

Type: Semi-hermetic twin screw compressors

Producer: Frascold

Series: R-TSL

Model: R-TSL1-100 360 Y ECO

Technical data

Nominal motor power [kW/HP]:	74 / 100
Displacement [m ³ /h]:	360
Capacity control [%]:	100 - 75 - 50
RPM [min ⁻¹]:	2960
Weight net [kg]:	344
Weight gross [kg]:	379

Electrical data

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

Connections

	<u>millimeters</u>	<u>inches</u>
Suction line:	80	3 1/8
Discharge line:	67	2 5/8

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Cooling capacity [W]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45	-50
30	181 980	150 000	122 210	98 140	77 350	59 620	44 610
40	171 910	141 100	114 250	90 970	70 810	53 560	-
50	160 220	130 450	104 440	81 820	62 190	-	-
55	155 630	126 270	100 590	78 220	58 780	-	-

Power input [kW]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45	-50
30	68.98	63.24	57.68	52.58	48.14	44.87	43.77
40	77.79	71.25	65.20	59.95	55.85	53.87	-
50	88.20	81.54	75.57	70.64	67.30	-	-
55	97.94	90.41	83.90	78.94	76.49	-	-

Current [A]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45	-50
30	112.80	104.30	96.40	89.40	83.30	78.70	77.20
40	126.50	116.20	107.20	99.60	93.90	91.20	-
50	142.40	132.30	123.00	115.30	110.30	-	-
55	157.30	145.70	135.90	128.30	124.40	-	-

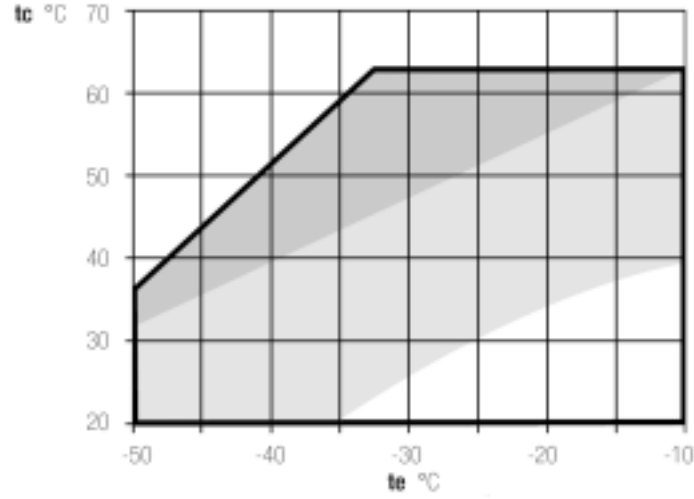
Mass flow [kg/h]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45	-50
30	3 462	2 835	2 295	1 831	1 434	1 098	816
40	3 357	2 734	2 198	1 737	1 342	1 007	-
50	3 212	2 592	2 058	1 599	1 205	-	-
55	3 161	2 541	2 006	1 546	1 151	-	-

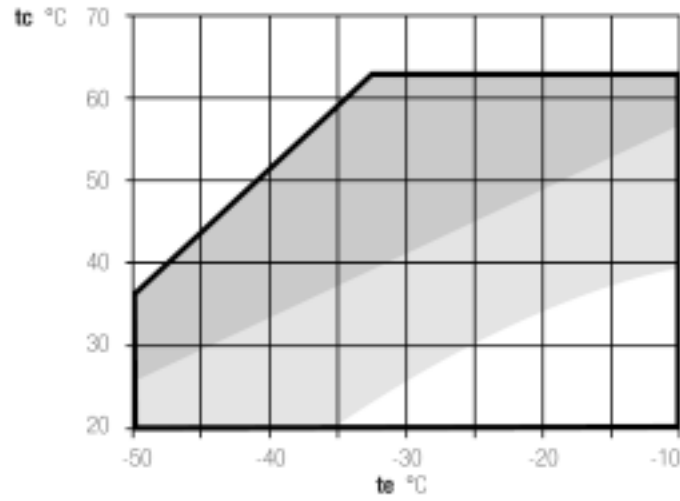
Operating conditions: suction gas overheating 10K, 10K subcooling

Application limits

Full load operation



Capacity control



- With oil cooler
- With liquid injection and oil cooler

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]

R404A/R507

Cooling capacity [W]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45
30	197 330	163 690	135 070	109 680	88 030	68 030
40	180 730	149 040	121 700	97 530	76 870	57 550
50	160 550	131 350	106 140	83 570	-	-
55	156 650	127 440	102 340	-	-	-

Power input [kW]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45
30	73.99	70.38	66.76	62.88	59.26	55.59
40	89.57	84.41	79.48	74.42	69.66	64.60
50	108.14	100.89	94.36	87.75	-	-
55	119.77	111.23	103.45	-	-	-

Current [A]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45
30	120.50	114.90	109.50	103.80	98.60	93.50
40	144.50	136.60	129.20	121.10	113.80	106.30
50	173.60	161.80	151.80	141.70	-	-
55	191.00	176.90	164.50	-	-	-

