

# Model: ZP120KCE-TFD

## Data

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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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## Capacity

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]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>
<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]

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

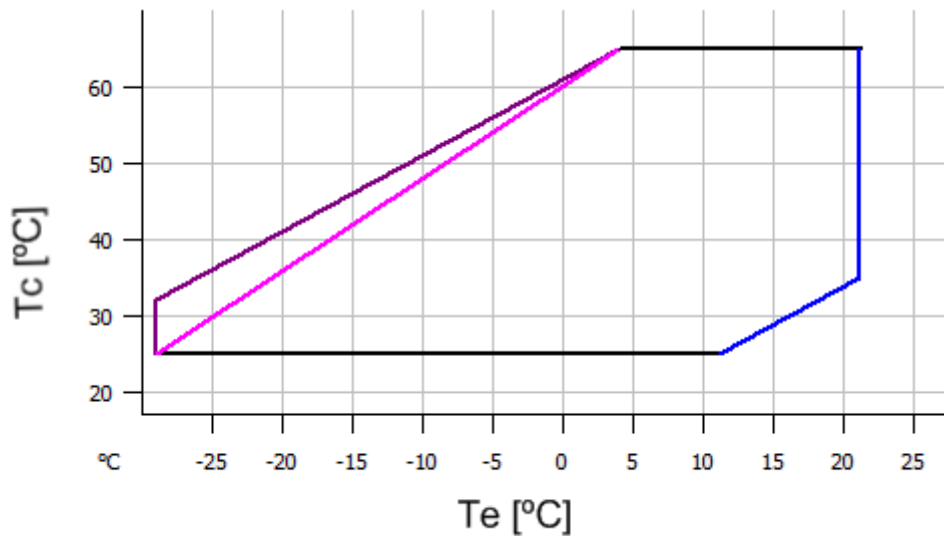
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Capacity

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

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15	20
25	2.50	3.14	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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## Dimensions

