

Solstice[®] N40 (R-448A)



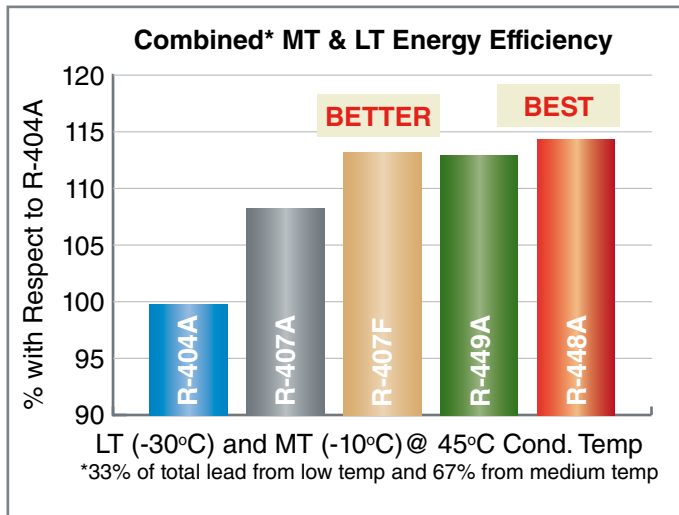
Performance Comparison with R-404A Alternatives Capacity / Energy Efficiency and Glide

This new Honeywell HFO blend, **Solstice N40 (R-448A)**, has claimed the title of the **lowest GWP** (1386 as per IPCC4), **A1** (non-flammable) **replacement** for R-404A/R-507 which provides the best overall performance for operating at both medium and low temperature in applications such as commercial and industrial refrigeration or food service.

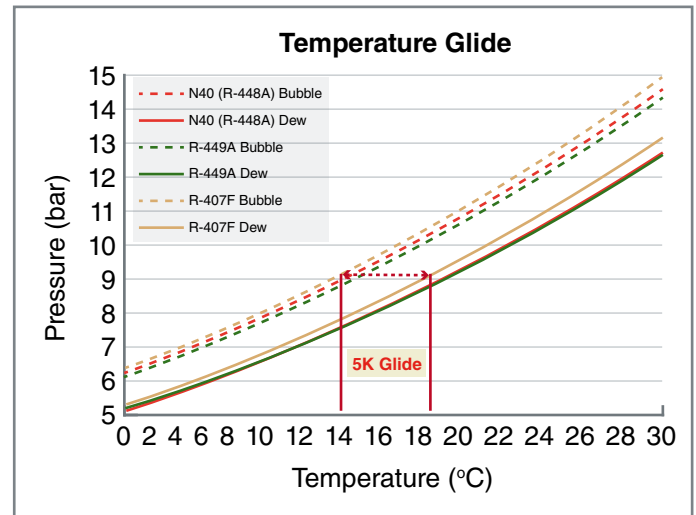
Results from Bitzer calculation software, version 6.4.3. (February, 2015), comparing Solstice N40 (R-448A) with R-449A as well as other R-404A replacements, are shown below:

Superior Efficiency

Results from Bitzer Software v6.4

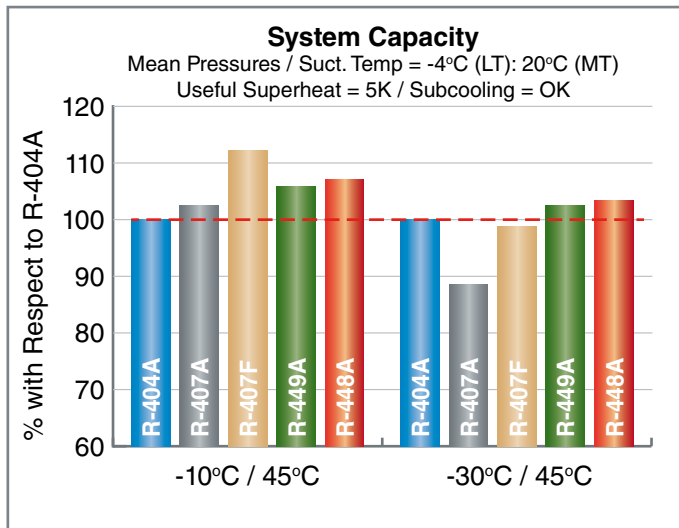


Same Temperature Glide



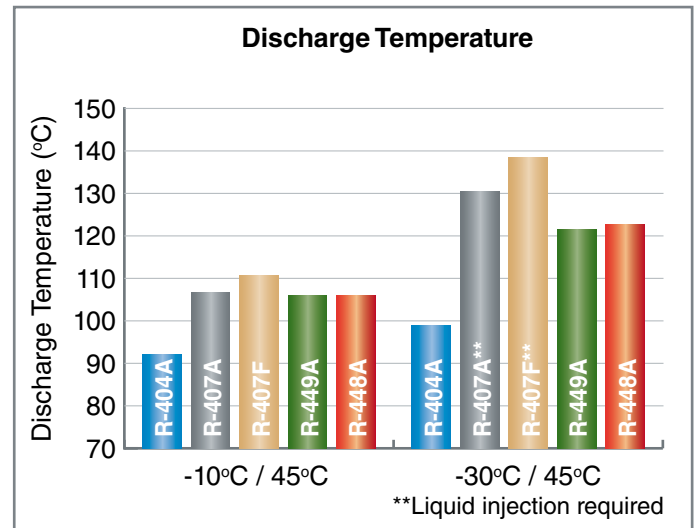
Better Capacity

Results from Bitzer Software v6.4



Same Temperature Discharge

Results from Bitzer Software v6.4



In summary:

- ✓ **Solstice N40 (R-448A)** gives the **best combined energy efficiency*** as MT and LT replacement to R-404A/R-507 (better than R-449A and R-407F)
- ✓ **Solstice N40 (R-448A)** has the **same temperature glide** as R-449A
- ✓ **Solstice N40 (R-448A)** provides **better capacity*** than R-449A
- ✓ Due to lower T_{dis} at the conditions shown, **Solstice N40 (R-448A)** does **not require liquid injection** in low temperature applications – unlike R-407F and R-407A

Comparison and results for efficiency, capacity and discharge temperature in the charts above have been generated using Bitzer v6.4.3 software (available on-line), whilst the glide comparison has been extracted from Refprop approved files.

***Note: calculations are made at midpoint in the Bitzer software. Dew point is not characteristic of system performance, due to glide, and may lead to different, not representative results.**

Simulation software

For further calculations of properties and cycles simulation please download for free the Honeywell Genetron Properties Suite software at

<http://www.honeywell-refrigerants.com/europe/genetron-properties-suite/>

Smart phones apps

You can also use the free app “Refrigerants PT chart EU” available for **iOS** and **Android**



Information and contact

Should you have any questions on any of the information above or just need help in understanding or deciding on which is the best solution for your business / application, please contact your local Approved Honeywell Refrigerant Distributor.

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