



Type: Hermetic scroll compressors

Producer: Copeland

Series: ZB

Model: ZB19KCE-PFJ

Technical data

Displacement [m ³ /h]:	6,8
Sound power [dBA]:	66
Sound pressure level [dB]:	55
Net Weight [kg]:	27,2
Oil charge [dm ³]:	1,5
Maximum high pressure [bar]:	28,8
Maximum standstill pressure [bar]:	21
Minimal lowside temperature [°C]:	-35
Maximum lowside temperature [°C]:	50
PED category:	1

Electrical data

Power supply [V/~/Hz]:	220-240V/1/50Hz
Locked rotor current [A]:	61
Max. operating current [A]:	12,8
Winding resistance [Ω]:	1,2
Start winding resistance [Ω]:	2,2

Connections

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

**ELEKTRONIKA S.A.**
TECHNIKA CHŁODNICZA I KLIMATYZACJA**Model: ZB19KCE-PFJ****Capacity**

R134a

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	1.68	2.21	2.80	3.47	4.25	5.17	6.25	-
35	1.54	2.06	2.64	3.29	4.04	4.92	5.95	-
40	1.41	1.93	2.49	3.11	3.83	4.67	5.65	6.79
45	-	1.79	2.34	2.94	3.62	4.42	5.35	6.43
50	-	1.66	2.19	2.76	3.41	4.16	5.04	6.06
55	-	-	2.03	2.58	3.20	3.90	4.72	5.68
60	-	-	-	2.39	2.97	3.63	4.40	5.29
65	-	-	-	2.19	2.73	3.35	4.06	4.89
70	-	-	-	-	2.48	3.04	3.70	4.46
75	-	-	-	-	2.20	2.72	3.32	4.01

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	0.91	0.90	0.91	0.91	0.90	0.90	0.89	-
35	1.01	1.01	1.01	1.02	1.02	1.02	1.01	-
40	1.12	1.12	1.12	1.12	1.13	1.13	1.13	1.13
45	-	1.24	1.24	1.24	1.24	1.25	1.25	1.25
50	-	1.38	1.37	1.37	1.37	1.38	1.38	1.38
55	-	-	1.53	1.53	1.53	1.53	1.53	1.53
60	-	-	-	1.72	1.71	1.71	1.71	1.70
65	-	-	-	1.95	1.94	1.93	1.92	1.91
70	-	-	-	-	2.21	2.19	2.18	2.16
75	-	-	-	-	2.54	2.51	2.49	2.47

**ELEKTRONIKA S.A.**
TECHNIKA CHŁODNICZA I KLIMATYZACJA**Model: ZB19KCE-PFJ****Capacity****Current [A]**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	4.96	4.95	4.95	4.96	4.96	4.94	4.89	-
35	5.36	5.35	5.36	5.38	5.40	5.40	5.38	-
40	5.78	5.77	5.78	5.81	5.83	5.85	5.84	5.80
45	-	6.24	6.25	6.27	6.30	6.32	6.32	6.30
50	-	6.81	6.81	6.82	6.84	6.86	6.86	6.85
55	-	-	7.49	7.48	7.49	7.50	7.50	7.48
60	-	-	-	8.30	8.29	8.28	8.27	8.24
65	-	-	-	9.32	9.28	9.24	9.21	9.16
70	-	-	-	-	10.50	10.43	10.37	10.29
75	-	-	-	-	11.98	11.87	11.77	11.67

Mass flow [kg/h]

