

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZR72KCE-TFD

#### Data

Type: Scroll compressor

Producer: Copeland

Series: ZR

### Technical data

Nominal motor power [HP]:	6
Displacement [m <sup>3</sup> /h]:	17
Sound pressure level :	61
Gross/Net weight [kg]:	44/40
Oil charge [dm <sup>3</sup> ]:	1,7

### Electrical data

Power supply [V/~/Hz]:	380-420/3/50Hz
Locked rotor current [A]:	74
Max. operating current [A]:	12,1
Winding resistance [ $\Omega$ ]:	2,27

### Connections

	<u>milimeters</u>	<u>inches</u>
Suction Rotolock valve connection:		-
Discharge Rotolock valve connection:		-
Suction connection with supplied sleeve:		7/8"
Discharge connection with supplied sleeve:		1/2"

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZR72KCE-TFD

Capacity

R22

#### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	7.35	9.19	11.28	13.65	16.34	19.38	22.82
35	6.96	8.74	10.77	13.07	15.67	18.61	21.93
40	6.51	8.25	10.21	12.43	14.94	17.78	20.97
45	-	7.72	9.61	11.75	14.16	16.89	19.96
50	-	-	8.97	11.02	13.33	15.95	18.89
55	-	-	-	10.26	12.47	14.97	17.78
60	-	-	-	-	11.58	13.95	16.63
65	-	-	-	-	10.66	12.90	15.45

#### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	3.16	3.16	3.16	3.17	3.19	3.22	3.27
35	3.50	3.49	3.49	3.49	3.51	3.53	3.57
40	3.90	3.88	3.87	3.87	3.88	3.89	3.92
45	-	4.32	4.31	4.30	4.30	4.31	4.33
50	-	-	4.80	4.78	4.78	4.78	4.79
55	-	-	-	5.32	5.31	5.30	5.31
60	-	-	-	-	5.89	5.88	5.88
65	-	-	-	-	6.53	6.52	6.51

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZR72KCE-TFD

Capacity

#### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	6.21	6.22	6.22	6.24	6.26	6.31	6.39
35	6.67	6.67	6.67	6.67	6.68	6.72	6.78
40	7.23	7.22	7.20	7.19	7.19	7.22	7.27
45	-	7.85	7.83	7.80	7.80	7.81	7.85
50	-	-	8.55	8.52	8.50	8.50	8.53
55	-	-	-	9.33	9.30	9.29	9.31
60	-	-	-	-	10.21	10.19	10.20
65	-	-	-	-	11.24	11.21	11.21

#### Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	157.84	194.84	236.08	282.19	333.79	391.50	455.96
35	155.35	192.65	234.14	280.43	332.16	389.94	454.41
40	151.78	189.37	231.07	277.53	329.36	387.19	451.64
45	-	185.03	226.94	273.54	325.45	383.30	447.71
50	-	-	221.79	268.51	320.48	378.33	442.68
55	-	-	-	262.50	314.50	372.33	436.59
60	-	-	-	-	307.58	365.36	429.52
65	-	-	-	-	299.76	357.47	421.51

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

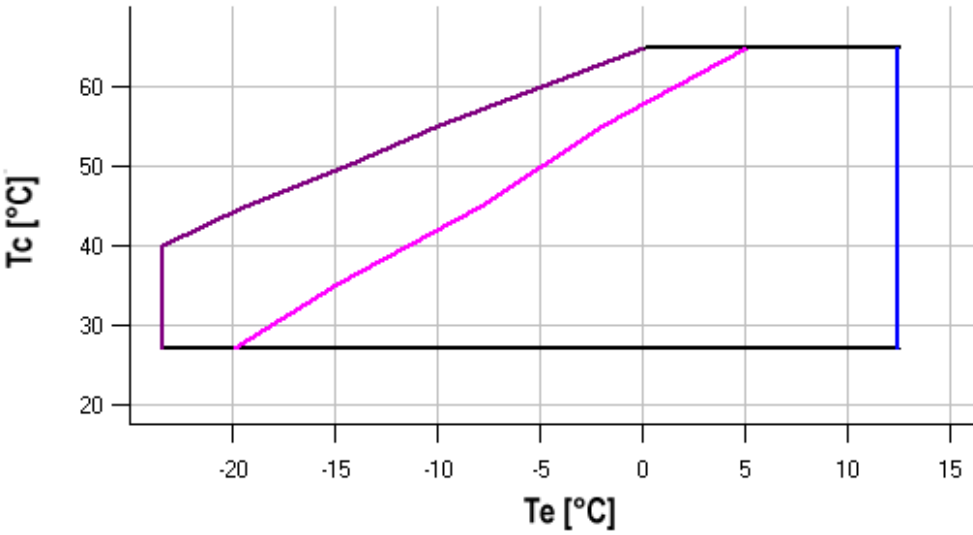
**Model: ZR72KCE-TFD**

Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.33	2.91	3.57	4.31	5.12	6.01	6.97
35	1.99	2.50	3.09	3.74	4.47	5.27	6.14
40	1.67	2.12	2.64	3.21	3.85	4.57	5.35
45	-	1.78	2.23	2.73	3.29	3.92	4.61
50	-	-	1.87	2.30	2.79	3.34	3.94
55	-	-	-	1.93	2.35	2.82	3.35
60	-	-	-	-	1.96	2.37	2.83
65	-	-	-	-	1.63	1.98	2.37

