

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZF13K4E-TFD

Type: Hermetic scroll compressors

Producer: Copeland

Series: ZF

#### Technical data

Displacement [m <sup>3</sup> /h]:	11,8
Sound power [dBA]:	76
Sound pressure level [dB]:	65
Net Weight [kg]:	38
Gross Weight [kg]:	41
Oil charge [dm <sup>3</sup> ]:	1,9
Maximum high pressure [bar]:	28,8
Maximum standstill pressure [bar]:	21
Maximum lowside temperature [°C]:	50
PED category:	1

#### Electrical data

Power supply [V/~/Hz]:	380-420V/3/50Hz
Locked rotor current [A]:	51,5
Max. operating current [A]:	8,2
Winding resistance [Ω]:	3,6

#### Connections

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

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**Model: ZF13K4E-TFD**

R404A/R507

Capacity

### Cooling capacity [kW]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	3.04	3.88	4.87	6.01	7.32	8.81	-	-	-	-
15	2.88	3.70	4.66	5.76	7.03	8.47	10.10	-	-	-
20	2.73	3.52	4.44	5.50	6.72	8.11	9.68	11.45	-	-
25	2.59	3.34	4.21	5.22	6.39	7.72	9.23	10.93	12.84	-
30	2.45	3.15	3.98	4.93	6.03	7.30	8.74	10.36	12.19	14.24
35	2.32	2.97	3.73	4.63	5.66	6.85	8.21	9.76	11.50	13.45
40	2.19	2.78	3.48	4.31	5.27	6.38	7.66	9.11	10.76	12.61
45	2.06	2.59	3.22	3.97	4.85	5.88	7.07	8.43	9.97	11.72
50	1.94	2.40	2.95	3.62	4.42	5.35	6.44	7.70	9.14	10.77
55	1.82	2.20	2.68	3.26	3.96	4.79	5.78	6.93	8.25	9.77
60	-	-	-	-	-	4.21	5.08	6.11	7.32	8.71

### Power input [kW]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	1.32	1.37	1.44	1.54	1.65	1.78	-	-	-	-
15	1.44	1.49	1.56	1.65	1.75	1.88	2.03	-	-	-
20	1.56	1.62	1.69	1.77	1.88	2.00	2.15	2.31	-	-
25	1.71	1.76	1.83	1.92	2.02	2.14	2.28	2.44	2.62	-
30	1.87	1.93	2.00	2.08	2.19	2.30	2.44	2.59	2.76	2.95
35	2.06	2.12	2.19	2.28	2.37	2.49	2.62	2.76	2.93	3.11
40	2.27	2.33	2.41	2.49	2.59	2.70	2.83	2.97	3.13	3.30
45	2.51	2.58	2.65	2.74	2.84	2.95	3.07	3.21	3.36	3.52
50	2.78	2.85	2.93	3.02	3.12	3.23	3.35	3.48	3.62	3.78
55	3.08	3.16	3.24	3.33	3.43	3.54	3.66	3.79	3.93	4.08
60	-	-	-	-	-	3.90	4.01	4.14	4.28	4.42

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Capacity

#### Current [A]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	4.15	4.19	4.24	4.32	4.41	4.52	-	-	-	-
15	4.22	4.27	4.33	4.40	4.50	4.62	4.75	-	-	-
20	4.32	4.37	4.43	4.51	4.61	4.73	4.87	5.03	-	-
25	4.44	4.49	4.56	4.64	4.75	4.87	5.01	5.17	5.35	-
30	4.58	4.64	4.72	4.81	4.91	5.04	5.18	5.34	5.53	5.73
35	4.76	4.83	4.91	5.00	5.11	5.24	5.38	5.55	5.73	5.94
40	4.98	5.05	5.14	5.24	5.35	5.48	5.63	5.79	5.98	6.19
45	5.25	5.32	5.41	5.51	5.63	5.76	5.91	6.08	6.27	6.48
50	5.56	5.64	5.73	5.84	5.96	6.10	6.25	6.42	6.61	6.82
55	5.93	6.01	6.11	6.22	6.35	6.49	6.64	6.81	7.00	7.21
60	-	-	-	-	-	6.93	7.09	7.27	7.46	7.67

#### Mass flow [kg/h]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	58.40	78.16	99.57	123.34	150.18	180.81	-	-	-	-
15	58.72	78.13	99.39	123.22	150.35	181.48	217.33	-	-	-
20	58.98	77.93	98.94	122.75	150.05	181.58	218.04	260.15	-	-
25	59.22	77.59	98.26	121.93	149.31	181.13	218.09	260.92	310.33	-
30	59.45	77.16	97.37	120.79	148.15	180.16	217.53	260.98	311.22	368.97
35	59.71	76.65	96.30	119.38	146.61	178.70	216.37	260.33	311.31	370.00
40	60.03	76.09	95.08	117.71	144.71	176.78	214.65	259.02	310.62	370.15
45	60.43	75.51	93.74	115.82	142.48	174.43	212.39	257.07	309.19	369.46
50	60.95	74.95	92.30	113.73	139.95	171.68	209.63	254.51	307.05	367.95
55	61.62	74.42	90.81	111.48	137.15	168.55	206.39	251.37	304.22	365.65
60	-	-	-	-	-	165.08	202.69	247.68	300.74	362.59

