

**Type: Semi-hermetic piston compressors**

**Producer: Copeland**

**Series: S**

## **Model: D2SC-65 X**

### **Technical data**

Cylinder count:	2
Displacement [m <sup>3</sup> /h]:	26,9
Weight [kg]:	96
Oil charge [dm <sup>3</sup> ]:	2,4
Max. operating current [A]:	16,2
Locked rotor current [A]:	85,3
Power supply [V/~/Hz]:	400V/3/50Hz

### **Connections**

	<u>milimeters</u>	<u>inches</u>
Suction line:		
Discharge line:		

**R22**
**Cooling capacity [kW]**

<b>t<sub>c</sub> \ t<sub>e</sub></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>
<b>10</b>	12.55	15.58	19.15	23.30	28.07	-	-	-
<b>15</b>	11.61	14.49	17.87	21.80	26.32	31.48	-	-
<b>20</b>	10.69	13.41	16.60	20.31	24.58	29.45	34.95	-
<b>25</b>	9.78	12.34	15.35	18.84	22.85	27.43	32.62	38.45
<b>30</b>	8.89	11.29	14.10	17.37	21.13	25.42	30.29	35.76
<b>35</b>	8.01	10.25	12.87	15.91	19.41	23.41	27.96	33.08
<b>40</b>	7.14	9.22	11.64	14.46	17.70	21.41	25.63	30.41
<b>45</b>	-	8.20	10.43	13.01	16.00	19.42	23.31	27.73
<b>50</b>	-	7.19	9.22	11.58	14.30	17.42	21.00	25.05
<b>55</b>	-	-	8.03	10.15	12.61	15.44	18.68	22.38
<b>60</b>	-	-	6.84	8.73	10.92	13.46	16.37	19.71

**Power input [kW]**

<b>t<sub>c</sub> \ t<sub>e</sub></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>
<b>10</b>	3.60	3.69	3.68	3.55	3.28	-	-	-
<b>15</b>	3.91	4.10	4.19	4.19	4.04	3.75	-	-
<b>20</b>	4.15	4.43	4.62	4.73	4.71	4.56	4.25	-
<b>25</b>	4.34	4.69	4.99	5.20	5.30	5.28	5.12	4.78
<b>30</b>	4.49	4.91	5.29	5.60	5.82	5.93	5.90	5.72
<b>35</b>	4.61	5.10	5.55	5.96	6.28	6.51	6.62	6.58
<b>40</b>	4.71	5.26	5.79	6.28	6.70	7.04	7.27	7.38
<b>45</b>	-	5.41	6.00	6.57	7.09	7.54	7.89	8.13
<b>50</b>	-	5.57	6.22	6.86	7.46	8.01	8.47	8.84
<b>55</b>	-	-	6.44	7.15	7.83	8.47	9.04	9.52
<b>60</b>	-	-	6.69	7.45	8.21	8.93	9.60	10.20



