

Wise Power Active Harmonics Filter
Wise Power Wise Choice
Quality Power Ensured



Wall Mounted (WP-FW)



Rack Mounted (WP-FR)

PREFACE

Wise Power Active Harmonics Filter will monitor the distorted electrical signal, determine the frequency and magnitude of the harmonic content, and then cancel those harmonics with the dynamic injection of opposing current. Active harmonic control provides the benefit of traditional passive filters with simpler engineering requirements, easier and less expensive installation, comprehensive control, and assured compliance with the IEEE 519-2014 standard.

Wise Power Active Harmonics Filter Advantages:

- Decreases excess heating of electrical cable switchgear and transformers
- Reduce downtime caused by nuisance thermal tripping of protective devices
- Compensates each phase individually
- Increases network reliability and reduces operating costs
- Power factor correction as the active filter can stabilize the system by providing a perfect source for the load
- Harmonic Compensation 2nd ~ 51st Harmonic
- Modular system with additional capacity as needed
- Provide dynamic correction for other power quality events such as Resonance Prevention, Power Factor Correction & Dynamic VAR Compensation

Key Features

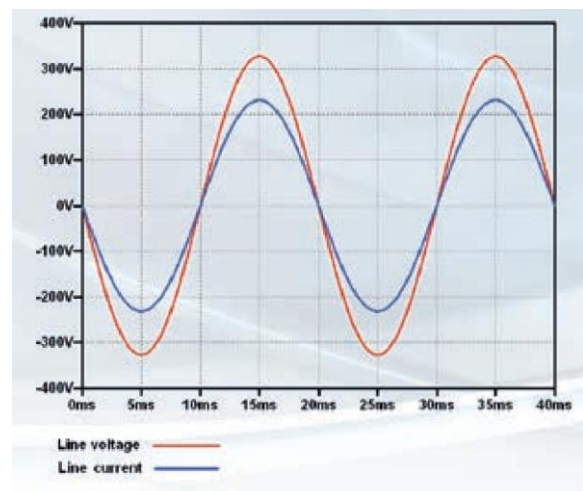
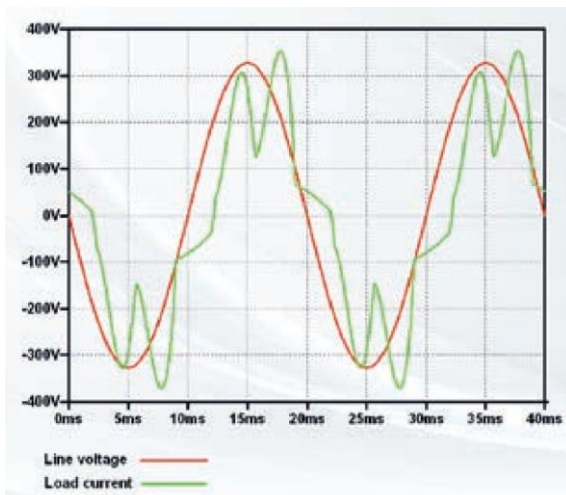
Wise Power Active Harmonics Filter is a state of art power converter which measures the harmonics current generated by the non-linear load. It will then generate an opposite phase shifted harmonics current of the same amplitude to cancels the loads harmonic current and then obtains a sinusoidal current in the utility; thus improving power quality and compensating unbalanced currents as well.

Harmonic compensation up to 51st harmonic & with individually selectable

Modular system extendable (from 30A to 3000A) permits low life cycle costs and low losses.

Easy installation & commissioning with color icon touch screen interface

Highest performance:
Reaction time < 10ms



With Wise Power Active Filter installed, harmonics oscillations are compensated

Harmonics caused by non-linear load w/o Wise Power Active Harmonics Filter

Application Fields

As the Power Electronic operated loads are widely used in any field of energy consumption, the need for Active Harmonics Filter is spreading in Industrial as well as Private and Tertiary applications.

The flexibility of Wise Power Active harmonics Filter compensation allows the selection and implementation even at the design stage, without knowing the actual load profiles.

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- + (UPSs) Uninterrupted Power Supplies
 - + Variable Speed Drives
 - + Building automation
 - + Welding
 - + Tunnel ventilation
 - + Data centers
 - + Marine propulsion
 - + Large elevators and cranes
 - + Oil and Gas
 - + Wind turbines
 - + Paper mills
 - + Steel industry
 - + Cement industry
 - + Automotive industry
 - + Water treatment

The awareness of harmonics pollution consequences, is leading Energy Authorities in many countries to rule the maximum and allowed harmonic pollution generated by Energy Users; consumers are then led to monitor, to keep under control, and take measures to respect the limits and avoid penalties.

Standards Comply

Wise Power Active Harmonics Filter is the perfect remedy to enhance power quality.

