

# Power options



VLT® Advanced Active Filter AAF

VLT® Advanced Harmonic Filter AHF 005 and AHF 010

## VLT® Advanced Active Filter AAF

Active filter technology is the most advanced approach for mitigating harmonics. Fast current detection and micro-controlled inverse current injection reduce total harmonics to less than 3% THDi.

### Highly efficient

Active filters operate on much lower currents than comparable serial methods and are much more efficient. Dimensioning to the individual harmonics spectrum requirements saves further costs.

### Flexible

Active filters support central, individual or group compensation set-ups.

### Line voltage and filter current\*

380-480 V ..... 190/250/310/400 A

\* Additional voltage ranges and filter currents are available on request.

### Enclosure

IP00	IP20	IP21/Type 1
		■
IP54/Type 12	IP55/Type 12	IP66/Type 4X
■		

## VLT® Advanced Harmonic Filter AHF 005 and AHF 010

These passive harmonic filters are robust and easy to use. They reduce harmonics while maintaining good system energy efficiency.

### Strong performance

The AHF 005 and AHF 010 filters deliver superior system performance, and reduce THDi to less than 5% or 10% respectively, at nominal conditions.

### Optimized design

The filters offer superior cooling, very low heat losses and a compact footprint. The integrated capacitors can be switched off to reduce the reactive current at low loads.

### Line voltage and filter current

3 x 380/400/500/600/690 V...10-480 A\*

\* Achieve higher ratings by connecting in parallel. See AHF 005 or AHF 010 Design Guide for details.

### Enclosure

IP00	IP20	IP21/Type 1
	■	
IP54/Type 12	IP55/Type 12	IP66/Type 4X



VLT® Sine-Wave Filters



VLT® dU/dt Filters



VLT® Common Mode Filter

### VLT® Sine-wave Filters

VLT® Sine-wave Filters smooth the output voltage of a VLT® drive and reduce motor insulation stress and bearing currents as well as noise development in the motor.

#### For critical motors

Use the filter especially for AC drive operation of older motors, low permitted voltages in terminal boxes or without phase insulation.

#### Long motor cables

Enable use of motor cables with a length of 500 m and more, using a sine-wave filter.

#### Line voltage and filter current

3 x 200-690 V ..... 2.5-800 A\*

\*For higher power ratings, combine multiple modules.

### VLT® dU/dt Filters

VLT® dU/dt Filters reduce the rate of voltage rise on the motor terminals and protect old or weak motor insulation against breakdown. This is particularly important for short motor cables.

#### Retrofit

Retrofit is easy in older systems or motors.

#### Compact

These filters are smaller, lighter and more affordable, compared to sine-wave filters.

#### Line voltage and filter current

3 x 200-690 V ..... 15-880 A\*

\*For higher power ratings, combine multiple modules.

### VLT® Common Mode Filter

High-frequency common mode cores reduce electromagnetic interference and protect against bearing currents.

#### Wide coverage

Just 5 sizes cover the range up to 480 A.

#### Combinable

The filters can be combined with other output filters.

#### Line voltage and filter current

3 x 380-690 V ..... 10-480 A

#### Enclosure

IP00	IP20	IP21/Type 1
■	■	
IP54/Type 12	IP55/Type 12	IP66/Type 4X
■		

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