

NO: 15-15
DATE: 08/04/2015
TO: All Customers
FROM: Emerson Climate Technologies – Europe
SUBJECT: Release of 4 and 6 Cylinder Stream and Discus 2, 3, and 8 cylinder Semi-Hermetic compressors with higher condensing temperature for refrigerants R407A, R407F, and R404A

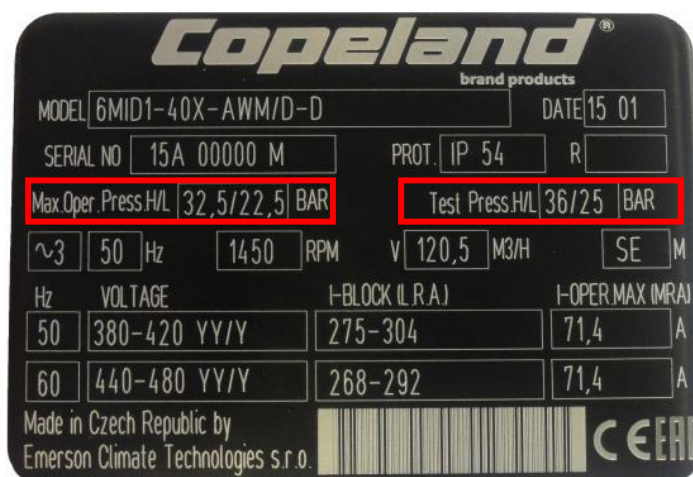
Emerson Climate Technologies Europe is pleased to announce the following releases for its range of standard and digital Semi-Hermetic compressors:

- Release of Copeland Discus 2, 3, and 8 cylinder compressor models along with 3 cylinder digital models with higher condensing temperature for refrigerant R407A, R407F and R404A
- Release of Stream 4 and 6 cylinder standard and digital compressor models with higher condensing temperature for refrigerants R407A, R407F and R404A

As a result of this release all the above mentioned models will be allowed to be operated at a higher condensing temperature of 62°C for R404A and R407A and 60°C for R407F. Earlier the limit was 55°C for R404A, 60°C for R407A and 55/60°C (small motor/large motor) for R407F. This change will also be applicable when the above mentioned compressors are used with Capacity Control, Variable speed, and Demand cooling options (R407A/F).

With this release it will be possible to run the compressor at a permissible ambient temperature higher than before which will be particularly important and useful in warmer climates.

Accordingly for higher condensing temperatures and in accordance with international standards EN 378-2, the maximum allowable pressure on discharge side (PS) for all the Semi hermetic compressors has been incremented to 32.5 bar. Thereby the test pressure on the discharge side has been incremented to 36 bar.



For those compressors equipped with an internal Pressure Relief Valve, (4, 6 and 8 cylinder compressors) the opening pressure has been increased accordingly to enable the compressor to operate within the extended envelope.

Starting from the below mentioned serial numbers, compressors will bear a changed nameplate with increased PS (“maximum allowable operating pressure on discharge side”) and test pressure values.

First Production serial number for 4, 6, and 8 Cylinder: **14K46144M**
 First Production serial number for 2 and 3 cylinder: **14K031873M**

Models and Refrigerants

The following models are being released with higher condensing temperatures for these refrigerants:

