



Compressor Selection: Open Screw Compressors OS

Input Values

| | | | |
|---------------------------|-----------------|--------------------------|-----------|
| Compressor model | OSK7461-K | Operating mode | Standard |
| Refrigerant | R404A | Speed | 2900 /min |
| Reference temperature | Dew point temp. | Useful superheat | 100% |
| Liq. subc. (in condenser) | 0 K | Additional cooling | Automatic |
| Suct. gas superheat | 10,00 K | Max. discharge gas temp. | 80,0 °C |

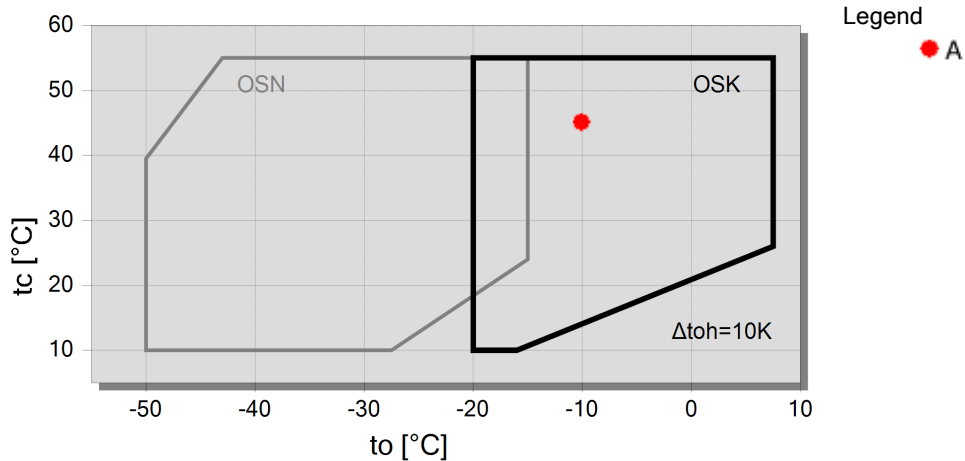
Result

| | | | |
|------------|------------------|-------------|---------------------------|
| Q [W] | Cooling capacity | Qac [kW] | Additional cooling |
| P [kW] | Power input | tcu [°C] | Liquid temp. |
| COP [-] | COP/EER | pm [bar(a)] | ECO pressure |
| mLP [kg/h] | Mass flow LP | Qsc [kW] | sub cooler capacity (ECO) |
| mHP [kg/h] | Mass flow HP | | |

| tc | to | 10°C | 5°C | 0°C | -5°C | -10°C | -15°C | -20°C | -25°C |
|------|-------------|------|--------|--------|--------|--------|--------|--------|-------|
| 30°C | Q [W] | -- | 281249 | 234534 | 194191 | 159500 | 129811 | 104544 | -- |
| | P [kW] | -- | 43,3 | 42,5 | 42,0 | 41,6 | 41,3 | 40,8 | -- |
| | COP [-] | -- | 6,49 | 5,52 | 4,62 | 3,83 | 3,14 | 2,57 | -- |
| | mLP [kg/h] | -- | 7521 | 6402 | 5417 | 4551 | 3793 | 3131 | -- |
| | mHP [kg/h] | -- | 7521 | 6402 | 5417 | 4551 | 3793 | 3131 | -- |
| | Qac [kW] | -- | -- | -- | -- | -- | -- | -- | -- |
| | tcu [°C] | -- | 29,6 | 29,6 | 29,6 | 29,6 | 29,6 | 29,6 | -- |
| | pm [bar(a)] | -- | -- | -- | -- | -- | -- | -- | -- |
| | Qsc [kW] | -- | -- | -- | -- | -- | -- | -- | -- |
| 40°C | Q [W] | -- | 243978 | 202560 | 166898 | 136335 | 110277 | 88196 | -- |
| | P [kW] | -- | 53,4 | 52,8 | 52,3 | 51,8 | 51,2 | 50,5 | -- |
| | COP [-] | -- | 4,57 | 3,84 | 3,19 | 2,63 | 2,15 | 1,74 | -- |
| | mLP [kg/h] | -- | 7412 | 6300 | 5321 | 4461 | 3707 | 3051 | -- |
| | mHP [kg/h] | -- | 7412 | 6300 | 5321 | 4461 | 3707 | 3051 | -- |
| | Qac [kW] | -- | -- | -- | -- | -- | -- | -- | -- |
| | tcu [°C] | -- | 39,6 | 39,6 | 39,6 | 39,6 | 39,6 | 39,6 | -- |
| | pm [bar(a)] | -- | -- | -- | -- | -- | -- | -- | -- |
| | Qsc [kW] | -- | -- | -- | -- | -- | -- | -- | -- |
| 50°C | Q [W] | -- | 202763 | 167192 | 136675 | 110626 | 88517 | 69878 | -- |
| | P [kW] | -- | 65,5 | 65,3 | 64,8 | 64,1 | 63,4 | 62,8 | -- |
| | COP [-] | -- | 3,09 | 2,56 | 2,11 | 1,73 | 1,40 | 1,11 | -- |
| | mLP [kg/h] | -- | 7221 | 6120 | 5151 | 4300 | 3553 | 2902 | -- |
| | mHP [kg/h] | -- | 7221 | 6120 | 5151 | 4300 | 3553 | 2902 | -- |
| | Qac [kW] | -- | -- | -- | -- | -- | 7,01 | 14,25 | -- |
| | tcu [°C] | -- | 49,7 | 49,7 | 49,7 | 49,7 | 49,7 | 49,7 | -- |
| | pm [bar(a)] | -- | -- | -- | -- | -- | -- | -- | -- |
| | Qsc [kW] | -- | -- | -- | -- | -- | -- | -- | -- |

