



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 50A to 450A+ without redesign



Intelligent Software & Rapid Response

- Fast commissioning and advanced 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 480V systems
- Provides up to +/-1 power factor correction for both inductive and capacitive loads

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 -10°C to 40°C and 1500m without degrading
 - Industry leading 24-month warranty



Learn more about SyntriX AHF™ now!

Performance Specifications

Rating	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			
Cooling Air Requirement	310CFM			
Noise Level	<60dB (Full Load)			
Operating Temperature	-10°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

Communication Ports	RS485 and Ethernet port(RJ45)
Communication Protocol	Modbus RTU, TCP/IP
Module Display Interface	4.3-inch HMI (module), 7-inch HMI (central monitor) and LED
Protection Functions	Over-voltage protection, under-voltage protection, inverter bridge inverse protection, over-compensation protection and more.
Mounting Type	Wall Hanging Assembly / Rack Style Assembly
Dimensions (inches)	Wall Hanging Assembly: 27.8 x 19.8 x 4.3 Rack Style Assembly: 28.1 x 20.9 x 3.9
Net Weight (lbs)	78 lbs
Rating	Wall Hanging Assembly: IP20 Rack Style Assembly: OPEN PANEL
Rating	ETL, CE



MTE Corporation
(800) 455-4MTE • (262) 253-8200

