

R.E.S.L

Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

Model: ZR28K3E-TFD

Data

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]:	380-420/3/50Hz
Locked rotor current [A]:	32
Max. operating current [A]:	5,1
Winding resistance [Ω]:	5,94

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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Capacity

R22

Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.82	3.55	4.39	5.35	6.45	7.70	9.10
35	2.67	3.36	4.17	5.10	6.16	7.36	8.71
40	2.51	3.18	3.95	4.84	5.86	7.02	8.32
45	-	2.98	3.72	4.58	5.56	6.67	7.92
50	-	-	3.48	4.30	5.24	6.31	7.51
55	-	-	-	4.01	4.91	5.93	7.08
60	-	-	-	-	4.55	5.53	6.64
65	-	-	-	-	4.17	5.11	6.17

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	1.28	1.27	1.26	1.25	1.23	1.21	1.19
35	1.43	1.43	1.42	1.41	1.39	1.37	1.35
40	1.61	1.61	1.60	1.59	1.57	1.55	1.53
45	-	1.81	1.80	1.78	1.76	1.74	1.72
50	-	-	2.02	2.00	1.98	1.96	1.94
55	-	-	-	2.25	2.22	2.20	2.17
60	-	-	-	-	2.49	2.46	2.44
65	-	-	-	-	2.79	2.76	2.73

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.80	2.80	2.79	2.77	2.75	2.73	2.72
35	2.96	2.97	2.96	2.94	2.92	2.90	2.89
40	3.16	3.17	3.16	3.14	3.12	3.10	3.09
45	-	3.41	3.40	3.38	3.35	3.33	3.32
50	-	-	3.68	3.65	3.63	3.60	3.58
55	-	-	-	3.98	3.94	3.91	3.89
60	-	-	-	-	4.31	4.27	4.23
65	-	-	-	-	4.72	4.67	4.63

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	60.62	75.19	91.81	110.64	131.82	155.50	181.81
35	59.65	74.13	90.67	109.43	130.54	154.15	180.41
40	58.48	72.91	89.41	108.14	129.22	152.82	179.06
45	-	71.40	87.90	106.64	127.74	151.35	177.62
50	-	-	86.00	104.79	125.95	149.63	175.97
55	-	-	-	102.46	123.72	147.50	173.96
60	-	-	-	-	120.91	144.85	171.46
65	-	-	-	-	117.40	141.52	168.33

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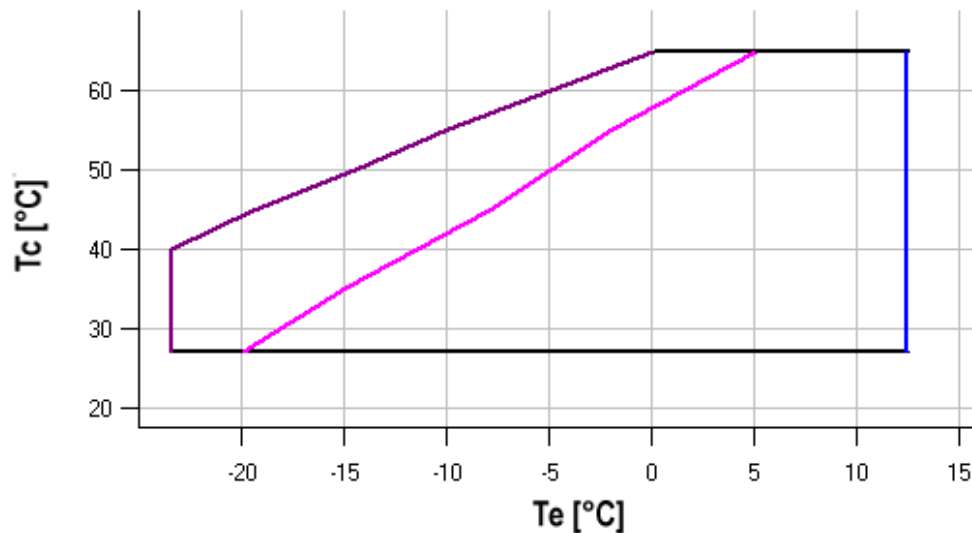
Model: ZR28K3E-TFD

