

**Type: Semi-hermetic piston compressors**

**Producer: Copeland**

**Series: DISCUS**

## **Model: D4DH-250 X**

### **Technical data**

Nominal motor power [kW]:	
Cylinder count:	4
Displacement [m <sup>3</sup> /h]:	70,8
Cylinder capacity [cm <sup>3</sup> ]:	
RPM [min <sup>-1</sup> ]:	1450
Weight [kg]:	225
Oil charge [dm <sup>3</sup> ]:	4
Power supply [V/~/Hz]:	

### **Connections**

	<u>milimeters</u>	<u>inches</u>
Suction line:	54	2 1/8"
Discharge line:	28	1 1/8"

R134a

**Cooling capacity [W]**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
<b>40</b>	14	18	24	30	37	46	50	56	61	67	-	-
	530	900	100	290	610	230	060	260	840	810		
<b>45</b>	13	17	22	28	35	43	47	52	58	64	76	90
	340	530	460	320	260	430	070	970	300	010	640	920
<b>50</b>	12	16	20	26	32	40	44	49	54	60	72	85
	080	120	800	340	890	620	070	670	740	180	240	950
<b>55</b>	10	14	19	24	30	37	41	46	51	56	67	80
	750	660	120	350	520	800	060	350	140	300	780	890
<b>60</b>	-	13	17	22	28	34	38	43	47	52	63	75
		160	420	350	140	970	030	010	520	390	260	730
<b>65</b>	-	11	15	20	25	32	34	39	43	48	58	70
		610	690	330	750	130	990	640	870	440	670	470
<b>70</b>	-	-	13	18	23	29	31	36	40	44	54	65
			930	310	360	280	930	250	180	440	010	100
<b>75</b>	-	-	-	16	20	26	28	32	36	40	49	-
				270	960	410	850	830	450	390	260	
<b>80</b>	-	-	-	14	18	23	25	29	32	36	-	-
				230	550	530	760	380	690	280		

**Power input [kW]**

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
<b>40</b>	6.91	7.74	8.54	9.29	9.95	10.49	10.67	10.89	11.02	11.12	-	-
<b>45</b>	7.14	8.06	8.97	9.85	10.66	11.36	11.61	11.93	12.16	12.35	12.58	12.61
<b>50</b>	7.37	8.36	9.38	10.38	11.32	12.18	12.50	12.93	13.24	13.52	13.95	14.19
<b>55</b>	7.61	8.66	9.76	10.87	11.95	12.96	13.33	13.86	14.27	14.64	15.27	15.71
<b>60</b>	-	8.94	10.11	11.32	12.52	13.68	14.12	14.75	15.24	15.70	16.52	17.17
<b>65</b>	-	9.21	10.45	11.74	13.06	14.34	14.84	15.57	16.14	16.69	17.70	18.55
<b>70</b>	-	-	10.75	12.12	13.53	14.95	15.50	16.32	16.98	17.61	18.80	19.86
<b>75</b>	-	-	-	12.45	13.96	15.49	16.10	17.00	17.74	18.46	19.83	-
<b>80</b>	-	-	-	12.74	14.32	15.96	16.62	17.61	18.42	19.22	-	-

Operating conditions: suction gas temperature 25°C + additional cooling

 $t_c$  - Condensing temperature [°C]

 $t_e$  - Evaporating temperature [°C]

R404A/R507

**Cooling capacity [W]**

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5	7
<b>20</b>	19 380	24 460	30 540	37 720	46 130	55 890	67 110	79 900	94 380	100 660
<b>25</b>	18 060	22 890	28 640	35 410	43 320	52 510	63 080	75 140	88 820	94 760
<b>30</b>	16 700	21 280	26 690	33 040	40 470	49 080	59 000	70 340	83 210	88 810
<b>35</b>	15 290	19 620	24 690	30 630	37 560	45 600	54 870	65 480	77 550	82 810
<b>40</b>	-	17 920	22 660	28 180	34 620	42 080	50 690	60 570	71 840	76 760
<b>45</b>	-	16 170	20 580	25 690	31 630	38 510	46 470	55 620	66 090	70 660
<b>50</b>	-	14 390	18 460	23 150	28 590	34 900	42 210	50 630	60 290	64 530
<b>55</b>	-	12 570	16 300	20 570	25 520	31 250	37 910	45 600	54 450	58 350

**Power input [kW]**

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5	7
<b>20</b>	7.47	8.38	9.25	10.05	10.74	11.30	11.71	11.93	11.93	11.86
<b>25</b>	7.87	8.89	9.88	10.81	11.66	12.39	12.98	13.40	13.61	13.63
<b>30</b>	8.23	9.36	10.47	11.54	12.54	13.44	14.21	14.82	15.24	15.35
<b>35</b>	8.56	9.79	11.03	12.23	13.38	14.44	15.39	16.19	16.82	17.02
<b>40</b>	-	10.18	11.54	12.87	14.17	15.39	16.51	17.50	18.34	18.62
<b>45</b>	-	10.53	12.00	13.46	14.90	16.28	17.58	18.76	19.80	20.17
<b>50</b>	-	10.83	12.41	14.00	15.58	17.12	18.59	19.95	21.19	21.64
<b>55</b>	-	11.07	12.76	14.48	16.20	17.89	19.53	21.08	22.51	23.05

Operating conditions: suction gas temperature 25°C + additional cooling

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

R407C

**Cooling capacity [W]**

<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>7</b>	<b>10</b>	<b>12.5</b>
<b>30</b>	21 600	27 140	34 430	43 370	53 890	65 940	79 430	85 220	94 280	102 200
<b>35</b>	20 130	25 230	32 050	40 480	50 460	61 930	74 830	80 370	89 080	96 690
<b>40</b>	18 550	23 220	29 560	37 490	46 920	57 820	70 120	75 420	83 750	91 060
<b>45</b>	-	21 050	26 910	34 330	43 220	53 540	65 240	70 290	78 260	85 260
<b>50</b>	-	18 660	24 050	30 960	39 300	49 050	60 140	64 950	72 550	79 240
<b>55</b>	-	-	20 930	27 320	35 120	44 290	54 780	59 350	66 570	72 960
<b>60</b>	-	-	17 500	23 370	30 620	39 210	49 100	53 420	60 280	66 350

**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>7</b>	<b>10</b>	<b>12.5</b>
<b>30</b>	9.45	10.06	10.76	11.47	12.10	12.57	12.80	12.80	12.70	12.50
<b>35</b>	10.20	10.88	11.69	12.54	13.34	14.01	14.47	14.57	14.63	14.58
<b>40</b>	10.83	11.59	12.51	13.49	14.46	15.33	16.02	16.22	16.44	16.53
<b>45</b>	-	12.15	13.17	14.29	15.42	16.49	17.40	17.71	18.09	18.32
<b>50</b>	-	12.53	13.64	14.89	16.19	17.45	18.59	19.00	19.53	19.90
<b>55</b>	-	-	13.89	15.27	16.72	18.18	19.54	20.04	20.74	21.24
<b>60</b>	-	-	13.87	15.38	16.99	18.63	20.22	20.82	21.66	22.31

Operating conditions: suction gas temperature 25°C + additional cooling

t<sub>c</sub> - Condensing temperature [°C]

t<sub>e</sub> - Evaporating temperature [°C]



