



## Selection: Compact Screw Compressors CS // CSV

### Input Values

Compressor model	CSH9563-210Y	Operating mode	Standard
Refrigerant	R134a	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity control	100%
Liq. subc. (in condenser)	0 K	Additional cooling	Automatic
Suct. gas superheat	10,00 K	Max. discharge gas temp.	110,0 °C
Useful superheat	100%		

### Result

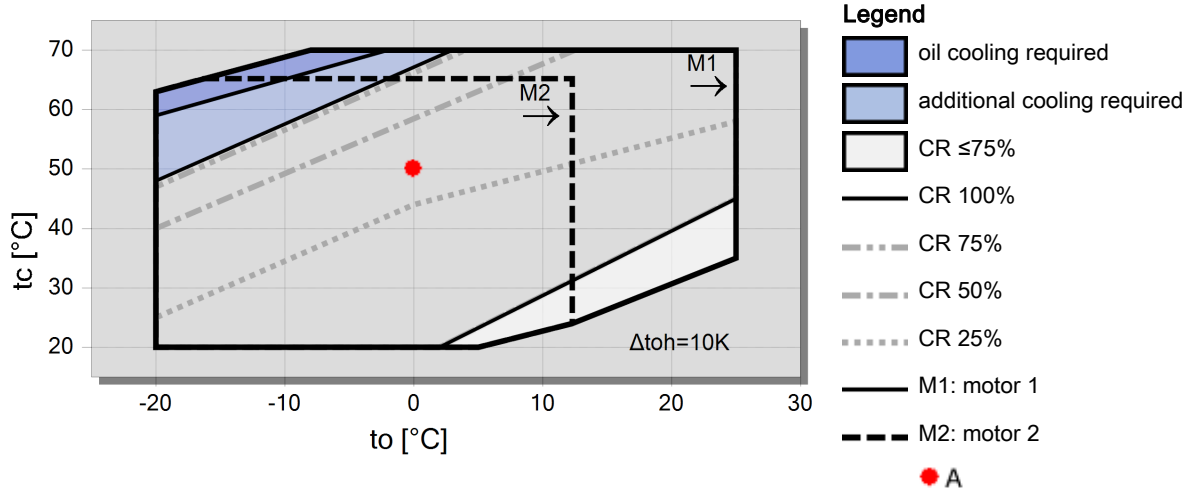
Q [W]	Cooling capacity	mHP [kg/h]	Mass flow HP
P [kW]	Power input	Qac [kW]	Additional cooling
I [A]	Current	tcu [°C]	Liquid temp.
COP [-]	COP/EER	pm [bar(a)]	ECO pressure
mLP [kg/h]	Mass flow LP	Qsc [kW]	sub cooler capacity (ECO)

