

Important Warning Regarding the Use of Electric Motors with Generators

We want to bring to your attention some important considerations regarding the use of electric motors, particularly those controlled by Variable Frequency Drives (VFDs), with generators. While generators are incredibly useful for providing power in various situations, they can pose risks to electric motors and electronics. Here are some key points:

Voltage and Frequency Compatibility: Electric motors, especially those controlled by VFDs, are designed to operate within specific voltage and frequency ranges. Generators may not provide the stable and clean power that motors require, leading to potential damage and performance issues.

Voltage Fluctuations and Surges: Portable generators may produce voltage fluctuations or surges, especially under varying loads or when not properly maintained. These fluctuations can cause significant harm to electric motors and VFDs, resulting in performance issues or even permanent damage.

Frequency Variations: Generators often have frequency variations, which can affect the operation of electric motors, particularly those controlled by VFDs. Operating motors outside their designed frequency range can lead to overheating and premature wear.

Harmonic Distortion: Generators may produce power with harmonic distortion, which can adversely affect the performance of electric motors and VFDs. Excessive harmonic distortion can lead to overheating, vibration, and reduced efficiency in motor operation.

Proper Sizing and Load Management: It's essential to properly size your generator for the intended load, including any electric motors controlled by VFDs. Overloading the generator can lead to voltage drops and fluctuations, which can be detrimental to motor and VFD operation.

Please Seek advise if you are unsure on anything.

Due to high risk of using generators to power equipment, **No Warranty** will be given to motors and VFDs that are used on generated power.

Sincerely,

Gemcuts Management