

# Model: D4DT-220 X

## Data

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Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

## Model: D4DT-220 X

### Technical data

Cylinder count:	4
Displacement [m <sup>3</sup> /h]:	84,7
Weight [kg]:	231
Oil charge [dm <sup>3</sup> ]:	4
Max. operating current [A]:	33
Locked rotor current [A]:	160
Power supply [V/~/Hz]:	380-420V/3/50Hz

### Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:		2 1/8"
Discharge line:		1 3/8"

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## Capacity

R404A/R507

### Cooling capacity [kW]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-50</b>	<b>-45</b>	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>
<b>20</b>	10.15	13.64	17.92	23.11	29.29	36.59	45.11	54.95	66.22
<b>25</b>	9.07	12.35	16.34	21.15	26.90	33.68	41.61	50.79	61.33
<b>30</b>	8.00	11.06	14.77	19.22	24.54	30.82	38.17	46.70	56.51
<b>35</b>	6.92	9.78	13.22	17.32	22.22	28.00	34.78	42.66	-
<b>40</b>	-	8.52	11.69	15.45	19.93	25.23	31.45	38.70	-
<b>45</b>	-	7.27	10.18	13.62	17.69	22.51	28.17	34.80	-
<b>50</b>	-	-	8.70	11.81	15.49	19.84	24.96	-	-
<b>55</b>	-	-	7.25	10.05	13.34	17.22	21.81	-	-

### Power input [kW]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-50</b>	<b>-45</b>	<b>-40</b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>
<b>20</b>	5.92	7.09	8.32	9.58	10.86	12.12	13.35	14.53	15.64
<b>25</b>	5.96	7.21	8.54	9.91	11.31	12.72	14.11	15.46	16.75
<b>30</b>	5.96	7.29	8.70	10.18	11.71	13.25	14.78	16.30	17.77
<b>35</b>	5.92	7.32	8.82	10.40	12.04	13.71	15.39	17.06	-
<b>40</b>	-	7.31	8.89	10.57	12.31	14.11	15.93	17.75	-
<b>45</b>	-	7.27	8.92	10.69	12.53	14.45	16.40	18.37	-
<b>50</b>	-	-	8.92	10.76	12.71	14.73	16.81	-	-
<b>55</b>	-	-	8.87	10.79	12.83	14.96	17.16	-	-

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### Current [A]

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20	-15	-10
<b>20</b>	14.99	16.32	17.80	19.39	21.06	22.77	24.51	26.24	27.93
<b>25</b>	15.03	16.46	18.07	19.84	21.74	23.74	25.81	27.91	30.03
<b>30</b>	15.07	16.55	18.28	20.22	22.33	24.59	26.98	29.45	31.97
<b>35</b>	15.08	16.62	18.44	20.52	22.83	25.34	28.02	30.83	-
<b>40</b>	-	16.64	18.54	20.75	23.24	25.97	28.93	32.06	-
<b>45</b>	-	16.61	18.57	20.89	23.54	26.48	29.69	33.14	-
<b>50</b>	-	-	18.53	20.94	23.73	26.86	30.31	-	-
<b>55</b>	-	-	18.40	20.89	23.80	27.11	30.78	-	-

### Mass flow [kg/s]

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20	-15	-10
<b>20</b>	213.48	295.28	392.27	508.06	646.29	810.61	1 004.64	1 232.02	1 496.39
<b>25</b>	201.47	280.78	374.91	487.49	622.16	782.55	972.29	1 195.03	1 454.39
<b>30</b>	188.44	265.27	356.55	465.93	597.03	753.49	938.96	1 157.05	1 411.42
<b>35</b>	174.44	248.78	337.22	443.39	570.93	723.47	904.65	1 118.11	-
<b>40</b>	-	231.35	316.94	419.91	543.89	692.52	869.42	1 078.24	-
<b>45</b>	-	213.00	295.75	395.53	515.95	660.66	833.29	1 037.48	-
<b>50</b>	-	-	273.68	370.26	487.13	627.92	796.28	-	-
<b>55</b>	-	-	250.76	344.14	457.46	594.35	758.44	-	-

