



Selection: Open Screw Compressors OS

Input Values

Compressor model	OSN7471-K	Operating mode	Economizer
Refrigerant	R404A	Speed	2900 /min
Reference temperature	Dew point temp.	Useful superheat	100%
Liq. subc. (in condenser)	0 K	Additional cooling	Automatic
Auto. subcooling	Auto	Max. discharge gas temp.	80,0 °C
Suct. gas superheat	10,00 K		

Result

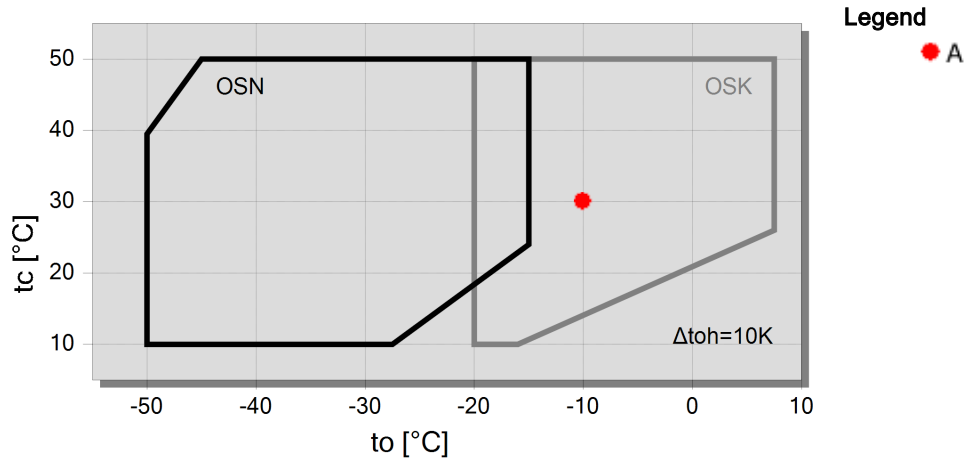
Q [W]	Cooling capacity	Qac [kW]	Additional cooling
P [kW]	Power input	tcu [°C]	Liquid temp.
COP [-]	COP/EER	pm [bar(a)]	ECO pressure
mLP [kg/h]	Mass flow LP	Qsc [kW]	sub cooler capacity (ECO)
mHP [kg/h]	Mass flow HP		

tc	to	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C	-45°C	-50°C
30°C	Q [W]	161190	135262	112562	92748	75506	60550	47628	36513
	P [kW]	50,5	48,4	46,3	44,3	42,2	40,1	37,9	35,6
	COP [-]	3,19	2,80	2,43	2,09	1,79	1,51	1,26	1,02
	mLP [kg/h]	4080	3381	2774	2249	1799	1415	1090	816
	mHP [kg/h]	4651	3982	3382	2845	2365	1939	1560	1225
	Qac [kW]	--	--	--	--	--	--	2,44	6,91
	tcu [°C]	17,02	13,74	10,21	6,39	2,28	-2,15	-6,91	-12,01
	pm [bar(a)]	7,51	6,79	6,08	5,38	4,69	4,03	3,40	2,81
	Qsc [kW]	21,6	22,4	22,3	21,5	20,1	18,18	15,97	13,52
40°C	Q [W]	149362	125467	104553	86279	70341	56476	44451	--
	P [kW]	60,9	58,6	56,3	54,0	51,7	49,4	47,1	
	COP [-]	2,45	2,14	1,86	1,60	1,36	1,14	0,94	
	mLP [kg/h]	4046	3347	2740	2217	1768	1385	1062	
	mHP [kg/h]	4896	4200	3576	3016	2515	2068	1669	
	Qac [kW]	--	--	--	--	2,73	7,80	12,49	
	tcu [°C]	23,3	19,92	16,24	12,22	7,84	3,10	-2,03	
	pm [bar(a)]	9,02	8,18	7,33	6,48	5,64	4,82	4,05	
	Qsc [kW]	29,0	28,7	27,6	26,0	23,8	21,2	18,36	
50°C	Q [W]	132728	111598	93038	76731	62400	49811	38760	--
	P [kW]	74,0	71,6	69,1	66,6	64,1	61,8	59,9	
	COP [-]	1,79	1,56	1,35	1,15	0,97	0,81	0,65	
	mLP [kg/h]	3924	3233	2634	2116	1671	1291	970	
	mHP [kg/h]	5079	4365	3722	3142	2619	2146	1718	
	Qac [kW]	--	5,18	10,36	15,21	19,81	24,3	28,7	
	tcu [°C]	30,5	27,0	23,1	18,74	13,97	8,71	2,92	
	pm [bar(a)]	11,04	10,02	8,97	7,90	6,84	5,80	4,80	
	Qsc [kW]	35,0	33,8	31,9	29,4	26,5	23,2	19,61	

