

Type: Semi-hermetic twin screw compressors

Producer: Frascold

Series: R-TSL

Model: R-TSL1-50 186 Y

Technical data

Nominal motor power [kW/HP]:	37 / 50
Displacement [m ³ /h]:	186
Capacity control [%]:	100 - 50
RPM [min ⁻¹]:	2960
Weight net [kg]:	244
Weight gross [kg]:	269

Electrical data

	<u>PWS</u>
Power supply [V/~/Hz]:	400/3/50
Locked rotor current [A]:	212
Locked rotor current (D.O.L. - ΔΔ) [A]:	348
Max. operating current [A]:	89
Max. power input [kW]:	56

Connections

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

R22

Cooling capacity [W]

$t_c \setminus t_e$	-10	-15	-20	-25	-30	-35	-40	-45	-50
30	115 540	95 170	77 620	62 600	49 860	39 110	30 080	22 580	16 430
40	104 340	85 560	69 420	55 610	43 910	34 060	25 790	18 940	-
50	92 690	75 520	60 770	48 190	37 540	28 590	21 090	-	-
55	87 180	70 810	56 750	44 770	34 640	26 140	19 030	-	-

Power input [kW]

$t_c \setminus t_e$	-10	-15	-20	-25	-30	-35	-40	-45	-50
30	36.95	34.25	31.57	28.89	26.32	24.02	22.10	20.87	21.01
40	41.63	38.49	35.39	32.48	29.92	27.76	26.23	25.95	-
50	47.40	43.81	40.42	37.32	34.69	32.86	32.33	-	-
55	53.37	49.01	45.06	41.59	38.85	37.28	37.94	-	-

Current [A]

$t_c \setminus t_e$	-10	-15	-20	-25	-30	-35	-40	-45	-50
30	63.20	59.10	54.90	50.90	47.40	44.50	42.20	40.90	41.00
40	70.70	65.60	60.80	56.40	52.40	49.30	47.30	46.90	-
50	79.00	74.00	68.80	63.80	59.80	57.00	56.10	-	-
55	87.30	81.20	75.80	70.70	66.20	63.70	64.80	-	-

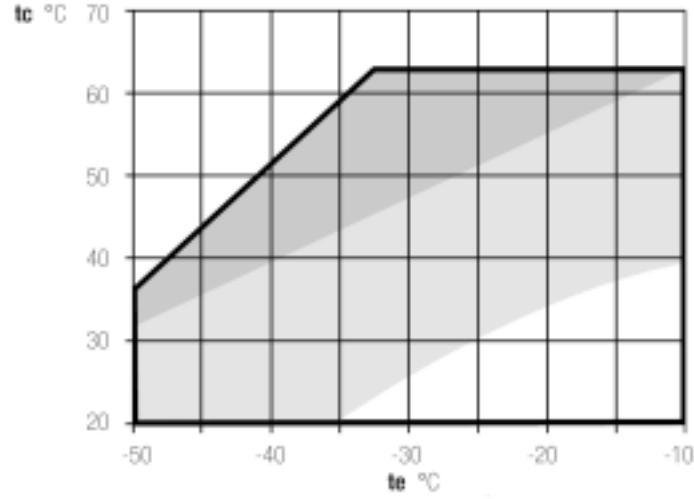
Mass flow [kg/h]

$t_c \setminus t_e$	-10	-15	-20	-25	-30	-35	-40	-45	-50
30	2 413	2 014	1 666	1 363	1 102	878	686	523	387
40	2 357	1 961	1 615	1 314	1 054	832	641	479	-
50	2 290	1 895	1 551	1 251	992	769	578	-	-
55	2 265	1 871	1 525	1 225	966	743	552	-	-

