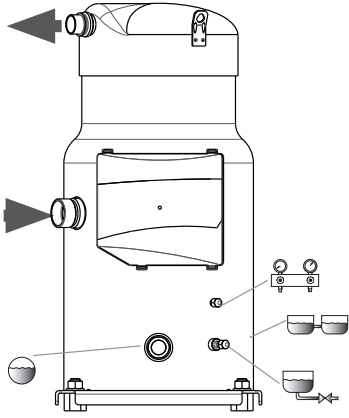


Instructions

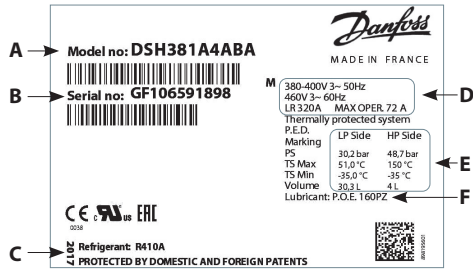
Danfoss scroll compressors DSH / SM / SY / SZ / SH / WSH



1 - Introduction

These instructions pertain to the Danfoss scroll compressors DSH, SM, SY, SZ, SH & WSH scroll compressors used for air-conditioning systems. They provide necessary information regarding safety and proper usage of this product.

2- Nameplate

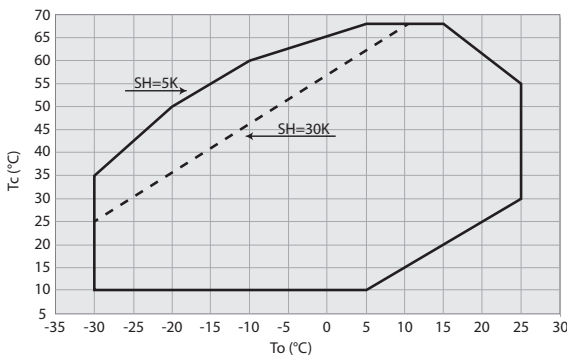


- A:** Model number
- B:** Serial number
- C:** Refrigerant
- D:** Supply voltage, Starting current & Maximum operating current
- E:** Housing service pressure
- F:** Factory charged lubricant

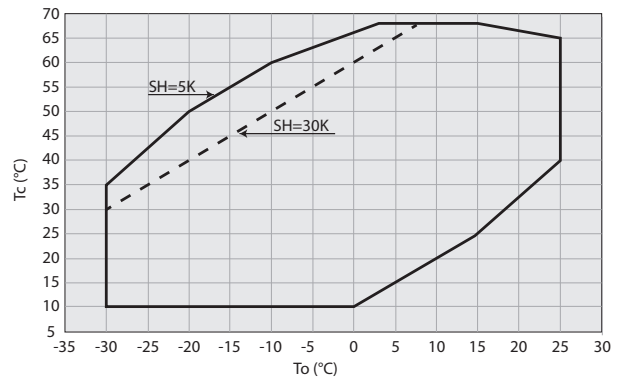
⚠ Installation and servicing of the compressor by qualified personnel only. Follow these instructions and sound refrigeration engineering practice relating to installation, commissioning, maintenance and service.

