POLICY BULLETIN

SUBJECT: IntelliCI Frequency Input Requirements **PB-131**
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1. The Tecumseh compressor requires a frequency control signal of 0-150 Hz.
2. The command frequency signal is a square wave, 50% duty cycle.
3. The relation between the command frequency signal and motor speed, is expressed in the following equation. “Motor Speed = 30 x The Command Frequency Signal.”
4. Depending on compressor speed, the compressor may take up to 20 seconds to stop after the stop command is received from the thermostat.
5. The compressor will start at 85Hz. The compressor will stop at 78Hz (or less).
6. The compressor motor will operate at maximum speed (4500 RPM), when the control frequency is at 150 Hz.
7. The compressor motor will operate at minimum speed (2500 RPM), when the control frequency is at 83 Hz (to 79 Hz). See graph below for reference.
8. The motor speed increases at a linear rate, as the control frequency increases from 83 Hz to 150 Hz. The range of the motor speed is 2500 RPM to 4500 RPM.
9. The motor speed remains at 2500 RPM when the control frequency is 79 Hz to 83 Hz. The compressor will cycle off, when the control frequency drops below 79Hz.
10. The Tecumseh compressor is designed to start at minimum speed (2500 RPM). The Tecumseh compressor remains at 2500 RPM for 30 seconds after start up. This delay is built into the Tecumseh Inverter.