



Model: DLJ-30 X

Data

Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DL

Model: DLJ-30 X

Technical data

Cylinder count:	2
Displacement [m ³ /h]:	14,5
Weight [kg]:	89
Oil charge [dm ³]:	2,3
Max. operating current [A]:	8,1
Locked rotor current [A]:	53
Power supply [V/~/Hz]:	380-420V/3/50Hz

Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:		7/8"
Discharge line:		5/8"

R22

Cooling capacity [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	1.38	2.11	3.06	4.23	5.61	7.21	9.03	11.06	13.30	15.76	18.42
35	1.14	1.81	2.70	3.80	5.11	6.63	8.35	10.28	12.42	14.76	17.31
40	0.92	1.55	2.37	3.40	4.64	6.07	7.70	9.53	11.56	13.79	16.21
45	0.73	1.30	2.07	3.03	4.19	5.54	7.08	8.81	10.73	12.85	15.15
50	0.56	1.08	1.79	2.68	3.76	5.03	6.48	8.11	9.93	11.93	14.11
55	0.43	0.89	1.54	2.36	3.37	4.55	5.91	7.44	9.15	11.03	-
60	-	-	1.32	2.07	3.00	4.10	5.37	6.80	8.40	-	-

Power input [kW]

t_c \ t_e	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	1.34	1.59	1.84	2.09	2.33	2.53	2.70	2.82	2.87	2.85	2.75
35	1.32	1.59	1.87	2.15	2.42	2.66	2.86	3.03	3.13	3.16	3.12
40	1.29	1.58	1.89	2.19	2.49	2.77	3.01	3.22	3.37	3.45	3.46
45	1.26	1.57	1.90	2.23	2.55	2.86	3.15	3.39	3.58	3.72	3.78
50	1.23	1.56	1.90	2.25	2.61	2.95	3.26	3.55	3.78	3.96	4.08
55	1.20	1.54	1.90	2.27	2.65	3.02	3.37	3.69	3.97	4.19	-
60	-	-	1.90	2.29	2.69	3.09	3.47	3.82	4.14	-	-

Current [A]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	3.90	4.12	4.37	4.63	4.89	5.12	5.31	5.44	5.50	5.48	5.35
35	3.88	4.12	4.40	4.69	4.98	5.25	5.49	5.68	5.81	5.85	5.80
40	3.86	4.12	4.42	4.73	5.06	5.37	5.66	5.91	6.09	6.21	6.23
45	3.84	4.11	4.43	4.77	5.13	5.49	5.82	6.12	6.37	6.55	6.64
50	3.81	4.10	4.43	4.80	5.20	5.59	5.97	6.33	6.63	6.88	7.04
55	3.78	4.08	4.43	4.83	5.25	5.69	6.11	6.52	6.88	7.19	-
60	-	-	4.42	4.84	5.30	5.77	6.24	6.70	7.12	-	-

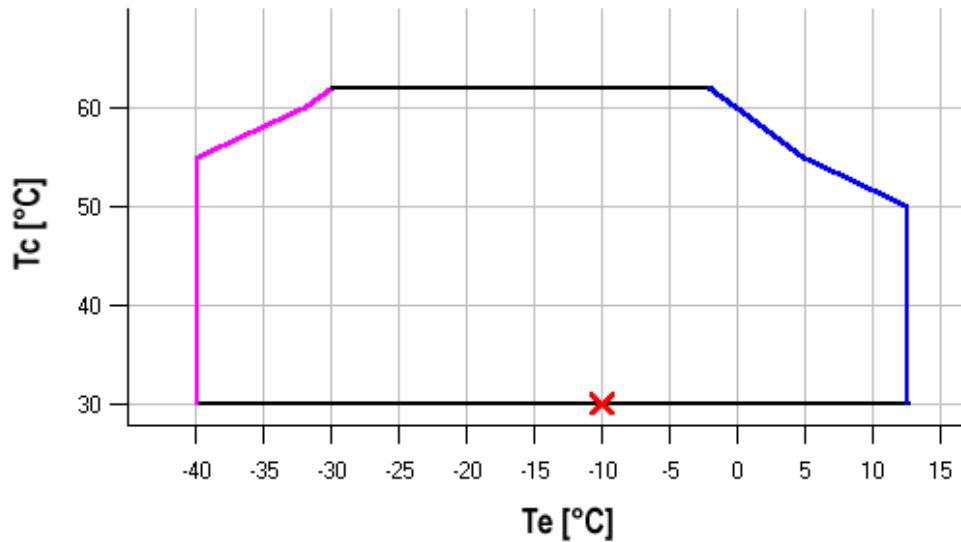
Mass flow [kg/s]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	31.31	47.27	67.54	91.98	120.46	152.83	188.95	228.68	271.89	318.42	368.15
35	26.98	42.43	62.19	86.12	114.08	145.93	181.53	220.74	263.41	309.42	358.61
40	22.84	37.77	57.01	80.41	107.84	139.16	174.22	212.89	255.02	300.48	349.12
45	18.93	33.33	52.04	74.90	101.79	132.56	167.07	205.18	246.76	291.65	339.73
50	15.31	29.17	47.32	69.63	95.97	126.18	160.12	197.67	238.68	283.00	330.50
55	12.03	25.33	42.92	64.67	90.43	120.07	153.44	190.41	230.83	274.57	-
60	-	-	38.88	60.05	85.23	114.28	147.06	183.44	223.26	-	-

