

# Model: DKSJ-15 X

## Data

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Type: Semi-hermetic piston compressors

Producer: Copeland

Series: DK

## Model: DKSJ-15 X

### Technical data

Cylinder count:	2
Displacement [m <sup>3</sup> /h]:	6,3
Weight [kg]:	42
Oil charge [dm <sup>3</sup> ]:	0,6
Max. operating current [A]:	3,4
Locked rotor current [A]:	20,4
Power supply [V/~/Hz]:	380-420V/3/50Hz

### Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:		5/8"
Discharge line:		1/2"

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## Capacity

R22

### Cooling capacity [kW]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	0.74	1.02	1.39	1.84	2.38	3.00	3.72	4.53	5.42	6.42	7.50
35	0.64	0.91	1.25	1.68	2.19	2.79	3.47	4.24	5.10	6.04	7.08
40	0.56	0.80	1.13	1.53	2.01	2.58	3.22	3.96	4.77	5.68	6.67
45	0.47	0.70	1.00	1.38	1.84	2.37	2.98	3.68	4.45	5.31	6.26
50	0.40	0.61	0.89	1.24	1.66	2.17	2.74	3.40	4.14	4.95	5.85
55	0.32	0.51	0.77	1.10	1.49	1.97	2.51	3.13	3.82	-	-
60	-	-	0.66	0.96	1.33	1.77	2.28	2.86	-	-	-

### Power input [kW]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	0.69	0.77	0.86	0.95	1.03	1.10	1.15	1.19	1.20	1.18	1.14
35	0.69	0.78	0.88	0.98	1.08	1.16	1.24	1.29	1.33	1.33	1.31
40	0.68	0.79	0.90	1.01	1.12	1.22	1.32	1.39	1.45	1.48	1.48
45	0.67	0.79	0.91	1.04	1.16	1.28	1.39	1.48	1.56	1.61	1.63
50	0.66	0.78	0.92	1.05	1.19	1.33	1.45	1.57	1.66	1.73	1.78
55	0.64	0.77	0.92	1.07	1.22	1.37	1.51	1.64	1.76	-	-
60	-	-	0.92	1.08	1.24	1.40	1.56	1.71	-	-	-

# Model: DKSJ-15 X

## Capacity

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### Current [A]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
<b>30</b>	2.00	2.06	2.14	2.22	2.30	2.37	2.43	2.47	2.48	2.46	2.41
<b>35</b>	2.00	2.07	2.16	2.25	2.35	2.44	2.52	2.58	2.62	2.63	2.60
<b>40</b>	1.99	2.08	2.18	2.28	2.40	2.50	2.60	2.69	2.75	2.79	2.79
<b>45</b>	1.99	2.08	2.19	2.31	2.44	2.56	2.68	2.79	2.88	2.94	2.97
<b>50</b>	1.97	2.07	2.20	2.33	2.47	2.62	2.76	2.89	3.00	3.09	3.15
<b>55</b>	1.95	2.06	2.20	2.34	2.50	2.67	2.83	2.98	3.12	-	-
<b>60</b>	-	-	2.19	2.35	2.53	2.71	2.89	3.06	-	-	-

### Mass flow [kg/s]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
<b>30</b>	16.71	22.85	30.64	40.05	51.07	63.67	77.85	93.58	110.85	129.64	149.93
<b>35</b>	15.26	21.24	28.86	38.11	48.96	61.39	75.40	90.96	108.06	126.67	146.79
<b>40</b>	13.81	19.63	27.08	36.15	46.83	59.10	72.93	88.32	105.24	123.68	143.63
<b>45</b>	12.33	17.97	25.26	34.16	44.67	56.76	70.42	85.64	102.38	120.64	140.41
<b>50</b>	10.79	16.26	23.38	32.11	42.44	54.36	67.84	82.88	99.45	117.53	137.11
<b>55</b>	9.17	14.47	21.41	29.97	40.12	51.87	65.17	80.03	96.42	-	-
<b>60</b>	-	-	19.34	27.72	37.70	49.26	62.39	77.06	-	-	-

