



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

Compressor model	(4NCS-12.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	Auto
Refrigerant	R134a	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity Control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

#### Result

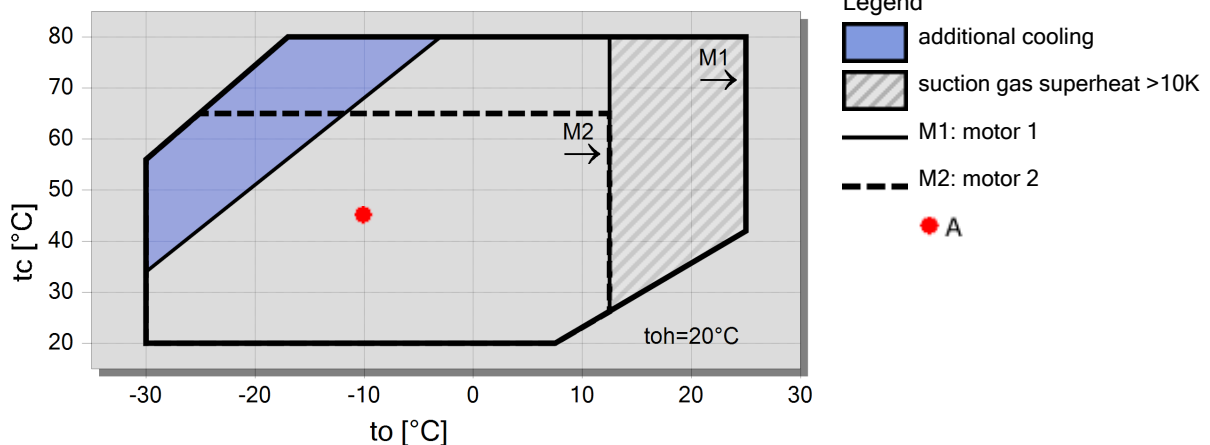
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	10°C	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C
30°C	Q [W]	46329	31288	20251	12293	6699	--	--	--
	Q* [W]	46329	31288	20251	12293	6699	--	--	--
	P [kW]	7,40	6,93	6,10	5,01	3,79	--	--	--
	I [A]	13,51	12,87	11,79	10,49	9,18	--	--	--
	Qc [W]	53734	38218	26346	17304	10488	--	--	--
	COP [-]	6,26	4,52	3,32	2,45	1,77	--	--	--
	COP* [-]	6,26	4,52	3,32	2,45	1,77	--	--	--
	m [kg/h]	972	646	414	249	135,0	--	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	--	--	--
	th [°C]	55,0	68,5	84,4	104,3	132,0	--	--	--
40°C	Q [W]	41236	27675	17680	10442	5325	--	--	--
	Q* [W]	41236	27675	17680	10442	5325	--	--	--
	P [kW]	8,97	7,95	6,65	5,17	3,61	--	--	--
	I [A]	15,72	14,27	12,51	10,67	9,01	--	--	--
	Qc [W]	50203	35628	24331	15608	8934	--	--	--
	COP [-]	4,60	3,48	2,66	2,02	1,48	--	--	--
	COP* [-]	4,60	3,48	2,66	2,02	1,48	--	--	--
	m [kg/h]	947	625	394	231	117,1	--	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	--	--	--
	th [°C]	65,3	78,8	94,6	114,3	0	--	--	--
50°C	Q [W]	35946	23899	14988	8516	3931	--	--	--
	Q* [W]	35946	23899	14988	8516	3931	--	--	--
	P [kW]	10,45	8,88	7,05	5,15	3,34	--	--	--
	I [A]	17,93	15,59	13,04	10,65	8,75	--	--	--
	Qc [W]	46397	32776	22041	13666	7267	--	--	--
	COP [-]	3,44	2,69	2,12	1,65	1,18	--	--	--
	COP* [-]	3,44	2,69	2,12	1,65	1,18	--	--	--
	m [kg/h]	915	597	369	208	95,4	--	--	--
	Op.	Standard	Standard	Standard	Standard	Standard	--	--	--
	th [°C]	76,2	89,7	105,2	124,9	0	--	--	--

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

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

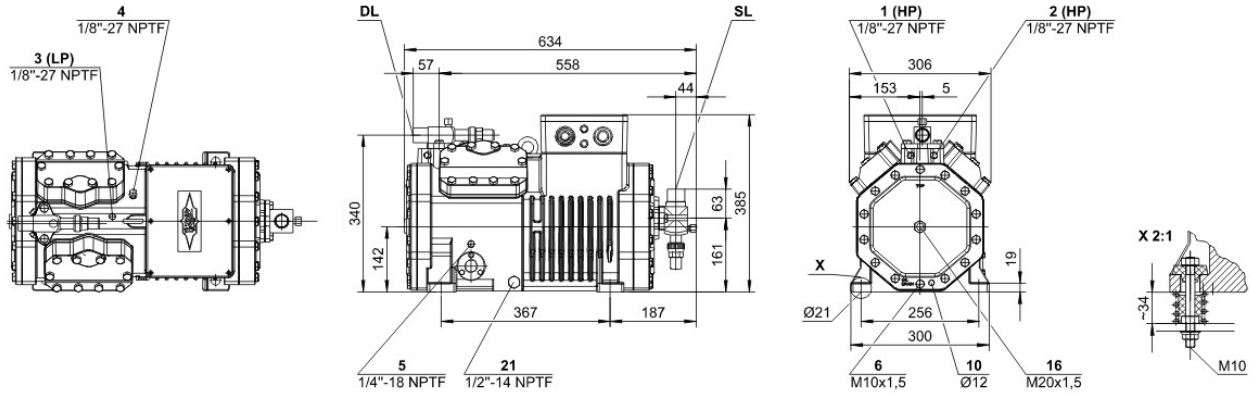
#### Application Limits 100%





## Technical Data: (4NCS-12.2Y)

### Dimensions and Connections



### Technical Data

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Displacement (1450 RPM 50Hz)	56,25 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	67,89 m <sup>3</sup> /h
No. of cylinder x bore x stroke	4 x 70 mm x 42 mm
Weight	141 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	35 mm - 1 3/8"
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	24.0 A
Winding ratio	50/50
Starting current (Rotor locked)	69.0 A Y / 113.0 A YY
Max. Power input	14,1 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
CIC System	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 (-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 (-10°C / 45°C)	70,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	75,0 dB(A) @ 50Hz