

R.E.S.L

Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

Model: ZR34K3E-PFJ

Data

Type: Scroll compressor
Producer: Copeland
Series: ZR

Technical data

Nominal motor power [HP]:	2,75
Displacement [m ³ /h]:	8
Sound pressure level :	57
Gross/Net weight [kg]:	30/26
Oil charge [dm ³]:	1,1

Electrical data

Power supply [V/~/Hz]:	220-240/1/50Hz
Locked rotor current [A]:	76
Max. operating current [A]:	17,3
Winding resistance [Ω]:	2,07/0,94

Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		-
Discharge Rotolock valve connection:		-
Suction connection with supplied sleeve:		3/4"
Discharge connection with supplied sleeve:		1/2"

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R22

Capacity

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	3.04	3.93	4.96	6.16	7.55	9.15	10.98
35	2.83	3.71	4.72	5.88	7.21	8.74	10.49
40	2.60	3.48	4.47	5.60	6.88	8.34	10.02
45	-	3.21	4.19	5.29	6.53	7.94	9.54
50	-	-	3.86	4.94	6.15	7.51	9.05
55	-	-	-	4.52	5.70	7.02	8.50
60	-	-	-	-	5.16	6.45	7.88
65	-	-	-	-	4.51	5.77	7.15

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	1.56	1.56	1.55	1.53	1.51	1.49	1.46
35	1.73	1.73	1.72	1.71	1.69	1.67	1.64
40	1.92	1.92	1.92	1.90	1.88	1.86	1.83
45	-	2.14	2.13	2.12	2.10	2.07	2.04
50	-	-	2.38	2.37	2.35	2.32	2.28
55	-	-	-	2.67	2.64	2.60	2.56
60	-	-	-	-	2.99	2.95	2.90
65	-	-	-	-	3.40	3.36	3.30

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	7.61	7.58	7.54	7.48	7.40	7.28	7.11
35	8.33	8.31	8.27	8.22	8.14	8.03	7.87
40	9.14	9.11	9.07	9.02	8.94	8.83	8.68
45	-	10.05	10.00	9.94	9.85	9.73	9.58
50	-	-	11.12	11.03	10.93	10.80	10.63
55	-	-	-	12.37	12.24	12.09	11.90
60	-	-	-	-	13.83	13.65	13.43
65	-	-	-	-	15.76	15.54	15.29

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	65.21	83.31	103.89	127.35	154.14	184.67	219.36
35	63.20	81.76	102.60	126.12	152.77	182.97	217.13
40	60.66	79.90	101.20	125.00	151.73	181.79	215.63
45	-	77.03	99.02	123.31	150.31	180.46	214.18
50	-	-	95.36	120.34	147.84	178.28	212.10
55	-	-	-	115.42	143.62	174.57	208.69
60	-	-	-	-	136.98	168.64	203.28
65	-	-	-	-	127.22	159.80	195.16

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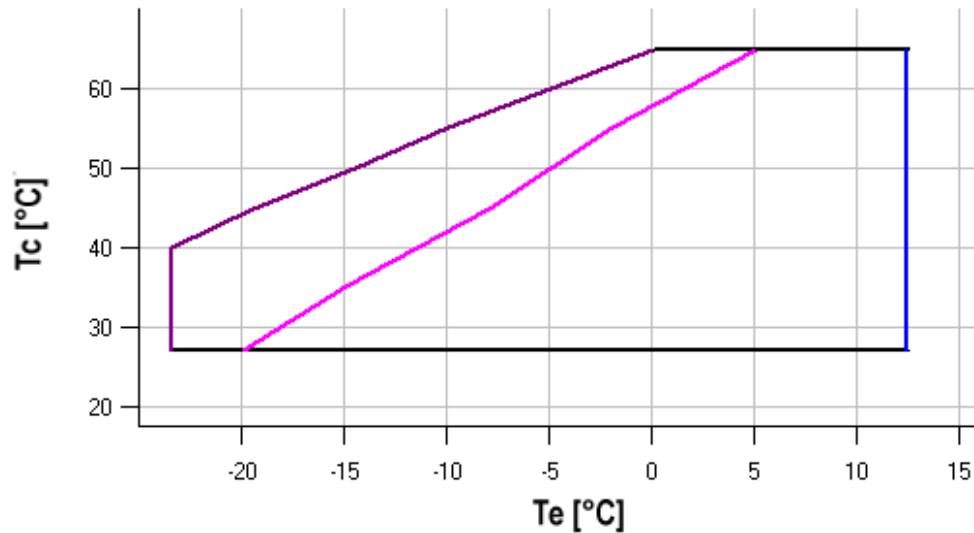
Model: ZR34K3E-PFJ