tc	to	10°C	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C
<b>30°C</b>	Q [W]	541883	449590	370020	301691	243238	193401	151009	--
	P [kW]	76,6	72,9	69,8	67,2	65,0	63,1	61,5	
	I [A]	143,8	139,2	135,5	132,4	129,9	127,8	125,9	
	COP [-]	7,07	6,17	5,30	4,49	3,74	3,06	2,46	
	mLP [kg/h]	11371	9609	8060	6702	5514	4477	3571	
	mHP [kg/h]	11371	9609	8060	6702	5514	4477	3571	
	Qac [kW]	--	--	--	--	--	--	--	
	tcu [°C]	30,0	30,0	30,0	30,0	30,0	30,0	30,0	
	pm [bar(a)]	--	--	--	--	--	--	--	
Qsc [kW]	--	--	--	--	--	--	--		
<b>40°C</b>	Q [W]	491295	405450	331481	267989	213690	167398	128022	--
	P [kW]	88,8	85,9	83,4	81,1	79,0	77,0	74,9	
	I [A]	159,5	155,7	152,4	149,4	146,8	144,2	141,7	
	COP [-]	5,53	4,72	3,98	3,30	2,70	2,17	1,71	
	mLP [kg/h]	11286	9504	7934	6554	5344	4284	3355	
	mHP [kg/h]	11286	9504	7934	6554	5344	4284	3355	
	Qac [kW]	--	--	--	--	--	--	--	
	tcu [°C]	40,0	40,0	40,0	40,0	40,0	40,0	40,0	
	pm [bar(a)]	--	--	--	--	--	--	--	
Qsc [kW]	--	--	--	--	--	--	--		
<b>50°C</b>	Q [W]	432587	354311	286989	229327	180138	138335	102926	--
	P [kW]	106,1	103,7	101,4	99,1	96,8	94,2	91,4	
	I [A]	183,2	179,8	176,6	173,4	170,2	166,7	162,9	
	COP [-]	4,08	3,42	2,83	2,31	1,86	1,47	1,13	
	mLP [kg/h]	11015	9226	7648	6260	5042	3973	3036	
	mHP [kg/h]	11015	9226	7648	6260	5042	3973	3036	
	Qac [kW]	--	--	--	--	--	--	--	
	tcu [°C]	50,0	50,0	50,0	50,0	50,0	50,0	50,0	
	pm [bar(a)]	--	--	--	--	--	--	--	
Qsc [kW]	--	--	--	--	--	--	--		

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

\*According to EN12900 (10K suction gas superheat, 0K liquid subcooling, see tech. data/ notes)

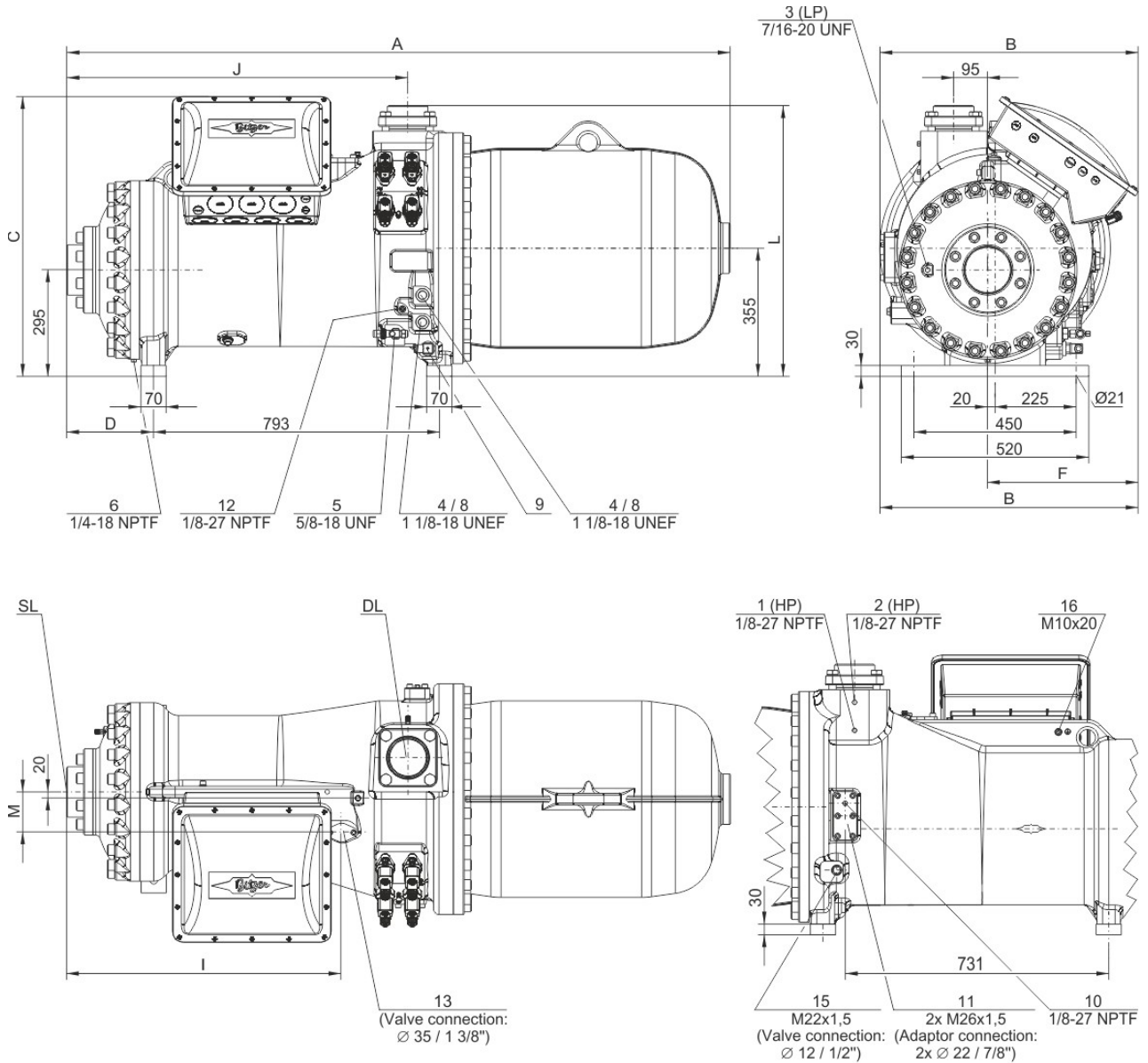
## Application Limits Standard CSH9563-210





