

R.E.S.L

Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

Model: ZB19KCE-TFD

Data

Technical data

Nominal motor power [HP]:	2,5
Displacement [m ³ /h]:	6,8
Weight [kg]:	29
Oil charge [dm ³]:	0,7

Electrical data

Power supply [V/~/Hz]:	380-420V/3/50Hz
Locked rotor current [A]:	32
Max. operating current [A]:	6,5
Winding resistance [Ω]:	5,9

Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:		1 1/4"
Discharge line:		1"

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R22

Capacity

Cooling capacity [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	2.60	3.27	4.06	4.99	6.07	7.31	-	-
20	2.47	3.11	3.88	4.77	5.81	7.00	-	-
25	2.35	2.97	3.70	4.57	5.56	6.71	8.02	-
30	2.23	2.83	3.54	4.36	5.32	6.42	7.68	9.10
35	2.11	2.69	3.37	4.16	5.08	6.14	7.35	8.71
40	1.98	2.54	3.20	3.96	4.84	5.86	7.01	8.32
45	-	2.39	3.02	3.75	4.59	5.56	6.67	7.92
50	-	-	2.82	3.53	4.33	5.26	6.31	7.51
55	-	-	-	3.28	4.05	4.94	5.94	7.08
60	-	-	-	-	3.75	4.59	5.55	6.64
65	-	-	-	-	-	4.23	5.14	6.17

Power input [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	0.89	0.89	0.88	0.87	0.85	0.83	-	-
20	1.00	1.01	1.00	0.99	0.97	0.95	-	-
25	1.13	1.14	1.13	1.12	1.10	1.08	1.06	-
30	1.27	1.28	1.27	1.26	1.25	1.23	1.21	1.19
35	1.43	1.43	1.43	1.42	1.41	1.39	1.37	1.35
40	1.60	1.61	1.61	1.60	1.59	1.57	1.55	1.53
45	-	1.81	1.81	1.80	1.78	1.76	1.74	1.72
50	-	-	2.03	2.02	2.00	1.98	1.96	1.94
55	-	-	-	2.27	2.25	2.22	2.20	2.17
60	-	-	-	-	2.52	2.49	2.46	2.44
65	-	-	-	-	-	2.79	2.76	2.73

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Current [A]

Capacity

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	2.49	2.50	2.49	2.47	2.43	2.39	-	-
20	2.55	2.57	2.57	2.55	2.52	2.49	-	-
25	2.64	2.67	2.67	2.66	2.64	2.61	2.59	-
30	2.76	2.80	2.80	2.79	2.77	2.75	2.73	2.72
35	2.92	2.96	2.97	2.96	2.94	2.92	2.90	2.89
40	3.12	3.16	3.17	3.16	3.14	3.12	3.10	3.09
45	-	3.40	3.41	3.40	3.38	3.35	3.33	3.32
50	-	-	3.69	3.68	3.65	3.63	3.60	3.58
55	-	-	-	4.01	3.98	3.94	3.91	3.89
60	-	-	-	-	4.35	4.31	4.27	4.23
65	-	-	-	-	-	4.72	4.67	4.63

Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	45.04	57.09	71.24	87.91	107.46	130.29	-	-
20	44.18	56.09	70.10	86.60	105.97	128.59	-	-
25	43.42	55.24	69.14	85.51	104.73	127.20	153.29	-
30	42.63	54.41	68.24	84.52	103.64	125.98	151.93	181.88
35	41.70	53.47	67.28	83.52	102.57	124.83	150.67	180.50
40	40.51	52.31	66.13	82.37	101.40	123.61	149.40	179.14
45	-	50.80	64.68	80.95	100.00	122.21	147.98	177.69
50	-	-	62.80	79.15	98.25	120.51	146.30	176.01
55	-	-	-	76.84	96.05	118.38	144.23	173.99
60	-	-	-	-	93.25	115.70	141.66	171.50
65	-	-	-	-	-	112.36	138.46	168.42

