



Model: D3DS-1000 DC

Data

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

Model: D3DS-1000 DC

Technical data

Cylinder count:	3
Displacement [m ³ /h]:	49,9
Weight [kg]:	182
Oil charge [dm ³]:	3,4
Max. operating current [A]:	18,6
Locked rotor current [A]:	121
Power supply [V/~/Hz]:	380-420V/3/50Hz

Connections

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

R22

Cooling capacity [kW]

t_c \ t_e	-50	-45	-40	-35	-30	-25	-20
25	3.42	5.22	7.34	9.89	12.97	16.68	21.13
30	2.85	4.60	6.64	9.07	11.99	15.52	19.75
35	2.27	3.99	5.95	8.27	11.05	14.39	18.42
40	-	3.38	5.28	7.50	10.14	13.32	17.13
45	-	2.80	4.64	6.76	9.28	12.29	15.91
50	-	-	4.04	6.08	8.47	11.32	14.75
55	-	-	3.48	5.44	7.72	10.42	13.66

Power input [kW]

t_c \ t_e	-50	-45	-40	-35	-30	-25	-20
25	3.22	3.96	4.66	5.32	5.95	6.57	7.17
30	3.14	3.96	4.74	5.49	6.20	6.91	7.60
35	3.05	3.94	4.80	5.62	6.42	7.21	7.99
40	-	3.90	4.83	5.73	6.62	7.49	8.36
45	-	3.85	4.85	5.84	6.80	7.76	8.72
50	-	-	4.88	5.94	6.98	8.02	9.06
55	-	-	4.91	6.04	7.16	8.28	9.41

Current [A]

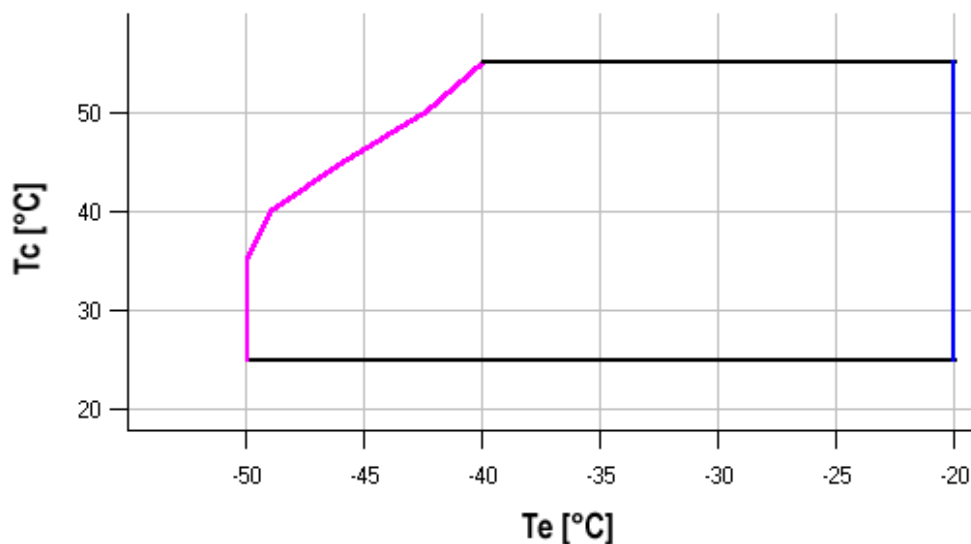
$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20
25	8.64	9.45	10.25	11.03	11.81	12.58	13.35
30	8.57	9.46	10.35	11.23	12.12	13.01	13.92
35	8.47	9.44	10.41	11.39	12.39	13.41	14.45
40	-	9.39	10.45	11.54	12.64	13.78	14.96
45	-	9.33	10.48	11.66	12.88	14.14	15.44
50	-	-	10.51	11.79	13.11	14.49	15.93
55	-	-	10.55	11.92	13.35	14.85	16.41

Mass flow [kg/s]

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20
25	61.88	95.99	135.31	182.21	239.04	308.17	391.95
30	53.44	87.37	126.28	172.51	228.44	296.41	378.79
35	44.42	78.31	116.93	162.62	217.76	284.70	365.79
40	-	69.02	107.46	152.75	207.22	273.25	353.19
45	-	59.70	98.10	143.09	197.03	262.27	341.17
50	-	-	89.05	133.87	187.39	251.97	329.96
55	-	-	80.52	125.29	178.52	242.56	319.76

C.O.P. [W/W]

$t_c \setminus t_e$	-50	-45	-40	-35	-30	-25	-20
25	1.06	1.32	1.58	1.86	2.18	2.54	2.95
30	0.91	1.16	1.40	1.65	1.93	2.25	2.60
35	0.75	1.01	1.24	1.47	1.72	2.00	2.30
40	-	0.87	1.09	1.31	1.53	1.78	2.05
45	-	0.73	0.96	1.16	1.36	1.58	1.82
50	-	-	0.83	1.02	1.21	1.41	1.63
55	-	-	0.71	0.90	1.08	1.26	1.45

Application range


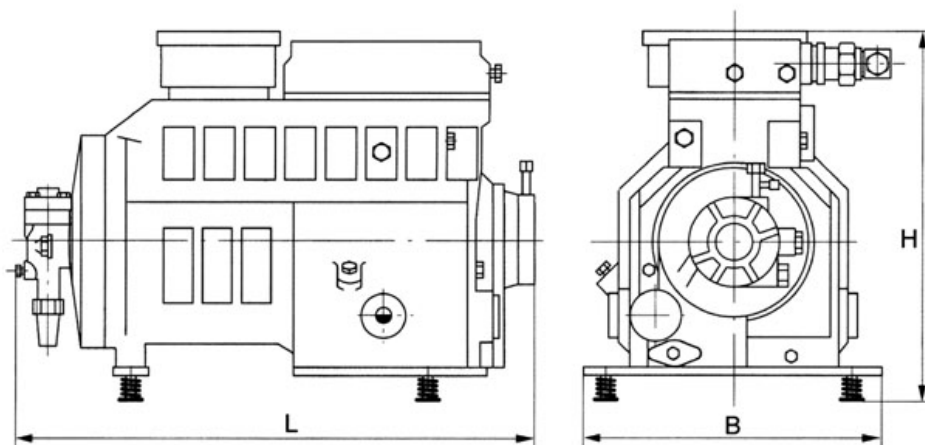
Maximum evaporating temperature

25°C suction gas return + liquid injection

Operating conditions: ISO; subcooling: 0 K, suction superheat: 10 K, return gas temperature: -

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]



L	745 mm
B	370 mm
H	785 mm

