

R.E.S.L

Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

Model: ZR28K3E-PFJ

Data

Type: Scroll compressor
Producer: Copeland
Series: ZR

Technical data

Nominal motor power [HP]:	2,5
Displacement [m ³ /h]:	6,8
Sound pressure level :	54
Gross/Net weight [kg]:	29/25
Oil charge [dm ³]:	1

Electrical data

Power supply [V/~/Hz]:	220-240/1/50Hz
Locked rotor current [A]:	61
Max. operating current [A]:	14,8
Winding resistance [Ω]:	2,23/1,20

Connections

	<u>millimeters</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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Capacity

R22

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.74	3.45	4.28	5.23	6.34	7.62	9.08
35	2.57	3.28	4.08	5.00	6.07	7.29	8.68
40	2.39	3.09	3.88	4.78	5.80	6.97	8.31
45	-	2.88	3.66	4.53	5.53	6.65	7.93
50	-	-	3.39	4.25	5.22	6.31	7.53
55	-	-	-	3.92	4.86	5.91	7.09
60	-	-	-	-	4.43	5.45	6.59
65	-	-	-	-	3.90	4.91	6.01

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	1.30	1.30	1.29	1.28	1.26	1.24	1.21
35	1.45	1.45	1.44	1.43	1.41	1.39	1.37
40	1.61	1.61	1.61	1.60	1.58	1.56	1.53
45	-	1.80	1.79	1.78	1.76	1.74	1.71
50	-	-	2.01	2.00	1.98	1.95	1.92
55	-	-	-	2.26	2.23	2.20	2.17
60	-	-	-	-	2.54	2.50	2.46
65	-	-	-	-	2.90	2.86	2.81

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	6.34	6.32	6.29	6.23	6.16	6.05	5.91
35	6.97	6.95	6.92	6.87	6.80	6.70	6.57
40	7.67	7.65	7.61	7.57	7.49	7.40	7.27
45	-	8.46	8.42	8.36	8.29	8.18	8.05
50	-	-	9.38	9.31	9.22	9.11	8.96
55	-	-	-	10.47	10.36	10.22	10.06
60	-	-	-	-	11.74	11.58	11.39
65	-	-	-	-	13.41	13.22	13.01

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	58.84	73.17	89.50	108.14	129.44	153.74	181.36
35	57.48	72.18	88.70	107.39	128.58	152.61	179.80
40	55.73	70.95	87.85	106.75	128.00	151.91	178.84
45	-	68.96	86.40	105.68	127.14	151.12	177.95
50	-	-	83.79	103.62	125.46	149.67	176.57
55	-	-	-	100.03	122.43	147.03	174.16
60	-	-	-	-	117.50	142.66	170.19
65	-	-	-	-	110.13	136.01	164.11

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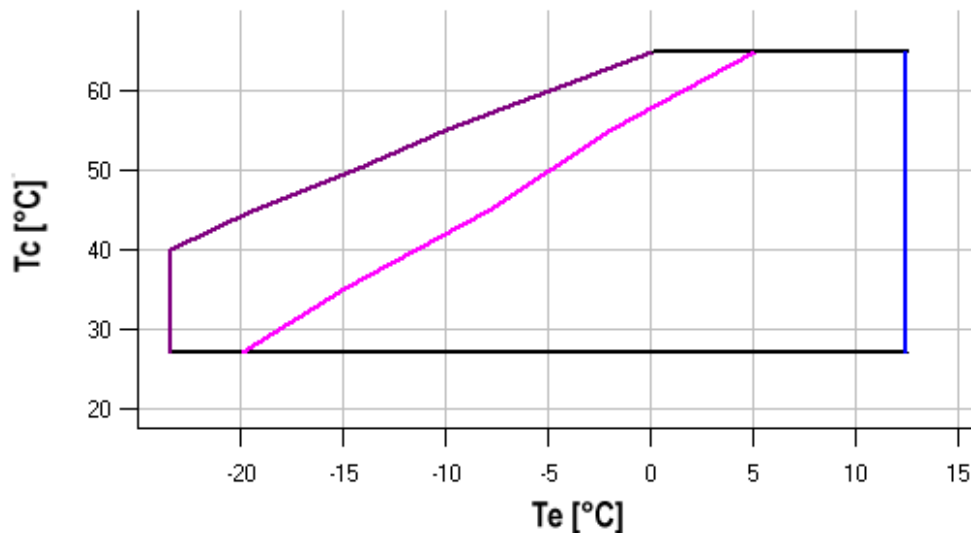
Model: ZR28K3E-PFJ




Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.11	2.66	3.32	4.10	5.04	6.16	7.52
35	1.78	2.26	2.83	3.50	4.29	5.23	6.36
40	1.48	1.92	2.42	2.99	3.67	4.48	5.43
45	-	1.60	2.04	2.54	3.13	3.82	4.63
50	-	-	1.68	2.13	2.64	3.23	3.92
55	-	-	-	1.73	2.18	2.68	3.27
60	-	-	-	-	1.75	2.18	2.68
65	-	-	-	-	1.35	1.72	2.14

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

R134a

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.62	2.14	2.73	3.41	4.21	5.15	6.25	-
35	1.48	1.99	2.56	3.22	3.99	4.89	5.95	-
40	1.35	1.85	2.40	3.04	3.77	4.64	5.65	6.84
45	-	1.71	2.25	2.85	3.56	4.38	5.35	6.48
50	-	1.57	2.09	2.67	3.34	4.12	5.04	6.12
55	-	-	1.92	2.48	3.11	3.85	4.72	5.75
60	-	-	-	2.27	2.88	3.58	4.40	5.36
65	-	-	-	2.06	2.63	3.28	4.06	4.97
70	-	-	-	-	2.36	2.98	3.70	4.55
75	-	-	-	-	2.08	2.65	3.32	4.11

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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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	38.03	49.50	61.95	75.87	91.75	110.06	131.29	-
35	36.65	48.35	60.98	75.02	90.94	109.24	130.40	-
40	35.38	47.33	60.14	74.30	90.29	108.59	129.69	154.07
45	-	46.30	59.32	73.61	89.68	108.00	129.05	153.32
50	-	45.16	58.38	72.83	88.99	107.33	128.35	152.53
55	-	-	57.23	71.84	88.10	106.48	127.49	151.59
60	-	-	-	70.51	86.89	105.33	126.33	150.36
65	-	-	-	68.75	85.25	103.76	124.76	148.74
70	-	-	-	-	83.06	101.65	122.67	146.61
75	-	-	-	-	80.20	98.88	119.94	143.85

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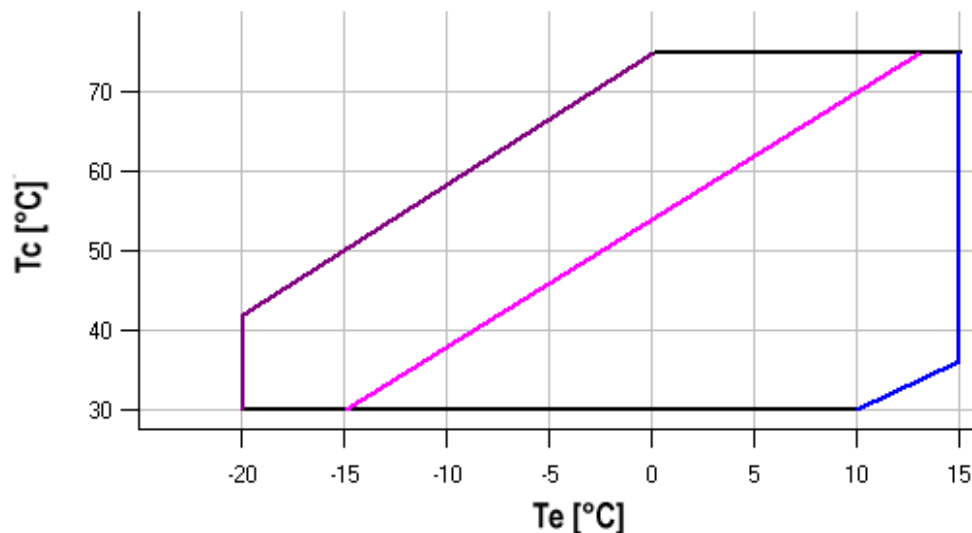
Model: ZR28K3E-PFJ

