

Datasheets

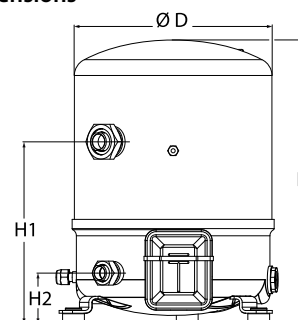
# Danfoss Reciprocating compressors **MT / MTZ / NTZ**



## General Characteristics

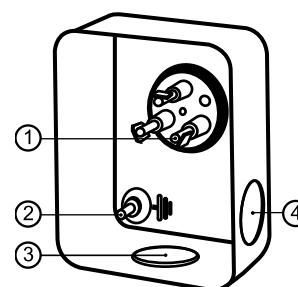
|                                                   |                                                                       |                    |
|---------------------------------------------------|-----------------------------------------------------------------------|--------------------|
| Model number (on compressor nameplate)            |                                                                       | <b>MTZ44HJ4BVE</b> |
| Code number for Singlepack*                       |                                                                       | MTZ44-4VI          |
| Code number for Industrial pack**                 |                                                                       | MTZ44-4VM          |
| Drawing number                                    |                                                                       | 8502012g           |
| Suction and discharge connections                 |                                                                       | Rotolock           |
| Suction connection                                |                                                                       | 1-3/4" Rotolock    |
| Discharge connection                              |                                                                       | 1-1/4" Rotolock    |
| Suction connection with supplied sleeve           |                                                                       | 7/8" ODF           |
| Discharge connection with supplied sleeve         |                                                                       | 3/4" ODF           |
| Oil sight glass                                   |                                                                       | Threaded           |
| Oil equalisation connection                       |                                                                       | 3/8" flare SAE     |
| Oil drain connection                              |                                                                       | None               |
| LP gauge port                                     |                                                                       | Schrader           |
| IPR valve                                         |                                                                       | 30 bar / 8 bar     |
| Cylinders                                         | 2                                                                     |                    |
| Swept volume                                      | 76.22 cm <sup>3</sup> /rev                                            |                    |
| Displacement @ Nominal speed                      | 13.3 m <sup>3</sup> /h @ 2900 rpm - 16.0 m <sup>3</sup> /h @ 3500 rpm |                    |
| Net weight                                        | 37 kg                                                                 |                    |
| Oil charge                                        | 1.8 litre, POE - 175PZ                                                |                    |
| Maximum system test pressure Low Side / High side | 25 bar(g) / 30 bar(g)                                                 |                    |
| Maximum differential test pressure                | 30 bar                                                                |                    |
| Maximum number of starts per hour                 | 12                                                                    |                    |
| Refrigerant charge limit                          | 5 kg                                                                  |                    |
| Approved refrigerants                             | R404A, R134a, R407C, R407A/F, R448A, R449A, R452A                     |                    |

## Dimensions



D=288 mm  
H=413 mm  
H1=265 mm  
H2=74 mm  
H3= mm

## Terminal box



IP55 (with cable gland)

- 1: Spade connectors 1/4"
- 2: Earth M4-12
- 3: Knock-out Ø 21 mm (0.83")
- 4: Hole Ø 21 mm (0.83")

## Electrical Characteristics

|                                                    |                                     |
|----------------------------------------------------|-------------------------------------|
| Nominal voltage                                    | 380-400V/3/50Hz - 460V/3/60Hz       |
| Voltage range                                      | 340-440 V @ 50Hz - 414-506 V @ 60Hz |
| Winding resistance (between phases) +/- 7% at 25°C | 3.22 Ω                              |
| Maximum Continuous Current (MCC)                   | 9.5 A                               |
| Locked Rotor Amps (LRA)                            | 48.5 A                              |
| Motor protection                                   | Internal overload protector         |

## Recommended Installation torques

|                                      |             |
|--------------------------------------|-------------|
| Oil sight glass                      | 50 Nm       |
| Power connections / Earth connection | 2 Nm / 2 Nm |
| Mounting bolts                       | 15 Nm       |

## Parts shipped with compressor

|                                                                                                    |
|----------------------------------------------------------------------------------------------------|
| Mounting kit with grommets, bolts, nuts, sleeves and washers                                       |
| Suction & Discharge solder sleeves, rotolock nuts and gaskets (shipped with rotolock version only) |
| Initial oil charge                                                                                 |
| Installation instructions                                                                          |

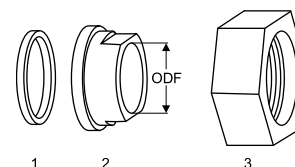
**Approvals** : CE certified, UL certified (file SA6873), CCC certified

\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

**Rotolock accessories, suction side**
**Code no.**

|                                                 |         |
|-------------------------------------------------|---------|
| Solder sleeve, P07 (1-3/4" Rotolock, 7/8" ODF)  | 8153013 |
| Angle adapter, C07 (1-3/4" Rotolock, 7/8" ODF)  | 8168008 |
| Rotolock valve, V07 (1-3/4" Rotolock, 7/8" ODF) | 8168032 |
| Gasket, 1-3/4"                                  | 8156132 |

**Gaskets, sleeves and nuts**

**Rotolock accessories, discharge side**
**Code no.**

|                                                 |         |
|-------------------------------------------------|---------|
| Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)  | 8153008 |
| Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)  | 8168006 |
| Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF) | 8168029 |
| Gasket, 1-1/4"                                  | 8156131 |

**Rotolock accessories, sets**
**Code no.**

|                                                           |         |
|-----------------------------------------------------------|---------|
| Angle adapter set, C07 (1-3/4"~7/8"), C04 (1-1/4"~3/4")   | 7703013 |
| Valve set, V07 (1-3/4"~7/8"), V04 (1-1/4"~3/4")           | 7703006 |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white | 8156009 |

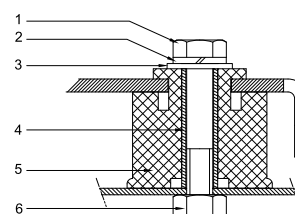
- 1: Gasket  
2: Solder sleeve  
3: Rotolock nut

**Oil / lubricants**
**Code no.**

|                                     |          |
|-------------------------------------|----------|
| POE lubricant, 175PZ, 1 litre can   | 120Z0638 |
| POE lubricant, 175PZ, 2.5 litre can | 120Z0639 |

**Crankcase heaters**
**Code no.**

|                                                      |          |
|------------------------------------------------------|----------|
| PTC heater 27W, CE mark, UL                          | 120Z0459 |
| Belt type crankcase heater, 65 W, 230 V, CE mark, UL | 7773107  |
| Belt type crankcase heater, 65 W, 400 V, CE mark, UL | 7773117  |
| Belt type crankcase heater, 65 W, 460 V, CE mark, UL | 120Z0466 |

**Mounting kit**

**Miscellaneous accessories**
**Code no.**

|                                         |          |
|-----------------------------------------|----------|
| Electronic soft start kit, MCI 15 C     | 7705006  |
| Acoustic hood for 2 cylinder compressor | 120Z0472 |
| Oil equalisation nut                    | 8153127  |

**Spare parts**
**Code no.**

|                                                                             |         |
|-----------------------------------------------------------------------------|---------|
| Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts | 8156001 |
| Oil sight glass with gaskets (black & white)                                | 8156019 |
| Gasket for oil sight glass (black chloroprene)                              | 8156145 |
| Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp         | 8156134 |

- 1: Bolt (3x)  
2: Lock washer (3x)  
3: Flat washer (3x)  
4: Sleeve (3x)  
5: Grommet (3x)  
6: Nut (3x)

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 50 Hz, EN 12900 rating conditions

# R407C

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

### Cooling capacity in W

|    |       |       |       |       |        |        |        |   |   |
|----|-------|-------|-------|-------|--------|--------|--------|---|---|
| 35 | 4 173 | 5 656 | 7 467 | 9 643 | 12 220 | 15 232 | 18 717 | - | - |
| 40 | 3 703 | 5 070 | 6 747 | 8 769 | 11 173 | 13 994 | 17 268 | - | - |
| 45 | 3 263 | 4 510 | 6 048 | 7 913 | 10 141 | 12 766 | 15 826 | - | - |
| 50 | -     | 3 982 | 5 378 | 7 082 | 9 129  | 11 555 | 14 397 | - | - |
| 55 | -     | -     | 4 742 | 6 281 | 8 144  | 10 368 | 12 987 | - | - |
| 60 | -     | -     | -     | 5 517 | 7 193  | 9 210  | 11 604 | - | - |
| 65 | -     | -     | -     | 4 797 | 6 281  | 8 087  | 10 252 | - | - |

### Power input in W

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 919 | 2 133 | 2 306 | 2 444 | 2 556 | 2 649 | 2 729 | - | - |
| 40 | 1 957 | 2 216 | 2 430 | 2 607 | 2 753 | 2 877 | 2 985 | - | - |
| 45 | 1 967 | 2 276 | 2 537 | 2 756 | 2 942 | 3 101 | 3 242 | - | - |
| 50 | -     | 2 311 | 2 623 | 2 890 | 3 120 | 3 320 | 3 498 | - | - |
| 55 | -     | -     | 2 688 | 3 007 | 3 286 | 3 532 | 3 751 | - | - |
| 60 | -     | -     | -     | 3 106 | 3 438 | 3 734 | 4 000 | - | - |
| 65 | -     | -     | -     | 3 183 | 3 574 | 3 925 | 4 243 | - | - |

### Current consumption in A

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.45 | 4.66 | 4.85 | 5.04 | 5.19 | 5.32 | 5.40 | - | - |
| 40 | 4.53 | 4.77 | 4.99 | 5.20 | 5.39 | 5.55 | 5.67 | - | - |
| 45 | 4.59 | 4.86 | 5.13 | 5.38 | 5.61 | 5.82 | 5.98 | - | - |
| 50 | -    | 4.94 | 5.25 | 5.56 | 5.84 | 6.10 | 6.32 | - | - |
| 55 | -    | -    | 5.35 | 5.71 | 6.06 | 6.38 | 6.67 | - | - |
| 60 | -    | -    | -    | 5.84 | 6.26 | 6.66 | 7.02 | - | - |
| 65 | -    | -    | -    | 5.93 | 6.43 | 6.91 | 7.36 | - | - |

### Mass flow in kg/h

|    |    |     |     |     |     |     |     |   |   |
|----|----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 91 | 121 | 157 | 199 | 249 | 306 | 371 | - | - |
| 40 | 85 | 114 | 149 | 190 | 238 | 294 | 358 | - | - |
| 45 | 79 | 107 | 140 | 181 | 228 | 282 | 345 | - | - |
| 50 | -  | 100 | 132 | 171 | 217 | 270 | 331 | - | - |
| 55 | -  | -   | 124 | 161 | 205 | 257 | 317 | - | - |
| 60 | -  | -   | -   | 152 | 194 | 244 | 302 | - | - |
| 65 | -  | -   | -   | 143 | 183 | 231 | 287 | - | - |

