



## Compressor Selection: Semi-hermetic Screw Compressors HS

### Input Values

Compressor model	HSN7471-75	Operating mode	Economizer
Refrigerant	R404A	Power supply	400V-3-50Hz
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

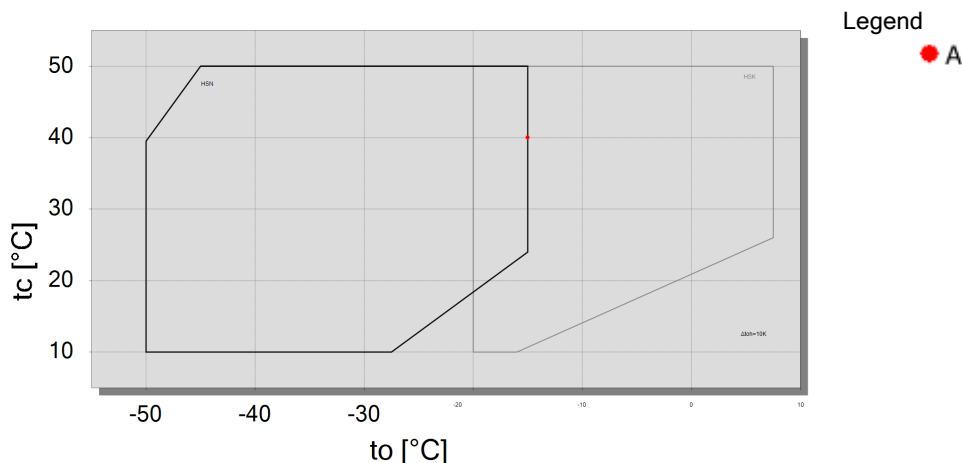
Q [W]	Cooling capacity	mHP [kg/h]	Mass flow HP
P [kW]	Power input	Qac [kW]	Additional cooling
I [A]	Current	tcu [°C]	Liquid temp.
COP [-]	COP/EER	pm [bar(a)]	ECO pressure
mLP [kg/h]	Mass flow LP	Qsc [kW]	sub cooler capacity (ECO)

tc	to	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C	-45°C
30°C	Q [W]	--	155803	130851	108992	89904	73290	58881	46437
	P [kW]	--	54,8	52,5	50,2	48,0	45,8	43,5	41,2
	I [A]	--	87,9	84,4	81,0	77,7	74,3	71,0	67,6
	COP [-]	--	2,84	2,49	2,17	1,87	1,60	1,35	1,13
	mLP [kg/h]	--	3934	3262	2678	2174	1741	1372	1059
	mHP [kg/h]	--	4496	3852	3274	2757	2296	1886	1522
	Qac [kW]	--	--	--	--	--	--	1,97	6,60
	tcu [°C]	--	16,80	13,48	9,91	6,07	1,94	-2,49	-7,22
	pm [bar(a)]	--	7,46	6,74	6,03	5,32	4,64	3,98	3,36
	Qsc [kW]	--	21,1	21,9	21,8	21,0	19,63	17,80	15,65
40°C	Q [W]	--	143059	120301	100363	82931	67723	54493	43027
	P [kW]	--	65,9	63,3	60,7	58,1	55,5	53,0	50,7
	I [A]	--	104,5	100,5	96,6	92,7	88,9	85,2	81,7
	COP [-]	--	2,17	1,90	1,65	1,43	1,22	1,03	0,85
	mLP [kg/h]	--	3857	3193	2616	2119	1693	1330	1023
	mHP [kg/h]	--	4689	4027	3432	2899	2422	1996	1616
	Qac [kW]	--	--	--	--	3,53	8,42	12,96	17,14
	tcu [°C]	--	22,9	19,44	15,72	11,67	7,29	2,56	-2,53
	pm [bar(a)]	--	8,91	8,07	7,22	6,37	5,54	4,74	3,98
	Qsc [kW]	--	28,3	28,0	26,9	25,3	23,1	20,6	17,88
50°C	Q [W]	--	126532	106501	88886	73397	59782	47825	37344
	P [kW]	--	80,0	77,1	74,2	71,3	68,5	66,1	64,0
	I [A]	--	125,7	121,3	116,9	112,5	108,4	104,7	101,6
	COP [-]	--	1,58	1,38	1,20	1,03	0,87	0,72	0,58
	mLP [kg/h]	--	3710	3059	2494	2006	1587	1230	928
	mHP [kg/h]	--	4839	4164	3555	3006	2510	2062	1657
	Qac [kW]	--	9,20	13,85	18,17	22,2	26,2	30,0	33,9
	tcu [°C]	--	29,9	26,3	22,3	17,97	13,19	7,96	2,24
	pm [bar(a)]	--	10,85	9,82	8,78	7,72	6,68	5,66	4,69
	Qsc [kW]	--	34,1	32,8	30,9	28,5	25,6	22,4	19,01