**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: ZR72KCE-TFD**

Capacity

R134a

### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	4.32	5.54	7.03	8.79	10.86	13.25	15.98	-
35	4.02	5.18	6.60	8.29	10.28	12.59	15.22	-
40	3.73	4.82	6.17	7.78	9.69	11.90	14.44	17.33
45	-	4.47	5.74	7.26	9.08	11.19	13.63	16.41
50	-	4.14	5.31	6.74	8.45	10.47	12.79	15.46
55	-	-	4.88	6.21	7.82	9.72	11.93	14.47
60	-	-	-	5.68	7.17	8.95	11.04	13.44
65	-	-	-	5.15	6.52	8.17	10.12	12.39
70	-	-	-	-	5.85	7.37	9.18	11.30
75	-	-	-	-	5.18	6.55	8.21	10.18

### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.02	2.01	2.01	2.02	2.04	2.06	2.09	-
35	2.29	2.28	2.28	2.29	2.30	2.32	2.35	-
40	2.59	2.57	2.56	2.57	2.58	2.60	2.62	2.65
45	-	2.90	2.88	2.88	2.89	2.90	2.92	2.94
50	-	3.27	3.24	3.23	3.23	3.24	3.26	3.27
55	-	-	3.66	3.64	3.63	3.63	3.63	3.64
60	-	-	-	4.10	4.08	4.07	4.07	4.07
65	-	-	-	4.64	4.60	4.58	4.57	4.56
70	-	-	-	-	5.20	5.17	5.14	5.12
75	-	-	-	-	5.89	5.84	5.79	5.76

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZR72KCE-TFD**

Capacity

### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	4.93	4.94	4.94	4.94	4.95	4.97	5.01	-
35	5.20	5.20	5.21	5.21	5.22	5.24	5.28	-
40	5.52	5.52	5.52	5.52	5.53	5.55	5.58	5.64
45	-	5.91	5.90	5.89	5.89	5.91	5.94	5.99
50	-	6.37	6.35	6.34	6.33	6.33	6.35	6.40
55	-	-	6.89	6.87	6.85	6.84	6.85	6.89
60	-	-	-	7.50	7.47	7.44	7.44	7.46
65	-	-	-	8.25	8.19	8.16	8.14	8.14
70	-	-	-	-	9.05	8.99	8.95	8.94
75	-	-	-	-	10.04	9.96	9.90	9.86

### Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	101.78	128.21	159.43	195.59	236.84	283.32	335.18	-
35	99.78	125.84	156.88	193.04	234.48	281.35	333.78	-
40	97.99	123.55	154.27	190.31	231.81	278.92	331.79	390.57
45	-	121.28	151.55	187.33	228.76	275.99	329.16	388.43
50	-	118.97	148.67	184.05	225.28	272.49	325.84	385.47
55	-	-	145.56	180.43	221.32	268.38	321.77	381.63
60	-	-	-	176.40	216.83	263.61	316.91	376.86
65	-	-	-	171.92	211.75	258.12	311.19	371.11
70	-	-	-	-	206.03	251.86	304.58	364.33
75	-	-	-	-	199.61	244.77	297.00	356.46