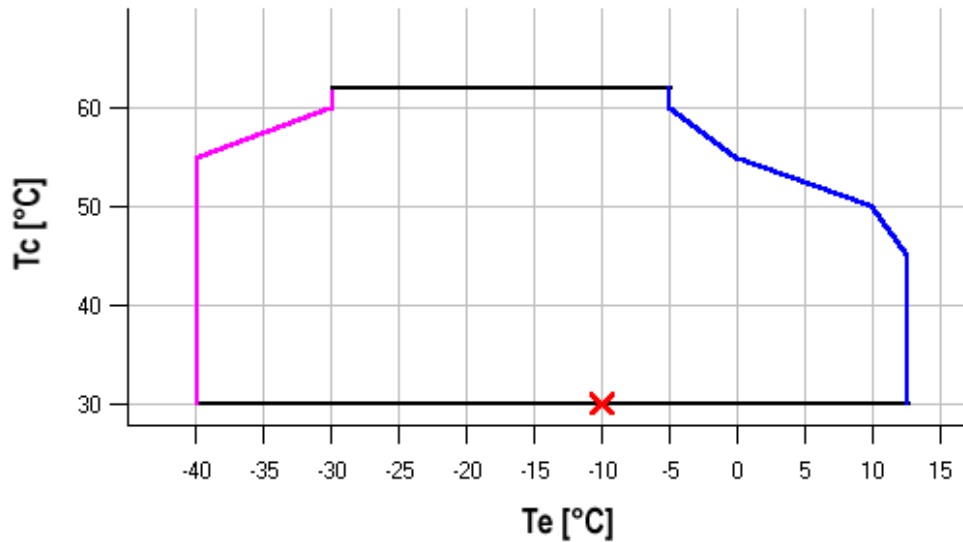
# Model: DKSJ-15 X

Capacity

## C.O.P. [W/W]

$t_c \setminus t_e$	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10
30	1.07	1.32	1.61	1.94	2.31	2.74	3.23	3.81	4.52	5.42	6.61
35	0.94	1.16	1.42	1.71	2.03	2.39	2.80	3.28	3.84	4.53	5.41
40	0.82	1.02	1.26	1.51	1.79	2.10	2.45	2.84	3.30	3.85	4.52
45	0.71	0.89	1.10	1.33	1.58	1.85	2.15	2.48	2.86	3.30	3.83
50	0.60	0.77	0.97	1.17	1.40	1.63	1.89	2.17	2.49	2.86	3.29
55	0.50	0.66	0.84	1.03	1.23	1.44	1.66	1.91	2.18	-	-
60	-	-	0.72	0.89	1.07	1.26	1.46	1.67	-	-	-

## 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]

# Model: DKSJ-15 X

## Capacity

R404A/R507

### Cooling capacity [kW]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	0.84	1.16	1.54	2.00	2.55	3.19	3.94	4.81	5.80	6.92	8.20
25	0.75	1.05	1.41	1.84	2.35	2.95	3.65	4.46	5.40	6.46	7.66
30	0.66	0.94	1.27	1.67	2.15	2.71	3.37	4.13	5.00	6.00	7.13
35	0.57	0.83	1.14	1.52	1.96	2.48	3.09	3.80	4.61	5.55	6.61
40	0.48	0.73	1.02	1.36	1.77	2.25	2.82	3.47	4.23	5.10	6.09
45	0.40	0.63	0.90	1.21	1.59	2.03	2.55	3.15	3.85	4.66	-
50	0.31	0.53	0.78	1.06	1.40	1.81	2.28	2.83	3.48	-	-
55	-	0.43	0.66	0.92	1.23	1.59	2.02	-	-	-	-

### Power input [kW]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	0.64	0.76	0.87	0.98	1.07	1.15	1.20	1.21	1.18	1.11	0.98
25	0.63	0.75	0.87	1.00	1.11	1.21	1.28	1.33	1.33	1.30	1.21
30	0.62	0.74	0.87	1.01	1.14	1.25	1.35	1.43	1.47	1.47	1.42
35	0.60	0.72	0.86	1.01	1.15	1.29	1.41	1.51	1.59	1.62	1.62
40	0.58	0.71	0.85	1.01	1.17	1.32	1.46	1.59	1.69	1.76	1.80
45	0.57	0.70	0.85	1.01	1.18	1.35	1.51	1.66	1.79	1.89	-
50	0.57	0.69	0.84	1.01	1.19	1.37	1.55	1.72	1.88	-	-
55	-	0.70	0.84	1.01	1.20	1.39	1.59	-	-	-	-

# Model: DKSJ-15 X

## Capacity

### Current [A]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
<b>20</b>	1.87	1.94	2.04	2.14	2.24	2.34	2.41	2.46	2.47	2.44	2.36
<b>25</b>	1.85	1.93	2.03	2.15	2.27	2.38	2.48	2.56	2.61	2.62	2.58
<b>30</b>	1.84	1.92	2.04	2.16	2.30	2.44	2.57	2.68	2.76	2.81	2.81
<b>35</b>	1.84	1.93	2.05	2.19	2.34	2.50	2.66	2.80	2.91	3.00	3.05
<b>40</b>	1.85	1.94	2.06	2.22	2.39	2.57	2.74	2.91	3.07	3.19	3.28
<b>45</b>	1.85	1.94	2.07	2.24	2.42	2.62	2.83	3.03	3.21	3.38	-
<b>50</b>	1.84	1.93	2.07	2.25	2.45	2.67	2.90	3.12	3.34	-	-
<b>55</b>	-	1.91	2.06	2.24	2.46	2.70	2.95	-	-	-	-