### Coefficient of performance (C.O.P.)

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.17 | 2.65 | 3.24 | 3.95 | 4.78 | 5.75 | 6.86 | - | - |
| 40 | 1.89 | 2.29 | 2.78 | 3.36 | 4.06 | 4.86 | 5.78 | - | - |
| 45 | 1.66 | 1.98 | 2.38 | 2.87 | 3.45 | 4.12 | 4.88 | - | - |
| 50 | -    | 1.72 | 2.05 | 2.45 | 2.93 | 3.48 | 4.12 | - | - |
| 55 | -    | -    | 1.76 | 2.09 | 2.48 | 2.94 | 3.46 | - | - |
| 60 | -    | -    | -    | 1.78 | 2.09 | 2.47 | 2.90 | - | - |
| 65 | -    | -    | -    | 1.51 | 1.76 | 2.06 | 2.42 | - | - |

### Nominal performance at to = 5 °C, tc = 50 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 9 129 | W    |
| Power input         | 3 120 | W    |
| Current consumption | 5.84  | A    |
| Mass flow           | 217   | kg/h |
| C.O.P.              | 2.93  |      |



to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 84 | dB(A) |
| With acoustic hood | 78 | dB(A) |

Tolerance according EN12900

**Performance data at 50 Hz, ARI rating conditions**
**R407C**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 4 492 | 6 080 | 8 018 | 10 343 | 13 092 | 16 303 | 20 012 | - | - |
| 40 | 4 008 | 5 479 | 7 282 | 9 453  | 12 029 | 15 049 | 18 550 | - | - |
| 45 | 3 554 | 4 905 | 6 567 | 8 580  | 10 981 | 13 806 | 17 094 | - | - |
| 50 | -     | 4 362 | 5 881 | 7 732  | 9 952  | 12 579 | 15 650 | - | - |
| 55 | -     | -     | 5 231 | 6 915  | 8 951  | 11 375 | 14 227 | - | - |
| 60 | -     | -     | -     | 6 137  | 7 984  | 10 203 | 12 832 | - | - |
| 65 | -     | -     | -     | 5 405  | 7 060  | 9 070  | 11 473 | - | - |

**Power input in W**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 919 | 2 133 | 2 306 | 2 444 | 2 556 | 2 649 | 2 729 | - | - |
| 40 | 1 957 | 2 216 | 2 430 | 2 607 | 2 753 | 2 877 | 2 985 | - | - |
| 45 | 1 967 | 2 276 | 2 537 | 2 756 | 2 942 | 3 101 | 3 242 | - | - |
| 50 | -     | 2 311 | 2 623 | 2 890 | 3 120 | 3 320 | 3 498 | - | - |
| 55 | -     | -     | 2 688 | 3 007 | 3 286 | 3 532 | 3 751 | - | - |
| 60 | -     | -     | -     | 3 106 | 3 438 | 3 734 | 4 000 | - | - |
| 65 | -     | -     | -     | 3 183 | 3 574 | 3 925 | 4 243 | - | - |

**Current consumption in A**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.45 | 4.66 | 4.85 | 5.04 | 5.19 | 5.32 | 5.40 | - | - |
| 40 | 4.53 | 4.77 | 4.99 | 5.20 | 5.39 | 5.55 | 5.67 | - | - |
| 45 | 4.59 | 4.86 | 5.13 | 5.38 | 5.61 | 5.82 | 5.98 | - | - |
| 50 | -    | 4.94 | 5.25 | 5.56 | 5.84 | 6.10 | 6.32 | - | - |
| 55 | -    | -    | 5.35 | 5.71 | 6.06 | 6.38 | 6.67 | - | - |
| 60 | -    | -    | -    | 5.84 | 6.26 | 6.66 | 7.02 | - | - |
| 65 | -    | -    | -    | 5.93 | 6.43 | 6.91 | 7.36 | - | - |

**Mass flow in kg/h**

|    |    |     |     |     |     |     |     |   |   |
|----|----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 90 | 120 | 156 | 198 | 247 | 304 | 368 | - | - |
| 40 | 84 | 113 | 148 | 189 | 237 | 292 | 356 | - | - |
| 45 | 78 | 106 | 140 | 180 | 226 | 281 | 343 | - | - |
| 50 | -  | 99  | 131 | 170 | 215 | 268 | 329 | - | - |
| 55 | -  | -   | 123 | 160 | 204 | 255 | 315 | - | - |
| 60 | -  | -   | -   | 151 | 193 | 243 | 300 | - | - |
| 65 | -  | -   | -   | 142 | 182 | 229 | 285 | - | - |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.34 | 2.85 | 3.48 | 4.23 | 5.12 | 6.16 | 7.33 | - | - |
| 40 | 2.05 | 2.47 | 3.00 | 3.63 | 4.37 | 5.23 | 6.21 | - | - |
| 45 | 1.81 | 2.15 | 2.59 | 3.11 | 3.73 | 4.45 | 5.27 | - | - |
| 50 | -    | 1.89 | 2.24 | 2.68 | 3.19 | 3.79 | 4.47 | - | - |
| 55 | -    | -    | 1.95 | 2.30 | 2.72 | 3.22 | 3.79 | - | - |
| 60 | -    | -    | -    | 1.98 | 2.32 | 2.73 | 3.21 | - | - |
| 65 | -    | -    | -    | 1.70 | 1.98 | 2.31 | 2.70 | - | - |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 10 096 | W    |
| Power input         | 3 376  | W    |
| Current consumption | 6.18   | A    |
| Mass flow           | 227    | kg/h |
| C.O.P.              | 2.99   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 84 | dB(A) |
| With acoustic hood | 78 | dB(A) |

Tolerance according EN12900

**Performance data at 50 Hz, EN 12900 rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 35 | 1 338 | 1 929 | 3 633 | 4 816 | 6 267 | 8 021 | 10 113 | 12 578 | 15 452 |
| 40 | 1 138 | 1 692 | 3 273 | 4 372 | 5 722 | 7 359 | 9 319  | 11 636 | 14 346 |
| 45 | 944   | 1 462 | 2 926 | 3 941 | 5 193 | 6 715 | 8 545  | 10 715 | 13 263 |
| 50 | 756   | 1 241 | 2 590 | 3 525 | 4 680 | 6 090 | 7 791  | 9 818  | 12 205 |
| 55 | -     | -     | 2 267 | 3 123 | 4 183 | 5 483 | 7 057  | 8 942  | 11 172 |
| 60 | -     | -     | -     | 2 735 | 3 702 | 4 894 | 6 344  | 8 088  | 10 162 |
| 65 | -     | -     | -     | -     | 3 237 | 4 322 | 5 650  | 7 257  | 9 177  |
| 75 | -     | -     | -     | -     | -     | -     | 4 323  | 5 659  | 7 277  |

**Power input in W**

|    |     |       |       |       |       |       |       |       |       |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 887 | 1 089 | 1 418 | 1 545 | 1 648 | 1 724 | 1 776 | 1 803 | 1 805 |
| 40 | 848 | 1 079 | 1 462 | 1 614 | 1 741 | 1 841 | 1 915 | 1 963 | 1 986 |
| 45 | 791 | 1 052 | 1 494 | 1 675 | 1 828 | 1 954 | 2 054 | 2 126 | 2 172 |
| 50 | 711 | 1 006 | 1 512 | 1 723 | 1 906 | 2 062 | 2 189 | 2 288 | 2 359 |
| 55 | -   | -     | 1 513 | 1 757 | 1 973 | 2 160 | 2 317 | 2 446 | 2 546 |
| 60 | -   | -     | -     | 1 773 | 2 024 | 2 245 | 2 436 | 2 597 | 2 728 |
| 65 | -   | -     | -     | -     | 2 056 | 2 314 | 2 540 | 2 737 | 2 902 |
| 75 | -   | -     | -     | -     | -     | -     | 2 697 | 2 971 | 3 213 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.43 | 3.66 | 3.99 | 4.10 | 4.19 | 4.25 | 4.30 | 4.35 | 4.39 |
| 40 | 3.40 | 3.65 | 4.02 | 4.16 | 4.26 | 4.34 | 4.41 | 4.47 | 4.54 |
| 45 | 3.33 | 3.62 | 4.05 | 4.21 | 4.34 | 4.45 | 4.54 | 4.63 | 4.71 |
| 50 | 3.24 | 3.57 | 4.07 | 4.26 | 4.42 | 4.56 | 4.69 | 4.80 | 4.91 |
| 55 | -    | -    | 4.06 | 4.29 | 4.50 | 4.67 | 4.83 | 4.98 | 5.12 |
| 60 | -    | -    | -    | 4.30 | 4.55 | 4.77 | 4.97 | 5.16 | 5.34 |
| 65 | -    | -    | -    | -    | 4.57 | 4.84 | 5.09 | 5.33 | 5.56 |
| 75 | -    | -    | -    | -    | -    | -    | 5.26 | 5.61 | 5.95 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 35 | 34 | 48 | 87 | 112 | 142 | 179 | 221 | 271 | 328 |
| 40 | 30 | 44 | 82 | 107 | 137 | 172 | 214 | 262 | 318 |
| 45 | 27 | 41 | 77 | 102 | 131 | 165 | 206 | 253 | 308 |
| 50 | 23 | 37 | 72 | 96  | 125 | 158 | 198 | 245 | 298 |
| 55 | -  | -  | 67 | 91  | 118 | 151 | 190 | 236 | 288 |
| 60 | -  | -  | -  | 85  | 112 | 144 | 182 | 227 | 278 |
| 65 | -  | -  | -  | -   | 105 | 137 | 174 | 217 | 268 |
| 75 | -  | -  | -  | -   | -   | -   | 157 | 198 | 247 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.51 | 1.77 | 2.56 | 3.12 | 3.80 | 4.65 | 5.69 | 6.98 | 8.56 |
| 40 | 1.34 | 1.57 | 2.24 | 2.71 | 3.29 | 4.00 | 4.87 | 5.93 | 7.22 |
| 45 | 1.19 | 1.39 | 1.96 | 2.35 | 2.84 | 3.44 | 4.16 | 5.04 | 6.11 |
| 50 | 1.06 | 1.23 | 1.71 | 2.05 | 2.45 | 2.95 | 3.56 | 4.29 | 5.17 |
| 55 | -    | -    | 1.50 | 1.78 | 2.12 | 2.54 | 3.05 | 3.66 | 4.39 |
| 60 | -    | -    | -    | 1.54 | 1.83 | 2.18 | 2.60 | 3.11 | 3.73 |
| 65 | -    | -    | -    | -    | 1.57 | 1.87 | 2.22 | 2.65 | 3.16 |
| 75 | -    | -    | -    | -    | -    | -    | 1.60 | 1.90 | 2.27 |

**Nominal performance at to = 5 °C, tc = 50 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 090 | W    |
| Power input         | 2 062 | W    |
| Current consumption | 4.56  | A    |
| Mass flow           | 158   | kg/h |
| C.O.P.              | 2.95  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                     |   |       |
|---------------------|---|-------|
| Sound power level   | 0 | dB(A) |
| With accoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

