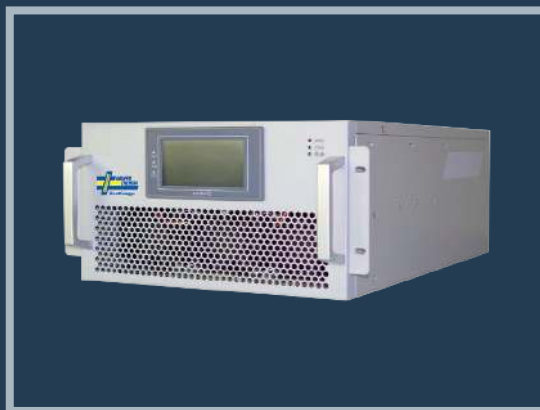


ACTIVE HARMONIC FILTER GE-AHF

MEETING USER'S REQUIREMENTS:

- PF=0,99 AND THDI <5%
- COMPENSATION FOR 2- TO 50- ORDER HARMONICS
- CAPACITIVE AND INDUCTIVE REACTIVE POWER COMPENSATION
- THREE-PHASE UNBALANCE COMPENSATION



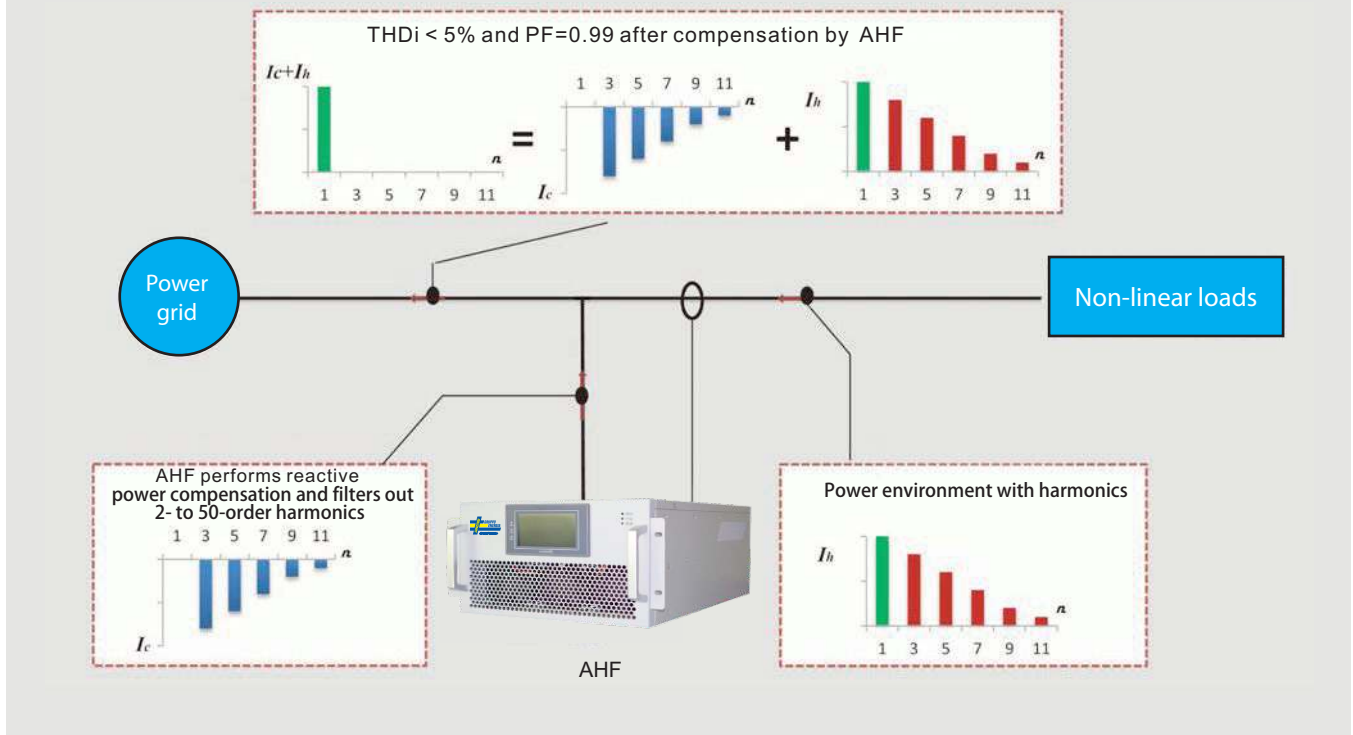
MADE IN ITALY



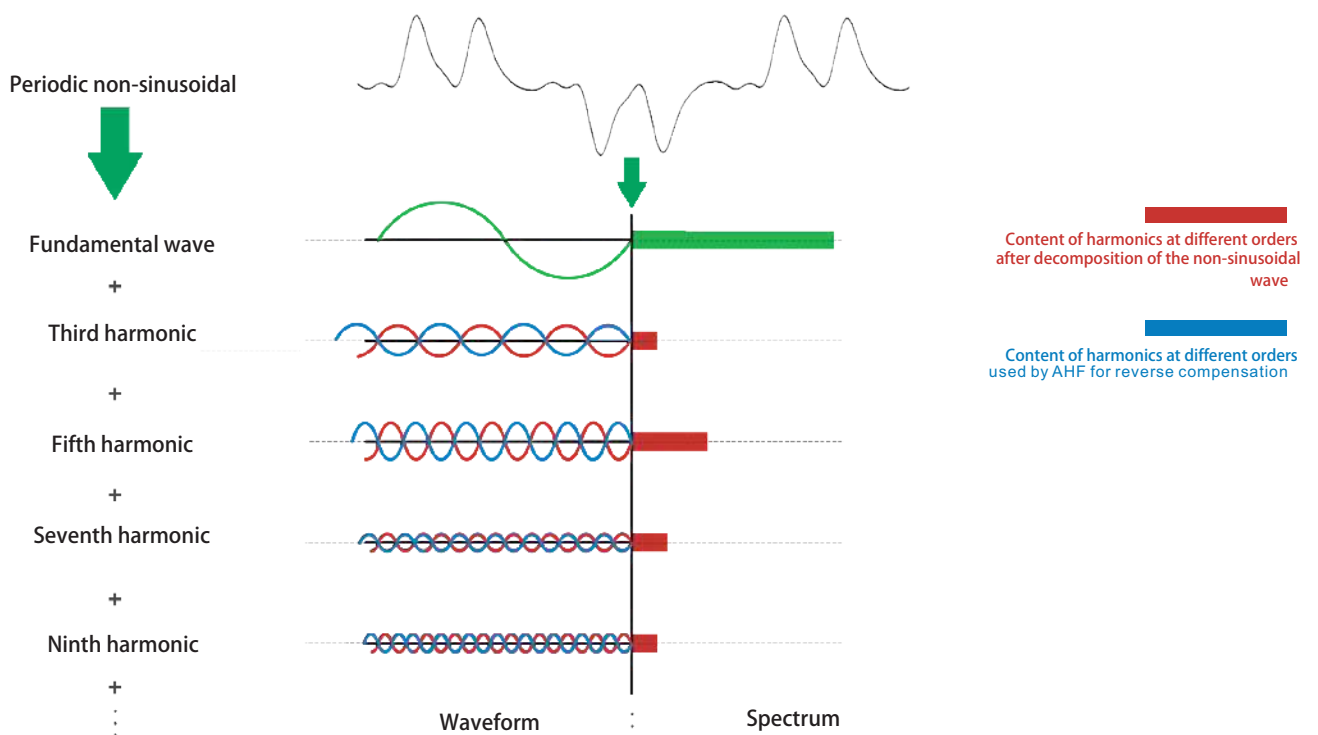
WWW.GRUPPOENERGIA.IT

GE-AHF OPERATING PRINCIPLE

AHF checks the load current in real time through the external CT, performs computing through the internal DSP, and then extracts the harmonic components of the load current. After that, it sends the harmonic components to the internal IGBT through PWM signals to control the inverter to generate a current with a power equal to that of the harmonic and a direction reverse to that of the harmonic. Then, it injects the current into the compensation harmonic current to implement the filtering function.



