

Type: Hermetic scroll compressors

Producer: Copeland

Series: ZF

Model: ZF40K4E-TWD

Technical data

Displacement [m ³ /h]:	35,6
Sound power [dBA]:	83
Sound power with sound shell [dBA]:	73
Sound pressure level [dB]:	72
Net Weight [kg]:	103
Gross Weight [kg]:	110
Oil charge [dm ³]:	4,1
Maximum high pressure [bar]:	32
Maximum standstill pressure [bar]:	22,6
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]:	167
Max. operating current [A]:	25,1
Winding resistance [Ω]:	0,8

Connections

Suction Rotolock valve connection:	<u>inches</u> 1 3/4"
Discharge Rotolock valve connection:	1 1/4"

R404A/R507
Cooling capacity [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	9.36	11.94	15.00	18.61	22.84	27.76	-	-	-	-
15	8.96	11.45	14.38	17.83	21.85	26.53	31.94	-	-	-
20	8.56	10.96	13.76	17.03	20.84	25.27	30.40	36.28	-	-
25	8.16	10.46	13.11	16.20	19.80	23.97	28.80	34.35	40.70	-
30	7.74	9.93	12.44	15.34	18.72	22.63	27.16	32.37	38.34	45.14
35	7.30	9.37	11.73	14.44	17.58	21.23	25.45	30.31	35.90	42.28
40	6.82	8.77	10.97	13.49	16.39	19.76	23.67	28.18	33.38	39.33
45	6.31	8.13	10.16	12.47	15.14	18.22	21.81	25.97	30.77	36.29
50	5.74	7.43	9.29	11.39	13.80	16.60	19.87	23.66	28.06	33.13
55	5.12	6.67	8.35	10.23	12.39	14.90	17.82	21.25	25.23	29.86
60	-	-	-	-	-	13.09	15.68	18.72	22.30	26.47

Power input [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	4.14	4.39	4.66	4.98	5.33	5.71	-	-	-	-
15	4.52	4.78	5.06	5.38	5.73	6.11	6.51	-	-	-
20	4.94	5.22	5.52	5.84	6.19	6.56	6.96	7.39	-	-
25	5.40	5.70	6.02	6.35	6.71	7.08	7.48	7.89	8.33	-
30	5.90	6.23	6.57	6.92	7.29	7.67	8.06	8.47	8.89	9.33
35	6.44	6.80	7.16	7.54	7.92	8.31	8.71	9.11	9.53	9.95
40	7.02	7.41	7.81	8.20	8.60	9.01	9.41	9.82	10.23	10.65
45	7.62	8.06	8.49	8.92	9.34	9.76	10.18	10.60	11.01	11.42
50	8.26	8.74	9.22	9.68	10.13	10.57	11.01	11.43	11.85	12.26
55	8.94	9.47	9.98	10.48	10.97	11.44	11.89	12.33	12.76	13.18
60	-	-	-	-	-	12.35	12.83	13.29	13.74	14.16

Current [A]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	11.11	11.33	11.59	11.88	12.23	12.62	-	-	-	-
15	11.45	11.70	11.98	12.29	12.65	13.04	13.49	-	-	-
20	11.84	12.12	12.43	12.77	13.14	13.55	13.99	14.48	-	-
25	12.28	12.61	12.95	13.32	13.71	14.13	14.59	15.08	15.61	-
30	12.79	13.16	13.55	13.95	14.37	14.81	15.28	15.77	16.30	16.86
35	13.35	13.78	14.21	14.65	15.11	15.57	16.06	16.57	17.10	17.66
40	13.98	14.47	14.95	15.44	15.93	16.43	16.94	17.46	18.01	18.57
45	14.68	15.23	15.77	16.31	16.84	17.38	17.92	18.47	19.03	19.60
50	15.45	16.07	16.68	17.27	17.85	18.43	19.00	19.58	20.16	20.75
55	16.30	16.99	17.66	18.32	18.95	19.58	20.19	20.80	21.41	22.02
60	-	-	-	-	-	20.83	21.49	22.14	22.78	23.42

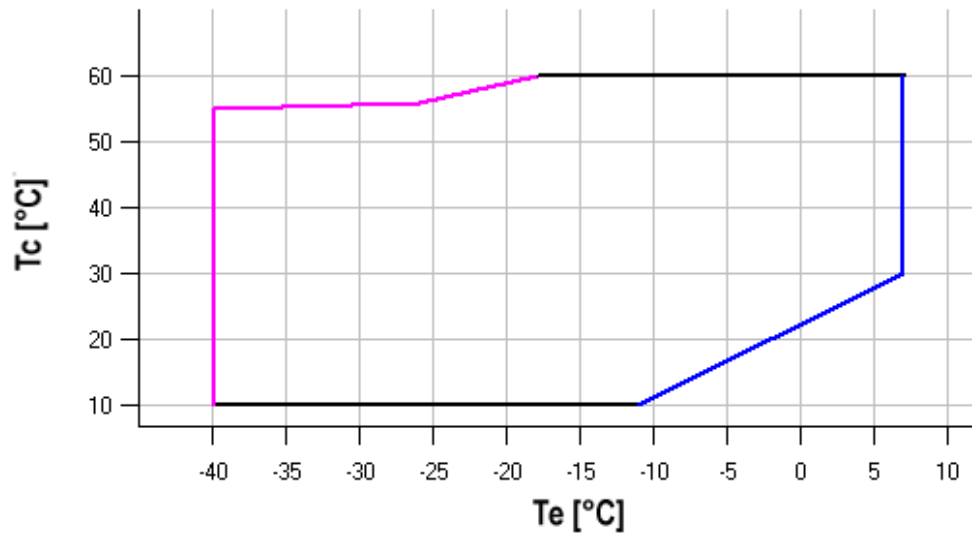
Mass flow [kg/h]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	181.01	240.73	306.41	381.17	468.13	570.41	-	-	-	-
15	183.09	241.90	306.68	380.56	466.66	568.11	688.03	-	-	-
20	184.88	242.77	306.64	379.64	464.87	565.47	684.57	825.27	-	-
25	186.22	243.16	306.13	378.23	462.59	562.33	680.59	820.48	985.12	-
30	186.91	242.92	304.96	376.16	459.63	558.52	675.93	814.99	978.83	1 170.57
35	186.80	241.86	302.97	373.25	455.84	553.85	670.41	808.64	971.67	1 162.61
40	185.72	239.81	299.98	369.34	451.03	548.16	663.86	801.25	963.45	1 153.60
45	183.47	236.60	295.82	364.26	445.03	541.27	656.10	792.64	954.01	1 143.35
50	179.91	232.06	290.32	357.82	437.68	533.02	646.97	782.65	943.18	1 131.70
55	174.84	226.01	283.30	349.86	428.79	523.22	636.28	771.10	930.78	1 118.47
60	-	-	-	-	-	511.71	623.88	757.81	916.64	1 103.49