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**Performance data at 50 Hz, ARI rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 35 | 1 455 | 2 093 | 3 928 | 5 199 | 6 755 | 8 632 | 10 868 | 13 499 | 16 562 |
| 40 | 1 244 | 1 846 | 3 558 | 4 743 | 6 197 | 7 957 | 10 060 | 12 543 | 15 442 |
| 45 | 1 039 | 1 606 | 3 199 | 4 301 | 5 655 | 7 300 | 9 272  | 11 609 | 14 346 |
| 50 | -     | 1 373 | 2 852 | 3 872 | 5 129 | 6 661 | 8 505  | 10 697 | 13 275 |
| 55 | -     | -     | 2 516 | 3 457 | 4 619 | 6 040 | 7 757  | 9 808  | 12 229 |
| 60 | -     | -     | -     | 3 055 | 4 124 | 5 437 | 7 030  | 8 941  | 11 208 |
| 65 | -     | -     | -     | -     | -     | 4 852 | 6 323  | 8 098  | 10 214 |
| 75 | -     | -     | -     | -     | -     | -     | 4 974  | 6 486  | 8 310  |

**Power input in W**

|    |     |       |       |       |       |       |       |       |       |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 887 | 1 089 | 1 418 | 1 545 | 1 648 | 1 724 | 1 776 | 1 803 | 1 805 |
| 40 | 848 | 1 079 | 1 462 | 1 614 | 1 741 | 1 841 | 1 915 | 1 963 | 1 986 |
| 45 | 791 | 1 052 | 1 494 | 1 675 | 1 828 | 1 954 | 2 054 | 2 126 | 2 172 |
| 50 | -   | 1 006 | 1 512 | 1 723 | 1 906 | 2 062 | 2 189 | 2 288 | 2 359 |
| 55 | -   | -     | 1 513 | 1 757 | 1 973 | 2 160 | 2 317 | 2 446 | 2 546 |
| 60 | -   | -     | -     | 1 773 | 2 024 | 2 245 | 2 436 | 2 597 | 2 728 |
| 65 | -   | -     | -     | -     | -     | 2 314 | 2 540 | 2 737 | 2 902 |
| 75 | -   | -     | -     | -     | -     | -     | 2 697 | 2 971 | 3 213 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.43 | 3.66 | 3.99 | 4.10 | 4.19 | 4.25 | 4.30 | 4.35 | 4.39 |
| 40 | 3.40 | 3.65 | 4.02 | 4.16 | 4.26 | 4.34 | 4.41 | 4.47 | 4.54 |
| 45 | 3.33 | 3.62 | 4.05 | 4.21 | 4.34 | 4.45 | 4.54 | 4.63 | 4.71 |
| 50 | -    | 3.57 | 4.07 | 4.26 | 4.42 | 4.56 | 4.69 | 4.80 | 4.91 |
| 55 | -    | -    | 4.06 | 4.29 | 4.50 | 4.67 | 4.83 | 4.98 | 5.12 |
| 60 | -    | -    | -    | 4.30 | 4.55 | 4.77 | 4.97 | 5.16 | 5.34 |
| 65 | -    | -    | -    | -    | -    | 4.84 | 5.09 | 5.33 | 5.56 |
| 75 | -    | -    | -    | -    | -    | -    | 5.26 | 5.61 | 5.95 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 35 | 34 | 48 | 86 | 111 | 142 | 178 | 220 | 269 | 326 |
| 40 | 30 | 44 | 82 | 106 | 136 | 171 | 213 | 261 | 316 |
| 45 | 27 | 40 | 77 | 101 | 130 | 164 | 205 | 252 | 307 |
| 50 | -  | 36 | 72 | 96  | 124 | 158 | 197 | 243 | 297 |
| 55 | -  | -  | 67 | 90  | 118 | 151 | 189 | 234 | 287 |
| 60 | -  | -  | -  | 84  | 111 | 143 | 181 | 225 | 277 |
| 65 | -  | -  | -  | -   | -   | 136 | 173 | 216 | 266 |
| 75 | -  | -  | -  | -   | -   | -   | 156 | 197 | 245 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.64 | 1.92 | 2.77 | 3.36 | 4.10 | 5.01 | 6.12 | 7.49 | 9.18 |
| 40 | 1.47 | 1.71 | 2.43 | 2.94 | 3.56 | 4.32 | 5.25 | 6.39 | 7.78 |
| 45 | 1.31 | 1.53 | 2.14 | 2.57 | 3.09 | 3.74 | 4.51 | 5.46 | 6.61 |
| 50 | -    | 1.37 | 1.89 | 2.25 | 2.69 | 3.23 | 3.89 | 4.67 | 5.63 |
| 55 | -    | -    | 1.66 | 1.97 | 2.34 | 2.80 | 3.35 | 4.01 | 4.80 |
| 60 | -    | -    | -    | 1.72 | 2.04 | 2.42 | 2.89 | 3.44 | 4.11 |
| 65 | -    | -    | -    | -    | -    | 2.10 | 2.49 | 2.96 | 3.52 |
| 75 | -    | -    | -    | -    | -    | -    | 1.84 | 2.18 | 2.59 |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 837 | W    |
| Power input         | 2 220 | W    |
| Current consumption | 4.73  | A    |
| Mass flow           | 168   | kg/h |
| C.O.P.              | 3.08  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                    |   |       |
|--------------------|---|-------|
| Sound power level  | 0 | dB(A) |
| With acoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 50 Hz, EN 12900 rating conditions

## R404A

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 30 | 2 260 | 3 170 | 4 298 | 5 674 | 7 331 | 9 300 | 11 613 | 14 301 | 17 396 |
| 35 | 1 963 | 2 818 | 3 869 | 5 149 | 6 689 | 8 520 | 10 674 | 13 183 | 16 079 |
| 40 | 1 663 | 2 460 | 3 433 | 4 613 | 6 033 | 7 724 | 9 717  | 12 044 | 14 737 |
| 45 | 1 362 | 2 098 | 2 990 | 4 069 | 5 366 | 6 913 | 8 743  | 10 885 | 13 374 |
| 50 | 1 062 | 1 735 | 2 543 | 3 517 | 4 689 | 6 090 | 7 753  | 9 708  | 11 989 |
| 55 | -     | 1 371 | 2 092 | 2 959 | 4 003 | 5 256 | 6 749  | 8 515  | 10 584 |
| 60 | -     | 1 008 | 1 640 | 2 397 | 3 310 | 4 411 | 5 733  | 7 306  | 9 162  |

### Power input in W

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 1 645 | 1 882 | 2 093 | 2 282 | 2 449 | 2 596 | 2 727 | 2 841 | 2 943 |
| 35 | 1 649 | 1 915 | 2 154 | 2 368 | 2 558 | 2 727 | 2 877 | 3 008 | 3 124 |
| 40 | 1 635 | 1 935 | 2 207 | 2 450 | 2 668 | 2 863 | 3 035 | 3 188 | 3 323 |
| 45 | 1 600 | 1 939 | 2 247 | 2 525 | 2 775 | 2 999 | 3 199 | 3 378 | 3 536 |
| 50 | 1 541 | 1 924 | 2 272 | 2 589 | 2 875 | 3 134 | 3 366 | 3 574 | 3 760 |
| 55 | -     | 1 886 | 2 280 | 2 639 | 2 966 | 3 264 | 3 532 | 3 775 | 3 993 |
| 60 | -     | 1 823 | 2 266 | 2 673 | 3 045 | 3 385 | 3 695 | 3 976 | 4 231 |

### Current consumption in A

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 4.13 | 4.32 | 4.52 | 4.74 | 4.97 | 5.22 | 5.50 | 5.82 | 6.17 |
| 35 | 4.13 | 4.37 | 4.60 | 4.84 | 5.08 | 5.35 | 5.63 | 5.94 | 6.27 |
| 40 | 4.11 | 4.40 | 4.67 | 4.94 | 5.21 | 5.49 | 5.78 | 6.09 | 6.42 |
| 45 | 4.07 | 4.41 | 4.73 | 5.04 | 5.35 | 5.66 | 5.96 | 6.28 | 6.61 |
| 50 | 3.98 | 4.39 | 4.77 | 5.14 | 5.48 | 5.82 | 6.16 | 6.49 | 6.83 |
| 55 | -    | 4.33 | 4.79 | 5.21 | 5.61 | 5.99 | 6.36 | 6.71 | 7.07 |
| 60 | -    | 4.23 | 4.76 | 5.25 | 5.71 | 6.14 | 6.55 | 6.94 | 7.32 |

### Mass flow in kg/h

|    |    |    |     |     |     |     |     |     |     |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 30 | 71 | 98 | 129 | 166 | 209 | 259 | 317 | 383 | 458 |
| 35 | 66 | 93 | 124 | 161 | 203 | 253 | 310 | 375 | 449 |
| 40 | 61 | 88 | 119 | 155 | 197 | 246 | 302 | 366 | 439 |
| 45 | 55 | 82 | 113 | 149 | 190 | 238 | 293 | 356 | 428 |
| 50 | 48 | 75 | 106 | 141 | 182 | 230 | 284 | 346 | 416 |
| 55 | -  | 66 | 97  | 133 | 174 | 220 | 274 | 335 | 404 |
| 60 | -  | 57 | 88  | 123 | 164 | 210 | 262 | 322 | 390 |

### Coefficient of performance (C.O.P.)

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.37 | 1.68 | 2.05 | 2.49 | 2.99 | 3.58 | 4.26 | 5.03 | 5.91 |
| 35 | 1.19 | 1.47 | 1.80 | 2.17 | 2.61 | 3.12 | 3.71 | 4.38 | 5.15 |
| 40 | 1.02 | 1.27 | 1.56 | 1.88 | 2.26 | 2.70 | 3.20 | 3.78 | 4.43 |
| 45 | 0.85 | 1.08 | 1.33 | 1.61 | 1.93 | 2.31 | 2.73 | 3.22 | 3.78 |
| 50 | 0.69 | 0.90 | 1.12 | 1.36 | 1.63 | 1.94 | 2.30 | 2.72 | 3.19 |
| 55 | -    | 0.73 | 0.92 | 1.12 | 1.35 | 1.61 | 1.91 | 2.26 | 2.65 |
| 60 | -    | 0.55 | 0.72 | 0.90 | 1.09 | 1.30 | 1.55 | 1.84 | 2.17 |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 5 366 | W    |
| Power input         | 2 775 | W    |
| Current consumption | 5.35  | A    |
| Mass flow           | 190   | kg/h |
| C.O.P.              | 1.93  |      |



to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 27.7 | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.3  | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 80 | dB(A) |
| With acoustic hood | 74 | dB(A) |

