



Active Harmonic Filter

Silicon Carbide & Advanced Software Delivers Superior Results



Ultra High-Efficiency Architecture

- Delivers up to 99% system efficiency reducing energy losses by up to 30% vs. conventional filters
- Lowers operating temperatures, improving system lifespan by up to 2x



Compact, High-Density Design

- Up to 30% smaller footprint compared to legacy active harmonic filter systems
- Modular form factor scales from 15A to 450A+ without redesign



Intelligent Software & Rapid Response

- Fast commissioning and tunable EC motor harmonic mitigation
- SiC provides high-speed response with precise harmonic correction and power quality stability



Flexible System Integration

- Compatible with 3-phase 3-wire 380-480V systems*
- Provides up to +/-1 power factor correction for both inductive and capacitive loads

* Not including 15A modules

Whole facility coverage - safeguard your entire operation with a single filter solution.

- Real-time harmonic correction
 - Effective for fluctuating loads
 - Handles multiple harmonic signatures at once - 6 Pulse VFD / EC Fans / LEDs / etc.
 - Corrects harmonics up to the 50th order
- Reduce THiD to less than 5%
 - Meet IEEE-519 standards with confidence
 - Operation range from -30°C to 40°C and 1500m without derating
 - Generous warranty: 18 months from date of installation



Learn more about SyntriX AHF® now!

Performance Specifications

Amp Rating	15A	25A	50A	75A	100A	150A
Control Algorithm	FFT, intelligent FFT, and instantaneous reactive power					
Filtering Range	2nd to 50th, selectable for each order, amplitude adjustment					
Advanced Control Algorithm	Resonance suppression, compensation performance software auto-tuning, no CT connection for THDu compensation					
Filter Performance	>97%					
Even Harmonic Filter Performance	>97%					
Zero-Sequence Filter Performance	3 times capacity compensated, >97%					
Reaction Time	<50us					
Overall Response Time	<5ms					
Target Power Factor	Adjustable from -1 to +1					
Switching Frequency	Average 40kHz, up to 95kHz					
Watts Loss	<250W	<415W	<831W	<1247W	<1662W	<2490W
Cooling Air Requirement	93CFM	250CFM	310CFM			
Noise Level	<60dB (Full Load)					
Operating Temperature	-30°C~40°C (may derate capacity if ambient temperature exceeds 40°C)					
Relative Humidity	5% to 95%, non-condensing					
Operating Altitude	≤1500m, 1500-4000m, capacity is derating 1% for every 100m altitude increased.					

Product Specifications

Amp Rating	15A	25A	50A	75A	100A	150A
Communication Ports	RS485 and Ethernet port(RJ45)					
Communication Protocol	Modbus RTU, TCP/IP					
Module Display Interface	7 in. (central monitor) 4.3-inch HMI (wall module), 7-inch HMI (central monitor)					
Protection Functions	Over-voltage protection, under-voltage protection, inverter bridge inverse protection, over-compensation protection and more.					
Mounting Type	Wall-mounted, rack-mounted and cabinet					
Outer Dimensions: Rack (HxWxD)	1.8" x 17.3" x 15.8" 3.5" x 20.9" x 24.1" 28.1" x 20.9" x 4.3"					
Outer Dimensions: Wall (HxWxD)	2.7" x 16.2" x 15.8" 23.4" x 19.8" x 3.5" 28.1" x 20.9" x 4.3"					
Net Weight (lbs)	11 lbs 40 lbs 82 lbs					
Environmental Rating	Open / IP20 / NEMA 1 / NEMA 3R (Check website for specific models available)					