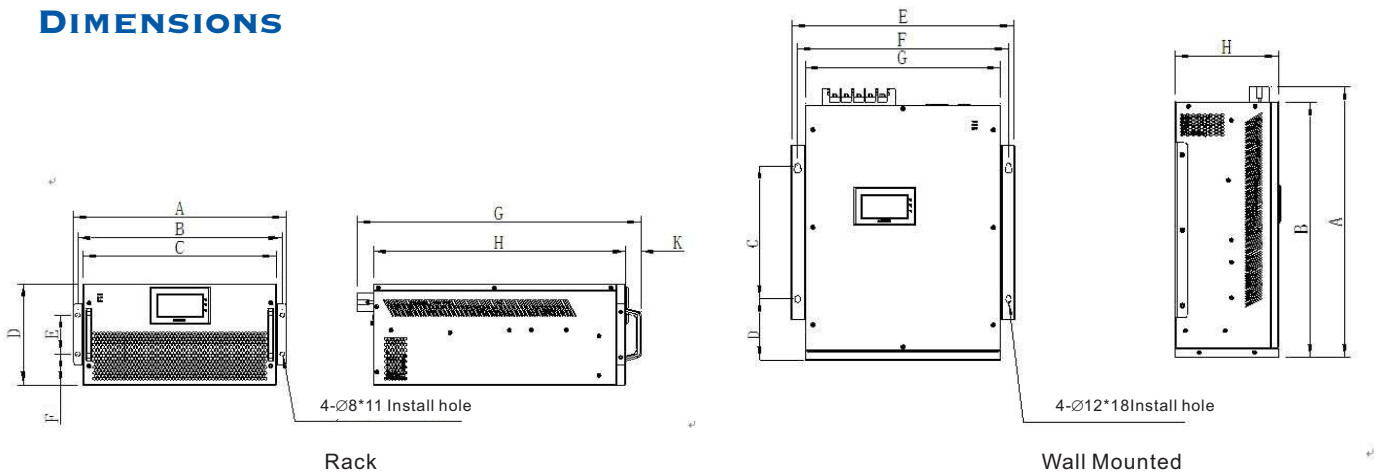
Current at individual harmonic orders superposed onto the fundamental current to form non-sinusoidal waveform.



ORDER CODE

GE A	AHF B	XXX C	4 D	4L E	R F	L G
Serial number						
A	Company code : GRUPPO ENERGIA					
B	Active Harmonic Filter					
C	Compensation current : 50A/75A/100A/150A					
D	Voltage degree : 4(400V) / 5(480) / 6(690)					
E	3L: 3P3W / 4L: 3P4W					
F	R: rack H: wall mounted F: Tower cabinet					
G	L : LCD / E : LED / M : Centralized monitoring					

DIMENSIONS



Installation	Rack			Wall Mounted		
	50A	75A/100A	150A	50A	100A	150A
Dimension(mm)	50A	75A/100A	150A	50A	100A	150A
A	359	484	554	512.5	611	621
B	341	466	536	500	575	585
C	315	440	510	300	300	300
D	200	232	250	120.5	137.5	142.5
E	89	89	89	379	500	570
F	55.5	71.5	80.5	350	475	545
G	556.5	646	656	315	440	510
H	500	575	585	200	232	250
K	35	35	35			

Item	
Rated input	400V/690V(-20%+15%)
Power grid frequency	50Hz/60Hz (range: $\pm 10\%$)
Parallel operation	Unlimited
Overall efficiency	$\geq 97\%$
Power grid structure	3P3L, 3P4L
CT	150/5 ~ 10,000/5
Performance Indicators	
Rated capacity	35A/50A/60A/100A/150A
Harmonic compensation	Available
Reactive power compensation	Available
Unbalance compensation	On request
Filtering range	2 to 50 orders
Filtering degree	Adjustable from 2 to 50
Filter performance	THDi<5%
Overall response time	<10ms
Target power factor	Adjustable from -1 to +1
Control algorithms	FFT, Intelligent and instantaneous reactive power
Switching frequency	20kHz
Noise level	<60dB
Communications and monitoring capabilities	
Communications ports	Rs485and network port
Communications protocols	TCP/IP, Modbus and TCP/IP
Module display interface	Touch screen
PC software	Optional
Protection functions	over-voltage protection, under-voltage protection, short-circuit protection, inverter bridge inverse protection, over-compensation protection and so on
Fault alarm	Available at most 500 alarm records
Monitoring	Independent monitoring and centralized monitoring
Mechanical properties	
Altitude	1% up 1500 m. Between 1500 m to 4000 m, the power decreases by 1% for every additional 100 m.
Operating temperature	-10°C ~ +40°C
Relative humidity	5% to 95% non-condensing
Protection class	Ip20 (other IP classes are customizable.)

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