-- No calculation possible (see message in single point selection)
 *According to EN12900 (10K suction gas superheat, 0K liquid subcooling)

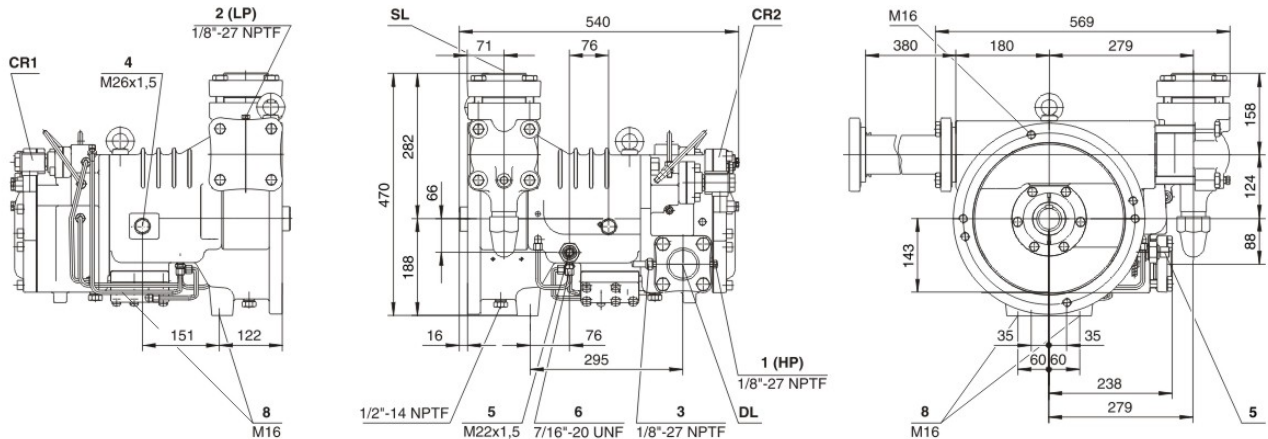
Application Limits Standard





Technical Data: OSK7461-K

Dimensions and Connections



Technical Data

Technical Data

| | |
|---|--------------------------------|
| Displacement (2900 RPM 50 Hz) | 220 m ³ /h |
| Displacement (3500 RPM 60 Hz) | 266 m ³ /h |
| Max. Power input | 85,0 kW |
| Allowed speed range | 1450 .. 4000 min ⁻¹ |
| Sens of rotation (compressor) | links / counter-clockwise |
| Weight | 176 kg |
| Max. pressure (LP/HP) | 19 / 28 bar |
| Connection suction line | 76 mm - 3 1/8" |
| Connection suction line (NH3) | DN 80 |
| Connection discharge line | 54 mm - 2 1/8" |
| Connection discharge line (NH3) | DN 50 |
| Oil type R22 | B150SH, B100 (Option) |
| Oil type | BSE170 (Option) |
| R134a/R404A/R507A/R407A/R407F/R448A/R449A | |

Extent of delivery (Standard)

| | |
|----------------------------------|-----------------------|
| Suction shut-off valve | Standard |
| Pressure relief valve | Standard |
| Check valve | Standard |
| Oil injection kit | Standard |
| Built in oil filter | Standard |
| Motor protection | SE-B2 |
| Discharge gas temperature sensor | Standard |
| Start unloading | Standard |
| Capacity control | 100-75-50% (Standard) |
| Sight glass | Standard |
| Protective charge | Standard |