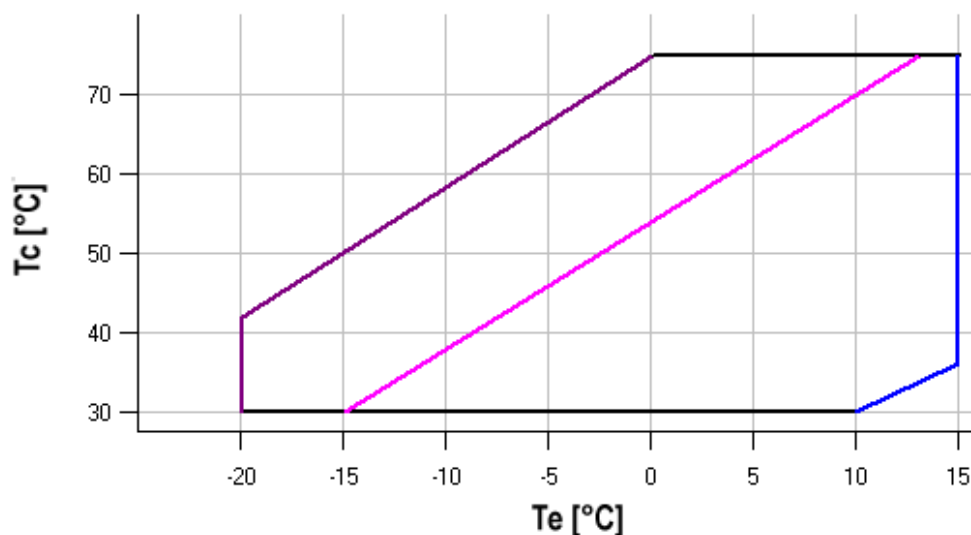
$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	33.65	44.83	57.13	71.23	87.82	107.61	131.28	-
35	32.71	44.00	56.36	70.49	87.09	106.84	130.45	-
40	31.88	43.27	55.70	69.88	86.48	106.21	129.76	157.82
45	-	42.54	55.06	69.28	85.90	105.62	129.12	157.09
50	-	41.70	54.31	68.59	85.23	104.94	128.40	156.30
55	-	-	53.34	67.69	84.37	104.08	127.50	155.34
60	-	-	-	66.48	83.20	102.92	126.31	154.09
65	-	-	-	64.85	81.62	101.34	124.73	152.46
70	-	-	-	-	79.50	99.26	122.63	150.32
75	-	-	-	-	76.75	96.54	119.91	147.56



C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.86	2.44	3.09	3.83	4.70	5.74	7.01	-
35	1.53	2.04	2.60	3.24	3.97	4.83	5.87	-
40	1.26	1.72	2.22	2.77	3.40	4.13	5.00	6.04
45	-	1.45	1.89	2.37	2.91	3.54	4.28	5.16
50	-	1.21	1.59	2.01	2.48	3.02	3.66	4.40
55	-	-	1.32	1.69	2.09	2.55	3.09	3.73
60	-	-	-	1.39	1.73	2.12	2.58	3.11
65	-	-	-	1.12	1.41	1.74	2.11	2.56
70	-	-	-	-	1.12	1.39	1.70	2.06
75	-	-	-	-	0.87	1.08	1.33	1.63

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]

R404A/R507

Cooling capacity [kW]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	2.70	3.35	4.14	5.07	-	-	-	-	-
15	2.59	3.21	3.96	4.85	5.89	-	-	-	-
20	2.46	3.06	3.78	4.62	5.61	6.75	-	-	-
25	2.32	2.90	3.58	4.38	5.31	6.38	7.62	-	-
30	2.18	2.73	3.37	4.12	4.99	6.00	7.16	8.48	9.97
35	2.02	2.54	3.15	3.85	4.66	5.60	6.68	7.91	9.30
40	1.86	2.34	2.91	3.56	4.31	5.18	6.17	7.31	8.61
45	1.68	2.14	2.65	3.25	3.94	4.73	5.65	6.70	7.89
50	-	1.91	2.39	2.93	3.55	4.27	5.10	6.06	7.15
55	-	-	2.11	2.59	3.15	3.79	4.54	5.40	6.38
60	-	-	-	2.24	2.73	3.29	3.95	4.71	5.59

