



### Compressor Selection: Semi-hermetic Reciprocating Compressors

#### Input Values

Compressor model Mode	(6F-50.2Y) 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

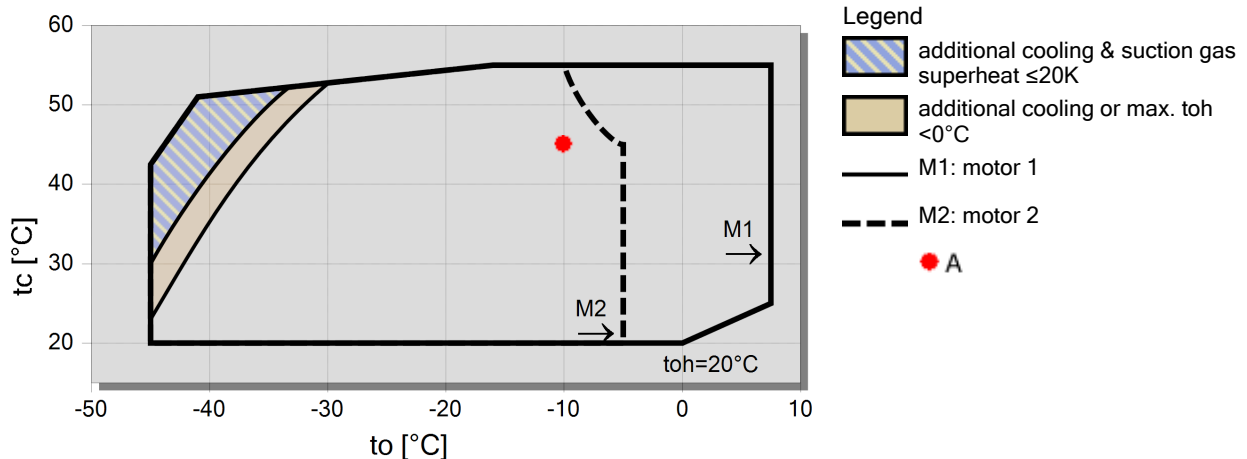
Q [W]	Cooling capacity	COP [-]	COP/EER
Q* [W]	Cooling capacity *	COP* [-]	COP/EER *
P [kW]	Power input	m [kg/h]	Mass flow
I [A]	Current	Op.	Operating mode
Qc [W]	Condenser Capacity	th [°C]	Discharge gas temp. w/o cooling

tc	to	5°C	0°C	-5°C	-10°C	-15°C	-20°C	-25°C	-30°C
30°C	Q [W]	169297	142143	118566	98113	80413	65152	52055	40878
	Q* [W]	169297	142143	118566	98113	80413	65152	52055	40878
	P [kW]	35,8	34,5	32,9	30,9	28,8	26,4	23,9	21,4
	I [A]	73,6	72,1	70,1	67,8	65,0	61,9	58,5	55,0
	Qc [W]	205054	176632	151434	129059	109195	91580	75997	62255
	COP [-]	4,73	4,12	3,61	3,17	2,79	2,47	2,17	1,91
	COP* [-]	4,73	4,12	3,61	3,17	2,79	2,47	2,17	1,91
	m [kg/h]	4364	3613	2979	2440	1984	1596	1267	990
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	59,4	65,6	72,0	78,7	85,9	93,7	102,2	111,8
40°C	Q [W]	144992	121655	101314	83614	68260	54994	43592	33850
	Q* [W]	144992	121655	101314	83614	68260	54994	43592	33850
	P [kW]	42,1	39,8	37,2	34,4	31,5	28,4	25,3	22,2
	I [A]	80,6	78,1	75,2	72,0	68,4	64,5	60,3	56,1
	Qc [W]	187084	161446	138531	118036	99723	83390	68866	56002
	COP [-]	3,44	3,06	2,72	2,43	2,17	1,94	1,72	1,53
	COP* [-]	3,44	3,06	2,72	2,43	2,17	1,94	1,72	1,53
	m [kg/h]	4226	3490	2868	2341	1893	1513	1191	920
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	70,2	76,3	82,7	89,4	96,6	104,4	113,0	122,9
50°C	Q [W]	120229	100799	83780	68915	55985	44794	35165	26936
	Q* [W]	120229	100799	83780	68915	55985	44794	35165	26936
	P [kW]	48,2	44,8	41,3	37,6	33,8	30,0	26,2	22,5
	I [A]	87,4	83,6	79,7	75,6	71,3	66,6	61,6	56,6
	Qc [W]	168433	145645	125073	106515	89807	74809	61398	49467
	COP [-]	2,49	2,25	2,03	1,83	1,66	1,49	1,34	1,20
	COP* [-]	2,49	2,25	2,03	1,83	1,66	1,49	1,34	1,20
	m [kg/h]	4079	3357	2748	2231	1793	1422	1107	843
	Op.	Standard	Standard	Standard	Standard	Standard	Standard	Standard	Standard
	th [°C]	81,5	87,6	94,0	100,7	107,9	115,8	124,5	134,6

