

# Model: D6SH-350 X

## Data

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Type: Semi-hermetic piston compressors

Producer: Copeland

Series: S

## Model: D6SH-350 X

### Technical data

Cylinder count:	6
Displacement [m <sup>3</sup> /h]:	106
Weight [kg]:	240
Oil charge [dm <sup>3</sup> ]:	4,3
Max. operating current [A]:	62,4
Locked rotor current [A]:	284
Power supply [V/~/Hz]:	400V/3/50Hz

### Connections

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

# Model: D6SH-350 X

## Capacity

R22

### Cooling capacity [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	40.26	49.93	61.43	74.99	90.83	109.17	-	-
15	38.01	47.39	58.51	71.57	86.80	104.44	-	-
20	35.75	44.84	55.55	68.11	82.73	99.65	119.08	-
25	33.49	42.28	52.58	64.62	78.62	94.81	113.41	134.64
30	31.25	39.72	49.60	61.11	74.48	89.93	107.69	127.97
35	29.03	37.17	46.62	57.60	70.32	85.03	101.92	121.25
40	26.84	34.65	43.66	54.08	66.16	80.10	96.13	114.48
45	24.70	32.16	40.71	50.58	61.99	75.17	90.32	107.69
50	22.61	29.71	37.80	47.10	57.84	70.23	84.51	100.88
55	-	-	34.93	43.66	53.71	65.31	78.69	94.06
60	-	-	-	40.25	49.61	60.41	72.88	87.24

### Power input [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	12.33	12.86	13.14	13.11	12.73	11.95	-	-
15	12.94	13.70	14.24	14.51	14.46	14.04	-	-
20	13.55	14.54	15.33	15.89	16.15	16.09	15.64	-
25	14.15	15.35	16.39	17.23	17.81	18.09	18.02	17.56
30	14.73	16.14	17.42	18.52	19.41	20.03	20.33	20.27
35	15.29	16.90	18.40	19.77	20.96	21.90	22.57	22.91
40	15.82	17.61	19.34	20.97	22.44	23.71	24.73	25.45
45	16.31	18.28	20.22	22.10	23.85	25.43	26.79	27.90
50	16.75	18.89	21.04	23.15	25.17	27.06	28.77	30.24
55	-	-	21.79	24.13	26.42	28.60	30.64	32.47
60	-	-	-	25.02	27.57	30.04	32.39	34.59

# Model: D6SH-350 X

## Capacity

### Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	26.96	27.69	28.06	27.99	27.40	26.23	-	-
15	27.84	28.90	29.66	30.02	29.92	29.29	-	-
20	28.72	30.10	31.23	32.02	32.40	32.29	31.62	-
25	29.58	31.28	32.77	33.98	34.82	35.23	35.12	34.42
30	30.41	32.42	34.27	35.88	37.18	38.09	38.54	38.45
35	31.21	33.51	35.70	37.71	39.45	40.86	41.86	42.36
40	31.97	34.55	37.07	39.46	41.64	43.54	45.07	46.16
45	32.66	35.52	38.37	41.13	43.73	46.10	48.16	49.83
50	33.29	36.41	39.57	42.70	45.71	48.55	51.12	53.36
55	-	-	40.67	44.15	47.58	50.87	53.94	56.74
60	-	-	-	45.49	49.31	53.04	56.62	59.95

### Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	677.94	848.13	1 047.72	1 283.11	1 560.70	1 886.87	-	-
15	658.68	828.12	1 026.50	1 260.25	1 535.75	1 859.39	-	-
20	638.95	807.27	1 004.11	1 235.87	1 508.95	1 829.73	2 204.62	-
25	618.81	785.69	980.65	1 210.08	1 480.39	1 797.97	2 169.21	2 600.52
30	598.38	763.47	956.21	1 182.98	1 450.18	1 764.20	2 131.46	2 558.34
35	577.74	740.71	930.88	1 154.64	1 418.39	1 728.54	2 091.47	2 513.58
40	556.98	717.49	904.75	1 125.17	1 385.13	1 691.05	2 049.32	2 466.32
45	536.21	693.91	877.92	1 094.66	1 350.50	1 651.85	2 005.11	2 416.67
50	515.50	670.06	850.49	1 063.20	1 314.57	1 611.02	1 958.93	2 364.70
55	-	-	822.55	1 030.89	1 277.46	1 568.65	1 910.88	2 310.53
60	-	-	-	997.81	1 239.24	1 524.85	1 861.05	2 254.23

