

# Model: ZP103KCE-TFD

## Data

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**Type:** Hermetic scroll compressors

**Producer:** Copeland

**Series:** ZP

## Model: ZP103KCE-TFD

### Technical data

Displacement [m <sup>3</sup> /h]:	16,8
Sound power [dBA]:	74
Sound pressure level [dB]:	63
Net Weight [kg]:	59,0
Gross Weight [kg]:	70
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]:	111,0
Max. operating current [A]:	21,0
Winding resistance [Ω]:	1,4

### 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	9.51	11.87	14.59	17.71	21.30	25.43	30.15	35.51	41.59	48.45
30	8.70	11.06	13.75	16.81	20.31	24.31	28.87	34.05	39.90	46.50
35	7.86	10.21	12.85	15.84	19.24	23.10	27.49	32.47	38.09	44.42
40	-	9.29	11.88	14.79	18.07	21.78	25.99	30.75	36.13	42.18
45	-	-	10.82	13.63	16.78	20.34	24.35	28.89	34.01	39.78
50	-	-	-	12.35	15.36	18.74	22.56	26.86	31.71	37.17
55	-	-	-	-	13.79	16.98	20.58	24.64	29.21	34.36
60	-	-	-	-	-	15.04	18.41	22.21	26.49	31.31
65	-	-	-	-	-	-	16.02	19.55	23.53	28.02

### Power input [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15	20
25	4.08	4.09	4.10	4.12	4.14	4.15	4.15	4.13	4.10	4.04
30	4.57	4.56	4.56	4.57	4.58	4.60	4.61	4.61	4.59	4.55
35	5.13	5.10	5.08	5.08	5.09	5.10	5.11	5.12	5.12	5.10
40	-	5.73	5.69	5.67	5.67	5.67	5.68	5.69	5.69	5.68
45	-	-	6.41	6.36	6.34	6.33	6.32	6.33	6.33	6.33
50	-	-	-	7.17	7.12	7.09	7.07	7.06	7.05	7.05
55	-	-	-	-	8.03	7.97	7.92	7.90	7.88	7.87
60	-	-	-	-	-	8.99	8.92	8.87	8.83	8.80
65	-	-	-	-	-	-	10.06	9.98	9.92	9.87

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## Capacity

### Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15	20
25	9.39	9.39	9.41	9.43	9.45	9.46	9.46	9.44	9.40	9.32
30	9.94	9.93	9.93	9.94	9.96	9.98	9.99	9.99	9.97	9.93
35	10.63	10.58	10.56	10.56	10.57	10.58	10.60	10.61	10.61	10.58
40	-	11.39	11.34	11.31	11.30	11.30	11.31	11.32	11.33	11.32
45	-	-	12.28	12.22	12.19	12.17	12.16	12.17	12.17	12.17
50	-	-	-	13.33	13.26	13.21	13.18	13.17	13.16	13.15
55	-	-	-	-	14.54	14.45	14.39	14.35	14.33	14.31
60	-	-	-	-	-	15.93	15.83	15.76	15.70	15.66
65	-	-	-	-	-	-	17.52	17.40	17.31	17.24

### Mass flow [kg/h]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15	20
25	186.25	232.05	282.80	339.75	404.17	477.29	560.36	654.65	761.39	881.84
30	181.48	228.68	280.64	338.64	403.92	477.73	561.31	655.93	762.83	883.25
35	173.92	222.71	276.10	335.34	401.68	476.37	560.67	655.82	763.07	883.67
40	-	214.00	269.00	329.68	397.29	473.07	558.27	654.15	761.95	882.93
45	-	-	259.21	321.53	390.59	467.66	553.97	650.78	759.33	880.89
50	-	-	-	310.71	381.44	459.99	547.61	645.55	755.06	877.39
55	-	-	-	-	369.68	449.91	539.04	638.30	748.96	872.27
60	-	-	-	-	-	437.27	528.10	628.89	740.90	865.38
65	-	-	-	-	-	-	514.64	617.16	730.72	856.57