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.78	2.36	3.01	3.77	4.65	5.72	7.01	-
35	1.46	1.97	2.53	3.17	3.92	4.81	5.87	-
40	1.20	1.65	2.14	2.70	3.35	4.10	5.00	6.07
45	-	1.38	1.81	2.30	2.86	3.51	4.28	5.20
50	-	1.14	1.52	1.94	2.43	2.99	3.66	4.44
55	-	-	1.25	1.62	2.04	2.52	3.09	3.77
60	-	-	-	1.32	1.68	2.09	2.58	3.15
65	-	-	-	1.06	1.36	1.70	2.11	2.60
70	-	-	-	-	1.07	1.36	1.70	2.10
75	-	-	-	-	0.82	1.05	1.33	1.67

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]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.48	3.20	4.04	5.03	6.18	7.52	9.06	10.82
35	2.31	3.00	3.81	4.76	5.86	7.15	8.63	-
40	2.13	2.79	3.56	4.47	5.53	6.75	8.17	-
45	-	2.57	3.31	4.16	5.17	6.34	7.69	-
50	-	-	3.04	3.84	4.79	5.89	7.18	-
55	-	-	-	3.50	4.39	5.43	6.64	-
60	-	-	-	-	3.97	4.93	6.06	-
65	-	-	-	-	-	4.41	5.46	-

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.30	1.28	1.28	1.27	1.25	1.22	1.18	1.12
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	1.82	1.81	1.80	1.77	1.73	-
50	-	-	2.06	2.05	2.03	2.00	1.95	-
55	-	-	-	2.33	2.31	2.27	2.22	-
60	-	-	-	-	2.64	2.59	2.53	-
65	-	-	-	-	-	2.98	2.91	-

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	6.29	6.24	6.20	6.16	6.09	5.97	5.80	5.54
35	6.95	6.92	6.89	6.86	6.80	6.69	6.52	-
40	7.69	7.67	7.65	7.63	7.57	7.46	7.28	-
45	-	8.55	8.53	8.50	8.43	8.32	8.13	-
50	-	-	9.57	9.53	9.46	9.32	9.11	-
55	-	-	-	10.78	10.68	10.53	10.29	-
60	-	-	-	-	12.17	11.98	11.71	-
65	-	-	-	-	-	13.73	13.42	-

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	52.11	66.26	82.44	100.97	122.19	146.43	174.05	205.37
35	50.95	65.10	81.29	99.86	121.13	145.46	173.17	-
40	49.65	63.75	79.91	98.46	119.74	144.10	171.85	-
45	-	62.13	78.20	96.69	117.93	142.26	170.01	-
50	-	-	76.10	94.48	115.62	139.87	167.57	-
55	-	-	-	91.73	112.73	136.86	164.45	-
60	-	-	-	-	109.18	133.13	160.57	-
65	-	-	-	-	-	128.61	155.84	-

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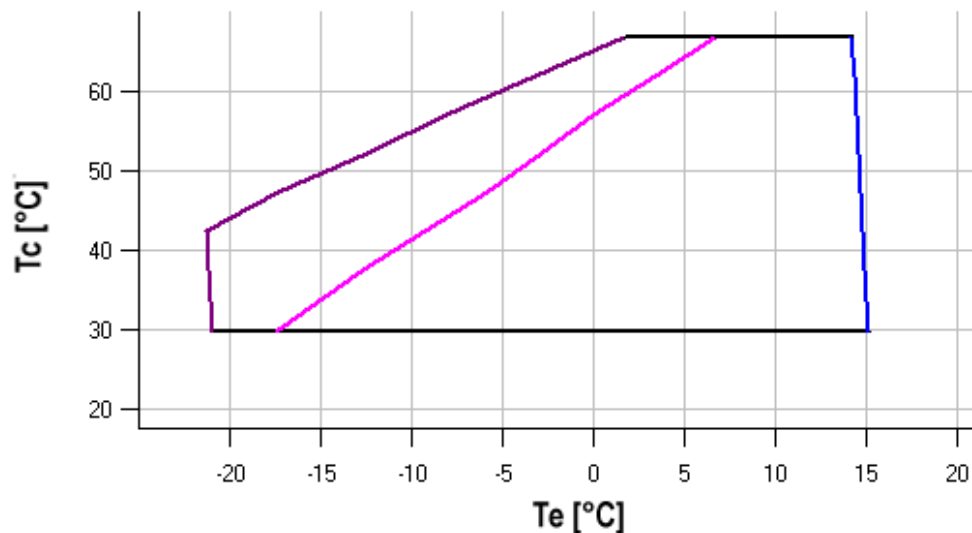
Model: ZR28K3E-PFJ