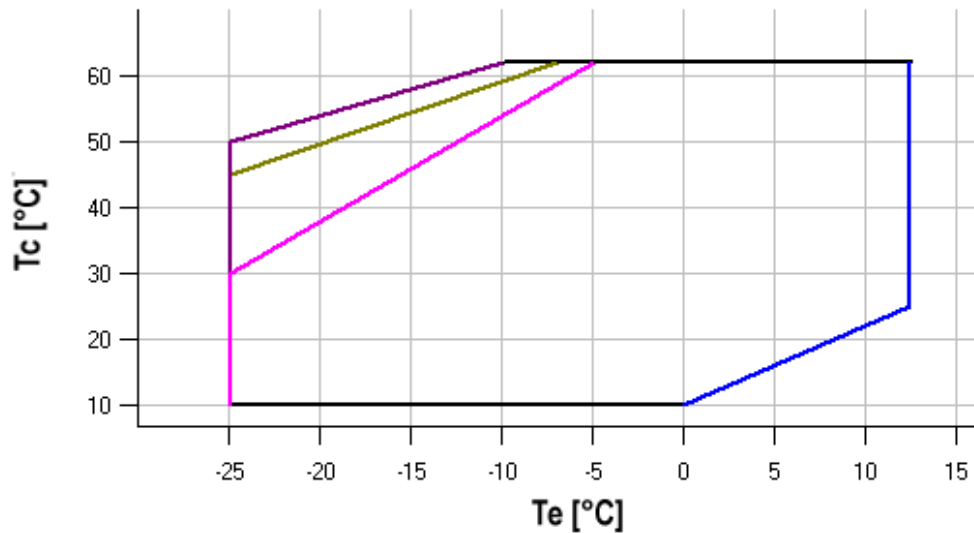
# Model: D6SH-350 X





Capacity

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

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	3.27	3.88	4.68	5.72	7.14	9.14	-	-
15	2.94	3.46	4.11	4.93	6.00	7.44	-	-
20	2.64	3.08	3.62	4.29	5.12	6.19	7.61	-
25	2.37	2.75	3.21	3.75	4.42	5.24	6.29	7.67
30	2.12	2.46	2.85	3.30	3.84	4.49	5.30	6.31
35	1.90	2.20	2.53	2.91	3.36	3.88	4.52	5.29
40	1.70	1.97	2.26	2.58	2.95	3.38	3.89	4.50
45	1.51	1.76	2.01	2.29	2.60	2.96	3.37	3.86
50	1.35	1.57	1.80	2.03	2.30	2.60	2.94	3.34
55	-	-	1.60	1.81	2.03	2.28	2.57	2.90
60	-	-	-	1.61	1.80	2.01	2.25	2.52

## Application range



-  Maximum evaporating temperature
-  25°C suction gas temperature
-  10K suction gas return + additional cooling
-  20K 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]

# Model: D6SH-350 X

## Capacity

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R404A/R507

### Cooling capacity [kW]

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5
30	20.13	26.69	34.49	43.74	54.62	67.32	82.03	98.96	118.28
35	17.84	24.10	31.44	40.07	50.16	61.92	75.54	91.20	109.10
40	-	21.60	28.45	36.42	45.70	56.48	68.96	83.33	99.77
45	-	19.17	25.50	32.78	41.22	50.99	62.31	75.34	90.30
50	-	16.82	22.59	29.15	36.71	45.45	55.56	67.24	80.67
55	-	14.54	19.71	25.53	32.18	39.84	48.72	59.01	70.89

### Power input [kW]

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5
30	11.57	14.01	16.36	18.55	20.53	22.23	23.59	24.55	25.05
35	11.69	14.28	16.82	19.23	21.45	23.43	25.10	26.40	27.28
40	-	14.50	17.21	19.82	22.27	24.52	26.48	28.11	29.34
45	-	14.68	17.54	20.33	23.01	25.50	27.74	29.68	31.25
50	-	14.83	17.82	20.78	23.66	26.38	28.88	31.11	33.01
55	-	14.94	18.06	21.17	24.23	27.16	29.91	32.42	34.62