**Current [A]**

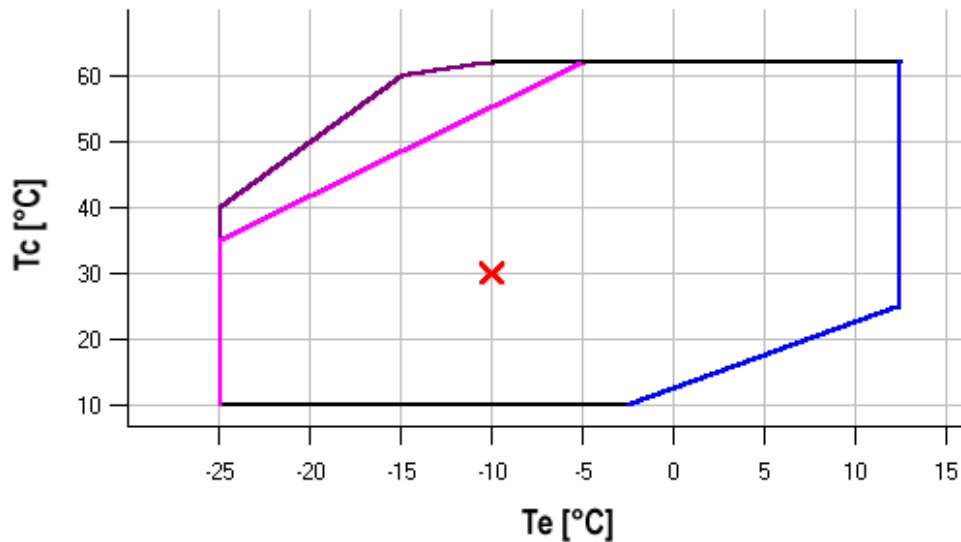
<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>	<b>10</b>
<b>10</b>	8.10	8.24	8.31	8.27	8.12	-	-	-
<b>15</b>	8.58	8.81	8.96	9.03	9.00	8.84	-	-
<b>20</b>	8.96	9.27	9.52	9.70	9.78	9.75	9.59	-
<b>25</b>	9.25	9.64	9.99	10.27	10.48	10.58	10.56	10.41
<b>30</b>	9.46	9.94	10.39	10.78	11.10	11.33	11.46	11.46
<b>35</b>	9.62	10.19	10.74	11.24	11.68	12.04	12.31	12.47
<b>40</b>	9.74	10.40	11.04	11.65	12.22	12.71	13.13	13.44
<b>45</b>	-	10.58	11.32	12.05	12.74	13.37	13.93	14.39
<b>50</b>	-	10.75	11.60	12.44	13.25	14.02	14.72	15.35
<b>55</b>	-	-	11.89	12.84	13.78	14.68	15.53	16.32
<b>60</b>	-	-	12.20	13.27	14.33	15.37	16.37	17.32

**Mass flow [kg/s]**

<b>t<sub>c</sub> \ t<sub>e</sub></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>
<b>10</b>	238.32	292.35	354.87	426.50	507.86	-	-	-
<b>15</b>	226.94	280.05	341.38	411.56	491.21	580.94	-	-
<b>20</b>	215.71	267.71	327.66	396.20	473.93	561.48	659.46	-
<b>25</b>	204.49	255.17	313.55	380.24	455.87	541.04	636.38	742.50
<b>30</b>	193.10	242.29	298.89	363.55	436.86	519.46	611.96	714.98
<b>35</b>	181.41	228.89	283.53	345.95	416.77	496.60	586.06	685.78
<b>40</b>	169.25	214.83	267.31	327.30	395.42	472.28	558.52	654.73
<b>45</b>	-	199.96	250.07	307.43	372.66	446.37	529.17	621.70
<b>50</b>	-	184.10	231.66	286.20	348.34	418.69	497.88	586.51
<b>55</b>	-	-	211.93	263.45	322.30	389.10	464.47	549.02
<b>60</b>	-	-	190.71	239.02	294.39	357.44	428.79	509.06

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

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
<b>10</b>	3.49	4.22	5.20	6.56	8.56	-	-	-
<b>15</b>	2.97	3.54	4.26	5.21	6.51	8.39	-	-
<b>20</b>	2.57	3.03	3.59	4.30	5.21	6.46	8.23	-
<b>25</b>	2.25	2.63	3.08	3.63	4.31	5.19	6.38	8.05
<b>30</b>	1.98	2.30	2.66	3.10	3.63	4.29	5.13	6.26
<b>35</b>	1.74	2.01	2.32	2.67	3.09	3.60	4.23	5.03
<b>40</b>	1.52	1.75	2.01	2.30	2.64	3.04	3.52	4.12
<b>45</b>	-	1.52	1.74	1.98	2.26	2.58	2.96	3.41
<b>50</b>	-	1.29	1.48	1.69	1.92	2.18	2.48	2.84
<b>55</b>	-	-	1.25	1.42	1.61	1.82	2.07	2.35
<b>60</b>	-	-	1.02	1.17	1.33	1.51	1.71	1.93

**Application range**


- Maximum evaporating temperature
- 25°C suction gas temperature
- 20K suction gas return

