Type: Hermetic scroll compressors
Producer: Copeland
Series: ZS

Model: ZS21K4E-TFD

Technical data

Displacement [m³/h]:	8,0
Sound power [dBA]:	73
Sound pressure level [dB]:	62
Net Weight [kg]:	30
Oil charge [dm³]:	1,5
Maximum high pressure [bar]:	28,8
Maximum standstill pressure [bar]:	21
Maximum lowside temperature [°C]:	50
PED category:	1

Electrical data

Power supply [V/~/Hz]:	380-420V/3/50Hz
Locked rotor current [A]:	40
Max. operating current [A]:	6
Winding resistance [Ω]:	4,8

Connections

	inches
Suction Rotolock valve connection:	1 1/4"
Discharge Rotolock valve connection:	1"

R134a

Cooling capacity [kW]

t_c \ t_e	-30	-25	-20	-15	-10	-5	0	5
20	1.48	1.88	2.37	2.96	3.66	4.48	5.42	-
25	1.42	1.80	2.27	2.84	3.52	4.31	5.23	-
30	1.35	1.72	2.17	2.72	3.37	4.13	5.02	6.03
35	-	1.64	2.07	2.60	3.22	3.95	4.80	5.77
40	-	1.55	1.97	2.47	3.06	3.76	4.57	5.51
45	-	-	1.86	2.34	2.90	3.56	4.34	5.23
50	-	-	1.76	2.20	2.73	3.36	4.09	4.94
55	-	-	-	2.07	2.57	3.16	3.85	4.65
60	-	-	-	1.93	2.40	2.94	3.59	4.35

Power input [kW]

t_c \ t_e	-30	-25	-20	-15	-10	-5	0	5
20	0.65	0.69	0.74	0.79	0.85	0.92	1.02	-
25	0.71	0.75	0.80	0.85	0.91	0.98	1.06	-
30	0.76	0.81	0.86	0.91	0.97	1.03	1.12	1.22
35	-	0.87	0.92	0.98	1.03	1.10	1.18	1.27
40	-	0.94	0.99	1.05	1.11	1.17	1.25	1.34
45	-	-	1.07	1.13	1.19	1.26	1.33	1.42
50	-	-	1.16	1.23	1.29	1.36	1.43	1.52
55	-	-	-	1.33	1.40	1.47	1.55	1.63
60	-	-	-	1.46	1.53	1.61	1.68	1.77

Current [A]

t_c \ t_e	-30	-25	-20	-15	-10	-5	0	5
20	2.81	2.83	2.85	2.87	2.89	2.93	2.97	-
25	2.83	2.85	2.87	2.89	2.92	2.95	2.99	-
30	2.86	2.88	2.90	2.92	2.95	2.98	3.01	3.06
35	-	2.90	2.93	2.95	2.98	3.01	3.04	3.09
40	-	2.93	2.96	2.98	3.01	3.04	3.08	3.12
45	-	-	2.99	3.02	3.05	3.08	3.12	3.16
50	-	-	3.03	3.07	3.10	3.13	3.17	3.21
55	-	-	-	3.12	3.15	3.19	3.23	3.28
60	-	-	-	3.18	3.22	3.26	3.30	3.35

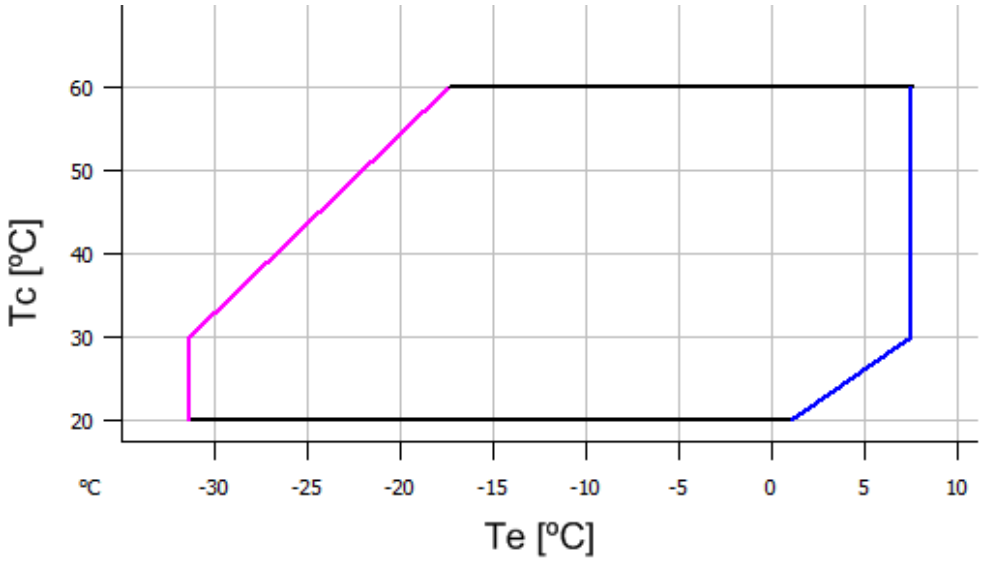
Mass flow [kg/h]

