

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZF18K4E-TFD

Type: Hermetic scroll compressors

Producer: Copeland

Series: ZF

#### Technical data

Displacement [m <sup>3</sup> /h]:	17,1
Sound power [dBA]:	78
Sound pressure level [dB]:	67
Net Weight [kg]:	41
Gross Weight [kg]:	44
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]:	74
Max. operating current [A]:	12
Winding resistance [Ω]:	2,3

#### Connections

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

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Capacity

R404A/R507

### Cooling capacity [kW]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	4.44	5.64	7.12	8.89	10.98	13.42	-	-	-	-
15	4.27	5.42	6.82	8.49	10.47	12.77	15.43	-	-	-
20	4.10	5.19	6.51	8.09	9.95	12.12	14.63	17.49	-	-
25	3.93	4.96	6.20	7.69	9.43	11.47	13.82	16.50	19.56	-
30	3.74	4.71	5.88	7.27	8.90	10.80	12.99	15.51	18.37	21.59
35	3.54	4.46	5.55	6.84	8.35	10.12	12.15	14.49	17.16	20.17
40	3.33	4.18	5.19	6.39	7.78	9.41	11.29	13.46	15.93	18.73
45	3.09	3.89	4.82	5.91	7.19	8.68	10.41	12.40	14.67	17.26
50	2.83	3.56	4.42	5.41	6.57	7.92	9.49	11.31	13.39	15.76
55	2.53	3.21	3.98	4.88	5.92	7.14	8.55	10.18	12.07	14.22
60	-	-	-	-	-	6.31	7.56	9.02	10.71	12.65

### Power input [kW]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.06	2.16	2.27	2.40	2.54	2.71	-	-	-	-
15	2.21	2.31	2.42	2.56	2.70	2.87	3.05	-	-	-
20	2.38	2.48	2.60	2.73	2.88	3.05	3.23	3.43	-	-
25	2.57	2.67	2.79	2.93	3.08	3.24	3.43	3.63	3.84	-
30	2.79	2.89	3.01	3.15	3.30	3.46	3.65	3.84	4.06	4.30
35	3.04	3.14	3.27	3.40	3.55	3.71	3.89	4.09	4.31	4.54
40	3.32	3.43	3.55	3.69	3.84	4.00	4.18	4.37	4.58	4.81
45	3.65	3.76	3.88	4.01	4.16	4.32	4.50	4.69	4.89	5.12
50	4.02	4.12	4.25	4.38	4.52	4.68	4.86	5.04	5.25	5.47
55	4.43	4.54	4.66	4.79	4.94	5.09	5.26	5.45	5.64	5.86
60	-	-	-	-	-	5.55	5.72	5.90	6.09	6.30

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#### Current [A]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	5.82	5.89	5.98	6.10	6.25	6.42	-	-	-	-
15	5.80	5.89	6.00	6.15	6.32	6.53	6.75	-	-	-
20	5.81	5.92	6.05	6.22	6.41	6.64	6.89	7.17	-	-
25	5.86	5.98	6.13	6.32	6.53	6.78	7.05	7.35	7.68	-
30	5.97	6.10	6.27	6.47	6.70	6.96	7.26	7.58	7.92	8.30
35	6.16	6.30	6.48	6.69	6.93	7.21	7.52	7.85	8.22	8.61
40	6.44	6.59	6.77	6.99	7.25	7.54	7.86	8.21	8.59	8.99
45	6.83	6.98	7.17	7.40	7.66	7.96	8.29	8.65	9.04	9.46
50	7.35	7.50	7.70	7.92	8.19	8.49	8.83	9.19	9.59	10.02
55	8.02	8.17	8.36	8.58	8.85	9.15	9.49	9.86	10.27	10.71
60	-	-	-	-	-	9.96	10.30	10.68	11.08	11.52

#### Mass flow [kg/h]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	86.18	113.54	144.95	181.65	224.84	275.76	-	-	-	-
15	87.77	114.42	145.11	181.07	223.50	273.63	332.68	-	-	-
20	89.05	115.04	145.05	180.30	222.02	271.41	329.71	398.13	-	-
25	89.97	115.34	144.72	179.32	220.37	269.08	326.67	394.36	473.37	-
30	90.51	115.32	144.11	178.10	218.52	266.59	323.51	390.53	468.84	559.68
35	90.64	114.92	143.17	176.61	216.45	263.91	320.23	386.60	464.27	554.44
40	90.33	114.14	141.89	174.81	214.11	261.03	316.77	382.56	459.62	549.16
45	89.55	112.92	140.22	172.67	211.49	257.90	313.12	378.36	454.86	543.82
50	88.26	111.24	138.14	170.17	208.55	254.49	309.23	373.98	449.96	538.40
55	86.44	109.08	135.62	167.27	205.25	250.78	305.09	369.39	444.90	532.85
60	-	-	-	-	-	246.74	300.66	364.55	439.64	527.14

