



Model: D6DH-350 X

Data

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DISCUS

Model: D6DH-350 X

Technical data

Cylinder count:	6
Displacement [m ³ /h]:	106
Weight [kg]:	262
Oil charge [dm ³]:	4,3
Max. operating current [A]:	63,5
Locked rotor current [A]:	284
Power supply [V/~/Hz]:	380-420V/3/50Hz

Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:		2 1/8"
Discharge line:		1 3/8"

R22

Cooling capacity [kW]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10
30	34.69	43.57	53.96	66.11	80.25	96.60	115.41	136.89
35	32.39	40.98	50.98	62.60	76.10	91.69	109.62	130.11
40	30.06	38.36	47.94	59.03	71.88	86.70	103.74	123.22
45	-	35.69	44.85	55.40	67.59	81.63	97.77	116.23
50	-	33.01	41.73	51.73	63.25	76.50	91.73	109.17
55	-	-	38.59	48.03	58.86	71.31	85.63	102.02
60	-	-	35.43	44.29	54.44	66.08	79.47	94.82

Power input [kW]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10
30	14.00	15.33	16.54	17.57	18.35	18.82	18.93	18.62
35	14.83	16.35	17.78	19.05	20.10	20.88	21.33	21.39
40	15.63	17.33	18.96	20.46	21.78	22.86	23.63	24.04
45	-	18.25	20.08	21.81	23.38	24.74	25.83	26.58
50	-	19.13	21.14	23.08	24.90	26.54	27.93	29.02
55	-	-	22.15	24.29	26.34	28.24	29.92	31.33
60	-	-	23.09	25.43	27.70	29.85	31.81	33.54

Current [A]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10
30	30.57	32.30	33.92	35.33	36.42	37.10	37.26	36.78
35	31.64	33.66	35.61	37.40	38.92	40.06	40.73	40.82
40	32.69	34.99	37.28	39.44	41.38	42.99	44.17	44.81
45	-	36.29	38.90	41.43	43.79	45.86	47.54	48.74
50	-	37.53	40.46	43.36	46.12	48.65	50.84	52.59
55	-	-	41.94	45.20	48.37	51.36	54.05	56.34
60	-	-	43.31	46.94	50.51	53.95	57.13	59.97

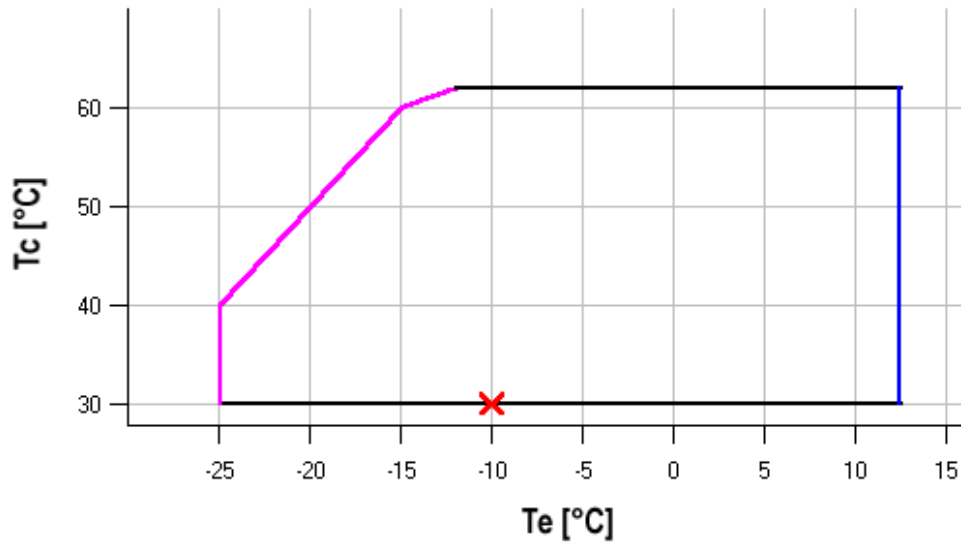
Mass flow [kg/s]

