



Compressor Selection: Semi-hermetic Screw Compressors HS

Input Values

Compressor model	HSK6451-50	Operating mode	Standard
Refrigerant	R404A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Useful superheat	100%
Liq. subc. (in condenser)	0 K	Additional cooling	Automatic
Suct. gas superheat	10,00 K	Max. discharge gas temp.	80,0 °C

Result

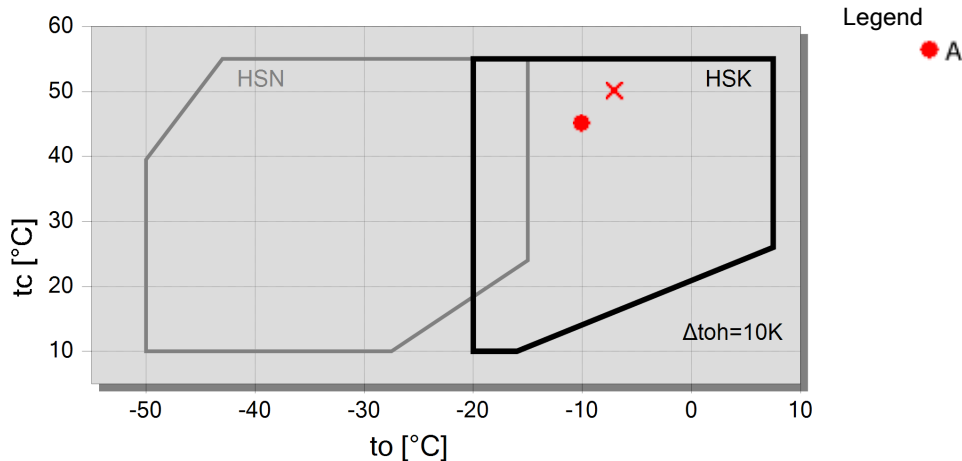
Q [W]	Cooling capacity	mHP [kg/h]	Mass flow HP
P [kW]	Power input	Qac [kW]	Additional cooling
I [A]	Current	tcu [°C]	Liquid temp.
COP [-]	COP/EER	pm [bar(a)]	ECO pressure
mLP [kg/h]	Mass flow LP	Qsc [kW]	sub cooler capacity (ECO)

tc	to	10°C	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C
30°C	Q [W]	--	166340	138640	114715	94138	76524	61530	--
	P [kW]	--	29,0	28,4	28,0	27,7	27,4	27,0	--
	I [A]	--	48,0	47,2	46,6	46,2	45,7	45,2	--
	COP [-]	--	5,73	4,88	4,10	3,40	2,80	2,28	--
	mLP [kg/h]	--	4448	3785	3200	2686	2236	1843	--
	mHP [kg/h]	--	4448	3785	3200	2686	2236	1843	--
	Qac [kW]	--	--	--	--	--	--	--	--
	tcu [°C]	--	29,6	29,6	29,6	29,6	29,6	29,6	--
	pm [bar(a)]	--	--	--	--	--	--	--	--
	Qsc [kW]	--	--	--	--	--	--	--	--
40°C	Q [W]	--	142325	118167	97367	79542	64345	51468	--
	P [kW]	--	35,4	35,0	34,6	34,2	33,8	33,3	--
	I [A]	--	57,3	56,6	56,1	55,5	54,9	54,2	--
	COP [-]	--	4,02	3,38	2,82	2,33	1,91	1,55	--
	mLP [kg/h]	--	4324	3675	3104	2602	2163	1780	--
	mHP [kg/h]	--	4324	3675	3104	2602	2163	1780	--
	Qac [kW]	--	--	--	--	--	--	--	--
	tcu [°C]	--	39,6	39,6	39,6	39,6	39,6	39,6	--
	pm [bar(a)]	--	--	--	--	--	--	--	--
	Qsc [kW]	--	--	--	--	--	--	--	--
50°C	Q [W]	--	116773	96300	78734	63739	51009	40276	--
	P [kW]	--	43,2	42,9	42,4	41,9	41,4	40,9	--
	I [A]	--	68,8	68,3	67,7	66,9	66,1	65,3	--
	COP [-]	--	2,70	2,25	1,86	1,52	1,23	0,99	--
	mLP [kg/h]	--	4158	3525	2967	2477	2048	1673	--
	mHP [kg/h]	--	4158	3525	2967	2477	2048	1673	--
	Qac [kW]	--	--	--	--	4,63	8,88	12,90	--
	tcu [°C]	--	49,7	49,7	49,7	49,7	49,7	49,7	--
	pm [bar(a)]	--	--	--	--	--	--	--	--
	Qsc [kW]	--	--	--	--	--	--	--	--

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

*According to EN12900 (10K suction gas superheat, 0K liquid subcooling)

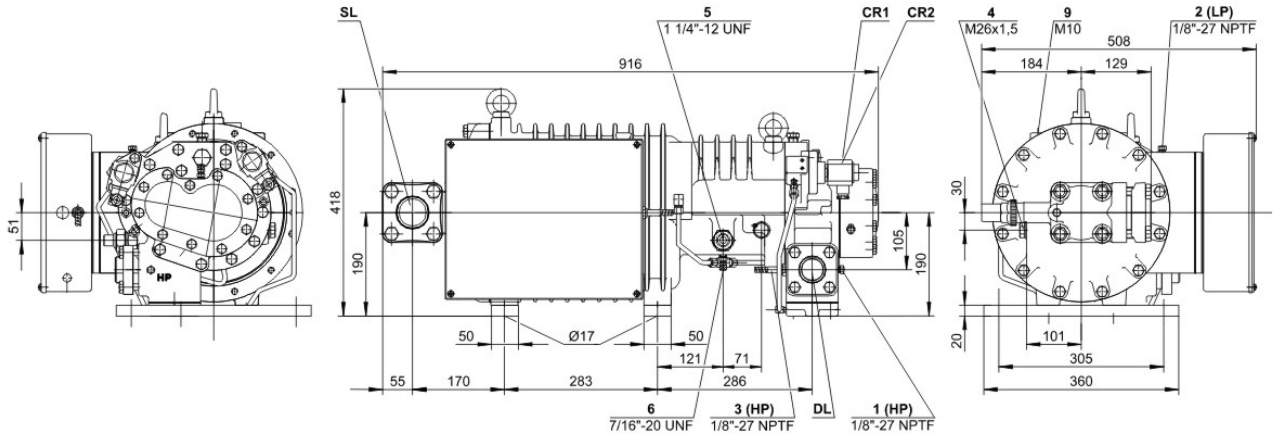
Application Limits Standard





Technical Data: HSK6451-50

Dimensions and Connections



Technical Data

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Displacement (2900 RPM 50 Hz)	140 m³/h
Displacement (3500 RPM 60 Hz)	168 m³/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)
Adapter for liquid injection	16 mm - 5/8" (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	50,0 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 (-10°C / 45°C)	86,0 dB(A)
Sound pressure level @ 1m (-10°C / 45°C)	78,0 dB(A)