



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4G-30.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C Auto
Refrigerant Reference temperature Liq. subc. (in condenser)	R507A Dew point temp. 0 K	Power supply Capacity Control Useful superheat	400V-3-50Hz 100% 100%

Result

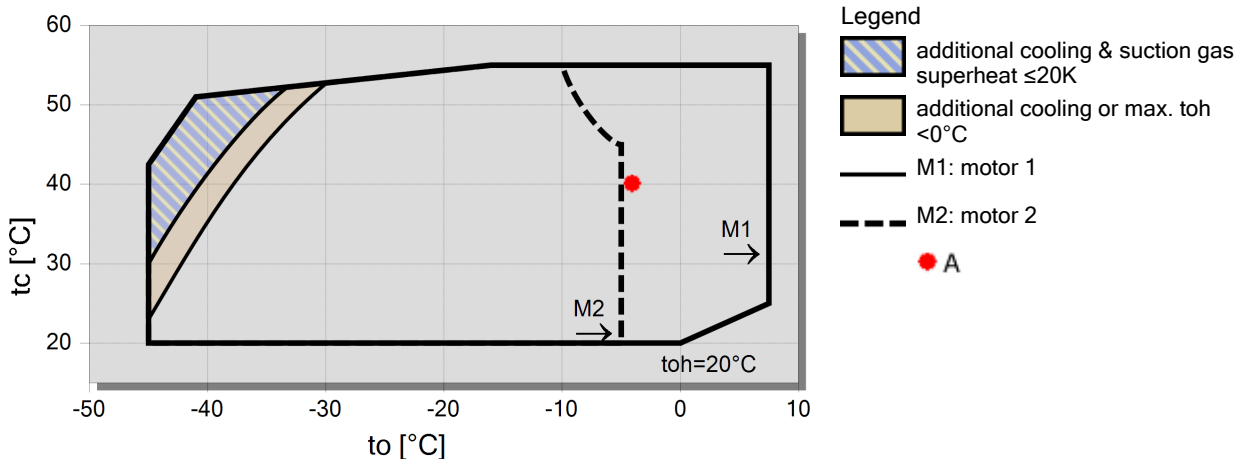
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C
30°C	Q [W]	81854	68300	56523	46312	37489	29897	23399	17868
	Q* [W]	81854	68300	56523	46312	37489	29897	23399	17868
	P [kW]	19,17	18,40	17,41	16,24	14,93	13,51	12,02	10,51
	I [A]	34,6	33,5	32,1	30,5	28,8	26,9	25,1	23,4
	Qc [W]	101027	86701	73932	62551	52414	43405	35423	28380
	COP [-]	4,27	3,71	3,25	2,85	2,51	2,21	1,95	1,70
	COP* [-]	4,27	3,71	3,25	2,85	2,51	2,21	1,95	1,70
	m [kg/h]	2148	1771	1450	1178	947	750	584	444
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	63,8	70,1	76,8	83,8	91,4	99,6	108,9	119,7
40°C	Q [W]	70057	58388	48211	39360	31692	25078	19403	14563
	Q* [W]	70057	58388	48211	39360	31692	25078	19403	14563
	P [kW]	22,4	21,1	19,52	17,87	16,13	14,35	12,56	10,80
	I [A]	39,4	37,4	35,1	32,8	30,4	28,0	25,8	23,8
	Qc [W]	92483	79442	67733	57229	47824	39428	31964	25364
	COP [-]	3,12	2,77	2,47	2,20	1,96	1,75	1,54	1,35
	COP* [-]	3,12	2,77	2,47	2,20	1,96	1,75	1,54	1,35
	m [kg/h]	2082	1711	1396	1129	902	708	545	407
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	74,6	80,8	87,4	94,4	102,0	110,4	120,1	131,9
50°C	Q [W]	58052	48293	39748	32297	25830	20249	15461	11384
	Q* [W]	58052	48293	39748	32297	25830	20249	15461	11384
	P [kW]	25,2	23,3	21,3	19,24	17,13	15,04	13,00	11,04
	I [A]	43,7	40,8	37,8	34,7	31,7	28,9	26,3	24,0
	Qc [W]	83300	71626	61066	51536	42965	35291	28461	22428
	COP [-]	2,30	2,07	1,86	1,68	1,51	1,35	1,19	1,03
	COP* [-]	2,30	2,07	1,86	1,68	1,51	1,35	1,19	1,03
	m [kg/h]	2014	1649	1339	1075	852	662	502	368
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	85,4	91,6	98,2	105,3	113,1	121,9	132,5	0

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

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

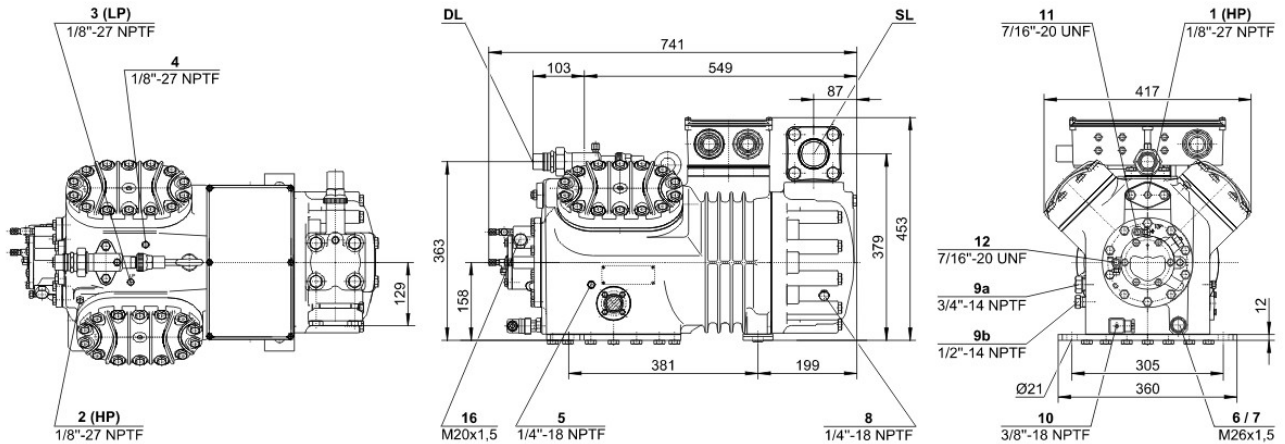
Application Limits 100%





Technical Data: (4G-30.2Y)

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	84,5 m ³ /h
Displacement (1750 RPM 60Hz)	101,98 m ³ /h
No. of cylinder x bore x stroke	4 x 75 mm x 55 mm
Weight	206 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 1/8"
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	53.0 A
Winding ratio	50/50
Starting current (Rotor locked)	135.0 A Y / 220.0 A YY
Max. Power input	30,1 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	4,50 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
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 (+5°C / 50°C)	81,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	81,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(86,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	73,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	73,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(78,5) dB(A) @ 50Hz