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**GACO SARL**

28, Rue Bencharif Madani

25000 BELLEVUE/CONSTANTINE - ALGERIE

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**Type: Hermetic scroll compressors****Producer: Copeland****Series: ZP****Model: ZP120KCE-TFD****Technical data**

|                                    |      |
|------------------------------------|------|
| Displacement [m <sup>3</sup> /h]:  | 19,8 |
| Sound power [dBA]:                 | 74   |
| Sound pressure level [dB]:         | 63   |
| Net Weight [kg]:                   | 61,0 |
| Gross Weight [kg]:                 | 72   |
| 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]:   | 118,0           |
| Max. operating current [A]: | 22,0            |
| Winding resistance [Ω]:     | 1,2             |

**Connections**

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

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R410A

**Cooling capacity [kW]**

| $t_c \setminus t_e$ | -25   | -20   | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 25                  | 11.32 | 14.26 | 17.59 | 21.36 | 25.61 | 30.37 | 35.69 | 41.60 | 48.14 | 55.36 |
| 30                  | 10.20 | 13.10 | 16.40 | 20.12 | 24.31 | 29.01 | 34.26 | 40.09 | 46.55 | 53.68 |
| 35                  | 9.14  | 11.97 | 15.18 | 18.82 | 22.91 | 27.50 | 32.64 | 38.35 | 44.69 | 51.68 |
| 40                  | -     | 10.86 | 13.95 | 17.44 | 21.40 | 25.84 | 30.82 | 36.37 | 42.54 | 49.36 |
| 45                  | -     | -     | 12.68 | 16.00 | 19.77 | 24.02 | 28.80 | 34.15 | 40.11 | 46.71 |
| 50                  | -     | -     | -     | 14.47 | 18.01 | 22.03 | 26.57 | 31.67 | 37.37 | 43.71 |
| 55                  | -     | -     | -     | -     | 16.13 | 19.87 | 24.13 | 28.94 | 34.34 | 40.37 |
| 60                  | -     | -     | -     | -     | -     | 17.53 | 21.46 | 25.93 | 30.99 | 36.68 |
| 65                  | -     | -     | -     | -     | -     | -     | 18.55 | 22.65 | 27.33 | 32.63 |

**Power input [kW]**

| $t_c \setminus t_e$ | -25  | -20  | -15  | -10  | -5   | 0     | 5     | 10    | 15    | 20    |
|---------------------|------|------|------|------|------|-------|-------|-------|-------|-------|
| 25                  | 4.53 | 4.54 | 4.54 | 4.54 | 4.55 | 4.59  | 4.68  | 4.83  | 5.06  | 5.39  |
| 30                  | 5.14 | 5.15 | 5.15 | 5.14 | 5.13 | 5.15  | 5.21  | 5.33  | 5.52  | 5.80  |
| 35                  | 5.81 | 5.83 | 5.83 | 5.80 | 5.79 | 5.78  | 5.82  | 5.90  | 6.04  | 6.27  |
| 40                  | -    | 6.59 | 6.58 | 6.56 | 6.52 | 6.50  | 6.50  | 6.55  | 6.65  | 6.83  |
| 45                  | -    | -    | 7.45 | 7.41 | 7.36 | 7.32  | 7.29  | 7.30  | 7.37  | 7.49  |
| 50                  | -    | -    | -    | 8.39 | 8.32 | 8.26  | 8.21  | 8.18  | 8.20  | 8.28  |
| 55                  | -    | -    | -    | -    | 9.43 | 9.34  | 9.26  | 9.20  | 9.18  | 9.22  |
| 60                  | -    | -    | -    | -    | -    | 10.59 | 10.48 | 10.39 | 10.32 | 10.31 |
| 65                  | -    | -    | -    | -    | -    | -     | 11.87 | 11.75 | 11.65 | 11.58 |