3 - Operating map

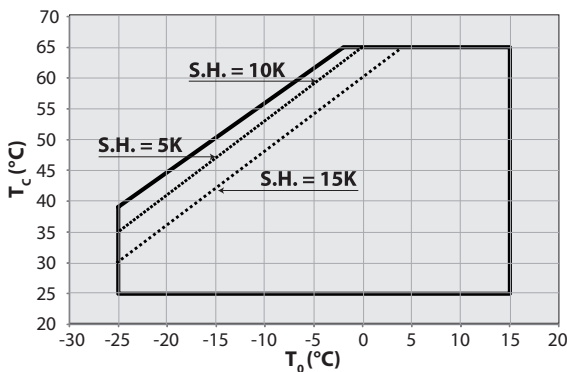
R410A - DSH090-184



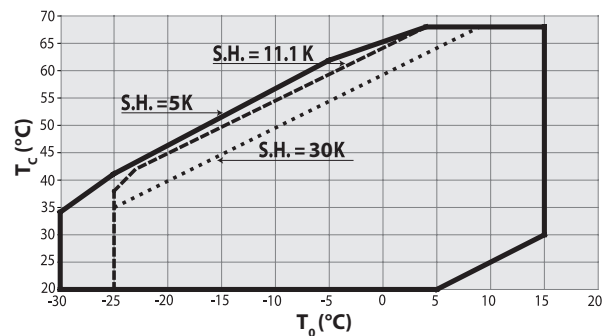
R410A - DSH240-600



R410A - WSH



R410A - SH



⚠ The compressor must only be used for its designed purpose(s) and within its scope of application (refer to «operating limits»). Consult Application guidelines and datasheet available from cc.danfoss.com

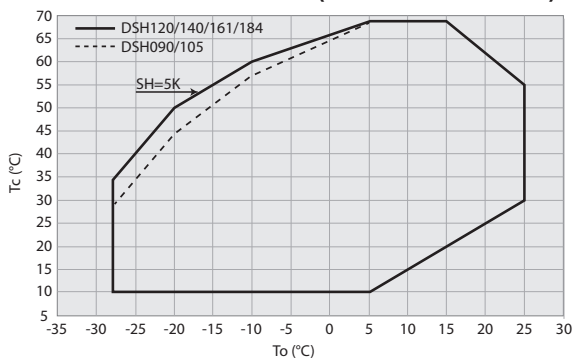
⚠ Under all circumstances, the EN378 (or other applicable local safety regulation) requirements must be fulfilled.

The compressor is delivered under nitrogen gas pressure (between 0.3 and 0.7 bar) and hence cannot be connected as is; refer to the «assembly» section for further details.

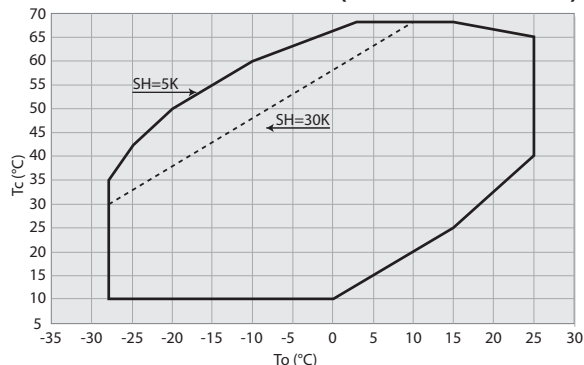
The compressor must be handled with caution in the vertical position (maximum offset from the vertical : 15°)

Instructions

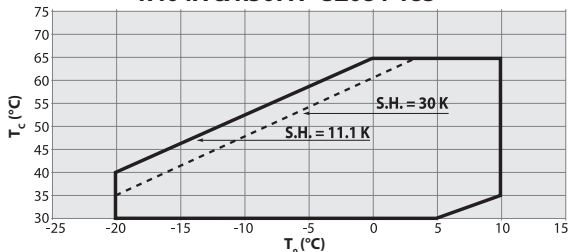
R452B / R454B DSH090-184 (dedicated references)



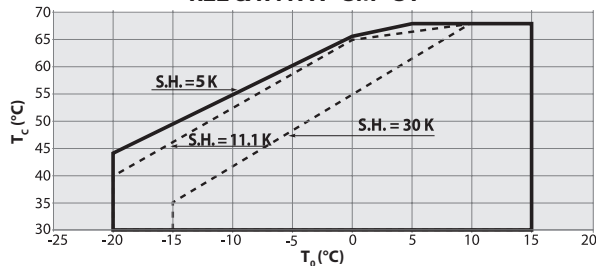
R452B/ R454B DSH240-600 (dedicated references)



