

Type: Semi-hermetic twin screw compressors

Producer: Frascold

Series: C-TSH

Model: C-TSH8-90 270 Y ECO

Technical data

Nominal motor power [kW/HP]:	66,5 / 90
Displacement [m ³ /h]:	270
Capacity control [%]:	100 - 75 - 50
RPM [min ⁻¹]:	1740
Weight net [kg]:	433
Weight gross [kg]:	465
Oil charge [dm ³]:	13

Electrical data

	<u>PWS</u>
Power supply [V/~ /Hz]:	400/3/50
Locked rotor current [A]:	499
Locked rotor current (D.O.L. - ΔΔ) [A]:	814
Max. operating current [A]:	185
Max. power input [kW]:	116

Connections

	<u>milimeters</u>	<u>inches</u>
Suction line:	80	3 1/8
Discharge line:	54	2 1/8

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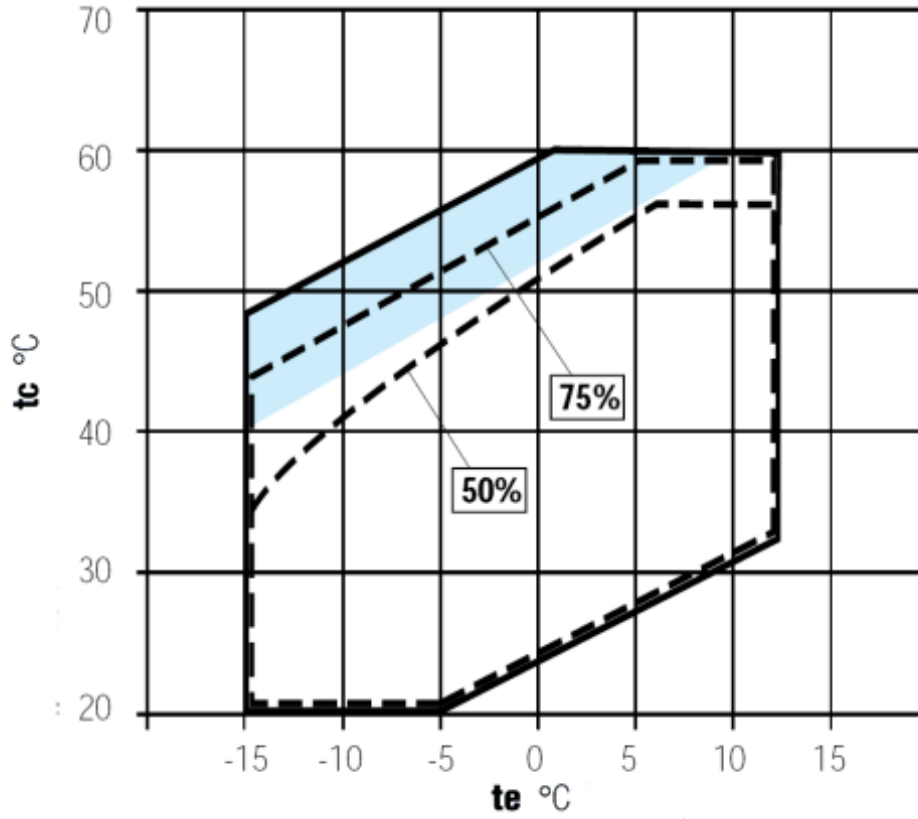
Cooling capacity [W]

$t_c \setminus t_e$	12.5	10	5	0	-5	-10	-15
30	-	-	303 460	258 760	219 010	183 730	152 530
40	354 350	328 950	282 100	240 160	202 810	169 610	140 190
50	326 810	303 290	259 810	220 810	185 980	154 950	-
55	312 630	290 150	248 540	211 120	177 650	-	-

Power input [W]

$t_c \setminus t_e$	12.5	10	5	0	-5	-10	-15
30	-	-	56.98	54.09	51.54	49.33	47.96
40	70.83	69.84	67.32	64.49	61.80	59.45	58.05
50	84.96	83.69	80.71	77.62	74.97	73.09	-
55	93.91	92.33	88.92	85.75	83.39	-	-

Application limits



With liquid injection or oil cooler

Operating conditions: suction gas overheating 10K, 10K subcooling

t_c - Condensing temperature [$^{\circ}\text{C}$]

t_e - Evaporating temperature [$^{\circ}\text{C}$]