Power input [kW]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	0.90	0.90	0.90	0.90	-	-	-	-	-
15	1.01	1.01	1.01	1.01	1.02	-	-	-	-
20	1.13	1.13	1.14	1.14	1.14	1.14	-	-	-
25	1.27	1.27	1.28	1.28	1.28	1.27	1.27	-	-
30	1.42	1.43	1.43	1.43	1.43	1.43	1.42	1.41	1.40
35	1.60	1.61	1.61	1.61	1.61	1.60	1.59	1.58	1.57
40	1.80	1.81	1.81	1.81	1.81	1.80	1.79	1.78	1.76
45	2.03	2.04	2.04	2.04	2.03	2.02	2.01	1.99	1.97
50	-	2.29	2.29	2.29	2.29	2.28	2.26	2.24	2.22
55	-	-	2.58	2.58	2.57	2.56	2.54	2.52	2.49
60	-	-	-	2.90	2.89	2.88	2.86	2.83	2.80

Current [A]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	6.71	6.70	6.70	6.69	-	-	-	-	-
15	6.94	6.95	6.95	6.95	6.95	-	-	-	-
20	7.23	7.24	7.25	7.26	7.26	7.26	-	-	-
25	7.56	7.59	7.60	7.61	7.61	7.61	7.60	-	-
30	7.97	8.01	8.03	8.04	8.04	8.03	8.02	8.00	7.99
35	8.47	8.51	8.53	8.54	8.54	8.53	8.51	8.49	8.46
40	9.07	9.11	9.14	9.15	9.14	9.13	9.10	9.07	9.03
45	9.78	9.83	9.86	9.87	9.86	9.84	9.80	9.75	9.70
50	-	10.67	10.70	10.71	10.70	10.67	10.62	10.56	10.49
55	-	-	11.69	11.69	11.68	11.64	11.58	11.51	11.42
60	-	-	-	12.83	12.81	12.76	12.69	12.61	12.50

Mass flow [kg/h]

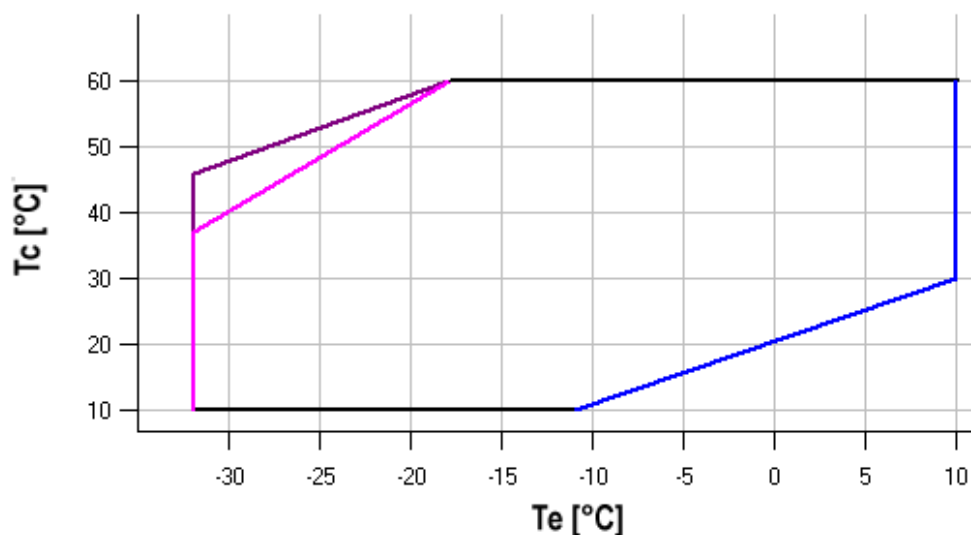
$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	53.88	68.31	84.86	104.24	-	-	-	-	-
15	54.01	68.39	84.89	104.21	127.03	-	-	-	-
20	53.91	68.21	84.63	103.85	126.57	153.48	-	-	-
25	53.57	67.76	84.05	103.15	125.73	152.50	184.14	-	-
30	52.97	67.01	83.15	102.08	124.50	151.09	182.54	219.55	262.81
35	52.10	65.96	81.91	100.64	122.85	149.23	180.46	217.25	260.27
40	50.94	64.58	80.30	98.81	120.78	146.91	177.89	214.42	257.17
45	49.47	62.86	78.33	96.56	118.26	144.12	174.81	211.04	253.50
50	-	60.78	75.96	93.90	115.29	140.83	171.21	207.11	249.23
55	-	-	73.19	90.80	111.85	137.04	167.06	202.60	244.35
60	-	-	-	87.24	107.92	132.73	162.36	197.50	238.85