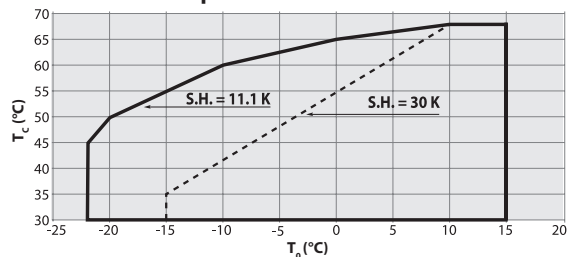
R404A & R507A - SZ084-185



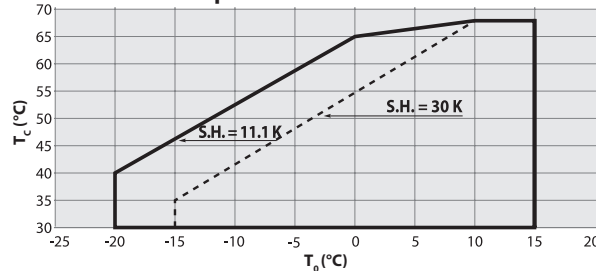
R22 & R417A - SM - SY



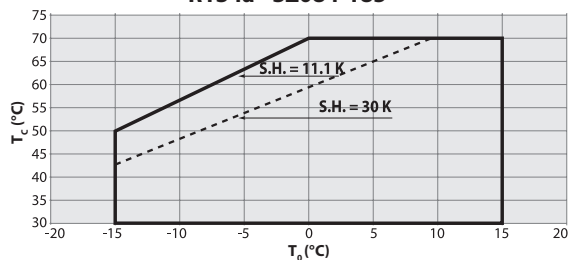
R407C Dew point Conditions - SZ240-380



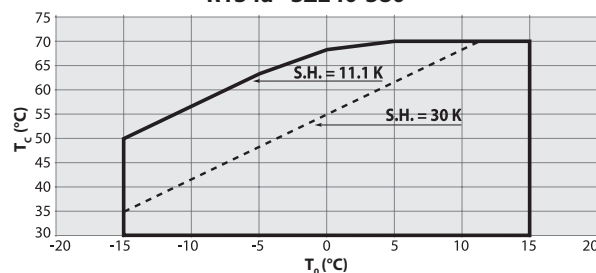
R407C Dew point Conditions - SZ084-185



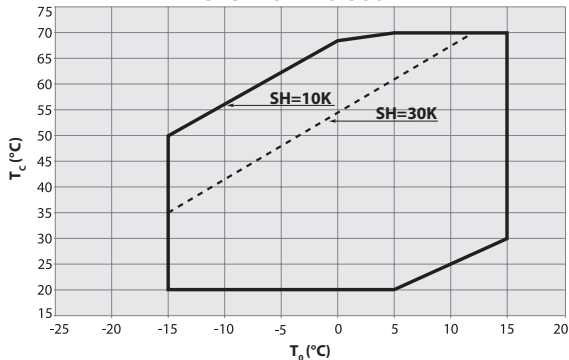
R134a - SZ084-185



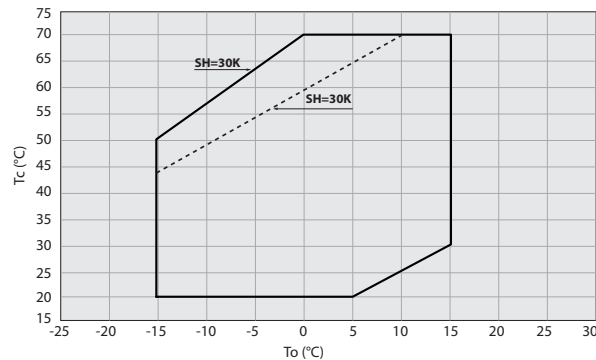
R134a - SZ240-380



R513A - SZ240-380



R513A SZ148-185



When SM compressors are used with R417A, the factory charged mineral oil 160P must be replaced by polyolester oil 160SZ.

