



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

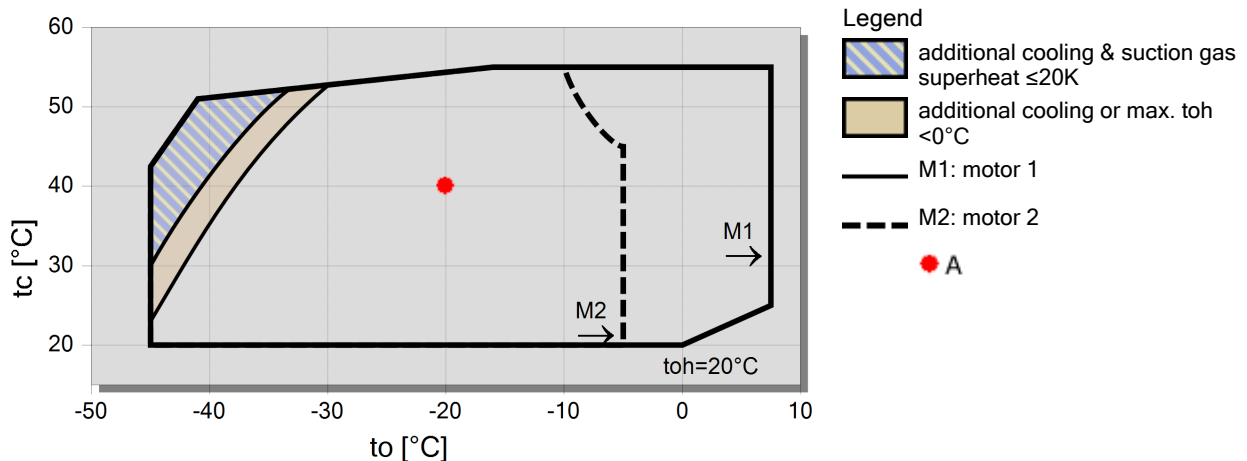
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

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)

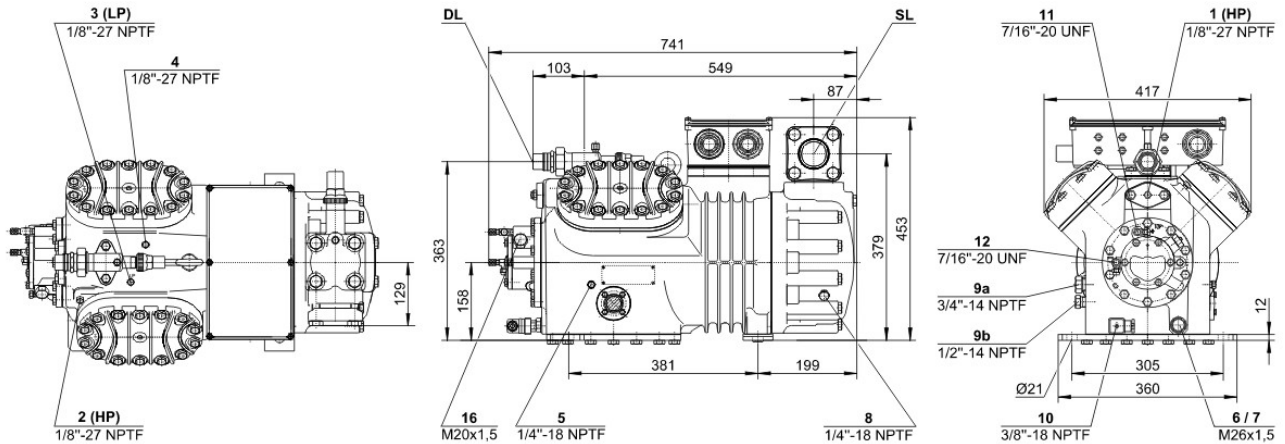
Application Limits 100%





Technical Data: (4G-30.2Y)

Dimensions and Connections



Technical Data

Technical Data

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



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model Mode	(6G-40.2Y) 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%