# Model: D6SH-350 X

## Capacity

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### Current [A]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>
<b>30</b>	25.99	29.40	32.74	35.91	38.81	41.33	43.36	44.80	45.54
<b>35</b>	26.14	29.78	33.40	36.90	40.17	43.12	45.62	47.58	48.88
<b>40</b>	-	30.09	33.97	37.77	41.40	44.74	47.69	50.14	51.99
<b>45</b>	-	30.34	34.45	38.53	42.49	46.20	49.58	52.50	54.88
<b>50</b>	-	30.54	34.86	39.20	43.45	47.52	51.30	54.67	57.54
<b>55</b>	-	30.71	35.20	39.77	44.31	48.71	52.86	56.66	60.00

### Mass flow [kg/s]

<b>t<sub>c</sub> \ t<sub>e</sub></b>	<b>-35</b>	<b>-30</b>	<b>-25</b>	<b>-20</b>	<b>-15</b>	<b>-10</b>	<b>-5</b>	<b>0</b>	<b>5</b>
<b>30</b>	482.73	652.73	848.31	1 078.49	1 352.31	1 678.79	2 066.95	2 525.83	3 064.45
<b>35</b>	451.70	621.58	815.80	1 043.38	1 313.35	1 634.73	2 016.55	2 467.85	2 997.65
<b>40</b>	-	591.07	782.78	1 006.61	1 271.58	1 586.72	1 961.07	2 403.64	2 923.47
<b>45</b>	-	560.95	749.02	967.96	1 226.79	1 534.56	1 900.28	2 332.98	2 841.69
<b>50</b>	-	531.04	714.31	927.22	1 178.77	1 478.02	1 833.97	2 255.66	2 752.12
<b>55</b>	-	501.10	678.45	884.17	1 127.31	1 416.88	1 761.92	2 171.46	2 654.52

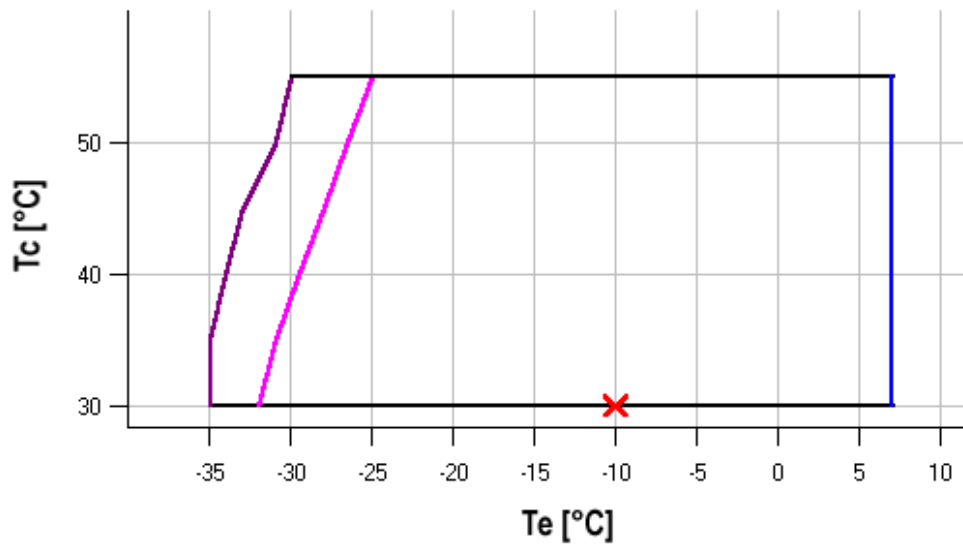
# Model: D6SH-350 X



Capacity

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

$t_c \setminus t_e$	-35	-30	-25	-20	-15	-10	-5	0	5
30	1.74	1.90	2.11	2.36	2.66	3.03	3.48	4.03	4.72
35	1.53	1.69	1.87	2.08	2.34	2.64	3.01	3.45	4.00
40	-	1.49	1.65	1.84	2.05	2.30	2.60	2.96	3.40
45	-	1.31	1.45	1.61	1.79	2.00	2.25	2.54	2.89
50	-	1.13	1.27	1.40	1.55	1.72	1.92	2.16	2.44
55	-	0.97	1.09	1.21	1.33	1.47	1.63	1.82	2.05

