

Harmonic Magnetic Isolators

PURPOSE:

MGM's Harmonic Magnetic Isolators (HMI) are special Power Purifier equipment to be installed in Computer and Telecommunication rooms per the recommendations of the US Federal Information Processing Standards Publication (FPUB), National Electric Code (NEC), and the Institute of Electrical and Electronic Engineers Standard 1100.

BENEFITS:

- Creates a separately derived AC system, providing a low-impedance path to ground. Increases safety to personnel against electrocution. (NEC)
- No derating necessary due to harmonics from the non-sinusoidal loads. (IEEE 1100)
- Provides a neutral bus rated 200% of full load ampere rating to accommodate large neutral currents from triplen harmonics. (IEEE 1100)
- Windings designed to minimize heating from harmonic load currents. (IEEE 1100)
- Attenuates High Frequency Common Mode Noise. (IEEE 1100)
- Using a step-down HMI, allows for less and smaller cables, less voltage drop, and a reduction in installation costs. (FPUB)

- Three-phase HMI's improve Power Factor when they supply power to non-linear loads. (FPUB)
- Triplen harmonics generated by non-linear loads are not passed to upstream circuits in the building. (FPUB)
- Reduces the effects of voltage variations due to load variations in the building. (FPUB)

SPECIFICATIONS

Power Output

Single Phase 10 & 15 KVA

Three Phase 15, 30, 45, 75, 112.5, 150, 225, 300 & 500 KVA

Input Voltage

Single Phase 240 or 480

Three Phase 208, 220, 480 Delta

Taps: 2-2.5% Full capacity above nominal (FCAN)

4-2.5% Full capacity below nominal (FCBN)

Special voltages available, consult factory

Output Voltage

Single Phase 120/240

Three Phase 208/120Y, 220/127Y or 480/277Y

Special voltages available, consult factory

Harmonic Handling Capabilities

Designed to handle the following percentages of fundamental and harmonics without exceeding temperatures rise limits:

Fundamental 60 Hertz	50%
3rd Harmonic	72%
5th Harmonic	43%
7th Harmonic	21%
9th Harmonic	9%
11th Harmonic	4%
13th Harmonic	3%
15th Harmonic	3%
17th Harmonic	2%

COMPARABLE PRODUCTS

Transient Suppression TVS S Option

Sine wave tracking 80KA capacity, ANSI/IEEE 62.41 Class B

Conforms to UL 1449 V2.

Noise Attenuation

-126db common mode noise suppression

-40db normal mode attenuation with

Optional TVSS

Output Distortion

Less than 1.0% total harmonic distortion added

Operating Frequencies


60 Hertz \pm 3 Hertz

Harmonic Elimination

The load generated triplen harmonics of the fundamental (3rd, 9th, 15th, 21st, etc.) are reduced from the input lines.

Neutral Size

Sized for 200% the ampacity of the secondary phase conductor

MGM	LIBERT	POWERWARE	MGE
Harmonic Magnetic Isolator	Computer Isolation Transformer	Iso Tran	Ultra Isolator Noise Suppressors
			

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