



Bitzer 4FC-5.2

BITZER Software v6.4.3 rev1353

28.05.2015 / All data subject to change.

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Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4FC-5.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C Auto
Refrigerant Reference temperature Liq. subc. (in condenser)	R404A Dew point temp. 0 K	Power supply Capacity Control Useful superheat	400V-3-50Hz 100% 100%

Result

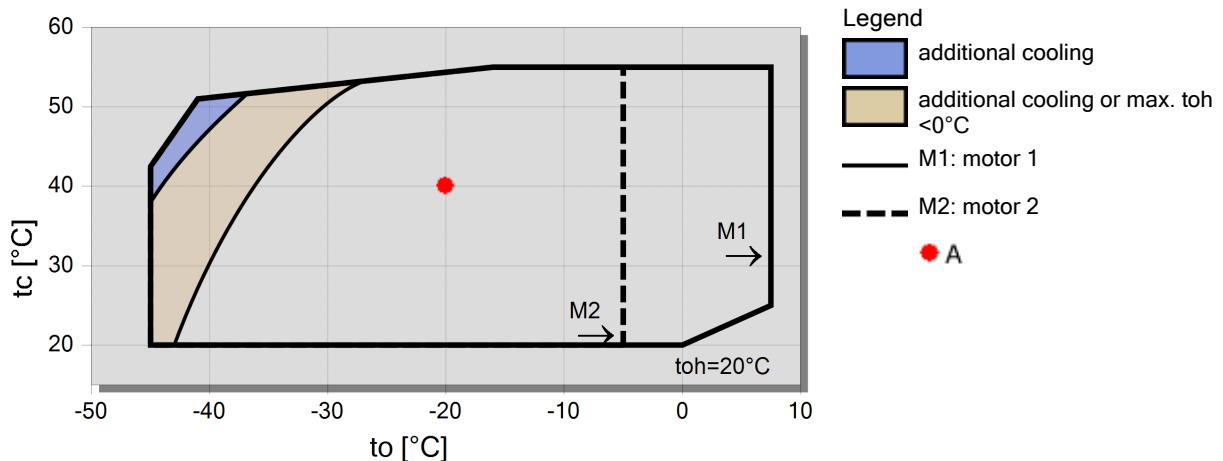
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C
30°C	Q [W]	19786	16589	13812	11402	9316	7515	5969	4648
	Q* [W]	19786	16589	13812	11402	9316	7515	5969	4648
	P [kW]	3,79	3,76	3,67	3,52	3,32	3,07	2,79	2,48
	I [A]	7,28	7,24	7,13	6,94	6,71	6,43	6,13	5,82
	Qc [W]	23575	20350	17480	14919	12632	10587	8761	7131
	COP [-]	5,22	4,41	3,77	3,24	2,81	2,45	2,14	1,87
	COP* [-]	5,22	4,41	3,77	3,24	2,81	2,45	2,14	1,87
	m [kg/h]	510	422	347	284	230	184,1	145,3	112,6
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	57,0	63,6	70,5	77,8	85,6	94,1	103,2	113,3
40°C	Q [W]	16736	14017	11645	9581	7788	6238	4904	3763
	Q* [W]	16736	14017	11645	9581	7788	6238	4904	3763
	P [kW]	4,60	4,46	4,25	3,99	3,69	3,35	2,98	2,59
	I [A]	8,35	8,15	7,87	7,54	7,15	6,74	6,33	5,92
	Qc [W]	21339	18472	15895	13572	11477	9587	7883	6349
	COP [-]	3,64	3,15	2,74	2,40	2,11	1,86	1,65	1,46
	COP* [-]	3,64	3,15	2,74	2,40	2,11	1,86	1,65	1,46
	m [kg/h]	488	402	330	268	216	171,6	134,0	102,3
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	68,6	75,3	82,4	90,0	98,1	106,8	116,3	126,8
50°C	Q [W]	13726	11473	9500	7776	6275	4976	3858	2901
	Q* [W]	13726	11473	9500	7776	6275	4976	3858	2901
	P [kW]	5,33	5,07	4,75	4,39	3,98	3,55	3,10	2,62
	I [A]	9,37	8,99	8,55	8,06	7,53	6,99	6,45	5,95
	Qc [W]	19057	16540	14249	12162	10260	8528	6953	5523
	COP [-]	2,57	2,26	2,00	1,77	1,57	1,40	1,25	1,11
	COP* [-]	2,57	2,26	2,00	1,77	1,57	1,40	1,25	1,11
	m [kg/h]	466	382	312	252	201	157,9	121,5	90,8
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	80,4	87,3	94,6	102,5	110,9	120,0	130,1	0

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

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

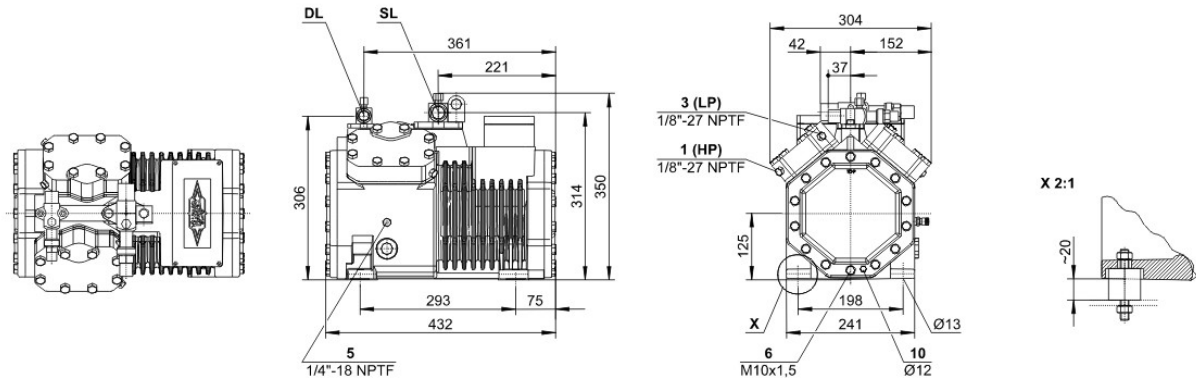
Application Limits 100% Octagon





Technical Data: (4FC-5.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	18,05 m ³ /h
Displacement (1750 RPM 60Hz)	21,78 m ³ /h
No. of cylinder x bore x stroke	4 x 41 mm x 39,3 mm
Weight	86 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	22 mm - 7/8"
Connection discharge line	16 mm - 5/8"
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 Y-3-50Hz
Max operating current	10.8 A
Starting current (Rotor locked)	62.2 A
Max. Power input	6,2 kW

Extent of delivery (Standard)

Motor protection	SE-B1
Enclosure class	IP65
Vibration dampers	Standard
Oil charge	2,00 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Crankcase heater	0..120 W PTC (Option)
Oil level monitoring	OLC-K1 (Option, not for R290/R1270)

Sound measurement

Sound power level (+5°C / 50°C)	66,0 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	67,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(70,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	58,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	59,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(62,0) dB(A) @ 50Hz