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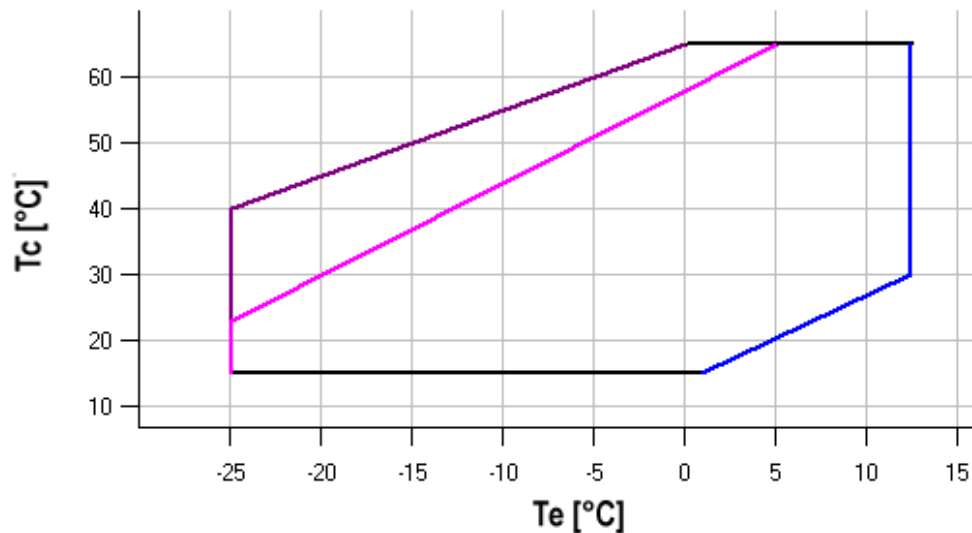
Model: ZB19KCE-TFD

C.O.P. [W/W]

Capacity

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	2.92	3.66	4.60	5.75	7.15	8.85	-	-
20	2.46	3.09	3.87	4.83	5.98	7.37	-	-
25	2.08	2.61	3.27	4.08	5.04	6.19	7.53	-
30	1.75	2.21	2.77	3.45	4.26	5.22	6.34	7.62
35	1.48	1.87	2.35	2.93	3.61	4.42	5.36	6.43
40	1.24	1.58	1.99	2.47	3.05	3.74	4.53	5.44
45	-	1.32	1.67	2.08	2.58	3.16	3.83	4.60
50	-	-	1.39	1.75	2.16	2.65	3.22	3.88
55	-	-	-	1.45	1.80	2.22	2.70	3.26
60	-	-	-	-	1.49	1.84	2.25	2.72
65	-	-	-	-	-	1.51	1.86	2.26

Application range



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

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Model: ZB19KCE-TFD

R134a

Capacity

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.62	2.10	2.71	3.45	4.32	5.30	6.40	-
35	1.53	1.98	2.56	3.27	4.09	5.02	6.06	-
40	1.44	1.87	2.42	3.09	3.87	4.75	5.74	6.83
45	-	1.76	2.28	2.91	3.65	4.49	5.42	6.45
50	-	1.65	2.14	2.74	3.43	4.22	5.10	6.07
55	-	-	2.00	2.56	3.21	3.95	4.78	5.69
60	-	-	-	2.36	2.98	3.67	4.45	5.30
65	-	-	-	2.16	2.73	3.38	4.11	4.90
70	-	-	-	-	2.47	3.08	3.75	4.49
75	-	-	-	-	2.19	2.75	3.38	4.06

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	0.89	0.90	0.90	0.89	0.87	0.85	0.84	-
35	1.00	1.02	1.02	1.01	1.00	0.99	0.98	-
40	1.12	1.14	1.15	1.15	1.13	1.12	1.11	1.11
45	-	1.28	1.29	1.29	1.28	1.27	1.26	1.25
50	-	1.44	1.45	1.45	1.44	1.42	1.41	1.40
55	-	-	1.63	1.63	1.61	1.60	1.58	1.57
60	-	-	-	1.83	1.81	1.79	1.77	1.75
65	-	-	-	2.05	2.03	2.00	1.98	1.95
70	-	-	-	-	2.28	2.25	2.21	2.18
75	-	-	-	-	2.57	2.53	2.48	2.44

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.40	2.44	2.45	2.44	2.42	2.40	2.38	-
35	2.50	2.54	2.55	2.55	2.53	2.52	2.51	-
40	2.61	2.66	2.67	2.67	2.66	2.65	2.64	2.64
45	-	2.80	2.82	2.82	2.81	2.79	2.78	2.78
50	-	2.98	3.00	2.99	2.98	2.96	2.95	2.95
55	-	-	3.21	3.20	3.19	3.16	3.15	3.14
60	-	-	-	3.46	3.43	3.40	3.38	3.36
65	-	-	-	3.76	3.73	3.69	3.65	3.63
70	-	-	-	-	4.07	4.02	3.97	3.94
75	-	-	-	-	4.48	4.42	4.35	4.30