-- No calculation possible (see message in single point selection)

*According to EN12900 (10K suction gas superheat, liquid subcooling in Economiser with 5K temperature difference)

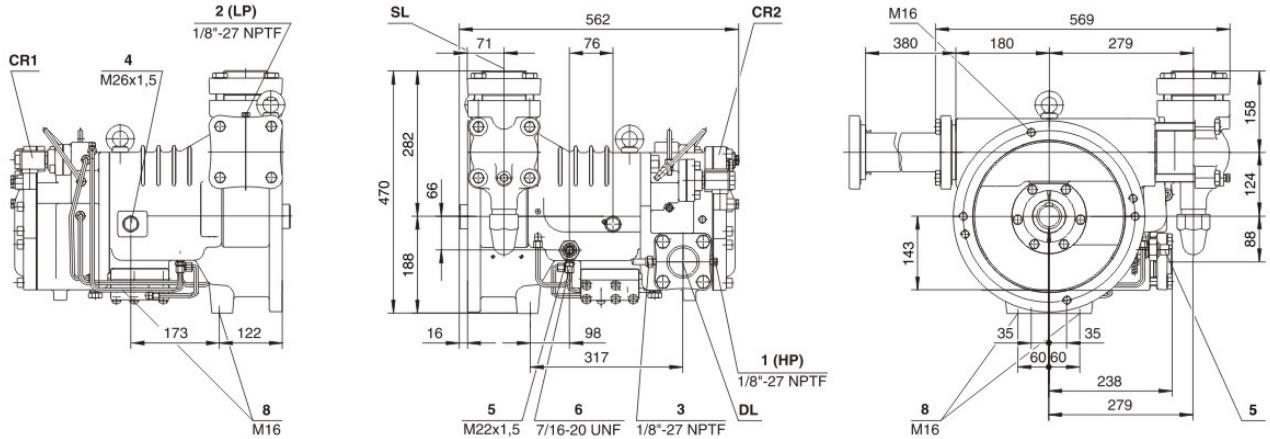
Application Limits ECO OSN7471





Technical Data: OSN7471-K

Dimensions and Connections



Technical Data

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Displacement (2900 RPM 50 Hz)	250 m ³ /h
Displacement (3500 RPM 60 Hz)	302 m ³ /h
Allowed speed range	1450 .. 4000 min ⁻¹
Sens of rotation (compressor)	links / counter-clockwise
Weight	188 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	76 mm - 3 1/8"
Connection suction line (NH3)	DN 80
Connection discharge line	54 mm - 2 1/8"
Connection discharge line (NH3)	DN 50
Oil type R22	B150SH, B100 (Option)
Oil type R134a/R404A/R507A/R407A/R407F	BSE170 (Option)

Extent of delivery (Standard)

Suction shut-off valve	Standard
Pressure relief valve	Standard
Check valve	Standard
Oil injection kit	Standard
Built in oil filter	Standard
discharge gas temperature monitoring	SE-B2
Discharge gas temperature sensor	Standard
Start unloading	Standard
Capacity control	100-75-50% (Standard)
Sight glass	Standard
Protective charge	Standard

Available Options

Oil flow control	Option
Discharge shut-off valve	Option
ECO connection with shut-off valve	Option
Adapter/shut-off valve for ECO	22 mm - 7/8" (Option)
Coupling housing	Option