## Technical Data: CSH9563-210Y

### Dimensions and Connections



	A mm	B mm	C mm	D mm	F mm	I mm	J mm	L mm	M mm	DL mm	SL mm
CSH9553 CSH9563 CSH9573	1824	717	776	224	417	746	930	744	106	Ø76 (3 1/8")	DN100
CSH9583-210Y CSH9593-240Y	1842	717	776	242	417	764	948	751	113	DN100	DN125
CSH9583-280(Y) CSH9593-300(Y)	1869	717	776	269	417	791	975	751	113	DN100	DN125
CSH95103-280Y	1955	731	796	269	431	791	975	758	113	DN100	DN125
CSH95103-320(Y) CSH95113-320Y	1975	731	796	289	431	810	995	758	113	DN100	DN125

Die Verwendung größerer Sauggasflansche führt zu längeren Maßen A, D und J.  
Using larger suction gas flanges changes the dimensions A, D and J.

## Technical Data

### Technical Data



Displacement (2900 RPM 50 Hz)	615 m <sup>3</sup> /h
Displacement (3500 RPM 60 Hz)	742 m <sup>3</sup> /h
Weight	1310 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	DN 100
Connection discharge line	76 mm - 3 1/8"
Oil type R1234yf/R1234ze(E)/R450A/R513A/R515B	BSE170 (Option)
Oil type R134a/R407C/R404A/R507A/R407A/R407F	BSE170 (Option)
Oil type R22	B320SH (Standard)

**Motor data**

Motor voltage (more on request)	380-415V D-3-50Hz
Max operating current	370.0 A
Starting current (Rotor locked)	586.0 A Y / 1853.0 A D
Max. Power input	246,0 kW

**Extent of delivery (Standard)**

Enclosure class	IP54
Oil heater	300 W (Standard)
Oil separator	Standard
Oil filter	Standard
Discharge gas temperature sensor	Standard
Start unloading	Standard
Capacity Control - 4-step	100-75-50-25% (Standard)
Capacity Control - infinite	100-25% (Standard)
Built-in check valve	Standard
Motor protection	SE-E1 (Standard), SE-E3(Standard for 660-690V)
Oil charge	30,0 dm <sup>3</sup>

**Available Options**

Oil level switch	min / max OLC-D1-S (Option)
Discharge shut-off valve	Option
Suction shut-off valve	Option
Shut-off valve for ECO with muffler	Option
Liquid injection with integrated nozzle	Option
Bridges for DOL start	Option
with sound jacket	Option
Vibration dampers	Option
Motor protection	SE-i1 (200-690V)