

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZR34K3E-TFD

#### Data

Type: Scroll compressor

Producer: Copeland

Series: ZR

#### Technical data

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

#### Electrical data

Power supply [V/~/Hz]:	380-420/3/50Hz
Locked rotor current [A]:	40
Max. operating current [A]:	5,6
Winding resistance [ $\Omega$ ]:	4,83

#### 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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### Model: ZR34K3E-TFD

Capacity

R22

#### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	3.37	4.23	5.23	6.38	7.69	9.18	10.84
35	3.18	4.01	4.97	6.08	7.34	8.77	10.38
40	2.99	3.78	4.71	5.77	6.98	8.36	9.91
45	-	3.55	4.43	5.46	6.62	7.94	9.44
50	-	-	4.15	5.13	6.24	7.52	8.95
55	-	-	-	4.77	5.85	7.07	8.44
60	-	-	-	-	5.42	6.59	7.91
65	-	-	-	-	4.97	6.09	7.35

#### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	1.52	1.51	1.50	1.48	1.46	1.44	1.42
35	1.70	1.70	1.69	1.67	1.65	1.63	1.61
40	1.91	1.91	1.90	1.88	1.86	1.83	1.81
45	-	2.14	2.13	2.11	2.09	2.06	2.04
50	-	-	2.39	2.37	2.34	2.31	2.29
55	-	-	-	2.65	2.62	2.59	2.57
60	-	-	-	-	2.94	2.91	2.87
65	-	-	-	-	3.29	3.25	3.22

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### Model: ZR34K3E-TFD

Capacity

#### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	3.32	3.33	3.31	3.29	3.27	3.24	3.23
35	3.51	3.52	3.51	3.49	3.46	3.44	3.43
40	3.74	3.75	3.74	3.72	3.69	3.67	3.66
45	-	4.03	4.02	4.00	3.97	3.94	3.93
50	-	-	4.35	4.32	4.29	4.26	4.24
55	-	-	-	4.70	4.66	4.62	4.59
60	-	-	-	-	5.08	5.03	4.99
65	-	-	-	-	5.56	5.50	5.45

#### Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	72.26	89.60	109.41	131.85	157.08	185.29	216.64
35	71.10	88.35	108.06	130.41	155.56	183.69	214.97
40	69.70	86.89	106.56	128.87	153.99	182.10	213.36
45	-	85.07	104.75	127.07	152.22	180.36	211.65
50	-	-	102.47	124.86	150.08	178.30	209.68
55	-	-	-	122.08	147.42	175.77	207.29
60	-	-	-	-	144.07	172.60	204.31
65	-	-	-	-	139.87	168.64	200.59

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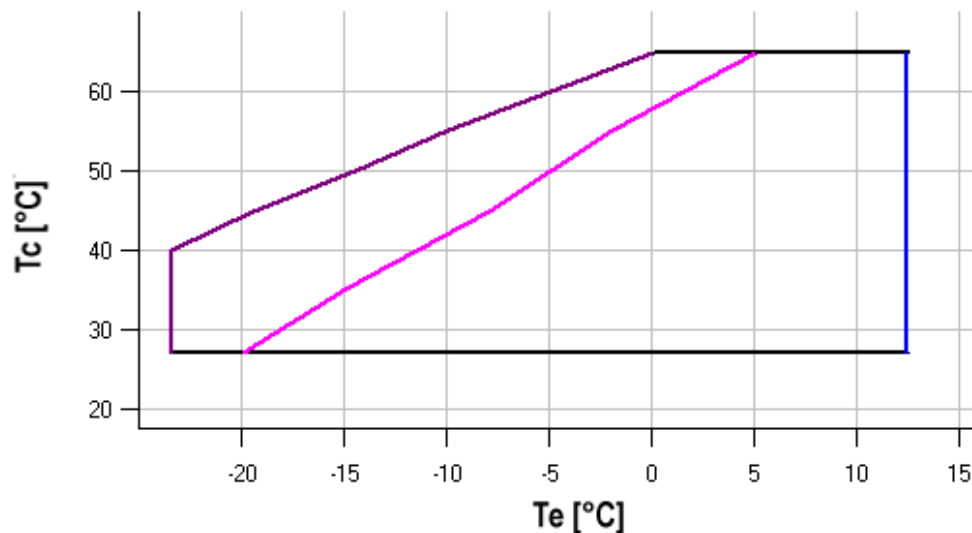
### Model: ZR34K3E-TFD

Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.22	2.79	3.48	4.30	5.26	6.38	7.64
35	1.87	2.36	2.94	3.64	4.45	5.39	6.46
40	1.57	1.98	2.48	3.07	3.76	4.56	5.47
45	-	1.66	2.08	2.59	3.18	3.85	4.63
50	-	-	1.74	2.17	2.67	3.25	3.91
55	-	-	-	1.80	2.23	2.72	3.29
60	-	-	-	-	1.84	2.27	2.75
65	-	-	-	-	1.51	1.87	2.29

#### 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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## Richmonds Earl Shilton Limited

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### Model: ZR34K3E-TFD

Capacity

R134a

#### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.95	2.53	3.22	4.04	5.00	6.12	7.42	-
35	1.82	2.38	3.04	3.83	4.75	5.83	7.07	-
40	1.69	2.23	2.86	3.61	4.49	5.53	6.72	8.09
45	-	2.07	2.68	3.39	4.23	5.21	6.36	7.67
50	-	1.91	2.49	3.16	3.96	4.90	5.98	7.24
55	-	-	2.29	2.93	3.69	4.57	5.60	6.79
60	-	-	-	2.69	3.40	4.23	5.21	6.33
65	-	-	-	2.45	3.11	3.89	4.80	5.87
70	-	-	-	-	2.81	3.53	4.39	5.39
75	-	-	-	-	2.50	3.17	3.96	4.89

#### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.10	1.09	1.07	1.05	1.03	1.01	0.99	-
35	1.24	1.23	1.22	1.20	1.17	1.15	1.13	-
40	1.40	1.39	1.37	1.35	1.33	1.30	1.28	1.27
45	-	1.56	1.55	1.52	1.50	1.47	1.45	1.44
50	-	1.76	1.74	1.72	1.69	1.66	1.64	1.62
55	-	-	1.96	1.93	1.90	1.87	1.84	1.82
60	-	-	-	2.17	2.14	2.10	2.07	2.05
65	-	-	-	2.44	2.40	2.36	2.33	2.30
70	-	-	-	-	2.70	2.66	2.62	2.58
75	-	-	-	-	3.03	2.98	2.94	2.90

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**Specialist Distributors of Compressors and Refrigeration Spares**

**Model: ZR34K3E-TFD**

**Capacity**

## Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.91	2.91	2.90	2.88	2.86	2.84	2.82	-
35	3.05	3.04	3.03	3.01	3.00	2.98	2.96	-
40	3.21	3.20	3.19	3.17	3.15	3.13	3.11	3.10
45	-	3.39	3.37	3.35	3.33	3.31	3.29	3.27
50	-	3.62	3.59	3.57	3.54	3.51	3.49	3.47
55	-	-	3.86	3.82	3.79	3.76	3.73	3.71
60	-	-	-	4.12	4.08	4.04	4.01	3.98
65	-	-	-	4.48	4.43	4.38	4.34	4.30
70	-	-	-	-	4.83	4.77	4.72	4.68
75	-	-	-	-	5.30	5.23	5.17	5.11

## Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	45.93	58.48	73.01	89.77	108.98	130.90	155.75	-
35	45.29	57.84	72.37	89.12	108.34	130.25	155.11	-
40	44.53	57.08	71.61	88.36	107.57	129.49	154.35	182.38
45	-	56.16	70.69	87.45	106.66	128.58	153.44	181.48
50	-	55.08	69.60	86.36	105.57	127.49	152.35	180.39
55	-	-	68.31	85.06	104.27	126.19	151.06	179.10
60	-	-	-	83.53	102.74	124.66	149.53	177.58
65	-	-	-	81.73	100.94	122.87	147.73	175.79
70	-	-	-	-	98.85	120.77	145.64	173.70
75	-	-	-	-	96.43	118.36	143.23	171.29

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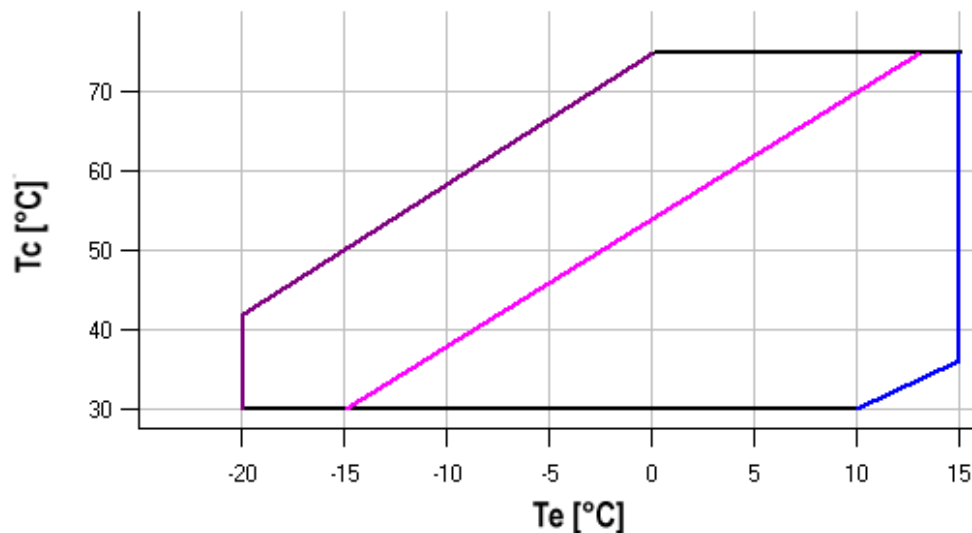
**Model: ZR34K3E-TFD**




Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.78	2.32	2.99	3.83	4.85	6.08	7.51	-
35	1.47	1.93	2.50	3.20	4.05	5.07	6.25	-
40	1.21	1.60	2.08	2.67	3.39	4.24	5.23	6.36
45	-	1.32	1.73	2.22	2.82	3.54	4.38	5.33
50	-	1.09	1.43	1.84	2.35	2.95	3.66	4.46
55	-	-	1.17	1.52	1.94	2.45	3.04	3.72
60	-	-	-	1.24	1.59	2.01	2.51	3.09
65	-	-	-	1.00	1.29	1.65	2.06	2.55
70	-	-	-	-	1.04	1.33	1.68	2.08
75	-	-	-	-	0.82	1.06	1.35	1.69

### 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]

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZR34K3E-TFD

Capacity

R407C

#### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.91	3.69	4.66	5.82	7.18	8.73	10.49	12.45
35	2.70	3.45	4.40	5.53	6.86	8.37	10.09	-
40	2.49	3.21	4.12	5.21	6.49	7.96	9.62	-
45	-	2.96	3.82	4.86	6.09	7.50	9.10	-
50	-	-	3.52	4.50	5.66	7.00	8.53	-
55	-	-	-	4.12	5.20	6.46	7.90	-
60	-	-	-	-	4.72	5.90	7.24	-
65	-	-	-	-	-	5.30	6.54	-

#### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.43	1.42	1.41	1.41	1.40	1.38	1.36	1.32
35	1.62	1.61	1.61	1.61	1.60	1.58	1.55	-
40	1.83	1.83	1.83	1.83	1.82	1.80	1.76	-
45	-	2.08	2.08	2.08	2.07	2.04	2.00	-
50	-	-	2.36	2.36	2.35	2.32	2.27	-
55	-	-	-	2.68	2.66	2.63	2.58	-
60	-	-	-	-	3.02	2.98	2.93	-
65	-	-	-	-	-	3.38	3.32	-



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### Model: ZR34K3E-TFD

Capacity

#### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	3.34	3.33	3.32	3.32	3.31	3.29	3.26	3.20
35	3.53	3.52	3.52	3.52	3.51	3.49	3.45	-
40	3.77	3.77	3.77	3.77	3.77	3.74	3.69	-
45	-	4.07	4.08	4.08	4.07	4.04	3.98	-
50	-	-	4.43	4.44	4.43	4.39	4.32	-
55	-	-	-	4.86	4.84	4.80	4.73	-
60	-	-	-	-	5.33	5.28	5.19	-
65	-	-	-	-	-	5.83	5.73	-

#### Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	61.23	76.39	94.93	116.78	141.89	170.19	201.63	236.13
35	59.54	74.95	93.82	116.06	141.64	170.48	202.53	-
40	57.79	73.28	92.30	114.78	140.66	169.88	202.38	-
45	-	71.41	90.42	112.97	138.98	168.41	201.19	-
50	-	-	88.20	110.64	136.63	166.11	199.01	-
55	-	-	-	107.85	133.64	163.00	195.85	-
60	-	-	-	-	130.04	159.11	191.75	-
65	-	-	-	-	-	154.48	186.73	-