Tolerance according EN12900



**Performance data at 50 Hz, ARI rating conditions**
**R404A**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

**Cooling capacity in W**

|    |       |       |       |       |       |        |        |        |        |
|----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 30 | 2 516 | 3 520 | 4 759 | 6 268 | 8 079 | 10 227 | 12 743 | 15 663 | 19 017 |
| 35 | 2 208 | 3 160 | 4 327 | 5 741 | 7 438 | 9 451  | 11 813 | 14 557 | 17 717 |
| 40 | 1 895 | 2 793 | 3 885 | 5 203 | 6 783 | 8 659  | 10 863 | 13 431 | 16 394 |
| 45 | 1 578 | 2 421 | 3 435 | 4 655 | 6 117 | 7 853  | 9 898  | 12 287 | 15 052 |
| 50 | 1 258 | 2 043 | 2 979 | 4 099 | 5 440 | 7 036  | 8 922  | 11 131 | 13 698 |
| 55 | -     | 1 661 | 2 518 | 3 538 | 4 758 | 6 213  | 7 939  | 9 970  | 12 340 |
| 60 | -     | 1 275 | 2 054 | 2 975 | 4 076 | 5 393  | 6 963  | 8 819  | 10 998 |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 1 645 | 1 882 | 2 093 | 2 282 | 2 449 | 2 596 | 2 727 | 2 841 | 2 943 |
| 35 | 1 649 | 1 915 | 2 154 | 2 368 | 2 558 | 2 727 | 2 877 | 3 008 | 3 124 |
| 40 | 1 635 | 1 935 | 2 207 | 2 450 | 2 668 | 2 863 | 3 035 | 3 188 | 3 323 |
| 45 | 1 600 | 1 939 | 2 247 | 2 525 | 2 775 | 2 999 | 3 199 | 3 378 | 3 536 |
| 50 | 1 541 | 1 924 | 2 272 | 2 589 | 2 875 | 3 134 | 3 366 | 3 574 | 3 760 |
| 55 | -     | 1 886 | 2 280 | 2 639 | 2 966 | 3 264 | 3 532 | 3 775 | 3 993 |
| 60 | -     | 1 823 | 2 266 | 2 673 | 3 045 | 3 385 | 3 695 | 3 976 | 4 231 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 4.13 | 4.32 | 4.52 | 4.74 | 4.97 | 5.22 | 5.50 | 5.82 | 6.17 |
| 35 | 4.13 | 4.37 | 4.60 | 4.84 | 5.08 | 5.35 | 5.63 | 5.94 | 6.27 |
| 40 | 4.11 | 4.40 | 4.67 | 4.94 | 5.21 | 5.49 | 5.78 | 6.09 | 6.42 |
| 45 | 4.07 | 4.41 | 4.73 | 5.04 | 5.35 | 5.66 | 5.96 | 6.28 | 6.61 |
| 50 | 3.98 | 4.39 | 4.77 | 5.14 | 5.48 | 5.82 | 6.16 | 6.49 | 6.83 |
| 55 | -    | 4.33 | 4.79 | 5.21 | 5.61 | 5.99 | 6.36 | 6.71 | 7.07 |
| 60 | -    | 4.23 | 4.76 | 5.25 | 5.71 | 6.14 | 6.55 | 6.94 | 7.32 |

**Mass flow in kg/h**

|    |    |    |     |     |     |     |     |     |     |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 30 | 71 | 97 | 128 | 165 | 208 | 257 | 315 | 381 | 455 |
| 35 | 66 | 93 | 124 | 160 | 202 | 251 | 308 | 372 | 446 |
| 40 | 61 | 87 | 118 | 154 | 196 | 244 | 300 | 363 | 436 |
| 45 | 55 | 81 | 112 | 148 | 189 | 237 | 291 | 354 | 425 |
| 50 | 47 | 74 | 105 | 140 | 181 | 228 | 282 | 344 | 413 |
| 55 | -  | 66 | 97  | 132 | 173 | 219 | 272 | 332 | 401 |
| 60 | -  | 57 | 87  | 123 | 163 | 208 | 261 | 320 | 388 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.53 | 1.87 | 2.27 | 2.75 | 3.30 | 3.94 | 4.67 | 5.51 | 6.46 |
| 35 | 1.34 | 1.65 | 2.01 | 2.42 | 2.91 | 3.47 | 4.11 | 4.84 | 5.67 |
| 40 | 1.16 | 1.44 | 1.76 | 2.12 | 2.54 | 3.02 | 3.58 | 4.21 | 4.93 |
| 45 | 0.99 | 1.25 | 1.53 | 1.84 | 2.20 | 2.62 | 3.09 | 3.64 | 4.26 |
| 50 | 0.82 | 1.06 | 1.31 | 1.58 | 1.89 | 2.25 | 2.65 | 3.11 | 3.64 |
| 55 | -    | 0.88 | 1.10 | 1.34 | 1.60 | 1.90 | 2.25 | 2.64 | 3.09 |
| 60 | -    | 0.70 | 0.91 | 1.11 | 1.34 | 1.59 | 1.88 | 2.22 | 2.60 |

**Nominal performance at to = -10 °C, tc = 45 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 117 | W    |
| Power input         | 2 775 | W    |
| Current consumption | 5.35  | A    |
| Mass flow           | 189   | kg/h |
| C.O.P.              | 2.20  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 27.7 | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.3  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 80 | dB(A) |
| With acoustic hood | 74 | dB(A) |

Tolerance according EN12900

**Performance data at 50 Hz, EN 12900 rating conditions**
**R407A**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 30 | 1 667 | 2 518 | 3 573 | 4 861 | 6 412 | 8 254 | 10 418 | 12 931 | 15 824 |
| 35 | 1 422 | 2 234 | 3 236 | 4 459 | 5 931 | 7 681 | 9 738  | 12 133 | 14 893 |
| 40 | 1 169 | 1 937 | 2 882 | 4 033 | 5 421 | 7 074 | 9 020  | 11 290 | 13 912 |
| 45 | 915   | 1 633 | 2 516 | 3 591 | 4 890 | 6 439 | 8 270  | 10 410 | 12 890 |
| 50 | -     | 1 330 | 2 145 | 3 139 | 4 343 | 5 785 | 7 494  | 9 500  | 11 831 |
| 55 | -     | -     | 1 776 | 2 684 | 3 788 | 5 117 | 6 699  | 8 566  | 10 744 |
| 60 | -     | -     | -     | 2 231 | 3 231 | 4 441 | 5 893  | 7 614  | 9 634  |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 1 259 | 1 507 | 1 732 | 1 936 | 2 118 | 2 279 | 2 419 | 2 537 | 2 635 |
| 35 | 1 232 | 1 508 | 1 761 | 1 991 | 2 199 | 2 385 | 2 549 | 2 691 | 2 811 |
| 40 | 1 188 | 1 497 | 1 781 | 2 042 | 2 279 | 2 494 | 2 686 | 2 855 | 3 001 |
| 45 | 1 126 | 1 470 | 1 790 | 2 085 | 2 356 | 2 603 | 2 827 | 3 027 | 3 204 |
| 50 | -     | 1 426 | 1 785 | 2 119 | 2 428 | 2 712 | 2 971 | 3 206 | 3 417 |
| 55 | -     | -     | 1 765 | 2 141 | 2 491 | 2 816 | 3 115 | 3 389 | 3 638 |
| 60 | -     | -     | -     | 2 150 | 2 545 | 2 914 | 3 257 | 3 573 | 3 864 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 3.70 | 3.89 | 4.09 | 4.31 | 4.55 | 4.80 | 5.09 | 5.39 | 5.74 |
| 35 | 3.69 | 3.91 | 4.13 | 4.37 | 4.62 | 4.89 | 5.18 | 5.49 | 5.82 |
| 40 | 3.67 | 3.92 | 4.18 | 4.44 | 4.71 | 5.00 | 5.30 | 5.62 | 5.96 |
| 45 | 3.62 | 3.92 | 4.21 | 4.51 | 4.81 | 5.12 | 5.44 | 5.78 | 6.14 |
| 50 | -    | 3.89 | 4.23 | 4.57 | 4.91 | 5.25 | 5.60 | 5.96 | 6.34 |
| 55 | -    | -    | 4.21 | 4.60 | 4.99 | 5.37 | 5.76 | 6.16 | 6.56 |
| 60 | -    | -    | -    | 4.60 | 5.04 | 5.48 | 5.91 | 6.34 | 6.78 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 30 | 40 | 59 | 82 | 109 | 142 | 179 | 222 | 272 | 329 |
| 35 | 36 | 55 | 78 | 105 | 138 | 175 | 218 | 268 | 324 |
| 40 | 31 | 50 | 73 | 101 | 133 | 170 | 213 | 262 | 319 |
| 45 | 26 | 45 | 68 | 95  | 127 | 164 | 207 | 256 | 312 |
| 50 | -  | 39 | 62 | 89  | 120 | 157 | 199 | 248 | 303 |
| 55 | -  | -  | 55 | 82  | 113 | 149 | 191 | 239 | 294 |
| 60 | -  | -  | -  | 74  | 104 | 140 | 181 | 229 | 283 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.32 | 1.67 | 2.06 | 2.51 | 3.03 | 3.62 | 4.31 | 5.10 | 6.00 |
| 35 | 1.15 | 1.48 | 1.84 | 2.24 | 2.70 | 3.22 | 3.82 | 4.51 | 5.30 |
| 40 | 0.98 | 1.29 | 1.62 | 1.98 | 2.38 | 2.84 | 3.36 | 3.96 | 4.64 |
| 45 | 0.81 | 1.11 | 1.41 | 1.72 | 2.08 | 2.47 | 2.93 | 3.44 | 4.02 |
| 50 | -    | 0.93 | 1.20 | 1.48 | 1.79 | 2.13 | 2.52 | 2.96 | 3.46 |
| 55 | -    | -    | 1.01 | 1.25 | 1.52 | 1.82 | 2.15 | 2.53 | 2.95 |
| 60 | -    | -    | -    | 1.04 | 1.27 | 1.52 | 1.81 | 2.13 | 2.49 |

**Nominal performance at to = -10 °C, tc = 45 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 4 890 | W    |
| Power input         | 2 356 | W    |
| Current consumption | 4.81  | A    |
| Mass flow           | 127   | kg/h |
| C.O.P.              | 2.08  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 25.8 | bar(g) |
| Minimum LP switch setting | 0.9  | bar(g) |
| LP pump down setting      | 1.2  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 79 | dB(A) |
| With acoustic hood | 73 | dB(A) |

