



Active Harmonic Filter

220~480V / 50(60)HZ

Low voltage network



Environment

- Installation: Indoor/Outdoor
- Ambient temperature: -20~55°C
- Humidity: ≤95%max

Connection mode

- 3P4W
- 3P3W

Environment certifications

- ISO 9001:2015
- ISO 14001:2015
- CE
- Type Test Report

ELCOSINE AHF which is in parallel to power grid can detect the harmonic wave in power grid in time, generate the reverse-phase compensation current through the converter and dynamically filter the harmonic wave in power grid.

Options available through page 2

www.Elcosine.com

General Characteristics

Electrical Specifications

Rated voltage	220~480V ± 15%
Electric Connection	3 Phase 4 Wire / 3 Phase 3 Wire
Rated Frequency	50/60Hz ± 5%
Compensation Mode	Reactive power compensation Harmonic compensation 3 phase imbalance compensation Conventional capacitor switching
Harmonics Filtering Effect	Typically, THDI ≤ 5% at rated load (Even with most complex loads).
Filter range	2nd~51st odd order harmonics (Selective or Full compensation)
Rated of Harmonic Reduction	≥ 97% (For typical harmonic order distortions)
Target Power Factor	Adjustable from -1.0 to +1.0
3 Phase Load Balancing Effect	≤ 5%, Mitigate negative and zero sequence
Neutral Filtering Capacity	3 times the rated filter current (In case of 4 wire device)
Reactive Power Compensation Capability	Both inductive and capacitive reactive power compensation
3 phase imbalance	≤ 5% (At the capacity is sufficient)
Imbalance Correction Capability	Mitigate negative and zero sequence
Overall Response time	≤ 5ms
Initial Response time	≤ 50us
Thermal Loss	≤ 2.5 % of SVG rated capacity (kVA)
Output Current Limitation	Automatic (100% rated capacity)
Switching/Control frequency	25.0kHz

Control Technology

Human Machine Interface (HMI)	7" HMI (Touched&Colorized LCD Screen)
Topology	3 Level IGBT
Control algorithm	Intelligent FFT, Self-adaptive control algorithm
Controller	DSP+FPGA
Control connection	Fiber or electrical connection

Physical Specification

IP Grade of Cabinet	IP20
Cooling method	Speed regulation intelligent air cooling PWM Fans
Noise Level	<60db (s45db during low-speed operation)
Protection	Hardware protection, Software protection

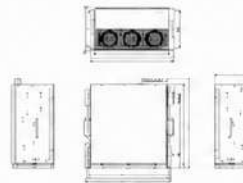


Active Harmonic Filter

References

Rated voltage	System voltage	Rated current	Type
220/400 VAC	171~269V/300~456V	15A	EL-AHF/15
220/400 VAC	171~269V/300~456V	25A	EL-AHF/25
220/400/480 VAC	171~269V/300~456V/356~515V	50A	EL-AHF/50
220/400/480 VAC	171~269V/300~456V/356~515V	75A	EL-AHF/75
220/400/480 VAC	171~269V/300~456V/356~515V	100A	EL-AHF/100
400/480 VAC	300~456V/356~515V	125A	EL-AHF/125
220/400/480 VAC	171~269V/300~456V/356~515V	150A	EL-AHF/150

Dimensions



Type	Size (W*D*H)	Net Weight (kg)
EL-AHF/15~4~4L	320*400*125	11
EL-AHF/25~4~4L	320*400*125	15
EL-AHF/75~4~4L	505*550*190	30
EL-AHF/75~4~4L	505*550*190	35
EL-AHF/100~4~4L	505*570*280	50
EL-AHF/125~4~4L	505*570*280	54
EL-AHF/150~4~4L	505*570*280	57

Accessories ordering codes

EL-HMI	7 inch Human Machine Interface, Touched LCD Screen with matched cables
--------	--

Modules Pictures

Horizontal Rack Module



Wall Mounted Module



Vertical Rack Module