C.O.P. [W/W]

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5	10
10	3.01	3.73	4.59	5.61	-	-	-	-	-
15	2.57	3.18	3.92	4.78	5.80	-	-	-	-
20	2.17	2.70	3.33	4.06	4.93	5.93	-	-	-
25	1.83	2.28	2.81	3.43	4.16	5.01	6.00	-	-
30	1.53	1.91	2.35	2.88	3.49	4.20	5.03	5.99	7.10
35	1.26	1.58	1.95	2.39	2.90	3.49	4.19	4.99	5.93
40	1.03	1.30	1.60	1.96	2.38	2.87	3.45	4.12	4.89
45	0.83	1.05	1.30	1.60	1.94	2.34	2.81	3.36	4.00
50	-	0.84	1.04	1.28	1.55	1.88	2.26	2.70	3.22
55	-	-	0.82	1.00	1.22	1.48	1.78	2.14	2.56
60	-	-	-	0.77	0.94	1.14	1.38	1.66	1.99

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]

**ELEKTRONIKA S.A.**
TECHNIKA CHŁODNICZA I KLIMATYZACJA**Model: ZB19KCE-PFJ****Capacity**

R407C

Cooling capacity [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	2.38	3.00	3.75	4.64	5.72	6.98	-	-
20	2.24	2.85	3.59	4.47	5.51	6.74	8.17	-
25	2.09	2.70	3.43	4.28	5.29	6.48	7.86	-
30	1.95	2.55	3.25	4.08	5.06	6.20	7.52	9.06
35	1.80	2.39	3.07	3.87	4.80	5.89	7.16	8.63
40	1.65	2.23	2.88	3.64	4.53	5.57	6.78	8.17
45	-	2.05	2.68	3.40	4.24	5.22	6.37	7.69
50	-	-	2.47	3.15	3.94	4.86	5.93	7.18
55	-	-	-	2.88	3.62	4.47	5.47	6.63
60	-	-	-	-	3.28	4.07	4.99	6.06
65	-	-	-	-	-	3.64	4.48	5.46

Power input [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	0.88	0.84	0.80	0.77	0.74	0.70	-	-
20	1.03	1.00	0.97	0.95	0.93	0.90	0.87	-
25	1.17	1.15	1.13	1.12	1.10	1.08	1.05	-
30	1.32	1.30	1.29	1.28	1.27	1.25	1.22	1.18
35	1.47	1.45	1.44	1.44	1.43	1.42	1.39	1.35
40	1.64	1.63	1.62	1.62	1.61	1.60	1.57	1.53
45	-	1.83	1.83	1.82	1.81	1.80	1.77	1.73
50	-	-	2.07	2.06	2.05	2.03	2.00	1.95
55	-	-	-	2.35	2.33	2.31	2.27	2.22
60	-	-	-	-	2.67	2.64	2.59	2.53
65	-	-	-	-	-	3.03	2.98	2.91

