nanotech

MH&W

A POWERFUL SOLUTION

INSTALLATION GUIDE

MH&W presents Nanotech solutions, for the highest reliability and longevity of your VFD motor system!

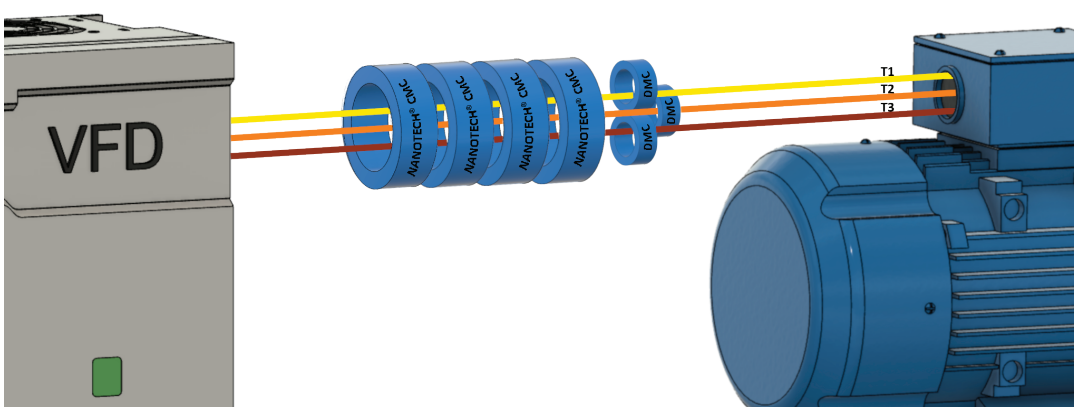
VFD's create high frequency damaging common mode currents which travel simultaneously from all outputs to the motor, but also couple back to earth ground.

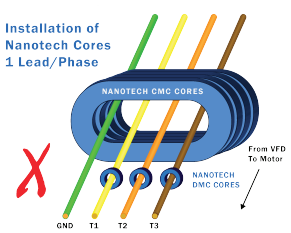
If these currents aren't "absorbed" the effect will be lubrication breakdown and electrical discharge machining (EDM) damage in the motor bearing, and electromagnetic interference which affects control signals, encoder feedback, communication links for programmable logic controllers, Remote I/O, metal detectors, pump monitors, and other types of sensors including, ultrasonic sensors, bar code/vision systems, weight, and temperature sensors.

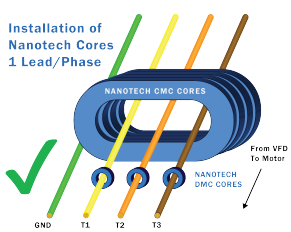
Follow on-site workplace safety policies and procedures for installation. The manufacturer shall not be liable for any injury, loss, or damage, direct or consequential arising out of the use, or attempt to use the product or procedures described in this guide.

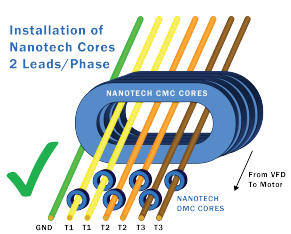
Correct Installation of Nanotech CMC & DMC Cores

- Cores must be installed as close to the VFD as possible with temperature dot visible.
- 3 power cables must go through Nanotech cores as shown.
- In the case of multiple conductors, all power cables go through Nanotech™ cores.
- Each power cable must have at least one Nanotech DMC core installed as shown; even in cases of multiple conductors.



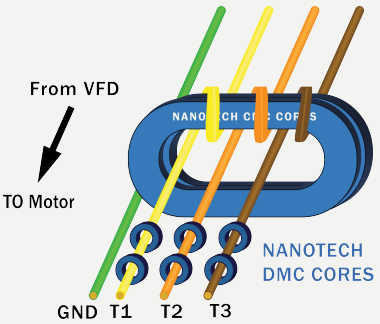






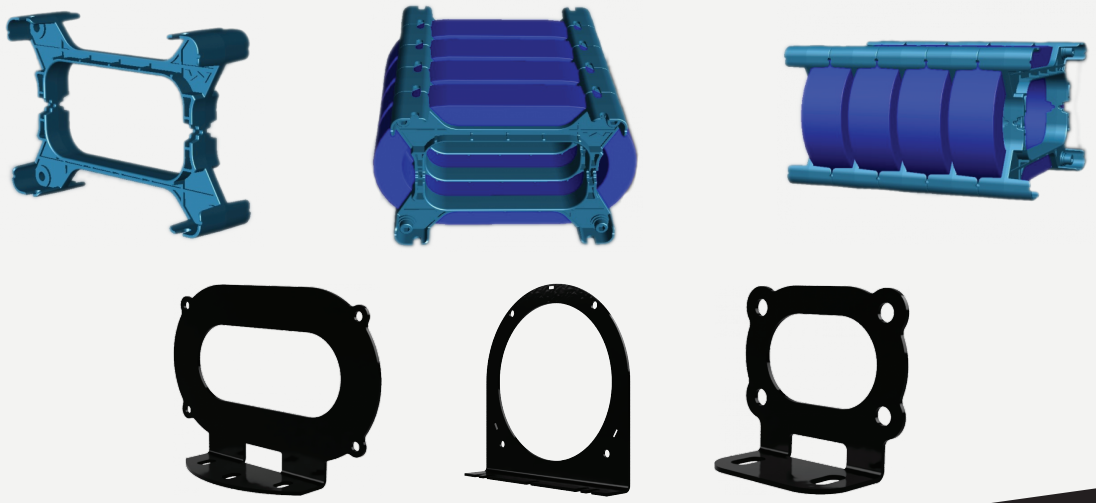
NANOTECH CMC & DMC INSTALLATION GUIDE

Applications up to 10 HP and less than 150 feet between the VFD and motor, must have power cables run through two Nanotech CMC cores twice (two turns) to provide enough inductance to properly suppress common mode peak current and then one pass through the two Nanotech DMC cores as shown.



A POWERFUL SOLUTION

Brackets are available to mount heavier Nanotech cores to the wall of the drive, or other areas between drive and motor. It is not required, but does make the system look more esthetic, and provides support for heavier cores. Required threaded rod and hardware is not included with the brackets.



INSTALLATION INSTRUCTIONS

1. Choose appropriate kit per horsepower of VFD, cable length and number of conductors per phase.
2. Disconnect the three phases from the drive, carefully identifying the location of each power cable.
3. Place the appropriate type and amount of Nanotech DMC cores around each individual power cable.
4. Place the appropriate type and amount of Nanotech CMC cores around ALL power cables making sure temperature dot is visible.
5. Reconnect the appropriate power cables.
6. Temperature dot on Nanotech CMC cores is for monitoring purposes only. If the dot turns black, contact MH&W Engineering.

FOR MORE INFORMATION

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