

Model: ZF18KVE-TFD EVI

Data

Type: Hermetic piston compressors

Producer: Copeland

Series: ZF

Model: ZF18KVE-TFD EVI

Technical data

| | |
|-----------------------------------|------|
| Nominal motor power [HP]: | 6 |
| Displacement [m ³ /h]: | 17,2 |
| Weight [kg]: | 44 |
| Oil charge [dm ³]: | 1,7 |

Electrical data

| | |
|----------------------------------|-----------------|
| Power supply [V/~/Hz]: | 380-420V/3/50Hz |
| Locked rotor current [A]: | 74 |
| Max. operating current [A]: | 12 |
| Winding resistance [Ω]: | 2,27 |

Connections

| | <u>milimeters</u> | <u>inches</u> |
|-----------------|-------------------|---------------|
| Suction line: | | 1 1/4" |
| Discharge line: | | 1" |

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Capacity

R404A/R507

Cooling capacity [kW]

| t_c \ t_e | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|-----------|----------|----------|
| 10 | 5.29 | 6.59 | 8.04 | 9.68 | 11.53 | 13.61 | - | - | - | - |
| 15 | 5.18 | 6.43 | 7.85 | 9.45 | 11.26 | 13.31 | 15.62 | - | - | - |
| 20 | 5.09 | 6.30 | 7.67 | 9.24 | 11.01 | 13.02 | 15.29 | 17.85 | - | - |
| 25 | 5.03 | 6.19 | 7.52 | 9.04 | 10.77 | 12.74 | 14.97 | 17.49 | 20.32 | - |
| 30 | 4.99 | 6.10 | 7.38 | 8.85 | 10.53 | 12.46 | 14.65 | 17.13 | 19.92 | 23.05 |
| 35 | 4.97 | 6.02 | 7.24 | 8.66 | 10.30 | 12.18 | 14.32 | 16.76 | 19.51 | 22.59 |
| 40 | 4.95 | 5.95 | 7.11 | 8.47 | 10.06 | 11.88 | 13.98 | 16.37 | 19.07 | 22.11 |
| 45 | 4.95 | 5.88 | 6.98 | 8.28 | 9.81 | 11.58 | 13.62 | 15.95 | 18.61 | 21.60 |
| 50 | 4.94 | 5.80 | 6.84 | 8.08 | 9.54 | 11.25 | 13.24 | 15.52 | 18.11 | 21.06 |
| 55 | 4.94 | 5.73 | 6.69 | 7.86 | 9.26 | 10.91 | 12.83 | 15.05 | 17.59 | 20.48 |
| 60 | 4.93 | 5.64 | 6.53 | - | - | 10.53 | 12.39 | 14.54 | 17.02 | 19.85 |

Power input [kW]

| t_c \ t_e | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|-----------|----------|----------|
| 10 | 2.13 | 2.19 | 2.26 | 2.33 | 2.40 | 2.48 | - | - | - | - |
| 15 | 2.40 | 2.48 | 2.57 | 2.66 | 2.75 | 2.85 | 2.93 | - | - | - |
| 20 | 2.64 | 2.76 | 2.87 | 2.98 | 3.09 | 3.19 | 3.29 | 3.39 | - | - |
| 25 | 2.89 | 3.03 | 3.16 | 3.29 | 3.42 | 3.54 | 3.65 | 3.75 | 3.84 | - |
| 30 | 3.14 | 3.31 | 3.46 | 3.62 | 3.76 | 3.89 | 4.02 | 4.13 | 4.23 | 4.31 |
| 35 | 3.42 | 3.61 | 3.80 | 3.97 | 4.13 | 4.28 | 4.41 | 4.53 | 4.64 | 4.73 |
| 40 | 3.74 | 3.96 | 4.17 | 4.36 | 4.54 | 4.71 | 4.85 | 4.99 | 5.10 | 5.19 |
| 45 | 4.12 | 4.37 | 4.60 | 4.82 | 5.01 | 5.20 | 5.36 | 5.50 | 5.62 | 5.71 |
| 50 | 4.58 | 4.85 | 5.11 | 5.34 | 5.56 | 5.76 | 5.93 | 6.08 | 6.21 | 6.31 |
| 55 | 5.12 | 5.42 | 5.70 | 5.96 | 6.20 | 6.41 | 6.60 | 6.76 | 6.90 | 7.00 |
| 60 | 5.76 | 6.09 | 6.40 | - | - | 7.17 | 7.37 | 7.55 | 7.69 | 7.80 |

