

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

Model: D3DS-100 X

Technical data

Nominal motor power [kW]:

Cylinder count: 3

Displacement [m³/h]: 49,9

Cylinder capacity [cm³]:

RPM [min⁻¹]: 1450

Weight [kg]: 173

Oil charge [dm³]: 3,4

Power supply [V/~/Hz]:

Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:	35	1 3/8"
Discharge line:	28	1 1/8"

R134a

Cooling capacity [W]

t_c \ t_e	-20	-15	-10	-5	0	5	7	10	12.5
30	11 360	14 690	18 650	23 320	28 790	35 130	37 940	42 450	46 490
35	10 590	13 750	17 500	21 930	27 120	33 160	35 830	40 130	43 980
40	9 860	12 860	16 400	20 590	25 500	31 220	33 750	37 830	41 500
45	9 170	12 020	15 360	19 310	23 930	29 320	31 710	35 570	39 030
50	8 530	11 230	14 380	18 080	22 420	27 470	29 710	33 330	36 590
55	7 940	10 500	13 460	16 920	20 950	25 660	27 750	31 130	34 160
60	7 400	9 840	12 610	15 820	19 550	23 910	25 840	28 960	31 770
62	-	-	12 290	15 400	19 010	23 220	25 080	28 100	30 810

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	7	10	12.5
30	4.35	4.86	5.29	5.64	5.87	5.97	5.98	5.93	5.85
35	4.50	5.08	5.60	6.05	6.39	6.61	6.66	6.69	6.68
40	4.65	5.30	5.90	6.44	6.89	7.22	7.32	7.43	7.47
45	4.80	5.51	6.19	6.82	7.36	7.81	7.95	8.13	8.23
50	4.97	5.72	6.47	7.18	7.81	8.36	8.55	8.79	8.96
55	5.14	5.93	6.74	7.52	8.24	8.88	9.11	9.42	9.65
60	5.32	6.14	6.99	7.83	8.64	9.37	9.64	10.01	10.29
62	-	-	7.09	7.95	8.79	9.55	9.84	10.24	10.54

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

R404A/R507

Cooling capacity [W]

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20
20	5 140	7 060	9 430	12 290	15 690	19 700	24 360
25	4 580	6 380	8 590	11 250	14 420	18 140	22 490
30	4 050	5 730	7 780	10 240	13 170	16 620	20 640
35	3 540	5 100	6 990	9 260	11 950	15 120	18 820
40	-	4 500	6 230	8 300	10 760	13 650	17 040
45	-	3 920	5 500	7 370	9 590	12 210	15 280
50	-	-	4 790	6 470	8 460	10 800	13 560
55	-	-	4 110	5 600	7 350	9 420	11 860

Power input [kW]

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20
20	3.56	4.19	4.84	5.50	6.13	6.73	7.27
25	3.59	4.27	4.97	5.68	6.39	7.07	7.72
30	3.63	4.33	5.07	5.84	6.62	7.39	8.13
35	3.66	4.39	5.17	5.99	6.83	7.68	8.51
40	-	4.44	5.26	6.13	7.03	7.95	8.87
45	-	4.50	5.35	6.26	7.22	8.21	9.21
50	-	-	5.43	6.39	7.40	8.45	9.53
55	-	-	5.53	6.51	7.57	8.69	9.84

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

t_c - Condensing temperature [°C]

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