Available Options

| | |
|------------------------------------|-----------------------|
| Oil flow control | Option |
| Discharge shut-off valve | Option |
| ECO connection with shut-off valve | Option |
| Adapter/shut-off valve for ECO | 22 mm - 7/8" (Option) |
| Coupling housing | Option |



Compressor Selection: Open Screw Compressors OS

Input Values

| | | | |
|---------------------------|-----------------|--------------------------|-----------|
| Compressor model | OSK5351-K | Operating mode | Standard |
| Refrigerant | R404A | Speed | 2900 /min |
| Reference temperature | Dew point temp. | Useful superheat | 100% |
| Liq. subc. (in condenser) | 0 K | Additional cooling | Automatic |
| Suct. gas superheat | 10,00 K | Max. discharge gas temp. | 80,0 °C |

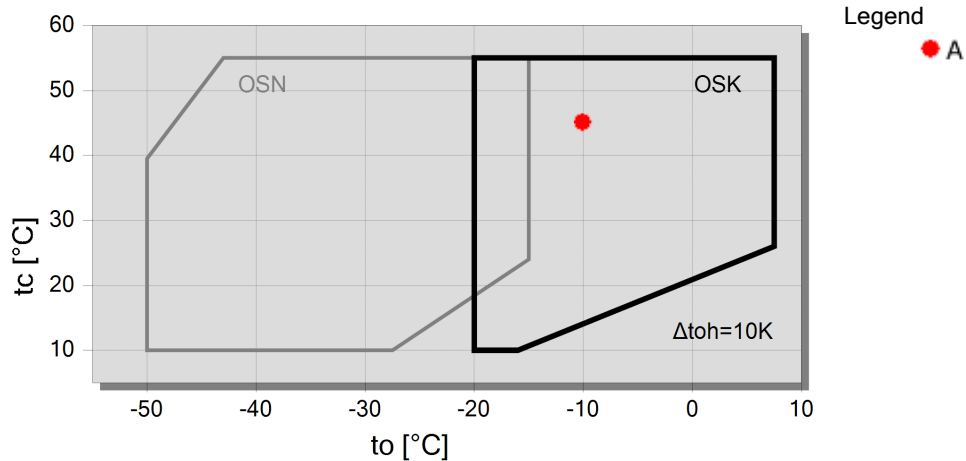
Result

| | | | |
|------------|------------------|-------------|---------------------------|
| Q [W] | Cooling capacity | Qac [kW] | Additional cooling |
| P [kW] | Power input | tcu [°C] | Liquid temp. |
| COP [-] | COP/EER | pm [bar(a)] | ECO pressure |
| mLP [kg/h] | Mass flow LP | Qsc [kW] | sub cooler capacity (ECO) |
| mHP [kg/h] | Mass flow HP | | |

| tc | to | 10°C | 5°C | 0°C | -5°C | -10°C | -15°C | -20°C | -25°C |
|-------------|-------------|-------|--------|--------|-------|-------|-------|-------|-------|
| 30°C | Q [W] | -- | 118276 | 98678 | 81748 | 67182 | 54710 | 44088 | -- |
| | P [kW] | -- | 20,8 | 20,2 | 19,59 | 19,03 | 18,53 | 18,09 | -- |
| | COP [-] | -- | 5,67 | 4,89 | 4,17 | 3,53 | 2,95 | 2,44 | -- |
| | mLP [kg/h] | -- | 3163 | 2694 | 2280 | 1917 | 1598 | 1320 | -- |
| | mHP [kg/h] | -- | 3163 | 2694 | 2280 | 1917 | 1598 | 1320 | -- |
| | Qac [kW] | -- | -- | -- | -- | -- | -- | -- | -- |
| | tcu [°C] | -- | 29,6 | 29,6 | 29,6 | 29,6 | 29,6 | 29,6 | -- |
| | pm [bar(a)] | -- | -- | -- | -- | -- | -- | -- | -- |
| | Qsc [kW] | -- | -- | -- | -- | -- | -- | -- | -- |
| | 40°C | Q [W] | -- | 101992 | 84733 | 69865 | 57117 | 46240 | 37017 |
| P [kW] | | -- | 24,9 | 24,4 | 23,8 | 23,3 | 22,8 | 22,3 | -- |
| COP [-] | | -- | 4,09 | 3,48 | 2,94 | 2,45 | 2,03 | 1,66 | -- |
| mLP [kg/h] | | -- | 3099 | 2635 | 2227 | 1869 | 1555 | 1280 | -- |
| mHP [kg/h] | | -- | 3099 | 2635 | 2227 | 1869 | 1555 | 1280 | -- |
| Qac [kW] | | -- | -- | -- | -- | -- | -- | -- | -- |
| tcu [°C] | | -- | 39,6 | 39,6 | 39,6 | 39,6 | 39,6 | 39,6 | -- |
| pm [bar(a)] | | -- | -- | -- | -- | -- | -- | -- | -- |
| Qsc [kW] | | -- | -- | -- | -- | -- | -- | -- | -- |
| 50°C | | Q [W] | -- | 84799 | 69966 | 57237 | 46368 | 37140 | 29356 |
| | P [kW] | -- | 30,2 | 29,7 | 29,1 | 28,7 | 28,2 | 27,8 | -- |
| | COP [-] | -- | 2,81 | 2,36 | 1,96 | 1,62 | 1,32 | 1,06 | -- |
| | mLP [kg/h] | -- | 3020 | 2561 | 2157 | 1802 | 1491 | 1219 | -- |
| | mHP [kg/h] | -- | 3020 | 2561 | 2157 | 1802 | 1491 | 1219 | -- |
| | Qac [kW] | -- | -- | -- | -- | -- | 4,53 | 7,42 | -- |
| | tcu [°C] | -- | 49,7 | 49,7 | 49,7 | 49,7 | 49,7 | 49,7 | -- |
| | pm [bar(a)] | -- | -- | -- | -- | -- | -- | -- | -- |
| | Qsc [kW] | -- | -- | -- | -- | -- | -- | -- | -- |