## Application range



 Maximum evaporating temperature  
 25°C suction gas 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: D6SH-350 X

## Capacity

R407C

### Cooling capacity [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	35.04	44.64	56.38	70.54	87.38	107.16	-	-
15	33.08	42.35	53.62	67.15	83.22	102.10	124.05	-
20	31.09	40.00	50.78	63.67	78.97	96.93	117.82	141.92
25	29.06	37.61	47.88	60.13	74.64	91.67	111.49	134.37
30	27.01	35.19	44.95	56.54	70.25	86.33	105.07	126.72
35	24.96	32.76	41.99	52.92	65.81	80.94	98.58	118.99
40	22.93	30.34	39.03	49.27	61.34	75.51	92.04	111.20
45	20.93	27.93	36.07	45.62	56.86	70.05	85.46	103.36
50	-	25.56	33.14	41.99	52.38	64.58	78.85	95.48
55	-	-	30.24	38.38	47.91	59.11	72.24	87.59
60	-	-	-	34.81	43.47	53.66	65.64	79.69

### Power input [kW]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	9.51	10.36	11.00	11.35	11.34	10.90	-	-
15	10.31	11.38	12.28	12.93	13.26	13.20	12.66	-
20	11.03	12.31	13.46	14.39	15.04	15.34	15.20	14.56
25	11.69	13.17	14.54	15.74	16.69	17.33	17.57	17.34
30	12.28	13.94	15.52	16.97	18.21	19.17	19.77	19.94
35	12.82	14.63	16.41	18.09	19.60	20.86	21.81	22.36
40	13.29	15.24	17.20	19.09	20.86	22.41	23.68	24.60
45	13.71	15.78	17.90	19.99	21.99	23.81	25.40	26.66
50	-	16.24	18.51	20.78	23.00	25.08	26.95	28.55
55	-	-	19.03	21.47	23.88	26.20	28.35	30.26
60	-	-	-	22.05	24.65	27.19	29.60	31.80



# Model: D6SH-350 X

## Capacity

### Current [A]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	26.11	26.59	26.83	26.85	26.63	26.18	-	-
15	27.02	27.91	28.56	28.97	29.16	29.11	28.84	-
20	27.81	29.09	30.15	30.97	31.56	31.91	32.04	31.93
25	28.46	30.15	31.60	32.83	33.82	34.58	35.11	35.41
30	28.97	31.07	32.93	34.55	35.95	37.11	38.05	38.75
35	29.36	31.85	34.11	36.15	37.95	39.51	40.85	41.95
40	29.60	32.50	35.17	37.60	39.81	41.78	43.52	45.02
45	29.72	33.02	36.09	38.93	41.54	43.91	46.05	47.96
50	-	33.41	36.88	40.12	43.13	45.91	48.45	50.77
55	-	-	37.53	41.18	44.59	47.77	50.72	53.44
60	-	-	-	42.10	45.92	49.50	52.86	55.98

### Mass flow [kg/s]

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	548.99	711.54	903.86	1 133.91	1 409.60	1 738.90	-	-
15	536.67	697.51	887.74	1 115.28	1 388.08	1 714.08	2 101.21	-
20	523.50	682.20	869.88	1 094.49	1 363.96	1 686.22	2 069.22	2 520.90
25	509.71	665.83	850.53	1 071.76	1 337.45	1 655.54	2 033.97	2 480.67
30	495.52	648.60	829.88	1 047.29	1 308.77	1 622.24	1 995.66	2 436.95
35	481.13	630.75	808.17	1 021.32	1 278.14	1 586.56	1 954.52	2 389.97
40	466.78	612.50	785.61	994.06	1 245.78	1 548.70	1 910.78	2 339.93
45	452.68	594.05	762.42	965.72	1 211.91	1 508.90	1 864.64	2 287.06
50	-	575.63	738.82	936.54	1 176.74	1 467.36	1 816.33	2 231.58
55	-	-	715.02	906.73	1 140.51	1 424.31	1 766.06	2 173.70
60	-	-	-	876.50	1 103.42	1 379.96	1 714.06	2 113.65

