Active Harmonic Filter

AHF-150A



Features :

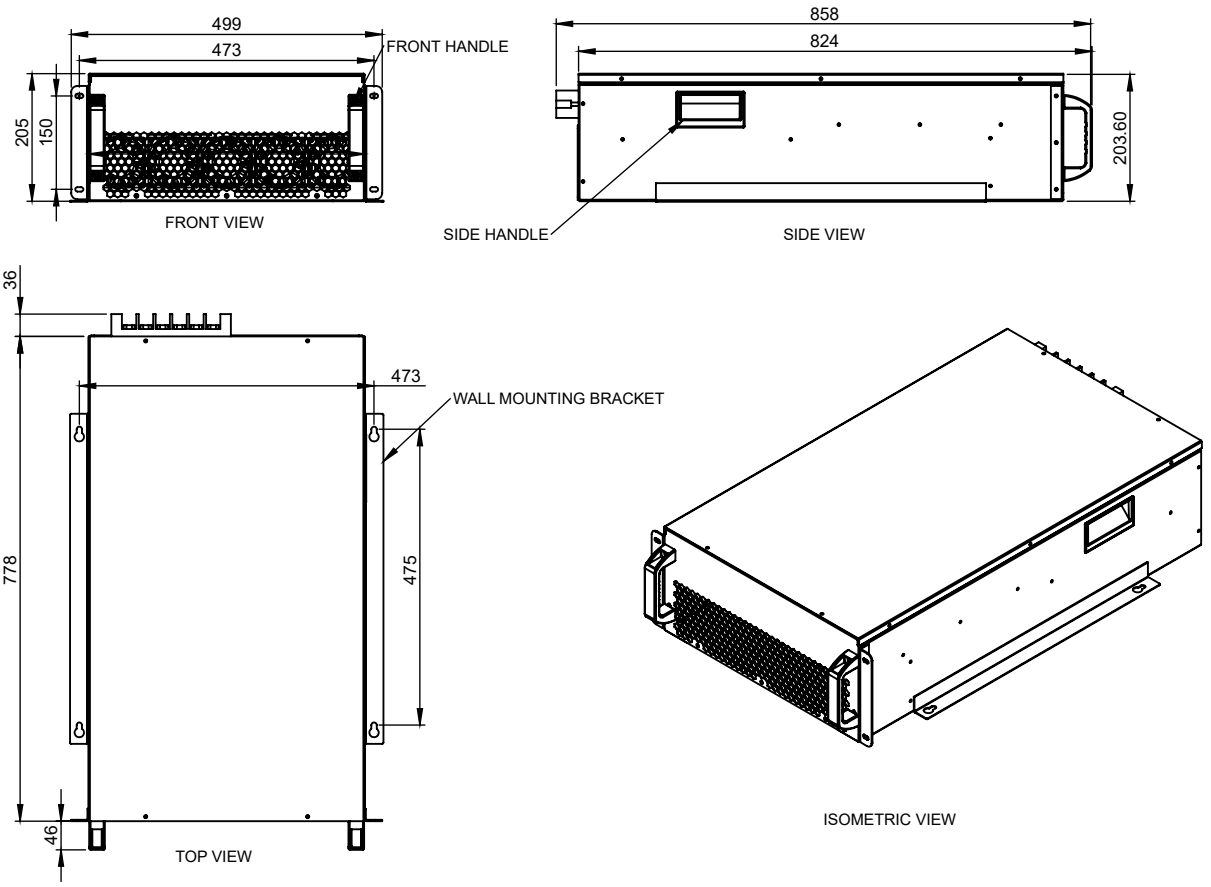
- Real time, dynamic step-less compensation
- Instant response time of 50 µsec & full response within 1 cycle
- Capacitive (Leading) & Inductive (Lagging) reactive power mitigation
- Harmonic correction up to 51th order
- RS485, Optional Wi-Fi / Ethernet modular arrangement-parallel operation up to 8 module
- Can be installed with conventional capacitor banks

Technical specifications

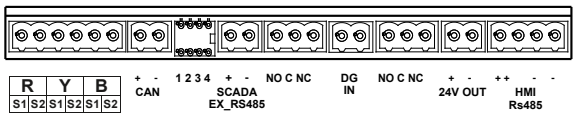
Main	
Product name	AHF
Product or component type	Active harmonic filter
System parameter	
Network	3P3W / 3P4W
Line - Line voltage	308V to 480V / 308V to 456V
Operating voltage range (P-N)	178V to 277V / 178V to 263V
Frequency	50/60 Hz (±2.5Hz)
Power efficiency	≥97%
Compensation efficiency	>98%
Incomer protection	External short circuit protection device mandatory
CT Ratio	Settable through HMI upto 30000 / 5A
CT Location	Load side (default) / Grid side
Rated RMS Current	150A
Inverter topology	3 level IGBT Inverter topology
Performance	
Response time	<50µsec and full response within 1 cycle
Overall response time	<5ms
Target power factor	Adjustable from -1 to +1
Cooling	Forced air, 188L / sec
Operating modes	Power factor correction, Harmonic mitigation, Load balancing
Noise level	<65 dB*
Normal spectrum of compensation	Up to 51st order of harmonics
Harmonic mitigation	150A
Protection type	Built in semi conductor fuse
Protection function	Over-voltage protection, Under-voltage protection, IGBT desaturation protection, Over temperature protection, Over compensation protection, over-current protection
Communications and Monitoring capabilities	
Local monitoring	4.3" HMI display
Digital inputs	1 DI-Pogrammable for DG input
Digital outputs	2 DO-Programmable for alarms
Communication ports	RS485 (Default)
Communication protocols	MODBUS-RTU (default)
Software updates	Through RS485 port using customised utility