t_c \ t_e	-25	-20	-15	-10	-5	0	5	10
30	661.01	837.56	1 041.91	1 281.35	1 563.20	1 894.76	2 283.32	2 736.19
35	639.29	815.38	1 018.60	1 256.24	1 535.61	1 864.01	2 248.74	2 697.11
40	616.24	791.56	993.32	1 228.84	1 505.41	1 830.34	2 210.92	2 654.47
45	-	766.17	966.16	1 199.24	1 472.69	1 793.82	2 169.94	2 608.34
50	-	739.30	937.20	1 167.51	1 437.52	1 754.54	2 125.88	2 558.82
55	-	-	906.52	1 133.75	1 400.00	1 712.59	2 078.82	2 505.98
60	-	-	874.20	1 098.02	1 360.20	1 668.04	2 028.84	2 449.91

C.O.P. [W/W]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
30	2.48	2.84	3.26	3.76	4.37	5.13	6.10	7.35
35	2.18	2.51	2.87	3.29	3.79	4.39	5.14	6.08
40	1.92	2.21	2.53	2.88	3.30	3.79	4.39	5.13
45	-	1.96	2.23	2.54	2.89	3.30	3.79	4.37
50	-	1.73	1.97	2.24	2.54	2.88	3.28	3.76
55	-	-	1.74	1.98	2.23	2.53	2.86	3.26
60	-	-	1.53	1.74	1.97	2.21	2.50	2.83

Application range



- Maximum evaporating temperature
- 25°C suction gas return

Operating conditions: ISO; subcooling: 0 K, suction superheat: 10 K, return gas temperature: -
 t_c - Condensing temperature [°C]
 t_e - Evaporating temperature [°C]

R134a

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15	20	25
40	21.46	27.92	35.60	44.74	55.55	68.26	83.09	100.26	-	-
45	19.47	25.66	32.98	41.65	51.91	63.97	78.06	94.40	113.21	134.71
50	17.50	23.40	30.35	38.55	48.24	59.64	72.97	88.46	106.32	126.78
55	15.56	21.17	27.72	35.44	44.55	55.27	67.83	82.45	99.35	118.76
60	-	18.96	25.10	32.32	40.83	50.87	62.64	76.38	92.30	110.64
65	-	16.77	22.49	29.20	37.10	46.43	57.40	70.25	85.18	102.43
70	-	-	19.90	26.08	33.36	41.97	52.13	64.06	78.00	94.15
75	-	-	-	22.97	29.61	37.49	46.82	57.83	70.75	-
80	-	-	-	19.88	25.86	32.99	41.48	51.56	-	-

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15	20	25
40	10.49	11.73	12.94	14.07	15.08	15.91	16.52	16.87	-	-
45	10.86	12.23	13.60	14.92	16.14	17.21	18.09	18.72	19.08	19.09
50	11.23	12.72	14.23	15.72	17.14	18.44	19.58	20.50	21.16	21.51
55	11.57	13.17	14.83	16.48	18.09	19.61	21.00	22.19	23.15	23.83
60	-	13.59	15.37	17.19	18.98	20.71	22.33	23.79	25.04	26.04
65	-	13.96	15.87	17.83	19.80	21.73	23.57	25.29	26.82	28.13
70	-	-	16.31	18.40	20.54	22.66	24.72	26.68	28.49	30.09
75	-	-	-	18.90	21.19	23.50	25.77	27.96	30.03	-
80	-	-	-	19.32	21.76	24.23	26.70	29.13	-	-

Current [A]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15	20	25
40	25.08	26.48	27.90	29.26	30.49	31.51	32.25	32.64	-	-
45	25.56	27.09	28.69	30.28	31.79	33.14	34.27	35.08	35.52	35.50
50	26.00	27.67	29.44	31.26	33.05	34.73	36.23	37.47	38.38	38.89
55	26.41	28.20	30.15	32.20	34.26	36.26	38.13	39.79	41.18	42.20
60	-	28.69	30.81	33.07	35.40	37.72	39.96	42.05	43.90	45.44
65	-	29.11	31.40	33.88	36.48	39.12	41.72	44.22	46.53	48.59
70	-	-	31.93	34.62	37.48	40.43	43.39	46.30	49.08	51.64
75	-	-	-	35.28	38.39	41.65	44.97	48.29	51.52	-
80	-	-	-	35.85	39.22	42.78	46.45	50.17	-	-

