



Compressor Selection: 2-stage Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	S4N-8.2Y	Suction gas temperature	20,00 °C
Refrigerant	R404A	Useful superheat	100%
Reference temperature	Dew point temp.	Power supply	400V-3-50Hz
Operating mode	with sub cooler		

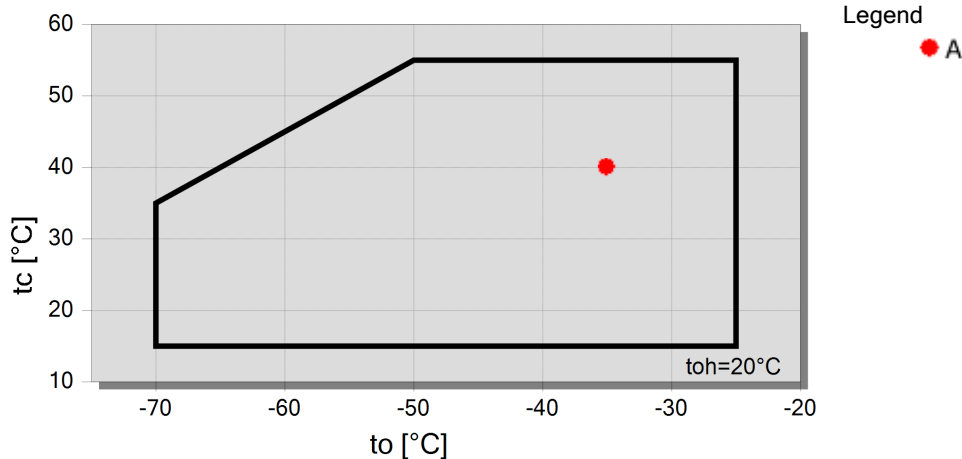
Result

Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	mLP [kg/h]	Mass flow LP
I [A]	Current	pm [bar(a)]	Intermed. pressure
Qc [W]	Condenser Capacity		

tc	to	-25°C	-30°C	-35°C	-40°C	-45°C	-50°C	-55°C	-60°C
30°C	Q [W]	12983	10856	8978	7334	5906	4679	3633	2750
	Q* [W]	10293	8351	6710	5332	4182	3229	2447	1809
	P [kW]	6,42	6,00	5,55	5,07	4,56	4,06	3,55	3,06
	I [A]	10,88	10,28	9,64	8,98	8,31	7,65	7,04	6,48
	Qc [W]	19404	16860	14527	12400	10471	8735	7183	5807
	COP [-]	2,02	1,81	1,62	1,45	1,29	1,15	1,02	0,90
	COP* [-]	1,60	1,39	1,21	1,05	0,92	0,80	0,69	0,59
	mLP [kg/h]	251	202	161,9	128,2	100,3	77,2	58,4	43,1
	pm [bar(a)]	5,49	4,81	4,20	3,65	3,15	2,70	2,31	1,96
40°C	Q [W]	12496	10453	8647	7062	5683	4493	3475	2612
	Q* [W]	9087	7367	5914	4693	3674	2829	2133	1565
	P [kW]	7,31	6,78	6,22	5,65	5,07	4,48	3,89	3,31
	I [A]	12,16	11,39	10,60	9,79	8,98	8,19	7,44	6,76
	Qc [W]	19805	17232	14871	12713	10748	8968	7362	5921
	COP [-]	1,71	1,54	1,39	1,25	1,12	1,00	0,89	0,79
	COP* [-]	1,24	1,09	0,95	0,83	0,73	0,63	0,55	0,47
	mLP [kg/h]	248	200	160,0	126,5	98,7	75,8	57,0	41,8
	pm [bar(a)]	6,08	5,36	4,69	4,09	3,54	3,05	2,62	2,23
50°C	Q [W]	11983	10037	8308	6786	5456	4304	3315	--
	Q* [W]	7818	6338	5085	4031	3148	2416	1811	
	P [kW]	8,17	7,54	6,90	6,26	5,60	4,93	4,26	
	I [A]	13,42	12,50	11,57	10,64	9,72	8,80	7,91	
	Qc [W]	20154	17577	15211	13042	11056	9238	7571	
	COP [-]	1,47	1,33	1,20	1,08	0,97	0,87	0,78	
	COP* [-]	0,96	0,84	0,74	0,64	0,56	0,49	0,43	
	mLP [kg/h]	246	198,3	158,3	124,9	97,2	74,3	55,6	
	pm [bar(a)]	6,78	5,99	5,27	4,61	4,01	3,47	3,00	

-- No calculation possible (see message in single point selection)
 *According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

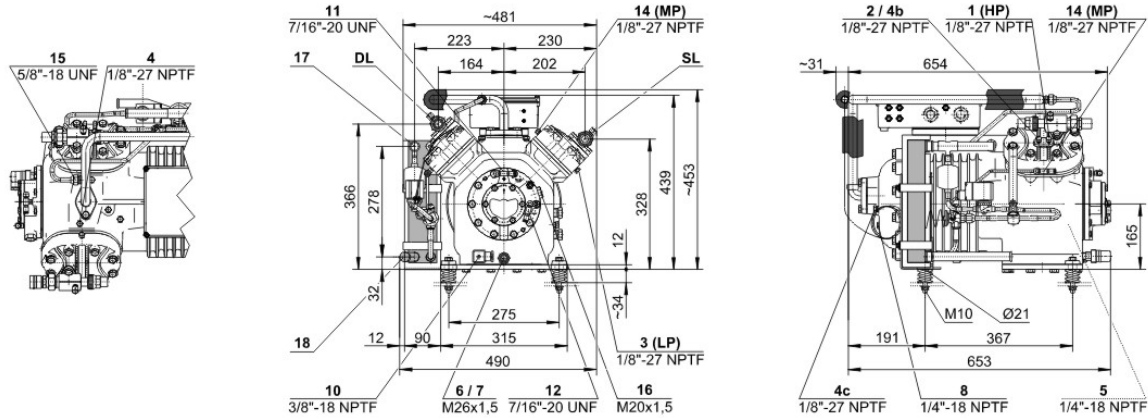
Application Limits





Technical Data: S4N-8.2Y

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	28.00 / 17.90 m ³ /h
Displacement (1750 RPM 60Hz)	33.79 / 21.60 m ³ /h
No. of cylinder x bore LP/HP x stroke	4 x 60/ 48 mm x 57 mm
Weight	141 kg
Max. pressure (LP/MP/HP)	19 / 19 / 28 bar
Connection suction line	28 mm - 1 1/8"
Connection discharge line	22 mm - 7/8"
Oil type R404A/R507A	BSE32 (Option)
Oil type R22	B5.2 (Standard)

Motor data

Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	17.0 A
Winding ratio	50/50
Starting current (Rotor locked)	49.0 A Y / 81.0 A YY
Max. Power input	9,7 kW

Extent of delivery (Standard)

Motor protection	SE-B2 (Standard)
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
TX valve for liquid injection	Standard
Sight glass	Standard
Filter Drier	Standard
Solenoid valve	Standard
Oil charge	3.00 dm ³

Available Options

Crankcase heater	100 W (Option)
Oil pressure monitoring	MP54 (Option), Delta P II (Option)
Oil service valve	Option
Discharge gas temperature sensor	Option
CIC (only for R22, instead of TX valve for LI)	Option
Liquid sub cooler (also mounted)	Option