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	32.45	42.63	55.42	70.89	89.15	110.26	134.32	-
35	32.05	42.11	54.76	70.09	88.17	109.10	132.96	-
40	31.59	41.58	54.15	69.38	87.35	108.15	131.86	158.57
45	-	40.95	53.48	68.66	86.57	107.29	130.90	157.50
50	-	40.09	52.64	67.82	85.72	106.41	129.98	156.51
55	-	-	51.53	66.76	84.69	105.40	128.98	155.51
60	-	-	-	65.36	83.38	104.17	127.80	154.37
65	-	-	-	63.53	81.68	102.59	126.33	152.99
70	-	-	-	-	79.48	100.57	124.47	151.27
75	-	-	-	-	76.68	97.98	122.09	149.09

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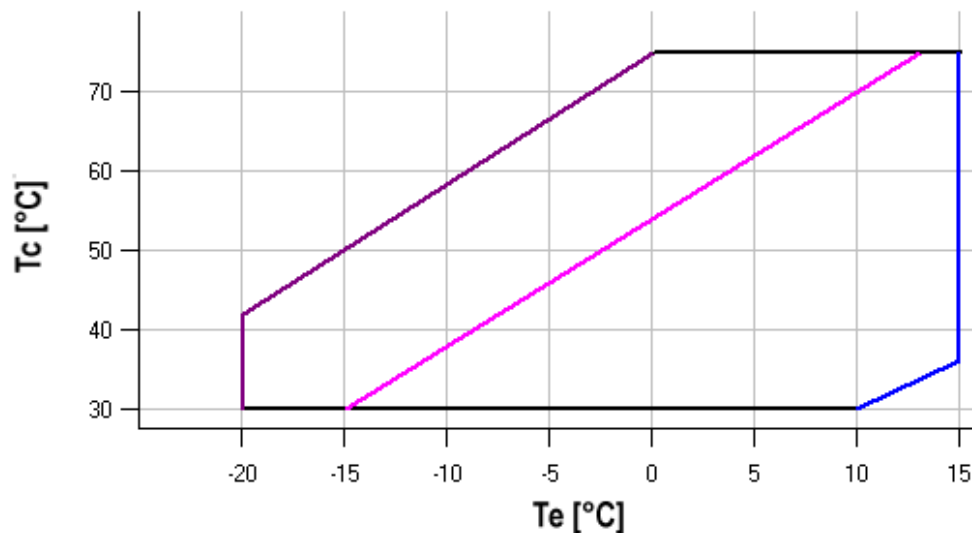
Model: ZB19KCE-TFD




Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.82	2.33	3.02	3.90	4.97	6.21	7.59	-
35	1.53	1.95	2.52	3.23	4.09	5.10	6.21	-
40	1.29	1.64	2.11	2.70	3.41	4.24	5.16	6.15
45	-	1.38	1.77	2.26	2.85	3.54	4.32	5.15
50	-	1.15	1.48	1.89	2.39	2.97	3.62	4.33
55	-	-	1.23	1.57	1.99	2.48	3.03	3.63
60	-	-	-	1.30	1.65	2.05	2.52	3.03
65	-	-	-	1.05	1.35	1.69	2.08	2.51
70	-	-	-	-	1.08	1.37	1.69	2.06
75	-	-	-	-	0.85	1.09	1.36	1.66

Application range



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

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Model: ZB19KCE-TFD

Capacity

R404A/R507

Cooling capacity [kW]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	2.88	3.58	4.41	5.40	-	-	-	-	-
15	2.75	3.42	4.21	5.15	6.24	-	-	-	-
20	2.62	3.25	4.00	4.89	5.92	7.11	-	-	-
25	2.48	3.08	3.78	4.62	5.58	6.71	8.00	-	-
30	2.33	2.89	3.56	4.34	5.24	6.30	7.51	8.90	10.48
35	2.16	2.70	3.32	4.05	4.89	5.87	7.01	8.31	9.79
40	1.99	2.49	3.07	3.75	4.53	5.44	6.50	7.71	9.09
45	1.80	2.27	2.81	3.43	4.16	5.00	5.97	7.10	8.38
50	-	2.04	2.54	3.11	3.77	4.55	5.44	6.47	7.66
55	-	-	2.25	2.77	3.38	4.08	4.89	5.84	6.93
60	-	-	-	2.42	2.97	3.60	4.33	5.19	6.18