The following standards applies for harmonics limits in electric networks:

- EN 61000-2-2
- EN 61000-2-4
- EN 61000-3-2
- EN 61000-3-12
- EN 61000-3-3
- IEEE STD 519-2014

Technical Characteristics

Model	WP-FW (Wall Mounted) WP-FR (Rack Mounted)	
Installation Location	Indoor	
Working Voltage	400Vac +/-15% (208Vac available w/customization on request)	
Frequency	50/60Hz (selectable)	
Format	Three-Phase Three-Wire System (3P3W)	
	Three-Phase Four-Wire System (3P4W)	
Harmonic Compensation	2 nd ~ 51 st orders / (w/selective orders)	
Filtering of harmonic current capacity (A)	30A, 50A/60A, 75A, 90A/100A, 120A/150A Modular units can be parallel/scalable up to 3000A	
Dimensions	20/30/35/50/60A	423mm(W) x 88mm(D) x 550mm(H), 15kg
Wall-Mounted System	75/90/100/120A	503mm(W) x 190mm(D) x 597mm(H), 38kg
	150/200A	503mm(W) x 220mm(D) x 608mm(H), 43kg
Dimensions	30/50/60A	453mm(W) x 450mm(D) x 86mm(H), 14kg
Rack-Mounted System	75/90/100/120A	551mm(W) x 540mm(D) x 190mm(H), 37kg
(can be mounted into own server rack)	150/200A	558mm(W) x 540mm(D) x 220mm(H), 42kg
THDi correction ratio	THDi (current distortion) < 5% (<i>depending on load</i>)	
Reference Harmonic Standard:	EN 61000-34, IEEE 519-2014	
Cooling:	Intelligent cooling	
Heat Load/Dissipation	20A/30A – 594W / 2,026 BTU 50/60A – 990W / 3,378 BTU 75A – 1,485W / 5,067 BTU 90/100/120A – 1,980W / 6,756 BTU 150/200A – 2,970W / 10,134 BTU <i>5% of operating load</i>	
Protection function	Grid over-voltage, under voltage, phase error, less phase, over current, bus over-voltage, under voltage, over temperature and current limit protection	
Cable entry	Top Entry for standard unit (<i>Default</i>) Cabinet can be top/bottom entry (<i>to be specified @ time of order</i>)	
Communication	RS485	
Operating Temperature	0 ~ 65degC	
Relative Humidity	<95%	
Power loss	<5%	
Dynamic response time (ms)	<10ms	
Filtering Efficiency (%)	>97%	
Noise Level (dB)	<55dB within 1m	
Overload (1min)	120%	
Current transformer (CT)	Three CT (Class 1.0 or above) 5VA, CT secondary current is 5A	
Protection Class	IP20 / (other class available on request w/additional cost)	
Color Code	Black RAL 9005	

C E R T I F I C A T E

of Conformity

EC Council Directive 2014/30/EU

Electromagnetic Compatibility



Registration No.: AE 50511302 0001

Report No.: CN21TBON 001

Holder: Xi 'an CoEpower Electric Co., Ltd.
E101A, Gazelle Valley, Jinye Road
NO.69 Entrepreneurship Research and Development Park,
Xi'an Hi-tech Zone, Xi'an,
Shaanxi
P.R. China

Product: Electrical Equipment
(Active Power Filter)

Identification: Type Designation : CoEpo APP/150-0.4-W
Serial No. : Engineering sample
Remark: Refer to test report CN21TBON 001 for details.

Tested acc. to: EN IEC 61000-6-2:2019
EN IEC 61000-6-4:2019

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 2014/30/EU. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to the a.m. Directive.

Date 14.07.2021



TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

CE The CE marking may only be used if all relevant and effective EC Directives are complied with. CE



C E R T I F I C A T E
of Conformity
EC Council Directive 2014/30/EU
Electromagnetic Compatibility

Registration No.: AE 50511297 0001

Report No.: CN21FLS1 001

Holder: Xi 'an CoEpower Electric Co., Ltd.
E101A, Gazelle Valley, Jinye Road
NO.69 Entrepreneurship Research and Development Park,
Xi'an Hi-tech Zone, Xi'an,
Shaanxi
P.R. China

Product: Electrical Equipment
(Static Var Generator)

Identification: Type Designation : CoEpo SVG/100-0.4-W
Serial No. : Engineering sample
Remark: Refer to test report CN21FLS1 001 for details.

Tested acc. to: EN IEC 61000-6-2:2019
EN IEC 61000-6-4:2019

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 2014/30/EU. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to the a.m. Directive.

Date 14.07.2021



Certification Body

Ying Xie

TÜV Rheinland LGA Products GmbH - Tillystraße 2 - 90431 Nürnberg

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