Tolerance according EN12900

**Performance data at 50 Hz, ARI rating conditions**
**R407A**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 30 | 1 803 | 2 719 | 3 853 | 5 235 | 6 896 | 8 867 | 11 178 | 13 859 | 16 941 |
| 35 | 1 547 | 2 426 | 3 510 | 4 828 | 6 412 | 8 293 | 10 501 | 13 067 | 16 020 |
| 40 | 1 281 | 2 118 | 3 145 | 4 395 | 5 897 | 7 683 | 9 783  | 12 228 | 15 047 |
| 45 | 1 011 | 1 800 | 2 767 | 3 942 | 5 357 | 7 043 | 9 030  | 11 349 | 14 031 |
| 50 | -     | 1 480 | 2 381 | 3 477 | 4 800 | 6 381 | 8 250  | 10 439 | 12 979 |
| 55 | -     | -     | 1 994 | 3 006 | 4 232 | 5 703 | 7 450  | 9 505  | 11 899 |
| 60 | -     | -     | -     | 2 536 | 3 660 | 5 017 | 6 639  | 8 556  | 10 801 |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 1 259 | 1 507 | 1 732 | 1 936 | 2 118 | 2 279 | 2 419 | 2 537 | 2 635 |
| 35 | 1 232 | 1 508 | 1 761 | 1 991 | 2 199 | 2 385 | 2 549 | 2 691 | 2 811 |
| 40 | 1 188 | 1 497 | 1 781 | 2 042 | 2 279 | 2 494 | 2 686 | 2 855 | 3 001 |
| 45 | 1 126 | 1 470 | 1 790 | 2 085 | 2 356 | 2 603 | 2 827 | 3 027 | 3 204 |
| 50 | -     | 1 426 | 1 785 | 2 119 | 2 428 | 2 712 | 2 971 | 3 206 | 3 417 |
| 55 | -     | -     | 1 765 | 2 141 | 2 491 | 2 816 | 3 115 | 3 389 | 3 638 |
| 60 | -     | -     | -     | 2 150 | 2 545 | 2 914 | 3 257 | 3 573 | 3 864 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 3.70 | 3.89 | 4.09 | 4.31 | 4.55 | 4.80 | 5.09 | 5.39 | 5.74 |
| 35 | 3.69 | 3.91 | 4.13 | 4.37 | 4.62 | 4.89 | 5.18 | 5.49 | 5.82 |
| 40 | 3.67 | 3.92 | 4.18 | 4.44 | 4.71 | 5.00 | 5.30 | 5.62 | 5.96 |
| 45 | 3.62 | 3.92 | 4.21 | 4.51 | 4.81 | 5.12 | 5.44 | 5.78 | 6.14 |
| 50 | -    | 3.89 | 4.23 | 4.57 | 4.91 | 5.25 | 5.60 | 5.96 | 6.34 |
| 55 | -    | -    | 4.21 | 4.60 | 4.99 | 5.37 | 5.76 | 6.16 | 6.56 |
| 60 | -    | -    | -    | 4.60 | 5.04 | 5.48 | 5.91 | 6.34 | 6.78 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 30 | 39 | 59 | 82 | 109 | 141 | 178 | 221 | 271 | 327 |
| 35 | 35 | 55 | 78 | 105 | 137 | 174 | 217 | 266 | 322 |
| 40 | 31 | 50 | 73 | 100 | 132 | 169 | 212 | 261 | 317 |
| 45 | 26 | 45 | 68 | 95  | 126 | 163 | 206 | 254 | 310 |
| 50 | -  | 39 | 62 | 88  | 120 | 156 | 198 | 246 | 301 |
| 55 | -  | -  | 55 | 81  | 112 | 148 | 190 | 237 | 292 |
| 60 | -  | -  | -  | 73  | 104 | 139 | 180 | 227 | 281 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.43 | 1.80 | 2.22 | 2.70 | 3.26 | 3.89 | 4.62 | 5.46 | 6.43 |
| 35 | 1.26 | 1.61 | 1.99 | 2.42 | 2.92 | 3.48 | 4.12 | 4.86 | 5.70 |
| 40 | 1.08 | 1.42 | 1.77 | 2.15 | 2.59 | 3.08 | 3.64 | 4.28 | 5.01 |
| 45 | 0.90 | 1.22 | 1.55 | 1.89 | 2.27 | 2.71 | 3.19 | 3.75 | 4.38 |
| 50 | -    | 1.04 | 1.33 | 1.64 | 1.98 | 2.35 | 2.78 | 3.26 | 3.80 |
| 55 | -    | -    | 1.13 | 1.40 | 1.70 | 2.03 | 2.39 | 2.80 | 3.27 |
| 60 | -    | -    | -    | 1.18 | 1.44 | 1.72 | 2.04 | 2.39 | 2.79 |

**Nominal performance at to = -10 °C, tc = 45 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 5 357 | W    |
| Power input         | 2 356 | W    |
| Current consumption | 4.81  | A    |
| Mass flow           | 126   | kg/h |
| C.O.P.              | 2.27  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 25.8 | bar(g) |
| Minimum LP switch setting | 0.9  | bar(g) |
| LP pump down setting      | 1.2  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 79 | dB(A) |
| With acoustic hood | 73 | dB(A) |

Tolerance according EN12900

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 50 Hz, EN 12900 rating conditions

## R407F

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |   |       |       |       |       |       |        |        |        |
|----|---|-------|-------|-------|-------|-------|--------|--------|--------|
| 30 | - | 2 738 | 3 919 | 5 366 | 7 115 | 9 200 | 11 658 | 14 523 | 17 832 |
| 35 | - | 2 365 | 3 451 | 4 779 | 6 384 | 8 302 | 10 568 | 13 217 | 16 285 |
| 40 | - | 2 039 | 3 047 | 4 272 | 5 750 | 7 516 | 9 606  | 12 055 | 14 899 |
| 45 | - | 1 748 | 2 693 | 3 832 | 5 198 | 6 829 | 8 759  | 11 025 | 13 660 |
| 50 | - | -     | 2 375 | 3 443 | 4 714 | 6 226 | 8 013  | 10 110 | 12 554 |
| 55 | - | -     | -     | 3 091 | 4 284 | 5 693 | 7 352  | 9 298  | 11 566 |
| 60 | - | -     | -     | -     | -     | -     | -      | -      | -      |

### Power input in W

|    |   |       |       |       |       |       |       |       |       |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 1 587 | 1 821 | 2 035 | 2 221 | 2 373 | 2 485 | 2 548 | 2 557 |
| 35 | - | 1 594 | 1 853 | 2 097 | 2 318 | 2 510 | 2 665 | 2 777 | 2 840 |
| 40 | - | 1 603 | 1 883 | 2 153 | 2 406 | 2 633 | 2 829 | 2 987 | 3 100 |
| 45 | - | 1 621 | 1 920 | 2 213 | 2 493 | 2 753 | 2 986 | 3 186 | 3 345 |
| 50 | - | -     | 1 973 | 2 285 | 2 589 | 2 878 | 3 145 | 3 383 | 3 586 |
| 55 | - | -     | -     | 2 378 | 2 703 | 3 017 | 3 314 | 3 587 | 3 830 |
| 60 | - | -     | -     | -     | -     | -     | -     | -     | -     |

### Current consumption in A

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 3.89 | 4.12 | 4.36 | 4.61 | 4.88 | 5.16 | 5.45 | 5.74 |
| 35 | - | 3.96 | 4.20 | 4.46 | 4.73 | 5.01 | 5.30 | 5.60 | 5.91 |
| 40 | - | 3.99 | 4.26 | 4.54 | 4.84 | 5.14 | 5.45 | 5.77 | 6.09 |
| 45 | - | 3.99 | 4.30 | 4.62 | 4.95 | 5.28 | 5.62 | 5.96 | 6.30 |
| 50 | - | -    | 4.33 | 4.70 | 5.06 | 5.44 | 5.81 | 6.19 | 6.57 |
| 55 | - | -    | -    | 4.79 | 5.21 | 5.63 | 6.05 | 6.47 | 6.89 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Mass flow in kg/h

|    |   |    |    |     |     |     |     |     |     |
|----|---|----|----|-----|-----|-----|-----|-----|-----|
| 30 | - | 57 | 80 | 108 | 141 | 179 | 224 | 276 | 336 |
| 35 | - | 51 | 74 | 100 | 132 | 169 | 212 | 262 | 320 |
| 40 | - | 47 | 68 | 94  | 125 | 161 | 203 | 251 | 306 |
| 45 | - | 42 | 64 | 89  | 119 | 154 | 195 | 241 | 295 |
| 50 | - | -  | 60 | 85  | 114 | 149 | 188 | 234 | 286 |
| 55 | - | -  | -  | 81  | 111 | 145 | 184 | 228 | 280 |
| 60 | - | -  | -  | -   | -   | -   | -   | -   | -   |

### Coefficient of performance (C.O.P.)

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 1.72 | 2.15 | 2.64 | 3.20 | 3.88 | 4.69 | 5.70 | 6.98 |
| 35 | - | 1.48 | 1.86 | 2.28 | 2.75 | 3.31 | 3.97 | 4.76 | 5.73 |
| 40 | - | 1.27 | 1.62 | 1.98 | 2.39 | 2.85 | 3.40 | 4.04 | 4.81 |
| 45 | - | 1.08 | 1.40 | 1.73 | 2.09 | 2.48 | 2.93 | 3.46 | 4.08 |
| 50 | - | -    | 1.20 | 1.51 | 1.82 | 2.16 | 2.55 | 2.99 | 3.50 |
| 55 | - | -    | -    | 1.30 | 1.59 | 1.89 | 2.22 | 2.59 | 3.02 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 5 198 | W    |
| Power input         | 2 493 | W    |
| Current consumption | 4.95  | A    |
| Mass flow           | 119   | kg/h |
| C.O.P.              | 2.09  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 24   | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.26 | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 79 | dB(A) |
| With acoustic hood | 73 | dB(A) |

Tolerance according EN12900

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 50 Hz, ARI rating conditions

# R407F

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |   |       |       |       |       |       |        |        |        |
|----|---|-------|-------|-------|-------|-------|--------|--------|--------|
| 30 | - | 2 934 | 4 196 | 5 740 | 7 603 | 9 822 | 12 434 | 15 477 | 18 988 |
| 35 | - | 2 546 | 3 712 | 5 135 | 6 852 | 8 901 | 11 319 | 14 143 | 17 410 |
| 40 | - | 2 208 | 3 295 | 4 614 | 6 202 | 8 098 | 10 338 | 12 961 | 16 002 |
| 45 | - | 1 904 | 2 930 | 4 163 | 5 640 | 7 400 | 9 480  | 11 918 | 14 752 |
| 50 | - | -     | 2 604 | 3 768 | 5 152 | 6 794 | 8 732  | 11 003 | 13 646 |
| 55 | - | -     | -     | 3 415 | 4 725 | 6 267 | 8 082  | 10 205 | 12 676 |
| 60 | - | -     | -     | -     | -     | -     | -      | -      | -      |

### Power input in W

|    |   |       |       |       |       |       |       |       |       |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 1 587 | 1 821 | 2 035 | 2 221 | 2 373 | 2 485 | 2 548 | 2 557 |
| 35 | - | 1 594 | 1 853 | 2 097 | 2 318 | 2 510 | 2 665 | 2 777 | 2 840 |
| 40 | - | 1 603 | 1 883 | 2 153 | 2 406 | 2 633 | 2 829 | 2 987 | 3 100 |
| 45 | - | 1 621 | 1 920 | 2 213 | 2 493 | 2 753 | 2 986 | 3 186 | 3 345 |
| 50 | - | -     | 1 973 | 2 285 | 2 589 | 2 878 | 3 145 | 3 383 | 3 586 |
| 55 | - | -     | -     | 2 378 | 2 703 | 3 017 | 3 314 | 3 587 | 3 830 |
| 60 | - | -     | -     | -     | -     | -     | -     | -     | -     |

### Current consumption in A

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 3.89 | 4.12 | 4.36 | 4.61 | 4.88 | 5.16 | 5.45 | 5.74 |
| 35 | - | 3.96 | 4.20 | 4.46 | 4.73 | 5.01 | 5.30 | 5.60 | 5.91 |
| 40 | - | 3.99 | 4.26 | 4.54 | 4.84 | 5.14 | 5.45 | 5.77 | 6.09 |
| 45 | - | 3.99 | 4.30 | 4.62 | 4.95 | 5.28 | 5.62 | 5.96 | 6.30 |
| 50 | - | -    | 4.33 | 4.70 | 5.06 | 5.44 | 5.81 | 6.19 | 6.57 |
| 55 | - | -    | -    | 4.79 | 5.21 | 5.63 | 6.05 | 6.47 | 6.89 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Mass flow in kg/h

|    |   |    |    |     |     |     |     |     |     |
|----|---|----|----|-----|-----|-----|-----|-----|-----|
| 30 | - | 56 | 79 | 107 | 140 | 178 | 223 | 275 | 334 |
| 35 | - | 51 | 73 | 100 | 131 | 168 | 211 | 261 | 318 |
| 40 | - | 46 | 68 | 94  | 124 | 160 | 201 | 249 | 304 |
| 45 | - | 42 | 63 | 89  | 118 | 153 | 193 | 240 | 293 |
| 50 | - | -  | 59 | 84  | 114 | 148 | 187 | 232 | 284 |
| 55 | - | -  | -  | 81  | 110 | 144 | 182 | 227 | 278 |
| 60 | - | -  | -  | -   | -   | -   | -   | -   | -   |

