



Compressor Selection: Open-Type Reciprocating Compressors

Input Values

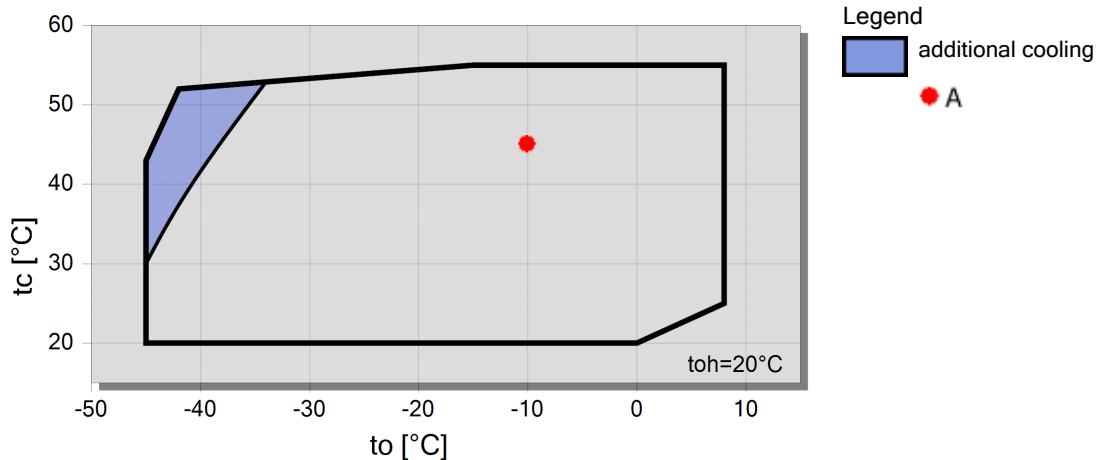
| | | | |
|---------------------------|-----------------|------------------|----------------|
| Compressor model | 4H.2Y-K | Useful superheat | 100% |
| Refrigerant | R404A | Motor speed | 1450 /min |
| Reference temperature | Dew point temp. | Drive | Coupling (1:1) |
| Liq. subc. (in condenser) | 0 K | Capacity Control | 100% |
| Suction gas temperature | 20,00 °C | | |

Result

| | | 5°C | 0°C | -5°C | -10°C | -15°C | -20°C | -25°C | -30°C |
|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30°C | Q [W] | 82602 | 69315 | 57790 | 47805 | 39179 | 31756 | 25402 | 19997 |
| | Q* [W] | 82602 | 69315 | 57790 | 47805 | 39179 | 31756 | 25402 | 19997 |
| | P [kW] | 15,19 | 14,93 | 14,39 | 13,63 | 12,69 | 11,61 | 10,44 | 9,23 |
| | Qc [W] | 97795 | 84242 | 72181 | 61435 | 51867 | 43368 | 35847 | 29230 |
| | COP [-] | 5,44 | 4,64 | 4,02 | 3,51 | 3,09 | 2,73 | 2,43 | 2,17 |
| | COP* [-] | 5,44 | 4,64 | 4,02 | 3,51 | 3,09 | 2,73 | 2,43 | 2,17 |
| | m [kg/h] | 2129 | 1762 | 1452 | 1189 | 966 | 778 | 619 | 484 |
| | n [/min] | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 |
| | 40°C | Q [W] | 71438 | 59935 | 49911 | 41191 | 33629 | 27098 | 21487 |
| Q* [W] | | 71438 | 59935 | 49911 | 41191 | 33629 | 27098 | 21487 | 16696 |
| P [kW] | | 17,75 | 17,13 | 16,25 | 15,17 | 13,92 | 12,56 | 11,15 | 9,73 |
| Qc [W] | | 89185 | 77066 | 66165 | 56357 | 47546 | 39659 | 32635 | 26424 |
| COP [-] | | 4,03 | 3,50 | 3,07 | 2,72 | 2,42 | 2,16 | 1,93 | 1,72 |
| COP* [-] | | 4,03 | 3,50 | 3,07 | 2,72 | 2,42 | 2,16 | 1,93 | 1,72 |
| m [kg/h] | | 2082 | 1719 | 1413 | 1153 | 933 | 746 | 587 | 454 |
| n [/min] | | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 |
| 50°C | | Q [W] | 59883 | 50252 | 41803 | 34411 | 27967 | 22374 | 17544 |
| | Q* [W] | 59883 | 50252 | 41803 | 34411 | 27967 | 22374 | 17544 | 13398 |
| | P [kW] | 20,4 | 19,47 | 18,27 | 16,88 | 15,36 | 13,76 | 12,13 | 10,53 |
| | Qc [W] | 80303 | 69722 | 60077 | 51296 | 43327 | 36130 | 29671 | 23927 |
| | COP [-] | 2,93 | 2,58 | 2,29 | 2,04 | 1,82 | 1,63 | 1,45 | 1,27 |
| | COP* [-] | 2,93 | 2,58 | 2,29 | 2,04 | 1,82 | 1,63 | 1,45 | 1,27 |
| | m [kg/h] | 2032 | 1674 | 1371 | 1114 | 896 | 710 | 553 | 419 |
| | n [/min] | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 | 1450 |

