

Type: Hermetic scroll compressors

Producer: Copeland

Series: ZB

Model: ZB58KCE-TFD

Technical data

Displacement [m ³ /h]:	22,1
Sound power [dBA]:	76
Sound power with sound shell [dBA]:	66
Sound pressure level [dB]:	65
Net Weight [kg]:	60
Oil charge [dm ³]:	2,5
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]:	95
Max. operating current [A]:	15,4
Winding resistance [Ω]:	1,8

Connections

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

R134a

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
25	6.09	7.73	9.67	11.93	14.55	17.56	-	-
30	5.73	7.33	9.20	11.38	13.91	16.81	20.13	-
35	5.39	6.93	8.73	10.83	13.25	16.04	19.22	22.83
40	5.05	6.53	8.25	10.26	12.58	15.24	18.29	21.74
45	-	6.14	7.78	9.68	11.89	14.42	17.32	20.62
50	-	5.75	7.30	9.09	11.18	13.57	16.32	19.45
55	-	-	6.81	8.50	10.45	12.71	15.29	18.25
60	-	-	-	7.89	9.71	11.81	14.24	17.01
65	-	-	-	7.28	8.95	10.90	13.15	15.74
70	-	-	-	-	8.18	9.96	12.03	14.42
75	-	-	-	-	-	9.00	10.88	13.08

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
25	2.44	2.40	2.42	2.48	2.55	2.63	-	-
30	2.73	2.69	2.71	2.76	2.82	2.88	2.91	-
35	3.05	3.01	3.03	3.07	3.13	3.18	3.19	3.15
40	3.38	3.36	3.37	3.42	3.47	3.51	3.52	3.46
45	-	3.72	3.75	3.80	3.85	3.89	3.88	3.82
50	-	4.12	4.15	4.21	4.27	4.30	4.29	4.22
55	-	-	4.59	4.66	4.72	4.76	4.75	4.67
60	-	-	-	5.13	5.21	5.25	5.25	5.17
65	-	-	-	5.64	5.73	5.79	5.79	5.71
70	-	-	-	-	6.28	6.36	6.37	6.30
75	-	-	-	-	-	6.97	7.00	6.94

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
25	8.36	8.41	8.46	8.49	8.51	8.51	-	-
30	8.58	8.64	8.68	8.71	8.71	8.69	8.63	-
35	8.83	8.89	8.94	8.96	8.96	8.93	8.86	8.74
40	9.10	9.18	9.23	9.26	9.27	9.23	9.15	9.02
45	-	9.49	9.57	9.61	9.62	9.59	9.51	9.38
50	-	9.84	9.94	10.00	10.03	10.01	9.94	9.81
55	-	-	10.36	10.45	10.50	10.50	10.44	10.32
60	-	-	-	10.94	11.02	11.05	11.01	10.91
65	-	-	-	11.49	11.60	11.66	11.66	11.58
70	-	-	-	-	12.25	12.34	12.38	12.33
75	-	-	-	-	-	13.10	13.17	13.17

Mass flow [kg/h]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
25	119.20	151.47	189.78	235.11	288.40	350.63	-	-
30	118.34	150.25	188.39	233.71	287.18	349.75	422.38	-
35	117.46	148.94	186.83	232.07	285.63	348.47	421.54	505.80
40	116.56	147.53	185.07	230.15	283.72	346.75	420.18	504.97
45	-	145.96	183.09	227.92	281.42	344.55	418.26	503.52
50	-	144.21	180.84	225.35	278.70	341.86	415.77	501.39
55	-	-	178.30	222.41	275.53	338.63	412.66	498.58
60	-	-	-	219.06	271.87	334.83	408.90	495.03
65	-	-	-	215.27	267.69	330.43	404.46	490.72
70	-	-	-	-	262.96	325.41	399.30	485.62
75	-	-	-	-	-	319.71	393.41	479.69