### Coefficient of performance (C.O.P.)

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 1.85 | 2.30 | 2.82 | 3.42 | 4.14 | 5.00 | 6.07 | 7.43 |
| 35 | - | 1.60 | 2.00 | 2.45 | 2.96 | 3.55 | 4.25 | 5.09 | 6.13 |
| 40 | - | 1.38 | 1.75 | 2.14 | 2.58 | 3.08 | 3.65 | 4.34 | 5.16 |
| 45 | - | 1.17 | 1.53 | 1.88 | 2.26 | 2.69 | 3.17 | 3.74 | 4.41 |
| 50 | - | -    | 1.32 | 1.65 | 1.99 | 2.36 | 2.78 | 3.25 | 3.81 |
| 55 | - | -    | -    | 1.44 | 1.75 | 2.08 | 2.44 | 2.84 | 3.31 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 5 640 | W    |
| Power input         | 2 493 | W    |
| Current consumption | 4.95  | A    |
| Mass flow           | 118   | kg/h |
| C.O.P.              | 2.26  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 24   | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.26 | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 79 | dB(A) |
| With acoustic hood | 73 | dB(A) |

Tolerance according EN12900

**Performance data at 50 Hz, EN 12900 rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 35 | 1 338 | 1 929 | 3 633 | 4 816 | 6 267 | 8 021 | 10 113 | 12 578 | 15 452 |
| 40 | 1 138 | 1 692 | 3 273 | 4 372 | 5 722 | 7 359 | 9 319  | 11 636 | 14 346 |
| 45 | 944   | 1 462 | 2 926 | 3 941 | 5 193 | 6 715 | 8 545  | 10 715 | 13 263 |
| 50 | 756   | 1 241 | 2 590 | 3 525 | 4 680 | 6 090 | 7 791  | 9 818  | 12 205 |
| 55 | -     | -     | 2 267 | 3 123 | 4 183 | 5 483 | 7 057  | 8 942  | 11 172 |
| 60 | -     | -     | -     | 2 735 | 3 702 | 4 894 | 6 344  | 8 088  | 10 162 |
| 65 | -     | -     | -     | -     | 3 237 | 4 322 | 5 650  | 7 257  | 9 177  |
| 75 | -     | -     | -     | -     | -     | -     | 4 323  | 5 659  | 7 277  |

**Power input in W**

|    |     |       |       |       |       |       |       |       |       |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 887 | 1 089 | 1 418 | 1 545 | 1 648 | 1 724 | 1 776 | 1 803 | 1 805 |
| 40 | 848 | 1 079 | 1 462 | 1 614 | 1 741 | 1 841 | 1 915 | 1 963 | 1 986 |
| 45 | 791 | 1 052 | 1 494 | 1 675 | 1 828 | 1 954 | 2 054 | 2 126 | 2 172 |
| 50 | 711 | 1 006 | 1 512 | 1 723 | 1 906 | 2 062 | 2 189 | 2 288 | 2 359 |
| 55 | -   | -     | 1 513 | 1 757 | 1 973 | 2 160 | 2 317 | 2 446 | 2 546 |
| 60 | -   | -     | -     | 1 773 | 2 024 | 2 245 | 2 436 | 2 597 | 2 728 |
| 65 | -   | -     | -     | -     | 2 056 | 2 314 | 2 540 | 2 737 | 2 902 |
| 75 | -   | -     | -     | -     | -     | -     | 2 697 | 2 971 | 3 213 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.43 | 3.66 | 3.99 | 4.10 | 4.19 | 4.25 | 4.30 | 4.35 | 4.39 |
| 40 | 3.40 | 3.65 | 4.02 | 4.16 | 4.26 | 4.34 | 4.41 | 4.47 | 4.54 |
| 45 | 3.33 | 3.62 | 4.05 | 4.21 | 4.34 | 4.45 | 4.54 | 4.63 | 4.71 |
| 50 | 3.24 | 3.57 | 4.07 | 4.26 | 4.42 | 4.56 | 4.69 | 4.80 | 4.91 |
| 55 | -    | -    | 4.06 | 4.29 | 4.50 | 4.67 | 4.83 | 4.98 | 5.12 |
| 60 | -    | -    | -    | 4.30 | 4.55 | 4.77 | 4.97 | 5.16 | 5.34 |
| 65 | -    | -    | -    | -    | 4.57 | 4.84 | 5.09 | 5.33 | 5.56 |
| 75 | -    | -    | -    | -    | -    | -    | 5.26 | 5.61 | 5.95 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 35 | 34 | 48 | 87 | 112 | 142 | 179 | 221 | 271 | 328 |
| 40 | 30 | 44 | 82 | 107 | 137 | 172 | 214 | 262 | 318 |
| 45 | 27 | 41 | 77 | 102 | 131 | 165 | 206 | 253 | 308 |
| 50 | 23 | 37 | 72 | 96  | 125 | 158 | 198 | 245 | 298 |
| 55 | -  | -  | 67 | 91  | 118 | 151 | 190 | 236 | 288 |
| 60 | -  | -  | -  | 85  | 112 | 144 | 182 | 227 | 278 |
| 65 | -  | -  | -  | -   | 105 | 137 | 174 | 217 | 268 |
| 75 | -  | -  | -  | -   | -   | -   | 157 | 198 | 247 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.51 | 1.77 | 2.56 | 3.12 | 3.80 | 4.65 | 5.69 | 6.98 | 8.56 |
| 40 | 1.34 | 1.57 | 2.24 | 2.71 | 3.29 | 4.00 | 4.87 | 5.93 | 7.22 |
| 45 | 1.19 | 1.39 | 1.96 | 2.35 | 2.84 | 3.44 | 4.16 | 5.04 | 6.11 |
| 50 | 1.06 | 1.23 | 1.71 | 2.05 | 2.45 | 2.95 | 3.56 | 4.29 | 5.17 |
| 55 | -    | -    | 1.50 | 1.78 | 2.12 | 2.54 | 3.05 | 3.66 | 4.39 |
| 60 | -    | -    | -    | 1.54 | 1.83 | 2.18 | 2.60 | 3.11 | 3.73 |
| 65 | -    | -    | -    | -    | 1.57 | 1.87 | 2.22 | 2.65 | 3.16 |
| 75 | -    | -    | -    | -    | -    | -    | 1.60 | 1.90 | 2.27 |

**Nominal performance at to = 5 °C, tc = 50 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 090 | W    |
| Power input         | 2 062 | W    |
| Current consumption | 4.56  | A    |
| Mass flow           | 158   | kg/h |
| C.O.P.              | 2.95  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                     |   |       |
|---------------------|---|-------|
| Sound power level   | 0 | dB(A) |
| With accoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

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**Performance data at 50 Hz, ARI rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 35 | 1 455 | 2 093 | 3 928 | 5 199 | 6 755 | 8 632 | 10 868 | 13 499 | 16 562 |
| 40 | 1 244 | 1 846 | 3 558 | 4 743 | 6 197 | 7 957 | 10 060 | 12 543 | 15 442 |
| 45 | 1 039 | 1 606 | 3 199 | 4 301 | 5 655 | 7 300 | 9 272  | 11 609 | 14 346 |
| 50 | -     | 1 373 | 2 852 | 3 872 | 5 129 | 6 661 | 8 505  | 10 697 | 13 275 |
| 55 | -     | -     | 2 516 | 3 457 | 4 619 | 6 040 | 7 757  | 9 808  | 12 229 |
| 60 | -     | -     | -     | 3 055 | 4 124 | 5 437 | 7 030  | 8 941  | 11 208 |
| 65 | -     | -     | -     | -     | -     | 4 852 | 6 323  | 8 098  | 10 214 |
| 75 | -     | -     | -     | -     | -     | -     | 4 974  | 6 486  | 8 310  |

**Power input in W**

|    |     |       |       |       |       |       |       |       |       |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 887 | 1 089 | 1 418 | 1 545 | 1 648 | 1 724 | 1 776 | 1 803 | 1 805 |
| 40 | 848 | 1 079 | 1 462 | 1 614 | 1 741 | 1 841 | 1 915 | 1 963 | 1 986 |
| 45 | 791 | 1 052 | 1 494 | 1 675 | 1 828 | 1 954 | 2 054 | 2 126 | 2 172 |
| 50 | -   | 1 006 | 1 512 | 1 723 | 1 906 | 2 062 | 2 189 | 2 288 | 2 359 |
| 55 | -   | -     | 1 513 | 1 757 | 1 973 | 2 160 | 2 317 | 2 446 | 2 546 |
| 60 | -   | -     | -     | 1 773 | 2 024 | 2 245 | 2 436 | 2 597 | 2 728 |
| 65 | -   | -     | -     | -     | -     | 2 314 | 2 540 | 2 737 | 2 902 |
| 75 | -   | -     | -     | -     | -     | -     | 2 697 | 2 971 | 3 213 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.43 | 3.66 | 3.99 | 4.10 | 4.19 | 4.25 | 4.30 | 4.35 | 4.39 |
| 40 | 3.40 | 3.65 | 4.02 | 4.16 | 4.26 | 4.34 | 4.41 | 4.47 | 4.54 |
| 45 | 3.33 | 3.62 | 4.05 | 4.21 | 4.34 | 4.45 | 4.54 | 4.63 | 4.71 |
| 50 | -    | 3.57 | 4.07 | 4.26 | 4.42 | 4.56 | 4.69 | 4.80 | 4.91 |
| 55 | -    | -    | 4.06 | 4.29 | 4.50 | 4.67 | 4.83 | 4.98 | 5.12 |
| 60 | -    | -    | -    | 4.30 | 4.55 | 4.77 | 4.97 | 5.16 | 5.34 |
| 65 | -    | -    | -    | -    | -    | 4.84 | 5.09 | 5.33 | 5.56 |
| 75 | -    | -    | -    | -    | -    | -    | 5.26 | 5.61 | 5.95 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 35 | 34 | 48 | 86 | 111 | 142 | 178 | 220 | 269 | 326 |
| 40 | 30 | 44 | 82 | 106 | 136 | 171 | 213 | 261 | 316 |
| 45 | 27 | 40 | 77 | 101 | 130 | 164 | 205 | 252 | 307 |
| 50 | -  | 36 | 72 | 96  | 124 | 158 | 197 | 243 | 297 |
| 55 | -  | -  | 67 | 90  | 118 | 151 | 189 | 234 | 287 |
| 60 | -  | -  | -  | 84  | 111 | 143 | 181 | 225 | 277 |
| 65 | -  | -  | -  | -   | -   | 136 | 173 | 216 | 266 |
| 75 | -  | -  | -  | -   | -   | -   | 156 | 197 | 245 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.64 | 1.92 | 2.77 | 3.36 | 4.10 | 5.01 | 6.12 | 7.49 | 9.18 |
| 40 | 1.47 | 1.71 | 2.43 | 2.94 | 3.56 | 4.32 | 5.25 | 6.39 | 7.78 |
| 45 | 1.31 | 1.53 | 2.14 | 2.57 | 3.09 | 3.74 | 4.51 | 5.46 | 6.61 |
| 50 | -    | 1.37 | 1.89 | 2.25 | 2.69 | 3.23 | 3.89 | 4.67 | 5.63 |
| 55 | -    | -    | 1.66 | 1.97 | 2.34 | 2.80 | 3.35 | 4.01 | 4.80 |
| 60 | -    | -    | -    | 1.72 | 2.04 | 2.42 | 2.89 | 3.44 | 4.11 |
| 65 | -    | -    | -    | -    | -    | 2.10 | 2.49 | 2.96 | 3.52 |
| 75 | -    | -    | -    | -    | -    | -    | 1.84 | 2.18 | 2.59 |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 837 | W    |
| Power input         | 2 220 | W    |
| Current consumption | 4.73  | A    |
| Mass flow           | 168   | kg/h |
| C.O.P.              | 3.08  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                    |   |       |
|--------------------|---|-------|
| Sound power level  | 0 | dB(A) |
| With acoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 50 Hz, EN 12900 rating conditions