Power input [kW]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	0.92	0.93	0.92	0.92	-	-	-	-	-
15	1.04	1.04	1.04	1.04	1.04	-	-	-	-
20	1.17	1.17	1.17	1.17	1.17	1.17	-	-	-
25	1.32	1.32	1.32	1.32	1.32	1.31	1.31	-	-
30	1.48	1.49	1.49	1.48	1.48	1.47	1.47	1.47	1.47
35	1.67	1.67	1.67	1.67	1.66	1.65	1.65	1.64	1.64
40	1.88	1.88	1.88	1.88	1.87	1.86	1.85	1.84	1.83
45	2.12	2.12	2.12	2.11	2.10	2.09	2.07	2.06	2.04
50	-	2.38	2.38	2.37	2.36	2.34	2.32	2.30	2.29
55	-	-	2.67	2.66	2.65	2.63	2.60	2.58	2.56
60	-	-	-	2.99	2.97	2.94	2.92	2.89	2.86

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Model: ZB19KCE-TFD

Current [A]

Capacity

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	2.86	2.86	2.87	2.86	-	-	-	-	-
15	2.95	2.97	2.98	2.98	2.97	-	-	-	-
20	3.07	3.09	3.10	3.11	3.11	3.09	-	-	-
25	3.21	3.23	3.25	3.26	3.26	3.25	3.22	-	-
30	3.38	3.40	3.42	3.44	3.44	3.44	3.41	3.37	3.30
35	3.60	3.61	3.63	3.65	3.65	3.65	3.63	3.59	3.53
40	3.86	3.87	3.88	3.90	3.90	3.90	3.89	3.85	3.79
45	4.18	4.18	4.19	4.19	4.20	4.20	4.18	4.15	4.10
50	-	4.55	4.55	4.55	4.55	4.54	4.53	4.49	4.44
55	-	-	4.97	4.97	4.96	4.95	4.93	4.89	4.84
60	-	-	-	5.46	5.44	5.42	5.40	5.36	5.30

Mass flow [kg/s]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	56.67	72.57	90.56	111.40	-	-	-	-	-
15	57.35	72.80	90.36	110.78	134.87	-	-	-	-
20	57.60	72.65	89.83	109.90	133.65	161.84	-	-	-
25	57.42	72.13	88.99	108.76	132.22	160.16	193.34	-	-
30	56.85	71.27	87.85	107.37	130.60	158.33	191.33	230.37	276.23
35	55.88	70.06	86.42	105.75	128.81	156.38	189.24	228.17	273.94
40	54.54	68.53	84.73	103.90	126.84	154.31	187.10	225.97	271.70
45	52.83	66.69	82.77	101.86	124.73	152.15	184.91	223.77	269.52
50	-	64.55	80.57	99.62	122.47	149.90	182.68	221.60	267.41
55	-	-	78.14	97.21	120.10	147.58	180.44	219.46	265.39
60	-	-	-	94.63	117.61	145.20	178.20	217.36	263.48

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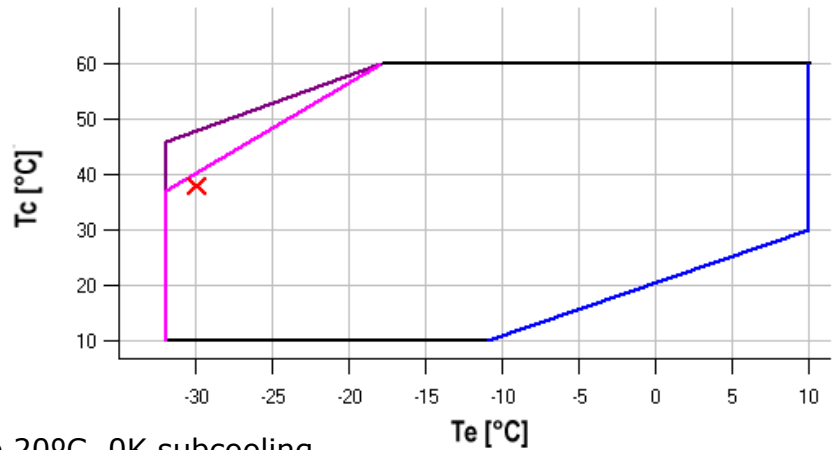
Model: ZB19KCE-TFD