**ELEKTRONIKA S.A.**
TECHNIKA CHŁODNICZA I KLIMATYZACJA**Model: ZB19KCE-PFJ****Capacity****Current [A]**

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	4.47	4.29	4.15	4.02	3.90	3.76	-	-
20	5.15	5.01	4.90	4.82	4.73	4.62	4.48	-
25	5.76	5.66	5.58	5.53	5.46	5.38	5.25	-
30	6.37	6.29	6.24	6.20	6.16	6.09	5.98	5.80
35	7.01	6.95	6.92	6.89	6.86	6.80	6.69	6.52
40	7.74	7.69	7.67	7.65	7.62	7.56	7.46	7.28
45	-	8.57	8.55	8.53	8.50	8.43	8.31	8.13
50	-	-	9.60	9.58	9.54	9.46	9.32	9.11
55	-	-	-	10.85	10.78	10.68	10.53	10.29
60	-	-	-	-	12.30	12.17	11.98	11.71
65	-	-	-	-	-	13.96	13.73	13.42

Mass flow [kg/h]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	37.89	49.04	61.96	77.25	95.54	117.45	-	-
20	37.08	48.36	61.41	76.84	95.27	117.32	143.60	-
25	36.31	47.69	60.83	76.35	94.87	117.01	143.39	-
30	35.53	46.95	60.13	75.70	94.27	116.45	142.88	174.16
35	34.67	46.08	59.26	74.83	93.40	115.58	142.01	173.29
40	33.66	45.02	58.15	73.67	92.19	114.34	140.72	171.95
45	-	43.71	56.74	72.17	90.60	112.65	138.94	170.08
50	-	-	54.97	70.25	88.54	110.45	136.61	167.62
55	-	-	-	67.86	85.96	107.69	133.66	164.49
60	-	-	-	-	82.79	104.29	130.03	160.63
65	-	-	-	-	-	100.19	125.65	155.98



