



Compressor Selection: Semi-hermetic Screw Compressors HS

Input Values

Compressor model	HSN6461-50	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]	--	105321	88782	74154	61272	49978	40126	31583
	P [kW]		37,9	36,4	34,9	33,4	31,9	30,3	28,6
	I [A]		60,9	58,7	56,6	54,4	52,2	49,9	47,5
	COP [-]		2,78	2,44	2,12	1,83	1,57	1,33	1,10
	mLP [kg/h]		2593	2149	1764	1431	1145	901	695
	mHP [kg/h]		3037	2613	2228	1881	1568	1288	1039
	Qac [kW]		--	--	--	--	--	1,81	4,90
	tcu [°C]		14,32	10,51	6,51	2,31	-2,09	-6,71	-11,53
	pm [bar(a)]		6,91	6,14	5,40	4,70	4,04	3,42	2,86
	Qsc [kW]		16,55	17,01	16,75	15,93	14,69	13,14	11,39
40°C	Q [W]	--	98093	82757	69189	57223	46711	37518	29526
	P [kW]		46,1	44,4	42,6	40,8	39,0	37,2	35,4
	I [A]		73,3	70,6	67,9	65,2	62,5	59,9	57,3
	COP [-]		2,13	1,87	1,62	1,40	1,20	1,01	0,83
	mLP [kg/h]		2541	2102	1722	1394	1112	873	670
	mHP [kg/h]		3212	2769	2367	2004	1676	1380	1116
	Qac [kW]		--	--	--	3,05	6,30	9,30	12,06
	tcu [°C]		19,22	15,33	11,19	6,81	2,19	-2,69	-7,81
	pm [bar(a)]		8,01	7,13	6,28	5,46	4,68	3,95	3,29
	Qsc [kW]		22,5	22,0	20,9	19,31	17,42	15,30	13,05
50°C	Q [W]	--	--	--	--	51345	41732	33253	25808
	P [kW]					50,6	48,5	46,6	44,9
	I [A]					80,6	77,1	74,1	71,4
	COP [-]					1,02	0,86	0,71	0,57
	mLP [kg/h]					1317	1040	805	606
	mHP [kg/h]					2109	1761	1445	1158
	Qac [kW]					16,04	18,57	21,1	23,5
	tcu [°C]					12,02	7,03	1,70	-3,98
	pm [bar(a)]					6,44	5,49	4,60	3,78
	Qsc [kW]					21,9	19,36	16,65	13,85

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

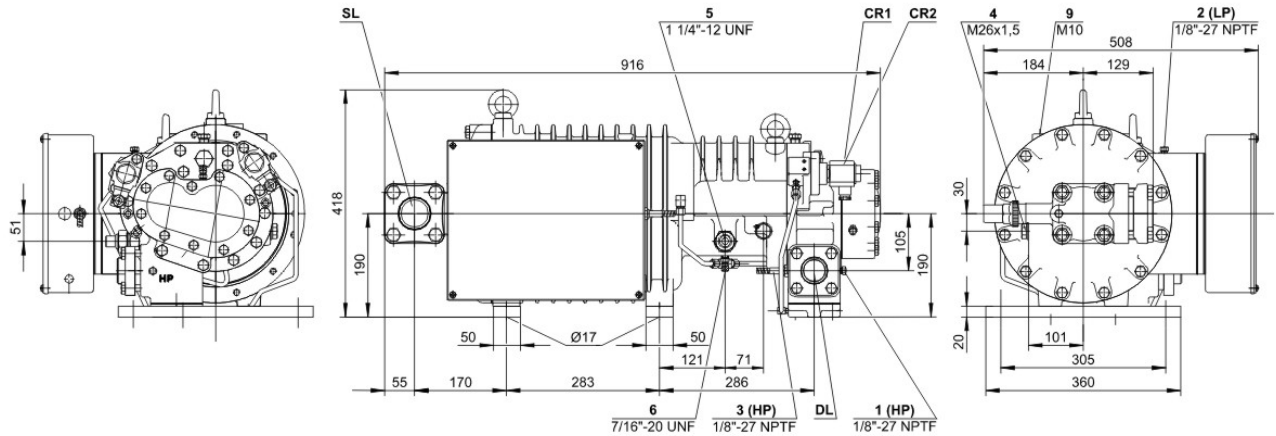
*According to EN12900 (10K suction gas superheat, liquid subcooling in Economiser with 5K temperature difference)

Application Limits ECO



Technical Data: HSN6461-50

Dimensions and Connections



Technical Data

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Displacement (2900 RPM 50 Hz)	165 m ³ /h
Displacement (3500 RPM 60 Hz)	198 m ³ /h
Weight	238 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 1/8"
Connection discharge line	42 mm - 1 5/8"
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	79.0 A
Starting current (Rotor locked)	206.0 A D / 355.0 A DD
Max. Power input	52,0 kW

Extent of delivery (Standard)

Discharge gas temperature sensor	Standard
Start unloading	Standard
Oil flow control	SE-B2 (Standard)
Motor protection	SE-E1 (Standard), SE-E3 (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)