

# Model: ZP182KCE-TFD

## Data

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**Type:** Hermetic scroll compressors

**Producer:** Copeland

**Series:** ZP

## Model: ZP182KCE-TFD

### Technical data

|                                    |      |
|------------------------------------|------|
| Displacement [m <sup>3</sup> /h]:  | 29,1 |
| Sound power [dBA]:                 | 77   |
| Sound pressure level [dB]:         | 66   |
| Net Weight [kg]:                   | 66,0 |
| Gross Weight [kg]:                 | 77   |
| Oil charge [dm <sup>3</sup> ]:     | 3,3  |
| Maximum high pressure [bar]:       | 45   |
| Maximum standstill pressure [bar]: | 29,5 |
| Minimal lowside temperature [°C]:  | -35  |
| Maximum lowside temperature [°C]:  | 50   |
| PED category:                      | 2    |

### Electrical data

|                             |                 |
|-----------------------------|-----------------|
| Power supply [V/~ /Hz]:     | 380-420V/3/50Hz |
| Locked rotor current [A]:   | 174,0           |
| Max. operating current [A]: | 34,0            |
| Winding resistance [Ω]:     | 0,9             |

### Connections

|                                            |               |
|--------------------------------------------|---------------|
|                                            | <u>inches</u> |
| Suction connection with supplied sleeve:   | 1 3/8"        |
| Discharge connection with supplied sleeve: | 7/8"          |

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## Capacity

R410A

### Cooling capacity [kW]

| t <sub>c</sub> \ t <sub>e</sub> | -25   | -20   | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 25                              | 16.97 | 21.04 | 25.75 | 31.20 | 37.48 | 44.71 | 52.97 | 62.37 | 73.01 | 84.99 |
| 30                              | 15.73 | 19.76 | 24.38 | 29.69 | 35.78 | 42.76 | 50.73 | 59.79 | 70.03 | 81.55 |
| 35                              | 14.48 | 18.44 | 22.94 | 28.08 | 33.95 | 40.66 | 48.30 | 56.98 | 66.79 | 77.83 |
| 40                              | -     | 17.05 | 21.40 | 26.34 | 31.96 | 38.37 | 45.66 | 53.93 | 63.28 | 73.82 |
| 45                              | -     | -     | 19.75 | 24.46 | 29.80 | 35.87 | 42.78 | 50.61 | 59.48 | 69.47 |
| 50                              | -     | -     | -     | 22.40 | 27.43 | 33.14 | 39.63 | 47.00 | 55.35 | 64.78 |
| 55                              | -     | -     | -     | -     | 24.85 | 30.16 | 36.21 | 43.09 | 50.89 | 59.72 |
| 60                              | -     | -     | -     | -     | 22.01 | 26.91 | 32.48 | 38.83 | 46.06 | 54.26 |
| 65                              | -     | -     | -     | -     | -     | 23.35 | 28.43 | 34.22 | 40.84 | 48.39 |

### Power input [kW]

| t <sub>c</sub> \ t <sub>e</sub> | -25  | -20  | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|---------------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 25                              | 6.80 | 6.98 | 7.14  | 7.24  | 7.24  | 7.12  | 6.82  | 6.32  | 5.58  | 4.57  |
| 30                              | 7.49 | 7.66 | 7.83  | 7.99  | 8.08  | 8.09  | 7.96  | 7.66  | 7.17  | 6.44  |
| 35                              | 8.35 | 8.46 | 8.61  | 8.78  | 8.94  | 9.03  | 9.03  | 8.91  | 8.62  | 8.13  |
| 40                              | -    | 9.43 | 9.53  | 9.68  | 9.85  | 10.00 | 10.09 | 10.10 | 9.97  | 9.69  |
| 45                              | -    | -    | 10.63 | 10.73 | 10.87 | 11.04 | 11.19 | 11.28 | 11.28 | 11.16 |
| 50                              | -    | -    | -     | 11.96 | 12.05 | 12.19 | 12.36 | 12.50 | 12.60 | 12.61 |
| 55                              | -    | -    | -     | -     | 13.43 | 13.51 | 13.65 | 13.82 | 13.97 | 14.06 |
| 60                              | -    | -    | -     | -     | 15.06 | 15.05 | 15.13 | 15.27 | 15.43 | 15.58 |
| 65                              | -    | -    | -     | -     | -     | 16.84 | 16.82 | 16.90 | 17.04 | 17.20 |