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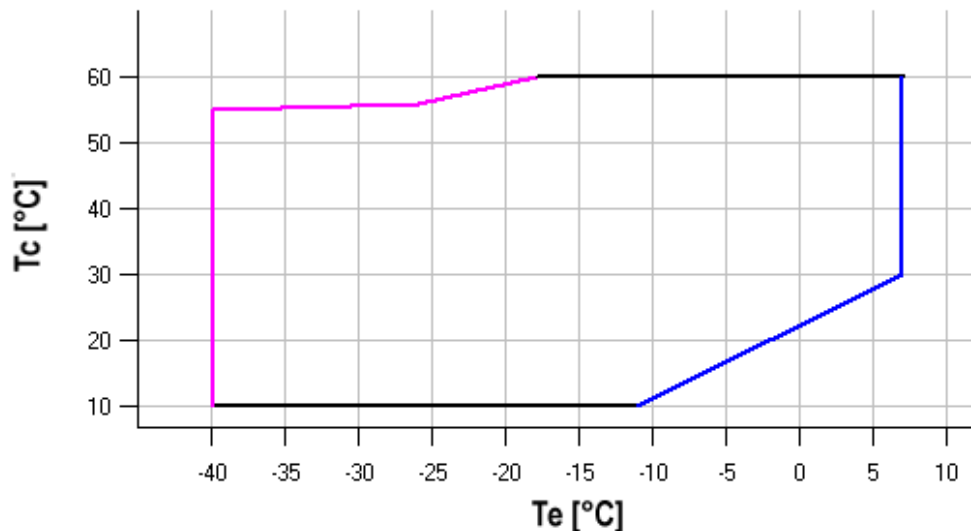
Model: ZF13K4E-TFD

Capacity

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

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.30	2.83	3.37	3.91	4.44	4.94	-	-	-	-
15	2.01	2.49	2.99	3.50	4.00	4.50	4.97	-	-	-
20	1.75	2.18	2.63	3.10	3.58	4.05	4.51	4.95	-	-
25	1.52	1.89	2.30	2.72	3.16	3.60	4.05	4.48	4.91	-
30	1.31	1.64	1.99	2.37	2.76	3.17	3.59	4.01	4.42	4.83
35	1.13	1.40	1.70	2.03	2.39	2.75	3.14	3.53	3.93	4.33
40	0.96	1.19	1.45	1.73	2.03	2.36	2.71	3.07	3.44	3.82
45	0.82	1.01	1.21	1.45	1.71	2.00	2.30	2.63	2.97	3.32
50	0.70	0.84	1.01	1.20	1.42	1.66	1.92	2.21	2.52	2.85
55	0.59	0.70	0.82	0.98	1.15	1.35	1.58	1.83	2.10	2.39
60	-	-	-	-	-	1.08	1.27	1.48	1.71	1.97

### Application range



- Maximum evaporating temperature
- 25°C suction gas return + liquid injection

Operating conditions: suction gas temperature 20°C, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

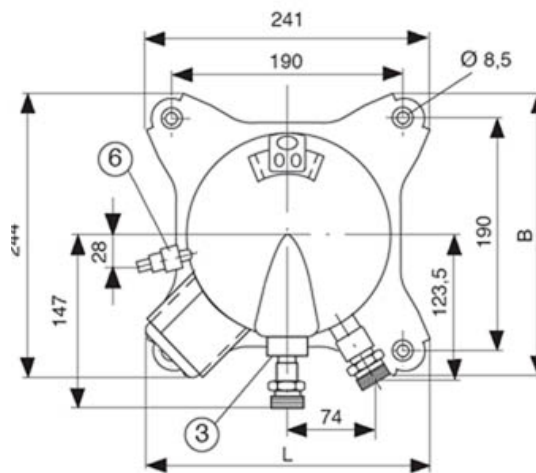
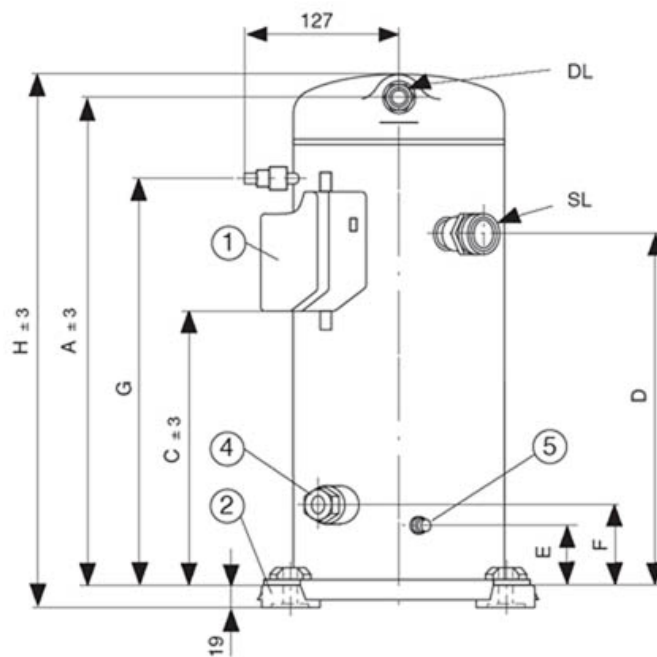
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### Dimensions



A	409,8 mm
C	233,4 mm
C1	-- mm
D	296,9 mm
E	47,5 mm
F	81,3 mm
G	341 mm

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**Specialist Distributors of Compressors and Refrigeration Spares**

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**Image**