ELEKTRONIKA S.A.
TECHNIKA CHŁODNICZA I KLIMATYZACJA

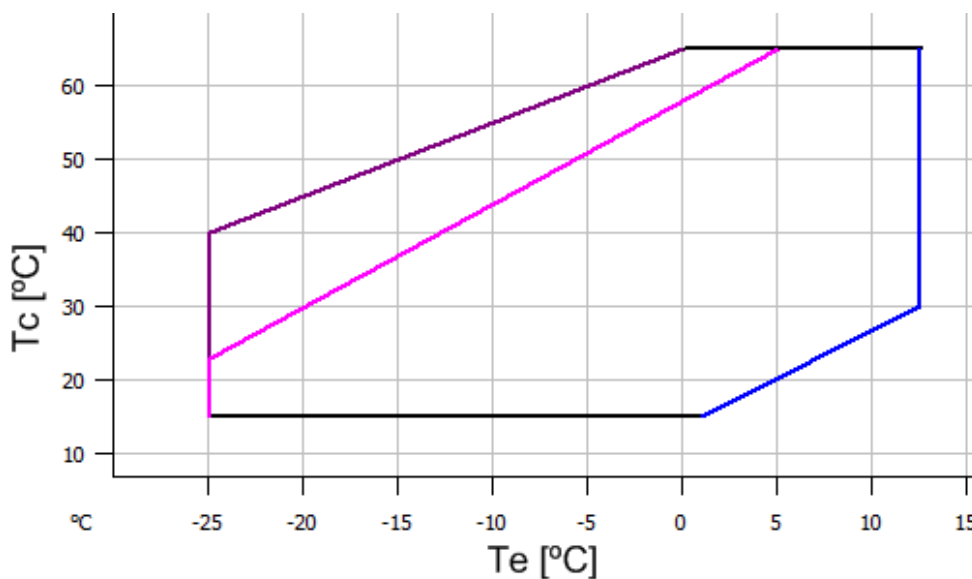
Model: ZB19KCE-PFJ

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	2.71	3.59	4.67	6.03	7.73	9.93	-	-
20	2.17	2.86	3.69	4.69	5.92	7.46	9.44	-
25	1.78	2.35	3.03	3.83	4.80	5.99	7.48	-
30	1.48	1.97	2.53	3.20	3.99	4.96	6.15	7.66
35	1.23	1.64	2.13	2.69	3.36	4.16	5.14	6.37
40	1.01	1.37	1.78	2.25	2.82	3.49	4.31	5.33
45	-	1.12	1.47	1.87	2.34	2.91	3.60	4.45
50	-	-	1.19	1.53	1.92	2.39	2.97	3.67
55	-	-	-	1.23	1.55	1.94	2.41	2.99
60	-	-	-	-	1.23	1.54	1.92	2.39
65	-	-	-	-	-	1.20	1.50	1.88

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]

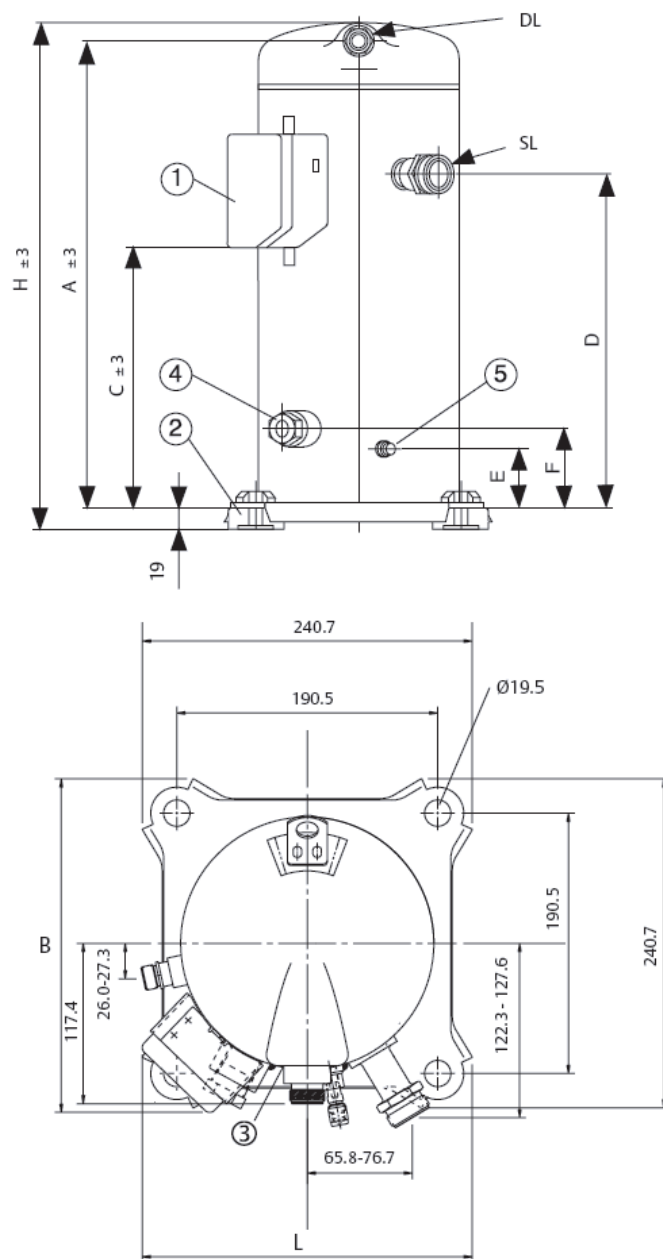
t_e - Evaporating temperature [°C]



ELEKTRONIKA S.A.
TECHNIKA CHŁODNICZA I KLIMATYZACJA

Model: ZB19KCE-PFJ

Dimensions



A	344 mm
B	242 mm
C	202 mm
D	245 mm
E	44 mm
F	69 mm
H	369 mm
L	242 mm



ELEKTRONIKA S.A.
TECHNIKA CHŁODNICZA I KLIMATYZACJA

Model: ZB19KCE-PFJ

Image