t_c \ t_e	-30	-25	-20	-15	-10	-5	0	5
20	27.51	35.23	44.53	55.72	69.07	84.87	103.42	-
25	27.34	35.02	44.33	55.55	68.98	84.89	103.58	-
30	27.20	34.81	44.09	55.32	68.79	84.79	103.60	125.52
35	-	34.61	43.84	55.05	68.53	84.58	103.49	125.53
40	-	34.43	43.56	54.72	68.20	84.28	103.24	125.38
45	-	-	43.28	54.36	67.80	83.87	102.87	125.08
50	-	-	43.00	53.98	67.34	83.38	102.39	124.64
55	-	-	-	53.56	66.83	82.81	101.79	124.06
60	-	-	-	53.13	66.27	82.16	101.09	123.34

C.O.P. [W/W]

t_c \ t_e	-30	-25	-20	-15	-10	-5	0	5
20	2.28	2.71	3.21	3.75	4.31	4.85	5.34	-
25	2.01	2.40	2.85	3.35	3.88	4.41	4.92	-
30	1.77	2.12	2.53	2.99	3.48	3.99	4.49	4.96
35	-	1.88	2.24	2.66	3.11	3.59	4.07	4.54
40	-	1.66	1.98	2.35	2.76	3.20	3.66	4.11
45	-	-	1.74	2.06	2.43	2.83	3.25	3.68
50	-	-	1.52	1.80	2.12	2.48	2.86	3.26
55	-	-	-	1.55	1.83	2.14	2.49	2.85
60	-	-	-	1.33	1.56	1.83	2.14	2.46

Application range



Maximum evaporating temperature
25°C suction gas temperature

Operating conditions: suction gas temperature 20°C, 0K subcooling
t_c - Condensing temperature [°C]
t_e - Evaporating temperature [°C]

R404A/R507

Cooling capacity [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.07	2.63	3.30	4.09	5.03	6.13	-	-	-	-
15	1.98	2.52	3.16	3.92	4.81	5.85	7.05	-	-	-
20	1.90	2.41	3.02	3.74	4.59	5.57	6.71	8.02	-	-
25	1.81	2.30	2.88	3.56	4.36	5.28	6.36	7.60	9.01	-
30	1.72	2.19	2.73	3.37	4.12	4.99	6.00	7.16	8.49	10.00
35	1.63	2.07	2.58	3.18	3.87	4.69	5.63	6.71	7.96	9.37
40	1.54	1.95	2.42	2.97	3.62	4.37	5.24	6.25	7.41	8.74
45	-	1.82	2.25	2.76	3.35	4.04	4.84	5.77	6.85	8.08
50	-	-	2.07	2.53	3.07	3.69	4.43	5.28	6.26	7.40
55	-	-	-	-	2.77	3.33	3.99	4.76	5.66	6.69
60	-	-	-	-	-	2.95	3.53	4.22	5.03	5.97

Power input [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	1.03	1.07	1.13	1.21	1.30	1.40	-	-	-	-
15	1.12	1.16	1.21	1.28	1.37	1.47	1.58	-	-	-
20	1.22	1.25	1.30	1.37	1.45	1.55	1.66	1.78	-	-
25	1.33	1.36	1.40	1.47	1.54	1.64	1.75	1.87	2.00	-
30	1.46	1.48	1.52	1.58	1.66	1.74	1.85	1.97	2.10	2.24
35	1.61	1.62	1.66	1.71	1.78	1.87	1.97	2.08	2.21	2.35
40	1.78	1.79	1.81	1.86	1.93	2.01	2.11	2.22	2.34	2.48
45	-	1.97	1.99	2.03	2.09	2.17	2.26	2.37	2.49	2.62
50	-	-	2.19	2.22	2.28	2.35	2.44	2.54	2.66	2.79
55	-	-	-	-	2.49	2.56	2.64	2.74	2.85	2.98
60	-	-	-	-	-	2.78	2.86	2.96	3.07	3.19