-- No calculation possible (see message in single point selection)
 *According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

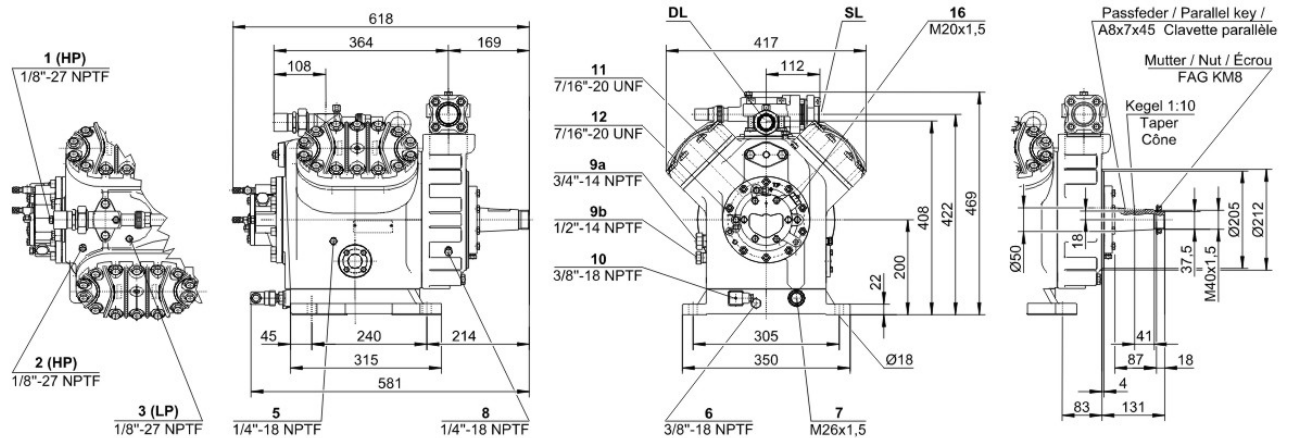
Application Limits Standard





Technical Data: 4H.2Y-K

Dimensions and Connections



Technical Data

Technical Data

| | |
|--|--|
| Displacement (1450 RPM 50Hz) | 73,6 m ³ /h |
| Displacement (1750 RPM 60Hz) | 88,8 m ³ /h |
| No. of cylinder x bore x stroke | 4 x 70 mm x 55 mm |
| Allowed speed range | 750 .. 1750 1/min |
| Weight | 129 kg |
| Max. pressure (LP/HP) | 19 / 25 bar |
| Connection suction line | 42 mm - 1 5/8" |
| Connection discharge line | 28 mm - 1 1/8" |
| Oil type R134a/R407C/R404A/R507A/R407A/R407F | tc<55°C: BSE32 / tc>55°C: BSE55 (Option) |
| Oil type R22 (R12/R502) | B5.2 (Standard) |

Extent of delivery (Standard)

| | |
|--------------------------|---------------------|
| Oil charge | 4,7 dm ³ |
| Protective charge | Standard |
| Suction shut-off valve | Standard |
| Discharge shut-off valve | Standard |
| Pressure relief valve | Standard |

Available Options

| | |
|----------------------------------|--|
| Coupling (...-K) w. A/C + medium | KK620 [<22kW] / KK630 [<45kW] (Option) |
| Coupling (...-K) w. low temp. | KK625 [<22kW] / KK630 [<45kW] (Option) |
| Coupling housing | Option |
| Motor pulley (...-S) | 190, 210, 230 mm (Option) |
| V-belts | 5 x SPA (Option) |
| Discharge gas temperature sensor | Option (incl. INT69VS) |
| Start unloading | Option |
| Connection cooling water | R 3/4" (Option) |
| Capacity control | 100-50% (Option) |
| Additional fan | Option |
| Water-cooled cylinder heads | Option |
| Oil service valve | Option |
| Crankcase heater | 140 W (Option) |
| Oil pressure monitoring | MP54 (Option) |
| Kit for marine application | Option |