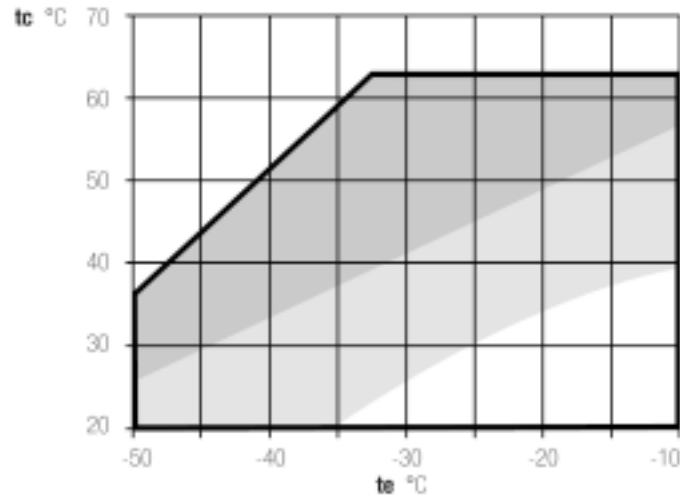
Operating conditions: suction gas overheating 10K, 0K subcooling

Application limits

Full load operation



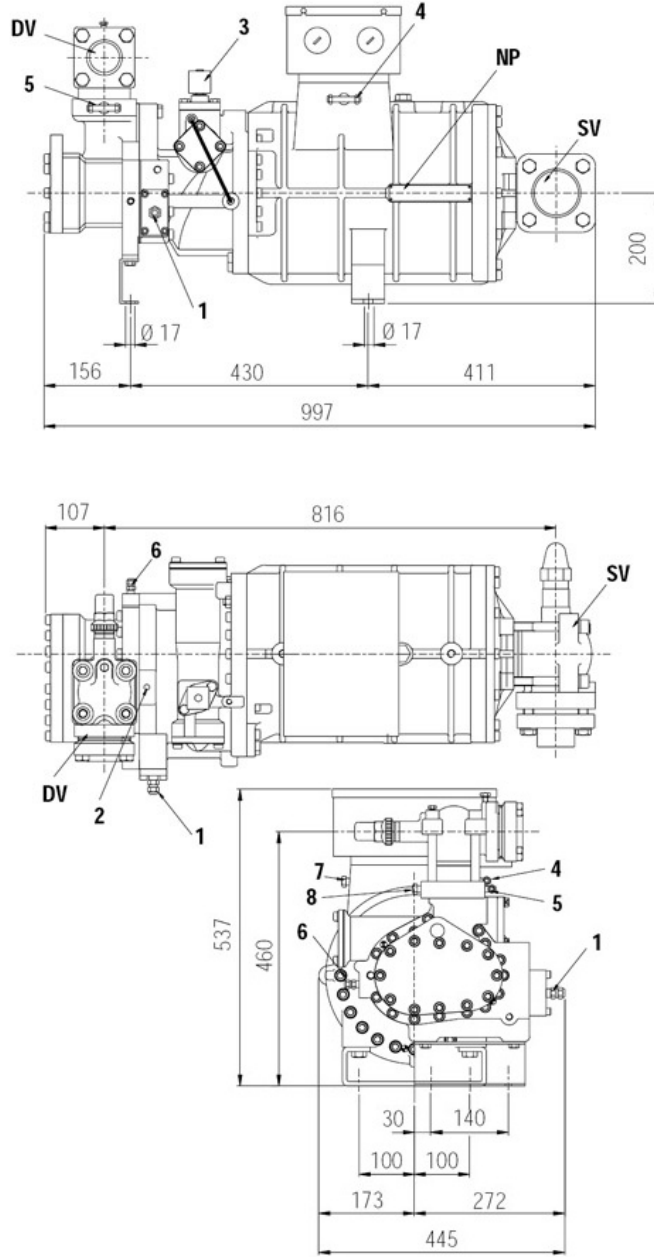
Capacity control



- With oil cooler
- With liquid injection and oil cooler

t_c - Condensing temperature [°C]

t_e - Evaporating temperature [°C]



- | | | | |
|-----|----------------------------------|-----|-----------------------------------|
| 1: | connection of oil return valve | 2: | max. discharge temperature sensor |
| 3: | capacity control valve | 4: | low pressure plug |
| 5: | high pressure plug | 6: | liquid injection/economizer conn. |
| 7: | plug for low pressure connection | 8: | plug for high pressure connection |
| DV: | discharge valve | NP: | name plate |
| SV: | suction valve | | |

