



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(4H-15.2Y)	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

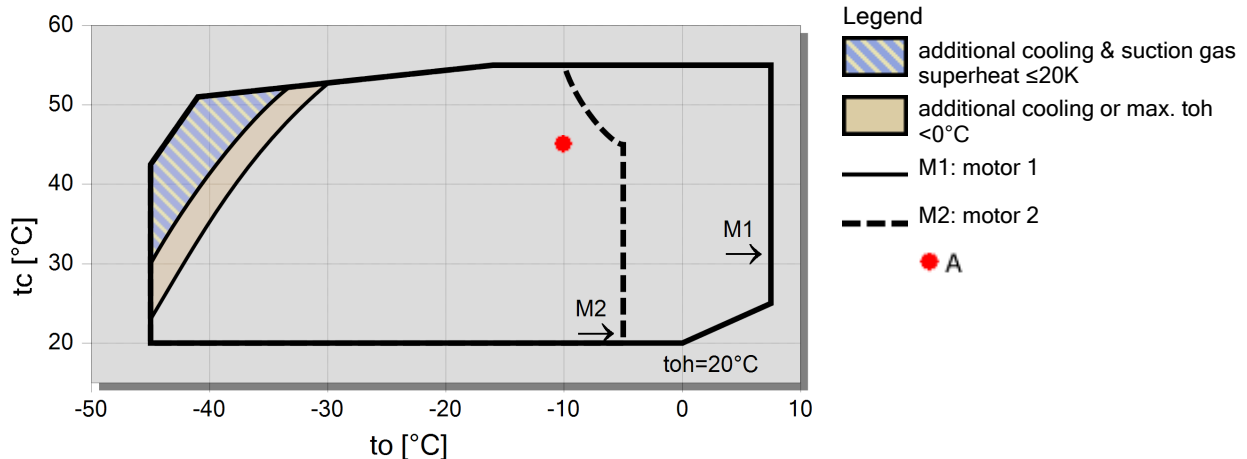
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	58417	48362	39660	32155	25712	20213	15549	11622
	Q* [W]	58417	48362	39660	32155	25712	20213	15549	11622
	P [kW]	15,76	14,83	13,78	12,62	11,39	10,09	8,77	7,42
	I [A]	26,9	25,4	23,8	22,1	20,3	18,45	16,67	15,00
	Qc [W]	74180	63195	53438	44777	37100	30307	24314	19045
	COP [-]	3,71	3,26	2,88	2,55	2,26	2,00	1,77	1,57
	COP* [-]	3,71	3,26	2,88	2,55	2,26	2,00	1,77	1,57
	m [kg/h]	1468	1203	978	788	626	490	375	279
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	71,0	77,6	84,5	91,9	99,9	108,6	118,2	129,2
40°C	Q [W]	49793	41118	33591	27086	21493	16712	12652	9230
	Q* [W]	49793	41118	33591	27086	21493	16712	12652	9230
	P [kW]	18,14	16,78	15,33	13,81	12,24	10,64	9,04	7,46
	I [A]	30,6	28,5	26,2	23,9	21,5	19,22	17,04	15,04
	Qc [W]	67934	57900	48922	40895	33732	27355	21695	16693
	COP [-]	2,74	2,45	2,19	1,96	1,76	1,57	1,40	1,24
	COP* [-]	2,74	2,45	2,19	1,96	1,76	1,57	1,40	1,24
	m [kg/h]	1410	1151	932	745	587	454	342	249
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	82,4	89,0	96,1	103,6	111,8	120,8	130,9	0
50°C	Q [W]	--	33906	27553	22051	17313	13259	9816	6917
	Q* [W]	--	33906	27553	22051	17313	13259	9816	6917
	P [kW]	--	18,49	16,66	14,79	12,90	11,02	9,16	7,36
	I [A]	--	31,1	28,3	25,4	22,5	19,75	17,20	14,92
	Qc [W]	--	52395	44211	36839	30213	24278	18981	14278
	COP [-]	--	1,83	1,65	1,49	1,34	1,20	1,07	0,94
	COP* [-]	--	1,83	1,65	1,49	1,34	1,20	1,07	0,94
	m [kg/h]	--	1098	882	700	545	415	306	214
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	100,7	108,0	115,8	124,4	134,1	0	0

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

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

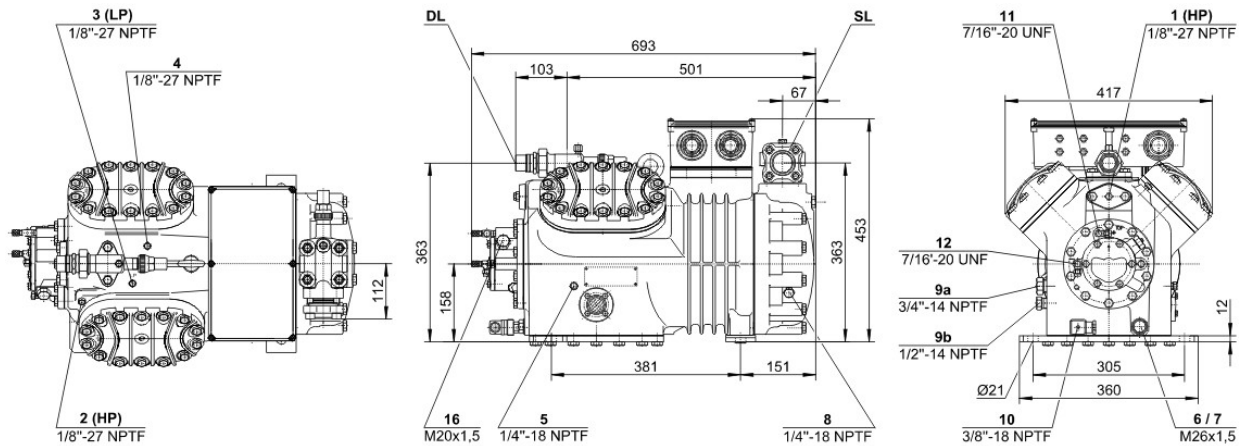
Application Limits 100%





Technical Data: (4H-15.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	73,6 m ³ /h
Displacement (1750 RPM 60Hz)	88,83 m ³ /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 dm ³

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-PII (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