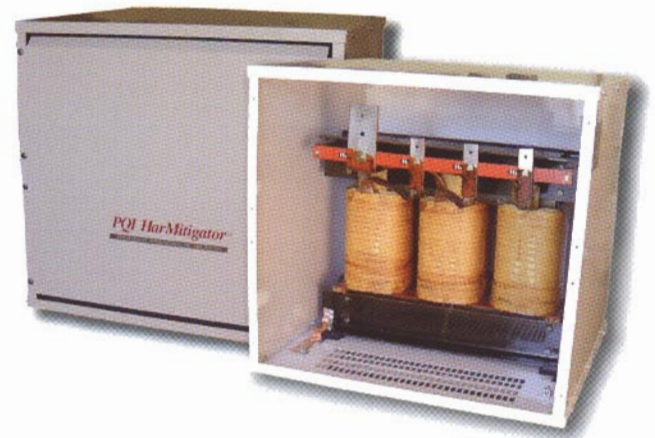


I₀Filter™

ZERO SEQUENCE HARMONIC FILTER FOR PANELS

PRODUCT BENEFITS

- Saves Energy by Reducing Harmonic Losses
- Reduces Apparatus Heating and A/C Costs
- Increases Feeder and Bus Capacity
- Increases Transformer Capacity by 45%
- Reduces K-Factor of Non-Linear Loads
- Reduces Voltage Distortion to < 5%THD_v (IEEE 519-1992)
- Reduces CMN to < 1V at Point of Application
- Balances Three-Phase Currents
- Restores Computer's Ride-Through Capability
- Protects Upstream Neutral Conductor
- Assures Distribution System Compatibility with Loads



PRODUCT DESCRIPTION

I₀Filter™ - Zero Sequence Harmonic Filters are innovative, high quality three-phase, four-wire, passive electromagnetic devices. These devices have been specifically designed to provide an ultra-low zero sequence impedance parallel (shunt) path for the removal of all zero sequence harmonic currents, regardless of their frequency, from the upstream system.

I₀Filter™ performance is optimized when they are installed as close as possible to the phase-neutral connected non-linear loads. This is typically accomplished by connecting the Filter at a three-phase, four-wire panel that supplies the single-phase non-linear loads.

Filters are normally applied to all harmonic sources and sized for potential harmonic levels. However, the total number of filters, and

their ratings, may be reduced, in a multi-panel system, when series *I₀Filters™* are also applied.

I₀Filters™ alone will normally achieve the recommendations and requirements of IEEE Std. 519-1992 for non-linear load environments. When it becomes necessary to mitigate the power quality problems associated with positive and negative sequence harmonic currents, other *PQI HarMitigator™* products may be applied separately or in combination with *I₀Filters™*.

The ROI, payback and power quality benefits associated with *I₀Filters™* are maximized when applied as part of *The PQI Solution™*, an engineered system solution.



PQI HarMitigator™

I₀Filter™

ZERO SEQUENCE HARMONIC FILTER FOR PANELS

SELECTION TABLES

Neutral Amps.	C/B (3P) (Amps)	Enclosure Size (Inches)	Weight (lbs.) *
25	20	15.50W x 11.00D x 14.25H	110
40	20	15.75W x 16.00D x 21.00H	140
60	30	20.50W x 16.00D x 21.00H	180
75	30	20.50W x 16.00D x 21.00H	210
100	40	20.50W x 16.00D x 21.00H	240
150	60	20.50W x 20.75D x 26.25H	260
175	70	20.50W x 20.75D x 26.25H	300
225	90	20.50W x 20.75D x 26.25H	310
250	100	20.50W x 20.75D x 26.25H	340
300	125	24.50W x 22.00D x 31.50H	400
350	150	24.50W x 22.00D x 31.50H	430
500	200	24.50W x 22.00D x 31.50H	540
600	250	30.75W x 27.75D x 30.75H	740
800	350	30.75W x 27.75D x 30.75H	860
1000	400	30.75W x 27.75D x 30.75H	1100
Other	TBD	TBD	* = Approx

THE ABOVE DATA APPLIES TO STANDARD CONFIGURATIONS AT 208/120V, WITH NEMA 1 ENCLOSURE AND STANDARD TEMPERATURE RISE (150°C). SELECTION OF SOME OPTIONS MAY CHANGE ENCLOSURE SIZE AND WEIGHTS. CONSULT FACTORY FOR DETAILED PRODUCT DATA SHEET FOR THESE AND OTHER CONFIGURATIONS. SPECIFIC ENCLOSURE USED DETERMINED BY FACTORY UNLESS SPECIFIED.

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 [Standards to 35kV]
BIL Rating: 30kV [Standard for Class]
Voltage: 208/120 [All Standards to 35kV]
Frequency: 60Hz. [50Hz., 400Hz., Other]
Type: ANN
Temp. Rise: 150° C [130°C, 115°C, 80°C, Other]
Insulation Class: 220° C
Colors: PQI White [ASA 61] [Other]

Definitions

Type: Z (Parallel)
YV (Series)
Hz: Frequency
kVA: Rating of unit
V: Voltage
Temp: Temperature Rise 150°C (Standard)
[130°C] [115°C] [80°C] (Optional)

Options

Enclosure: N1: NEMA 1 (Standard)
N3R: NEMA 3R (Optional)
Other: [Optional]
Analog Meter: Measures Neutral Current (Optional)
TS: Thermal Sensors
Color: PQI White [Other]

Part Number Configuration

Z – Hz – kVA – V – Temp – Options

Sample Part Number

Z – 60 – 009 – 120/208 – 150 – N3R



PQI Warranty - 10 years pro-rated.
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