



## Compressor Selection: Semi-hermetic Reciprocating Compressors

### Input Values

Compressor model	(44H-30.2Y)	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

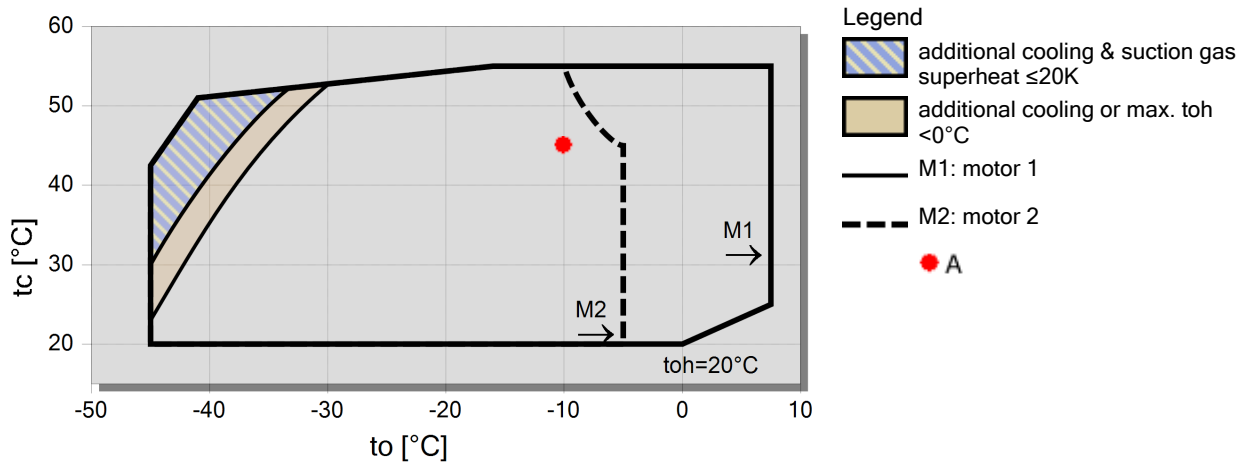
Q [W]	Cooling capacity	COP [ - ]	COP/EER
Qu* [W]	Evaporator capacity	m [kg/h]	Mass flow
P [kW]	Power input	Op.	Operating mode
I [A]	Current	th [°C]	Discharge gas temp. w/o cooling
Qc [W]	Condenser Capacity		

tc	to	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C	-35°C	-40°C
30°C	Q [W]	116835	96724	79319	64309	51425	40426	31098	23243
	Qu* [W]	116835	96724	79319	64309	51425	40426	31098	23243
	P [kW]	31,5	29,7	27,6	25,2	22,8	20,2	17,53	14,85
	I [A]	53,7	50,9	47,6	44,2	40,6	36,9	33,3	30,0
	Qc [W]	148360	126390	106876	89555	74199	60614	48629	38091
	COP [ - ]	3,71	3,26	2,88	2,55	2,26	2,00	1,77	1,57
	m [kg/h]	2935	2406	1957	1575	1252	979	750	559
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	71,0	77,6	84,5	91,9	99,9	108,6	118,2	129,2
	40°C	Q [W]	99585	82235	67181	54172	42985	33423	25304
Qu* [W]		99585	82235	67181	54172	42985	33423	25304	18461
P [kW]		36,3	33,6	30,7	27,6	24,5	21,3	18,09	14,93
I [A]		61,2	56,9	52,4	47,7	43,0	38,4	34,1	30,1
Qc [W]		135867	115801	97844	81790	67464	54709	43391	33386
COP [ - ]		2,74	2,45	2,19	1,96	1,76	1,57	1,40	1,24
m [kg/h]		2819	2302	1863	1490	1175	908	685	497
Op.		Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
th [°C]		82,4	89,0	96,1	103,6	111,8	120,8	130,9	0
50°C		Q [W]	--	67812	55106	44102	34625	26518	19633
	Qu* [W]	--	67812	55106	44102	34625	26518	19633	13834
	P [kW]	--	37,0	33,3	29,6	25,8	22,0	18,33	14,72
	I [A]	--	62,3	56,5	50,7	45,0	39,5	34,4	29,8
	Qc [W]	--	104791	88423	73677	60426	48555	37962	28556
	COP [ - ]	--	1,83	1,65	1,49	1,34	1,20	1,07	0,94
	m [kg/h]	--	2196	1765	1400	1090	830	611	429
	Op.	--	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	--	100,7	108,0	115,8	124,4	134,1	0	0

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

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

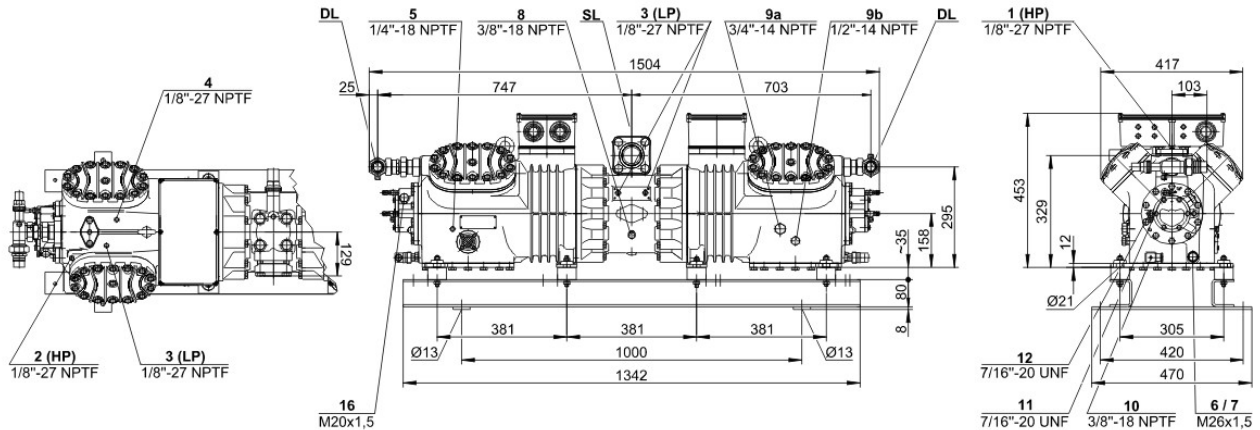
### Application Limits 100%





## Technical Data: (44H-30.2Y)

### Dimensions and Connections



### Technical Data

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Displacement (1450 RPM 50Hz)	147,2 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	177,7 m <sup>3</sup> /h
No. of cylinder x bore x stroke	4+4 x 70 mm x 55 mm
Weight	412 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 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	2x31.0 A
Winding ratio	50/50
Starting current (Rotor locked)	2x81.0 A Y / 2x132.0 A YY
Max. Power input	2 x 19,3 kW

#### Extent of delivery (Standard)

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

#### 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
CIC System	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 (-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 (-10°C / 45°C)	73,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	76,0 dB(A) @ 50Hz