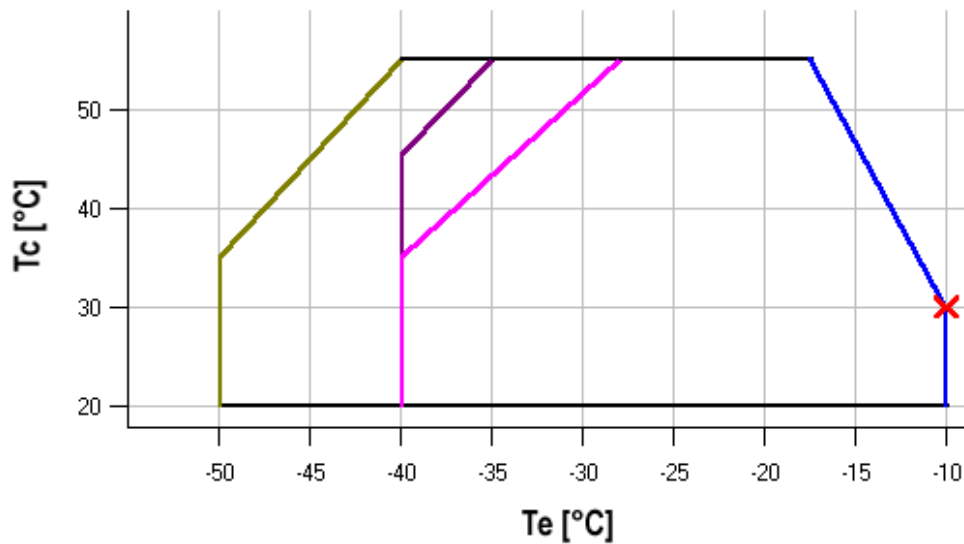
# Model: D4DT-220 X





## Capacity

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

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20	-15	-10
20	1.72	1.92	2.15	2.41	2.70	3.02	3.38	3.78	4.24
25	1.52	1.71	1.91	2.13	2.38	2.65	2.95	3.29	3.66
30	1.34	1.52	1.70	1.89	2.10	2.33	2.58	2.86	3.18
35	1.17	1.34	1.50	1.67	1.85	2.04	2.26	2.50	-
40	-	1.17	1.31	1.46	1.62	1.79	1.97	2.18	-
45	-	1.00	1.14	1.27	1.41	1.56	1.72	1.89	-
50	-	-	0.98	1.10	1.22	1.35	1.49	-	-
55	-	-	0.82	0.93	1.04	1.15	1.27	-	-

### Application range



-  Maximum evaporating temperature
-  25°C suction gas return
-  0°C suction gas return + additional cooling
-  0°C suction gas return

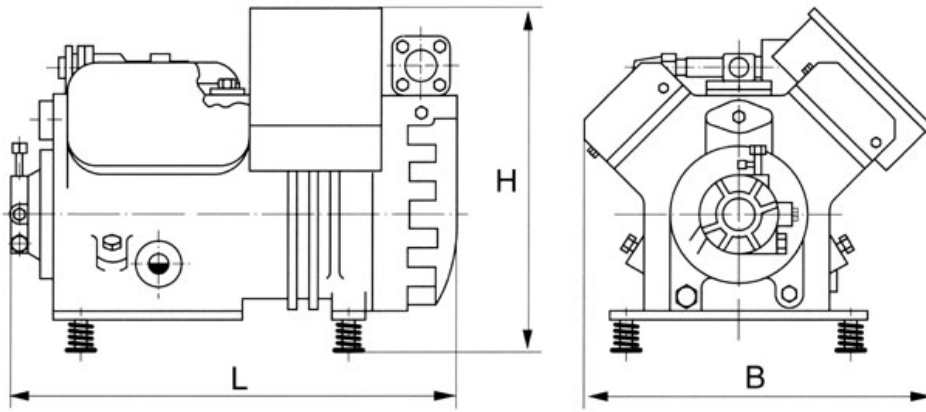
Operating conditions: ISO; subcooling: 0 K, suction superheat: - K, return gas temperature: 20

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

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## Dimensions



L	700 mm
B	535 mm
H	795 mm

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Image

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