C.O.P. [W/W]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	1.03	1.33	1.66	2.02	2.41	2.85	3.35	3.93	4.63	5.52	6.69
35	0.86	1.14	1.45	1.77	2.12	2.49	2.92	3.40	3.97	4.67	5.55
40	0.71	0.98	1.26	1.55	1.86	2.19	2.56	2.96	3.44	4.00	4.68
45	0.58	0.83	1.09	1.36	1.64	1.93	2.25	2.60	2.99	3.46	4.01
50	0.46	0.70	0.94	1.19	1.44	1.71	1.98	2.29	2.62	3.01	3.46
55	0.36	0.58	0.81	1.04	1.27	1.51	1.75	2.02	2.31	2.63	-
60	-	-	0.69	0.91	1.11	1.33	1.55	1.78	2.03	-	-

Application range



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

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]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	1.83	2.57	3.48	4.58	5.89	7.43	9.23	11.31	13.68	16.37	19.40
25	1.57	2.27	3.12	4.16	5.38	6.83	8.51	10.46	12.68	15.21	18.07
30	1.31	1.98	2.78	3.74	4.89	6.23	7.80	9.62	11.70	14.07	16.75
35	1.06	1.69	2.44	3.33	4.40	5.64	7.10	8.79	10.72	12.93	15.44
40	0.82	1.41	2.11	2.93	3.91	5.06	6.41	7.96	9.76	11.81	14.14
45	0.57	1.13	1.78	2.54	3.44	4.49	5.72	7.15	8.80	10.70	12.85
50	-	0.85	1.45	2.15	2.96	3.92	5.04	6.35	7.85	9.59	11.57
55	-	0.58	1.13	1.76	2.49	3.36	4.37	5.55	6.91	-	-

Power input [kW]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	1.35	1.59	1.83	2.04	2.22	2.36	2.46	2.51	2.49	2.40	2.24
25	1.30	1.58	1.84	2.09	2.32	2.51	2.67	2.77	2.82	2.80	2.71
30	1.24	1.54	1.84	2.12	2.39	2.63	2.83	3.00	3.11	3.16	3.14
35	1.16	1.48	1.81	2.13	2.43	2.71	2.97	3.18	3.35	3.47	3.52
40	1.08	1.42	1.77	2.12	2.46	2.78	3.08	3.34	3.57	3.74	3.86
45	1.00	1.35	1.72	2.10	2.47	2.83	3.17	3.48	3.75	3.99	4.17
50	-	1.29	1.68	2.08	2.47	2.87	3.24	3.60	3.93	4.21	4.45
55	-	1.24	1.64	2.06	2.48	2.90	3.32	3.71	4.08	-	-

Current [A]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	3.99	4.18	4.38	4.59	4.80	4.98	5.12	5.22	5.24	5.18	5.03
25	3.98	4.18	4.41	4.65	4.90	5.13	5.33	5.49	5.59	5.62	5.56
30	3.97	4.18	4.43	4.70	4.98	5.26	5.52	5.74	5.92	6.03	6.06
35	3.94	4.16	4.43	4.73	5.05	5.37	5.69	5.97	6.22	6.41	6.54
40	3.90	4.13	4.42	4.74	5.10	5.47	5.83	6.18	6.50	6.77	6.99
45	3.85	4.08	4.38	4.73	5.12	5.53	5.95	6.36	6.75	7.10	7.40
50	-	4.01	4.33	4.70	5.12	5.57	6.04	6.51	6.96	7.39	7.78
55	-	3.91	4.24	4.64	5.09	5.58	6.10	6.62	7.14	-	-

