



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

Compressor model Mode	(4NCS-20.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C Auto
Refrigerant	R404A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity Control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

#### Result

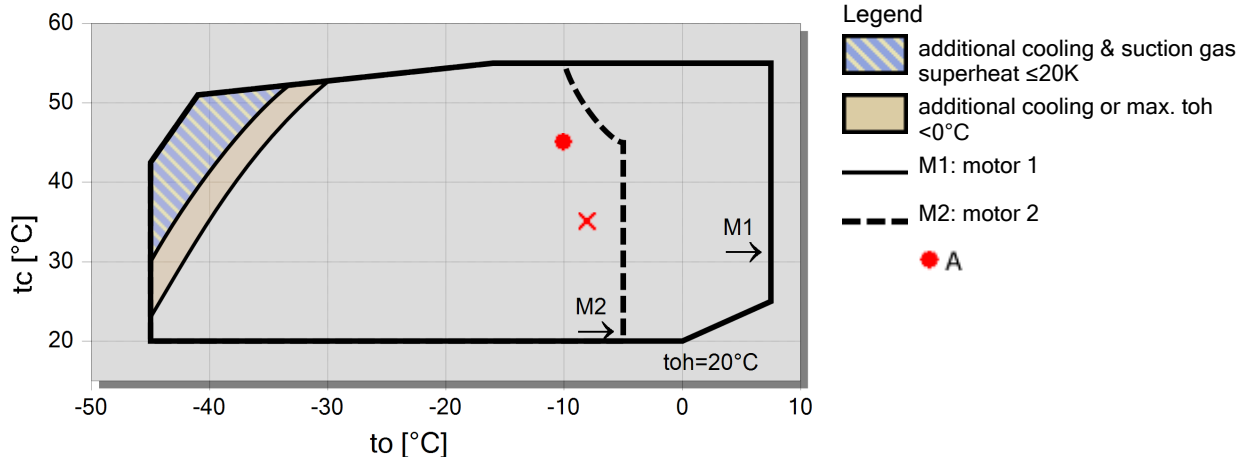
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	10°C	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C
30°C	Q [W]	--	54465	37211	24245	14636	7655	--	--
	Q* [W]	--	54465	37211	24245	14636	7655	--	--
	P [kW]	--	11,94	10,82	9,14	7,12	5,02	--	--
	I [A]	--	21,1	19,59	17,43	15,13	13,16	--	--
	Qc [W]	--	66401	48035	33383	21758	12676	--	--
	COP [-]	--	4,56	3,44	2,65	2,05	1,52	--	--
	COP* [-]	--	4,56	3,44	2,65	2,05	1,52	--	--
	m [kg/h]	--	1384	926	594	355	184,0	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	62,6	75,5	89,8	106,8	131,5	--	--
40°C	Q [W]	--	46234	31245	19999	11729	5815	--	--
	Q* [W]	--	46234	31245	19999	11729	5815	--	--
	P [kW]	--	13,79	11,91	9,62	7,16	4,78	--	--
	I [A]	--	23,8	21,1	18,02	15,17	12,96	--	--
	Qc [W]	--	60020	43154	29619	18890	10594	--	--
	COP [-]	--	3,35	2,62	2,08	1,64	1,22	--	--
	COP* [-]	--	3,35	2,62	2,08	1,64	1,22	--	--
	m [kg/h]	--	1326	875	550	319	156,7	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	73,2	86,0	100,3	117,7	0	--	--
50°C	Q [W]	--	37884	25234	15757	8842	3978	--	--
	Q* [W]	--	37884	25234	15757	8842	3978	--	--
	P [kW]	--	15,18	12,63	9,81	6,97	4,37	--	--
	I [A]	--	25,9	22,1	18,27	14,98	12,65	--	--
	Qc [W]	--	53066	37862	25567	15817	8345	--	--
	COP [-]	--	2,50	2,00	1,61	1,27	0,91	--	--
	COP* [-]	--	2,50	2,00	1,61	1,27	0,91	--	--
	m [kg/h]	--	1262	817	500	277	123,3	--	--
	Op.	--	Standard	Standard	Standard	Standard	Standard	--	--
	th [°C]	--	83,7	96,5	111,1	129,9	0	--	--

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

\*According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

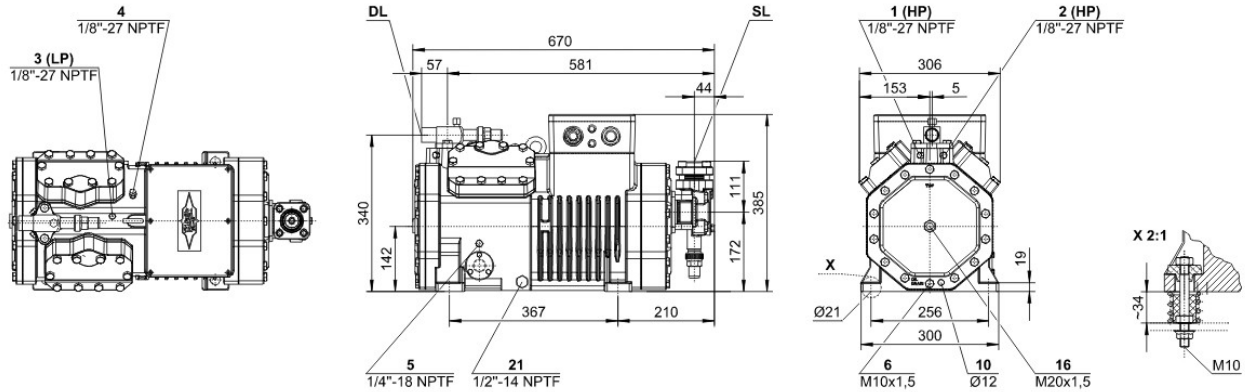
#### Application Limits 100%





## Technical Data: (4NCS-20.2Y)

### Dimensions and Connections



### Technical Data

#### Technical Data

Displacement (1450 RPM 50Hz)	56,25 m3/h
Displacement (1750 RPM 60Hz)	67,89 m3/h
No. of cylinder x bore x stroke	4 x 70 mm x 42 mm
Weight	150 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	42 mm - 1 5/8"
Connection discharge line	28 mm - 1 1/8"
Oil type R134a/R407C/R404A/R507A/R407A/R407F	tc<55°C: BSE32 / tc>55°C: BSE55 (Option)
Oil type R22 (R12/R502)	B5.2 (Standard)
Oil type R290/R1270	SHC226E (Standard)

#### Motor data

Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	37.0 A
Winding ratio	50/50
Starting current (Rotor locked)	97.0 A Y / 158.0 A YY
Max. Power input	19,5 kW

#### Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,60 dm <sup>3</sup>

#### Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Oil service valve	Option
Crankcase heater	0..140 W PTC (Option)
Oil level monitoring	OLC-K1 (Option, not for R290/R1270)

#### Sound measurement

Sound power level (+5°C / 50°C)	78,0 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	78,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(83,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	70,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	70,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(75,0) dB(A) @ 50Hz