### Mass flow [kg/s]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
<b>20</b>	18.06	25.60	34.27	44.44	56.53	70.93	88.04	108.24	131.94	159.53	191.41
<b>25</b>	16.84	24.21	32.69	42.68	54.58	68.77	85.67	105.65	129.13	156.48	188.12
<b>30</b>	15.56	22.77	31.07	40.88	52.59	66.59	83.28	103.05	126.30	153.43	184.83
<b>35</b>	14.24	21.28	29.42	39.05	50.57	64.37	80.86	100.42	123.46	150.37	181.53
<b>40</b>	12.87	19.75	27.72	37.18	48.51	62.13	78.42	97.78	120.60	147.28	178.22
<b>45</b>	11.44	18.17	25.97	35.26	46.42	59.85	75.94	95.10	117.71	144.18	-
<b>50</b>	9.96	16.53	24.18	33.30	44.28	57.53	73.43	92.39	114.80	-	-
<b>55</b>	-	14.84	22.33	31.28	42.10	55.17	70.88	-	-	-	-

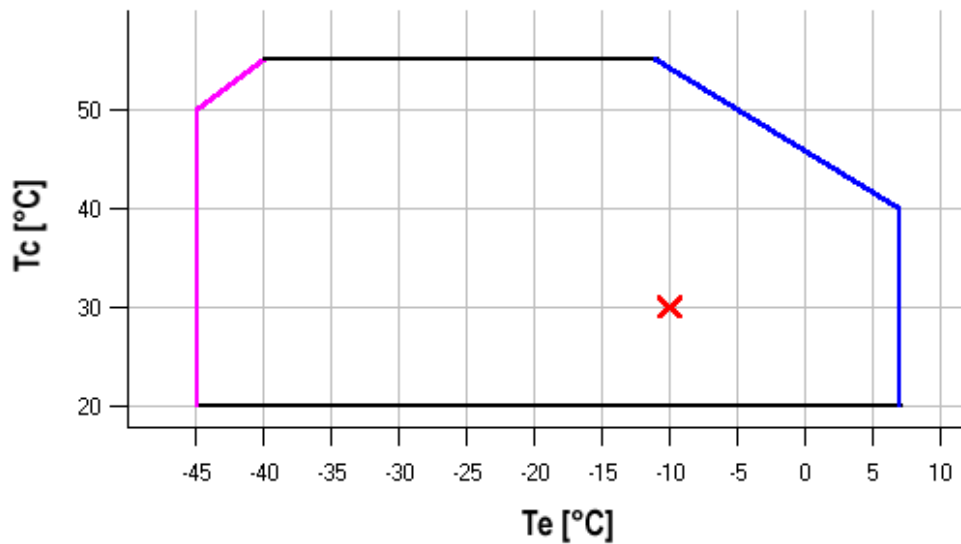
# Model: DKSJ-15 X

Capacity

## C.O.P. [W/W]

$t_c \setminus t_e$	-45	-40	-35	-30	-25	-20	-15	-10	-5	0	5
20	1.31	1.53	1.77	2.04	2.37	2.78	3.29	3.97	4.90	6.25	8.39
25	1.19	1.40	1.61	1.84	2.12	2.44	2.85	3.37	4.04	4.98	6.33
30	1.07	1.27	1.46	1.67	1.89	2.16	2.49	2.89	3.41	4.09	5.01
35	0.95	1.15	1.33	1.50	1.70	1.92	2.19	2.51	2.91	3.42	4.09
40	0.82	1.02	1.19	1.35	1.52	1.71	1.92	2.18	2.50	2.89	3.39
45	0.69	0.90	1.06	1.20	1.35	1.51	1.69	1.90	2.15	2.46	-
50	0.55	0.76	0.92	1.06	1.18	1.32	1.47	1.64	1.85	-	-
55	-	0.62	0.78	0.91	1.02	1.14	1.27	-	-	-	-

## Application range



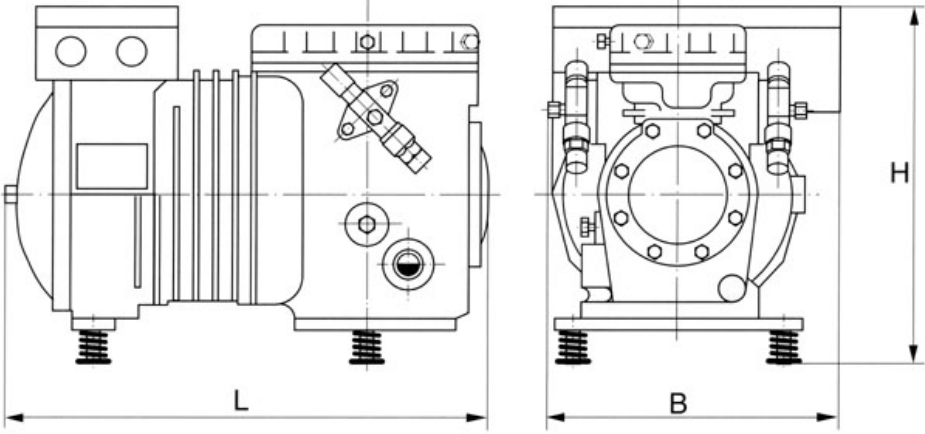
- Maximum evaporating temperature
- 25°C suction gas return + additional cooling

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

$t_c$  - Condensing temperature [°C]

$t_e$  - Evaporating temperature [°C]

**Model: DKSJ-15 X**  
**Dimensions**



L	365 mm
B	235 mm
H	280 mm



# Model: DKSJ-15 X

Image

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