

# Harmonic Filters Matrix<sup>®</sup> E-Series

Quality, convenient solutions for  
reducing harmonic distortion



- Meets essential harmonic distortion requirements
- Flexible, compact design
- Easy to integrate and install
- Extends the service life of electrical equipment

## Performance you can count on - at an affordable cost.

The patented Matrix<sup>®</sup> E-series is the latest in a long line of highly effective harmonic filters from MTE. The E-series delivers the performance you've come to expect out of a Matrix filter without being over engineered. It is an affordable solution to managing unwanted harmonic distortions - such as nuisance tripping of circuit breakers, inaccurate measurements on sensors, overheating of components, and system downtime - generated by Variable Frequency Drives (VFDs).

The Matrix E-Series features a flexible design that is compact and robust, making it easy to integrate and install in nearly any application. Power quality, energy efficiency, and reduced downtime are easy to achieve with the new Matrix E-Series from MTE.

The Matrix® E-Series harmonic filter meets the international harmonic distortion requirement of 10%-15% while also supporting the compliance of IEEE-519.

**Patented design** with reliable components provides harmonic mitigation and reduced THID (Total Harmonic Distortion) where you need it most.

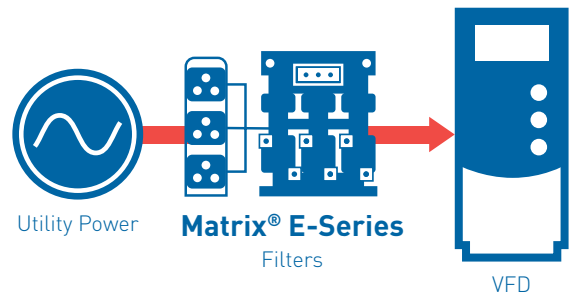
**Affordable solution** that is easy to install and maintain.

**Improves system efficiency and reliability** to lower total cost.

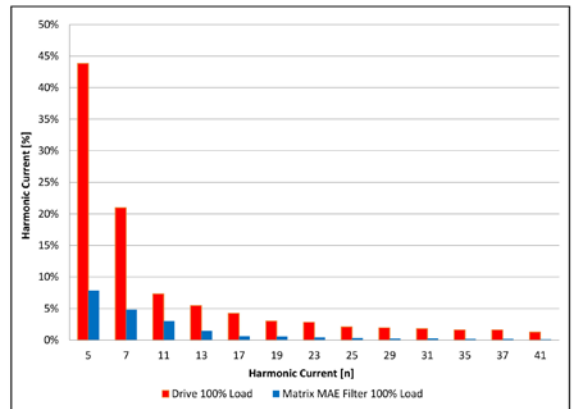
**Helps extend service life** of electrical equipment and transformers.

**Alleviates system downtime** by preventing blown fuses and tripped circuit breakers.

## Matrix® E-Series



Matrix® E-Series Harmonic Spectrum Chart



Performance Specifications	
Service Load Condition	<b>Load: 6-pulse rectifier only</b>
Input Voltage	<b>380V - 415V +/- 10%; 50 + 0.75Hz; 3-phase</b> <b>480V +/- 10%; 60 + 0.75Hz; 3-phase</b>
Current Range	<b>6A - 320A (1.1 KW - 150 KW; 3HP - 250HP)</b>
Maximum THID With DC Link Choke or Reactor Without DC Link Choke or Reactor	<b>8% @ full load; 12% @ 40% load</b> <b>12% @ full load; 17% @ 40% load</b>
System Power Conditions at Rated Power	<b>THVD: &lt;2%</b> <b>Line Voltage Unbalance: &lt;1%</b>
Source Impedance	<b>Maximum: 6%</b> <b>Minimum: 1.5%</b>
Maximum Output Voltage at No Load (RMS Peak)	<b>+5%</b>
Minimum Output Voltage at Full Load (RMS Peak)	<b>-5%</b>
Service Factor	<b>1.00</b>
Maximum Ambient Temperature	<b>-40C to +50C open panel filters</b> <b>-40C to +90C storage</b>
Insertion Loss @ Full Load	<b>&lt;5%</b>
Efficiency	<b>&gt;98%</b>
Altitude Without Derating	<b>3,300 feet above sea level</b>
Relative Humidity	<b>0% to 95% non-condensing</b>
Current Rating	<b>150% for 1 minute duration</b>

Product specifications subject to change at anytime.



Menomonee Falls, WI

San Diego, CA

Singapore

Tecate

Mexicali



**MTE Corporation**  
N83 W13330 Leon Road  
Menomonee Falls WI 53051  
(800) 455-4MTE • (262) 253-8200