Instructions

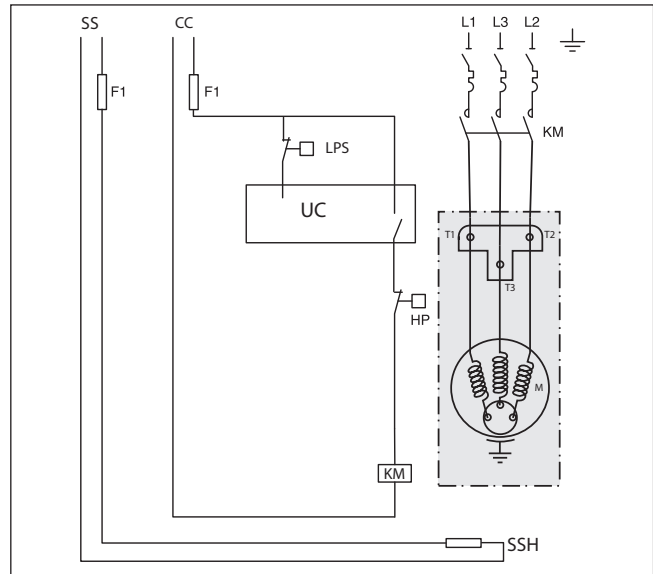
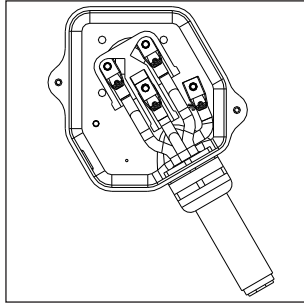
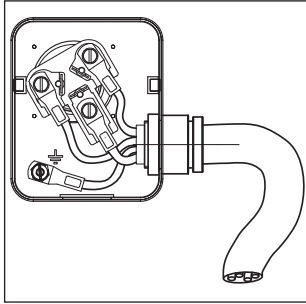
4 - Electrical connections details

DSH / SH / WSH 090 - 105 - 120 - 140 *- 161* - 184*
SM 084 - 090 - 100 - 110 - 112 - 120 - 124 - 147 - 148 - 161
SZ 084 - 090 - 100 - 110 - 120 - 147 - 148 - 161

These Danfoss scroll compressors are protected against overheating and overloading by an internal safety motor protector. However, an external manual reset overload protector is recommended for protecting the circuit against over-current.

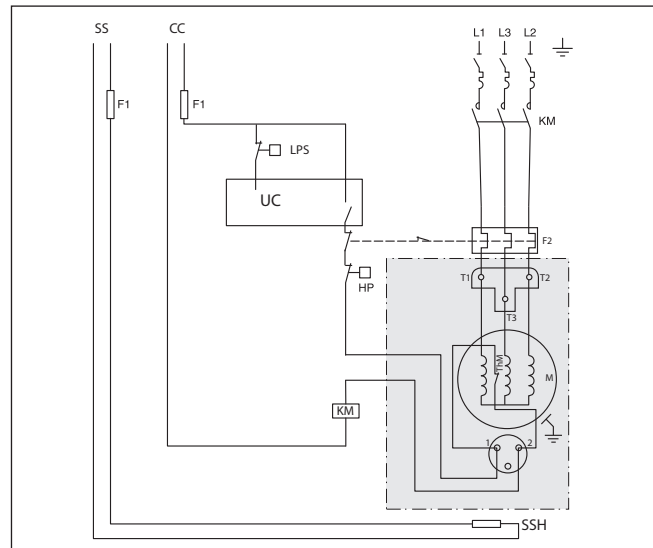
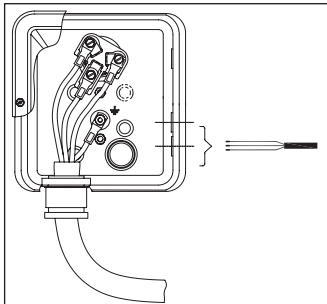
All models except DSH / SH / WSH140-3 & 161-3 & 184 -3/7/9

DSH / SH / WSH140-3 & 161-3 & 184 -3/7/9



SM / SZ 115 - 125 - 160 - 175 - 185 versions with thermostat

These Danfoss scroll compressors are provided with a bimetallic single pole single throw thermostat which is located in the motor windings. Because the thermostat is an automatic reset device, it must be wired in a lockout safety circuit with a manual reset to restart the unit. For over-current protection, an external manual reset overload protector must be used.



SH 180 - 240 - 295 - 300 - 380

DSH 240 - 295 - 381

SY / SZ 240 - 300 - 380

SM / SZ 185 versions with electronic module

These Danfoss scroll compressor motors are protected by an external module protecting against phase loss/reversal, overheating and high current draw.

All models except SH380-3

SH380-3