C.O.P. [W/W]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.26	2.72	3.22	3.74	4.29	4.86	-	-	-	-
15	1.98	2.40	2.84	3.31	3.82	4.35	4.90	-	-	-
20	1.73	2.10	2.49	2.92	3.37	3.85	4.37	4.91	-	-
25	1.51	1.83	2.18	2.55	2.95	3.38	3.85	4.35	4.89	-
30	1.31	1.59	1.89	2.22	2.57	2.95	3.37	3.82	4.31	4.84
35	1.13	1.38	1.64	1.92	2.22	2.56	2.92	3.33	3.77	4.25
40	0.97	1.18	1.41	1.64	1.91	2.19	2.51	2.87	3.26	3.69
45	0.83	1.01	1.20	1.40	1.62	1.87	2.14	2.45	2.79	3.18
50	0.69	0.85	1.01	1.18	1.36	1.57	1.80	2.07	2.37	2.70
55	0.57	0.70	0.84	0.98	1.13	1.30	1.50	1.72	1.98	2.27
60	-	-	-	-	-	1.06	1.22	1.41	1.62	1.87

Application range

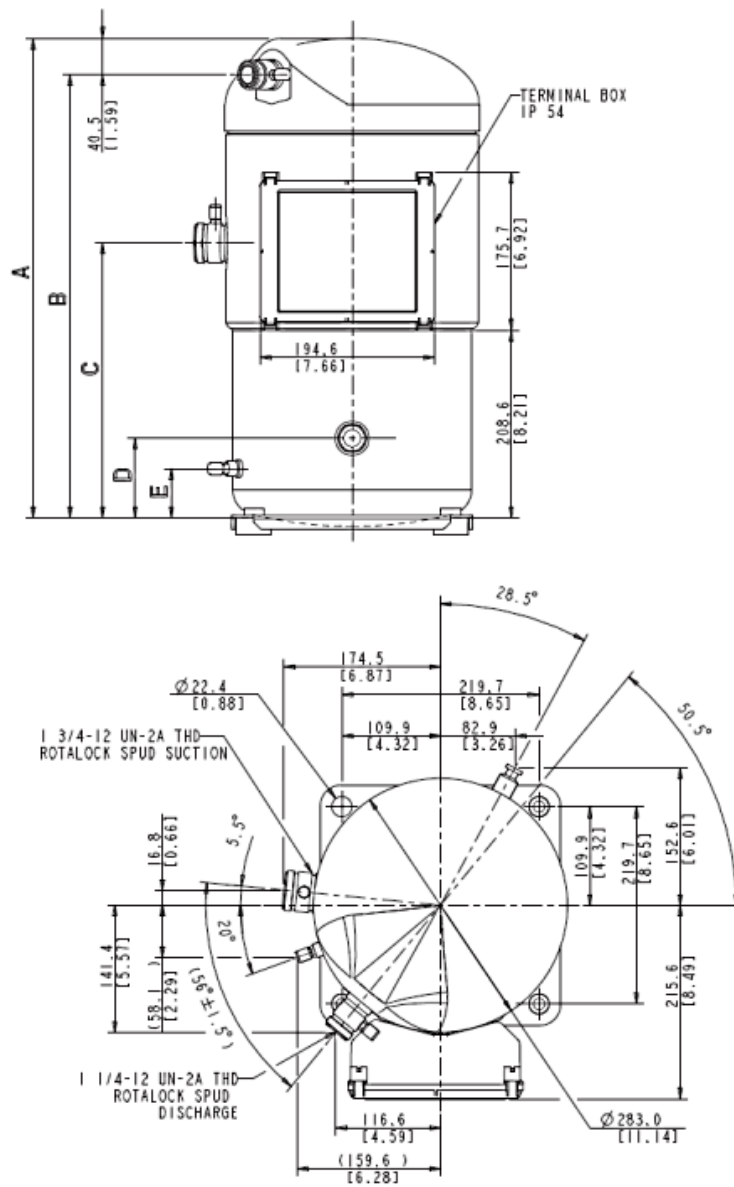


- Maximum evaporating temperature
- 25°C suction gas return + liquid injection

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]



A	532,4 mm
B	491,9 mm
C	305,6 mm
D	88,4 mm
E	54,5 mm
F	366,4 mm