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	3.11	3.86	4.77	5.85	-	-	-	-	-
15	2.64	3.28	4.04	4.94	6.00	-	-	-	-
20	2.24	2.77	3.41	4.17	5.06	6.09	-	-	-
25	1.88	2.33	2.87	3.50	4.24	5.11	6.11	-	-
30	1.57	1.95	2.39	2.92	3.55	4.27	5.11	6.07	7.15
35	1.30	1.61	1.99	2.43	2.94	3.55	4.26	5.06	5.98
40	1.06	1.32	1.63	2.00	2.43	2.93	3.52	4.20	4.97
45	0.85	1.07	1.33	1.63	1.98	2.40	2.88	3.45	4.10
50	-	0.86	1.07	1.31	1.60	1.94	2.34	2.81	3.35
55	-	-	0.84	1.04	1.28	1.55	1.88	2.26	2.71
60	-	-	-	0.81	1.00	1.22	1.49	1.80	2.16

Application range



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

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Capacity

R407C

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	2.82	3.46	4.28	5.27	6.44	-	-	-
25	2.67	3.32	4.13	5.11	6.27	7.60	-	-
30	2.51	3.16	3.96	4.92	6.05	7.35	8.82	-
35	2.35	2.98	3.76	4.70	5.80	7.06	8.49	-
40	2.19	2.79	3.54	4.44	5.50	6.72	8.09	-
45	2.02	2.60	3.31	4.17	5.18	6.34	7.65	-
50	-	2.40	3.07	3.88	4.83	5.92	7.17	-
55	-	-	2.83	3.57	4.46	5.48	6.64	-
60	-	-	-	3.26	4.07	5.01	6.09	-
65	-	-	-	-	3.67	4.52	5.50	-

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	0.95	0.93	0.92	0.92	0.91	-	-	-
25	1.08	1.07	1.06	1.05	1.05	1.04	-	-
30	1.22	1.21	1.21	1.20	1.20	1.18	1.16	-
35	1.38	1.37	1.37	1.37	1.36	1.35	1.32	-
40	1.56	1.56	1.56	1.56	1.55	1.53	1.50	-
45	1.76	1.76	1.77	1.76	1.75	1.73	1.70	-
50	-	1.99	2.00	2.00	1.99	1.97	1.93	-
55	-	-	2.26	2.26	2.25	2.23	2.18	-
60	-	-	-	2.56	2.55	2.52	2.47	-
65	-	-	-	-	2.88	2.85	2.80	-

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	2.53	2.50	2.49	2.48	2.48	-	-	-
25	2.63	2.61	2.60	2.60	2.59	2.58	-	-
30	2.75	2.74	2.74	2.74	2.73	2.72	2.69	-
35	2.91	2.91	2.91	2.91	2.91	2.89	2.85	-
40	3.11	3.11	3.12	3.12	3.11	3.09	3.05	-
45	3.36	3.36	3.37	3.37	3.36	3.34	3.29	-
50	-	3.66	3.67	3.67	3.66	3.63	3.58	-
55	-	-	4.02	4.02	4.01	3.97	3.91	-
60	-	-	-	4.43	4.41	4.37	4.30	-
65	-	-	-	-	4.88	4.83	4.75	-

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	47.86	59.25	73.57	91.09	112.08	-	-	-
25	47.12	58.90	73.67	91.71	113.27	138.62	-	-
30	46.24	58.27	73.37	91.80	113.81	139.67	169.64	-
35	45.23	57.40	72.69	91.37	113.70	139.95	170.36	-
40	44.13	56.29	71.65	90.46	112.98	139.48	170.21	-
45	42.94	54.98	70.27	89.08	111.66	138.28	169.21	-
50	-	53.48	68.58	87.25	109.77	136.38	167.37	-
55	-	-	66.58	85.00	107.32	133.80	164.72	-
60	-	-	-	82.34	104.34	130.56	161.27	-
65	-	-	-	-	100.84	126.67	157.06	-

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Specialist Distributors of Compressors and Refrigeration Spares

