

GENSET Requirements for VFD Operation

- 1) The Genset selected should be twice as large as required. (i.e. If the VFD is a 40 HP then the Genset should be 80 HP rated. $\text{Watts} = 1.732 \times \text{Volts} \times \text{FLA}$
 $\text{FLA} = \text{Full Load Amps of Motor}$

- 2) The Automatic Voltage Regulator (AVR) must have its own separate power source, totally isolated from the generator output windings. This is commonly accomplished with a permanent magnet generator driven from the main shaft. This type of generator provides a constant power of fixed source impedance to maintain stability to the excitation supply.

- 3) The generator should also have three phase sensing of the automatic voltage regulator. This will minimize the effect of the waveform distortion caused by the load and maintains good voltage regulation of the generator.