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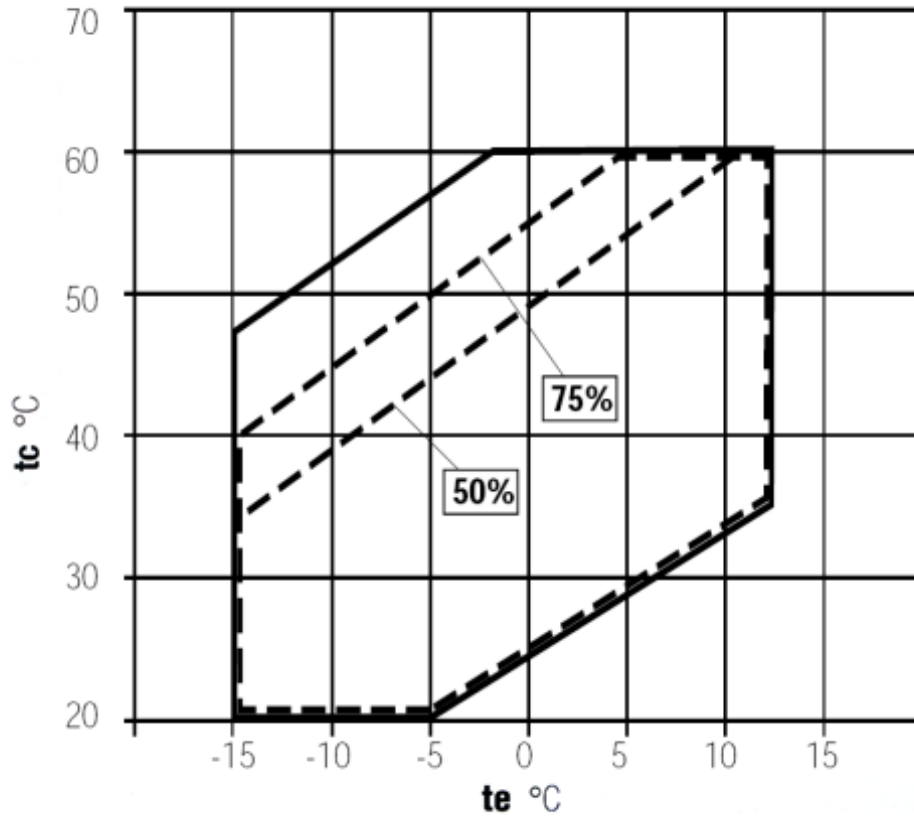
Cooling capacity [W]

$t_c \setminus t_e$	12.5	10	5	0	-5	-10	-15
30	-	-	289 410	246 640	209 080	176 300	147 830
40	341 410	316 450	270 890	230 740	195 410	164 490	137 560
50	317 960	294 940	252 800	215 550	182 670	153 840	-
55	306 030	284 180	244 130	208 660	177 300	-	-

Power input [W]

$t_c \setminus t_e$	12.5	10	5	0	-5	-10	-15
30	-	-	54.42	51.59	49.11	47.16	46.25
40	68.54	67.32	64.62	61.74	59.15	57.19	56.46
50	82.71	81.29	78.32	75.38	73.02	71.73	-
55	91.14	89.48	86.30	83.50	81.77	-	-

Application limits

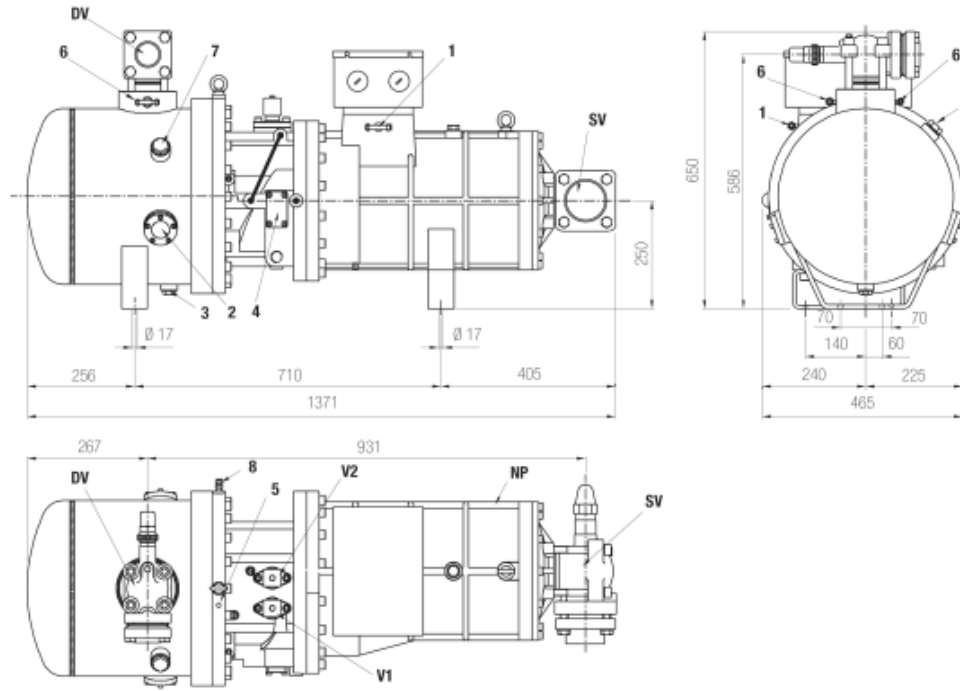


With liquid injection or oil cooler

Operating conditions: suction gas overheating 10K, 10K subcooling

t_c - Condensing temperature [$^{\circ}\text{C}$]

t_e - Evaporating temperature [$^{\circ}\text{C}$]



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|-----|--|-----|-----------------------------------|
| 1: | low pressure connections | 2: | oil level sight glass |
| 3: | oil drain | 4: | connections for remote oil cooler |
| 5: | maximum discharge temperature sensor | 6: | capacity control valve |
| 6: | high pressure connections | 7: | oil charge plug |
| 8: | liquid injection/economizer connection | DV: | discharge valve |
| NP: | name plate | SV: | suction valve |
| V1: | capacity control valve 50% | V2: | capacity control valve 75% |