-- No calculation possible (see message in single point selection)
 *According to EN12900 (10K suction gas superheat, 0K liquid subcooling)

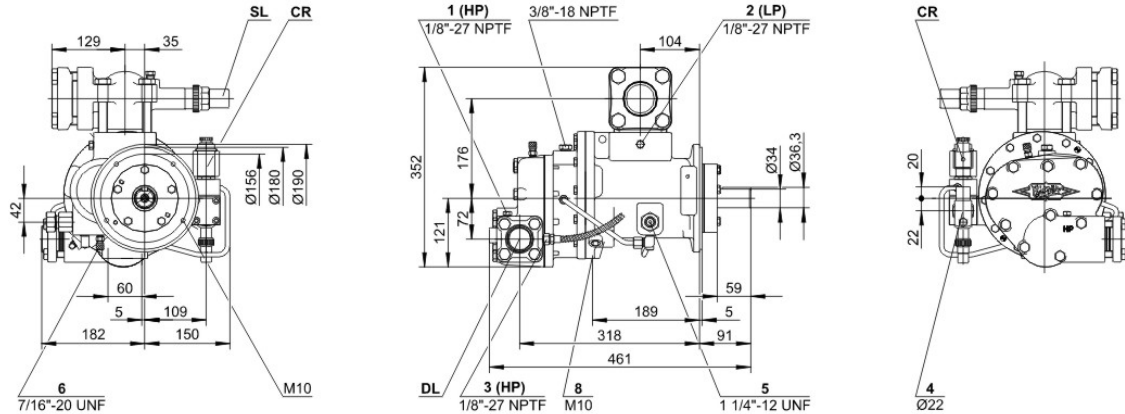
Application Limits Standard





Technical Data: OSK5351-K

Dimensions and Connections



Technical Data

Technical Data

| | |
|---|--------------------------------|
| Displacement (2900 RPM 50 Hz) | 100 m ³ /h |
| Displacement (3500 RPM 60 Hz) | 121 m ³ /h |
| Max. Power input | 36,0 kW |
| Allowed speed range | 1450 .. 4500 min ⁻¹ |
| Sens of rotation (compressor) | rechts / clockwise |
| Weight | 65 kg |
| Max. pressure (LP/HP) | 19 / 28 bar |
| Connection suction line | 54 mm - 2 1/8" |
| Connection suction line (NH3) | DN 50 |
| Connection discharge line | 42 mm - 1 5/8" |
| Connection discharge line (NH3) | DN 40 |
| Oil type R22 | B150SH, B100 (Option) |
| Oil type | BSE170 (Option) |
| R134a/R404A/R507A/R407A/R407F/R448A/R449A | |

Extent of delivery (Standard)

| | |
|----------------------------------|----------|
| Suction shut-off valve | Standard |
| Pressure relief valve | Standard |
| Check valve | Standard |
| Oil injection kit | Standard |
| Built in oil filter | Standard |
| Motor protection | SE-B2 |
| Discharge gas temperature sensor | Standard |
| Sight glass | Standard |
| Protective charge | Standard |

Available Options

| | |
|------------------------------------|-----------------------|
| Oil flow control | Option |
| Discharge shut-off valve | Option |
| ECO connection with shut-off valve | Option |
| Adapter/shut-off valve for ECO | 22 mm - 7/8" (Option) |
| Coupling housing | Option |
| Start unloading | Option |
| Capacity control | 100-75% (Option) |