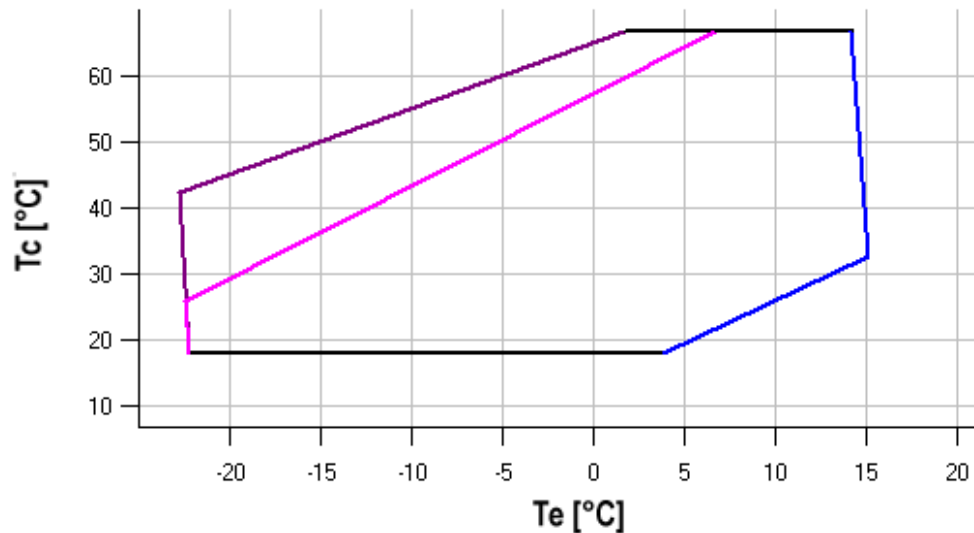
Model: ZB19KCE-TFD

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	2.98	3.72	4.64	5.74	7.05	-	-	-
25	2.48	3.12	3.90	4.85	5.98	7.31	-	-
30	2.06	2.61	3.28	4.09	5.05	6.20	7.58	-
35	1.71	2.17	2.74	3.43	4.25	5.24	6.42	-
40	1.41	1.79	2.27	2.86	3.56	4.39	5.40	-
45	1.15	1.47	1.88	2.36	2.95	3.65	4.50	-
50	-	1.21	1.54	1.94	2.43	3.01	3.72	-
55	-	-	1.25	1.58	1.98	2.46	3.04	-
60	-	-	-	1.27	1.60	1.99	2.46	-
65	-	-	-	-	1.27	1.58	1.97	-

Application range



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

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

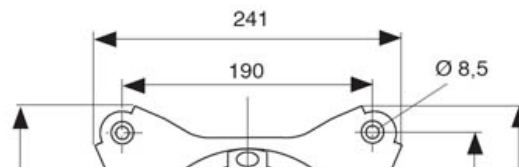
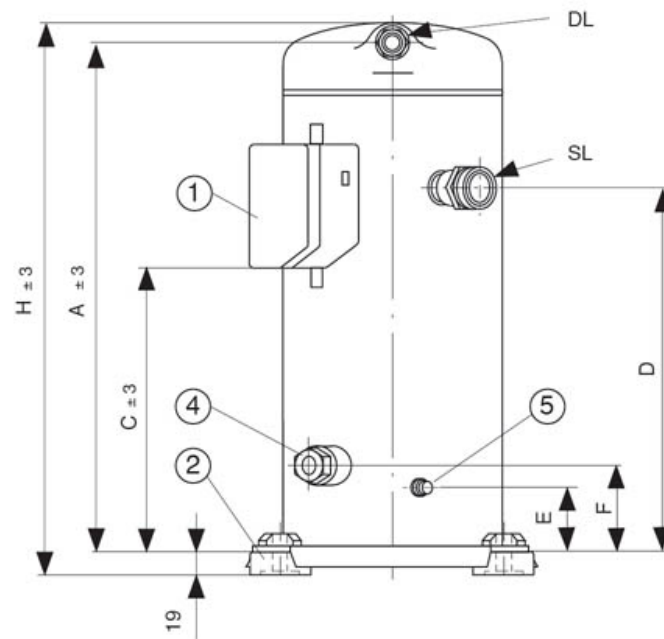
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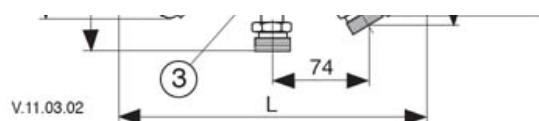
Specialist Distributors of Compressors and Refrigeration Spares

Model: ZB19KCE-TFD

Dimensions



A	343,9 mm
C	199,4 - 205,4 mm
C1	- mm
D	244,6 mm
E	43,9 mm
F	69,4 mm
G	- mm



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Specialist Distributors of Compressors and Refrigeration Spares

Model: ZB19KCE-TFD

Image

