



DRIVING POWER QUALITY

ISO 9001:2008 Certification

FOR IMMEDIATE RELEASE

March 21, 2012

**MTE Corporation Introduces Matrix® AP Harmonic Filter with Patent-Pending  
“Adaptive Passive Technology”**

*Unparalleled “adaptive passive technology” makes MTE’s Matrix AP Harmonic Filter the most advanced harmonic filter on the market.*

Menomonee Falls, WI, March 21, 2012 – **MTE Corporation**, a world leader in the design and manufacture of electrical power quality products for commercial and industrial applications, is pleased to introduce the new **Matrix AP Harmonic Filter** with its patent-pending adaptive passive filtering technology. A solution to excessive harmonics, the Matrix AP Harmonic Filter provides the best harmonic mitigation available in a passive filter for improved power quality and energy efficiency.

Using our patent-pending adaptive passive technology, the Matrix AP Harmonic Filter adapts its impedance in response to changing loads. It is effective over a wider load range and features lower harmonic distortion at lower loads more than any other passive filter design. With a standalone efficiency that exceeds 99% throughout the load range, the Matrix AP Harmonic Filter outperforms all other harmonic filters by allowing users to achieve efficient and superior mitigation of harmonics. No other harmonic filter exhibits active filter characteristics in a passive filter topology like the Matrix AP Harmonic Filter.

The Matrix AP Harmonic Filters are compatible with generator systems and are designed to use up to 83% fewer capacitors than previous Matrix filters. Resistors have been eliminated for less heat generation; therefore, fans are not required. With reduced harmonics and improved power factor, the Matrix AP Harmonic Filters extend the service life cycle of electrical equipment and reduce energy costs. They are available in open panel, NEMA 1 / 2 and NEMA 3R and are UL / cULS listed.

MTE Corporation is an international supplier of power quality products designed to improve the reliability of power electronic systems and adjustable frequency drives. MTE manufactures line/load reactors, Matrix Passive Harmonic Filters, Matrix PureSine® Active Harmonic Filter, EMI/RFI filters, DC link chokes, dv/dt and sine wave motor protection filters, plus numerous custom magnetic products that provide power quality solutions in a broad range of applications. Contact your nearest distributor or visit [www.mtecorp.com](http://www.mtecorp.com) for more information.

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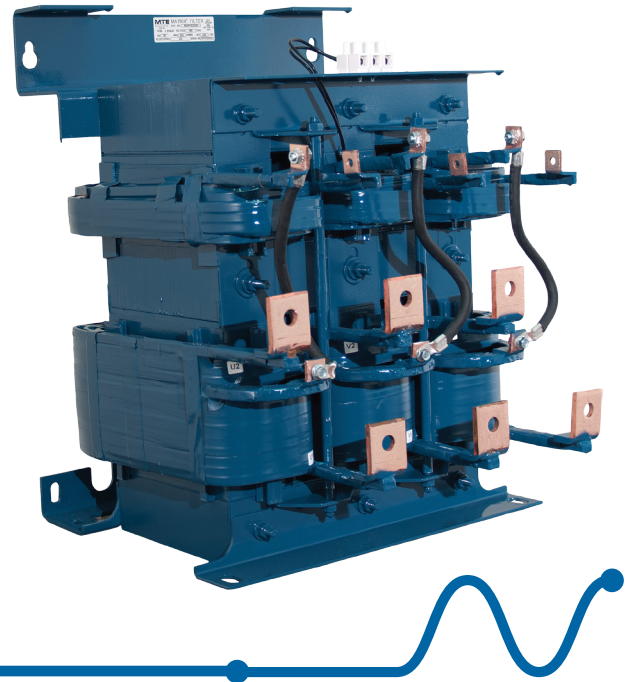
**MTE Corporation - An SL Industries Company**

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Phone: 262-253-8200 ♦ Fax: 262-253-8222 ♦ Email: [sales@mtecorp.com](mailto:sales@mtecorp.com) ♦ [www.mtecorp.com](http://www.mtecorp.com)

LINE/LOAD REACTORS • MATRIX® HARMONIC FILTERS • RFI/EMI FILTERS • DC LINK CHOKES • SURGE PROTECTION • MOTOR PROTECTION FILTERS



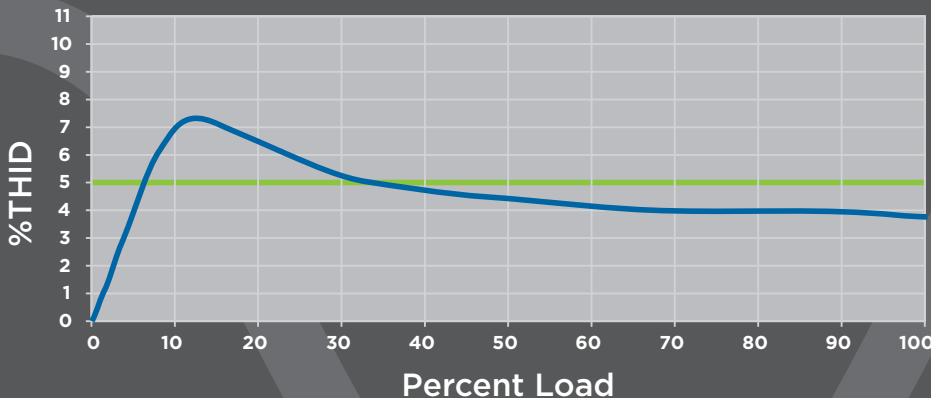
IMPROVE YOUR POWER QUALITY & ENERGY EFFICIENCY...WITH MTE'S NEW **ADAPTIVE PASSIVE TECHNOLOGY\*** TO ACHIEVE BETTER THID PERFORMANCE OVER A WIDER LOAD RANGE



