

ELECTRICAL SAFETY
POWER QUALITY
ENERGY MANAGEMENT



Eetarp Active Harmonics Filter

- Modular Design
- Filtering, reactive power compensation
- Excellent filtering performance > 97%
- Integrated HMI Display

Eetarp Active Harmonics Filter



Product Description

Eetarp active harmonics filter (AHF) is designed to be modular and scalable. Active power filter is a new type of electronics device for dynamic filtering of harmonic and reactive power compensation. It can conduct real-time filtering and compensation according to the actual harmonic distortion. The AHF used to overcome disadvantages of traditional passive harmonic suppression and reactive compensation method.

In the AHF, highly reliable IGBT module of Infineon from Germany was design and used in the module to ensure highest reliability achieved. Multiple 16 bits ADCs with high precision sampling capability was incorporated to achieve the highest compensation accuracy.

Features

- Harmonics filtering from 2- 50th order
- Filtering, reactive compensation, three-phase imbalance
- Excellent filtering performance $\geq 97\%$
- Integrated HMI display (3, 7 or 10 inch)
- Easy installation & commissioning
- Wall mounted, rack mounted & floor standing options
- Load unbalance compensation
- Reactive power compensation
- Internal overload protection
- IGBT over-heating protection

Typical Applications

- **Harmonics Mitigation for VSD** - The most common application for AHF is the compensation of harmonics generated by variable speed drives, often referred to as VFDs or frequency converters. Drive systems have the benefits of lower energy usage or power consumption but it created higher harmonics emissions.
- **Lighting** - Light systems can cause harmonics that heat neutral conductors and disturb nearby equipment due to zero sequence harmonics. Modern energy saving lighting generated high harmonics although it having benefits of energy saving. In this case, active harmonics filters are well suited to combat these problems.
- **UPS System** - UPS or Uninterruptible Power Supplies are used for many critical applications like hospital, data center, infrastructures and building to ensure the reliable power supply to ensure the uptime but in return sacrificed the power quality due to high harmonics generated by UPS.

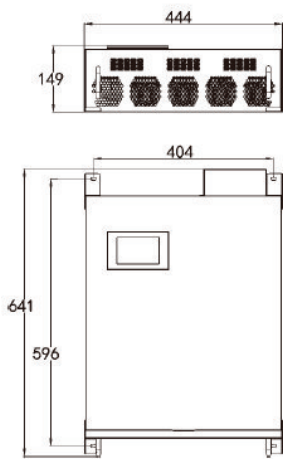
Product Specification	Rack Type Module	Wall-mount Type	Panel Type	
AHF Technical Parameters				
Power grid voltage	400/690V (-40%~20%)			
Power grid frequency	50/60±5Hz			
Wiring pattern	Three-phase three-wire, three-phase four-wire			
Capacity	30A / 50A / 60A / 75A / 80A / 100A / 150A	100-150A	100A above	
Harmonic order	2-50 times of harmonic compensation, eliminating all harmonic waves or harmonic waves of selected number of times			
Setting of harmonic degree	It is allowed to set independently to each time of harmonic wave			
Harmonic compensation efficiency	≥97%			
Full response time	≤5ms			
Compensation mode	Harmonic compensation, reactive compensation and three-phase unbalance compensation			
Parallel running capability	Supporting parallel connection of at most 10 modules			
Active power loss	<3% rated output capacity of equipment			
Display function (user interface)	3in LCD, displaying real-time data of module, waveform curve, parameter setting, record inquiry and manufacturing information	Inquiry system of 7in LCD touch screen (optional, real-time data of parallel connection module, waveform curve, parameter setting, record inquiry and manufacturing information)		
Protection mode	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.			
Cooling mode	Forced air cooling			
Noise	≤65dB			
Protection grade	IP20 (Higher protection grade can be customized.)			
Communication	Remote RS485/RS232/Ethernet communication function (optional)			
Dimension and Installation Environment				
Weight/kg	~ 24.5 to 51kg		~ 400kg	
Dimension (mm) Width*Thickness*Height	444×149×641 (30 – 75A) / 520×237×759 (100 -150A)		800*800*2200	
Wire incoming mode	Rear incoming	Upper incoming	Upper incoming/lower incoming	
Color	RAL7032 (Other colours can be provided as required)			
Installation environment	Temperature: -10℃ - +45℃; Humidity: 5% - 95%; Altitude: altitude <1,000. (For higher altitude, the product can be used through capacity reduction); Pollution grade: The product can run normally in severely polluted regions.			

Dimensions & Ordering Code

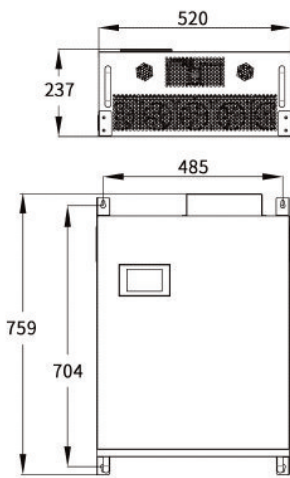
Ordering Code for AHF

E-AHF-	Eetarp Product Fixed Code
X	W = Wall Mounted, R = Rack Mounted, P = Panel Type
-	
X	Rated Capacity
-	
X	System Voltage (400)
-	
X	System Frequency (50 / 60)
-	
X	3 = 3 wires system
-	
X	04 = 4" HMI (Standard) 07 = 7" HMI (Optional), 10 = 10" HMI (Optional)

30 - 75A Wall-mounted



100 - 150A Wall-mounted



Eetarp Engineering Pte Ltd

1 North Coast Avenue, #03-01
Singapore 737663
Tel: +65 6339 3651
Fax: + 65 6339 3667
Email: contact@eetarp.com
Website: www.eetarp.com
CRN: 200001617K

Supported Countries

Australia, China, India, Indonesia, Japan, Philippines, South Korea, Taiwan, Thailand, Vietnam

Eetarp Power (M) Sdn Bhd

A-5-11, Blk Allamanda 10 Boulevard, Lebuhraya
Sprint PJU 6A 47400,
PJ, Selangor, Malaysia
Tel: +65 6339 3651
Fax: + 65 6339 3667
Email: contact@eetarp.com
CRN: 1205228P