



### Compressor Selection: 2-stage Semi-hermetic Reciprocating Compressors

#### Input Values

|                       |                 |                         |             |
|-----------------------|-----------------|-------------------------|-------------|
| Compressor model      | S6J-16.2Y       | Suction gas temperature | 20,00 °C    |
| Refrigerant           | R404A           | Useful superheat        | 100%        |
| Reference temperature | Dew point temp. | Power supply            | 400V-3-50Hz |
| Operating mode        | with sub cooler |                         |             |

#### Result

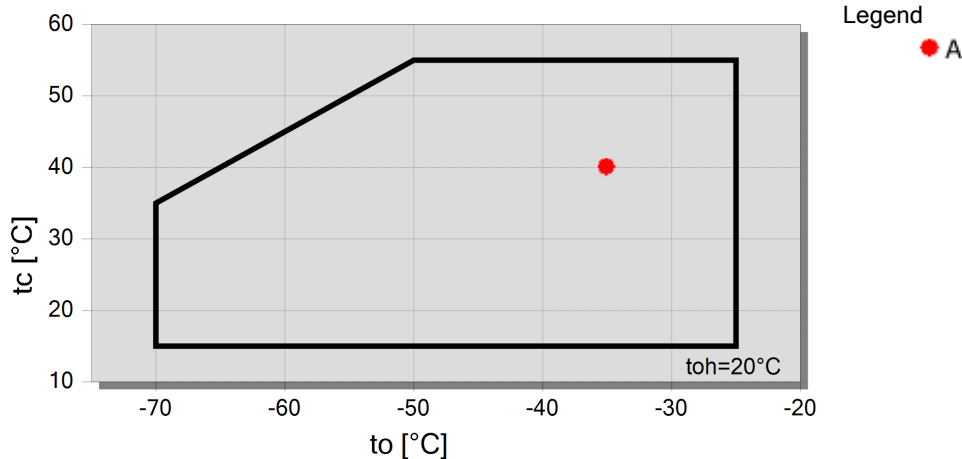
|        |                    |             |                    |
|--------|--------------------|-------------|--------------------|
| Q [W]  | Cooling capacity   | COP [-]     | COP/EER            |
| Q* [W] | Cooling capacity * | COP* [-]    | COP/EER *          |
| P [kW] | Power input        | mLP [kg/h]  | Mass flow LP       |
| I [A]  | Current            | pm [bar(a)] | Intermed. pressure |
| Qc [W] | Condenser Capacity |             |                    |

| tc          | to          | -20°C | -25°C | -30°C | -35°C | -40°C | -45°C | -50°C | -55°C |
|-------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30°C        | Q [W]       | --    | 27597 | 23737 | 20135 | 16796 | 13746 | 11021 | 8651  |
|             | Q* [W]      | --    | 23964 | 19935 | 16351 | 13188 | 10438 | 8096  | 6150  |
|             | P [kW]      | --    | 14,13 | 12,93 | 11,76 | 10,60 | 9,48  | 8,40  | 7,37  |
|             | I [A]       | --    | 23,3  | 21,6  | 19,98 | 18,37 | 16,85 | 15,42 | 14,11 |
|             | Qc [W]      | --    | 41724 | 36671 | 31892 | 27401 | 23231 | 19426 | 16024 |
|             | COP [-]     | --    | 1,95  | 1,84  | 1,71  | 1,58  | 1,45  | 1,31  | 1,17  |
|             | COP* [-]    | --    | 1,70  | 1,54  | 1,39  | 1,24  | 1,10  | 0,96  | 0,83  |
|             | mLP [kg/h]  | --    | 583   | 483   | 394   | 317   | 250   | 193,6 | 146,8 |
|             | pm [bar(a)] | --    | 6,87  | 6,01  | 5,20  | 4,46  | 3,78  | 3,17  | 2,64  |
|             | 40°C        | Q [W] | --    | 26505 | 22810 | 19326 | 16097 | 13169 | 10575 |
| Q* [W]      |             | --    | 21238 | 17597 | 14375 | 11557 | 9133  | 7089  | 5397  |
| P [kW]      |             | --    | 16,00 | 14,58 | 13,21 | 11,90 | 10,63 | 9,42  | 8,26  |
| I [A]       |             | --    | 26,1  | 24,0  | 22,0  | 20,2  | 18,41 | 16,76 | 15,23 |
| Qc [W]      |             | --    | 42503 | 37391 | 32540 | 27995 | 23803 | 19997 | 16587 |
| COP [-]     |             | --    | 1,66  | 1,56  | 1,46  | 1,35  | 1,24  | 1,12  | 1,01  |
| COP* [-]    |             | --    | 1,33  | 1,21  | 1,09  | 0,97  | 0,86  | 0,75  | 0,65  |
| mLP [kg/h]  |             | --    | 580   | 478   | 389   | 311   | 245   | 189,9 | 144,3 |
| pm [bar(a)] |             | --    | 7,48  | 6,55  | 5,70  | 4,92  | 4,21  | 3,56  | 2,98  |
| 50°C        |             | Q [W] | --    | 25499 | 21868 | 18504 | 15429 | 12660 | 10197 |
|             | Q* [W]      | --    | 18229 | 15089 | 12321 | 9914  | 7850  | 6102  | 4628  |
|             | P [kW]      | --    | 17,83 | 16,23 | 14,68 | 13,20 | 11,78 | 10,41 | 9,10  |
|             | I [A]       | --    | 28,9  | 26,4  | 24,2  | 22,0  | 20,0  | 18,11 | 16,33 |
|             | Qc [W]      | --    | 43333 | 38093 | 33186 | 28630 | 24440 | 20610 | 17111 |
|             | COP [-]     | --    | 1,43  | 1,35  | 1,26  | 1,17  | 1,07  | 0,98  | 0,88  |
|             | COP* [-]    | --    | 1,02  | 0,93  | 0,84  | 0,75  | 0,67  | 0,59  | 0,51  |
|             | mLP [kg/h]  | --    | 574   | 472   | 383   | 307   | 242   | 187,8 | 142,1 |
|             | pm [bar(a)] | --    | 8,15  | 7,16  | 6,26  | 5,44  | 4,68  | 3,99  | 3,36  |

