

# Model: ZS56K4E-TWD

## Data

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**Type:** Hermetic scroll compressors

**Producer:** Copeland

**Series:** ZS

## Model: ZS56K4E-TWD

### Technical data

Displacement [m <sup>3</sup> /h]:	20,9
Sound power [dBA]:	83
Sound power with sound shell [dBA]:	73
Sound pressure level [dB]:	72
Net Weight [kg]:	100,2
Oil charge [dm <sup>3</sup> ]:	4,1
Maximum high pressure [bar]:	32
Maximum standstill pressure [bar]:	22,6
Minimal lowside temperature [°C]:	-35
Maximum lowside temperature [°C]:	50
PED category:	2

### Electrical data

Power supply [V/~/Hz]:	380-420V/3/50Hz
Locked rotor current [A]:	99
Max. operating current [A]:	15,4
Winding resistance [Ω]:	1,4

### Connections

	<u>inches</u>
Suction Rotolock valve connection:	1 3/4"
Discharge Rotolock valve connection:	1 1/4"

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## Capacity

R404A/R507

### Cooling capacity [kW]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>
<b>10</b>	5.97	7.22	8.79	10.74	13.09	15.90	-	-	-	-
<b>15</b>	5.50	6.75	8.30	10.18	12.45	15.13	18.28	-	-	-
<b>20</b>	5.08	6.33	7.84	9.66	11.83	14.39	17.38	20.85	-	-
<b>25</b>	4.69	5.93	7.40	9.15	11.22	13.64	16.47	19.75	23.51	-
<b>30</b>	4.33	5.55	6.97	8.64	10.60	12.89	15.55	18.62	22.15	26.18
<b>35</b>	3.98	5.18	6.55	8.13	9.98	12.12	14.60	17.47	20.76	24.53
<b>40</b>	-	4.80	6.11	7.61	9.33	11.32	13.62	16.28	19.33	22.81
<b>45</b>	-	-	5.65	7.05	8.65	10.48	12.60	15.03	17.83	21.04
<b>50</b>	-	-	-	6.46	7.92	9.59	11.51	13.73	16.27	19.19
<b>55</b>	-	-	-	-	7.15	8.65	10.37	12.35	14.63	17.26
<b>60</b>	-	-	-	-	-	7.63	9.14	10.88	12.90	15.23

### Power input [kW]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>
<b>10</b>	2.77	2.84	2.94	3.07	3.26	3.52	-	-	-	-
<b>15</b>	2.95	3.04	3.15	3.28	3.45	3.68	3.97	-	-	-
<b>20</b>	3.13	3.26	3.38	3.52	3.68	3.89	4.15	4.48	-	-
<b>25</b>	3.31	3.48	3.64	3.79	3.95	4.15	4.38	4.67	5.04	-
<b>30</b>	3.48	3.71	3.90	4.08	4.26	4.45	4.67	4.94	5.26	5.66
<b>35</b>	3.65	3.93	4.18	4.39	4.59	4.79	5.01	5.25	5.55	5.90
<b>40</b>	-	4.15	4.45	4.71	4.94	5.16	5.38	5.62	5.89	6.21
<b>45</b>	-	-	4.72	5.03	5.31	5.56	5.79	6.04	6.30	6.59
<b>50</b>	-	-	-	5.36	5.69	5.97	6.24	6.49	6.75	7.03
<b>55</b>	-	-	-	-	6.07	6.40	6.70	6.98	7.25	7.52
<b>60</b>	-	-	-	-	-	6.84	7.19	7.50	7.78	8.07