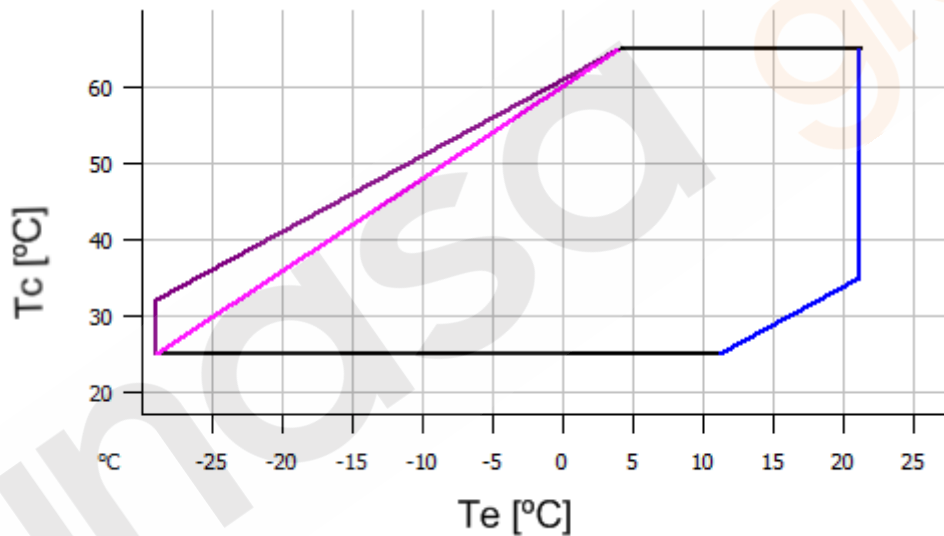
# Model: ZP103KCE-TFD

Capacity

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

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10	15	20
25	2.33	2.90	3.56	4.30	5.15	6.13	7.27	8.59	10.15	12.00
30	1.90	2.43	3.02	3.68	4.43	5.28	6.26	7.39	8.69	10.21
35	1.53	2.00	2.53	3.12	3.78	4.53	5.38	6.34	7.45	8.72
40	-	1.62	2.09	2.61	3.19	3.84	4.58	5.41	6.35	7.43
45	-	-	1.69	2.14	2.65	3.21	3.85	4.57	5.37	6.29
50	-	-	-	1.72	2.16	2.65	3.19	3.81	4.50	5.27
55	-	-	-	-	1.72	2.13	2.60	3.12	3.71	4.37
60	-	-	-	-	-	1.67	2.06	2.50	3.00	3.56
65	-	-	-	-	-	-	1.59	1.96	2.37	2.84

## Application range



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

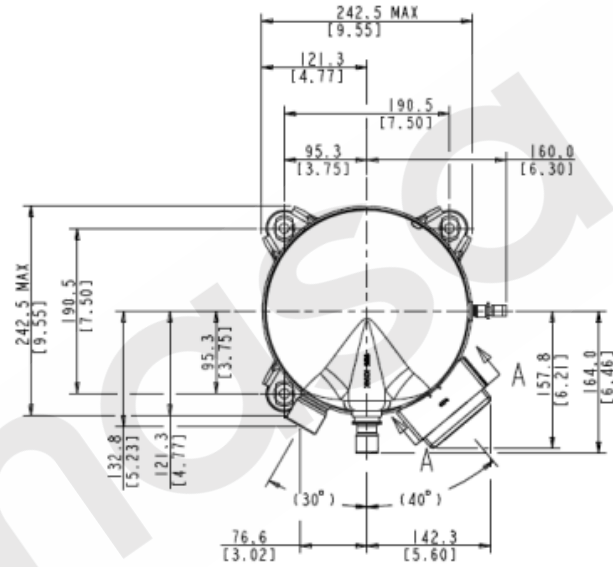
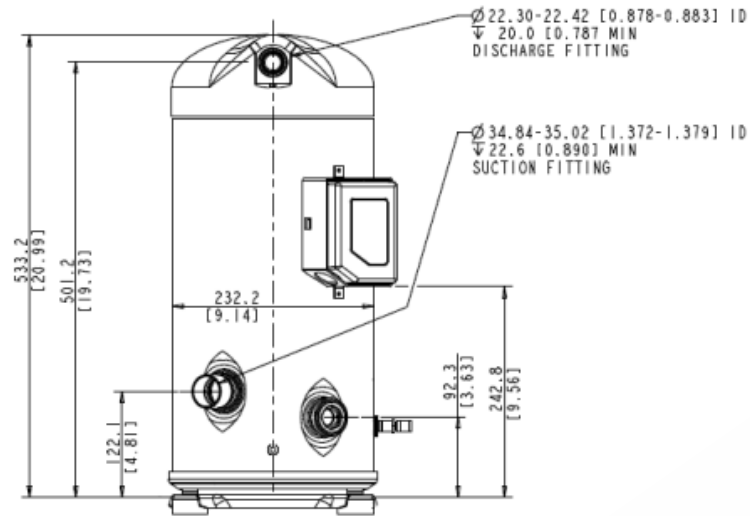
Operating conditions: 10K suction superheat, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

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## Dimensions



**Model: ZP103KCE-TFD**

**Image**

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