

PowerXAct Low Voltage Active Filter

Meet the Next Generation of Harmonic Filtering



Proven Harmonic Filtering — Now in a Lighter, More Flexible Design

PowerXAct brings the proven performance of our PowerAct Low Voltage Harmonic Filter into a modular, more flexible design. Engineered to simplify installation, the lighter PowerXAct expands system compatibility and delivers uncompromising power quality in compact form.

Built for modern electrical environments where space, scalability and speed of deployment matter, PowerXAct ensures your low voltage (LV) network runs cleaner and more efficiently without the bulk.

The Most Agile Member of Powerside's Active Filter Family

PowerXAct continuously monitors load conditions to compensate for harmonics, dynamic reactive power and unbalanced loads. The result is improved power factor, reduced distortion, stabilized voltage and extended equipment life — all thanks to our smallest yet ruggedly powerful LV active filter.

KEY ADVANTAGES

- **Modular & Lightweight:** Simplifies transport, installation and future expansion.
- **Compact Power:** Strong power-to-size ratio and a more expansive power stack for high performance in a smaller footprint.
- **Smart Integration:** Compatible with 4-wire systems.
- **Flexible Configuration:** 19-inch rack-mount design allows efficient stacking and scalability.
- **Next-Gen Control:** Upgraded processor enables faster response times and improved filtering.

The Power of Active Filtering

Modern electrical systems are packed with non-linear loads that distort current and voltage, whether from variable frequency drives (VFDs), automation equipment or EV chargers. PowerXAct counteracts these harmonics by automatically injecting equal-but-opposite frequencies, restoring waveform integrity and boosting efficiency across your facility.

Typical Applications

PowerXAct combines advanced processing with modular flexibility to bring high-end harmonic filtering to more applications and environments:

- Industrial and manufacturing facilities
- Data centers
- Commercial buildings
- EV charging infrastructure
- Renewable and distributed generation systems

PowerXAct Low Voltage Active Filter

Compensation type	Active Harmonic Filter, VAR Compensation, Load Balancing				
Mounting	Floor Mount				
Number of modules	1	2	3	4	5
Reactive power @480V	100 kVAR	200 kVAR	300 kVAR	400 kVAR	500 kVAR
Rated current	120 A	240 A	360 A	480 A	600 A
Connection	3-wire 208 VAC - 480 VAC, 4-wire 208 VAC - 400 VAC				
Control methods	Closed loop / Open loop / Sensorless (Voltage Only)				
Nominal frequency	50 Hz / 60 Hz				
Nominal voltage	208 / 240 / 400 / 480 VAC				
Inverter	3-Level IGBT with voltage link				
Peak current	200%				
Cooling	Air cooling with speed-controlled fans				
Harmonic compensation	1st to 51st harmonic. All harmonics can be filtered simultaneously (in current control or sensorless voltage control modes)				
Power factor correction	Fast and dynamic reactive power compensation: Leading and Lagging				
Load balancing	Up to 100% of rated current (negative sequence)				
Voltage regulation	Voltage stabilization via Q(U)-control				
Power losses	< 2.1% of compensation power maximum < 1.8% in typical operation < 0.4% when idle, < 100 W in standby				
Expandability	Modular-Parallel additional systems as required				
Controller	Distributed control system with high speed inter-module communication bus				
Communication	Ethernet, Profibus, Modbus (or Anybus) 6 X Programmable Digital Input/Output (Output status messages: 250VAC or 30VDC max; Input for external control: 24VDC)				
Maximum voltage	480V continuous (+/- 10%)				
Response time	< 1 ms				
Switching Frequency	20 kHz (Low-loss design)				
Operating temperature	32° to 104° F (0° to 40°C) without de-rating and internal heating.				
Enclosure rating	NEMA 1 (Option NEMA 3R, 12)				

Certification : UL 508A, CSA C22.2 No. 286

Enclosure, Dimensions and Weight

Floor Mount	Amperage	HxWxD (in)	HxWxD (mm)	LB/KG
	Up to 600A	90x36x28	2286x915x712	724/329

Mitigate Harmonics with Compact but Powerful Protection

Whether upgrading an existing system or designing for new capacity, PowerXAct adapts to your electrical challenges with ease. Reach out to Powerside to request a quote today.

powerside.com/request-a-quote

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