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### Current [A]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>
<b>10</b>	8.90	8.91	8.94	9.02	9.15	9.38	-	-	-	-
<b>15</b>	9.06	9.11	9.16	9.23	9.35	9.54	9.82	-	-	-
<b>20</b>	9.20	9.30	9.38	9.47	9.59	9.76	10.00	10.34	-	-
<b>25</b>	9.32	9.48	9.61	9.72	9.85	10.02	10.24	10.54	10.94	-
<b>30</b>	9.41	9.65	9.84	10.00	10.15	10.32	10.54	10.81	11.17	11.63
<b>35</b>	9.49	9.81	10.07	10.29	10.48	10.67	10.89	11.15	11.48	11.90
<b>40</b>	-	9.96	10.31	10.59	10.84	11.06	11.30	11.56	11.87	12.25
<b>45</b>	-	-	10.54	10.91	11.22	11.50	11.76	12.03	12.34	12.71
<b>50</b>	-	-	-	11.24	11.63	11.97	12.28	12.58	12.89	13.25
<b>55</b>	-	-	-	-	12.06	12.48	12.84	13.19	13.53	13.89
<b>60</b>	-	-	-	-	-	13.02	13.46	13.86	14.24	14.62

### Mass flow [kg/h]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>
<b>10</b>	117.22	145.49	179.02	219.37	268.08	326.71	-	-	-	-
<b>15</b>	113.67	142.27	176.08	216.63	265.48	324.17	394.25	-	-	-
<b>20</b>	111.14	139.96	173.91	214.55	263.41	322.05	392.02	474.85	-	-
<b>25</b>	109.45	138.36	172.33	212.93	261.69	320.16	389.89	472.41	569.29	-
<b>30</b>	108.40	137.28	171.16	211.60	260.13	318.31	387.68	469.78	566.16	678.38
<b>35</b>	107.80	136.53	170.20	210.36	258.54	316.31	385.20	466.75	562.52	674.06
<b>40</b>	-	135.93	169.27	209.02	256.74	313.97	382.25	463.14	558.18	668.92
<b>45</b>	-	-	168.17	207.40	254.53	311.10	378.66	458.77	552.95	662.76
<b>50</b>	-	-	-	205.30	251.72	307.52	374.24	453.43	546.64	655.41
<b>55</b>	-	-	-	-	248.13	303.02	368.78	446.94	539.06	646.67
<b>60</b>	-	-	-	-	-	297.44	362.11	439.12	530.02	636.34

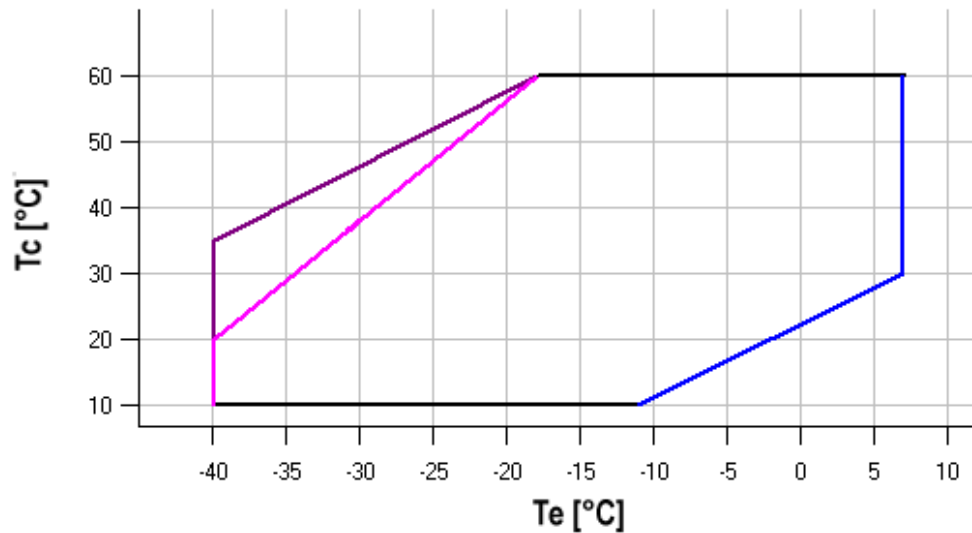
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## Capacity

