



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(4G-20.2Y) Refrigeration and Air conditioning	Suction gas temperature Operating mode	20,00 °C 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

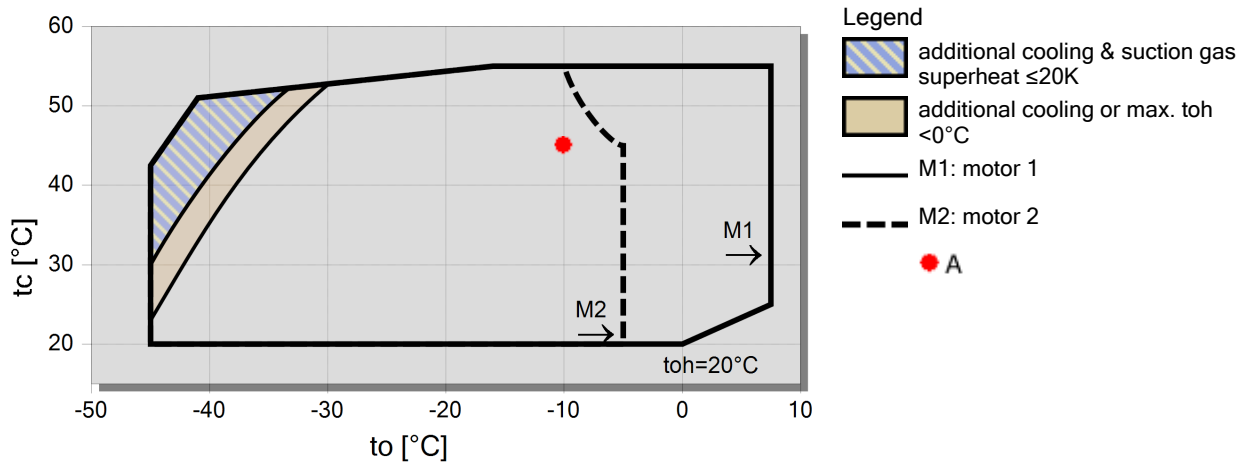
Q [W]	Cooling capacity	COP [-]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser Capacity		

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	67006	55421	45391	36740	29312	22968	17584	13048
	Qu* [W]	67006	55421	45391	36740	29312	22968	17584	13048
	P [kW]	18,21	17,11	15,88	14,54	13,11	11,61	10,08	8,52
	I [A]	30,6	28,8	26,9	24,9	22,8	20,7	18,61	16,69
	Qc [W]	85215	72532	61272	51279	42421	34582	27662	21570
	COP [-]	3,68	3,24	2,86	2,53	2,24	1,98	1,74	1,53
	m [kg/h]	1683	1379	1120	900	714	556	424	314
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	71,3	77,9	84,8	92,3	100,4	109,4	119,5	131,1
	40°C	Q [W]	57151	47250	38644	31189	24759	19240	14528
Qu* [W]		57151	47250	38644	31189	24759	19240	14528	10529
P [kW]		20,9	19,35	17,67	15,92	14,12	12,29	10,46	8,65
I [A]		34,9	32,4	29,7	27,0	24,3	21,6	19,10	16,84
Qc [W]		78079	66597	56313	47107	38875	31528	24986	19177
COP [-]		2,73	2,44	2,19	1,96	1,75	1,57	1,39	1,22
m [kg/h]		1618	1323	1072	858	677	523	393	284
Op.		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		82,6	89,2	96,2	103,7	111,9	121,0	131,5	0
50°C		Q [W]	--	38741	31632	25447	20087	15466	11500
	Qu* [W]	--	38741	31632	25447	20087	15466	11500	8112
	P [kW]	--	21,2	19,14	17,00	14,86	12,72	10,63	8,59
	I [A]	--	35,4	32,0	28,7	25,4	22,2	19,32	16,77
	Qc [W]	--	59973	50770	42451	34945	28189	22125	16703
	COP [-]	--	1,82	1,65	1,50	1,35	1,22	1,08	0,94
	m [kg/h]	--	1254	1013	808	633	484	358	251
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	101,0	108,0	115,6	123,9	133,2	0	0

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

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

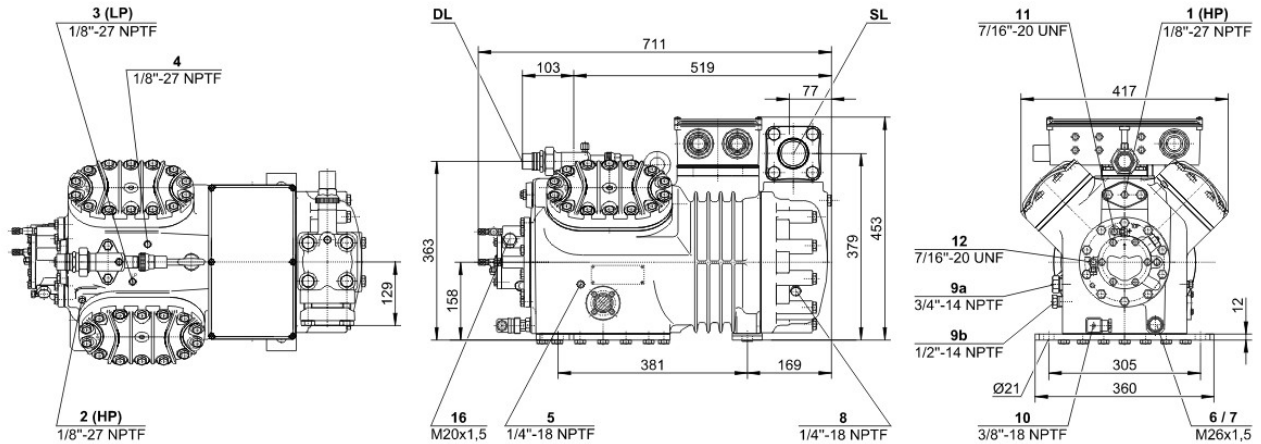
Application Limits 100%





Technical Data: (4G-20.2Y)

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	192 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	37.0 A
Winding ratio	50/50
Starting current (Rotor locked)	97.0 A Y / 158.0 A YY
Max. Power input	22,1 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
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)	81,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	86,5 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