / Hybrid Harmonic Filters

- Industry
- Automotive
- Arc Welding
- Steel / Metal
- Cement
- Chemicals
- Pharmaceuticals
- Textiles
- Petrochemicals
- Lifts, Port Cranes
- Pulp and Paper Industry
- Wind Farms and Solar Power
- Water and Waste Water Treatment
- Crushers and Shredders

Commercials

- Data Centers and IT-Facilities
- Offices and Buildings
- Traction and Metro Stations
- Fluorescent or HID Lighting
- Hospitals
- Airports
- Shopping Malls

Specifications

Electrical

Rated Voltage	:	AC 415V +20% to - 20% (Other Voltages on request)
Electric Connection	:	3P3W / 3P4W
Rated Frequency	:	50Hz (60Hz) +/- 10%
Input Voltage THD with stand	:	Up to 15%
Harmonic compensation range	:	2nd ~ 51st order (Selectable)
Harmonic compensation degree	:	0 ~ 100% (Selectable)
Harmonic Filtration Efficiency	:	> 98%, grid side after elimination THD-V <3%, THD-I <5%
Reactive Power Compensation Capacity	:	Positive, Negative, Zero Sequence Reactive
Full response time	:	< 10ms
Instant time response	:	< 25us
Thermal Loss	:	≤ 3%
Output Current Limitation	:	Automatic (100% rated current)
MTBF	:	> 100,000 hours

Control Technology

Switching Frequency	:	60 Khz
Controller	:	DSP Control
Communication	:	Modbus Protocol, RS232/485

Physical Dimension

Rating	:	50/75/150 Amp	100 Amp	200/300Amp	400/500 Amp
Dimensions (W x D x H)	:	600x800x1400	850x1050x725	850x1050x1525	850x1050x1825
Weight	:	100/110/160 Kg	160 Kg	210/330 Kg	410/490 Kg
IP Grade	:	IP20	IP20	IP20	IP20
Noise	:	< 65dB (A)			
Cooling Method	:	Intelligent forced air cooling			

Standard

Standard	:	CE

Environment Requirement

Ambient Temperature	:	-10 ~ 50 °C
Relative Humidity	:	(RH) 0~95% (Non-condensting)
Altitude	:	< 1000m Rated Capacity,
	:	1000-2000m (derating 1% per 100m)

*Specifications are subject to change without notification.

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