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	1.95	2.52	3.20	4.02	4.99	6.15	7.55
35	1.63	2.14	2.74	3.43	4.26	5.24	6.40
40	1.35	1.81	2.33	2.94	3.65	4.49	5.48
45	-	1.50	1.97	2.50	3.11	3.83	4.68
50	-	-	1.62	2.09	2.62	3.24	3.97
55	-	-	-	1.70	2.16	2.70	3.32
60	-	-	-	-	1.73	2.19	2.72
65	-	-	-	-	1.32	1.72	2.17

Application range



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

Operating conditions: 10K suction superheat, 0K subcooling

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Model: ZR34K3E-PFJ

Capacity

R134a

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.94	2.59	3.30	4.11	5.05	6.14	7.43	-
35	1.79	2.43	3.12	3.91	4.81	5.86	7.09	-
40	1.64	2.26	2.94	3.69	4.56	5.56	6.74	8.12
45	-	2.09	2.75	3.47	4.30	5.26	6.38	7.70
50	-	1.91	2.55	3.24	4.03	4.94	6.01	7.26
55	-	-	2.34	3.00	3.75	4.62	5.63	6.82
60	-	-	-	2.76	3.47	4.28	5.24	6.36
65	-	-	-	2.51	3.17	3.94	4.83	5.89
70	-	-	-	-	2.87	3.59	4.42	5.41
75	-	-	-	-	2.56	3.23	4.00	4.92

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.06	1.09	1.10	1.09	1.08	1.06	1.04	-
35	1.16	1.19	1.20	1.20	1.19	1.18	1.17	-
40	1.29	1.32	1.33	1.33	1.32	1.31	1.30	1.30
45	-	1.47	1.48	1.48	1.47	1.46	1.45	1.45
50	-	1.64	1.65	1.64	1.63	1.62	1.62	1.62
55	-	-	1.84	1.83	1.82	1.81	1.80	1.80
60	-	-	-	2.06	2.04	2.02	2.01	2.01
65	-	-	-	2.31	2.28	2.26	2.24	2.24
70	-	-	-	-	2.56	2.53	2.51	2.50
75	-	-	-	-	2.87	2.83	2.80	2.78

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	5.74	5.83	5.87	5.87	5.84	5.79	5.74	-
35	6.18	6.26	6.30	6.30	6.28	6.25	6.21	-
40	6.71	6.79	6.82	6.82	6.80	6.77	6.74	6.73
45	-	7.42	7.44	7.43	7.41	7.38	7.36	7.35
50	-	8.17	8.17	8.15	8.12	8.08	8.05	8.05
55	-	-	9.03	8.99	8.94	8.89	8.85	8.84
60	-	-	-	9.96	9.88	9.81	9.77	9.74
65	-	-	-	11.07	10.97	10.87	10.80	10.77
70	-	-	-	-	12.20	12.08	11.98	11.92
75	-	-	-	-	13.60	13.44	13.31	13.22

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	45.56	59.87	74.94	91.44	110.00	131.25	155.86	-
35	44.41	59.03	74.35	91.01	109.65	130.91	155.44	-
40	43.03	57.97	73.54	90.37	109.10	130.38	154.85	183.14
45	-	56.69	72.51	89.52	108.35	129.65	154.06	182.22
50	-	55.16	71.25	88.44	107.37	128.70	153.06	181.09
55	-	-	69.74	87.12	106.17	127.53	151.85	179.76
60	-	-	-	85.56	104.73	126.13	150.41	178.21
65	-	-	-	83.74	103.04	124.49	148.74	176.43
70	-	-	-	-	101.09	122.60	146.83	174.42
75	-	-	-	-	98.87	120.44	144.66	172.16

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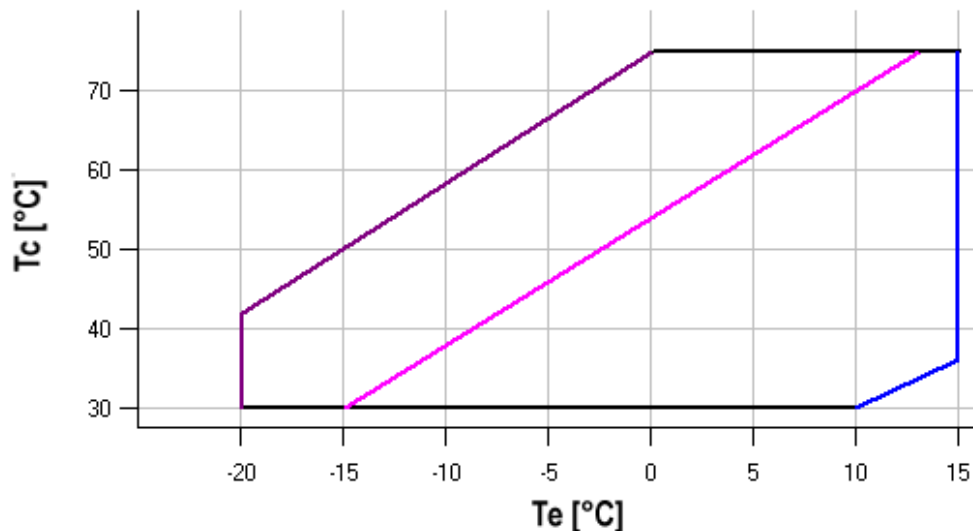
Model: ZR34K3E-PFJ




Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.83	2.38	3.01	3.77	4.68	5.79	7.12	-
35	1.54	2.04	2.59	3.25	4.03	4.97	6.07	-
40	1.27	1.72	2.21	2.78	3.45	4.24	5.17	6.24
45	-	1.43	1.86	2.35	2.93	3.61	4.40	5.30
50	-	1.17	1.55	1.97	2.47	3.05	3.72	4.49
55	-	-	1.27	1.64	2.06	2.55	3.13	3.78
60	-	-	-	1.34	1.70	2.12	2.61	3.17
65	-	-	-	1.09	1.39	1.74	2.16	2.63
70	-	-	-	-	1.12	1.42	1.76	2.17
75	-	-	-	-	0.89	1.14	1.43	1.77

Application range



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

Operating conditions: 10K suction superheat, 0K subcooling

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

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Capacity

R407C

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	2.97	3.83	4.83	6.01	7.38	8.98	10.82	12.92
35	2.76	3.59	4.55	5.69	7.00	8.54	10.31	-
40	2.55	3.34	4.26	5.34	6.60	8.07	9.76	-
45	-	3.08	3.96	4.98	6.18	7.57	9.18	-
50	-	-	3.63	4.60	5.72	7.04	8.57	-
55	-	-	-	4.19	5.25	6.48	7.93	-
60	-	-	-	-	4.74	5.89	7.24	-
65	-	-	-	-	-	5.27	6.53	-

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
30	1.53	1.52	1.51	1.49	1.47	1.44	1.39	1.32
35	1.72	1.71	1.70	1.69	1.67	1.64	1.60	-
40	1.92	1.92	1.91	1.90	1.89	1.86	1.81	-
45	-	2.16	2.15	2.14	2.12	2.09	2.04	-
50	-	-	2.44	2.42	2.40	2.37	2.31	-
55	-	-	-	2.76	2.73	2.69	2.63	-
60	-	-	-	-	3.12	3.07	3.00	-
65	-	-	-	-	-	3.53	3.45	-

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	7.42	7.36	7.32	7.26	7.18	7.05	6.84	6.53
35	8.21	8.17	8.14	8.10	8.03	7.90	7.70	-
40	9.09	9.07	9.05	9.01	8.94	8.81	8.60	-
45	-	10.11	10.09	10.05	9.98	9.84	9.61	-
50	-	-	11.33	11.29	11.19	11.03	10.79	-
55	-	-	-	12.77	12.65	12.47	12.19	-
60	-	-	-	-	14.42	14.20	13.88	-
65	-	-	-	-	-	16.28	15.91	-

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	62.38	79.26	98.54	120.64	145.96	174.90	207.86	245.25
35	61.01	77.89	97.20	119.35	144.73	173.75	206.83	-
40	59.47	76.29	95.56	117.69	143.08	172.14	205.26	-
45	-	74.36	93.54	115.59	140.93	169.96	203.07	-
50	-	-	91.03	112.96	138.18	167.11	200.16	-
55	-	-	-	109.68	134.73	163.52	196.43	-
60	-	-	-	-	130.50	159.07	191.80	-
65	-	-	-	-	-	153.68	186.16	-