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.91	2.49	3.17	3.97	4.95	6.15	7.66	9.64
35	1.59	2.08	2.65	3.32	4.14	5.13	6.37	-
40	1.31	1.72	2.21	2.78	3.46	4.30	5.33	-
45	-	1.41	1.82	2.30	2.88	3.58	4.45	-
50	-	-	1.47	1.88	2.36	2.95	3.67	-
55	-	-	-	1.50	1.90	2.39	2.99	-
60	-	-	-	-	1.50	1.90	2.39	-
65	-	-	-	-	-	1.48	1.88	-

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]

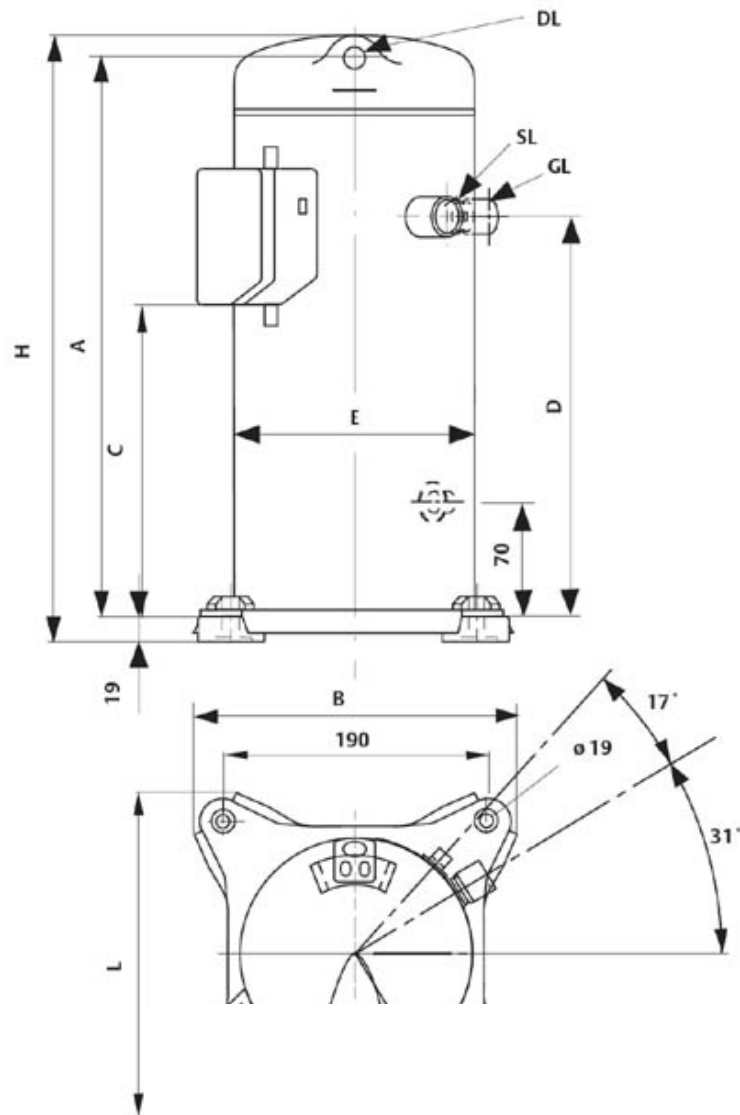
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Dimensions



A	338 mm
B	240 mm
C	202 mm
D	245 mm
E	165 mm
H	383 mm
L	231 mm

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Specialist Distributors of Compressors and Refrigeration Spares

Model: ZR28K3E-PFJ

Image