Current [A]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	4.18	4.21	4.24	4.28	4.34	4.40	-	-	-	-
15	4.21	4.23	4.27	4.31	4.36	4.43	4.51	-	-	-
20	4.25	4.27	4.31	4.35	4.40	4.47	4.55	4.65	-	-
25	4.31	4.33	4.36	4.40	4.46	4.53	4.61	4.70	4.82	-
30	4.38	4.40	4.43	4.47	4.53	4.60	4.68	4.78	4.89	5.03
35	4.48	4.49	4.52	4.56	4.62	4.69	4.77	4.87	4.99	5.13
40	4.60	4.61	4.64	4.68	4.73	4.80	4.89	4.99	5.11	5.25
45	-	4.76	4.78	4.82	4.87	4.94	5.03	5.13	5.26	5.40
50	-	-	4.95	4.99	5.04	5.11	5.19	5.30	5.43	5.58
55	-	-	-	-	5.24	5.31	5.40	5.50	5.63	5.78
60	-	-	-	-	-	5.54	5.63	5.74	5.87	6.02

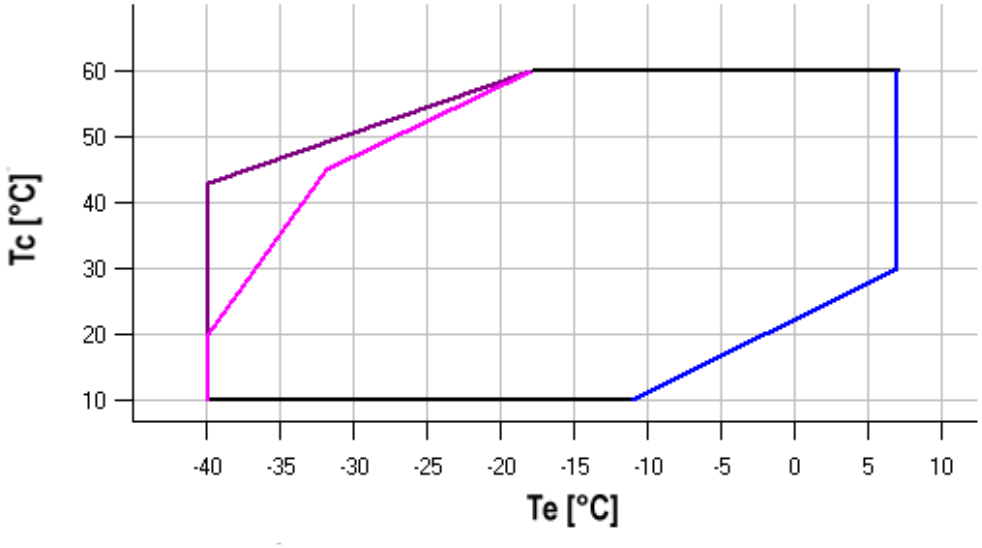
Mass flow [kg/h]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	40.01	52.76	67.14	83.75	103.16	125.97	-	-	-	-
15	40.71	53.11	67.20	83.55	102.76	125.40	152.07	-	-	-
20	41.35	53.41	67.19	83.29	102.28	124.75	151.29	182.49	-	-
25	41.93	53.63	67.11	82.94	101.71	124.00	150.41	181.51	217.90	-
30	42.43	53.78	66.93	82.49	101.03	123.14	149.41	180.42	216.75	258.99
35	42.85	53.83	66.66	81.94	100.25	122.17	148.28	179.19	215.46	257.69
40	43.18	53.78	66.28	81.27	99.34	121.06	147.02	177.82	214.02	256.23
45	-	53.62	65.79	80.48	98.30	119.81	145.62	176.29	212.43	254.60
50	-	-	65.16	79.56	97.11	118.42	144.05	174.61	210.66	252.80
55	-	-	-	-	95.78	116.86	142.32	172.75	208.71	250.81
60	-	-	-	-	-	115.14	140.42	170.70	206.57	248.62

