

PQI HarMitigator™

Mini-Z™

PATENTED

ZERO SEQUENCE HARMONIC FILTER FOR THE LOAD-END OF BRANCH CIRCUITS

PRODUCT BENEFITS

- Saves Energy Costs by Reducing System Losses
- Reduces Apparatus Overheating and A/C Costs
- Increases Branch Circuit Capacity by >200%
- Increases Feeder and Bus Capacity
- Increases Transformer Capacity by 45%
- Reduces Voltage Distortion to <5%THD_v (IEEE 519-1992)
- Reduces CMN to <1V (<5V required by ITIC)
- Balances Three-Phase Currents
- Restores Computer's Ride-Through Capability
- Protects Upstream Neutral Conductor
- Assures Distribution System Compatibility with Loads



PRODUCT DESCRIPTION

Mini-Z™ - Zero Sequence Harmonic Filters provide the best possible solution to the system performance and power quality problems that result from non-linear, load-generated zero sequence harmonic currents. In addition, their application reduces capital costs, system 'penalty' losses and power costs.

Mini-Z™ filters are connected at the load-end of three-phase, four-wire 'shared neutral' or three-phase, six-wire branch circuits. In 'landscaped' office environments, filters may be conveniently connected to pre-wired partitions via the partition manufacturer's standard wire-way connection cable. Where the partitions are not pre-wired or in private office areas, filters may be connected at branch circuits' 'home run' junction boxes. In computer room or audio/video editing and broadcast studio environments, 19 inch 'rack mount' filters may be used as the branch circuits' 'home run' junction boxes.

The application of **Mini-Z™** filters, in new distribution systems, eliminates the need to oversize 'shared neutral' conductors or install separate neutral conductors for each phase in the branch circuit. Similarly, the application of filters in existing systems eliminates the need to replace branch circuits with undersized 'shared neutrals'. In either case, filters will eliminate the need to de-rate circuits, panels and switchboards. The de-rating of conventional distribution transformers can be reduced from approximately 45% to less than 15%. As a result, filters significantly reduce capital costs and power costs while providing significant performance and power quality improvements.

Mini-Z™ filters, used in conjunction with a **Distribution TransFilter™** (transformer), will provide an unparalleled ROI, pay-back and power quality benefits.



POWER QUALITY INTERNATIONAL, INC.

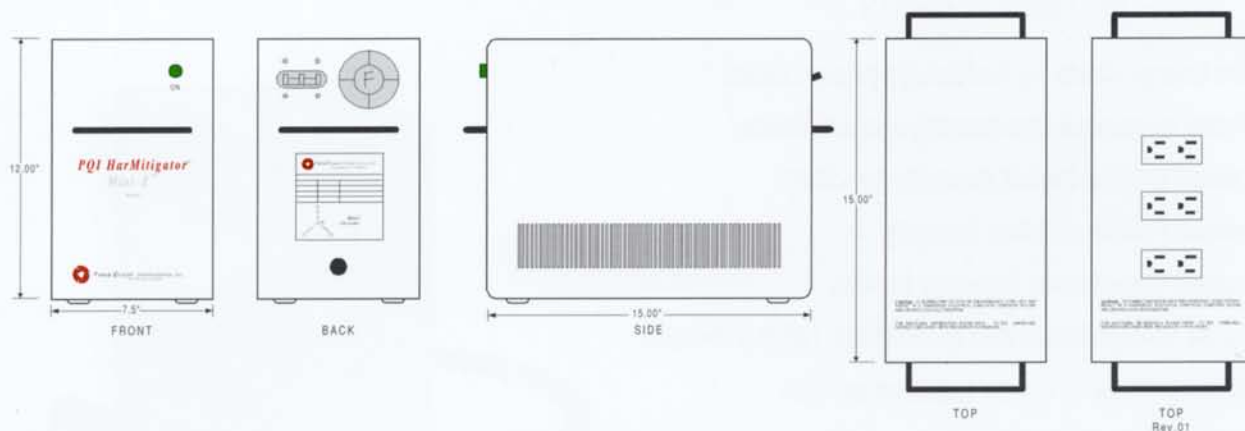
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OUTLINE DIAGRAM



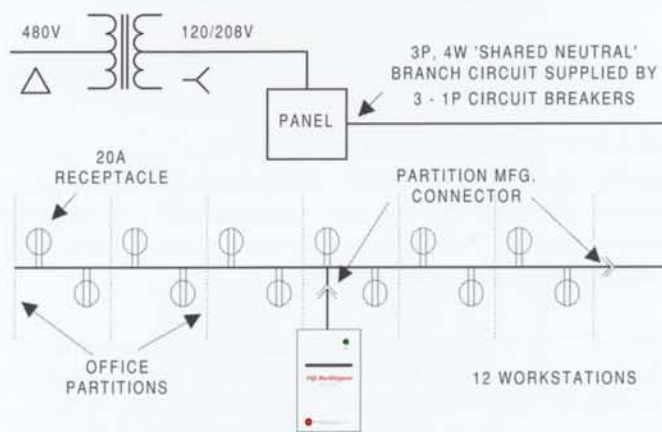
Rev. 01 - *Mini-Z™* filters are also available as three-phase, four-wire 'shared neutral' or three-phase, six-wire branch circuit 'Load Centers' ('home run' junction box extensions) for Computer Laboratory and Convention Center applications. This application will more than double the number of computers that can be supplied from a three-phase branch circuit.

TECHNICAL SPECIFICATIONS

UL Listed
CSA Approved
Related Standards: CSA C9-M1981, CSA 22.2 No.47-1977
CSA C802.2-00, UL-506, ANSI C75.110
NEMA ST-20, NEMA TP-1

Voltage Class: 1.2kV
BIL Rating: 30kV [Standard for Class]
Voltage: 208/120 [Other]
Frequency: 60Hz. [50Hz., 400Hz., Other]
Type: ANN [ANF Equipped]
Temp. Rise: 150° C [35° C at Enclosure]
Insulation Class: 220° C
Colors: PQI Beige [Other]
Weight: 68 lbs.
PQI Part Number: Z-60-004-120/208-50

TYPICAL CONNECTION DIAGRAM



Warranty - 5 years pro-rated.
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