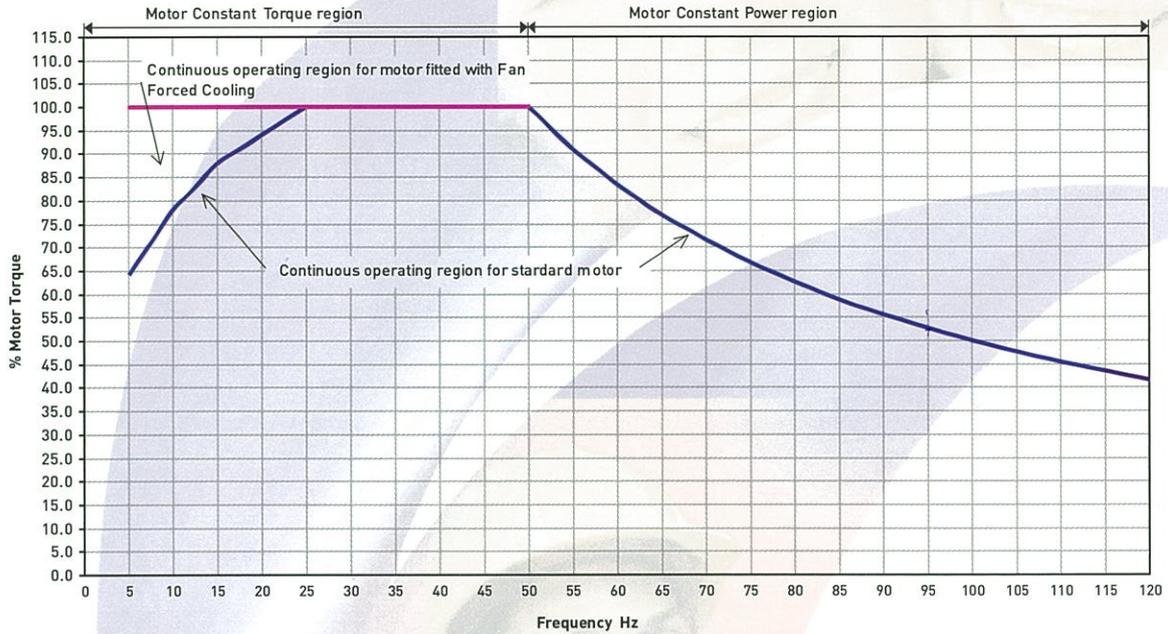


## Variable Speed Drives (VVVF)

The output of Variable Voltage Variable Frequency (VVVF) Drives is not purely sinusoidal. This causes higher voltage stresses within the windings and increases the losses, vibration, and noise of the motor. The Loadability Curve and Maximum Safe Speed are as below, this graph should be used as a guide only. Further consultation with TECO may be required for arduous critical speed and load duties.

Typical Motor Loadability Curve for TECO Motor and Inverter



For variable torque loads (centrifugal pumps and fans) for speeds between 5-50 Hz derating is not normally required. Outside of this range please check with TECO for motor suitability.

Typical variable and constant torque load curves are shown below.

Speed vs. Torque Curves (assuming load torque @ 100% speed = motor full load torque)

