

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZB19KCE-PFJ

#### Data

#### Technical data

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

#### Electrical data

Power supply [V/~/Hz]:	220-240V/1/50Hz
Locked rotor current [A]:	32
Max. operating current [A]:	6,5
Winding resistance [ $\Omega$ ]:	5,9

#### Connections

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

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Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZB19KCE-PFJ**

R22

Capacity

### Cooling capacity [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	2.73	3.34	4.08	4.98	6.06	7.34	-	-
20	2.50	3.10	3.83	4.69	5.72	6.94	-	-
25	2.32	2.92	3.62	4.46	5.44	6.60	7.95	-
30	2.16	2.76	3.45	4.26	5.21	6.31	7.60	9.08
35	2.00	2.60	3.29	4.08	4.99	6.05	7.28	8.69
40	1.82	2.43	3.12	3.89	4.78	5.80	6.97	8.31
45	-	2.24	2.92	3.69	4.55	5.53	6.65	7.93
50	-	-	2.68	3.44	4.29	5.24	6.31	7.53
55	-	-	-	3.14	3.97	4.89	5.93	7.09
60	-	-	-	-	3.57	4.47	5.47	6.59
65	-	-	-	-	-	3.97	4.94	6.02

### Power input [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	0.86	0.85	0.83	0.81	0.78	0.75	-	-
20	1.02	1.01	1.00	0.98	0.96	0.94	-	-
25	1.16	1.16	1.15	1.14	1.12	1.10	1.08	-
30	1.30	1.30	1.30	1.29	1.28	1.26	1.24	1.21
35	1.45	1.45	1.45	1.44	1.43	1.41	1.39	1.37
40	1.61	1.61	1.61	1.61	1.60	1.58	1.56	1.53
45	-	1.80	1.80	1.79	1.78	1.76	1.74	1.71
50	-	-	2.02	2.01	2.00	1.98	1.95	1.92
55	-	-	-	2.27	2.26	2.23	2.20	2.17
60	-	-	-	-	2.57	2.54	2.50	2.46
65	-	-	-	-	-	2.90	2.86	2.81

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### Model: ZB19KCE-PFJ

#### Current [A]

#### Capacity

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	4.47	4.41	4.34	4.25	4.15	4.01	-	-
20	5.15	5.11	5.06	5.00	4.92	4.81	-	-
25	5.76	5.74	5.71	5.66	5.60	5.51	5.39	-
30	6.36	6.34	6.32	6.29	6.23	6.16	6.05	5.91
35	6.98	6.97	6.95	6.92	6.87	6.80	6.70	6.57
40	7.69	7.67	7.65	7.61	7.57	7.49	7.40	7.27
45	-	8.50	8.46	8.42	8.36	8.29	8.18	8.05
50	-	-	9.44	9.38	9.31	9.22	9.11	8.96
55	-	-	-	10.56	10.47	10.36	10.22	10.06
60	-	-	-	-	11.87	11.74	11.58	11.39
65	-	-	-	-	-	13.41	13.22	13.01

#### Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	47.37	58.39	71.68	87.85	107.46	131.13	-	-
20	44.70	55.84	69.08	85.01	104.22	127.31	-	-
25	42.79	54.20	67.53	83.38	102.34	125.00	151.95	-
30	41.17	52.99	66.58	82.50	101.36	123.75	150.25	181.46
35	39.37	51.77	65.75	81.90	100.82	123.09	149.29	180.04
40	36.94	50.07	64.60	81.13	100.25	122.55	148.62	179.04
45	-	47.42	62.65	79.71	99.19	121.68	147.76	178.02
50	-	-	59.45	77.20	97.19	120.01	146.25	176.50
55	-	-	-	73.12	93.77	117.08	143.64	174.04
60	-	-	-	-	88.48	112.44	139.46	170.15
65	-	-	-	-	-	105.61	133.25	164.39

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**Specialist Distributors of Compressors and Refrigeration Spares**

