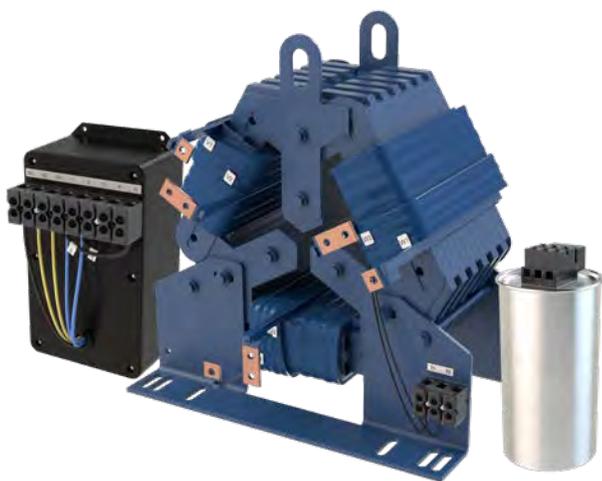


SineWave Nexus™

An Integrated Solution for Both
Differential and Common Mode
Filtering



- **Increases motor life**
- **Eliminates motor failures due to bearing currents**
- **Reduces motor noise and heating**
- **Small package solution**
- **Three-year warranty**

The latest in motor protection. From the leaders in motor protection.

MTE's SineWave Nexus™ filter combines the performance of a sinewave filter with our patented common mode protection technology into a single passive device. The SineWave Nexus not only cleans the PWM waveform generated by Variable Frequency Drives (VFDs), it virtually eliminates common mode voltage which causes motor bearing failures. By filtering out the damaging common mode voltage, motor bearings are never subject to those harmful voltages that cause pitting, frosting, or fluting damage that leads to motor failure.

Eliminate the need for costly isolation transformers, or shaft grounding rings that require regular maintenance and replacement, with the SineWave Nexus - an electrical solution for an electrical problem.

The optimal solution for reducing common mode and differential mode voltages and currents.



Differential and common mode power quality issues have adverse effects on motors. SineWave Nexus™ filters provide complete motor protection - for any application - at any cable length.

Increase motor life by reducing high frequencies and peak voltages caused by VFD output which result in excessive motor heating and motor insulation stress.

Eliminate common mode voltages that cause pitting to motor bearings and premature motor insulation failure leading to unexpected downtime.

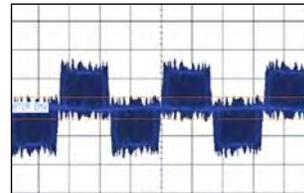
Save time and money associated with sourcing and installing multiple solutions as the all-in-one design combines the performance of a sinewave filter and isolation transformer into one compact solution. The SineWave Nexus also eliminates the need for costly VFD cables.

SineWave Nexus™

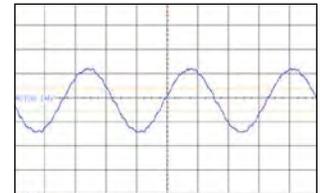


SineWave Nexus Performance:

Total Harmonic Voltage Distortion

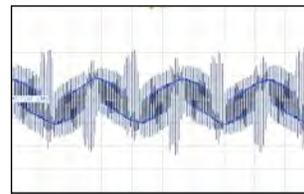


Without SineWave Nexus

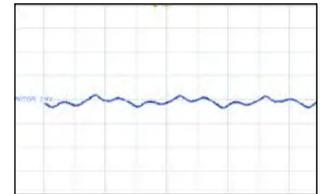


With SineWave Nexus

Common Mode Voltage

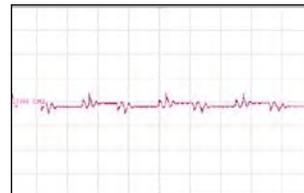


Without SineWave Nexus

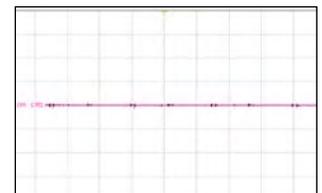


With SineWave Nexus

Common Mode Current



Without SineWave Nexus



With SineWave Nexus

Performance Specifications	
Input Voltage	380V - 600V +/- 10%; 60Hz
Current Range	2A - 160A (0.75 HP - 125 HP)
Harmonic Voltage Distortion	5% maximum @ 4-8kHz
Inverter Switching Frequency	2kHz to 8kHz
Inverter Operating Frequency	6Hz to 75Hz; >75Hz to 120Hz with derating
Insertion Loss (Voltage)	10% maximum @ 60Hz
Efficiency	>98%
Common Mode Attenuation	-20dB (>90% PWM common mode RMS voltage reduction) @ 4-8kHz
Maximum Sound Level	75dB @ 1 meter
Maximum Ambient Temperature	-40C to +60C modular filter -40C to +55C enclosed filter -40C to +90C storage
Altitude Without Derating	3,300 feet above sea level
Maximum Motor Lead Length	15,000 feet
Relative Humidity	0% to 95% non-condensing
Current Rating	100% RMS continuous; 150% for 1 minute intermittent

Final product specifications subject to change at anytime.



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