



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4J-13.2Y) 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

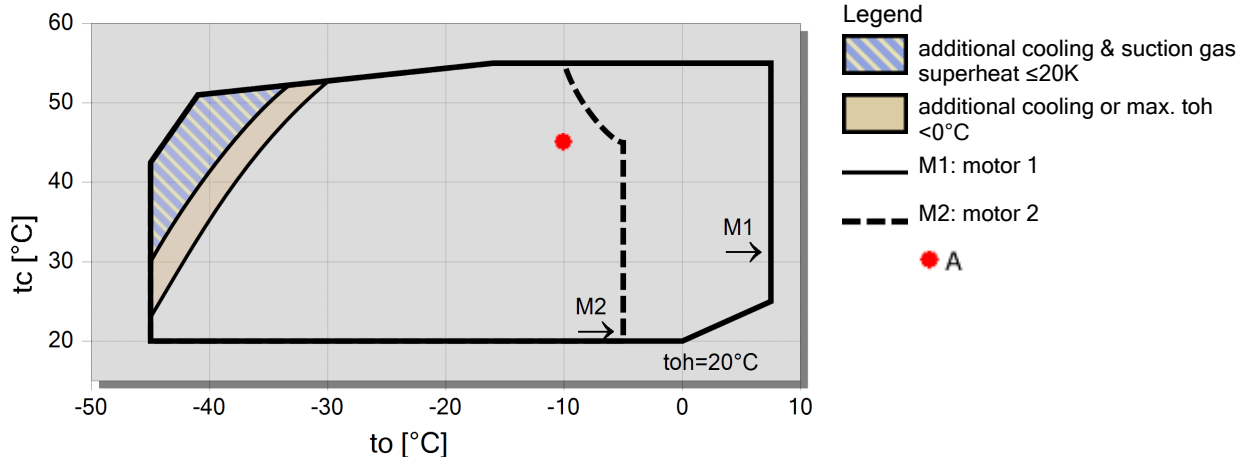
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	50306	41516	33909	27350	21720	16915	12840	9411
	Q* [W]	50306	41516	33909	27350	21720	16915	12840	9411
	P [kW]	13,23	12,50	11,63	10,65	9,58	8,44	7,24	6,00
	I [A]	23,0	21,9	20,6	19,23	17,75	16,25	14,78	13,39
	Qc [W]	63536	54013	45540	38002	31300	25350	20077	15416
	COP [-]	3,80	3,32	2,92	2,57	2,27	2,01	1,77	1,57
	COP* [-]	3,80	3,32	2,92	2,57	2,27	2,01	1,77	1,57
	m [kg/h]	1264	1033	836	670	529	410	310	226
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,1	76,8	83,9	91,5	99,6	108,5	118,2	129,1
40°C	Q [W]	42791	35234	28679	23016	18150	13993	10466	7497
	Q* [W]	42791	35234	28679	23016	18150	13993	10466	7497
	P [kW]	15,15	14,08	12,90	11,62	10,27	8,87	7,44	6,00
	I [A]	25,9	24,3	22,5	20,6	18,70	16,81	15,02	13,39
	Qc [W]	57944	49315	41575	34635	28421	22865	17908	13499
	COP [-]	2,82	2,50	2,22	1,98	1,77	1,58	1,41	1,25
	COP* [-]	2,82	2,50	2,22	1,98	1,77	1,58	1,41	1,25
	m [kg/h]	1211	986	795	633	496	380	283	202
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	81,2	88,1	95,3	103,1	111,4	120,5	130,5	0
50°C	Q [W]	--	29033	23537	18784	14699	11213	8262	5785
	Q* [W]	--	29033	23537	18784	14699	11213	8262	5785
	P [kW]	--	15,52	14,02	12,45	10,84	9,19	7,53	5,89
	I [A]	--	26,5	24,2	21,8	19,49	17,23	15,13	13,27
	Qc [W]	--	44554	37559	31238	25535	20402	15795	11675
	COP [-]	--	1,87	1,68	1,51	1,36	1,22	1,10	0,98
	COP* [-]	--	1,87	1,68	1,51	1,36	1,22	1,10	0,98
	m [kg/h]	--	940	754	596	463	351	257	179,2
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	99,7	107,1	115,1	123,6	132,9	0	0

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

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

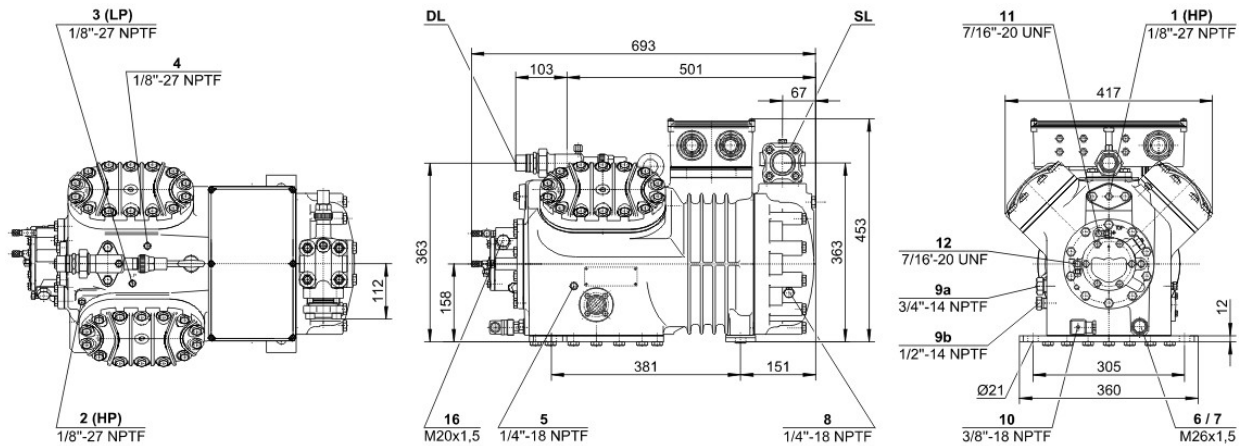
Application Limits 100%





Technical Data: (4J-13.2Y)

Dimensions and Connections



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Displacement (1450 RPM 50Hz)	63,5 m ³ /h
Displacement (1750 RPM 60Hz)	76,64 m ³ /h
No. of cylinder x bore x stroke	4 x 65 mm x 55 mm
Weight	179 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	27.0 A
Winding ratio	50/50
Starting current (Rotor locked)	81.0 A Y / 132.0 A YY
Max. Power input	16,3 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)	77,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	81,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	69,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	73,0 dB(A) @ 50Hz