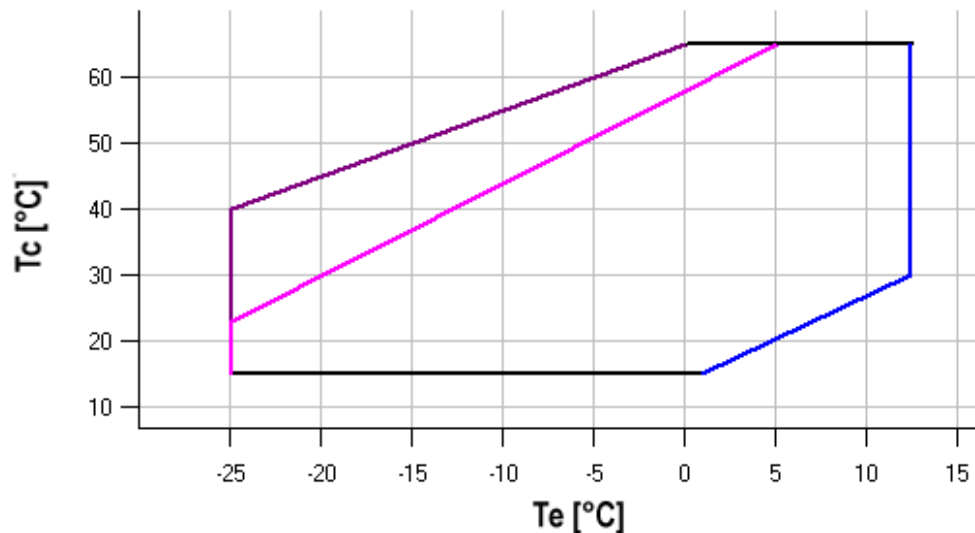
**Model: ZB19KCE-PFJ**

**Capacity**

**C.O.P. [W/W]**

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
15	3.17	3.93	4.91	6.15	7.73	9.74	-	-
20	2.46	3.07	3.83	4.77	5.94	7.39	-	-
25	2.00	2.52	3.15	3.91	4.84	5.98	7.38	-
30	1.66	2.12	2.66	3.30	4.08	5.02	6.15	7.52
35	1.38	1.79	2.27	2.83	3.49	4.28	5.22	6.36
40	1.13	1.51	1.93	2.42	3.00	3.67	4.47	5.43
45	-	1.24	1.62	2.06	2.55	3.14	3.82	4.63
50	-	-	1.33	1.71	2.15	2.65	3.23	3.92
55	-	-	-	1.38	1.76	2.19	2.69	3.27
60	-	-	-	-	1.39	1.76	2.19	2.68
65	-	-	-	-	-	1.37	1.73	2.14

**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]

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZB19KCE-PFJ**

R134a

Capacity

### Cooling capacity [kW]

$t_c \setminus t_e$	-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]

$t_c \setminus t_e$	-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

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### 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/s]

$t_c \setminus t_e$	-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

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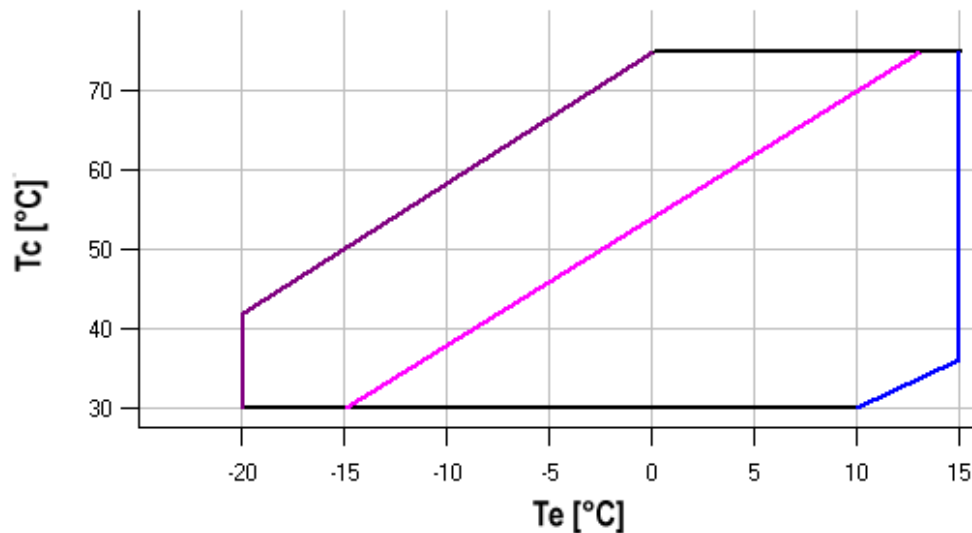
**Model: ZB19KCE-PFJ**