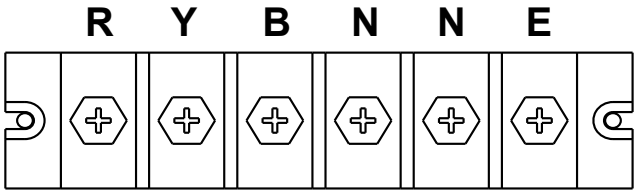
Mechanical properties	
Mounting type	Wall / Rack mount
Dimensions (W × D × H) mm	499*205*858
MCCB	200A
Colour	RAL9004
Environment conditions	
Altitude	<2000m
Operating temperature	-10 to 45 ºC (current derating of 2% per °C beyond 45 ºC)
Relative humidity	95% RH; Non condensing
Protection class	IP20
Certification and standard	EN 50178:1997/ IEC 50178:1997
Certification	EN 61000_6_2(2005) / EN55011, GROUP1, CLASS A IEC 61000_6_2(1999) / CISPR11, GROUP1, CLASS A
ASVG Series performance requirement	EN 50091-3 / IEC 62040-3 / AS 62040-3 (VFI SS 111)

Mechanical diamensions

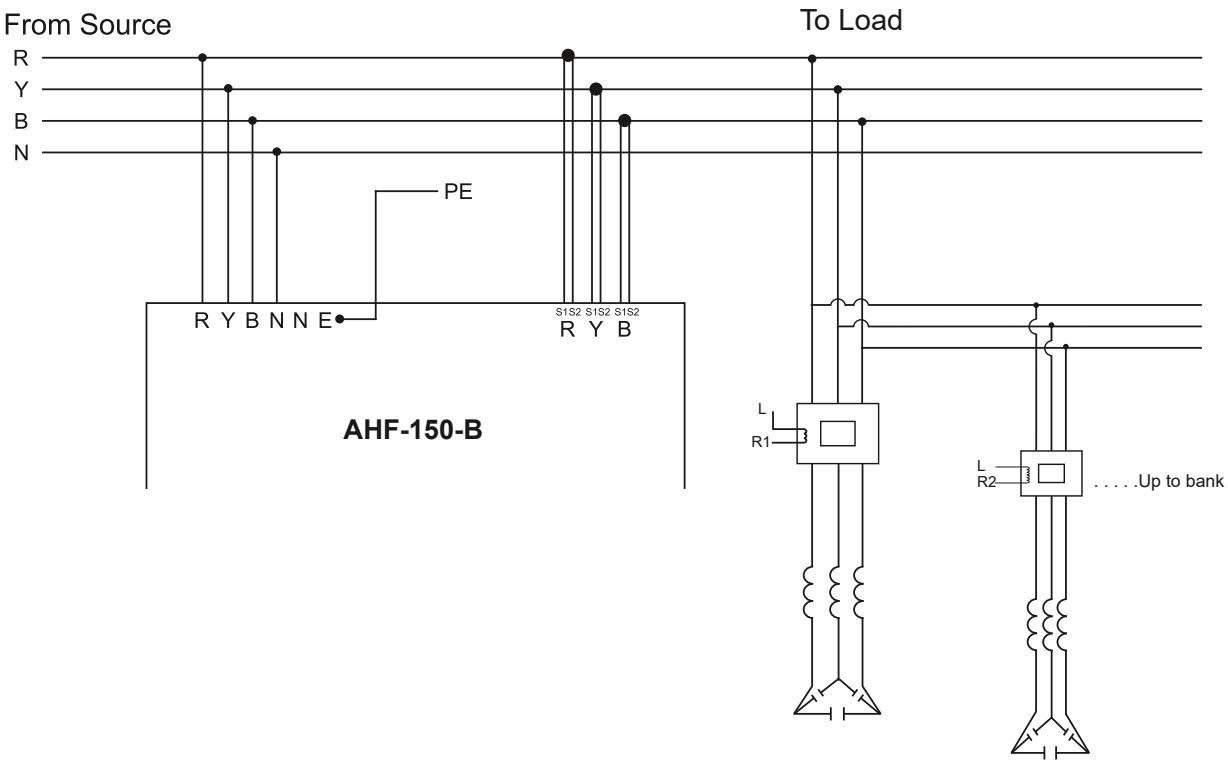


Terminal diagram





Terminal connection



Ordering information

Product code	Description
AHF-150-RCK-4P-04-B	Active harmonic filter 150A, B, Rack mounted, 3P-4W with 4.3 inch HMI
AHF-150-WLL-4P-04-B	Active harmonic filter 150A, B, Wall mounted, 3P-4W with 4.3 inch HMI
AHF-150-WLL-4P-XX-B	Active harmonic filter 150A, B, Wall mounted, 3P-4W without display

Note : For XX Model seperate common controller is mandatory