



Bitzer 4H-15.2

BITZER Software v6.4.3 rev1360

14.08.2015 / All data subject to change.

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Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4H-15.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C Auto
Refrigerant	R507A	Power supply	400V-3-50Hz
Reference temperature	Dew point temp.	Capacity Control	100%
Liq. subc. (in condenser)	0 K	Useful superheat	100%

Result

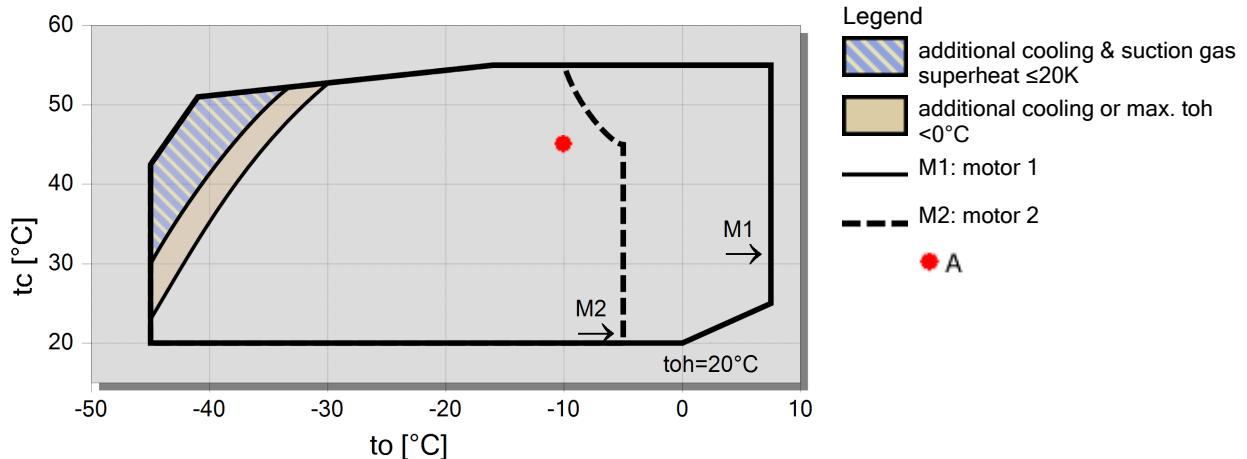
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	59930	49705	40847	33201	26632	21018	16250	12231
	Q* [W]	59930	49705	40847	33201	26632	21018	16250	12231
	P [kW]	16,33	15,38	14,30	13,12	11,86	10,54	9,18	7,81
	I [A]	27,8	26,3	24,6	22,8	21,0	19,07	17,22	15,46
	Qc [W]	76260	65082	55147	46321	38490	31555	25429	20036
	COP [-]	3,67	3,23	2,86	2,53	2,25	1,99	1,77	1,57
	COP* [-]	3,67	3,23	2,86	2,53	2,25	1,99	1,77	1,57
	m [kg/h]	1554	1275	1039	838	668	525	404	303
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,5	76,9	83,7	91,0	98,8	107,2	116,6	127,1
40°C	Q [W]	50963	42157	34510	27897	22207	17340	13206	9720
	Q* [W]	50963	42157	34510	27897	22207	17340	13206	9720
	P [kW]	18,78	17,40	15,92	14,37	12,76	11,13	9,50	7,88
	I [A]	31,6	29,4	27,1	24,7	22,3	19,91	17,64	15,55
	Qc [W]	69744	59554	50428	42263	34971	28473	22703	17599
	COP [-]	2,71	2,42	2,17	1,94	1,74	1,56	1,39	1,23
	COP* [-]	2,71	2,42	2,17	1,94	1,74	1,56	1,39	1,23
	m [kg/h]	1494	1221	990	794	627	487	369	271
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	81,7	88,3	95,2	102,6	110,7	119,4	129,3	0
50°C	Q [W]	--	34596	28181	22626	17844	13757	10290	7376
	Q* [W]	--	34596	28181	22626	17844	13757	10290	7376
	P [kW]	--	19,18	17,31	15,40	13,48	11,56	9,66	7,82
	I [A]	--	32,2	29,3	26,3	23,4	20,5	17,87	15,47
	Qc [W]	--	53775	45492	38029	31323	25315	19954	15193
	COP [-]	--	1,80	1,63	1,47	1,32	1,19	1,06	0,94
	COP* [-]	--	1,80	1,63	1,47	1,32	1,19	1,06	0,94
	m [kg/h]	--	1165	938	746	584	447	332	237
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	99,8	107,0	114,7	123,1	132,4	0	0

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

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

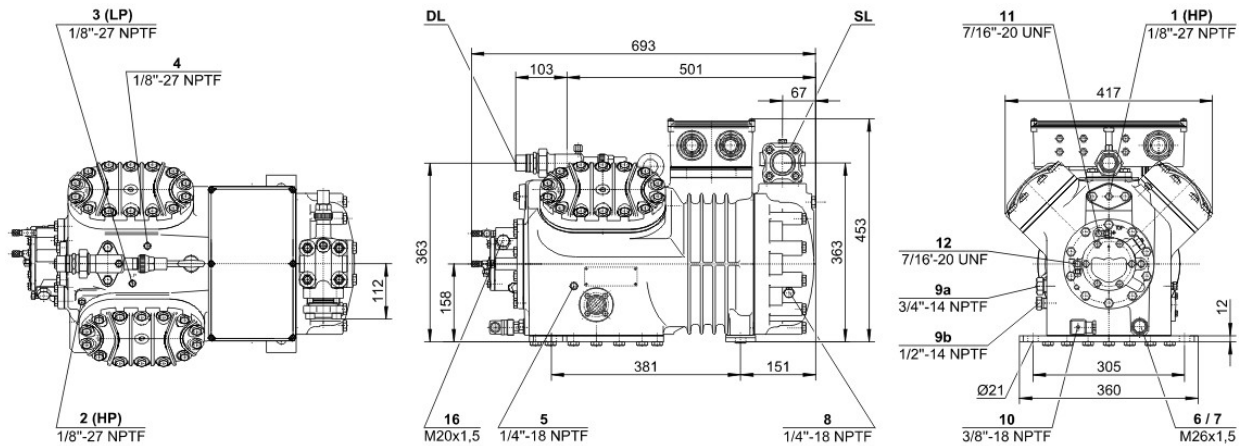
Application Limits 100%





Technical Data: (4H-15.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	73,6 m³/h
Displacement (1750 RPM 60Hz)	88,83 m³/h
No. of cylinder x bore x stroke	4 x 70 mm x 55 mm
Weight	183 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	42 mm - 1 5/8"
Connection discharge line	28 mm - 1 1/8"
Connection cooling water	R 3/4"
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	31.0 A
Winding ratio	50/50
Starting current (Rotor locked)	81.0 A Y / 132.0 A YY
Max. Power input	19,3 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	4,00 dm³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-50% (Option)
Additional fan	Option
Water-cooled cylinder heads	Option
CIC System	Option
Oil service valve	Option
Crankcase heater	140 W (Option)
Oil pressure monitoring	MP54 (Option), Delta-Pil (Option, not for R290/R1270)

Sound measurement

Sound power level (-10°C / 45°C)	78,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	81,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	70,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	73,0 dB(A) @ 50Hz