

Active Harmonic Filter 50A 75A 400V Three-Phase Modular FCL

This active harmonic filter (AHF) provides reactive power compensation and harmonic control for three-phase systems. It addresses power quality issues like waveform distortions, low power factor, and voltage variations.



ADDITIONAL IMAGES



Overview



A compact 50A/75A modular AHF unit designed for rack or wall mounting.



Integrated energy management system for industrial harmonic mitigation.

Advanced Power Quality Solution

This Active Harmonic Filter (AHF) is a high-performance, modular solution designed to eliminate waveform distortions, low power factor, and load unbalance in three-phase power systems. By injecting real-time compensation currents, it ensures stable operation, reduces energy losses, and extends the lifetime of electrical equipment. Its flexible design supports both wall and rack-mount installations, making it ideal for diverse industrial and commercial segments.

Key Features

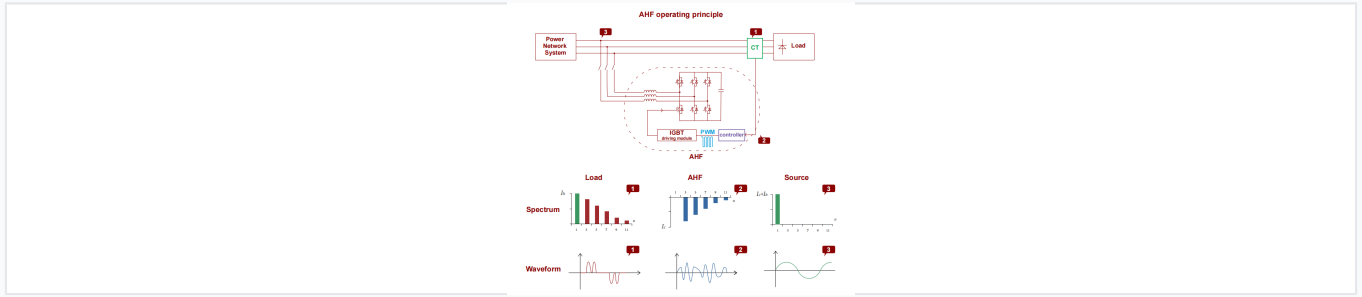


Diagram showing how the AHF detects load distortion and injects compensating current.

Technical Highlights

- Instantaneous dynamic response via 16kHz/20kHz IGBT switching
- Parallel capability up to 1500A for scalable demand
- Superior current-limit capability for continuous full-mode operation
- Maintenance-free independent airflow design to reduce dust accumulation
- Advanced DSP control with intelligent FFT logic

Core Functions

Harmonic Control, Reactive Power Compensation, Three-phase Unbalance Control, Voltage Variation Mitigation

Performance Metrics

Performance Standards

3 %

Target THDi

0.99 PF

Power Factor

50 th

Max Harmonic Order

Technical Specifications

Phase Configuration

Three-Phase 3-Wire • Three-Phase 4-Wire

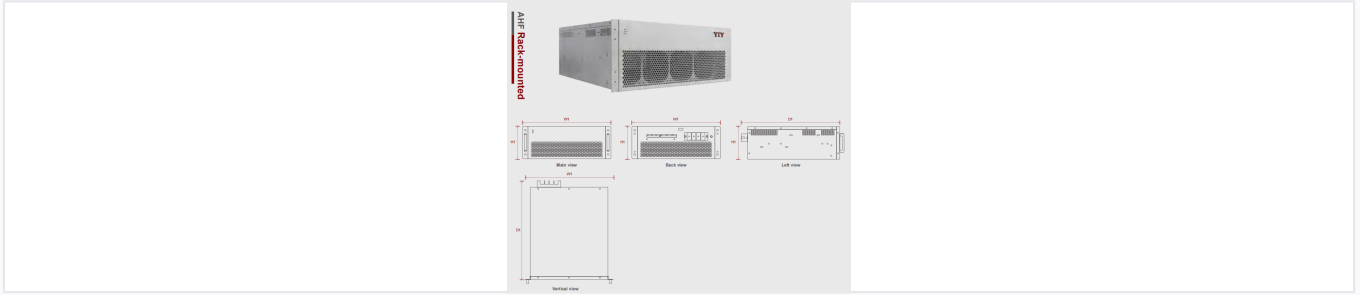
Nominal System Voltage

400 V

Cooling Mode

Forced air cooling

Model Selection (Modular)



Dimensional views of the modular rack-mounted filter unit.

Modular Unit Range

Capacity (A)	Dimensions (D*W*H mm)	Type
50	486x530x95	Compact Rack
50	539x453x190	Standard Rack
75	599x513x190	Standard Rack
100	549x470x230	Standard Rack
150	609x550x215	Standard Rack

Model Selection (FCL Cabinet)



Dimensional layout for large-scale FCL cabinet configurations.

FCL Cabinet Range

Capacity (A)	Dimensions (D*W*H mm)
100	800*1000*2200
200	800*1000*2200
300	800*1000*2200
400	800*1000*2200
500	Customizable

Compliance & Quality



Standardized safety warnings and installation compliance markers.

Standards & Certifications

ISO 9000, ISO 14001, CE, RoHS, UL, TUV, FCC, IEEE-519 Compliant