



Compressor Selection: Semi-hermetic Reciprocating Compressors

Input Values

Compressor model	(44H-50.2Y)	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

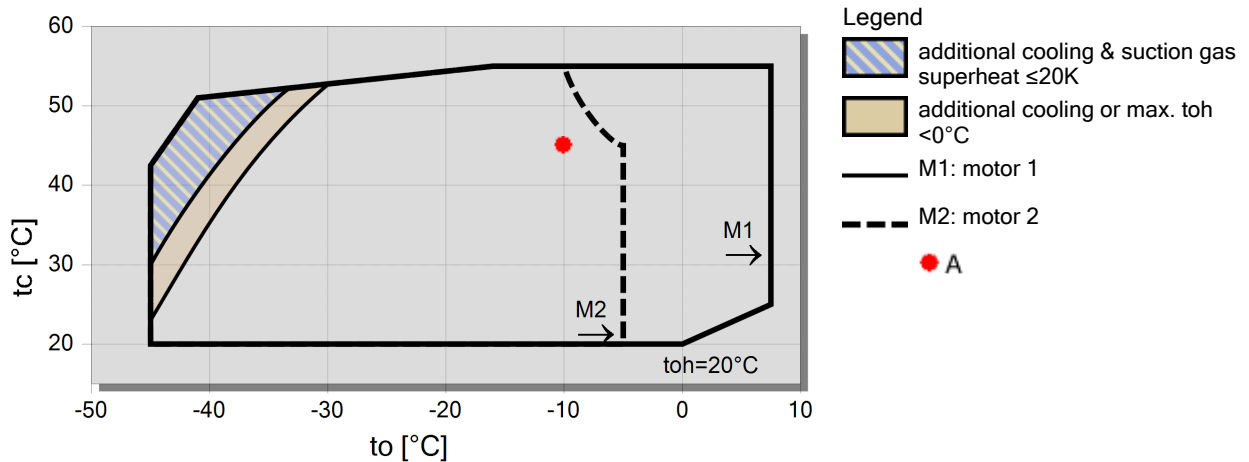
Q [W]	Cooling capacity	COP [-]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser Capacity		

tc	to	0°C	-10°C	-20°C	-30°C	-40°C	-50°C	-60°C	-70°C
30°C	Q [W]	139211	95434	62613	38384	20895	--	--	--
	Qu* [W]	139211	95434	62613	38384	20895			
	P [kW]	31,4	28,7	24,6	19,61	14,15			
	I [A]	56,0	52,3	46,8	40,7	34,9			
	Qc [W]	170622	124135	87226	57992	35041			
	COP [-]	4,43	3,33	2,54	1,96	1,48			
	m [kg/h]	3539	2374	1534	930	502			
	Op.	Standard	Standard	Standard	Standard	Standard			
	th [°C]	63,4	76,8	92,0	110,1	134,3			
	40°C	Q [W]	118854	81205	52835	31824	16628	--	--
Qu* [W]		118854	81205	52835	31824	16628			
P [kW]		36,7	32,2	26,6	20,4	13,99			
I [A]		63,7	57,1	49,4	41,6	34,8			
Qc [W]		155555	113397	79434	52203	30622			
COP [-]		3,24	2,52	1,99	1,56	1,19			
m [kg/h]		3410	2273	1454	865	448			
Op.		Standard	Standard	Standard	Standard	Standard			
th [°C]		74,3	87,7	102,9	121,2	0			
50°C		Q [W]	98877	67196	43217	25453	12661	--	--
	Qu* [W]	98877	67196	43217	25453	12661			
	P [kW]	41,6	35,4	28,3	21,0	13,70			
	I [A]	71,1	61,8	51,8	42,3	34,5			
	Qc [W]	140514	102578	71553	46409	26361			
	COP [-]	2,37	1,90	1,53	1,21	0,92			
	m [kg/h]	3293	2176	1371	796	392			
	Op.	Standard	Standard	Standard	Standard	Standard			
	th [°C]	85,5	98,9	114,4	133,3	0			

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

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

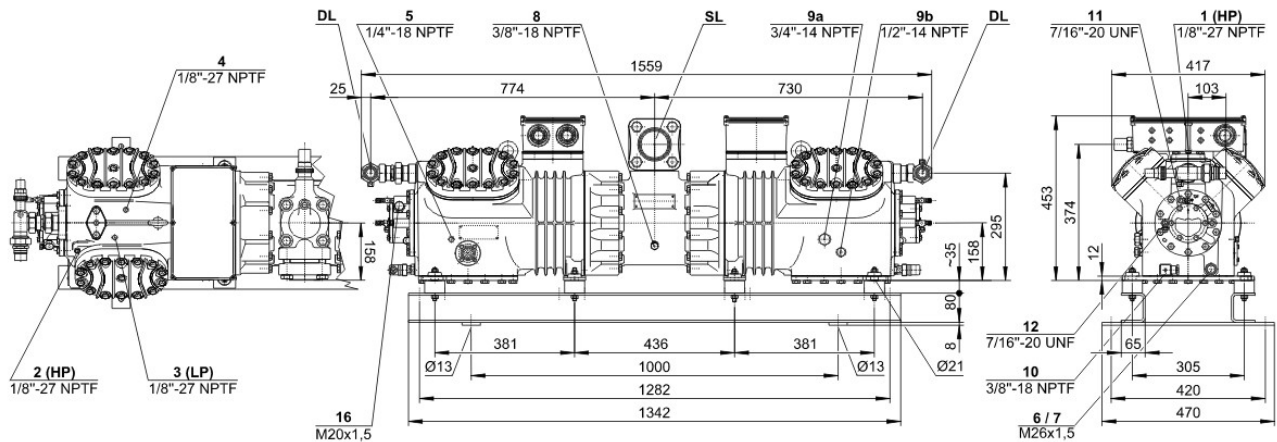
Application Limits 100%





Technical Data: (44H-50.2Y)

Dimensions and Connections



Technical Data

Technical Data

Displacement (1450 RPM 50Hz)	147,2 m ³ /h
Displacement (1750 RPM 60Hz)	177,7 m ³ /h
No. of cylinder x bore x stroke	4+4 x 70 mm x 55 mm
Weight	446 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	76 mm - 3 1/8"
Connection discharge line	2x28 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)

Motor data

Motor voltage (more on request)	380-420V PW-3-50Hz
Max operating current	2x45.0 A
Winding ratio	50/50
Starting current (Rotor locked)	2x116.0 A Y / 2x193.0 A YY
Max. Power input	2 x 24,9 kW

Extent of delivery (Standard)

Motor protection	SE-B2
Enclosure class	IP54 (Standard), IP66 (Option)
Vibration dampers	Standard
Oil charge	8,00 dm ³

Available Options

Discharge gas temperature sensor	Option
Start unloading	Option
Capacity control	100-75-50-25% (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)	80,5 dB(A) @ 50Hz
Sound power level (-10°C / 45°C)	81,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(84,0) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	72,5 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	73,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(76,0) dB(A) @ 50Hz