

Model: D6DL-270 X

Data

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

Model: D6DL-270 X

Technical data

| | |
|-----------------------------------|-----------------|
| Cylinder count: | 6 |
| Displacement [m ³ /h]: | 106 |
| Weight [kg]: | 258 |
| Oil charge [dm ³]: | 4,3 |
| Max. operating current [A]: | 43 |
| Locked rotor current [A]: | 192 |
| Power supply [V/~/Hz]: | 380-420V/3/50Hz |

Connections

| | <u>milimeters</u> | <u>inches</u> |
|-----------------|-------------------|---------------|
| Suction line: | | 2 1/8" |
| Discharge line: | | 1 3/8" |

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Capacity

R404A/R507

Cooling capacity [kW]

| $t_c \setminus t_e$ | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20 | 12.56 | 16.85 | 22.11 | 28.49 | 36.10 | 45.08 | 55.56 | 67.68 | 81.56 |
| 25 | 11.28 | 15.31 | 20.23 | 26.16 | 33.24 | 41.60 | 51.37 | 62.69 | 75.67 |
| 30 | 10.00 | 13.78 | 18.35 | 23.86 | 30.42 | 38.17 | 47.24 | 57.76 | 69.87 |
| 35 | 8.72 | 12.26 | 16.50 | 21.58 | 27.63 | 34.78 | 43.17 | 52.91 | 64.14 |
| 40 | - | 10.74 | 14.67 | 19.34 | 24.89 | 31.45 | 39.15 | 48.12 | 58.50 |
| 45 | - | 9.24 | 12.86 | 17.13 | 22.19 | 28.17 | 35.20 | 43.41 | - |
| 50 | - | - | 11.07 | 14.95 | 19.53 | 24.94 | 31.31 | 38.78 | - |
| 55 | - | - | 9.31 | 12.81 | 16.92 | 21.77 | 27.49 | 34.22 | - |

Power input [kW]

| $t_c \setminus t_e$ | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 |
|---------------------|------|------|-------|-------|-------|-------|-------|-------|-------|
| 20 | 7.37 | 8.79 | 10.26 | 11.75 | 13.23 | 14.66 | 15.99 | 17.20 | 18.24 |
| 25 | 7.43 | 8.92 | 10.50 | 12.13 | 13.76 | 15.37 | 16.91 | 18.34 | 19.64 |
| 30 | 7.45 | 9.02 | 10.70 | 12.45 | 14.23 | 16.01 | 17.75 | 19.41 | 20.96 |
| 35 | 7.45 | 9.09 | 10.86 | 12.72 | 14.65 | 16.59 | 18.52 | 20.39 | 22.18 |
| 40 | - | 9.11 | 10.96 | 12.94 | 15.00 | 17.10 | 19.21 | 21.29 | 23.31 |
| 45 | - | 9.08 | 11.01 | 13.09 | 15.28 | 17.53 | 19.82 | 22.11 | - |
| 50 | - | - | 11.01 | 13.18 | 15.49 | 17.89 | 20.35 | 22.83 | - |
| 55 | - | - | 10.94 | 13.21 | 15.63 | 18.17 | 20.79 | 23.45 | - |

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Capacity

Current [A]

| $t_c \setminus t_e$ | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20 | 18.80 | 20.52 | 22.36 | 24.29 | 26.25 | 28.21 | 30.11 | 31.91 | 33.58 |
| 25 | 18.88 | 20.71 | 22.72 | 24.85 | 27.08 | 29.35 | 31.63 | 33.85 | 35.99 |
| 30 | 18.94 | 20.86 | 23.01 | 25.34 | 27.82 | 30.39 | 33.01 | 35.65 | 38.25 |
| 35 | 18.97 | 20.96 | 23.23 | 25.74 | 28.45 | 31.30 | 34.27 | 37.29 | 40.33 |
| 40 | - | 21.00 | 23.38 | 26.05 | 28.97 | 32.09 | 35.37 | 38.77 | 42.23 |
| 45 | - | 20.97 | 23.44 | 26.26 | 29.37 | 32.74 | 36.33 | 40.08 | - |
| 50 | - | - | 23.41 | 26.36 | 29.65 | 33.26 | 37.12 | 41.21 | - |
| 55 | - | - | 23.29 | 26.34 | 29.80 | 33.62 | 37.75 | 42.16 | - |

Mass flow [kg/s]

| $t_c \setminus t_e$ | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 |
|---------------------|--------|--------|--------|--------|--------|--------|----------|----------|----------|
| 20 | 260.68 | 363.09 | 483.48 | 626.48 | 796.74 | 998.87 | 1 237.51 | 1 517.28 | 1 842.83 |
| 25 | 248.22 | 347.31 | 464.06 | 603.11 | 769.07 | 966.58 | 1 200.27 | 1 474.76 | 1 794.70 |
| 30 | 234.25 | 330.10 | 443.29 | 578.43 | 740.16 | 933.12 | 1 161.92 | 1 431.20 | 1 745.60 |
| 35 | 218.89 | 311.56 | 421.23 | 552.54 | 710.11 | 898.58 | 1 122.56 | 1 386.70 | 1 695.61 |
| 40 | - | 291.76 | 398.00 | 525.54 | 679.01 | 863.05 | 1 082.28 | 1 341.33 | 1 644.83 |
| 45 | - | 270.81 | 373.67 | 497.50 | 646.94 | 826.62 | 1 041.16 | 1 295.19 | - |
| 50 | - | - | 348.33 | 468.53 | 614.00 | 789.38 | 999.30 | 1 248.38 | - |
| 55 | - | - | 322.08 | 438.70 | 580.27 | 751.42 | 956.78 | 1 200.97 | - |