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

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5
10	2.16	2.54	2.99	3.49	4.01	4.52	-	-	-	-
15	1.87	2.22	2.64	3.10	3.61	4.12	4.61	-	-	-
20	1.62	1.94	2.32	2.74	3.21	3.70	4.19	4.66	-	-
25	1.42	1.70	2.04	2.41	2.84	3.29	3.76	4.22	4.66	-
30	1.24	1.50	1.79	2.12	2.49	2.90	3.33	3.77	4.21	4.63
35	1.09	1.32	1.57	1.85	2.17	2.53	2.92	3.33	3.74	4.16
40	-	1.16	1.37	1.62	1.89	2.19	2.53	2.90	3.28	3.67
45	-	-	1.20	1.40	1.63	1.89	2.17	2.49	2.83	3.19
50	-	-	-	1.21	1.39	1.61	1.85	2.11	2.41	2.73
55	-	-	-	-	1.18	1.35	1.55	1.77	2.02	2.29
60	-	-	-	-	-	1.11	1.27	1.45	1.66	1.89

### Application range



- Maximum evaporating temperature
- 25°C suction gas temperature
- 10K gas overheat

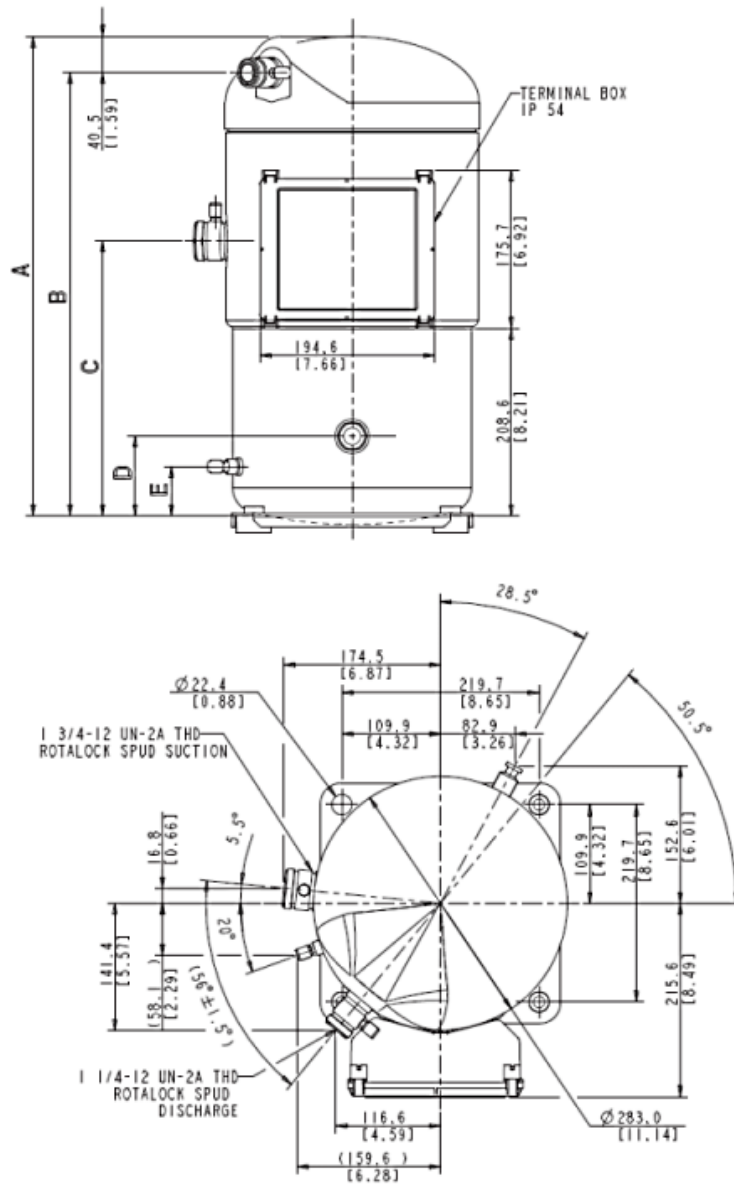
Operating conditions: suction gas temperature 20°C, 0K subcooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

# Model: ZS56K4E-TWD

## Dimensions



A	525 mm
B	484 mm
C	306 mm
D	88 mm
E	54 mm

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Image

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