



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(4PC-10.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	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

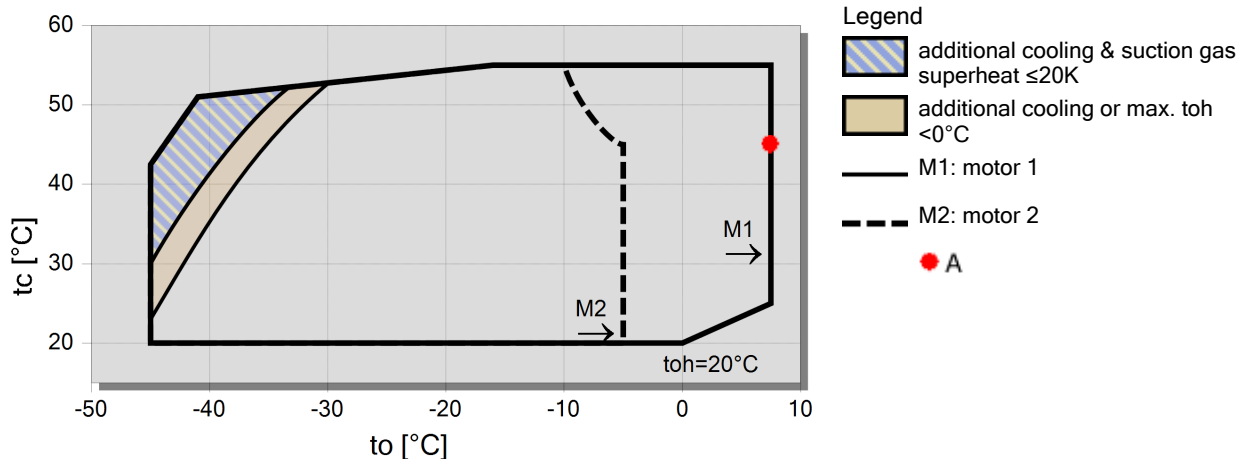
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	38327	31588	25753	20717	16391	12694	9554	6905
	Q* [W]	38327	31588	25753	20717	16391	12694	9554	6905
	P [kW]	10,07	9,37	8,64	7,87	7,06	6,22	5,34	4,43
	I [A]	17,34	16,31	15,22	14,10	12,95	11,78	10,63	9,52
	Qc [W]	48392	40959	34390	28584	23450	18910	14892	11333
	COP [-]	3,81	3,37	2,98	2,63	2,32	2,04	1,79	1,56
	COP* [-]	3,81	3,37	2,98	2,63	2,32	2,04	1,79	1,56
	m [kg/h]	963	786	635	507	399	308	230	166,0
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,1	76,2	82,9	90,1	98,2	107,2	117,5	129,5
40°C	Q [W]	32297	26501	21475	17134	13404	10218	7516	5243
	Q* [W]	32297	26501	21475	17134	13404	10218	7516	5243
	P [kW]	11,39	10,45	9,47	8,45	7,41	6,35	5,30	4,25
	I [A]	19,33	17,92	16,45	14,95	13,44	11,97	10,57	9,31
	Qc [W]	43685	36953	30944	25584	20812	16571	12813	9493
	COP [-]	2,84	2,54	2,27	2,03	1,81	1,61	1,42	1,23
	COP* [-]	2,84	2,54	2,27	2,03	1,81	1,61	1,42	1,23
	m [kg/h]	914	742	596	471	366	278	203	141,3
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	81,1	87,5	94,3	101,7	109,8	119,0	129,8	0
50°C	Q [W]	--	21476	17284	13660	10547	7890	5642	3758
	Q* [W]	--	21476	17284	13660	10547	7890	5642	3758
	P [kW]	--	11,26	10,04	8,80	7,53	6,28	5,05	3,88
	I [A]	--	19,13	17,31	15,46	13,62	11,86	10,27	8,90
	Qc [W]	--	32733	27329	22456	18078	14166	10693	7637
	COP [-]	--	1,91	1,72	1,55	1,40	1,26	1,12	0,97
	COP* [-]	--	1,91	1,72	1,55	1,40	1,26	1,12	0,97
	m [kg/h]	--	695	554	434	332	247	175,6	116,4
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	98,7	105,7	113,2	121,4	130,5	0	0

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

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

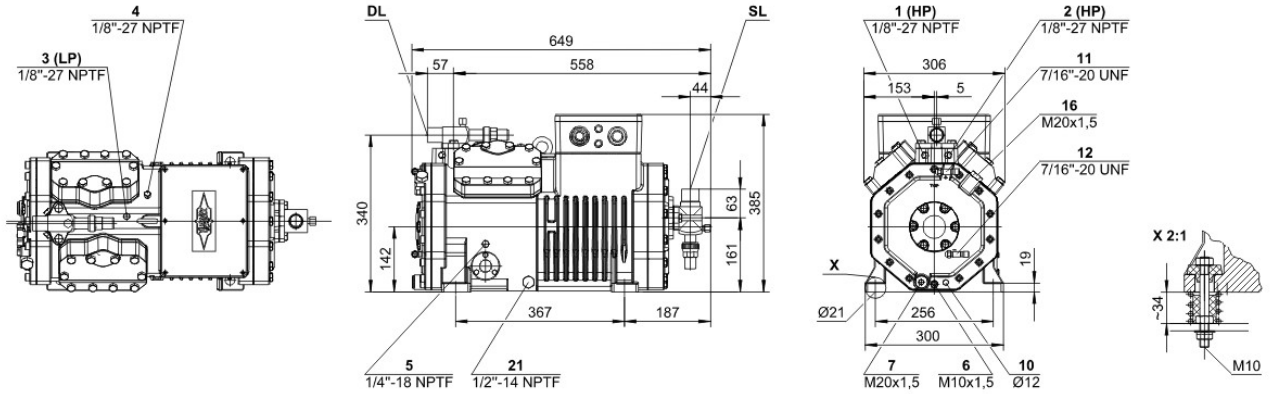
Application Limits 100%





Technical Data: (4PC-10.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	48,50 m ³ /h
Displacement (1750 RPM 60Hz)	58,53 m ³ /h
No. of cylinder x bore x stroke	4 x 65 mm x 42 mm
Weight	142 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	21.0 A
Winding ratio	50/50
Starting current (Rotor locked)	59.0 A Y / 99.0 A YY
Max. Power input	11,7 kW

Extent of delivery (Standard)

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

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 pressure monitoring	MP54 (Option), Delta-PII (Option, not for R290/R1270)

Sound measurement

Sound power level (-10°C / 45°C)	76,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	81,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	68,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	73,0 dB(A) @ 50Hz