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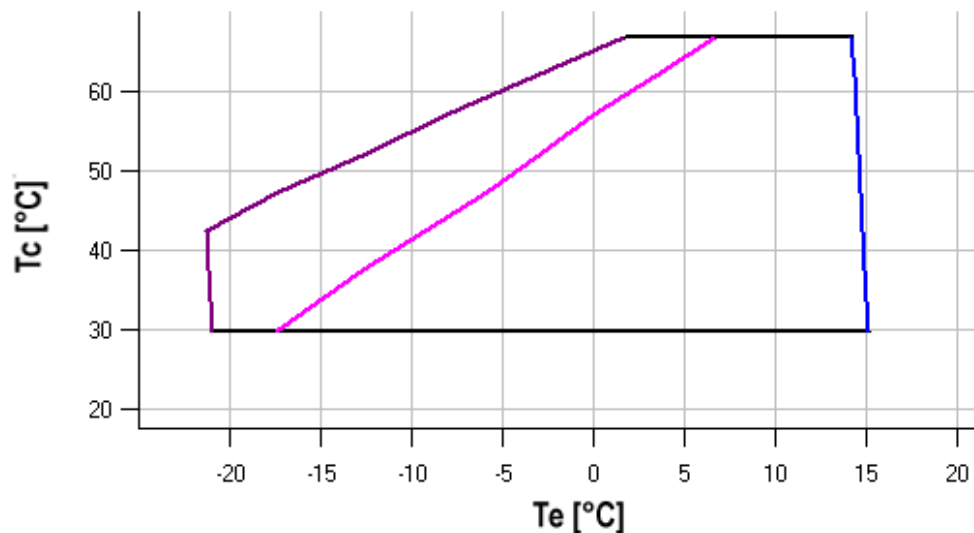
### Model: ZR34K3E-TFD

Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.04	2.60	3.30	4.13	5.13	6.31	7.72	9.43
35	1.67	2.14	2.73	3.44	4.29	5.30	6.51	-
40	1.36	1.75	2.25	2.85	3.57	4.43	5.46	-
45	-	1.43	1.84	2.34	2.95	3.67	4.55	-
50	-	-	1.49	1.91	2.41	3.02	3.75	-
55	-	-	-	1.54	1.95	2.46	3.06	-
60	-	-	-	-	1.57	1.98	2.47	-
65	-	-	-	-	-	1.57	1.97	-

#### 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]

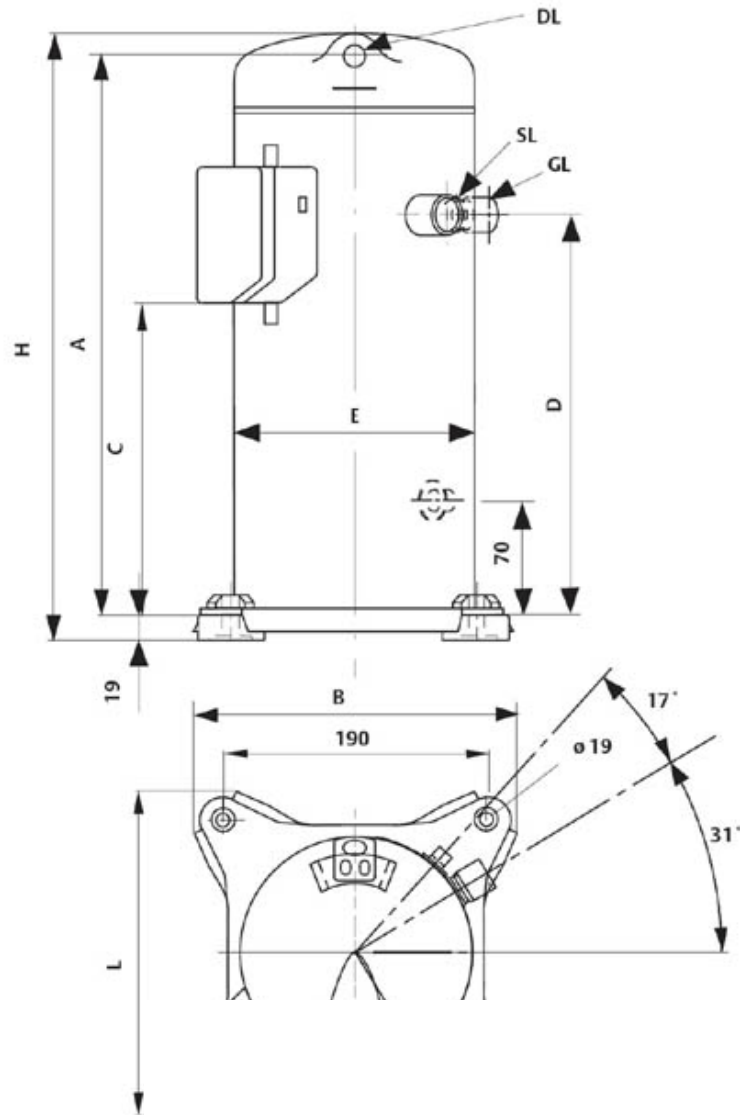
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**Specialist Distributors of Compressors and Refrigeration Spares**

**Model: ZR34K3E-TFD**

**Dimensions**



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

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**Specialist Distributors of Compressors and Refrigeration Spares**

**Model: ZR34K3E-TFD**

**Image**

