

# R.E.S.L

## Richmonds Earl Shilton Limited

Specialist Distributors of Compressors and Refrigeration Spares

### Model: ZR18K4E-PFJ

#### Data

Type: Scroll compressor

Producer: Copeland

Series: ZR

#### Technical data

Nominal motor power [HP]:	1,5
Displacement [m <sup>3</sup> /h]:	4,4
Sound pressure level :	54
Gross/Net weight [kg]:	22/20
Oil charge [dm <sup>3</sup> ]:	0,7

#### Electrical data

Power supply [V/~ /Hz]:	220-240/1/50Hz
Locked rotor current [A]:	35
Max. operating current [A]:	10
Winding resistance [ $\Omega$ ]:	3,24/2,25

#### Connections

	<u>millimeters</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: ZR18K4E-PFJ

Capacity

R134a

#### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	0.93	1.25	1.62	2.07	2.59	3.18	3.86	-
35	0.85	1.16	1.53	1.95	2.45	3.02	3.67	-
40	0.78	1.08	1.43	1.84	2.31	2.85	3.47	4.18
45	-	0.99	1.33	1.72	2.17	2.69	3.28	3.94
50	-	0.90	1.23	1.60	2.03	2.52	3.08	3.71
55	-	-	1.12	1.48	1.88	2.35	2.88	3.47
60	-	-	-	1.35	1.74	2.17	2.67	3.23
65	-	-	-	1.23	1.59	2.00	2.46	2.99
70	-	-	-	-	1.43	1.82	2.25	2.75
75	-	-	-	-	1.28	1.64	2.04	2.50

#### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	0.66	0.66	0.67	0.67	0.68	0.68	0.67	-
35	0.71	0.71	0.72	0.73	0.73	0.74	0.74	-
40	0.78	0.78	0.78	0.79	0.80	0.81	0.82	0.83
45	-	0.86	0.85	0.86	0.87	0.88	0.90	0.91
50	-	0.95	0.94	0.94	0.95	0.96	0.98	1.01
55	-	-	1.05	1.04	1.04	1.06	1.08	1.10
60	-	-	-	1.15	1.15	1.16	1.18	1.21
65	-	-	-	1.28	1.27	1.28	1.30	1.33
70	-	-	-	-	1.42	1.41	1.43	1.46
75	-	-	-	-	1.58	1.57	1.58	1.60

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**Model: ZR18K4E-PFJ**

**Capacity**

### Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	2.95	2.98	3.06	3.14	3.22	3.25	3.22	-
35	3.13	3.13	3.18	3.26	3.36	3.43	3.46	-
40	3.42	3.36	3.38	3.45	3.55	3.65	3.72	3.74
45	-	3.69	3.66	3.71	3.80	3.91	4.01	4.09
50	-	4.12	4.03	4.04	4.11	4.22	4.34	4.46
55	-	-	4.49	4.45	4.48	4.58	4.71	4.85
60	-	-	-	4.94	4.93	5.00	5.12	5.28
65	-	-	-	5.52	5.45	5.48	5.58	5.74
70	-	-	-	-	6.04	6.02	6.09	6.24
75	-	-	-	-	6.72	6.63	6.66	6.78

### Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	21.88	28.82	36.81	45.94	56.31	68.01	81.13	-
35	21.18	28.23	36.30	45.46	55.82	67.46	80.47	-
40	20.37	27.56	35.72	44.93	55.28	66.87	79.79	94.13
45	-	26.80	35.06	44.32	54.69	66.25	79.09	93.30
50	-	25.92	34.30	43.64	54.04	65.57	78.35	92.45
55	-	-	33.44	42.87	53.30	64.84	77.56	91.57
60	-	-	-	41.99	52.48	64.03	76.72	90.64
65	-	-	-	41.00	51.56	63.13	75.80	89.66
70	-	-	-	-	50.53	62.14	74.80	88.61
75	-	-	-	-	49.37	61.03	73.70	87.47