Capacity

### 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]

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZB19KCE-PFJ**

Capacity

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



# R.E.S.L

## Richmonds Earl Shilton Limited

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### Model: ZB19KCE-PFJ

Capacity

#### 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/s]

$t_c \setminus t_e$	-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

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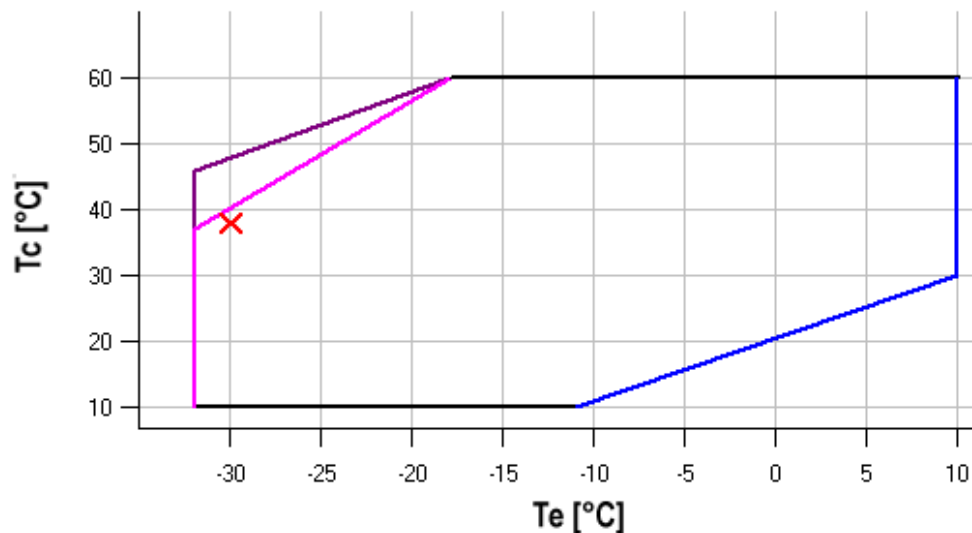
**Model: ZB19KCE-PFJ**

Capacity

**C.O.P. [W/W]**

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

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZB19KCE-PFJ**

Capacity

R407C

### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	2.85	3.59	4.47	5.51	6.74	-	-	-
25	2.70	3.43	4.28	5.29	6.48	7.86	-	-
30	2.55	3.25	4.08	5.06	6.20	7.52	9.06	-
35	2.39	3.07	3.87	4.80	5.89	7.16	8.63	-
40	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]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	1.00	0.97	0.95	0.93	0.90	-	-	-
25	1.15	1.13	1.12	1.10	1.08	1.05	-	-
30	1.30	1.29	1.28	1.27	1.25	1.22	1.18	-
35	1.45	1.44	1.44	1.43	1.42	1.39	1.35	-
40	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	-

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### Model: ZB19KCE-PFJ

Capacity

#### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	5.01	4.90	4.82	4.73	4.62	-	-	-
25	5.66	5.58	5.53	5.46	5.38	5.25	-	-
30	6.29	6.24	6.20	6.16	6.09	5.98	5.80	-
35	6.95	6.92	6.89	6.86	6.80	6.69	6.52	-
40	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/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	48.36	61.41	76.84	95.27	117.32	-	-	-
25	47.69	60.83	76.35	94.87	117.01	143.39	-	-
30	46.95	60.13	75.70	94.27	116.45	142.88	174.16	-
35	46.08	59.26	74.83	93.40	115.58	142.01	173.29	-
40	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	-