# R407C

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

### Cooling capacity in W

|    |       |       |       |       |        |        |        |   |   |
|----|-------|-------|-------|-------|--------|--------|--------|---|---|
| 35 | 4 173 | 5 656 | 7 467 | 9 643 | 12 220 | 15 232 | 18 717 | - | - |
| 40 | 3 703 | 5 070 | 6 747 | 8 769 | 11 173 | 13 994 | 17 268 | - | - |
| 45 | 3 263 | 4 510 | 6 048 | 7 913 | 10 141 | 12 766 | 15 826 | - | - |
| 50 | -     | 3 982 | 5 378 | 7 082 | 9 129  | 11 555 | 14 397 | - | - |
| 55 | -     | -     | 4 742 | 6 281 | 8 144  | 10 368 | 12 987 | - | - |
| 60 | -     | -     | -     | 5 517 | 7 193  | 9 210  | 11 604 | - | - |
| 65 | -     | -     | -     | 4 797 | 6 281  | 8 087  | 10 252 | - | - |

### Power input in W

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 919 | 2 133 | 2 306 | 2 444 | 2 556 | 2 649 | 2 729 | - | - |
| 40 | 1 957 | 2 216 | 2 430 | 2 607 | 2 753 | 2 877 | 2 985 | - | - |
| 45 | 1 967 | 2 276 | 2 537 | 2 756 | 2 942 | 3 101 | 3 242 | - | - |
| 50 | -     | 2 311 | 2 623 | 2 890 | 3 120 | 3 320 | 3 498 | - | - |
| 55 | -     | -     | 2 688 | 3 007 | 3 286 | 3 532 | 3 751 | - | - |
| 60 | -     | -     | -     | 3 106 | 3 438 | 3 734 | 4 000 | - | - |
| 65 | -     | -     | -     | 3 183 | 3 574 | 3 925 | 4 243 | - | - |

### Current consumption in A

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.45 | 4.66 | 4.85 | 5.04 | 5.19 | 5.32 | 5.40 | - | - |
| 40 | 4.53 | 4.77 | 4.99 | 5.20 | 5.39 | 5.55 | 5.67 | - | - |
| 45 | 4.59 | 4.86 | 5.13 | 5.38 | 5.61 | 5.82 | 5.98 | - | - |
| 50 | -    | 4.94 | 5.25 | 5.56 | 5.84 | 6.10 | 6.32 | - | - |
| 55 | -    | -    | 5.35 | 5.71 | 6.06 | 6.38 | 6.67 | - | - |
| 60 | -    | -    | -    | 5.84 | 6.26 | 6.66 | 7.02 | - | - |
| 65 | -    | -    | -    | 5.93 | 6.43 | 6.91 | 7.36 | - | - |

### Mass flow in kg/h

|    |    |     |     |     |     |     |     |   |   |
|----|----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 91 | 121 | 157 | 199 | 249 | 306 | 371 | - | - |
| 40 | 85 | 114 | 149 | 190 | 238 | 294 | 358 | - | - |
| 45 | 79 | 107 | 140 | 181 | 228 | 282 | 345 | - | - |
| 50 | -  | 100 | 132 | 171 | 217 | 270 | 331 | - | - |
| 55 | -  | -   | 124 | 161 | 205 | 257 | 317 | - | - |
| 60 | -  | -   | -   | 152 | 194 | 244 | 302 | - | - |
| 65 | -  | -   | -   | 143 | 183 | 231 | 287 | - | - |

### Coefficient of performance (C.O.P.)

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.17 | 2.65 | 3.24 | 3.95 | 4.78 | 5.75 | 6.86 | - | - |
| 40 | 1.89 | 2.29 | 2.78 | 3.36 | 4.06 | 4.86 | 5.78 | - | - |
| 45 | 1.66 | 1.98 | 2.38 | 2.87 | 3.45 | 4.12 | 4.88 | - | - |
| 50 | -    | 1.72 | 2.05 | 2.45 | 2.93 | 3.48 | 4.12 | - | - |
| 55 | -    | -    | 1.76 | 2.09 | 2.48 | 2.94 | 3.46 | - | - |
| 60 | -    | -    | -    | 1.78 | 2.09 | 2.47 | 2.90 | - | - |
| 65 | -    | -    | -    | 1.51 | 1.76 | 2.06 | 2.42 | - | - |

### Nominal performance at to = 5 °C, tc = 50 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 9 129 | W    |
| Power input         | 3 120 | W    |
| Current consumption | 5.84  | A    |
| Mass flow           | 217   | kg/h |
| C.O.P.              | 2.93  |      |



to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 84 | dB(A) |
| With acoustic hood | 78 | dB(A) |

Tolerance according EN12900



**Performance data at 50 Hz, ARI rating conditions**
**R407C**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 4 492 | 6 080 | 8 018 | 10 343 | 13 092 | 16 303 | 20 012 | - | - |
| 40 | 4 008 | 5 479 | 7 282 | 9 453  | 12 029 | 15 049 | 18 550 | - | - |
| 45 | 3 554 | 4 905 | 6 567 | 8 580  | 10 981 | 13 806 | 17 094 | - | - |
| 50 | -     | 4 362 | 5 881 | 7 732  | 9 952  | 12 579 | 15 650 | - | - |
| 55 | -     | -     | 5 231 | 6 915  | 8 951  | 11 375 | 14 227 | - | - |
| 60 | -     | -     | -     | 6 137  | 7 984  | 10 203 | 12 832 | - | - |
| 65 | -     | -     | -     | 5 405  | 7 060  | 9 070  | 11 473 | - | - |

**Power input in W**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 919 | 2 133 | 2 306 | 2 444 | 2 556 | 2 649 | 2 729 | - | - |
| 40 | 1 957 | 2 216 | 2 430 | 2 607 | 2 753 | 2 877 | 2 985 | - | - |
| 45 | 1 967 | 2 276 | 2 537 | 2 756 | 2 942 | 3 101 | 3 242 | - | - |
| 50 | -     | 2 311 | 2 623 | 2 890 | 3 120 | 3 320 | 3 498 | - | - |
| 55 | -     | -     | 2 688 | 3 007 | 3 286 | 3 532 | 3 751 | - | - |
| 60 | -     | -     | -     | 3 106 | 3 438 | 3 734 | 4 000 | - | - |
| 65 | -     | -     | -     | 3 183 | 3 574 | 3 925 | 4 243 | - | - |

**Current consumption in A**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.45 | 4.66 | 4.85 | 5.04 | 5.19 | 5.32 | 5.40 | - | - |
| 40 | 4.53 | 4.77 | 4.99 | 5.20 | 5.39 | 5.55 | 5.67 | - | - |
| 45 | 4.59 | 4.86 | 5.13 | 5.38 | 5.61 | 5.82 | 5.98 | - | - |
| 50 | -    | 4.94 | 5.25 | 5.56 | 5.84 | 6.10 | 6.32 | - | - |
| 55 | -    | -    | 5.35 | 5.71 | 6.06 | 6.38 | 6.67 | - | - |
| 60 | -    | -    | -    | 5.84 | 6.26 | 6.66 | 7.02 | - | - |
| 65 | -    | -    | -    | 5.93 | 6.43 | 6.91 | 7.36 | - | - |

**Mass flow in kg/h**

|    |    |     |     |     |     |     |     |   |   |
|----|----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 90 | 120 | 156 | 198 | 247 | 304 | 368 | - | - |
| 40 | 84 | 113 | 148 | 189 | 237 | 292 | 356 | - | - |
| 45 | 78 | 106 | 140 | 180 | 226 | 281 | 343 | - | - |
| 50 | -  | 99  | 131 | 170 | 215 | 268 | 329 | - | - |
| 55 | -  | -   | 123 | 160 | 204 | 255 | 315 | - | - |
| 60 | -  | -   | -   | 151 | 193 | 243 | 300 | - | - |
| 65 | -  | -   | -   | 142 | 182 | 229 | 285 | - | - |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.34 | 2.85 | 3.48 | 4.23 | 5.12 | 6.16 | 7.33 | - | - |
| 40 | 2.05 | 2.47 | 3.00 | 3.63 | 4.37 | 5.23 | 6.21 | - | - |
| 45 | 1.81 | 2.15 | 2.59 | 3.11 | 3.73 | 4.45 | 5.27 | - | - |
| 50 | -    | 1.89 | 2.24 | 2.68 | 3.19 | 3.79 | 4.47 | - | - |
| 55 | -    | -    | 1.95 | 2.30 | 2.72 | 3.22 | 3.79 | - | - |
| 60 | -    | -    | -    | 1.98 | 2.32 | 2.73 | 3.21 | - | - |
| 65 | -    | -    | -    | 1.70 | 1.98 | 2.31 | 2.70 | - | - |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 10 096 | W    |
| Power input         | 3 376  | W    |
| Current consumption | 6.18   | A    |
| Mass flow           | 227    | kg/h |
| C.O.P.              | 2.99   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 84 | dB(A) |
| With acoustic hood | 78 | dB(A) |

Tolerance according EN12900

**Performance data at 60 Hz, EN 12900 rating conditions**
**R407C**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 5 313 | 7 086 | 9 182 | 11 641 | 14 506 | 17 818 | 21 617 | - | - |
| 40 | 4 754 | 6 457 | 8 465 | 10 821 | 13 564 | 16 735 | 20 377 | - | - |
| 45 | 4 167 | 5 787 | 7 697 | 9 935  | 12 544 | 15 565 | 19 037 | - | - |
| 50 | -     | 5 090 | 6 888 | 8 998  | 11 461 | 14 318 | 17 608 | - | - |
| 55 | -     | -     | 6 052 | 8 022  | 10 327 | 13 007 | 16 103 | - | - |
| 60 | -     | -     | -     | 7 019  | 9 154  | 11 645 | 14 534 | - | - |
| 65 | -     | -     | -     | 6 002  | 7 953  | 10 243 | 12 911 | - | - |