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.21	2.78	3.47	4.29	5.25	6.36	7.62
35	1.86	2.35	2.93	3.62	4.43	5.37	6.43
40	1.56	1.97	2.47	3.05	3.74	4.54	5.44
45	-	1.65	2.07	2.57	3.15	3.83	4.60
50	-	-	1.72	2.15	2.65	3.22	3.88
55	-	-	-	1.78	2.21	2.70	3.26
60	-	-	-	-	1.83	2.24	2.72
65	-	-	-	-	1.49	1.85	2.26

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	1.54	2.02	2.64	3.40	4.27	5.28	6.40	-
35	1.45	1.90	2.49	3.20	4.04	4.99	6.06	-
40	1.36	1.79	2.34	3.01	3.81	4.72	5.74	6.87
45	-	1.67	2.19	2.83	3.58	4.45	5.42	6.50
50	-	1.55	2.04	2.64	3.36	4.18	5.10	6.13
55	-	-	1.88	2.45	3.12	3.90	4.78	5.75
60	-	-	-	2.25	2.88	3.62	4.45	5.37
65	-	-	-	2.03	2.63	3.32	4.11	4.98
70	-	-	-	-	2.36	3.01	3.75	4.58
75	-	-	-	-	2.06	2.68	3.38	4.15

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	36.30	46.78	59.88	75.38	93.10	112.83	134.39	-
35	35.98	46.29	59.20	74.52	92.05	111.59	132.95	-
40	35.61	45.80	58.59	73.78	91.18	110.59	131.81	154.66
45	-	45.21	57.93	73.05	90.38	109.71	130.85	153.62
50	-	44.38	57.09	72.20	89.51	108.83	129.95	152.69
55	-	-	55.96	71.12	88.47	107.82	128.98	151.75
60	-	-	-	69.66	87.12	106.57	127.82	150.68
65	-	-	-	67.72	85.33	104.94	126.34	149.35
70	-	-	-	-	83.00	102.82	124.43	147.65
75	-	-	-	-	79.99	100.08	121.96	145.44

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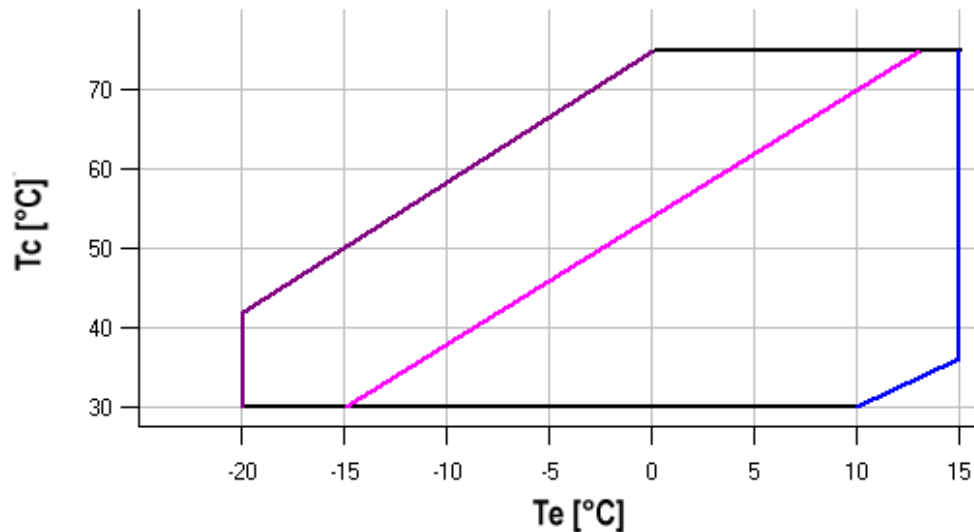
Model: ZR28K3E-TFD

Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.73	2.25	2.95	3.83	4.92	6.18	7.59	-
35	1.45	1.87	2.44	3.16	4.04	5.07	6.21	-
40	1.21	1.56	2.03	2.63	3.36	4.21	5.16	6.18
45	-	1.30	1.70	2.19	2.80	3.51	4.32	5.19
50	-	1.08	1.41	1.82	2.34	2.94	3.62	4.37
55	-	-	1.15	1.51	1.94	2.45	3.03	3.67
60	-	-	-	1.23	1.59	2.02	2.52	3.07
65	-	-	-	0.99	1.29	1.66	2.08	2.55
70	-	-	-	-	1.03	1.34	1.69	2.10
75	-	-	-	-	0.80	1.06	1.36	1.70

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	2.44	3.10	3.91	4.89	6.03	7.34	8.82	10.47
35	2.26	2.90	3.69	4.65	5.76	7.04	8.48	-
40	2.09	2.70	3.46	4.38	5.46	6.69	8.09	-
45	-	2.49	3.21	4.09	5.12	6.31	7.65	-
50	-	-	2.95	3.78	4.76	5.88	7.17	-
55	-	-	-	3.46	4.37	5.43	6.65	-
60	-	-	-	-	3.97	4.96	6.09	-
65	-	-	-	-	-	4.46	5.50	-

Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.22	1.21	1.21	1.20	1.20	1.18	1.16	1.13
35	1.38	1.37	1.37	1.37	1.36	1.35	1.32	-
40	1.55	1.56	1.56	1.56	1.55	1.53	1.50	-
45	-	1.76	1.77	1.76	1.75	1.73	1.70	-
50	-	-	2.00	2.00	1.99	1.97	1.93	-
55	-	-	-	2.26	2.25	2.23	2.18	-
60	-	-	-	-	2.55	2.52	2.47	-
65	-	-	-	-	-	2.85	2.80	-

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Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.75	2.74	2.74	2.74	2.73	2.72	2.69	2.63
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	3.37	3.37	3.36	3.34	3.29	-
50	-	-	3.67	3.67	3.66	3.63	3.58	-
55	-	-	-	4.02	4.01	3.97	3.91	-
60	-	-	-	-	4.41	4.37	4.30	-
65	-	-	-	-	-	4.83	4.75	-

Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	51.39	64.16	79.76	98.16	119.29	143.10	169.54	198.56
35	49.97	62.94	78.82	97.55	119.07	143.34	170.31	-
40	48.49	61.53	77.54	96.46	118.24	142.83	170.18	-
45	-	59.95	75.95	94.92	116.82	141.59	169.18	-
50	-	-	74.07	92.96	114.83	139.64	167.33	-
55	-	-	-	90.60	112.31	137.02	164.67	-
60	-	-	-	-	109.27	133.74	161.21	-
65	-	-	-	-	-	129.83	156.99	-

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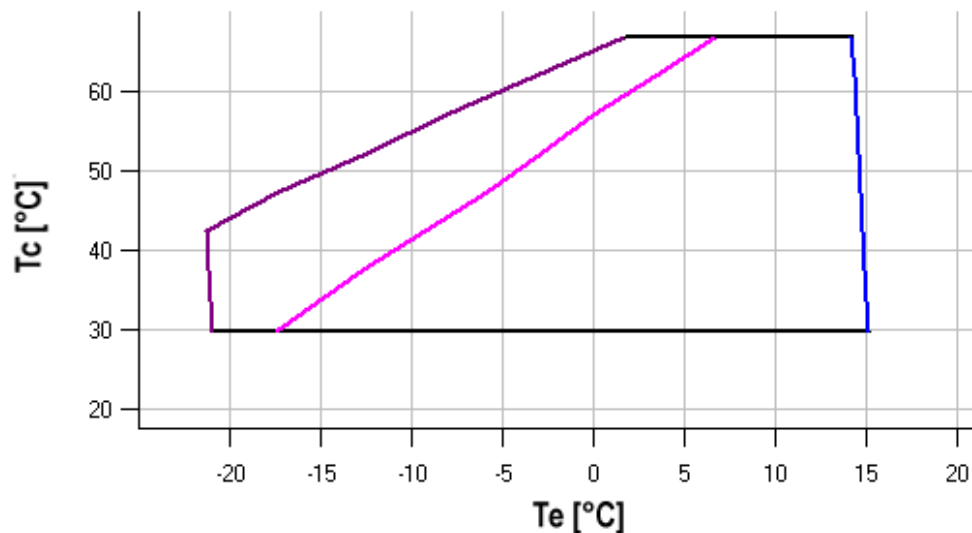
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Capacity