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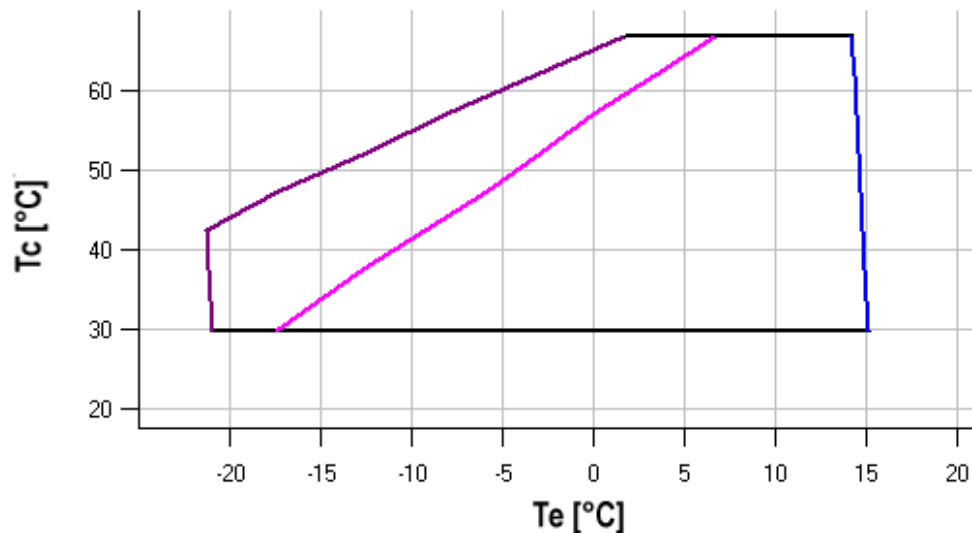
Model: ZR34K3E-PFJ

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.94	2.52	3.21	4.02	5.01	6.23	7.76	9.76
35	1.61	2.10	2.68	3.36	4.19	5.19	6.45	-
40	1.33	1.74	2.23	2.81	3.50	4.34	5.39	-
45	-	1.43	1.84	2.32	2.91	3.62	4.49	-
50	-	-	1.49	1.90	2.38	2.98	3.71	-
55	-	-	-	1.52	1.92	2.41	3.02	-
60	-	-	-	-	1.52	1.92	2.41	-
65	-	-	-	-	-	1.49	1.89	-

Application range



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

Operating conditions: 10K suction superheat, 0K subcooling

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

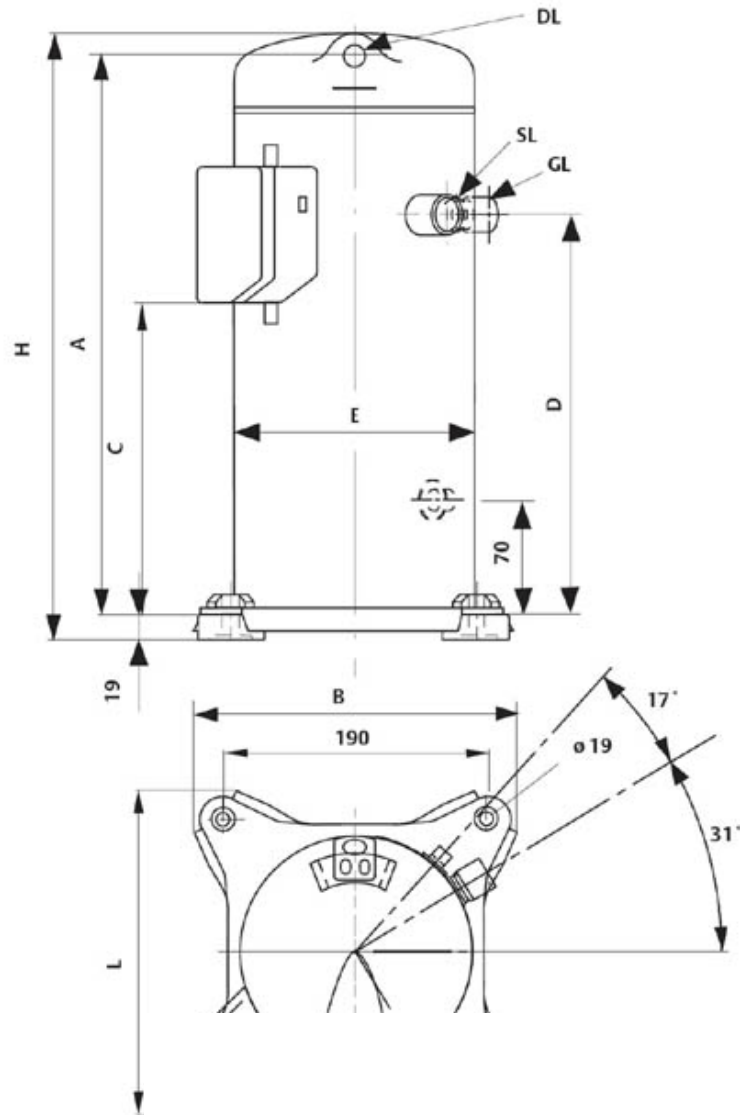
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Model: ZR34K3E-PFJ

Dimensions



A	361 mm
B	240 mm
C	222 mm
D	265 mm
E	165 mm
H	405 mm
L	231 mm

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Specialist Distributors of Compressors and Refrigeration Spares

Model: ZR34K3E-PFJ

Image