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**Current [A]**

| $t_c \setminus t_e$ | -25   | -20   | -15   | -10   | -5    | 0     | 5     | 10    | 15    | 20    |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>25</b>           | 10.38 | 10.40 | 10.40 | 10.40 | 10.42 | 10.45 | 10.53 | 10.65 | 10.84 | 11.10 |
| <b>30</b>           | 11.12 | 11.14 | 11.14 | 11.13 | 11.13 | 11.15 | 11.20 | 11.30 | 11.46 | 11.69 |
| <b>35</b>           | 11.98 | 12.00 | 11.99 | 11.97 | 11.95 | 11.95 | 11.98 | 12.05 | 12.17 | 12.36 |
| <b>40</b>           | -     | 13.01 | 12.99 | 12.96 | 12.92 | 12.90 | 12.90 | 12.93 | 13.02 | 13.17 |
| <b>45</b>           | -     | -     | 14.18 | 14.13 | 14.07 | 14.01 | 13.98 | 13.98 | 14.03 | 14.13 |
| <b>50</b>           | -     | -     | -     | 15.51 | 15.42 | 15.34 | 15.27 | 15.23 | 15.23 | 15.28 |
| <b>55</b>           | -     | -     | -     | -     | 17.02 | 16.90 | 16.80 | 16.71 | 16.67 | 16.67 |
| <b>60</b>           | -     | -     | -     | -     | -     | 18.74 | 18.59 | 18.46 | 18.37 | 18.31 |
| <b>65</b>           | -     | -     | -     | -     | -     | -     | 20.69 | 20.51 | 20.36 | 20.25 |

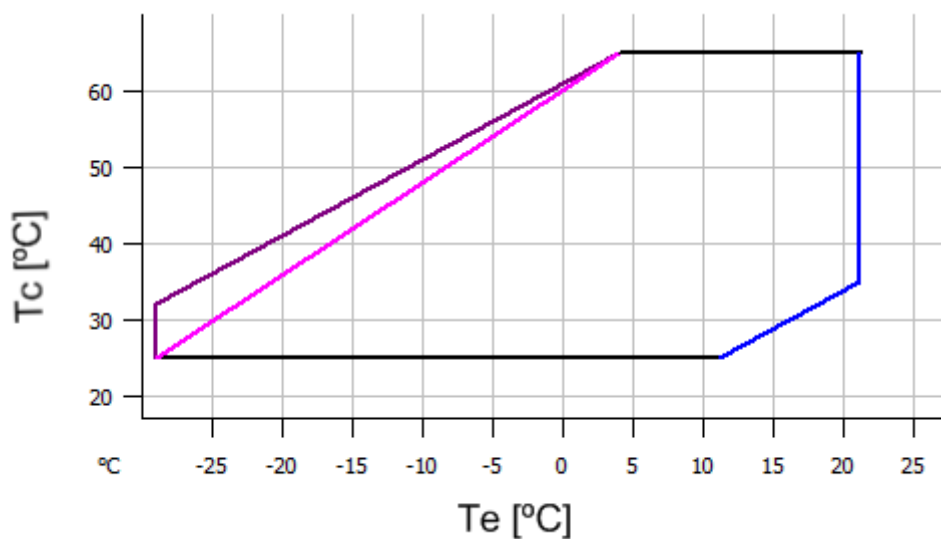
**Mass flow [kg/h]**

| $t_c \setminus t_e$ | -25    | -20    | -15    | -10    | -5     | 0      | 5      | 10     | 15     | 20          |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------------|
| <b>25</b>           | 221.66 | 278.65 | 341.16 | 410.04 | 486.14 | 570.35 | 663.51 | 766.49 | 880.15 | 1<br>005.37 |
| <b>30</b>           | 212.63 | 270.63 | 334.50 | 405.12 | 483.35 | 570.04 | 666.06 | 772.28 | 889.56 | 1<br>018.76 |
| <b>35</b>           | 202.46 | 261.14 | 326.07 | 398.11 | 478.14 | 567.00 | 665.58 | 774.72 | 895.29 | 1<br>028.15 |
| <b>40</b>           | -      | 250.14 | 315.80 | 388.96 | 470.46 | 561.19 | 661.99 | 773.73 | 897.28 | 1<br>033.49 |
| <b>45</b>           | -      | -      | 303.65 | 377.60 | 460.27 | 552.53 | 655.25 | 769.27 | 895.48 | 1<br>034.73 |
| <b>50</b>           | -      | -      | -      | 363.97 | 447.50 | 540.98 | 645.29 | 761.29 | 889.84 | 1<br>031.80 |
| <b>55</b>           | -      | -      | -      | -      | 432.09 | 526.48 | 632.06 | 749.71 | 880.29 | 1<br>024.65 |
| <b>60</b>           | -      | -      | -      | -      | -      | 508.97 | 615.52 | 734.50 | 866.78 | 1<br>013.22 |
| <b>65</b>           | -      | -      | -      | -      | -      | -      | 595.59 | 715.59 | 849.26 | 997.47      |