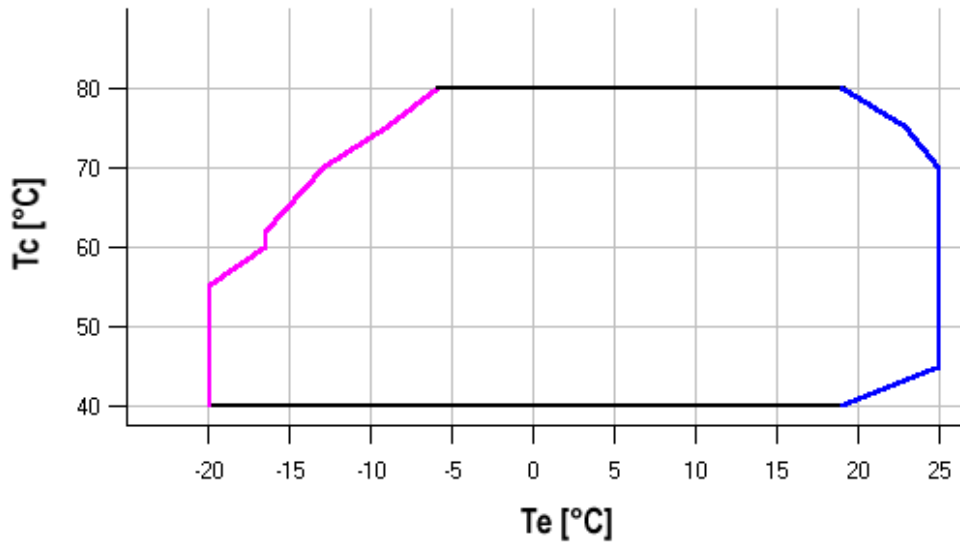
Mass flow [kg/s]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15	20	25
40	559.27	714.65	892.52	1 096.83	1 331.52	1 600.53	1 907.80	2 257.28	-	-
45	538.65	694.28	872.10	1 076.07	1 310.13	1 578.22	1 884.28	2 232.25	2 626.08	3 069.72
50	516.70	672.35	849.91	1 053.32	1 286.52	1 553.46	1 858.08	2 204.33	2 596.13	3 037.45
55	493.62	649.07	826.14	1 028.77	1 260.89	1 526.47	1 829.42	2 173.71	2 563.28	3 002.05
60	-	624.65	801.00	1 002.62	1 233.45	1 497.43	1 798.51	2 140.62	2 527.71	2 963.73
65	-	599.28	774.70	975.09	1 204.40	1 466.56	1 765.53	2 105.24	2 489.64	2 922.67
70	-	-	747.43	946.37	1 173.94	1 434.07	1 730.70	2 067.79	2 449.28	2 879.10
75	-	-	-	916.67	1 142.27	1 400.14	1 694.23	2 028.47	2 406.82	-
80	-	-	-	886.20	1 109.61	1 365.00	1 656.31	1 987.48	-	-

C.O.P. [W/W]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15	20	25
40	2.05	2.38	2.75	3.18	3.68	4.29	5.03	5.94	-	-
45	1.79	2.10	2.42	2.79	3.22	3.72	4.32	5.04	5.93	7.06
50	1.56	1.84	2.13	2.45	2.81	3.23	3.73	4.32	5.02	5.89
55	1.35	1.61	1.87	2.15	2.46	2.82	3.23	3.72	4.29	4.98
60	-	1.39	1.63	1.88	2.15	2.46	2.81	3.21	3.69	4.25
65	-	1.20	1.42	1.64	1.87	2.14	2.43	2.78	3.18	3.64
70	-	-	1.22	1.42	1.62	1.85	2.11	2.40	2.74	3.13
75	-	-	-	1.22	1.40	1.60	1.82	2.07	2.36	-
80	-	-	-	1.03	1.19	1.36	1.55	1.77	-	-

