System design / Selecting the type of application

The application of a compressor or a condensing unit can be classified according to use, and thus evaporating temperature.

There are three main types of application:

- low temperature:
  evaporating temperature between -35 °C and -10 °C.
- medium and high temperature:
  evaporating temperature between -15 °C or -25 °C and +15 °C.
- air conditioning:
  evaporating temperature between 0°C and +15 °C.

This range of products can also be used for reversible heat pumps from -25 °C.

Low temperature applications include both domestic (fridges and freezers) as well as various commercial applications.
The medium and high temperature range is the most diverse.

In some cases there may be an element of doubt as to which is the most appropriate choice: for example we usually advise high temperature compressors for ice makers; in this particular case operating conditions especially at the beginning of each cycle and or under low voltage conditions implies this compressor choice. This should not be confused with flake ice machines or ice cream cabinets.

Many other types of application present a similar problem:
The general rule is that it is always preferable to choose a medium or high temperature model provided the lowest evaporating temperature, usually at the end of the cycle is less than 5°K below the lowest recommended level.
Air conditioning applications have different requirements particularly where single-phase motors are concerned. There are therefore significant differences between these and high temperature applications.