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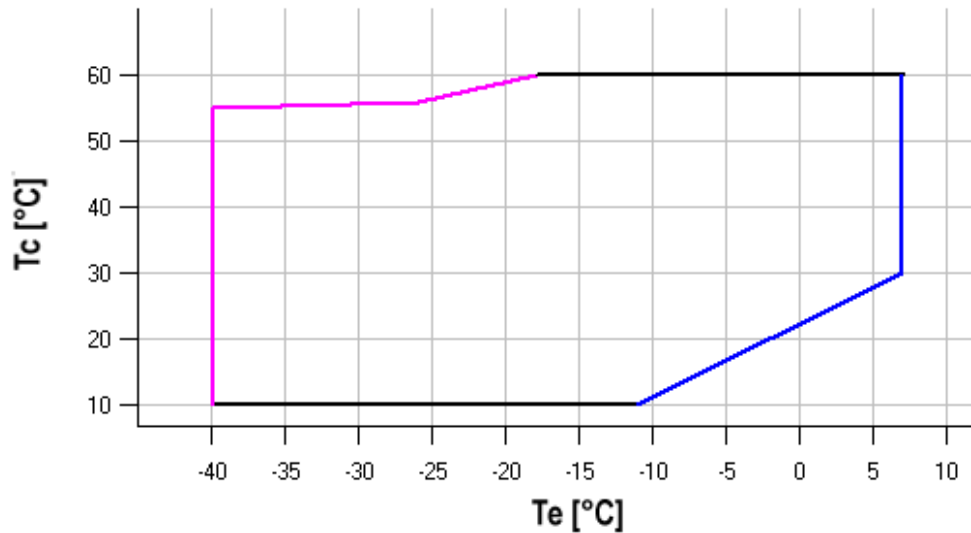
**Model: ZF18K4E-TFD**



Capacity

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

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.16	2.62	3.14	3.71	4.32	4.95	-	-	-	-
15	1.93	2.35	2.81	3.32	3.87	4.45	5.06	-	-	-
20	1.73	2.09	2.51	2.96	3.46	3.98	4.53	5.10	-	-
25	1.53	1.85	2.22	2.63	3.07	3.54	4.03	4.55	5.09	-
30	1.34	1.63	1.95	2.31	2.70	3.12	3.56	4.03	4.52	5.03
35	1.17	1.42	1.70	2.01	2.35	2.72	3.12	3.54	3.99	4.45
40	1.00	1.22	1.46	1.73	2.03	2.35	2.70	3.08	3.48	3.89
45	0.85	1.03	1.24	1.47	1.73	2.01	2.32	2.65	3.00	3.37
50	0.70	0.86	1.04	1.24	1.45	1.69	1.96	2.24	2.55	2.88
55	0.57	0.71	0.85	1.02	1.20	1.40	1.62	1.87	2.14	2.43
60	-	-	-	-	-	1.14	1.32	1.53	1.76	2.01

### 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]

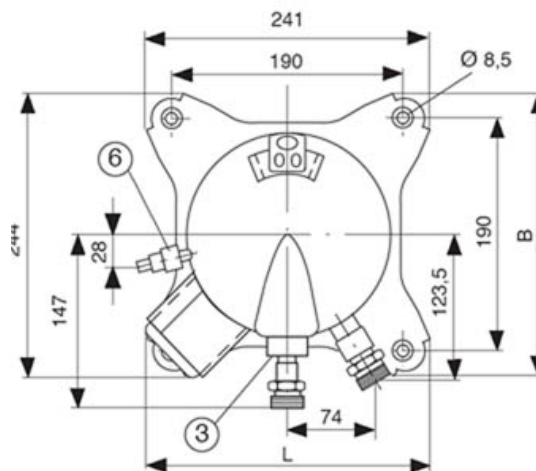
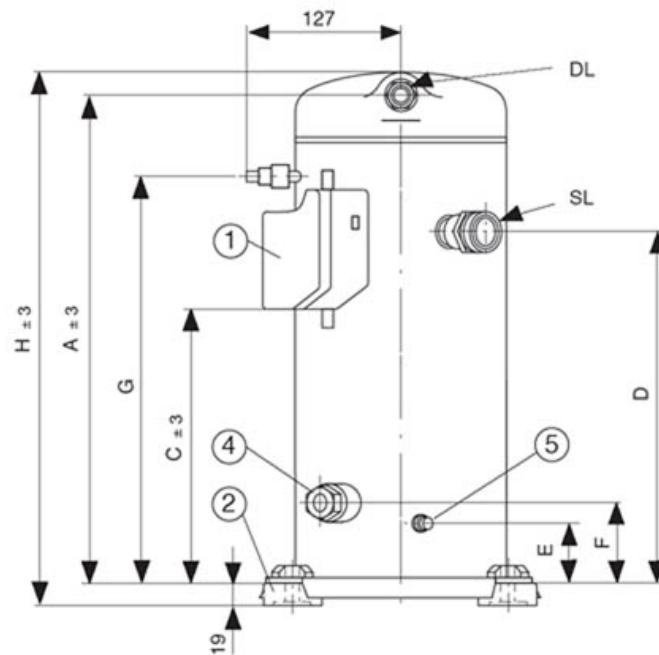
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### Dimensions



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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**Image**