Operating conditions: ISO; subcooling: 0 K, suction superheat: 10 K, return gas temperature: -

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

**R404A/R507**
**Cooling capacity [kW]**

<b>t<sub>c</sub> \ t<sub>e</sub></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>20</b>	8.34	10.55	13.21	16.36	20.05	24.33	29.24	34.83
<b>25</b>	7.62	9.72	12.23	15.20	18.66	22.67	27.27	32.52
<b>30</b>	6.92	8.92	11.28	14.05	17.28	21.02	25.31	30.21
<b>35</b>	6.25	8.13	10.34	12.92	15.92	19.39	23.37	27.92
<b>40</b>	5.60	7.37	9.43	11.81	14.58	17.77	21.44	25.63
<b>45</b>	4.98	6.63	8.53	10.72	13.25	16.17	19.52	23.36
<b>50</b>	4.37	5.90	7.64	9.63	11.92	14.57	17.60	21.08
<b>55</b>	-	5.18	6.76	8.56	10.61	12.97	15.69	18.81

**Power input [kW]**

<b>t<sub>c</sub> \ t<sub>e</sub></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>20</b>	3.83	4.15	4.43	4.62	4.73	4.71	4.56	4.25
<b>25</b>	3.96	4.34	4.69	4.99	5.20	5.30	5.28	5.12
<b>30</b>	4.05	4.49	4.91	5.29	5.60	5.82	5.93	5.90
<b>35</b>	4.11	4.61	5.10	5.55	5.96	6.28	6.51	6.62
<b>40</b>	4.17	4.71	5.26	5.79	6.28	6.70	7.04	7.27
<b>45</b>	4.23	4.81	5.41	6.00	6.57	7.09	7.54	7.89
<b>50</b>	4.31	4.92	5.57	6.22	6.86	7.46	8.01	8.47
<b>55</b>	-	5.06	5.74	6.44	7.15	7.83	8.47	9.04

**Current [A]**

$t_c \setminus t_e$	<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>20</b>	8.61	8.96	9.27	9.52	9.70	9.78	9.75	9.59
<b>25</b>	8.82	9.25	9.64	9.99	10.27	10.48	10.58	10.56
<b>30</b>	8.96	9.46	9.94	10.39	10.78	11.10	11.33	11.46
<b>35</b>	9.04	9.62	10.19	10.74	11.24	11.68	12.04	12.31
<b>40</b>	9.08	9.74	10.40	11.04	11.65	12.22	12.71	13.13
<b>45</b>	9.09	9.83	10.58	11.32	12.05	12.74	13.37	13.93
<b>50</b>	9.09	9.91	10.75	11.60	12.44	13.25	14.02	14.72
<b>55</b>	-	10.00	10.93	11.89	12.84	13.78	14.68	15.53

