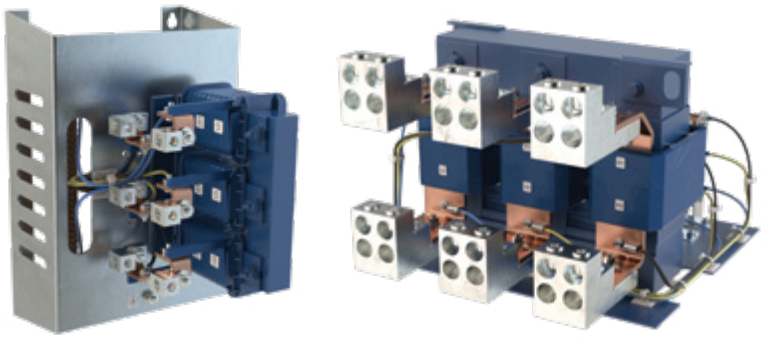
mtecorp.com

dV/dt Filters

dV E-Series

The ideal dV/dt solution for essential motor protection.



- **Triple Protection:** Reflective wave mitigation, rise time reduction, and peak voltage production
- **Efficient:** Low watts (heat) loss
- **Size-optimized design:** Lightweight and compact form factor
- **Ease of installation:** Footprint and mounting compatible with competitive options
- **Silent operation:** As quiet as a conversation

Complete protection; convenient design.

Downtime in any operation comes at a cost. Damage to motor windings and premature motor insulation failure can result in lost revenue and safety concerns. MTE's dV E-Series dV/dt motor protection filters ensure your operation runs smoothly during your most critical times. The dV E-Series delivers premium motor protection, extends cable life, and is backed by MTE's industry-leading Performance Guarantee.

Compared to the competition, the dV E-Series offers similar electrical performance in a more compact and optimized design:

- **Up to 60% more efficient**
  Saves money & runs cooler
- **Up to 73% lighter and 35% smaller footprint**
  Convenient setup and handling

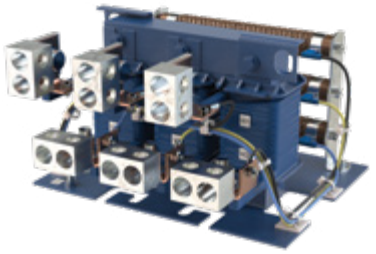
The dV E-Series is all the protection you need and nothing that you don't.

MTE
POWER QUALITY. SOLVED.
A STEEL PARTNERS COMPANY

The dV E-Series delivers premium protection in a convenient package.

MP Motor Protection

dV E-Series



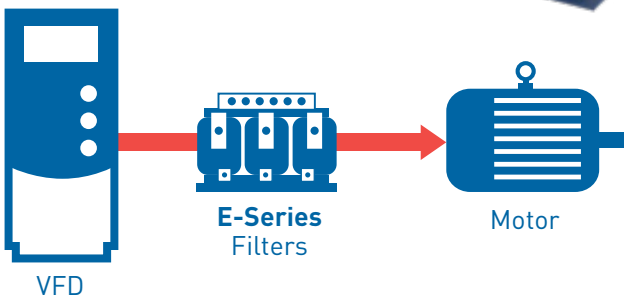
A proven filter that provides TRIPLE PROTECTION, by eliminating reflective waves, providing peak voltage protection, as well as, rise time reduction for any application out to 1,000 feet of cable.

Reflective wave mitigation matches the impedance of the cable and prevents voltage pulses from reflecting and causing higher peak voltage.

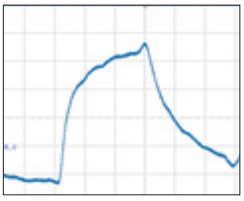
Rise time reduction lowers motor heating, and meets NEMA MG 1-1998 Section 31 motor standards.

Peak voltage protection when voltage spikes reach dangerous levels.

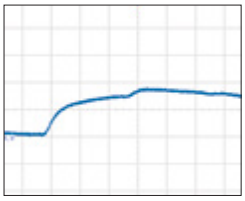
Includes Three-Year Warranty



Peak Rise Protection:

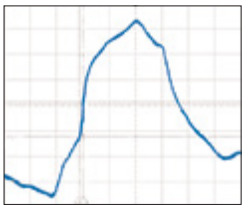


Without dV E-Series

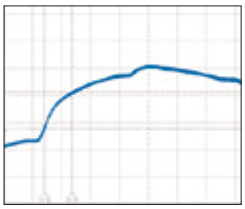


With dV E-Series

Rise Time Reduction:



Without dV E-Series



With dV E-Series

Performance Specifications

Service Load Condition	**Invertor Duty Three Phase Motors**
Voltage	**208 – 600 VAC +/- 10%, 60Hz**
Input Voltage Wave Form	**PWM**
Inverter Switching Frequency	**2kHz – 4kHz (3A – 750A)**
Inverter Operating Frequency	**0-60Hz without derating**
Maximum Ambient Temperature	**-40C to +60C modular filter** **-40C to +50C enclosed filter** **-40C to +90C Storage**
Insulation System	**Class N (200° C)**
Insertion Loss (Voltage)	**1.7% at 60 Hz**
Efficiency	**>99%**
Current Range	**3A – 750A**
Available Form Factors	**Kit, Open Panel, NEMA 1/2, NEMA 3R**
Altitude without derating	**6,600 feet above sea level**
Maximum Motor Lead Length	**1,000 feet** (VFD rated cable recommended)
Relative Humidity	**0% to 99% non-condensing**
Current Rating	**100% RMS Continuous** **150% for 1 minute** **200% for 10 seconds** *Operating in overload will result in increased proportional voltage drop
Audible Noise	**<65db at 1 meter**
Rise Time	**Greater than 0.1 uS**
Peak Voltage @ Motor	**150% of DC bus voltage up to 1,000 feet**

Final product specifications subject to change at anytime.

DV E-SERIES PERFORMANCE GUARANTEE

MTE Corporation guarantees that the peak voltage at the input of the motor terminals will be limited to 150% when the following conditions are met:

- The appropriate size dV E-Series filter is selected and installed in a variable torque AC variable frequency drive application.
- Published system limits are adhered to.
- Wire lead lenght does not exceed 1,000 ft.
- Carrier frequency is 4 kHz.

MTE Corporation
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