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

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

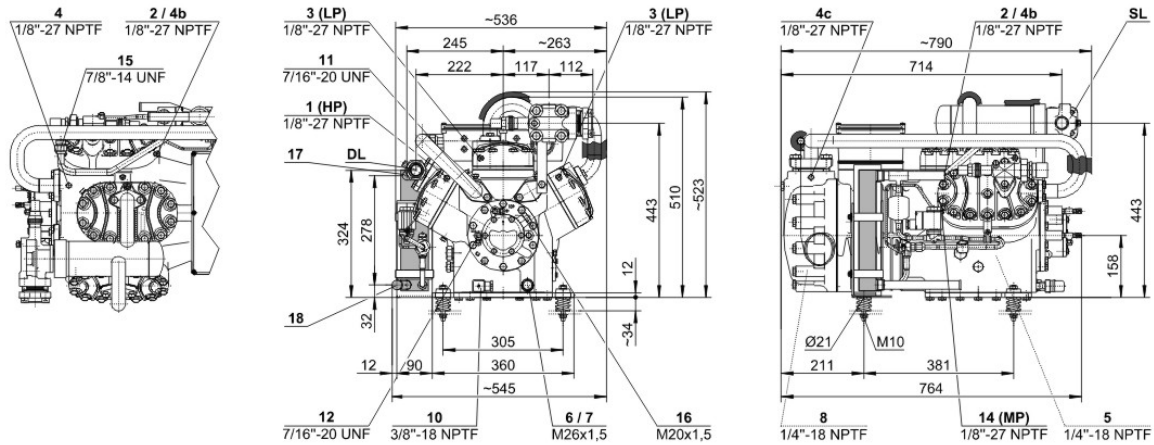
#### Application Limits





## Technical Data: S6J-16.2Y

### Dimensions and Connections



### Technical Data

#### Technical Data

|                                       |                                 |
|---------------------------------------|---------------------------------|
| Displacement (1450 RPM 50Hz)          | 63.50 / 31.80 m <sup>3</sup> /h |
| Displacement (1750 RPM 60Hz)          | 76.64 / 38.38 m <sup>3</sup> /h |
| No. of cylinder x bore LP/HP x stroke | 6 x 65/ 65 mm x 55 mm           |
| Weight                                | 209 kg                          |
| Max. pressure (LP/MP/HP)              | 19 / 19 / 28 bar                |
| Connection suction line               | 42 mm - 1 5/8"                  |
| Connection discharge line             | 35 mm - 1 3/8"                  |
| Oil type R404A/R507A                  | BSE32 (Option)                  |
| Oil type R22                          | B5.2 (Standard)                 |

#### Motor data

|                                 |                       |
|---------------------------------|-----------------------|
| Motor voltage (more on request) | 380-420V PW-3-50Hz    |
| Max operating current           | 31.0 A                |
| Winding ratio                   | 50/50                 |
| Starting current (Rotor locked) | 81.0 A Y / 132.0 A YY |
| Max. Power input                | 18,0 kW               |

#### Extent of delivery (Standard)

|                               |                                |
|-------------------------------|--------------------------------|
| Motor protection              | SE-B2 (Standard)               |
| Enclosure class               | IP54 (Standard), IP66 (Option) |
| Vibration dampers             | Standard                       |
| TX valve for liquid injection | Standard                       |
| Sight glass                   | Standard                       |
| Filter Drier                  | Standard                       |
| Solenoid valve                | Standard                       |
| Oil charge                    | 4.75 dm <sup>3</sup>           |

#### Available Options

|  |                                    |
|--|------------------------------------|
| Crankcase heater                               | 140 W (Option)                     |
| Oil pressure monitoring                        | MP54 (Option), Delta P II (Option) |
| Oil service valve                              | Option                             |
| Discharge gas temperature sensor               | Option                             |
| CIC (only for R22, instead of TX valve for LI) | Option                             |
| Liquid sub cooler (also mounted)               | Option                             |