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

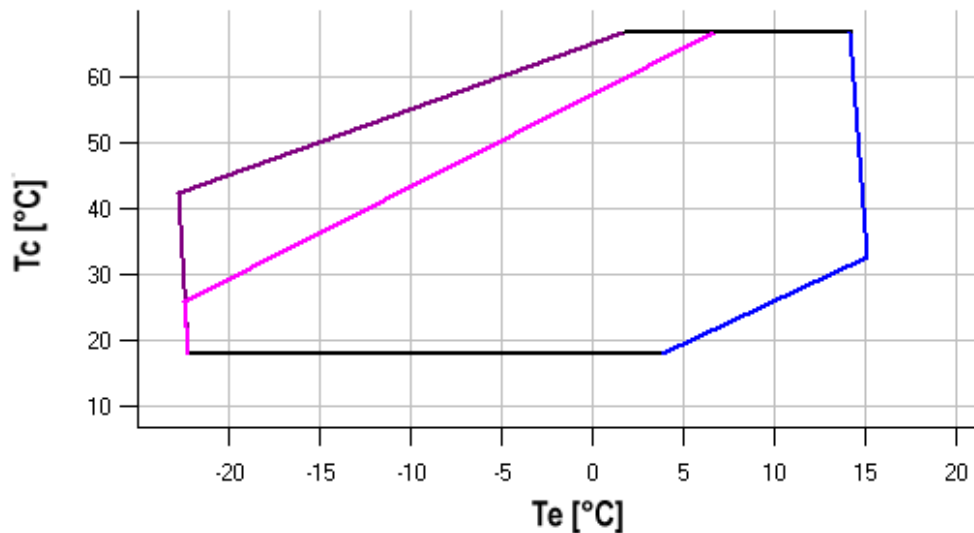
### Model: ZB19KCE-PFJ

**C.O.P. [W/W]**

**Capacity**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
20	2.86	3.69	4.69	5.92	7.46	-	-	-
25	2.35	3.03	3.83	4.80	5.99	7.48	-	-
30	1.97	2.53	3.20	3.99	4.96	6.15	7.66	-
35	1.64	2.13	2.69	3.36	4.16	5.14	6.37	-
40	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]

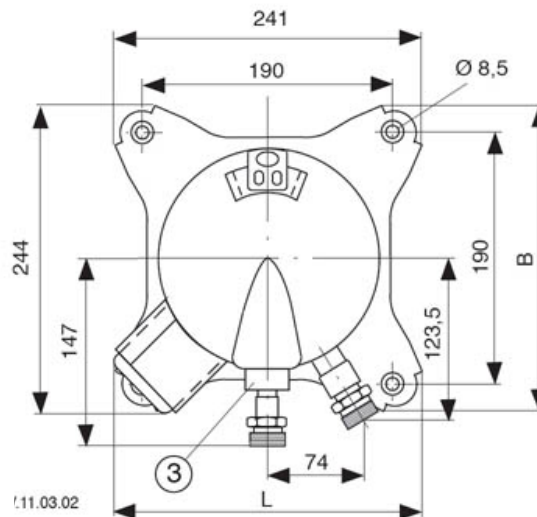
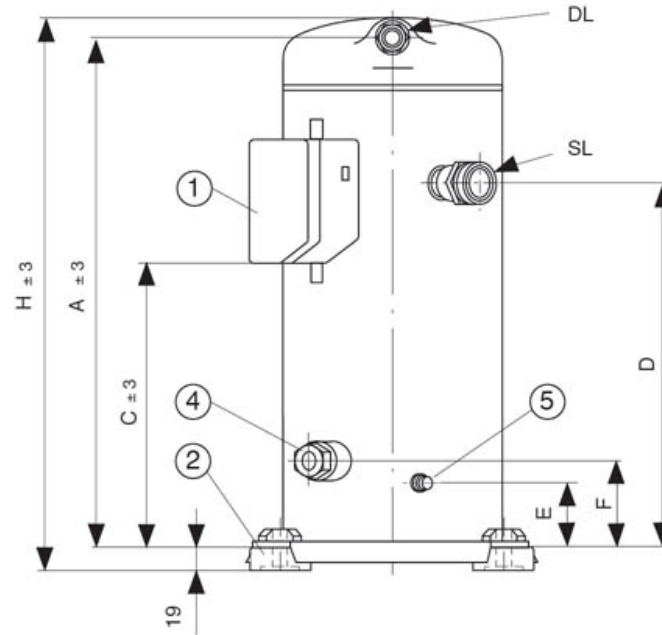
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**Richmonds Earl Shilton Limited**

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZB19KCE-PFJ**

**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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**Richmonds Earl Shilton Limited**

**Specialist Distributors of Compressors and Refrigeration Spares**

**Model: ZB19KCE-PFJ**

**Image**