C.O.P. [W/W]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.01	2.45	2.91	3.39	3.88	4.37	-	-	-	-
15	1.77	2.18	2.61	3.06	3.52	3.99	4.46	-	-	-
20	1.56	1.93	2.32	2.74	3.16	3.60	4.05	4.50	-	-
25	1.36	1.69	2.05	2.43	2.82	3.23	3.64	4.07	4.50	-
30	1.18	1.47	1.79	2.13	2.49	2.86	3.24	3.64	4.05	4.47
35	1.02	1.27	1.55	1.85	2.17	2.51	2.86	3.22	3.60	3.99
40	0.87	1.09	1.33	1.60	1.88	2.17	2.49	2.82	3.17	3.53
45	-	0.92	1.13	1.36	1.60	1.86	2.14	2.44	2.75	3.08
50	-	-	0.95	1.14	1.35	1.57	1.81	2.07	2.35	2.65
55	-	-	-	-	1.11	1.30	1.51	1.74	1.98	2.25
60	-	-	-	-	-	1.06	1.23	1.43	1.64	1.87

Application range

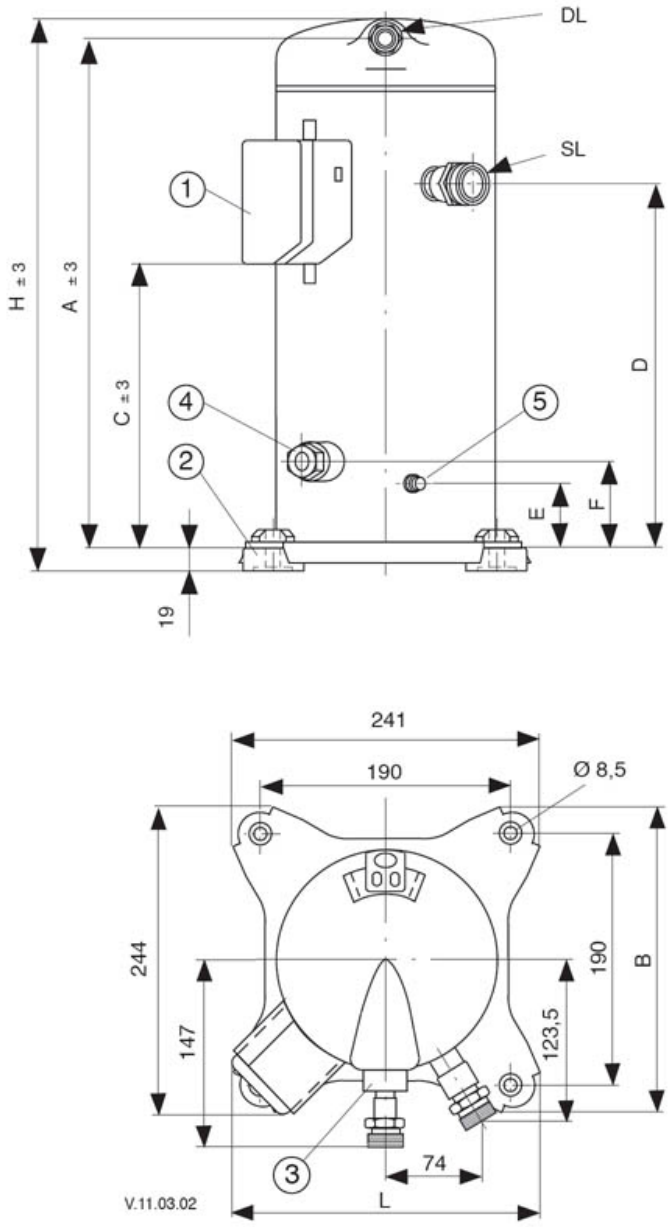


Maximum evaporating temperature
25ºC suction gas temperature
10K gas overheat

Operating conditions: suction gas temperature 20ºC, 0K subcooling
t_c - Condensing temperature [ºC]
t_e - Evaporating temperature [ºC]

Model: ZS21K4E-TFD

Dimensions



A	366,5 mm
C	219,3 - 225,3 mm
C1	- mm
D	264,5 mm
E	49,6 mm
F	75,1 mm
G	- mm

Model: ZS21K4E-TFD

Image