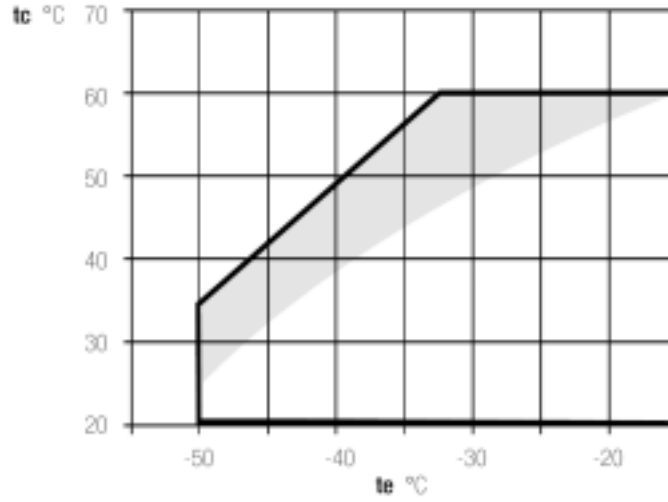
Mass flow [kg/h]

$t_c \setminus t_e$	-20	-25	-30	-35	-40	-45
30	4 857	4 008	3 289	2 656	2 123	1 620
40	4 633	3 791	3 076	2 447	1 916	1 414
50	4 296	3 480	2 786	2 175	-	-
55	4 216	3 399	2 704	-	-	-

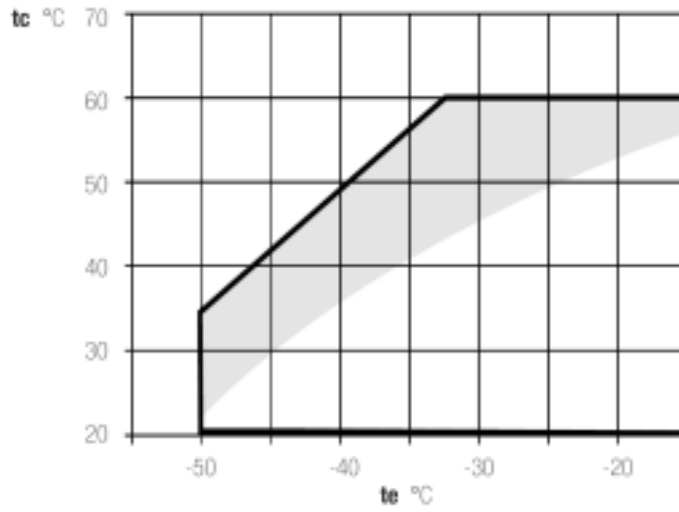
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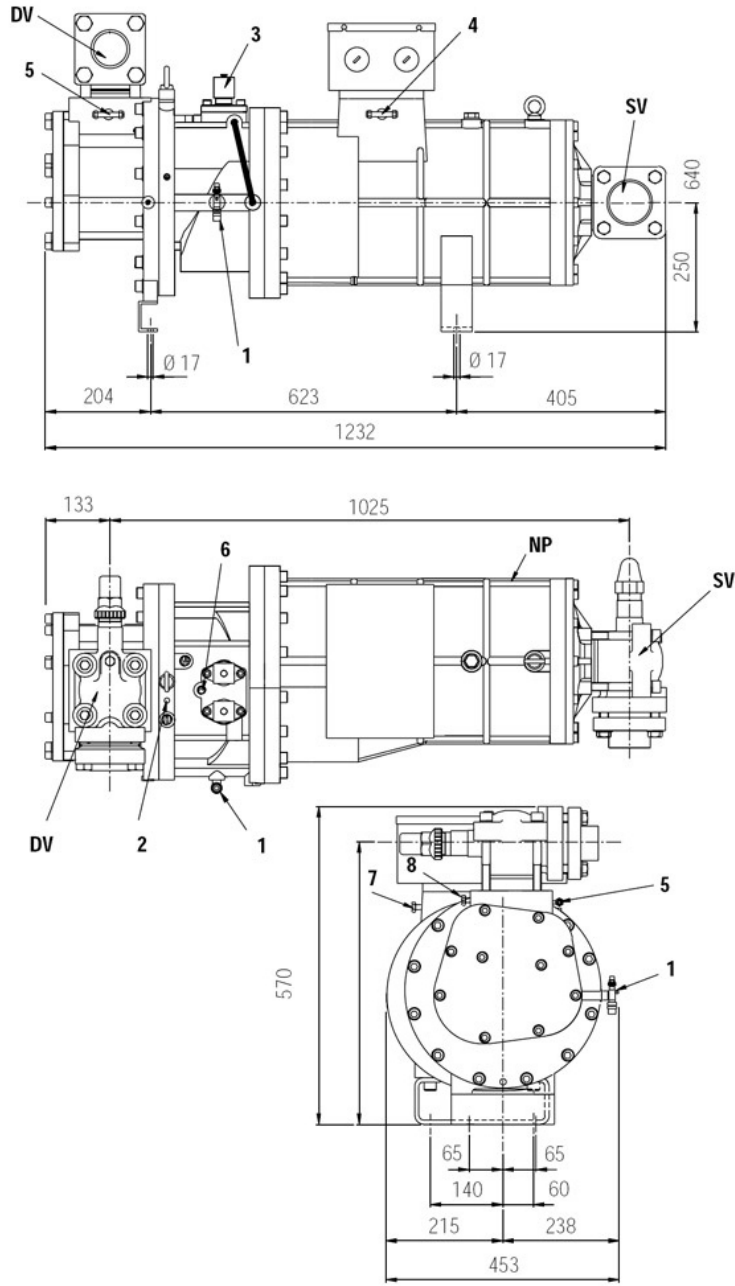
Capacity control



- With oil cooler
- With liquid injection and oil cooler

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]



- 1: connection of oil return valve
 3: capacity control valve
 5: high pressure plug
 7: plug for low pressure connection
 DV: discharge valve
 SV: suction valve

- 2: max. discharge temperature sensor
 4: low pressure plug
 6: liquid injection/economizer conn.
 8: plug for high pressure connection
 NP: name plate