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

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

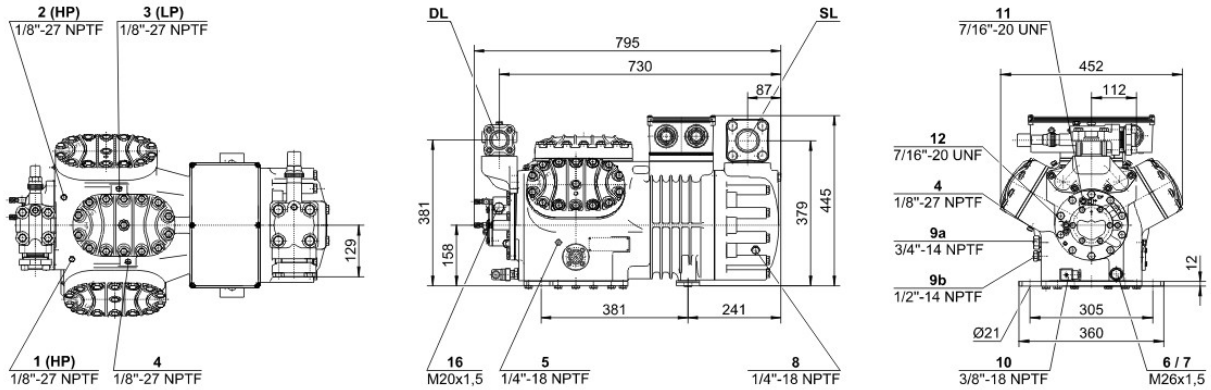
#### Application Limits 100%





## Technical Data: (6F-50.2Y)

### Dimensions and Connections



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Displacement (1450 RPM 50Hz)	151,6 m <sup>3</sup> /h
Displacement (1750 RPM 60Hz)	183,07 m <sup>3</sup> /h
No. of cylinder x bore x stroke	6 x 82 mm x 55 mm
Weight	241 kg
Max. pressure (LP/HP)	19 / 28 bar
Connection suction line	54 mm - 2 1/8"
Connection discharge line	42 mm - 1 5/8"
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)	380-400V PW-3-50Hz
Max operating current	92.0 A
Winding ratio	50/50
Starting current (Rotor locked)	226.0 A Y / 404.0 A YY
Max. Power input	53,2 kW

#### Extent of delivery (Standard)

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

#### 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)	83,0 dB(A) @ 50Hz
Sound power level (-35°C / 40°C)	(91,5) dB(A) @ 50Hz
Sound pressure level @ 1m (+5°C / 50°C)	76,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-10°C / 45°C)	75,0 dB(A) @ 50Hz
Sound pressure level @ 1m (-35°C / 40°C)	(83,5) dB(A) @ 50Hz