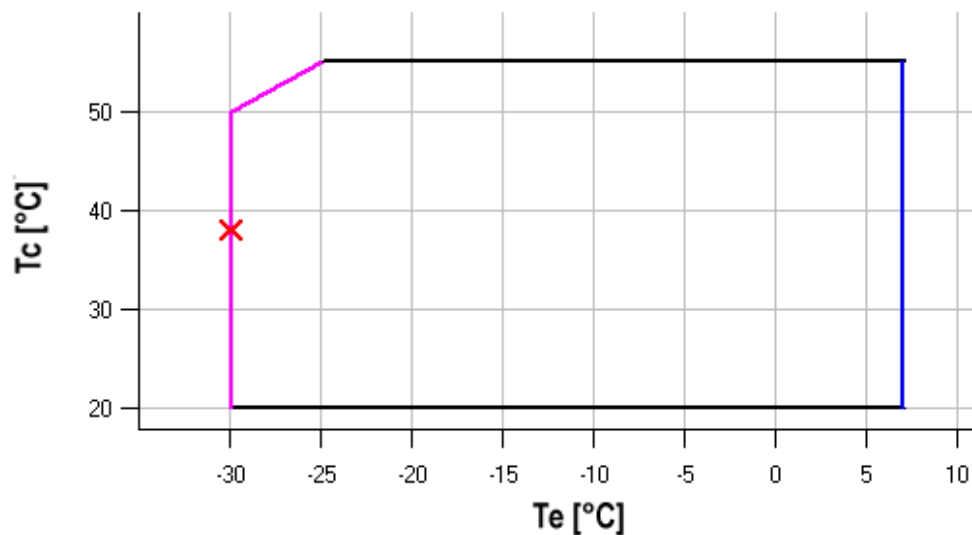
**Mass flow [kg/s]**



$t_c \setminus t_e$	<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>20</b>	182.59	234.42	295.16	367.13	452.62	553.93	673.35	813.19
<b>25</b>	175.42	226.74	286.77	357.81	442.16	542.11	659.96	798.02
<b>30</b>	168.00	218.81	278.12	348.22	431.41	530.00	646.27	782.53
<b>35</b>	160.45	210.74	269.31	338.46	420.50	517.70	632.39	766.84
<b>40</b>	152.87	202.63	260.46	328.65	409.51	505.33	618.41	751.06
<b>45</b>	145.37	194.59	251.66	318.89	398.57	492.99	604.46	735.28
<b>50</b>	138.06	186.73	243.04	309.29	387.77	480.79	590.64	719.63
<b>55</b>	-	179.16	234.69	299.95	377.24	468.84	577.06	704.20

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

$t_c \setminus t_e$	-30	-25	-20	-15	-10	-5	0	5
<b>20</b>	2.18	2.54	2.98	3.54	4.24	5.16	6.41	8.20
<b>25</b>	1.92	2.24	2.61	3.05	3.59	4.27	5.16	6.36
<b>30</b>	1.71	1.99	2.29	2.66	3.09	3.61	4.27	5.12
<b>35</b>	1.52	1.76	2.03	2.33	2.67	3.09	3.59	4.22
<b>40</b>	1.34	1.56	1.79	2.04	2.32	2.65	3.05	3.52
<b>45</b>	1.18	1.38	1.58	1.78	2.02	2.28	2.59	2.96
<b>50</b>	1.01	1.20	1.37	1.55	1.74	1.95	2.20	2.49
<b>55</b>	-	1.02	1.18	1.33	1.48	1.66	1.85	2.08

**Application range**

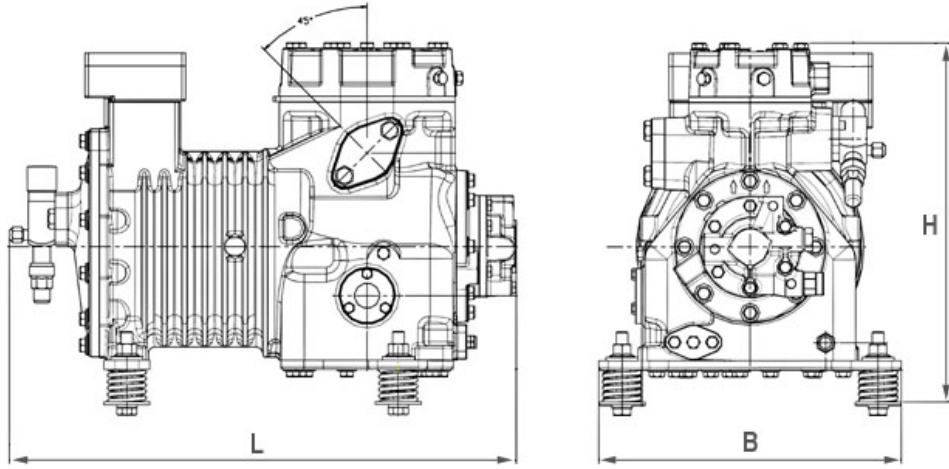


 Maximum evaporating temperature  
 25°C suction gas temperature

Operating conditions: ISO; subcooling: 0 K, suction superheat: - K, return gas temperature: 20

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]



L	560 mm
B	330 mm
H	395 mm