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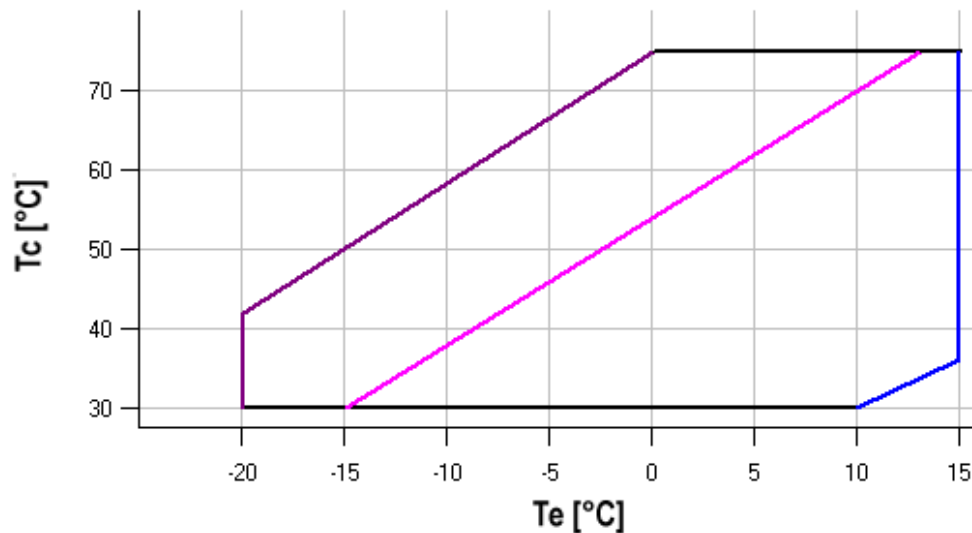
**Model: ZR18K4E-PFJ**




Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
30	1.41	1.89	2.43	3.07	3.81	4.69	5.76	-
35	1.20	1.63	2.13	2.69	3.33	4.07	4.93	-
40	0.99	1.38	1.83	2.34	2.90	3.53	4.24	5.06
45	-	1.16	1.56	2.01	2.50	3.05	3.65	4.32
50	-	0.95	1.30	1.70	2.14	2.61	3.13	3.69
55	-	-	1.07	1.42	1.81	2.22	2.67	3.15
60	-	-	-	1.18	1.51	1.87	2.26	2.67
65	-	-	-	0.95	1.25	1.56	1.90	2.25
70	-	-	-	-	1.01	1.29	1.58	1.89
75	-	-	-	-	0.81	1.04	1.29	1.56

## 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: ZR18K4E-PFJ

Capacity

R407C

#### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	1.61	2.04	2.55	3.16	3.87	4.69	5.62
35	1.50	1.93	2.42	3.01	3.68	4.46	5.36
40	1.38	1.79	2.28	2.84	3.49	4.23	5.08
45	-	1.65	2.11	2.66	3.28	3.99	4.80
50	-	-	1.93	2.45	3.05	3.73	4.50
55	-	-	-	2.23	2.80	3.45	4.18
60	-	-	-	-	2.53	3.15	3.84
65	-	-	-	-	2.24	2.82	3.48

#### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	0.76	0.78	0.79	0.80	0.81	0.81	0.81
35	0.88	0.89	0.89	0.90	0.91	0.91	0.90
40	1.02	1.01	1.00	1.00	1.00	1.00	1.00
45	-	1.14	1.13	1.12	1.11	1.11	1.11
50	-	-	1.28	1.26	1.24	1.24	1.23
55	-	-	-	1.42	1.40	1.39	1.38
60	-	-	-	-	1.59	1.57	1.56
65	-	-	-	-	1.83	1.80	1.78

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**Capacity**

## Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	3.58	3.64	3.70	3.75	3.78	3.79	3.76
35	4.11	4.13	4.15	4.18	4.20	4.21	4.19
40	4.69	4.65	4.63	4.63	4.63	4.64	4.63
45	-	5.25	5.18	5.14	5.12	5.11	5.10
50	-	-	5.83	5.75	5.69	5.65	5.64
55	-	-	-	6.48	6.38	6.32	6.28
60	-	-	-	-	7.23	7.13	7.07
65	-	-	-	-	8.28	8.13	8.03

## Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	33.77	42.23	52.07	63.43	76.46	91.28	108.05
35	33.19	41.80	51.73	63.14	76.14	90.88	107.50
40	32.14	40.98	51.08	62.58	75.62	90.35	106.89
45	-	39.67	50.00	61.67	74.82	89.59	106.11
50	-	-	48.39	60.29	73.61	88.49	105.07
55	-	-	-	58.36	71.92	86.98	103.67
60	-	-	-	-	69.64	84.93	101.80
65	-	-	-	-	66.66	82.26	99.38