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

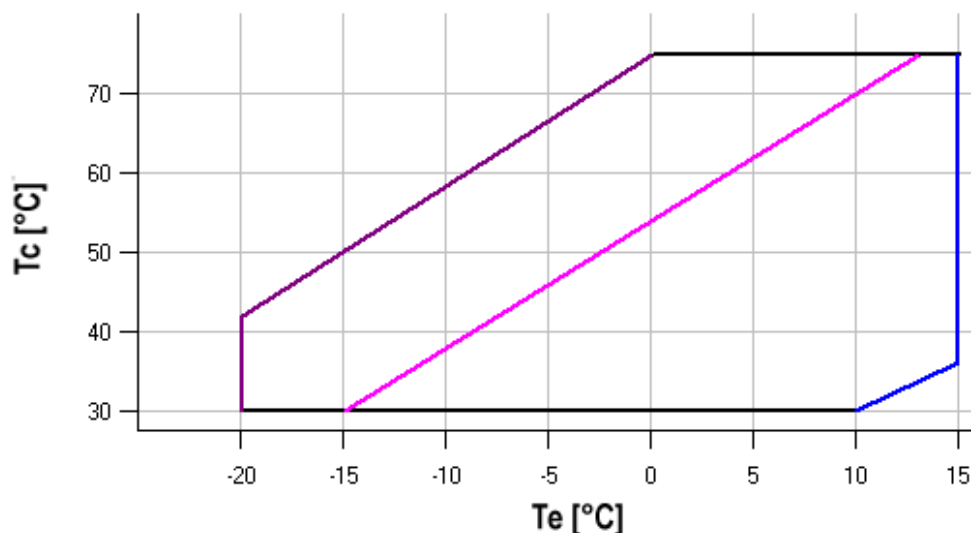
**Model: ZR72KCE-TFD**

Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.14	2.76	3.49	4.35	5.32	6.42	7.64	-
35	1.75	2.27	2.90	3.63	4.47	5.42	6.48	-
40	1.44	1.88	2.41	3.03	3.75	4.58	5.51	6.55
45	-	1.54	1.99	2.52	3.14	3.86	4.67	5.57
50	-	1.27	1.64	2.08	2.61	3.23	3.93	4.72
55	-	-	1.33	1.71	2.16	2.68	3.28	3.97
60	-	-	-	1.39	1.76	2.20	2.71	3.30
65	-	-	-	1.11	1.42	1.78	2.22	2.72
70	-	-	-	-	1.13	1.43	1.79	2.21
75	-	-	-	-	0.88	1.12	1.42	1.77

### 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: ZR72KCE-TFD**

Capacity

R407C

### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	6.37	8.10	10.16	12.60	15.47	18.82	22.71	27.18
35	5.91	7.64	9.65	11.99	14.72	17.88	21.54	-
40	5.31	7.05	9.03	11.29	13.89	16.88	20.31	-
45	-	6.36	8.32	10.52	13.01	15.84	19.06	-
50	-	-	7.55	9.70	12.09	14.78	17.81	-
55	-	-	-	8.85	11.16	13.72	16.57	-
60	-	-	-	-	10.25	12.69	15.38	-
65	-	-	-	-	-	11.71	14.26	-

### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.82	2.86	2.89	2.90	2.92	2.95	3.01	3.10
35	3.17	3.22	3.25	3.27	3.28	3.30	3.33	-
40	3.55	3.62	3.66	3.67	3.68	3.69	3.71	-
45	-	4.05	4.10	4.13	4.14	4.15	4.15	-
50	-	-	4.59	4.63	4.65	4.66	4.66	-
55	-	-	-	5.18	5.21	5.23	5.23	-
60	-	-	-	-	5.84	5.86	5.87	-
65	-	-	-	-	-	6.56	6.58	-



# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZR72KCE-TFD**

Capacity

### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	5.78	5.83	5.86	5.88	5.91	5.95	6.02	6.14
35	6.24	6.31	6.35	6.37	6.39	6.41	6.46	-
40	6.75	6.85	6.90	6.93	6.94	6.95	6.98	-
45	-	7.45	7.52	7.56	7.58	7.59	7.60	-
50	-	-	8.23	8.29	8.32	8.33	8.33	-
55	-	-	-	9.12	9.16	9.18	9.19	-
60	-	-	-	-	10.13	10.17	10.18	-
65	-	-	-	-	-	11.29	11.32	-

### Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	133.98	167.70	206.95	252.60	305.48	366.45	436.36	516.07
35	130.62	165.99	206.18	252.07	304.48	364.29	432.33	-
40	123.47	160.91	202.48	249.03	301.41	360.48	427.08	-
45	-	153.14	196.52	244.17	296.95	355.71	421.30	-
50	-	-	188.98	238.17	291.78	350.66	415.68	-
55	-	-	-	231.71	286.58	346.03	410.90	-
60	-	-	-	-	282.05	342.48	407.64	-
65	-	-	-	-	-	340.72	406.59	-

