



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(66H-70.2Y)	Suction gas temperature	20,00 °C
Mode	Refrigeration and Air conditioning	Operating mode	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

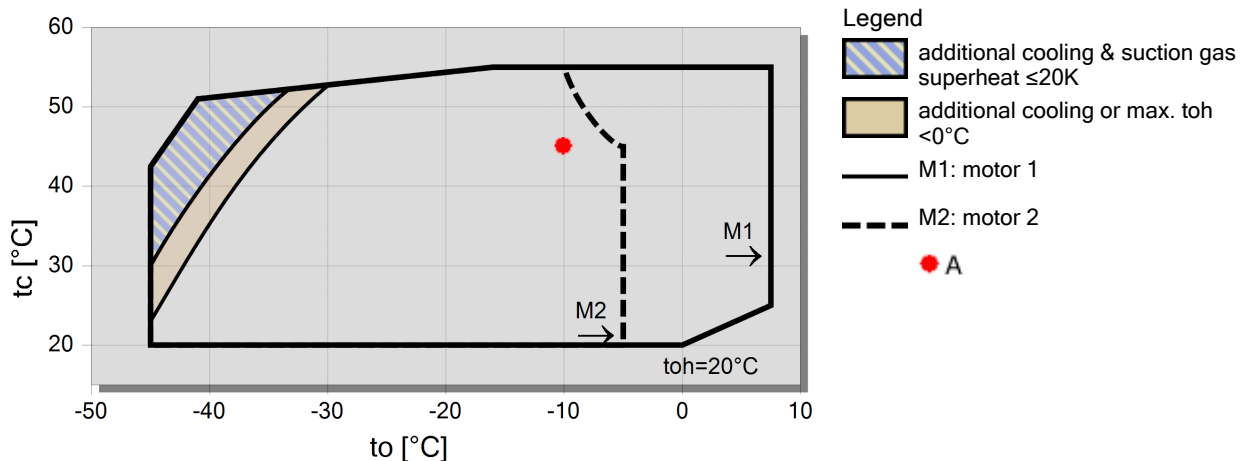
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	10°C	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C
30°C	Q [W]	--	249532	209019	173828	143284	116835	94013	74408
	Q* [W]	--	249532	209019	173828	143284	116835	94013	74408
	P [kW]	--	49,7	48,1	46,1	43,5	40,6	37,3	33,7
	I [A]	--	88,9	86,7	83,7	80,1	76,0	71,6	66,9
	Qc [W]	--	299208	257165	219911	186828	157426	131292	108076
	COP [-]	--	5,02	4,34	3,77	3,29	2,88	2,52	2,21
	COP* [-]	--	5,02	4,34	3,77	3,29	2,88	2,52	2,21
	m [kg/h]	--	6433	5313	4367	3564	2882	2303	1812
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--		57,9	64,0	70,4	77,2	84,5	92,4
40°C	Q [W]	--	213286	178506	148191	121812	98929	79161	62171
	Q* [W]	--	213286	178506	148191	121812	98929	79161	62171
	P [kW]	--	58,4	55,6	52,3	48,6	44,6	40,3	35,8
	I [A]	--	101,8	97,6	92,7	87,3	81,6	75,6	69,6
	Qc [W]	--	271688	234082	200485	170425	143521	119449	97933
	COP [-]	--	3,65	3,21	2,83	2,51	2,22	1,96	1,74
	COP* [-]	--	3,65	3,21	2,83	2,51	2,22	1,96	1,74
	m [kg/h]	--	6217	5121	4195	3410	2744	2178	1699
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--		68,4	74,6	81,1	88,0	95,5	103,5
50°C	Q [W]	--	177286	148278	122885	100724	81466	64818	50515
	Q* [W]	--	177286	148278	122885	100724	81466	64818	50515
	P [kW]	--	66,5	62,4	57,9	53,1	48,1	42,8	37,4
	I [A]	--	113,9	107,8	101,1	93,9	86,6	79,1	71,8
	Qc [W]	--	243758	210666	180808	153858	129548	107643	87935
	COP [-]	--	2,67	2,38	2,12	1,90	1,69	1,51	1,35
	COP* [-]	--	2,67	2,38	2,12	1,90	1,69	1,51	1,35
	m [kg/h]	--	6015	4939	4030	3261	2609	2057	1591
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--		79,2	85,5	92,0	99,0	106,6	114,8

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

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

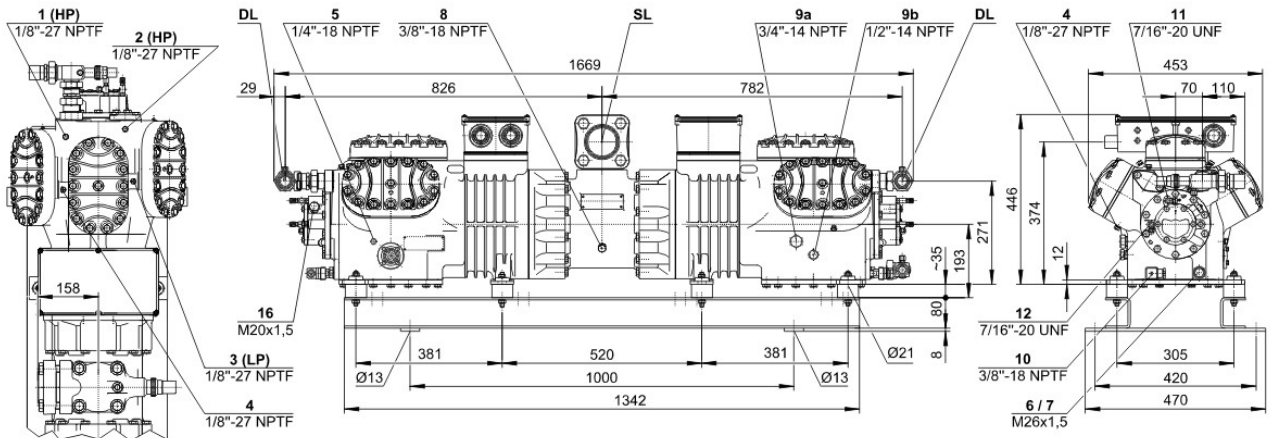
Application Limits 100%





Technical Data: (66H-70.2Y)

Dimensions and Connections



Technical Data

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Displacement (1450 RPM 50Hz)	221,0 m ³ /h
Displacement (1750 RPM 60Hz)	266,7 m ³ /h
No. of cylinder x bore x stroke	6+6 x 70 mm x 55 mm
Weight	493 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	76 mm - 3 1/8"
Connection discharge line	2x35 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)

Motor data

Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	2x61.0 A
Winding ratio	50/50
Starting current (Rotor locked)	2x147.0 A Y / 2x262.0 A YY
Max. Power input	2 x 37,4 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	9,50 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-83-66-33-17% (Option)
Additional fan	Option
Water-cooled cylinder heads	Option
Oil service valve	Option
Crankcase heater	2 x 140 W (Option)
Oil pressure monitoring	MP54 (Option), Delta-PII (Option)

Sound measurement

Sound power level (+5°C / 50°C)	84,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	85,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(93,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	76,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	77,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(85,5) dB(A) @ 50Hz