

# Active Power Filter

## 400V



### APF OFF



### APF ON



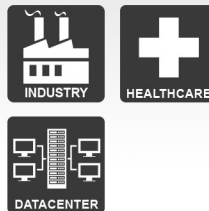
### Power Factor Correction

The Vision APF not only compensate harmonic current but also the reactive power. It is able to correct for either a leading or lagging power factor.

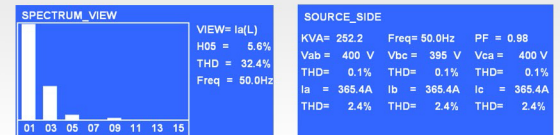
### Specifications

- Modular design, easy to extend
- Up to 51st harmonic
- Up to 12 harmonic orders selective individually
- Close/open Loop control
- Improves lagging and leading power factor at input loads
- Unbalanced loads compensation
- Reduces apparent power consumption at the supply and saves costs
- Resolves nuisance tripping of MCCBs
- Programmable power factor correction
- Full-time DSP control system
- Easy selection and maintenance
- Shunt connection
- Flexible upgrading and redundancy
- Parallel operation with different capacity
- User friendly LCD control panel
- EPO (Emergency Power Off)
- Rack/wall installation
- USB, RS232, (RS485/422, SNMP optional)
- 2 years warranty

### Applications



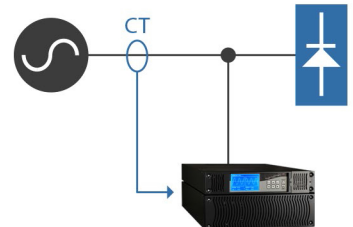
### LCD Display



The user friendly LCD display offers access to all parameters, waveforms, harmonic spectrum system power quality, settings, status and alarms, events log and multi-language.

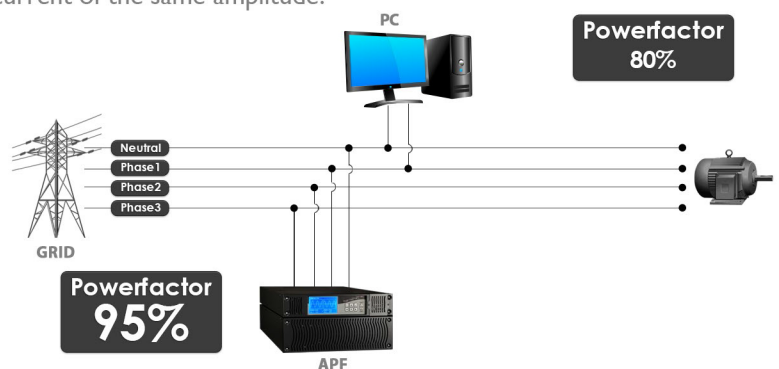
### Close/Open Loop Control

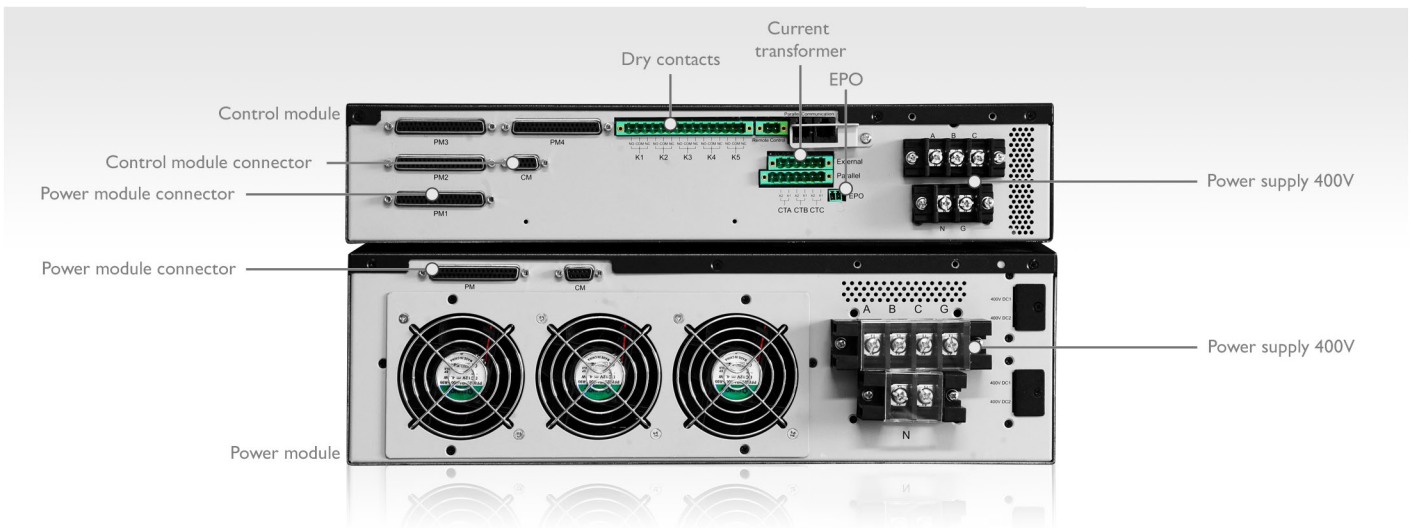
The CT is allowed to install at source or load side for measure the harmonic current from the load. When CT is installed at source side, the close loop control method is used for best accuracy of harmonic current compensation. (When CT is installed at the load side, the open loop control will be used).



### Harmonic Current Generator

The Vision APF behaves like a harmonics current generator. It will measure the harmonic generated from the non-linear loads and cancel these harmonics with a newly generated, opposite phase shifted harmonics current of the same amplitude.





Active Power Filter	
— APF - Control Module —	
Input voltage	400V +15%, -20%
Phase/wires	3 phase 4 wires/3wires
Frequency	50/60Hz +/-3% (auto sensing)
Compensated harmonic orders	From 2 <sup>nd</sup> to 51 <sup>st</sup> order
Power Factor correction	Compensate both lagging and leading reactive power (programmable)
CT ratio	Can be set, primary current : 100A-10000A, secondary current : 1A (standard)/5A (optional)
CT location	Source or load side
Response time	< 20ms
Controllable power module	400V
Number of power module	Up to 4 power modules
Parallel	Up to 8 control modules
Max. heat losses	50 watt
Color	RAL9011
Protection	IP20
Dimensions (WxDxH)	440x710x86mm
Weight	5kg
— APF - Power Module —	
Input voltage	400V +15%, -20%
Phase/wires	3 phase 4 wires/3wires
Frequency	50/60Hz +/-3%
Max. compensation current/phase	35 Ams
De-rating compensation current/phase	30 Ams
Max. compensation current for neutral	105 Ams
Inrush current	Less than rated current
Current limitation	Yes, at full correcting
Max. heat losses	650 watt
Color	RAL9011
Protection	IP20
Dimensions (WxDxH)	440x710x131mm
Weight	31kg
— Environment	
Storage temperature	-20°C +70°C
Operating temperature	0-40°C
Relative humidity	< 95%
Altitude	< 1000m
Harmonic and design standards	EN61000-3-4, IEEE519-1992, EN60146
— Interface	
Communication	RS232/USB (standard) - RS485/RS422, ethernet card (optional)
Software (optional)	ESD-Link34
Protocol	J-Bus/MODBUS
— Control panel	
LED	Power on off, filtering, full correcting, error, reset, status, alarm
LCD (optional)	Parameter, waveform, spectrum, even log (up to 300), compensation setting, logic control, multi language