



Compressor Selection: Semi-hermetic Screw Compressors HS

Input Values

Compressor model	HSN7451-60	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

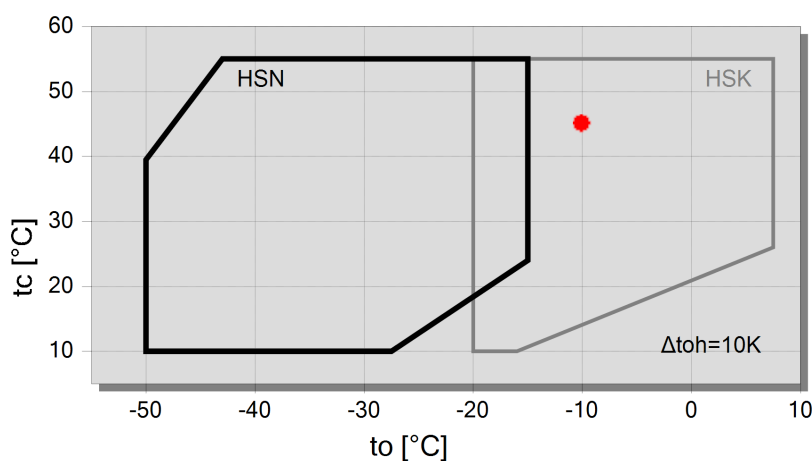
Result

		-15°C	-20°C	-25°C	-30°C	-35°C	-40°C	-45°C	-50°C
30°C	Q [W]	111099	89557	71336	56030	43274	32733	24107	17123
	P [kW]	41,4	38,5	36,4	34,9	33,8	32,7	31,4	29,7
	I [A]	67,6	63,4	60,4	58,3	56,7	55,2	53,4	51,1
	COP [-]	2,69	2,33	1,96	1,60	1,28	1,00	0,77	0,58
	mLP [kg/h]	3246	2682	2192	1768	1404	1093	830	608
	mHP [kg/h]	3246	2682	2192	1768	1404	1093	830	608
	Qac [kW]	--	--	--	--	2,25	7,19	11,35	14,49
	tcu [°C]	29,6	29,6	29,6	29,6	29,6	29,6	29,6	29,6
	pm [bar(a)]	--	--	--	--	--	--	--	--
	Qsc [kW]	--	--	--	--	--	--	--	--
40°C	Q [W]	93755	75113	59427	46329	35487	26599	19393	--
	P [kW]	47,5	45,2	43,4	42,1	41,0	40,0	38,9	--
	I [A]	76,6	73,2	70,6	68,6	67,0	65,5	64,0	--
	COP [-]	1,97	1,66	1,37	1,10	0,87	0,67	0,50	--
	mLP [kg/h]	3152	2598	2118	1703	1347	1045	789	--
	mHP [kg/h]	3152	2598	2118	1703	1347	1045	789	--
	Qac [kW]	--	--	2,40	7,62	12,54	17,00	20,8	--
	tcu [°C]	39,6	39,6	39,6	39,6	39,6	39,6	39,6	--
	pm [bar(a)]	--	--	--	--	--	--	--	--
	Qsc [kW]	--	--	--	--	--	--	--	--
50°C	Q [W]	74381	59043	46220	35591	26866	19782	14103	--
	P [kW]	56,6	54,5	52,6	51,1	49,8	49,0	48,5	--
	I [A]	90,2	87,0	84,2	81,8	80,0	78,7	78,1	--
	COP [-]	1,31	1,08	0,88	0,70	0,54	0,40	0,29	--
	mLP [kg/h]	2986	2452	1990	1591	1249	959	714	--
	mHP [kg/h]	2986	2452	1990	1591	1249	959	714	--
	Qac [kW]	9,21	13,50	17,69	21,8	25,7	29,6	33,5	--
	tcu [°C]	49,7	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

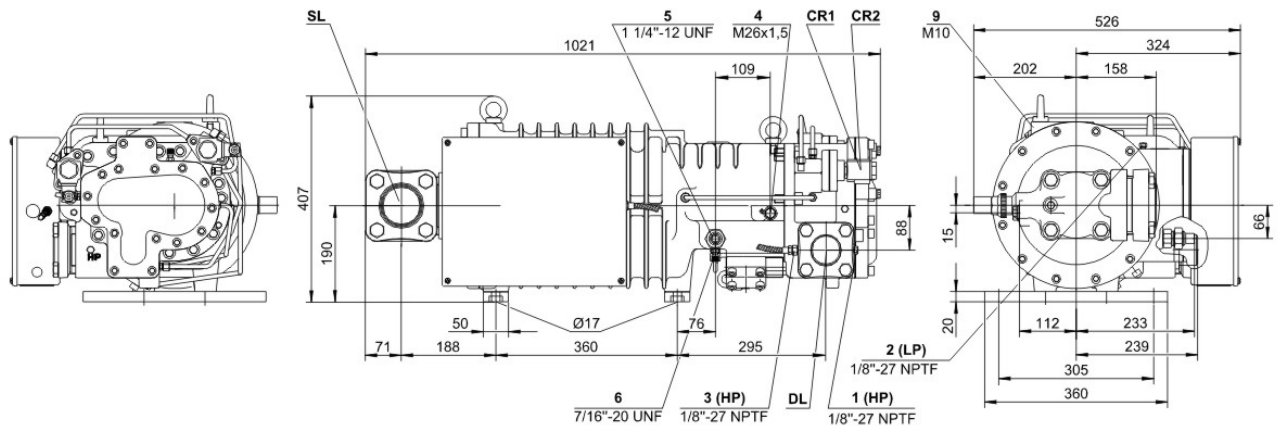


Legend
● A



Technical Data: HSN7451-60

Dimensions and Connections



Technical Data

Technical Data

Displacement (2900 RPM 50 Hz)	192 m ³ /h
Displacement (3500 RPM 60 Hz)	232 m ³ /h
Weight	297 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	98.0 A
Starting current (Rotor locked)	267.0 A D / 449.0 A DD
Max. Power input	65,0 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)	86,5 dB(A)
Sound pressure level @ 1m (-35°C / 40°C)	78,5 dB(A)