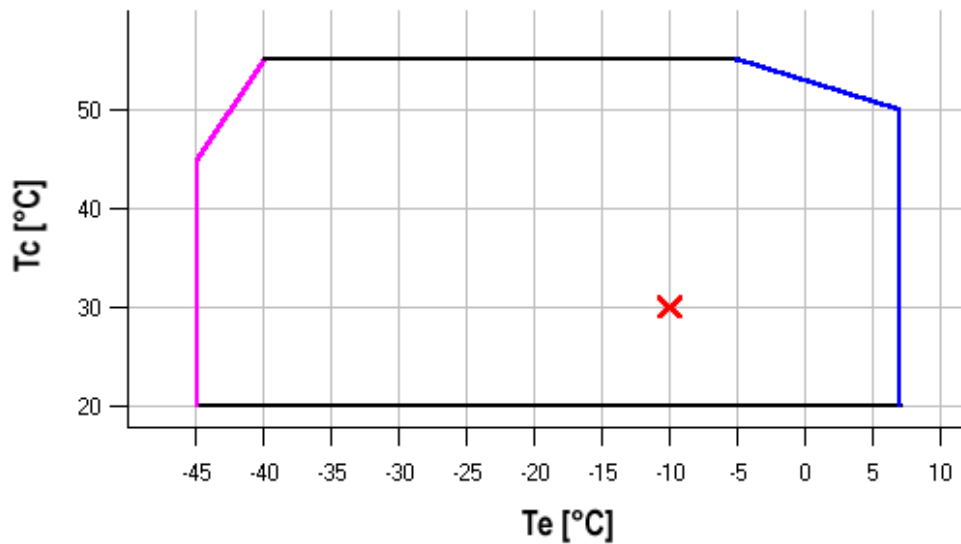
Mass flow [kg/s]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	38.46	56.59	77.44	101.92	130.98	165.53	206.51	254.83	311.42	377.21	453.13
25	34.79	52.46	72.82	96.79	125.30	159.28	199.64	247.32	303.25	368.34	443.53
30	30.87	48.11	68.01	91.49	119.48	152.90	192.68	239.75	295.03	359.45	433.94
35	26.64	43.47	62.93	85.94	113.42	146.32	185.54	232.02	286.68	350.45	424.26
40	22.00	38.44	57.49	80.05	107.06	139.45	178.14	224.06	278.12	341.27	414.42
45	16.87	32.96	51.61	73.75	100.32	132.22	170.40	215.77	269.27	331.82	404.34
50	-	26.93	45.22	66.96	93.10	124.55	162.24	207.10	260.05	322.02	393.93
55	-	20.28	38.22	59.60	85.33	116.35	153.57	197.94	250.37	-	-

C.O.P. [W/W]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	1.36	1.61	1.90	2.25	2.65	3.14	3.75	4.51	5.49	6.81	8.67
25	1.20	1.44	1.69	1.98	2.32	2.72	3.19	3.77	4.50	5.43	6.66
30	1.06	1.28	1.51	1.76	2.05	2.37	2.75	3.21	3.77	4.46	5.34
35	0.91	1.14	1.35	1.57	1.81	2.08	2.39	2.76	3.20	3.73	4.39
40	0.76	0.99	1.19	1.39	1.59	1.82	2.08	2.38	2.74	3.16	3.67
45	0.57	0.83	1.03	1.21	1.39	1.59	1.81	2.06	2.34	2.68	3.08
50	-	0.66	0.86	1.03	1.20	1.37	1.55	1.76	2.00	2.28	2.60
55	-	0.46	0.69	0.85	1.01	1.16	1.32	1.49	1.69	-	-

Application range

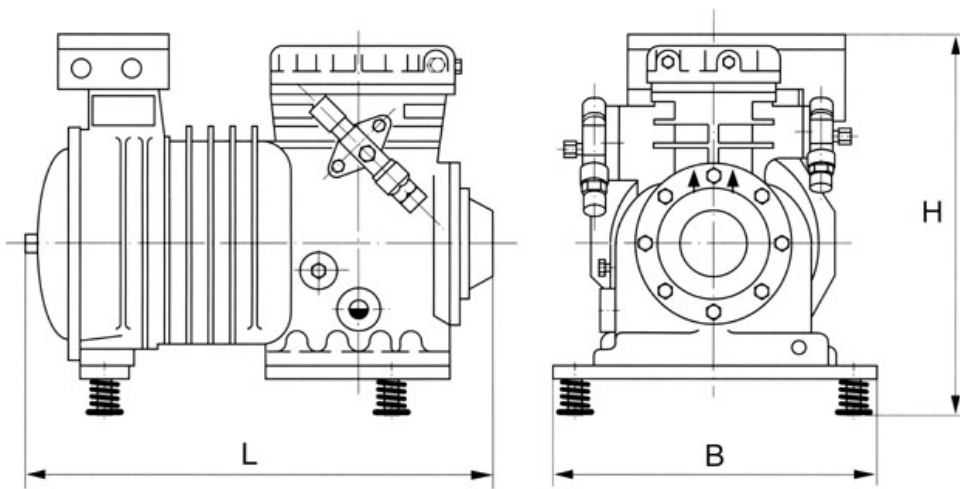


- Maximum evaporating temperature
- 25°C suction gas return + additional cooling

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

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]



L	470 mm
B	330 mm
H	385 mm

