

# Model: D8DH-500 X

## Data

---

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

## Model: D8DH-500 X

### Technical data

Cylinder count:	8
Displacement [m <sup>3</sup> /h]:	151
Weight [kg]:	351
Oil charge [dm <sup>3</sup> ]:	7,7
Max. operating current [A]:	88
Locked rotor current [A]:	444
Power supply [V/~/Hz]:	380-420V/3/50Hz

### Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:		2 5/8"
Discharge line:		1 5/8"

# Model: D8DH-500 X

## Capacity

R134a

### Cooling capacity [kW]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>
<b>40</b>	30.48	38.53	48.38	60.25	74.40	91.06	110.48	132.89	158.55	187.68
<b>45</b>	27.48	35.35	44.83	56.16	69.59	85.35	103.69	124.85	149.07	176.59
<b>50</b>	24.69	32.33	41.41	52.16	64.82	79.65	96.87	116.74	139.49	165.37
<b>55</b>	22.11	29.49	38.12	48.25	60.11	73.96	90.03	108.57	129.81	154.00
<b>60</b>	19.73	26.80	34.96	44.43	55.46	68.29	83.17	100.34	120.03	142.50
<b>65</b>	17.56	24.29	31.92	40.69	50.85	62.64	76.29	92.05	110.16	130.86
<b>70</b>	15.59	21.94	29.02	37.05	46.30	56.99	69.37	83.69	100.18	119.08
<b>75</b>	-	19.76	26.24	33.50	41.80	51.36	62.44	75.27	90.10	107.16
<b>80</b>	-	-	23.59	30.04	37.34	45.74	55.47	66.78	79.91	95.10

### Power input [kW]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>	<b>10</b>	<b>15</b>	<b>20</b>	<b>25</b>
<b>40</b>	14.51	16.26	17.94	19.47	20.82	21.91	22.70	23.12	23.14	22.68
<b>45</b>	14.81	16.76	18.67	20.47	22.12	23.55	24.71	25.55	26.00	26.02
<b>50</b>	15.08	17.22	19.35	21.41	23.35	25.10	26.62	27.86	28.75	29.23
<b>55</b>	15.31	17.63	19.97	22.27	24.49	26.56	28.43	30.05	31.36	32.30
<b>60</b>	15.49	17.98	20.52	23.06	25.54	27.92	30.13	32.12	33.84	35.23
<b>65</b>	15.62	18.26	20.99	23.75	26.49	29.16	31.70	34.06	36.17	37.99
<b>70</b>	15.69	18.47	21.37	24.35	27.34	30.29	33.14	35.85	38.35	40.59
<b>75</b>	-	18.60	21.67	24.84	28.07	31.29	34.45	37.49	40.37	43.02
<b>80</b>	-	-	21.86	25.22	28.67	32.15	35.61	38.98	42.22	45.27

# Model: D8DH-500 X

## 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>20</b>	30.19	38.73	49.25	62.01	77.26	95.28	116.31	140.64	168.51	200.20
<b>25</b>	27.04	35.36	45.43	57.53	71.91	88.85	108.60	131.42	157.58	187.33
<b>30</b>	24.07	32.12	41.72	53.13	66.62	82.44	100.87	122.15	146.57	174.36
<b>35</b>	-	29.00	38.09	48.79	61.35	76.03	93.10	112.83	135.46	161.27
<b>40</b>	-	25.98	34.54	44.49	56.09	69.60	85.29	103.42	124.25	148.04
<b>45</b>	-	23.05	31.05	40.22	50.83	63.14	77.41	93.91	112.90	134.64
<b>50</b>	-	20.19	27.58	35.94	45.53	56.61	69.44	84.28	101.40	121.06
<b>55</b>	-	-	24.14	31.66	40.20	50.01	61.36	74.52	89.74	107.29

### 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>20</b>	14.41	16.37	18.24	19.96	21.45	22.64	23.46	23.83	23.67	22.92
<b>25</b>	14.76	16.93	19.06	21.08	22.91	24.49	25.73	26.57	26.93	26.74
<b>30</b>	15.05	17.41	19.78	22.08	24.24	26.18	27.84	29.13	29.98	30.33
<b>35</b>	-	17.84	20.43	22.98	25.45	27.73	29.78	31.50	32.83	33.69
<b>40</b>	-	18.23	21.01	23.81	26.55	29.16	31.57	33.70	35.49	36.84
<b>45</b>	-	18.59	21.54	24.56	27.56	30.47	33.23	35.75	37.97	39.80
<b>50</b>	-	18.93	22.04	25.25	28.49	31.69	34.77	37.67	40.29	42.58
<b>55</b>	-	-	22.52	25.90	29.36	32.82	36.21	39.45	42.47	45.20

# Model: D8DH-500 X

## Capacity

R407C

### Cooling capacity [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
35	43.75	57.42	74.18	94.14	117.45	144.23	174.62	-
40	39.93	52.63	68.30	87.07	109.07	134.43	163.28	-
45	36.14	47.87	62.46	80.04	100.73	124.67	151.98	-
50	32.48	43.24	56.75	73.13	92.52	115.04	140.82	-
55	-	38.82	51.25	66.44	84.52	105.62	129.88	-
60	-	-	46.05	60.05	76.83	96.52	119.24	-

### Power input [kW]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
35	20.70	22.80	24.80	26.56	27.94	28.78	28.95	-
40	21.98	24.30	26.58	28.69	30.48	31.80	32.51	-
45	23.22	25.72	28.26	30.69	32.87	34.64	35.87	-
50	24.36	27.03	29.79	32.52	35.05	37.25	38.98	-
55	-	28.17	31.13	34.13	36.99	39.59	41.78	-
60	-	-	32.24	35.47	38.64	41.62	44.24	-