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## Capacity

### Current [A]

| t <sub>c</sub> \ t <sub>e</sub> | -25   | -20   | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 25                              | 16.81 | 17.01 | 17.19 | 17.31 | 17.32 | 17.18 | 16.84 | 16.25 | 15.37 | 14.15 |
| 30                              | 17.56 | 17.73 | 17.93 | 18.11 | 18.24 | 18.25 | 18.11 | 17.76 | 17.18 | 16.29 |
| 35                              | 18.57 | 18.67 | 18.85 | 19.05 | 19.24 | 19.37 | 19.38 | 19.24 | 18.89 | 18.30 |
| 40                              | -     | 19.89 | 20.00 | 20.18 | 20.39 | 20.58 | 20.71 | 20.72 | 20.58 | 20.24 |
| 45                              | -     | -     | 21.45 | 21.56 | 21.75 | 21.96 | 22.16 | 22.28 | 22.30 | 22.16 |
| 50                              | -     | -     | -     | 23.25 | 23.37 | 23.56 | 23.78 | 23.98 | 24.11 | 24.12 |
| 55                              | -     | -     | -     | -     | 25.32 | 25.44 | 25.64 | 25.86 | 26.06 | 26.19 |
| 60                              | -     | -     | -     | -     | 27.64 | 27.66 | 27.79 | 27.99 | 28.22 | 28.42 |
| 65                              | -     | -     | -     | -     | -     | 30.28 | 30.30 | 30.44 | 30.64 | 30.87 |

### Mass flow [kg/h]

| t <sub>c</sub> \ t <sub>e</sub> | -25    | -20    | -15    | -10    | -5     | 0      | 5      | 10          | 15          | 20          |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|-------------|-------------|-------------|
| 25                              | 332.82 | 411.48 | 499.42 | 598.67 | 711.27 | 839.23 | 984.59 | 1<br>149.36 | 1<br>335.58 | 1<br>545.27 |
| 30                              | 328.03 | 408.17 | 497.46 | 597.90 | 711.55 | 840.41 | 986.51 | 1<br>151.89 | 1<br>338.56 | 1<br>548.56 |
| 35                              | 320.27 | 401.86 | 492.44 | 594.04 | 708.69 | 838.40 | 985.21 | 1<br>151.15 | 1<br>338.24 | 1<br>548.51 |
| 40                              | -      | 392.57 | 484.41 | 587.12 | 702.73 | 833.26 | 980.74 | 1<br>147.19 | 1<br>334.65 | 1<br>545.14 |
| 45                              | -      | -      | 473.40 | 577.17 | 693.70 | 825.00 | 973.11 | 1<br>140.04 | 1<br>327.83 | 1<br>538.50 |
| 50                              | -      | -      | -      | 564.25 | 681.65 | 813.69 | 962.37 | 1<br>129.74 | 1<br>317.82 | 1<br>528.63 |
| 55                              | -      | -      | -      | -      | 666.61 | 799.34 | 948.56 | 1<br>116.33 | 1<br>304.65 | 1<br>515.56 |
| 60                              | -      | -      | -      | -      | 648.62 | 781.99 | 931.72 | 1<br>099.83 | 1<br>288.36 | 1<br>499.32 |
| 65                              | -      | -      | -      | -      | -      | 761.69 | 911.88 | 1<br>080.30 | 1<br>268.99 | 1<br>479.96 |