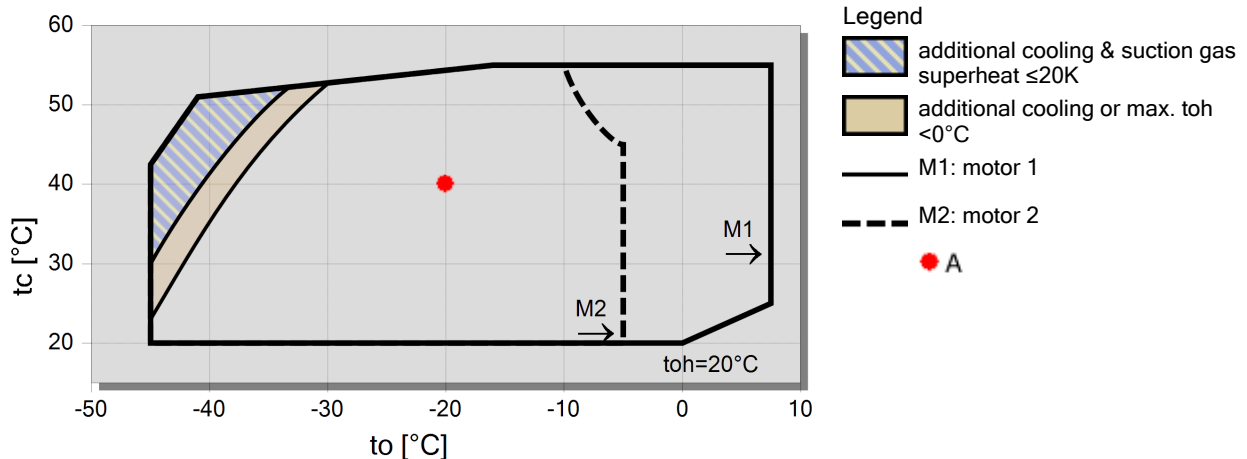
Result

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]	119989	99886	82444	67348	54331	43157	33619	25530
	Q* [W]	119989	99886	82444	67348	54331	43157	33619	25530
	P [kW]	28,6	27,2	25,6	23,8	21,8	19,74	17,56	15,28
	I [A]	53,2	51,2	49,1	46,8	44,3	41,8	39,2	36,8
	Qc [W]	148636	127079	108002	91107	76144	62897	51175	40810
	COP [-]	4,19	3,67	3,23	2,83	2,49	2,19	1,91	1,67
	COP* [-]	4,19	3,67	3,23	2,83	2,49	2,19	1,91	1,67
	m [kg/h]	3050	2509	2051	1661	1331	1051	814	616
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	65,1	71,4	78,0	85,2	93,1	101,8	111,7	122,9
40°C	Q [W]	102614	85353	70324	57276	45993	36283	27973	20907
	Q* [W]	102614	85353	70324	57276	45993	36283	27973	20907
	P [kW]	32,7	30,6	28,4	26,0	23,5	21,0	18,29	15,57
	I [A]	58,6	55,8	52,8	49,7	46,5	43,3	40,1	37,1
	Qc [W]	135300	115960	98700	83288	69524	57234	46264	36474
	COP [-]	3,14	2,79	2,48	2,20	1,95	1,73	1,53	1,34
	COP* [-]	3,14	2,79	2,48	2,20	1,95	1,73	1,53	1,34
	m [kg/h]	2944	2416	1969	1588	1265	992	760	566
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	75,4	81,7	88,5	95,8	103,8	112,8	122,8	134,5
50°C	Q [W]	85319	70915	58311	47323	37785	29548	22476	16441
	Q* [W]	85319	70915	58311	47323	37785	29548	22476	16441
	P [kW]	36,4	33,7	30,9	28,0	25,0	21,9	18,78	15,63
	I [A]	63,7	60,0	56,2	52,3	48,4	44,4	40,7	37,1
	Qc [W]	121728	104632	89215	75309	62767	51457	41261	32069
	COP [-]	2,34	2,10	1,89	1,69	1,51	1,35	1,20	1,05
	COP* [-]	2,34	2,10	1,89	1,69	1,51	1,35	1,20	1,05
	m [kg/h]	2842	2326	1888	1516	1199	931	703	512
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	86,0	92,4	99,3	106,7	114,9	124,1	134,6	0

-- No calculation possible (see message in single point selection)
 *According to EN12900 (20°C suction gas temp., 0K liquid subcooling)

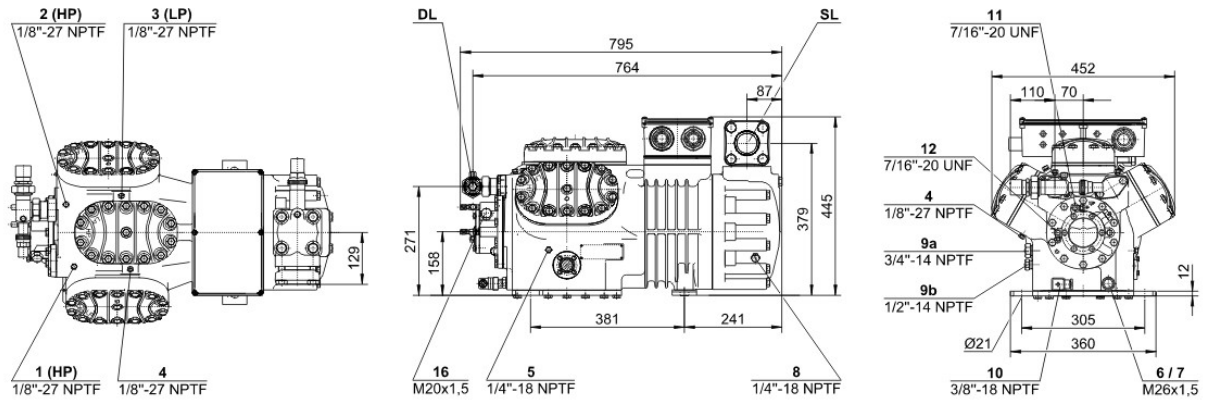
Application Limits 100%





Technical Data: (6G-40.2Y)

Dimensions and Connections



Technical Data

Technical Data

Displacement (1450 RPM 50Hz)	126,8 m ³ /h
Displacement (1750 RPM 60Hz)	153,0 m ³ /h
No. of cylinder x bore x stroke	6 x 75 mm x 55 mm
Weight	238 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 1/8"
Connection discharge line	35 mm - 1 3/8"
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	78.0 A
Winding ratio	50/50
Starting current (Rotor locked)	180.0 A Y / 323.0 A YY
Max. Power input	45,1 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	4,75 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-66-33% (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)	84,0 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	83,5 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(90,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	76,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	75,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(82,5) dB(A) @ 50Hz