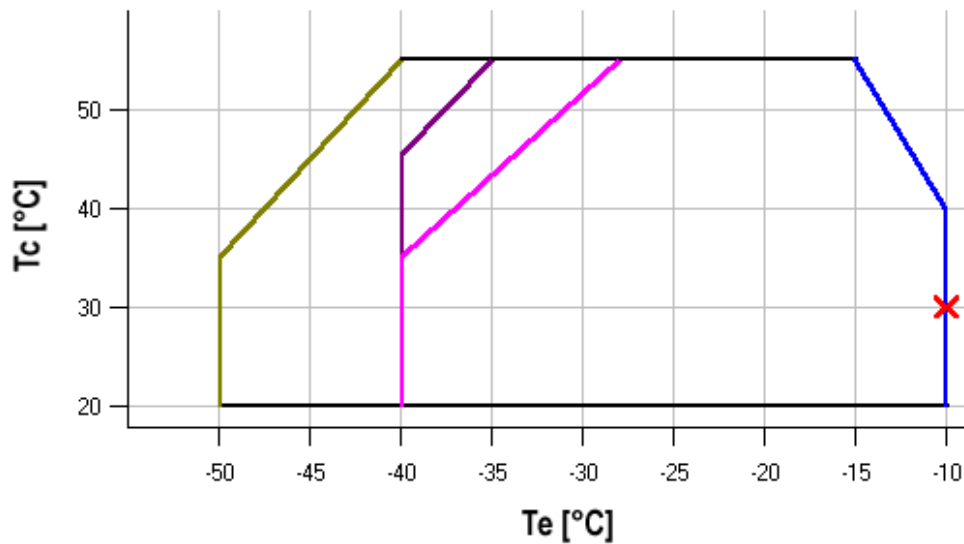
Model: D6DL-270 X





Capacity

C.O.P. [W/W]

| $t_c \setminus t_e$ | -50 | -45 | -40 | -35 | -30 | -25 | -20 | -15 | -10 |
|---------------------|------|------|------|------|------|------|------|------|------|
| 20 | 1.70 | 1.92 | 2.16 | 2.42 | 2.73 | 3.08 | 3.47 | 3.93 | 4.47 |
| 25 | 1.52 | 1.72 | 1.93 | 2.16 | 2.42 | 2.71 | 3.04 | 3.42 | 3.85 |
| 30 | 1.34 | 1.53 | 1.71 | 1.92 | 2.14 | 2.38 | 2.66 | 2.98 | 3.33 |
| 35 | 1.17 | 1.35 | 1.52 | 1.70 | 1.89 | 2.10 | 2.33 | 2.59 | 2.89 |
| 40 | - | 1.18 | 1.34 | 1.49 | 1.66 | 1.84 | 2.04 | 2.26 | 2.51 |
| 45 | - | 1.02 | 1.17 | 1.31 | 1.45 | 1.61 | 1.78 | 1.96 | - |
| 50 | - | - | 1.01 | 1.13 | 1.26 | 1.39 | 1.54 | 1.70 | - |
| 55 | - | - | 0.85 | 0.97 | 1.08 | 1.20 | 1.32 | 1.46 | - |

Application range



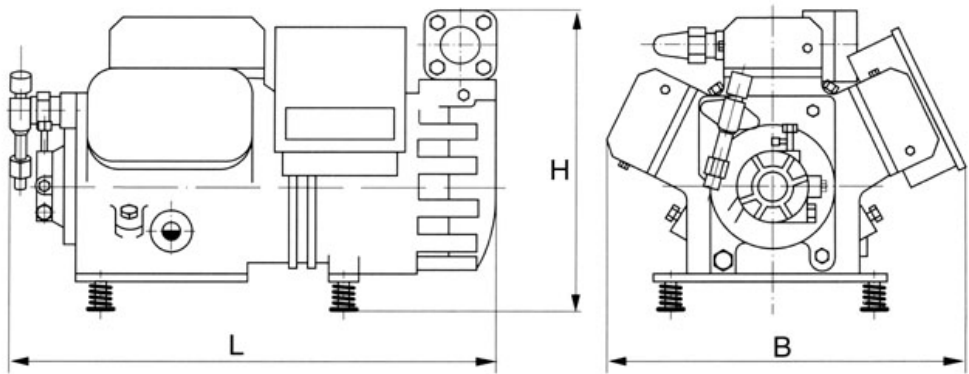
-  Maximum evaporating temperature
-  25°C suction gas return
-  0°C suction gas return + additional cooling
-  0°C suction gas return

Operating conditions: ISO; subcooling: 0 K, suction superheat: - K, return gas temperature: 20

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

Model: D6DL-270 X
Dimensions



| | |
|---|--------|
| L | 740 mm |
| B | 580 mm |
| H | 650 mm |

Model: D6DL-270 X

Image

