

The Active Harmonic Filter can be incorporated with any type of non-linear plant loads, under constant or variable load conditions. The AHF will provide low harmonic distortion and unity power factor to the plant utility grid to help meet the ANSI/IEEE Std. 519™-2014 harmonic standards.

This high level of performance eliminates the possibility of high amplitude transient harmonics being reflected back to the utility, or to any other equipment, during sudden load changes. In addition to meeting the standards, utility costs will be lowered and the life of the equipment within the plant will be extended.

The AHF incorporates state-of-the-art UPS technology and the most powerful microcontroller and electronics available in the market today. Its design does not require detailed knowledge of the plant load or the type of harmonics involved. The AHF responds to the exact need as it develops.

## APPLICATIONS

- ◆ Designed to instantly react to and correct a wide range of harmonic conditions to meet ANSI/IEEE Std. 519™-2014 harmonic standards

## BENEFITS

- ◆ Actively reduces harmonic distortion to the levels required for IEEE Std 519™-2014 compliance
- ◆ Instantly reacts to and corrects to varying load conditions
- ◆ Provides active power factor correction
- ◆ Balances 3-phase line current from the utility and increases usable capacity
- ◆ Does not require a detailed engineering study for proper sizing and application
- ◆ Reduces utility costs by eliminating harmonics and increasing power factor to near unity
- ◆ Prevents overheating and extends operational life of plant equipment



## STANDARD FEATURES

- ◆ UL & cUL listed
- ◆ Designed to operate for at least 200,000 hours
- ◆ Assembled in the USA

## STANDARD RATINGS

- ◆ 480, 240 and 208 V
- ◆ 50 to 300 amps Total Corrective Current
- ◆ 3-phase, 3-wire plus ground
- ◆ 60 Hz +/- 5 Hz
- ◆ 50 Hz models available

## ENCLOSURES

- ◆ NEMA 1 wall mount, floor mount
- ◆ Open panel
- ◆ Other enclosures available upon request

## PERFORMANCE SPECIFICATIONS

- ◆ Limit harmonic current to <5% TDD immediately upstream of installation point as per IEEE Std. 519™-2014
- ◆ Power Factor: Near unity (0.99) immediately upstream of installation point
- ◆ Line Current Balancing: ± 1% immediately upstream of installation point
- ◆ Efficiency: 98% at full load

## OVERLOAD PROTECTION

- ◆ Overload protection: output is limited to 300% peak, 100% rms of current rating
- ◆ Fused to provide redundant overload protection
- ◆ Over temperature protection

## INDICATORS AND CONTROLS

- ◆ LCD Touchscreen display provides power quality information, operating parameters, operational status
- ◆ Ethernet and RS232 interface for remote communications with system
- ◆ Relay contacts provide system run, fault and max load status (3 relays rated at 125VAC/0.5A or 24VDC/1.0A)

## PHYSICAL

- ◆ Stand-alone or parallel system for added capacity
- ◆ Panel mount design available for integration within other equipment
- ◆ Operating Temperature: 0°C to 40°C ambient without derating
- ◆ Humidity: 95% maximum non-condensing
- ◆ Storage Temperature: -20°C to +40°C
- ◆ Cooling: internal forced air
- ◆ Power: hardwired internal (top access)

## ACTIVE FILTER SELECTION CHART

The following chart shows a standard selection of the Active Harmonic Filters at 480 Volt, 60 Hz. For 240 Volt and 208 Volt applications replace "480" in catalog number with "240". Please consult factory for other voltages or 50 Hz applications.

MODEL (*)	TOTAL CORRECTIVE CURRENT	ENCLOSURE	DIMENSIONS (H x W x D)	ESTIMATED WEIGHT	LOSSES/MAX LOAD
<b>3AC2AHF050-480-1</b>	50 amps	NEMA 1 / <i>wall mount</i>	53 x 21 x 14.25 in	230 lbs	0.9 kW
<b>3AC2AHF100-480-1</b>	100 amps	NEMA 1 / <i>wall mount</i>	53 x 21 x 14.25 in	270 lbs	1.7 kW
<b>3AC2AHF150-480-1</b>	150 amps	NEMA 1 / <i>wall mount</i>	63.5 x 27 x 16.5 in	440 lbs	2.5 kW
<b>3AC2AHF200-480-1</b>	200 amps	NEMA 1 / <i>floor mount</i>	63.5 x 27 x 16.5 in	480 lbs	3.3 kW
<b>3AC2AHF300-480-1</b>	300 amps	NEMA 1 / <i>floor mount</i>	75 x 33 x 18 in	630 lbs	5.1 kW
<b>3AC2AHF050-480-0</b>	50 amps	<i>Open Panel</i>	45 x 16.9 x 12.7 in	135 lbs	0.9 kW
<b>3AC2AHF100-480-0</b>	100 amps	<i>Open Panel</i>	45 x 16.9 x 12.7 in	175 lbs	1.7 kW
<b>3AC2AHF150-480-0</b>	150 amps	<i>Open Panel</i>	54 x 22 x 13.7 in	245 lbs	2.5 kW
<b>3AC2AHF200-480-0</b>	200 amps	<i>Open Panel</i>	54 x 22 x 13.7 in	280 lbs	3.3 kW
<b>3AC2AHF300-480-0</b>	300 amps	<i>Open Panel</i>	56 x 22 x 13.7 in	400 lbs	5.1 kW

## NOTES:

- ◆ NEMA 1 enclosure models include an enclosure mounted disconnect switch
- ◆ Open panel mount models include a mountable front display panel
- ◆ All units include a set of standard size split current sensors
  - Standard current sensors for 50 amp - 150 amp units are 4" I.D. (rated for up to 2000 amps rms)
  - Standard current sensors for 200 amp - 300 amp units are 6" I.D. (rated for up to 5000 amps rms)