Application range



 Maximum evaporating temperature

 20K suction superheat

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

R404A/R507

Cooling capacity [kW]

t_c \ t_e	-35	-30	-25	-20	-15	-10	-5	0	5
20	28.45	36.00	45.02	55.71	68.25	82.85	99.69	118.96	140.86
25	26.29	33.47	41.99	52.05	63.82	77.52	93.32	111.42	132.00
30	24.11	30.92	38.94	48.36	59.37	72.15	86.91	103.83	123.11
35	21.90	28.35	35.86	44.64	54.88	66.76	80.47	96.22	114.18
40	-	25.74	32.75	40.89	50.35	61.32	74.00	88.56	105.21
45	-	23.11	29.62	37.11	45.80	55.86	67.48	80.87	96.21
50	-	20.45	26.45	33.30	41.21	50.35	60.93	73.14	87.16
55	-	17.76	23.24	29.46	36.58	44.82	54.35	65.37	78.07

Power input [kW]

t_c \ t_e	-35	-30	-25	-20	-15	-10	-5	0	5
20	11.47	12.81	14.10	15.28	16.30	17.13	17.72	18.02	17.98
25	12.03	13.53	15.01	16.39	17.66	18.75	19.62	20.22	20.52
30	12.54	14.20	15.85	17.44	18.93	20.27	21.42	22.33	22.95
35	13.01	14.81	16.63	18.42	20.13	21.72	23.14	24.34	25.28
40	-	15.38	17.36	19.34	21.26	23.09	24.77	26.26	27.51
45	-	15.89	18.03	20.19	22.32	24.38	26.32	28.09	29.64
50	-	16.36	18.66	20.99	23.32	25.60	27.79	29.83	31.68
55	-	16.80	19.23	21.74	24.26	26.76	29.18	31.49	33.64



Model: D6DH-350 X

Capacity

Current [A]

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5
20	27.73	29.41	31.05	32.57	33.87	34.85	35.42	35.48	34.93
25	28.47	30.30	32.17	33.98	35.63	37.04	38.09	38.71	38.79
30	29.17	31.16	33.25	35.35	37.35	39.18	40.72	41.89	42.59
35	29.82	31.96	34.27	36.65	39.01	41.26	43.29	45.01	46.32
40	-	32.69	35.22	37.89	40.60	43.26	45.78	48.05	49.98
45	-	33.34	36.09	39.04	42.11	45.19	48.18	51.00	53.55
50	-	33.90	36.87	40.10	43.52	47.01	50.49	53.86	57.02
55	-	34.36	37.54	41.06	44.82	48.73	52.68	56.60	60.37

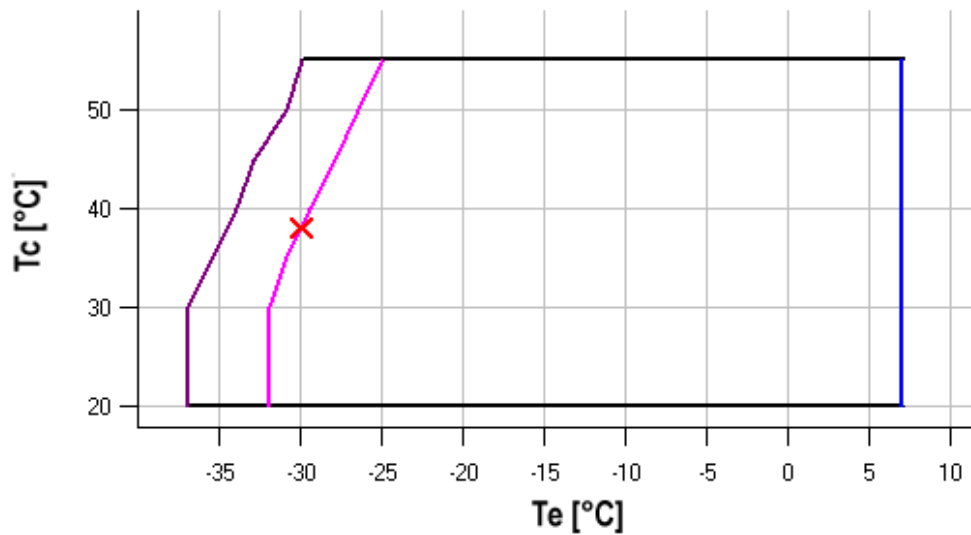
Mass flow [kg/s]