# R.E.S.L

**Richmonds Earl Shilton Limited**

**Specialist Distributors of Compressors and Refrigeration Spares**

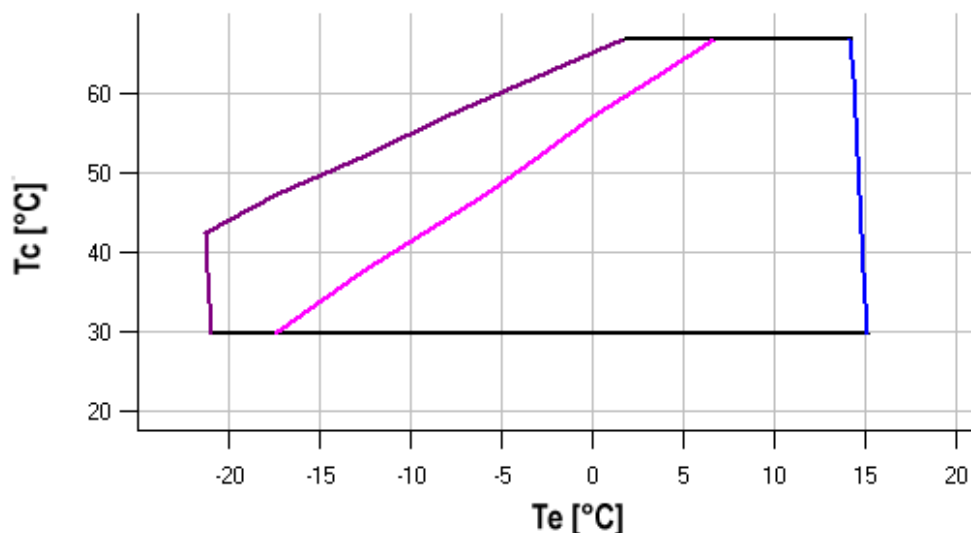
**Model: ZR72KCE-TFD**

**Capacity**

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.26	2.83	3.52	4.34	5.29	6.37	7.55	8.78
35	1.86	2.37	2.97	3.67	4.49	5.42	6.46	-
40	1.50	1.95	2.47	3.07	3.77	4.57	5.47	-
45	-	1.57	2.03	2.55	3.14	3.82	4.59	-
50	-	-	1.65	2.10	2.60	3.17	3.82	-
55	-	-	-	1.71	2.14	2.62	3.17	-
60	-	-	-	-	1.76	2.16	2.62	-
65	-	-	-	-	-	1.78	2.17	-

**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]

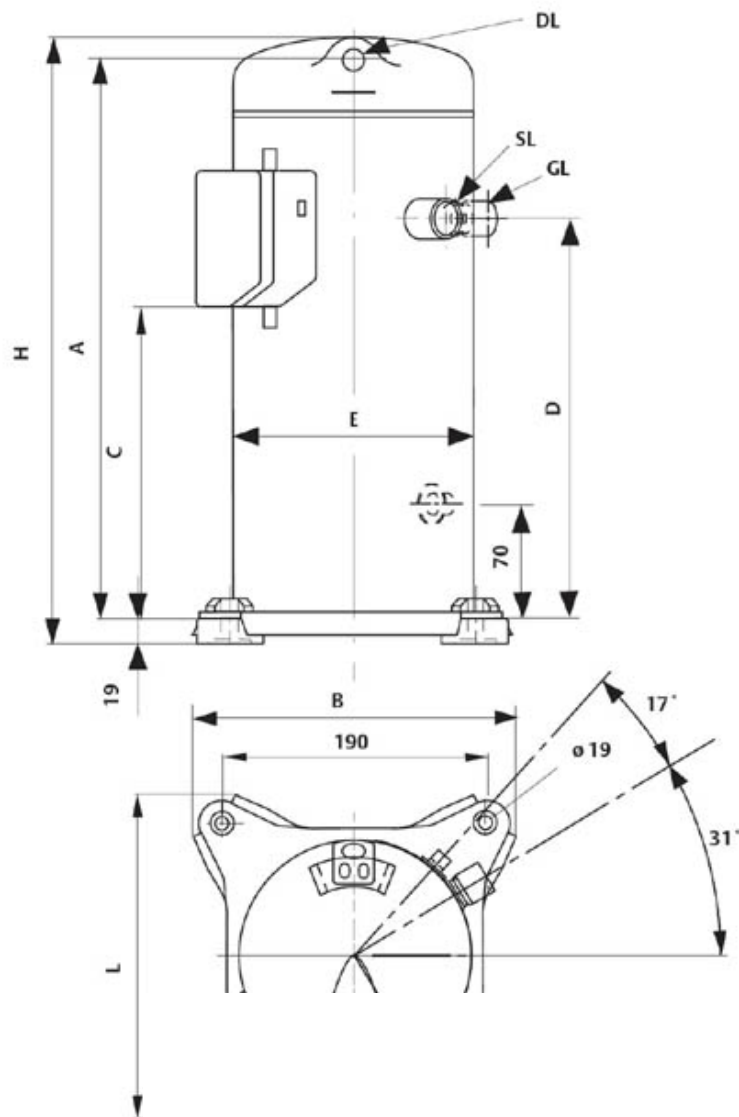
# R.E.S.L

**Richmonds Earl Shilton Limited**

**Specialist Distributors of Compressors and Refrigeration Spares**

**Model: ZR72KCE-TFD**

**Dimensions**



A	410 mm
B	240 mm
C	233 mm
D	297 mm
E	165 mm
H	457 mm
L	247 mm

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

**Model: ZR72KCE-TFD**

Image