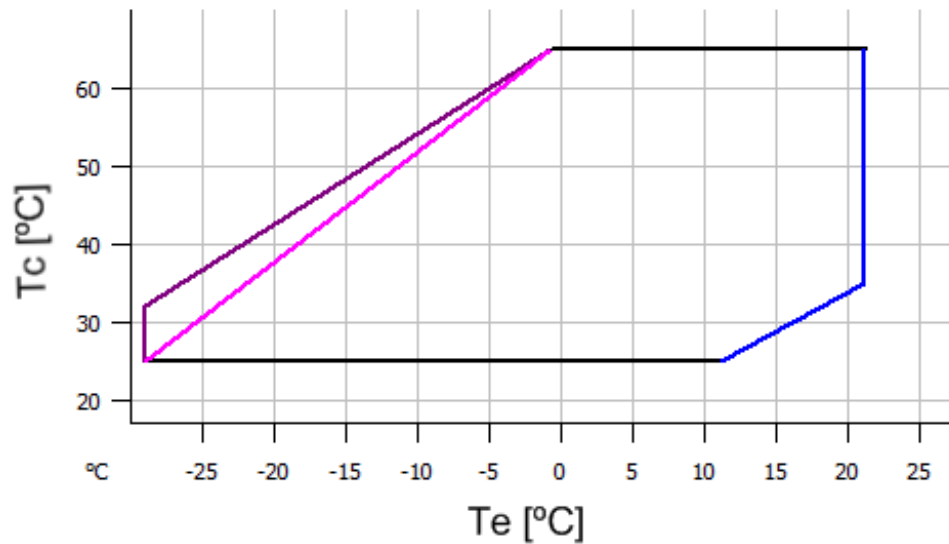
# Model: ZP182KCE-TFD

Capacity

## C.O.P. [W/W]

| $t_c \setminus t_e$ | -25  | -20  | -15  | -10  | -5   | 0    | 5    | 10   | 15    | 20    |
|---------------------|------|------|------|------|------|------|------|------|-------|-------|
| 25                  | 2.50 | 3.01 | 3.61 | 4.31 | 5.18 | 6.28 | 7.77 | 9.87 | 13.08 | 18.60 |
| 30                  | 2.10 | 2.58 | 3.11 | 3.72 | 4.43 | 5.29 | 6.38 | 7.80 | 9.77  | 12.67 |
| 35                  | 1.73 | 2.18 | 2.66 | 3.20 | 3.80 | 4.50 | 5.35 | 6.40 | 7.75  | 9.58  |
| 40                  | -    | 1.81 | 2.25 | 2.72 | 3.24 | 3.84 | 4.52 | 5.34 | 6.35  | 7.62  |
| 45                  | -    | -    | 1.86 | 2.28 | 2.74 | 3.25 | 3.82 | 4.49 | 5.27  | 6.22  |
| 50                  | -    | -    | -    | 1.87 | 2.28 | 2.72 | 3.21 | 3.76 | 4.39  | 5.14  |
| 55                  | -    | -    | -    | -    | 1.85 | 2.23 | 2.65 | 3.12 | 3.64  | 4.25  |
| 60                  | -    | -    | -    | -    | 1.46 | 1.79 | 2.15 | 2.54 | 2.99  | 3.48  |
| 65                  | -    | -    | -    | -    | -    | 1.39 | 1.69 | 2.03 | 2.40  | 2.81  |

## Application range



- Maximum evaporating temperature
- 25°C suction gas temperature
- 10K gas overheat

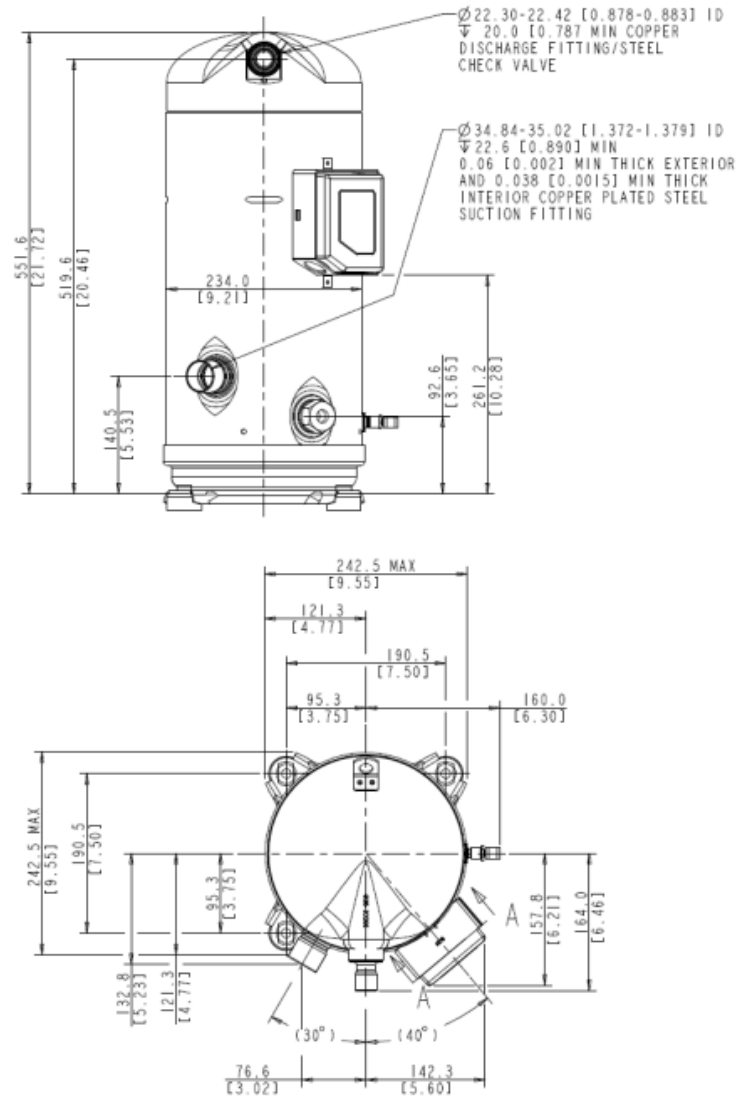
Operating conditions: 10K suction superheat, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

# Model: ZP182KCE-TFD

## Dimensions



## Model: ZP182KCE-TFD

Image

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