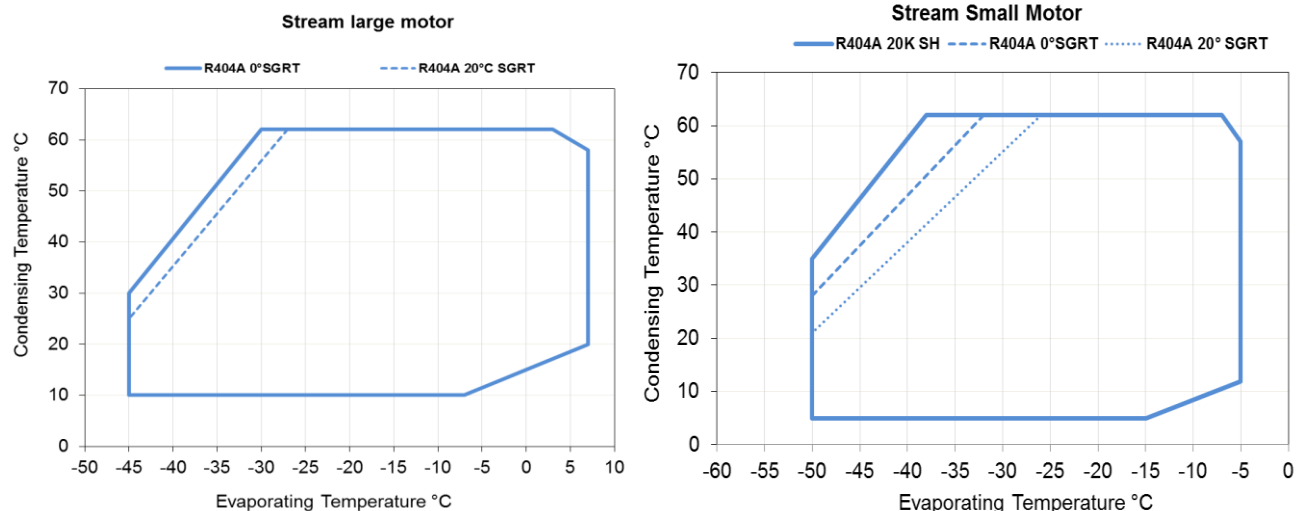
Refrigerant R404A and R407A with maximum condensing temperature of 62°C									
2 Cylinder	3 Cylinder	3 Cylinder Digital	8 Cylinder	Stream Models			Stream Digital Models		
2DC-50X	3DA-50X	3DAD-50X	8DH-500X	4MA-22X	4MJ-33X	6MI-40X	4MAD-22X	4MJD-33X	6MID-40X
2DD-50X	3DA-75X	3DAD-75X	8DL-370X	4MF-13X	4MT-22X	6MM-30X	4MFD-13X	4MTD-22X	6MMD-30X
2DL-40X	3DC-100X	3DCD-100X	8DJ-600X	4MH-25X	4MK-35X	6MJ-45X	4MHD-25X	4MKD-35X	6MJD-45X
2DL-75X	3DC-75X	3DCD-75X	8DT-450X	4ML-15X	4MU-25X	6MT-35X	4MLD-15X	4MUD-25X	6MTD-35X
2DB-50X	3DS-100X	3DSD-100X		4MI-30X		6MK-50X	4MID-30X		6MKD-50X
2DB-75X	3DS-150X	3DSD-150X		4MM-20X		6MU-40X	4MMD-20X		6MUD-40X

Refrigerant R407F with maximum condensing temperature of 60°C									
2 Cylinder	3 Cylinder	3 Cylinder Digital	8 Cylinder	Stream Models			Stream Digital Models		
2DC-50X	3DA-50X	3DAD-50X	8DH-500X	4MA-22X	4MJ-33X	6MI-40X	4MAD-22X	4MJD-33X	6MID-40X
2DD-50X	3DA-75X	3DAD-75X	8DL-370X	4MF-13X	4MT-22X	6MM-30X	4MFD-13X	4MTD-22X	6MMD-30X
2DL-40X	3DC-100X	3DCD-100X	8DJ-600X	4MH-25X	4MK-35X	6MJ-45X	4MHD-25X	4MKD-35X	6MJD-45X
2DL-75X	3DC-75X	3DCD-75X	8DT-450X	4ML-15X	4MU-25X	6MT-35X	4MLD-15X	4MUD-25X	6MTD-35X
2DB-50X	3DS-100X	3DSD-100X		4MI-30X		6MK-50X	4MID-30X		6MKD-50X
2DB-75X	3DS-150X	3DSD-150X		4MM-20X		6MU-40X	4MMD-20X		6MUD-40X