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Capacity

Current [A]

| t_c \ t_e | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|-----------|----------|----------|
| 10 | 5.22 | 5.27 | 5.32 | 5.36 | 5.39 | 5.43 | - | - | - | - |
| 15 | 5.51 | 5.61 | 5.69 | 5.77 | 5.84 | 5.91 | 5.98 | - | - | - |
| 20 | 5.77 | 5.91 | 6.03 | 6.14 | 6.24 | 6.34 | 6.44 | 6.55 | - | - |
| 25 | 6.02 | 6.20 | 6.35 | 6.50 | 6.63 | 6.76 | 6.89 | 7.02 | 7.16 | - |
| 30 | 6.29 | 6.50 | 6.69 | 6.87 | 7.04 | 7.20 | 7.35 | 7.51 | 7.67 | 7.85 |
| 35 | 6.61 | 6.85 | 7.08 | 7.29 | 7.48 | 7.67 | 7.85 | 8.04 | 8.22 | 8.41 |
| 40 | 6.99 | 7.27 | 7.53 | 7.77 | 8.00 | 8.21 | 8.42 | 8.63 | 8.83 | 9.04 |
| 45 | 7.47 | 7.79 | 8.08 | 8.35 | 8.61 | 8.85 | 9.08 | 9.31 | 9.53 | 9.76 |
| 50 | 8.08 | 8.43 | 8.75 | 9.05 | 9.33 | 9.60 | 9.86 | 10.10 | 10.35 | 10.60 |
| 55 | 8.84 | 9.22 | 9.57 | 9.90 | 10.21 | 10.50 | 10.78 | 11.05 | 11.31 | 11.57 |
| 60 | 9.77 | 10.19 | 10.57 | - | - | 11.57 | 11.87 | 12.16 | 12.44 | 12.72 |

Mass flow [kg/s]

| t_c \ t_e | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|--------------------------------------|------------|------------|------------|------------|------------|------------|------------|-----------|----------|----------|
| 10 | 87.26 | 114.99 | 145.06 | 179.28 | 219.44 | 267.32 | - | - | - | - |
| 15 | 87.08 | 114.06 | 143.52 | 177.27 | 217.11 | 264.83 | 322.21 | - | - | - |
| 20 | 87.04 | 113.23 | 142.06 | 175.33 | 214.83 | 262.35 | 319.70 | 388.66 | - | - |
| 25 | 87.10 | 112.49 | 140.67 | 173.43 | 212.57 | 259.89 | 317.17 | 386.22 | 468.83 | - |
| 30 | 87.25 | 111.82 | 139.33 | 171.56 | 210.32 | 257.41 | 314.61 | 383.72 | 466.54 | 564.86 |
| 35 | 87.47 | 111.20 | 138.01 | 169.70 | 208.06 | 254.89 | 311.99 | 381.14 | 464.15 | 562.81 |
| 40 | 87.74 | 110.61 | 136.70 | 167.82 | 205.76 | 252.32 | 309.29 | 378.47 | 461.65 | 560.63 |
| 45 | 88.05 | 110.03 | 135.38 | 165.92 | 203.42 | 249.68 | 306.51 | 375.69 | 459.02 | 558.29 |
| 50 | 88.36 | 109.44 | 134.04 | 163.96 | 201.00 | 246.95 | 303.61 | 372.77 | 456.23 | 555.78 |
| 55 | 88.67 | 108.82 | 132.64 | 161.94 | 198.50 | 244.11 | 300.59 | 369.71 | 453.27 | 553.08 |
| 60 | 88.95 | 108.16 | 131.18 | - | - | 241.14 | 297.41 | 366.47 | 450.12 | 550.17 |

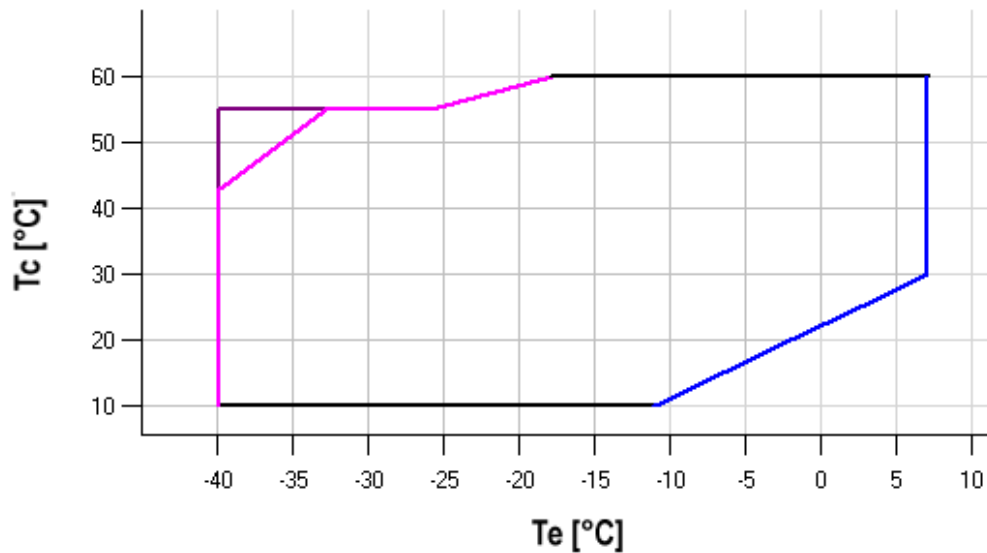
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Capacity