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.01	2.56	3.24	4.06	5.04	6.20	7.58	9.26
35	1.64	2.11	2.69	3.39	4.23	5.23	6.42	-
40	1.34	1.73	2.22	2.81	3.53	4.38	5.40	-
45	-	1.41	1.82	2.32	2.92	3.64	4.50	-
50	-	-	1.48	1.89	2.39	2.99	3.72	-
55	-	-	-	1.53	1.94	2.44	3.04	-
60	-	-	-	-	1.56	1.97	2.46	-
65	-	-	-	-	-	1.56	1.96	-

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]

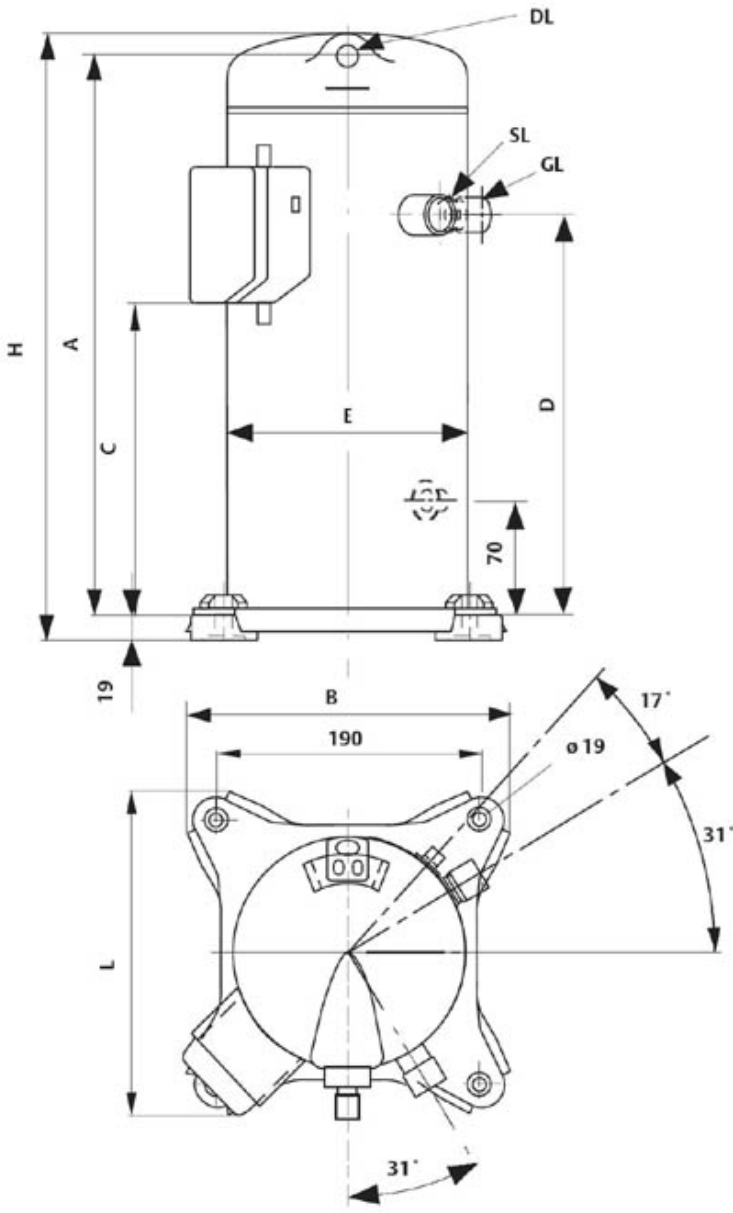
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Dimensions



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

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Image

