



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)	R404A Dew point temp. 0 K	Power supply Capacity Control Useful superheat	400V-3-50Hz 100% 100%

Result

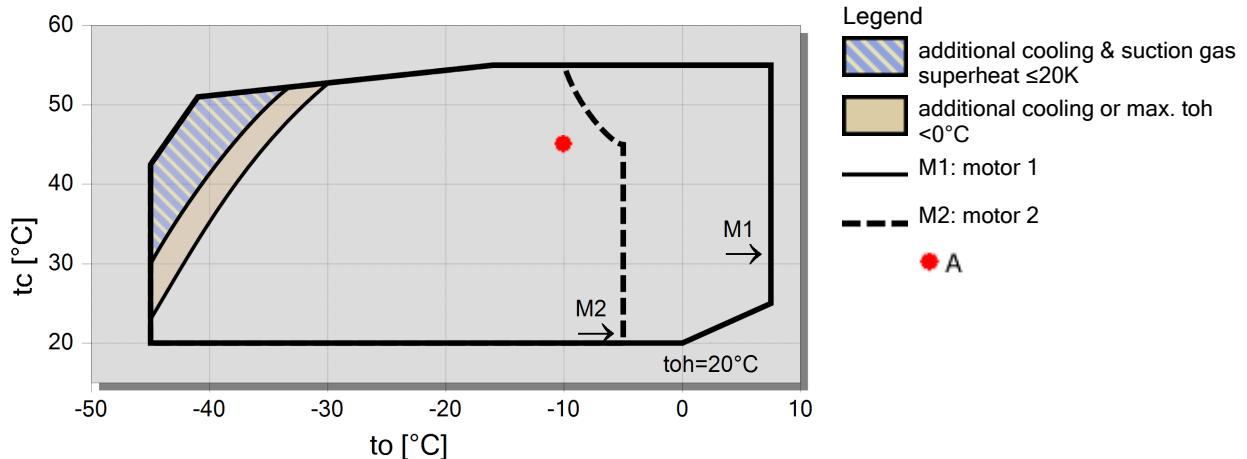
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C
30°C	Q [W]	79895	66541	54949	44910	36247	28803	22442	17038
	Q* [W]	79895	66541	54949	44910	36247	28803	22442	17038
	P [kW]	18,57	17,81	16,84	15,70	14,41	13,02	11,57	10,09
	I [A]	33,8	32,7	31,3	29,8	28,1	26,3	24,6	23,0
	Qc [W]	98460	84353	71793	60609	50659	41827	34011	27125
	COP [-]	4,30	3,74	3,26	2,86	2,51	2,21	1,94	1,69
	COP* [-]	4,30	3,74	3,26	2,86	2,51	2,21	1,94	1,69
	m [kg/h]	2031	1672	1367	1108	888	701	544	411
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	64,3	70,8	77,6	84,8	92,6	101,1	110,8	122,0
40°C	Q [W]	68555	57021	46974	38246	30693	24187	18612	13864
	Q* [W]	68555	57021	46974	38246	30693	24187	18612	13864
	P [kW]	21,7	20,4	18,88	17,26	15,56	13,81	12,06	10,33
	I [A]	38,4	36,4	34,2	31,9	29,6	27,3	25,2	23,2
	Qc [W]	90283	77405	65856	55508	46252	37999	30670	24198
	COP [-]	3,16	2,80	2,49	2,22	1,97	1,75	1,54	1,34
	COP* [-]	3,16	2,80	2,49	2,22	1,97	1,75	1,54	1,34
	m [kg/h]	1967	1614	1315	1061	844	661	506	375
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	75,2	81,6	88,3	95,5	103,3	112,0	122,1	134,6
50°C	Q [W]	57089	47384	38898	31508	25100	19576	14843	10815
	Q* [W]	57089	47384	38898	31508	25100	19576	14843	10815
	P [kW]	24,5	22,6	20,6	18,56	16,50	14,45	12,45	10,54
	I [A]	42,5	39,6	36,7	33,8	30,9	28,1	25,6	23,5
	Qc [W]	81549	69965	59501	50071	41600	34026	27294	21357
	COP [-]	2,33	2,10	1,89	1,70	1,52	1,35	1,19	1,03
	COP* [-]	2,33	2,10	1,89	1,70	1,52	1,35	1,19	1,03
	m [kg/h]	1901	1554	1259	1009	797	616	464	337
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	86,1	92,5	99,2	106,5	114,5	123,7	134,9	0

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

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

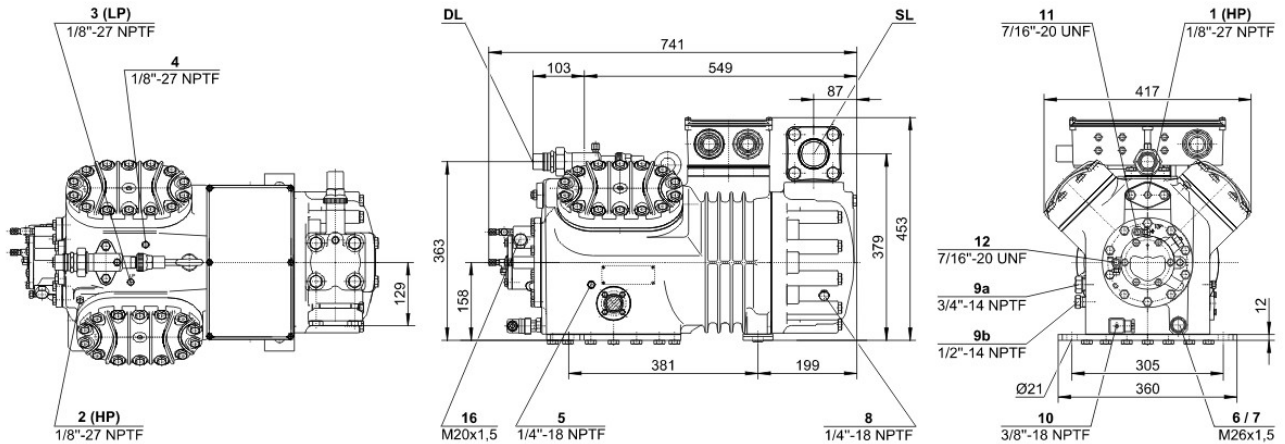
Application Limits 100%





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