C.O.P. [W/W]

| $t_c \setminus t_e$ | -40 | -35 | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 |
|---------------------|------|------|------|------|------|------|------|------|------|------|
| 10 | 2.49 | 3.01 | 3.57 | 4.16 | 4.80 | 5.49 | - | - | - | - |
| 15 | 2.16 | 2.59 | 3.05 | 3.55 | 4.09 | 4.68 | 5.32 | - | - | - |
| 20 | 1.92 | 2.29 | 2.68 | 3.10 | 3.57 | 4.08 | 4.65 | 5.27 | - | - |
| 25 | 1.74 | 2.05 | 2.38 | 2.75 | 3.15 | 3.60 | 4.10 | 4.66 | 5.29 | - |
| 30 | 1.59 | 1.84 | 2.13 | 2.45 | 2.80 | 3.20 | 3.65 | 4.15 | 4.71 | 5.35 |
| 35 | 1.45 | 1.67 | 1.91 | 2.18 | 2.49 | 2.85 | 3.24 | 3.70 | 4.20 | 4.78 |
| 40 | 1.32 | 1.50 | 1.71 | 1.94 | 2.21 | 2.52 | 2.88 | 3.28 | 3.74 | 4.26 |
| 45 | 1.20 | 1.34 | 1.52 | 1.72 | 1.96 | 2.23 | 2.54 | 2.90 | 3.31 | 3.78 |
| 50 | 1.08 | 1.20 | 1.34 | 1.51 | 1.72 | 1.95 | 2.23 | 2.55 | 2.92 | 3.34 |
| 55 | 0.97 | 1.06 | 1.17 | 1.32 | 1.49 | 1.70 | 1.94 | 2.23 | 2.55 | 2.92 |
| 60 | 0.85 | 0.92 | 1.02 | - | - | 1.47 | 1.68 | 1.93 | 2.21 | 2.54 |

Application range



- Maximum evaporating temperature
- 25°C suction gas temperature
- 0°C suction gas temperature

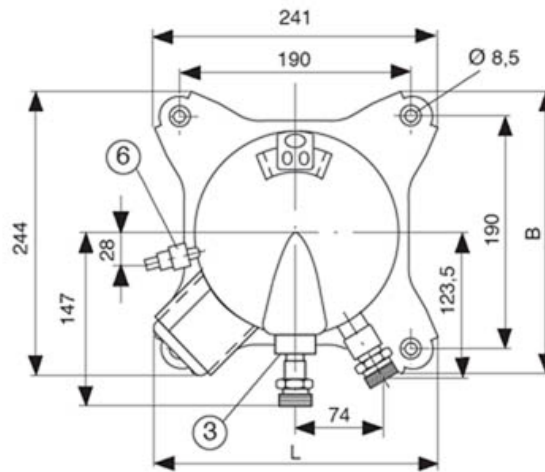
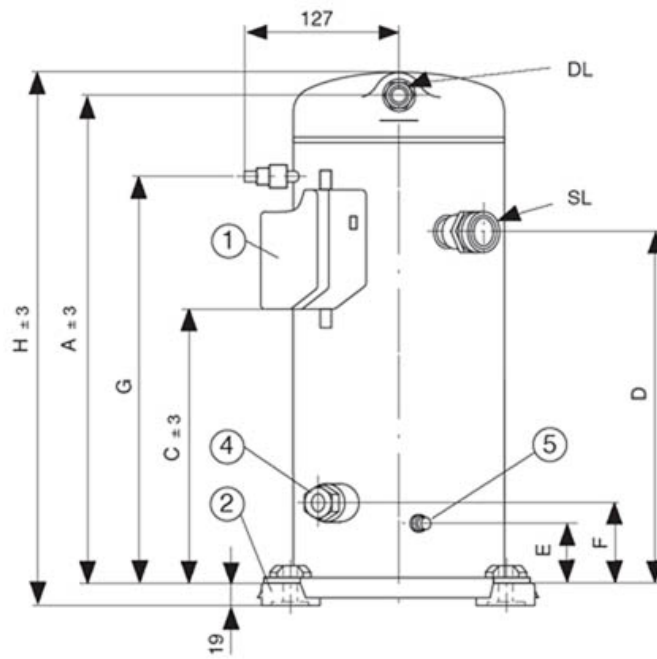
Operating conditions: suction gas temperature 20°C, 0K subcooling

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Dimensions



| | |
|----|----------|
| A | 409,8 mm |
| C | 233,4 mm |
| C1 | -- mm |
| D | 296,9 mm |
| E | 47,5 mm |
| F | 81,3 mm |
| G | 341 mm |

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Image