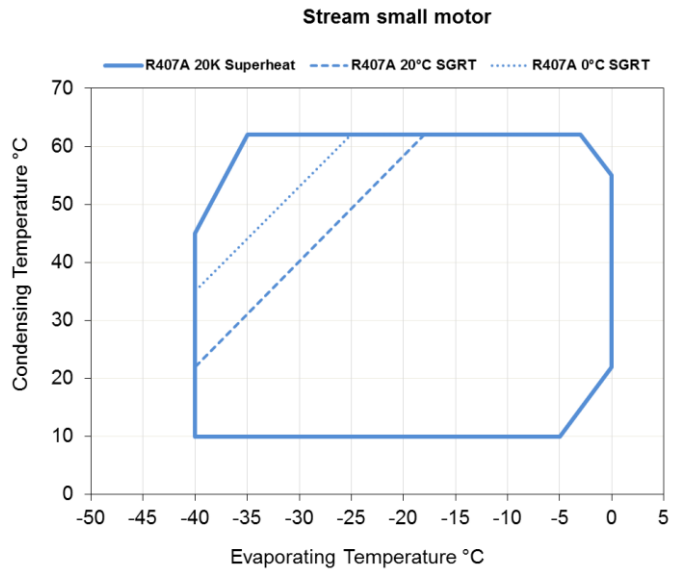
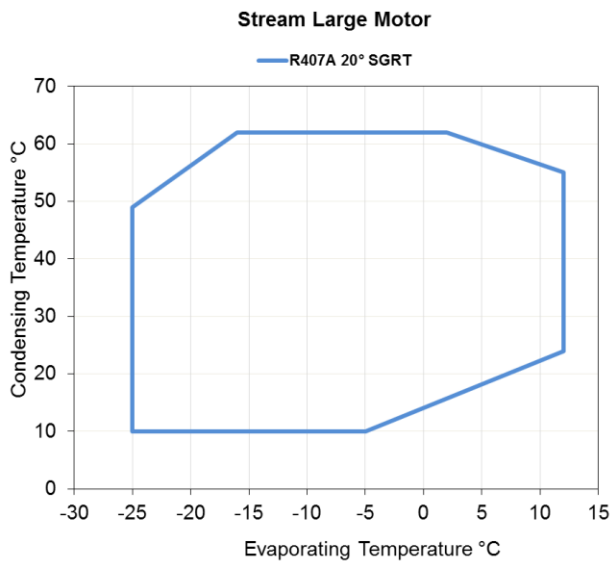
K and L compressors for R407A and R407F and with extended envelope for R404A will be released later and communicated accordingly.

Operating Envelopes:

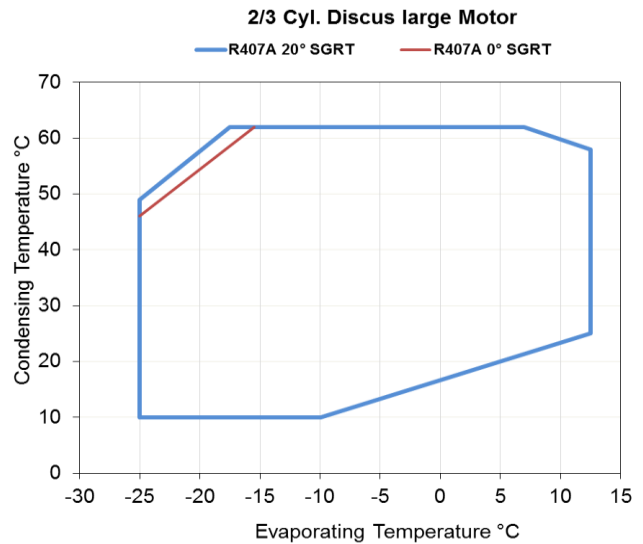
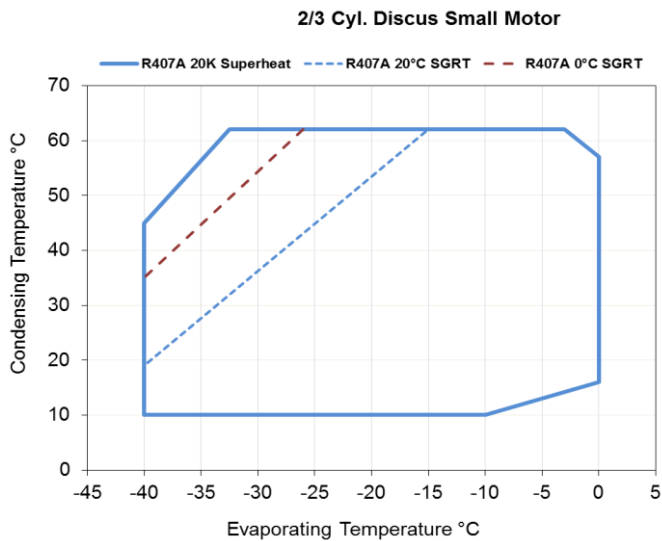
The following operating envelopes apply to Stream compressors with **R404A**:



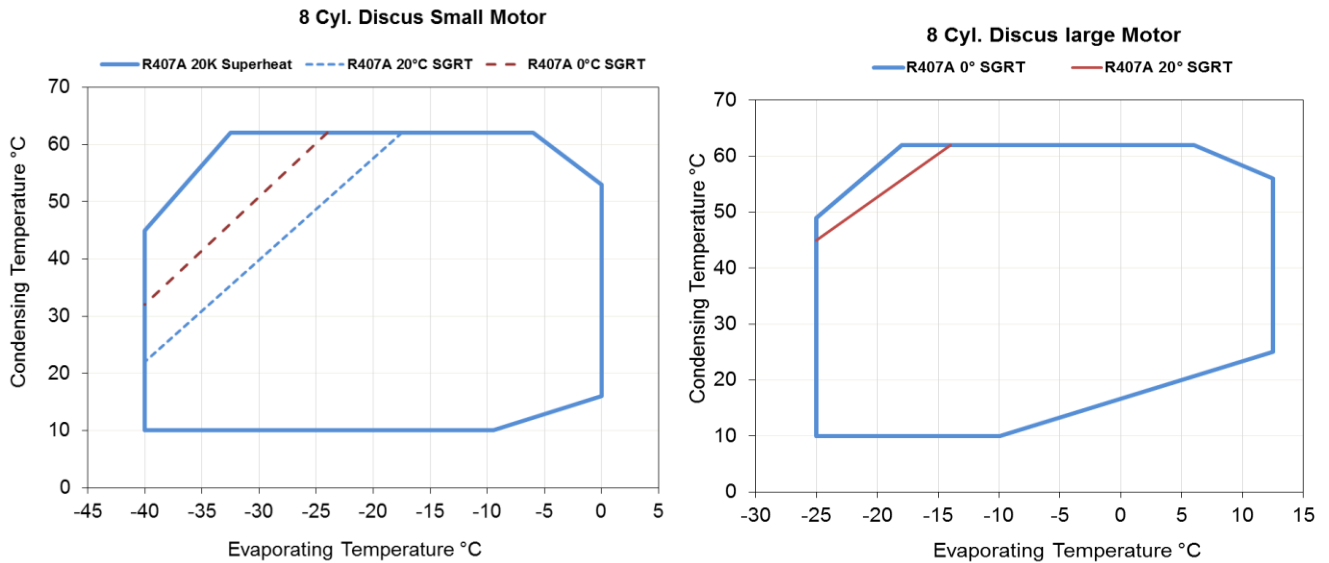
The following operating envelopes apply to Stream compressors with **R407A**:



The following operating envelopes apply to 2/3 cylinder compressors with **R407A**:



The following operating envelopes apply to 8 Cylinder Discus models with **R407A**:



For full details on the extended envelopes for refrigerant R404A and R407A/F for all the released models please refer to our [Selection Software](#) and [Select Online Software](#) and updated Application Engineering Guidelines. ([Link](#))

These envelopes are also valid for condensing units with respective semi-hermetic compressors. For these units PS (maximum allowable pressure on high side) is incremented to 31 bar.

Please note that all pressures are expressed in bar gauge.

For more information please contact your local Emerson Climate Technologies representative.