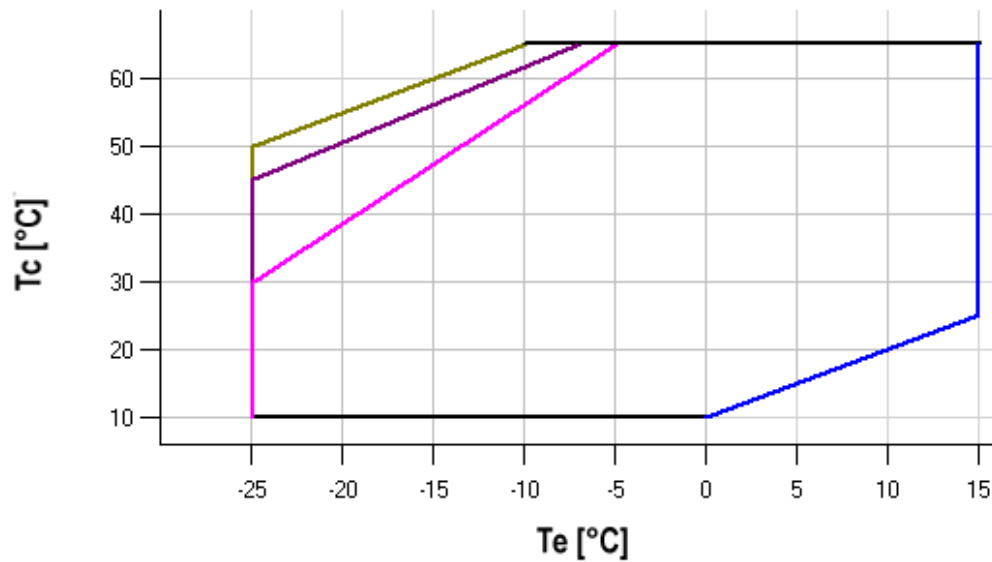
# Model: D6SH-350 X

Capacity

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

$t_c \setminus t_e$	-25	-20	-15	-10	-5	0	5	10
10	3.68	4.31	5.13	6.21	7.70	9.83	-	-
15	3.21	3.72	4.37	5.19	6.28	7.74	9.80	-
20	2.82	3.25	3.77	4.42	5.25	6.32	7.75	9.75
25	2.49	2.86	3.29	3.82	4.47	5.29	6.35	7.75
30	2.20	2.53	2.90	3.33	3.86	4.50	5.31	6.35
35	1.95	2.24	2.56	2.93	3.36	3.88	4.52	5.32
40	1.73	1.99	2.27	2.58	2.94	3.37	3.89	4.52
45	1.53	1.77	2.02	2.28	2.59	2.94	3.36	3.88
50	-	1.57	1.79	2.02	2.28	2.57	2.93	3.34
55	-	-	1.59	1.79	2.01	2.26	2.55	2.89
60	-	-	-	1.58	1.76	1.97	2.22	2.51

## Application range

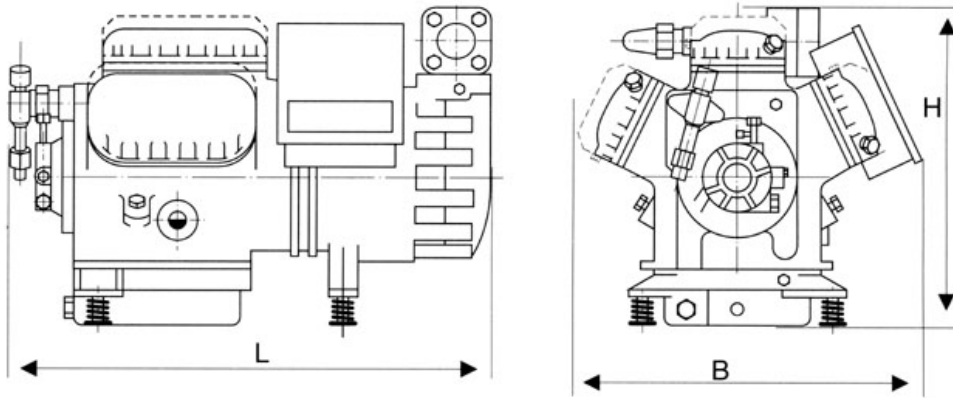


- Maximum evaporating temperature
- 25°C suction gas temperature
- 20K suction gas return
- 20K suction gas return + additional cooling

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

# Model: D6SH-350 X

## Dimensions



L	760 mm
B	540 mm
H	490 mm

# Model: D6SH-350 X

Image

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