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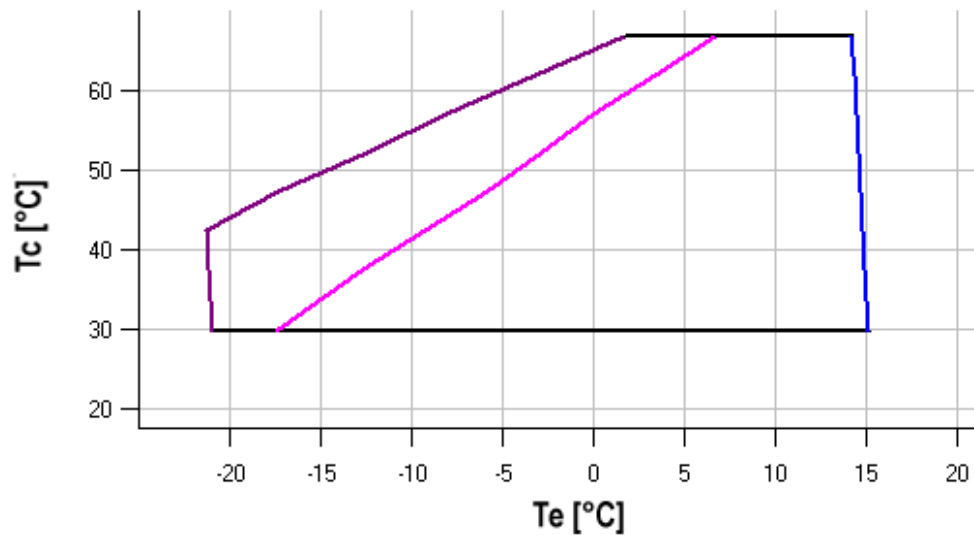
**Model: ZR18K4E-PFJ**




Capacity

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

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10
30	2.11	2.62	3.22	3.93	4.77	5.77	6.98
35	1.70	2.17	2.71	3.34	4.07	4.92	5.93
40	1.36	1.78	2.27	2.83	3.47	4.22	5.08
45	-	1.44	1.87	2.37	2.94	3.59	4.33
50	-	-	1.51	1.95	2.45	3.02	3.66
55	-	-	-	1.57	2.00	2.49	3.04
60	-	-	-	-	1.59	2.00	2.47
65	-	-	-	-	1.22	1.57	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]

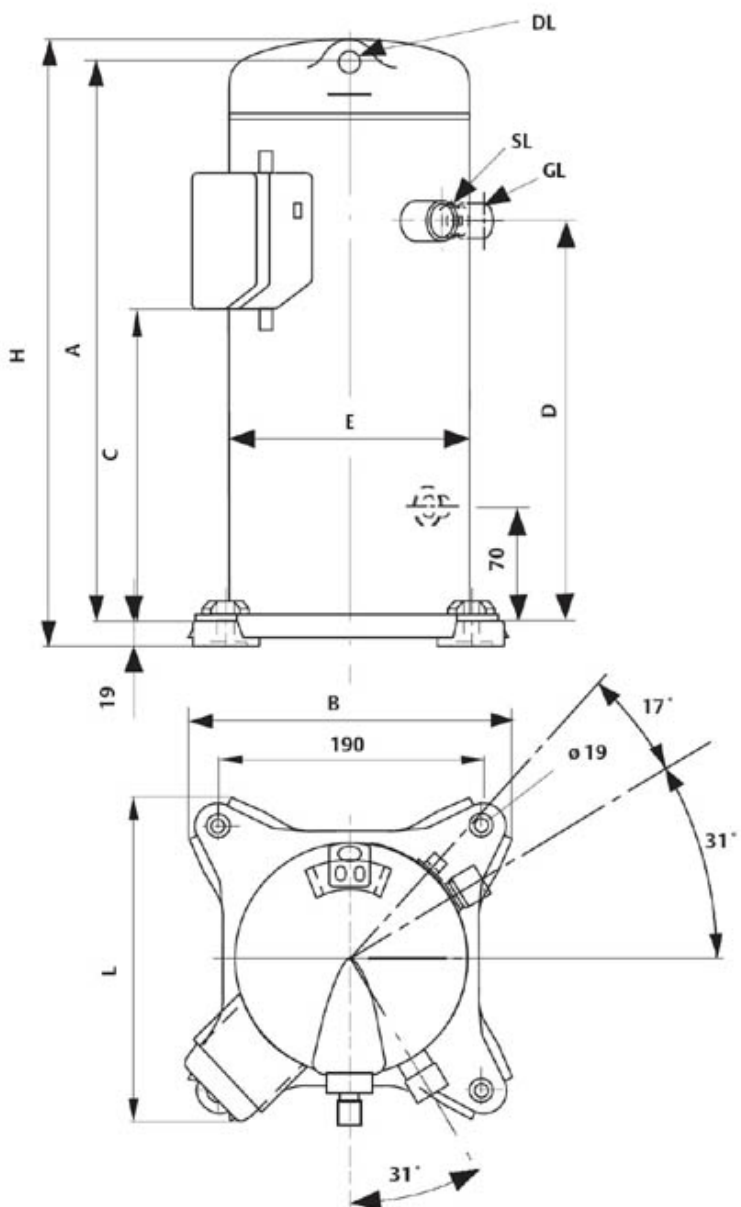
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**Model: ZR18K4E-PFJ**

**Dimensions & image**



A  
B  
C  
D  
E  
H  
L

338 mm  
240 mm  
205 mm  
245 mm  
139 mm  
383 mm  
192 mm