R404A/R507
Cooling capacity [kW]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	9.10	11.22	13.73	16.70	20.20	-	-	-	-
15	8.60	10.72	13.19	16.07	19.43	23.33	-	-	-
20	8.04	10.16	12.58	15.38	18.60	22.32	26.60	-	-
25	7.41	9.52	11.90	14.61	17.69	21.23	25.29	29.92	-
30	6.70	8.82	11.15	13.76	16.71	20.07	23.90	28.26	33.22
35	5.91	8.03	10.32	12.84	15.66	18.84	22.44	26.53	31.17
40	5.05	7.16	9.41	11.84	14.52	17.52	20.89	24.71	29.04
45	-	6.21	8.41	10.75	13.29	16.11	19.26	22.81	26.82
50	-	-	7.33	9.57	11.98	14.62	17.54	20.82	24.51
55	-	-	6.15	8.31	10.58	13.04	15.73	18.74	22.12
60	-	-	-	6.95	9.09	11.36	13.83	16.56	19.62

Power input [kW]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	2.85	2.91	2.97	3.02	3.07	-	-	-	-
15	3.17	3.23	3.28	3.34	3.39	3.44	-	-	-
20	3.52	3.58	3.63	3.69	3.74	3.79	3.84	-	-
25	3.93	3.98	4.03	4.08	4.13	4.18	4.23	4.27	-
30	4.40	4.45	4.49	4.53	4.57	4.61	4.66	4.70	4.74
35	4.95	4.98	5.01	5.05	5.08	5.11	5.14	5.17	5.21
40	5.58	5.60	5.62	5.64	5.65	5.67	5.69	5.72	5.74
45	-	6.31	6.31	6.31	6.31	6.32	6.32	6.33	6.34
50	-	-	7.10	7.08	7.07	7.05	7.04	7.03	7.02
55	-	-	8.00	7.96	7.92	7.88	7.85	7.82	7.79
60	-	-	-	8.95	8.89	8.83	8.77	8.72	8.67

Current [A]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	8.86	8.90	8.94	8.97	9.01	-	-	-	-
15	9.10	9.15	9.19	9.24	9.28	9.32	-	-	-
20	9.38	9.43	9.48	9.52	9.57	9.61	9.65	-	-
25	9.72	9.77	9.81	9.86	9.90	9.95	9.99	10.03	-
30	10.14	10.18	10.22	10.26	10.30	10.34	10.38	10.42	10.46
35	10.65	10.69	10.72	10.75	10.78	10.81	10.84	10.87	10.91
40	11.29	11.30	11.32	11.34	11.36	11.38	11.40	11.42	11.44
45	-	12.06	12.06	12.06	12.06	12.06	12.07	12.07	12.08
50	-	-	12.94	12.92	12.90	12.88	12.87	12.85	12.84
55	-	-	13.99	13.94	13.90	13.86	13.82	13.78	13.75
60	-	-	-	15.15	15.08	15.01	14.94	14.88	14.81

Mass flow [kg/h]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	180.69	227.86	281.38	343.99	418.44	-	-	-	-
15	179.88	228.19	282.43	345.32	419.62	508.05	-	-	-
20	176.87	226.65	281.92	345.41	419.87	508.03	612.63	-	-
25	171.43	223.00	279.61	344.01	418.95	507.15	611.36	734.33	-
30	163.33	216.99	275.27	340.90	416.63	505.19	609.32	731.77	875.28
35	152.32	208.41	268.66	335.84	412.67	501.91	606.28	728.53	871.40
40	138.19	197.00	259.56	328.59	406.85	497.07	602.00	724.37	866.92
45	-	182.55	247.71	318.93	398.92	490.45	596.24	719.05	861.60
50	-	-	232.90	306.60	388.66	481.81	588.78	712.34	855.20
55	-	-	214.88	291.39	375.82	470.90	579.38	704.00	847.49
60	-	-	-	273.06	360.17	457.51	567.81	693.80	838.24