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5
20	616.42	795.90	1 002.37	1 244.41	1 530.62	1 869.57	2 269.84	2 740.03	3 288.72
25	601.08	777.62	980.79	1 219.17	1 501.35	1 835.90	2 231.43	2 696.50	3 239.70
30	582.37	756.17	956.24	1 191.17	1 469.52	1 799.89	2 190.87	2 651.02	3 188.95
35	560.59	731.87	929.05	1 160.72	1 435.45	1 761.85	2 148.47	2 603.93	3 136.78
40	-	705.02	899.51	1 128.13	1 399.46	1 722.08	2 104.57	2 555.51	3 083.50
45	-	675.94	867.96	1 093.73	1 361.85	1 680.90	2 059.46	2 506.11	3 029.44
50	-	644.94	834.68	1 057.82	1 322.94	1 638.63	2 013.45	2 456.01	2 974.89
55	-	612.34	800.01	1 020.72	1 283.05	1 595.57	1 966.88	2 405.55	2 920.17

C.O.P. [W/W]

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5
20	2.48	2.81	3.19	3.65	4.19	4.84	5.63	6.60	7.84
25	2.19	2.47	2.80	3.17	3.61	4.14	4.76	5.51	6.43
30	1.92	2.18	2.46	2.77	3.14	3.56	4.06	4.65	5.36
35	1.68	1.91	2.16	2.42	2.73	3.07	3.48	3.95	4.52
40	-	1.67	1.89	2.11	2.37	2.66	2.99	3.37	3.82
45	-	1.45	1.64	1.84	2.05	2.29	2.56	2.88	3.25
50	-	1.25	1.42	1.59	1.77	1.97	2.19	2.45	2.75
55	-	1.06	1.21	1.36	1.51	1.67	1.86	2.08	2.32

Application range



- Maximum evaporating temperature
- 25°C suction gas return
- 25°C suction gas return + additional cooling

Operating conditions: ISO; subcooling: 0 K, suction superheat: - K, return gas temperature: 20

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

R407C

Cooling capacity [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
35	36.19	45.52	57.01	70.71	86.67	104.96	125.64	-
40	33.62	42.36	53.15	66.04	81.10	98.37	117.91	-
45	30.93	39.08	49.17	61.26	75.40	91.66	110.08	-
50	-	35.63	45.02	56.31	69.54	84.78	102.09	-
55	-	31.94	40.64	51.13	63.46	77.69	93.87	-
60	-	-	35.97	45.66	57.09	70.31	85.37	-

Power input [kW]

t_c \ t_e	-20	-15	-10	-5	0	5	10	15
35	14.61	16.11	17.56	18.85	19.87	20.50	20.65	-
40	15.61	17.28	18.94	20.48	21.80	22.77	23.30	-
45	16.47	18.29	20.16	21.94	23.54	24.84	25.75	-
50	-	19.11	21.16	23.19	25.06	26.69	27.96	-
55	-	19.69	21.93	24.18	26.33	28.27	29.90	-
60	-	-	22.41	24.88	27.30	29.55	31.53	-



Model: D6DH-350 X

Capacity

Current [A]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
35	31.30	33.30	35.30	37.11	38.57	39.49	39.69	-
40	32.65	34.91	37.23	39.43	41.35	42.79	43.60	-
45	33.81	36.33	38.97	41.57	43.94	45.91	47.30	-
50	-	37.49	40.45	43.43	46.25	48.74	50.72	-
55	-	38.30	41.58	44.94	48.21	51.22	53.78	-
60	-	-	42.27	46.01	49.73	53.25	56.40	-