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

| $t_c \setminus t_e$ | -25  | -20  | -15  | -10  | -5   | 0    | 5    | 10   | 15   | 20    |
|---------------------|------|------|------|------|------|------|------|------|------|-------|
| 25                  | 2.50 | 3.14 | 3.87 | 4.71 | 5.63 | 6.62 | 7.63 | 8.61 | 9.51 | 10.27 |
| 30                  | 1.99 | 2.54 | 3.18 | 3.92 | 4.74 | 5.63 | 6.57 | 7.52 | 8.43 | 9.26  |
| 35                  | 1.57 | 2.05 | 2.61 | 3.24 | 3.96 | 4.75 | 5.61 | 6.50 | 7.40 | 8.24  |
| 40                  | -    | 1.65 | 2.12 | 2.66 | 3.28 | 3.98 | 4.74 | 5.56 | 6.40 | 7.23  |
| 45                  | -    | -    | 1.70 | 2.16 | 2.68 | 3.28 | 3.95 | 4.68 | 5.45 | 6.23  |
| 50                  | -    | -    | -    | 1.73 | 2.16 | 2.67 | 3.24 | 3.87 | 4.56 | 5.28  |
| 55                  | -    | -    | -    | -    | 1.71 | 2.13 | 2.60 | 3.14 | 3.74 | 4.38  |
| 60                  | -    | -    | -    | -    | -    | 1.66 | 2.05 | 2.50 | 3.00 | 3.56  |
| 65                  | -    | -    | -    | -    | -    | -    | 1.56 | 1.93 | 2.35 | 2.82  |

## Application range

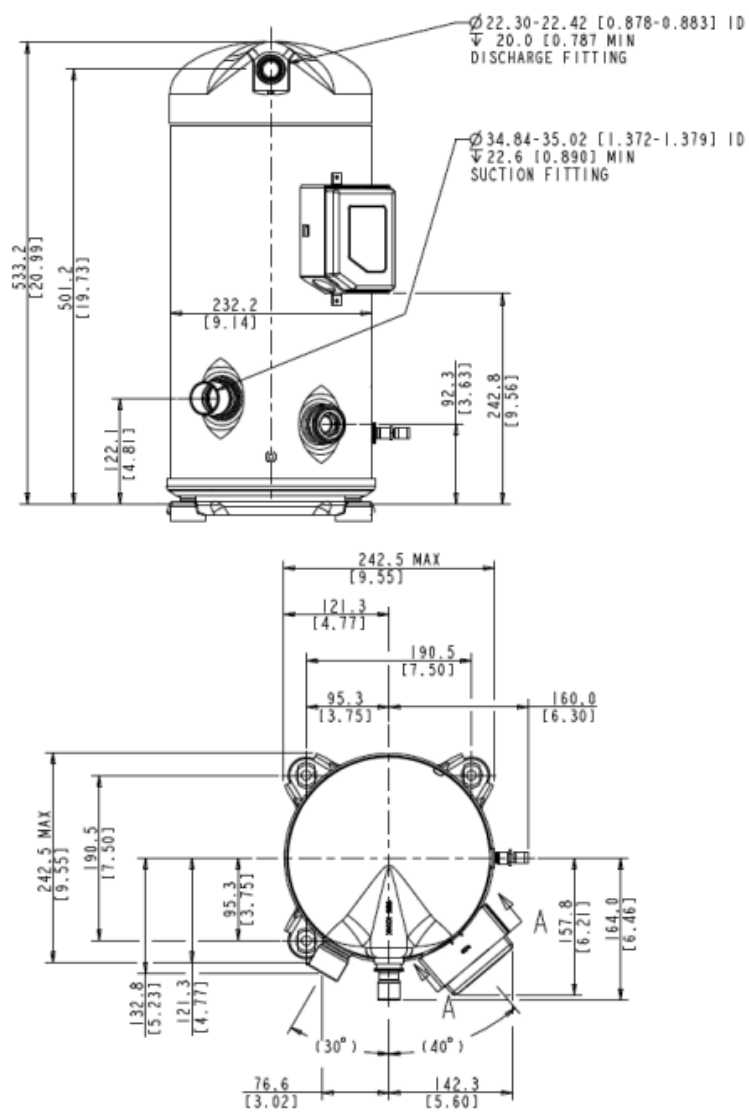


- Maximum evaporating temperature
- 25°C suction gas temperature
- 10K gas overheat

Operating conditions: 10K suction superheat, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]



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