



Tecumseh

March 23rd, 2017

From: Tecumseh Europe Sales & Logistics, Customer Technical Support

Object: Commercial Refrigeration versus Air Conditioning Equipment

Commercial refrigeration is a specific market segment that responds to cycles of food preparation and preservation.

Operating range of refrigeration systems that are designed to serve preparation laboratories, storage rooms, blast coolers and reach-in cabinets differs significantly from air conditioners and heat pumps.

Reliability and efficiency expectation levels of refrigeration systems require proven and optimized components to their corresponding operating ranges.

Thus, refrigeration compressors and condensing units are defined and optimized to run with refrigerants dedicated to commercial refrigeration.

Compressor motor specifications, such as starting torques, motor centering, are different depending on the application of the compressor. The engine power is also optimized according to the chosen refrigerant.

Mechanical kits, bearings are designed to withstand pressure loads and pressure differentials. The suction gas circuit contribute to the efficiency and to the durability of the compressor.

Condenser sizing takes into account the transient operating phases. Thus, the safety devices will not cut out during the pull down phase. In addition, the liquid receiver allows a pump down operation.

This list is not exhaustive; other specifications inherent to compressors and to condensing units are of course necessary to ensure the reliability and efficiency of commercial refrigeration systems.

Frédéric Guy
Head of Customer Technical Support
Tecumseh Europe Sales & Logistics