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

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

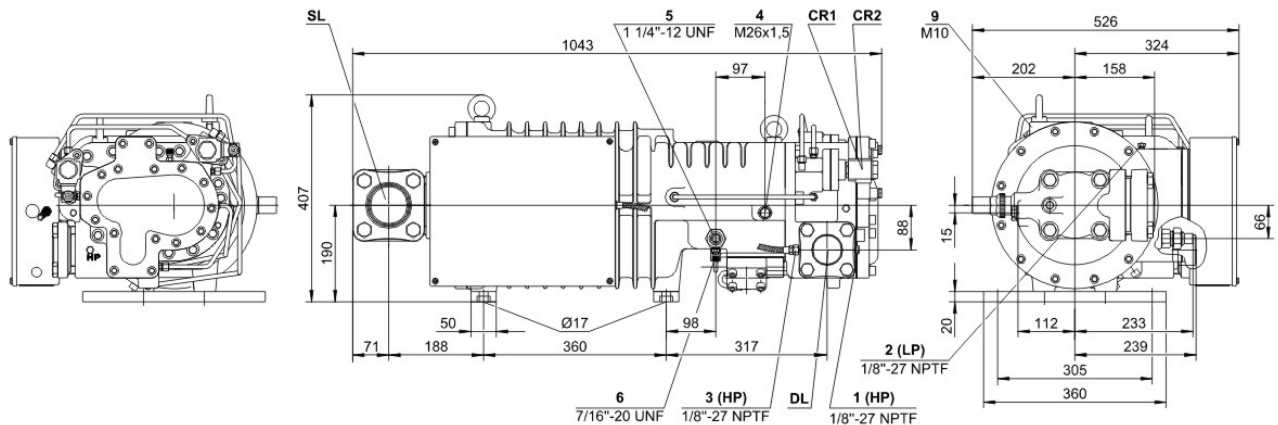
### Application Limits ECO





## Technical Data: HSN7471-75

### Dimensions and Connections



### Technical Data

#### Technical Data

Displacement (2900 RPM 50 Hz)	250 m³/h
Displacement (3500 RPM 60 Hz)	302 m³/h
Weight	326 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	76 mm - 3 1/8"
Connection discharge line	54 mm - 2 1/8"
Adapter/shut-off valve for ECO	22 mm - 7/8" (Option)
Oil type R22	B150SH, B100 (Option)
Oil type	BSE170 (Option)
R134a/R404A/R507A/R407A/R407F/R448A/R449A	

#### Motor data

Motor voltage (more on request)	380-415V PW-3-50Hz
Max operating current	144.0 A
Starting current (Rotor locked)	350.0 A D / 585.0 A DD
Max. Power input	85,0 kW

#### Extent of delivery (Standard)

Discharge gas temperature sensor	Standard
Start unloading	Standard
Oil flow control	SE-B2 (Standard)
Motor protection	SE-E1 (Standard), INT69VSY-II(Standard for 660-690V)
Suction shut-off valve	Standard
Capacity control	100-75-50% (Standard)
Enclosure class	IP54

#### Available Options

Discharge shut-off valve	Option
ECO connection with shut-off valve	Option
Motor protection	SE-C1 (Option)

#### Sound measurement

Sound power level (-35°C / 40°C)	87,5 dB(A)
Sound pressure level @ 1m (-35°C / 40°C)	79,5 dB(A)