\*Patent Pending

HELPS MEET IEEE-519 REQUIREMENTS (5% THID) WHEN USED AT LIGHTER LOADS

Percent THID for Series AP (165A)



**Guaranteed THID performance:  
8% MAX at 30% load  
5% MAX at full load**

**MTE MATRIX FILTERS HAVE EVOLVED AGAIN INTO A BETTER SOLUTION**

**AP FEATURES:**

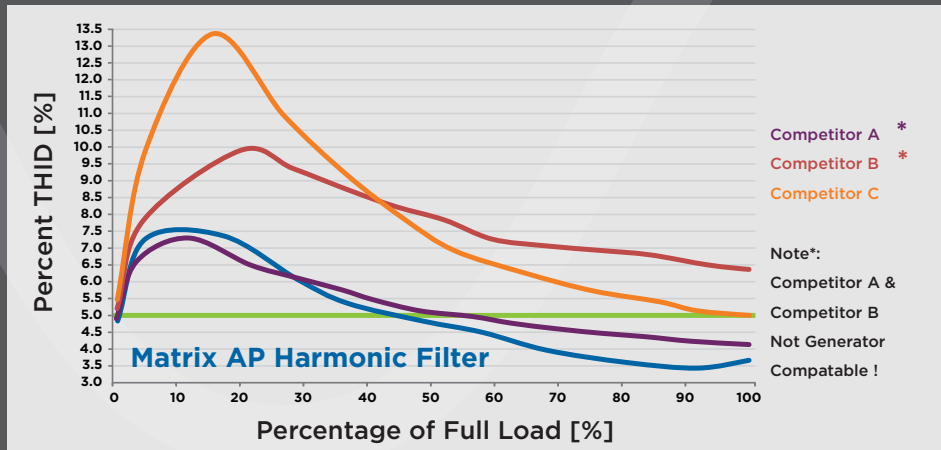
- No Resistors Required
- No Fans Required
- Fewer Capacitors
- Modular Components
- Standardized Wiring
- Top Lifting Provisions

**DESIGNED TO BE CONVECTION-COOLED & COMPATIBLE WITH GENERATOR SYSTEMS**

WITH MTE'S NEW, INNOVATIVE ADAPTIVE PASSIVE TECHNOLOGY\*, THE MATRIX® AP FILTER IS THE MOST ADVANCED HARMONIC FILTER DESIGN WHICH ALSO PROVIDES IMPROVED POWER FACTOR AND ENERGY EFFICIENCY.

# ADAPTIVE PASSIVE PERFORMANCE

The Matrix AP achieves superior harmonic mitigation compared to other harmonic filter designs.



Our “Adaptive” patented technology allows the Matrix AP to adapt to various loads while still providing optimized THID performance. The superior design integrates the magnetic core and the shunt core into the same lamination stack. Not only is this unit more efficient with six pulse drives than a stand-alone 18 pulse rectifier, it’s more economical and less expensive.



## THE MATRIX AP ALSO:

- Extends service life of electrical equipment, especially transformers and motors, due to the virtual elimination of CEMF and the skin effect.
- Reduces energy costs by improving system efficiency and reliability.
- Uses hi-current capacitors with threaded connections for a more reliable robust connection.
- Lowers capacitance resulting in less voltage rise at No Load at the PCC and on the DC Bus.
- Reduces the possibility of resonance between the drive and filter with improved C/L ratio—eliminating the need to add another reactor and the requirement to change certain parameters in the drive.

## SPECIFICATIONS

Load	6 pulse rectifier
Input Voltage	Nominal voltage VAC +/- 10%, 3 Phase
Frequency	Nominal Frequency + .75 Hz
Input Voltage Line Unbalance	1% maximum
Maximum Source Impedance	6.00%
Minimum Source Impedance	1.5%
Service Factor	1.00
Ambient Temperature (Operating)	
Enclosed Filters	320A and Above: -40 to +45 degrees C Below 320A: -40 to +40 degrees C
Open Panel Filters	-40 to +50 degrees C
Storage Temperature	-40 to +70 degrees C
Altitude	0 to 3300 Feet above sea level without derating
Relative Humidity	0 to 95% non-condensing
Agency Approvals: UL and cUL Listed	UL508 and CSA-C22.2 No 14-95 File E180243 (3HP to 1000HP, 120VAC to 600VAC, 50Hz, 50/60Hz, & 60Hz Three Phase)
Guaranteed Performance: Total Harmonic Current Distortion	8% MAX at 30% LOAD 5% MAX at FULL LOAD
Enclosure Color	NEMA 1/2 - ANSI 61 Gray NEMA 3R - RAL 9003 White

## APPLICATIONS

- AC variable frequency drives
- DC adjustable speed drives
- Battery chargers
- Elevator drives
- Fans and pumps
- HVAC systems
- Induction heating equipment
- Welding operations
- Any 6 pulse diode power supply
- Uninterrupted Power Systems (UPS)

## INDUSTRIES

- Oil and Gas Pumping
- Utilities
- Water and Wastewater Treatment
- Printing, Pulp & Paper
- Steel/Chemical/Automotive
- Mining