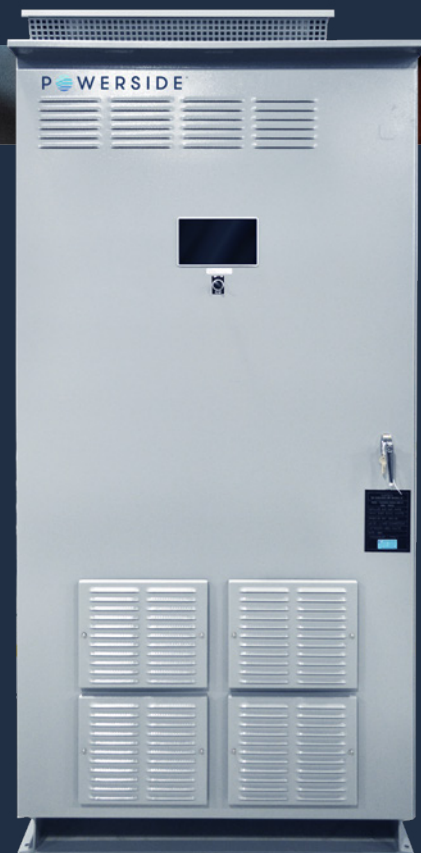


POWERSIDE®

PowerAct

Low-Voltage Active Harmonic Filter



Why Mitigate Harmonics

Harmonics are a distortion of the current waveform, typically transmitted by non-linear loads, such as AC drives and DC drives, power converters, arcing devices, and LED lighting, resulting in:

- Cables and transformers overheating
- Circuit breakers tripping
- Equipment malfunction
- Premature equipment wear and failure
- Energy losses
- Performance reduction

Powerside's PowerAct active harmonic filter dramatically improves power quality by mitigating harmonics, stabilizing voltage, balancing phase loads and compensating for poor power factor by providing a fast and efficient response to power system variations.

Flexible, controlled, and compact, PowerAct is safe and easy to use and if properly sized, it can help to meet IEEE519-2014 harmonic requirements.

Choose PowerAct to Improve Power Quality

- Protects equipment from harmonics generated by other industrial operations
- Stabilizes voltage with Var compensation
- Increases operational reliability by reducing maintenance repairs
- Extends the lifetime of electrical equipment
- Provides additional capacity in an existing electrical network
- Reduces energy costs, lowering CO2 emissions
- Fast return on investment
- Load balancing for asymmetrical current consumption
- Modular design
- Automatic resonance detection
- Sensorless voltage control mode to mitigate grid voltage distortion



Wall Mount PowerAct Active Filter 125A: 65x36x14 (IN), 1615x914x355 (MM), 592 lbs



PowerAct Active Filter 500A: (Floor Mount), 90x40x25 (IN), 2286x1016x635 (MM), 1526 lbs



PowerAct Active Filter 750A: (Floor Mount) 90x60x25 (IN), 2286x1524x635 (MM), 2218 lbs

Future proof processes. Easy to grow. Easy to service.

The PowerAct active harmonic filter is a compact modular system designed for small areas. It is equipped with an intelligent 7" touch screen controller that can also be accessed remotely via TCP/IP. It compensates all odd harmonics up to the 51st order without limit and has 4 priority settings to compensate for harmonics, dynamic reactive power, voltage stabilization, and unbalanced loads. Using a predictive algorithm, PowerAct provides anti-resonance protection during network transients.

Energy-efficient, PowerAct is built with 3-level IGBT inverter topology. It has two distinct cooling ducts for main components and power electronic modules.



Low life-cycle costs. Easy to service.

PowerAct Family							
Compensation type	Active Filter						
Mounting	Floor Mount						Wall Mount
Number of modules	1	2	3	4	5	6	1
Reactive power @480V	104 kvar	208 kvar	312 kvar	416 kvar	520 kvar	624 kvar	104 kvar
Rated current	125 A	250 A	375 A	500 A	625 A	750 A	125 A
Reactive power @600V	130 kvar	260 kvar	390 kvar	520 kvar	650 kvar	780 kvar	130 kvar
Connection	3 wire (no neutral required)						
Control methods	Open loop, closed loop						
Nominal frequency	50 Hz / 60 Hz						
Nominal voltage	208/240/480/600 V						
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	Fixed and dynamic reactive power compensation						
Load balancing	Up to 100% of rated current (negative sequence)						
Voltage regulation	Voltage stabilization via Q(U)-control, flicker compensation						
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 require						
Controller	Distributed control system with high speed inter-module communication bus						
Communication	Ethernet, Profibus, Modbus. 4 x digital output (isolated, parameterized) for status messages 4 x digital input (24 VDC, parameterized) for external control						
Maximum voltage	690V continuous (+ -10%)						
Response time	< 1ms						
Operating temperature	32° to 104° F (0° to 40°C) without de-rating and internal heating. De-rated output above						
Enclosure rating	NEMA 1 (Option NEMA 3R)						

Enclosure, Dimensions and Weight (480 and 600V)				
	Amperage	H X W X D (IN)	H X W X D (MM)	LB/KG
Floor Mount	125A	90x40x25	2286x1016x635	834/379
	250A	90x40x25	2286x1016x635	1064/483
	375A	90x40x25	2286x1016x635	1295/588
	500A	90x40x25	2286x1016x635	1526/693
	625A	90x60x25	2286x1524x635	1989/902
	750A	90x60x25	2286x1524x635	2218/1006
Wall Mount	125A	65x36x14	1651x914x355	592/269

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