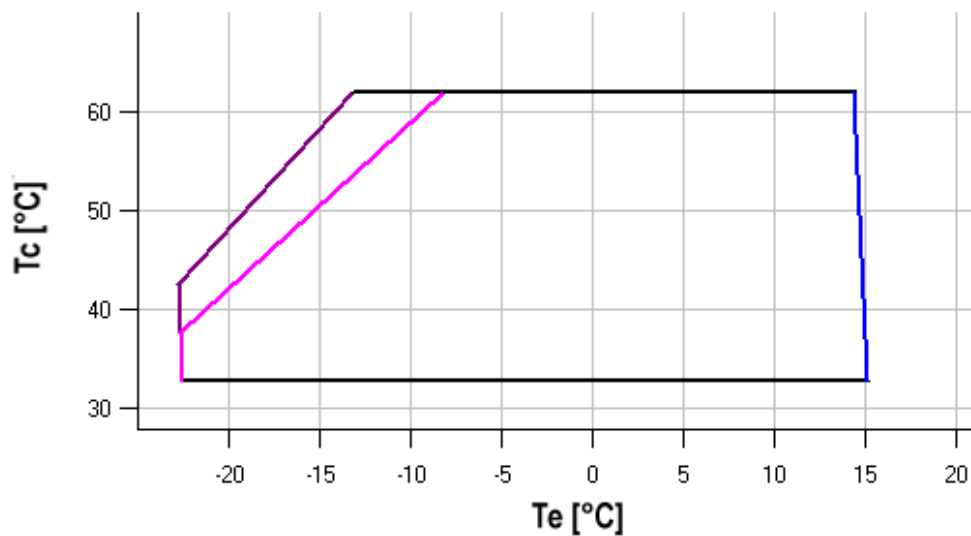
Mass flow [kg/s]

$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
35	690.65	875.71	1 102.65	1 376.11	1 700.74	2 081.20	2 522.13	-
40	671.81	852.17	1 074.71	1 344.07	1 664.92	2 041.89	2 479.65	-
45	648.91	824.75	1 043.07	1 308.53	1 625.77	1 999.46	2 434.24	-
50	-	791.46	1 005.75	1 267.49	1 581.33	1 951.91	2 383.89	-
55	-	750.30	960.76	1 218.97	1 529.58	1 897.25	2 326.62	-
60	-	-	906.10	1 160.97	1 468.55	1 833.49	2 260.44	-

C.O.P. [W/W]

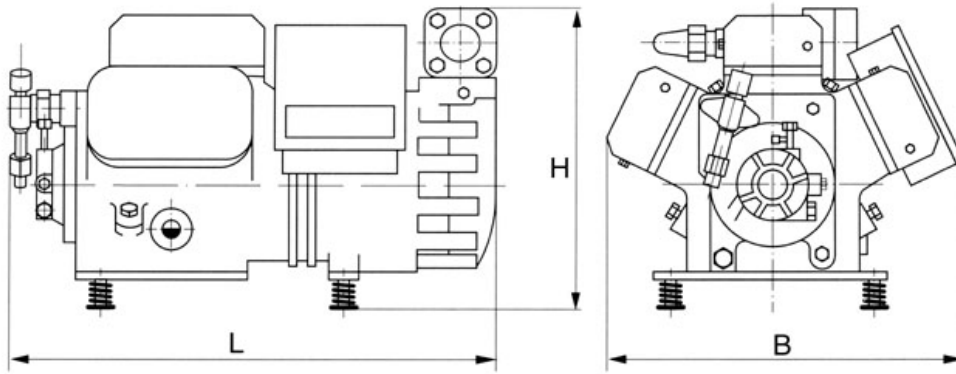
$t_c \setminus t_e$	-20	-15	-10	-5	0	5	10	15
35	2.48	2.83	3.25	3.75	4.36	5.12	6.08	-
40	2.15	2.45	2.81	3.22	3.72	4.32	5.06	-
45	1.88	2.14	2.44	2.79	3.20	3.69	4.28	-
50	-	1.86	2.13	2.43	2.77	3.18	3.65	-
55	-	1.62	1.85	2.11	2.41	2.75	3.14	-
60	-	-	1.61	1.84	2.09	2.38	2.71	-

Application range



- Maximum evaporating temperature
- 25°C suction gas return
- 20K suction superheat

Operating conditions: ISO; subcooling: 0 K, suction superheat: 10 K, return gas temperature: -
 t_c - Condensing temperature [°C]
 t_e - Evaporating temperature [°C]



L	760 mm
B	580 mm
H	490 mm

