



Selection: Semi-hermetic Reciprocating Compressors

Input Values

| | | | |
|---------------------------|------------------------------------|-------------------------|-------------|
| Compressor model | (6F-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

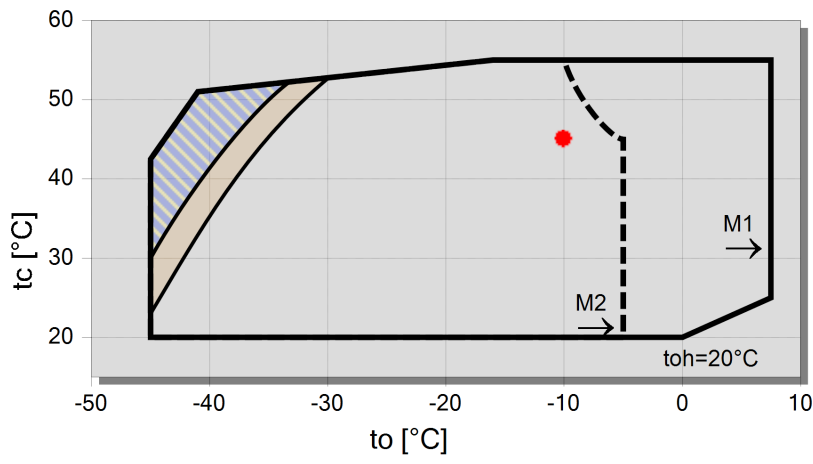
| | | | |
|---------|---------------------|-----------|---------------------------------|
| Q [W] | Cooling capacity | COP [-] | COP/EER |
| Qu* [W] | Evaporator capacity | m [kg/h] | Mass flow |
| P [kW] | Power input | Op. | Operating mode |
| I [A] | Current | th [°C] | Discharge gas temp. w/o cooling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

| tc | to | 10°C | 0°C | -10°C | -20°C | -30°C | -40°C | -50°C | -60°C |
|------|-----------|------|----------|----------|----------|----------|----------|-------|-------|
| 30°C | Q [W] | -- | 142143 | 98113 | 65152 | 40878 | 23428 | -- | -- |
| | Qu* [W] | | 142143 | 98113 | 65152 | 40878 | 23428 | | |
| | P [kW] | | 34,5 | 30,9 | 26,4 | 21,4 | 16,23 | | |
| | I [A] | | 72,1 | 67,8 | 61,9 | 55,0 | 48,2 | | |
| | Qc [W] | | 176632 | 129059 | 91580 | 62255 | 39659 | | |
| | COP [-] | | 4,12 | 3,17 | 2,47 | 1,91 | 1,44 | | |
| | m [kg/h] | | 3613 | 2440 | 1596 | 990 | 563 | | |
| | Op. | | Standard | Standard | Standard | Standard | Standard | | |
| | th [°C] | | 65,6 | 78,7 | 93,7 | 111,8 | 136,5 | | |
| 40°C | Q [W] | -- | 121655 | 83614 | 54994 | 33850 | 18619 | -- | -- |
| | Qu* [W] | | 121655 | 83614 | 54994 | 33850 | 18619 | | |
| | P [kW] | | 39,8 | 34,4 | 28,4 | 22,2 | 16,13 | | |
| | I [A] | | 78,1 | 72,0 | 64,5 | 56,1 | 48,1 | | |
| | Qc [W] | | 161446 | 118036 | 83390 | 56002 | 34754 | | |
| | COP [-] | | 3,06 | 2,43 | 1,94 | 1,53 | 1,15 | | |
| | m [kg/h] | | 3490 | 2341 | 1513 | 920 | 502 | | |
| | Op. | | Standard | Standard | Standard | Standard | Standard | | |
| | th [°C] | | 76,3 | 89,4 | 104,4 | 122,9 | 0 | | |
| 50°C | Q [W] | -- | 100799 | 68915 | 44794 | 26936 | 14089 | -- | -- |
| | Qu* [W] | | 100799 | 68915 | 44794 | 26936 | 14089 | | |
| | P [kW] | | 44,8 | 37,6 | 30,0 | 22,5 | 15,59 | | |
| | I [A] | | 83,6 | 75,6 | 66,6 | 56,6 | 47,4 | | |
| | Qc [W] | | 145645 | 106515 | 74809 | 49467 | 29679 | | |
| | COP [-] | | 2,25 | 1,83 | 1,49 | 1,20 | 0,90 | | |
| | m [kg/h] | | 3357 | 2231 | 1422 | 843 | 436 | | |
| | Op. | | Standard | Standard | Standard | Standard | Standard | | |
| | th [°C] | | 87,6 | 100,7 | 115,8 | 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% 6F-50.2



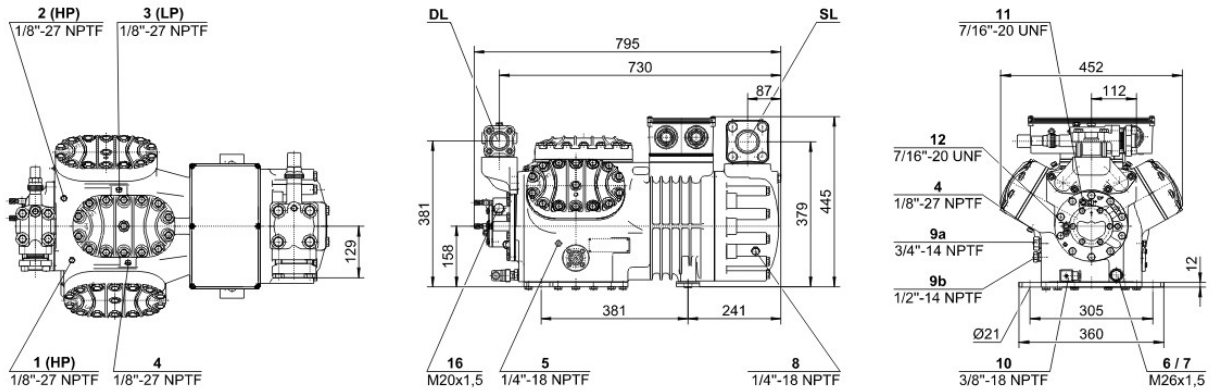
Legend

-  additional cooling & suction gas superheat $\leq 20\text{K}$
-  additional cooling or max. $t_{oh} < 0^\circ\text{C}$
-  M1: motor 1
-  M2: motor 2
-  A



Technical Data: (6F-50.2Y)

Dimensions and Connections



Technical Data

Technical Data

| | |
|--|--|
| Displacement (1450 RPM 50Hz) | 151,6 m ³ /h |
| Displacement (1750 RPM 60Hz) | 183,07 m ³ /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 ³ |

Available Options

| | |
|----------------------------------|---|
| Connection suction line | Option |
| Discharge shut-off valve | Option |
| 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 |