

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

Model: D3DS-150 X

Technical data

Nominal motor power [kW]:

Cylinder count:

3

Displacement [m³/h]:

49,9

Cylinder capacity [cm³]:

RPM [min⁻¹]:

1450

Weight [kg]:

178

Oil charge [dm³]:

3,4

Power supply [V/~/Hz]:

Connections

Suction line:

milimeters

42

inches

1 5/8"

Discharge line:

28

1 1/8"

R134a

Cooling capacity [W]

t_c \ t_e	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
40	9 740	12 840	16 530	20 920	26 120	32 230	34 950	39 340	43 300	47 540	-	-
45	8 900	11 880	15 390	19 550	24 480	30 280	32 870	37 050	40 830	44 890	53 850	63 990
50	8 030	10 900	14 240	18 180	22 840	28 330	30 780	34 760	38 350	42 220	50 780	60 520
55	7 130	9 910	13 090	16 810	21 200	26 370	28 690	32 450	35 850	39 520	47 670	56 970
60	-	8 900	11 930	15 440	19 560	24 420	26 590	30 120	33 330	36 780	44 500	53 340
65	-	7 880	10 770	14 070	17 920	22 450	24 480	27 780	30 780	34 020	41 270	49 630
70	-	-	9 610	12 710	16 290	20 490	22 370	25 420	28 210	31 220	37 990	45 840
75	-	-	-	11 350	14 660	18 520	20 240	23 050	25 610	28 390	34 650	41 950
80	-	-	-	10 000	13 030	16 540	18 110	20 650	22 980	25 510	31 230	37 950

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	7	10	12.5	15	20	25
40	5.07	5.61	6.13	6.59	6.97	7.25	7.33	7.41	7.44	7.43	-	-
45	5.18	5.79	6.39	6.95	7.45	7.86	7.99	8.16	8.26	8.33	8.35	8.21
50	5.30	5.97	6.65	7.30	7.91	8.44	8.63	8.87	9.05	9.19	9.37	9.39
55	5.44	6.15	6.89	7.63	8.34	8.99	9.23	9.55	9.80	10.01	10.35	10.54
60	-	6.32	7.12	7.94	8.75	9.51	9.79	10.20	10.51	10.80	11.28	11.64
65	-	6.50	7.34	8.23	9.13	9.99	10.32	10.80	11.18	11.54	12.18	12.69
70	-	-	7.55	8.50	9.47	10.44	10.82	11.37	11.81	12.24	13.02	13.70
75	-	-	-	8.74	9.78	10.84	11.26	11.89	12.39	12.89	13.82	14.66
80	-	-	-	8.95	10.06	11.21	11.67	12.36	12.92	13.48	14.56	15.56

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 \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
20	10 090	13 060	16 670	21 000	26 140	32 170	39 170	47 230	56 410	66 800	71 310
25	9 450	12 320	15 770	19 880	24 740	30 420	37 020	44 620	53 280	63 100	67 370
30	8 750	11 500	14 770	18 650	23 210	28 540	34 720	41 840	49 980	59 210	63 220
35	8 000	10 620	13 700	17 320	21 570	26 530	32 280	38 910	46 500	55 130	58 890
40	7 210	9 690	12 560	15 920	19 840	24 420	29 720	35 850	42 880	50 890	54 390
45	-	8 730	11 380	14 460	18 040	22 210	27 060	32 670	39 130	46 510	49 740
50	-	7 750	10 170	12 950	16 180	19 940	24 310	29 390	35 250	41 990	44 950
55	-	-	8 950	11 420	14 280	17 610	21 490	26 020	31 280	37 360	40 040

Power input [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5	7
20	4.96	5.58	6.18	6.73	7.20	7.57	7.83	7.94	7.88	7.63	7.48
25	5.14	5.83	6.51	7.15	7.73	8.22	8.60	8.85	8.95	8.87	8.78
30	5.30	6.06	6.81	7.54	8.22	8.82	9.33	9.72	9.97	10.06	10.04
35	5.44	6.26	7.09	7.91	8.68	9.40	10.04	10.56	10.96	11.21	11.27
40	5.56	6.44	7.34	8.24	9.12	9.95	10.70	11.37	11.92	12.33	12.45
45	-	6.59	7.57	8.55	9.52	10.46	11.34	12.14	12.83	13.40	13.59
50	-	6.73	7.77	8.84	9.90	10.95	11.94	12.87	13.71	14.44	14.69
55	-	-	7.95	9.09	10.25	11.40	12.52	13.58	14.56	15.44	15.76

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

R407C

Cooling capacity [W]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	7	10	12.5
30	14 910	19 000	24 130	30 360	37 740	46 330	56 170	60 470	67 300	73 360
35	13 760	17 530	22 290	28 100	35 010	43 080	52 360	56 420	62 900	68 650
40	12 670	16 140	20 540	25 930	32 380	39 940	48 670	52 500	58 630	64 080
45	-	14 810	18 860	23 850	29 840	36 900	45 090	48 700	54 470	59 630
50	-	13 540	17 250	21 840	27 390	33 950	41 620	45 000	50 430	55 300
55	-	-	15 690	19 900	25 010	31 090	38 230	41 400	46 490	51 070
60	-	-	14 190	18 020	22 700	28 310	34 930	37 880	42 640	46 930

Power input [kW]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	7	10	12.5
30	6.51	7.08	7.65	8.14	8.53	8.75	8.76	8.69	8.51	8.27
35	6.85	7.49	8.14	8.76	9.29	9.68	9.90	9.92	9.88	9.77
40	7.20	7.88	8.61	9.33	10.00	10.56	10.97	11.07	11.17	11.18
45	-	8.26	9.06	9.88	10.67	11.38	11.97	12.16	12.39	12.51
50	-	8.63	9.49	10.39	11.30	12.16	12.92	13.18	13.53	13.77
55	-	-	9.90	10.88	11.89	12.88	13.80	14.14	14.61	14.96
60	-	-	10.30	11.35	12.45	13.56	14.64	15.05	15.62	16.07

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

t_c - Condensing temperature [°C]t_e - Evaporating temperature [°C]