**Power input in W**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 2 396 | 2 653 | 2 856 | 3 013 | 3 132 | 3 219 | 3 284 | - | - |
| 40 | 2 460 | 2 781 | 3 041 | 3 246 | 3 403 | 3 522 | 3 610 | - | - |
| 45 | 2 474 | 2 871 | 3 198 | 3 462 | 3 671 | 3 833 | 3 955 | - | - |
| 50 | -     | 2 911 | 3 316 | 3 651 | 3 922 | 4 138 | 4 307 | - | - |
| 55 | -     | -     | 3 385 | 3 802 | 4 147 | 4 429 | 4 655 | - | - |
| 60 | -     | -     | -     | 3 903 | 4 333 | 4 693 | 4 988 | - | - |
| 65 | -     | -     | -     | 3 943 | 4 471 | 4 918 | 5 294 | - | - |

**Current consumption in A**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.26 | 4.52 | 4.75 | 4.93 | 5.07 | 5.17 | 5.23 | - | - |
| 40 | 4.34 | 4.66 | 4.94 | 5.17 | 5.36 | 5.50 | 5.59 | - | - |
| 45 | 4.37 | 4.77 | 5.12 | 5.41 | 5.66 | 5.85 | 5.98 | - | - |
| 50 | -    | 4.82 | 5.26 | 5.63 | 5.95 | 6.21 | 6.40 | - | - |
| 55 | -    | -    | 5.34 | 5.81 | 6.22 | 6.56 | 6.83 | - | - |
| 60 | -    | -    | -    | 5.94 | 6.45 | 6.89 | 7.25 | - | - |
| 65 | -    | -    | -    | 6.00 | 6.62 | 7.17 | 7.64 | - | - |

**Mass flow in kg/h**

|    |     |     |     |     |     |     |     |   |   |
|----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 115 | 151 | 193 | 241 | 295 | 358 | 428 | - | - |
| 40 | 108 | 145 | 187 | 235 | 289 | 352 | 423 | - | - |
| 45 | 100 | 137 | 179 | 227 | 282 | 344 | 415 | - | - |
| 50 | -   | 128 | 169 | 217 | 272 | 334 | 405 | - | - |
| 55 | -   | -   | 158 | 206 | 260 | 322 | 392 | - | - |
| 60 | -   | -   | -   | 193 | 247 | 308 | 378 | - | - |
| 65 | -   | -   | -   | 178 | 232 | 292 | 361 | - | - |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.22 | 2.67 | 3.21 | 3.86 | 4.63 | 5.53 | 6.58 | - | - |
| 40 | 1.93 | 2.32 | 2.78 | 3.33 | 3.99 | 4.75 | 5.64 | - | - |
| 45 | 1.68 | 2.02 | 2.41 | 2.87 | 3.42 | 4.06 | 4.81 | - | - |
| 50 | -    | 1.75 | 2.08 | 2.46 | 2.92 | 3.46 | 4.09 | - | - |
| 55 | -    | -    | 1.79 | 2.11 | 2.49 | 2.94 | 3.46 | - | - |
| 60 | -    | -    | -    | 1.80 | 2.11 | 2.48 | 2.91 | - | - |
| 65 | -    | -    | -    | 1.52 | 1.78 | 2.08 | 2.44 | - | - |

**Nominal performance at to = 5 °C, tc = 50 °C**

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 11 461 | W    |
| Power input         | 3 922  | W    |
| Current consumption | 5.95   | A    |
| Mass flow           | 272    | kg/h |
| C.O.P.              | 2.92   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 87 | dB(A) |
| With acoustic hood | 81 | dB(A) |

Tolerance according EN12900

**Performance data at 60 Hz, ARI rating conditions**
**R407C**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 5 718 | 7 617 | 9 859 | 12 486 | 15 542 | 19 070 | 23 113 | - | - |
| 40 | 5 145 | 6 978 | 9 137 | 11 664 | 14 604 | 17 998 | 21 890 | - | - |
| 45 | 4 538 | 6 294 | 8 357 | 10 773 | 13 584 | 16 832 | 20 562 | - | - |
| 50 | -     | 5 575 | 7 533 | 9 825  | 12 495 | 15 586 | 19 141 | - | - |
| 55 | -     | -     | 6 675 | 8 832  | 11 349 | 14 271 | 17 641 | - | - |
| 60 | -     | -     | -     | 7 807  | 10 160 | 12 901 | 16 072 | - | - |
| 65 | -     | -     | -     | 6 763  | 8 940  | 11 488 | 14 449 | - | - |

**Power input in W**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 2 396 | 2 653 | 2 856 | 3 013 | 3 132 | 3 219 | 3 284 | - | - |
| 40 | 2 460 | 2 781 | 3 041 | 3 246 | 3 403 | 3 522 | 3 610 | - | - |
| 45 | 2 474 | 2 871 | 3 198 | 3 462 | 3 671 | 3 833 | 3 955 | - | - |
| 50 | -     | 2 911 | 3 316 | 3 651 | 3 922 | 4 138 | 4 307 | - | - |
| 55 | -     | -     | 3 385 | 3 802 | 4 147 | 4 429 | 4 655 | - | - |
| 60 | -     | -     | -     | 3 903 | 4 333 | 4 693 | 4 988 | - | - |
| 65 | -     | -     | -     | 3 943 | 4 471 | 4 918 | 5 294 | - | - |

**Current consumption in A**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.26 | 4.52 | 4.75 | 4.93 | 5.07 | 5.17 | 5.23 | - | - |
| 40 | 4.34 | 4.66 | 4.94 | 5.17 | 5.36 | 5.50 | 5.59 | - | - |
| 45 | 4.37 | 4.77 | 5.12 | 5.41 | 5.66 | 5.85 | 5.98 | - | - |
| 50 | -    | 4.82 | 5.26 | 5.63 | 5.95 | 6.21 | 6.40 | - | - |
| 55 | -    | -    | 5.34 | 5.81 | 6.22 | 6.56 | 6.83 | - | - |
| 60 | -    | -    | -    | 5.94 | 6.45 | 6.89 | 7.25 | - | - |
| 65 | -    | -    | -    | 6.00 | 6.62 | 7.17 | 7.64 | - | - |

**Mass flow in kg/h**

|    |     |     |     |     |     |     |     |   |   |
|----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 115 | 150 | 192 | 239 | 294 | 355 | 426 | - | - |
| 40 | 108 | 144 | 186 | 233 | 288 | 350 | 420 | - | - |
| 45 | 100 | 136 | 178 | 225 | 280 | 342 | 412 | - | - |
| 50 | -   | 127 | 168 | 216 | 270 | 332 | 402 | - | - |
| 55 | -   | -   | 158 | 205 | 259 | 320 | 390 | - | - |
| 60 | -   | -   | -   | 192 | 246 | 307 | 376 | - | - |
| 65 | -   | -   | -   | 177 | 230 | 291 | 359 | - | - |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.39 | 2.87 | 3.45 | 4.14 | 4.96 | 5.92 | 7.04 | - | - |
| 40 | 2.09 | 2.51 | 3.00 | 3.59 | 4.29 | 5.11 | 6.06 | - | - |
| 45 | 1.83 | 2.19 | 2.61 | 3.11 | 3.70 | 4.39 | 5.20 | - | - |
| 50 | -    | 1.92 | 2.27 | 2.69 | 3.19 | 3.77 | 4.44 | - | - |
| 55 | -    | -    | 1.97 | 2.32 | 2.74 | 3.22 | 3.79 | - | - |
| 60 | -    | -    | -    | 2.00 | 2.34 | 2.75 | 3.22 | - | - |
| 65 | -    | -    | -    | 1.72 | 2.00 | 2.34 | 2.73 | - | - |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 12 732 | W    |
| Power input         | 4 249  | W    |
| Current consumption | 6.34   | A    |
| Mass flow           | 287    | kg/h |
| C.O.P.              | 3.00   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 87 | dB(A) |
| With acoustic hood | 81 | dB(A) |

Tolerance according EN12900

**Performance data at 60 Hz, EN 12900 rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 35 | 1 606 | 2 315 | 4 360 | 5 780 | 7 521 | 9 625 | 12 136 | 15 094 | 18 543 |
| 40 | 1 366 | 2 030 | 3 928 | 5 246 | 6 866 | 8 831 | 11 182 | 13 963 | 17 215 |
| 45 | 1 133 | 1 755 | 3 511 | 4 730 | 6 231 | 8 058 | 10 253 | 12 859 | 15 916 |
| 50 | 907   | 1 489 | 3 109 | 4 230 | 5 616 | 7 308 | 9 349  | 11 781 | 14 646 |
| 55 | -     | -     | 2 720 | 3 747 | 5 020 | 6 579 | 8 469  | 10 730 | 13 406 |
| 60 | -     | -     | -     | 3 282 | 4 443 | 5 872 | 7 613  | 9 706  | 12 195 |
| 65 | -     | -     | -     | -     | 3 885 | 5 187 | 6 780  | 8 708  | 11 012 |
| 75 | -     | -     | -     | -     | -     | -     | 5 187  | 6 791  | 8 733  |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 1 064 | 1 307 | 1 702 | 1 855 | 1 977 | 2 069 | 2 132 | 2 164 | 2 166 |
| 40 | 1 018 | 1 295 | 1 754 | 1 937 | 2 089 | 2 209 | 2 298 | 2 356 | 2 383 |
| 45 | 949   | 1 263 | 1 793 | 2 009 | 2 194 | 2 345 | 2 465 | 2 551 | 2 606 |
| 50 | 853   | 1 207 | 1 815 | 2 068 | 2 288 | 2 474 | 2 627 | 2 746 | 2 831 |
| 55 | -     | -     | 1 815 | 2 109 | 2 367 | 2 591 | 2 781 | 2 935 | 3 055 |
| 60 | -     | -     | -     | 2 127 | 2 428 | 2 693 | 2 923 | 3 116 | 3 273 |
| 65 | -     | -     | -     | -     | 2 467 | 2 776 | 3 049 | 3 284 | 3 482 |
| 75 | -     | -     | -     | -     | -     | -     | 3 237 | 3 566 | 3 855 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.58 | 3.82 | 4.16 | 4.28 | 4.37 | 4.43 | 4.49 | 4.53 | 4.58 |
| 40 | 3.54 | 3.81 | 4.20 | 4.34 | 4.44 | 4.53 | 4.60 | 4.67 | 4.73 |
| 45 | 3.48 | 3.78 | 4.23 | 4.39 | 4.53 | 4.64 | 4.74 | 4.83 | 4.91 |
| 50 | 3.38 | 3.72 | 4.24 | 4.44 | 4.61 | 4.76 | 4.89 | 5.01 | 5.12 |
| 55 | -    | -    | 4.24 | 4.48 | 4.69 | 4.87 | 5.04 | 5.19 | 5.34 |
| 60 | -    | -    | -    | 4.49 | 4.74 | 4.97 | 5.18 | 5.38 | 5.57 |
| 65 | -    | -    | -    | -    | 4.77 | 5.05 | 5.31 | 5.56 | 5.80 |
| 75 | -    | -    | -    | -    | -    | -    | 5.48 | 5.85 | 6.20 |

**Mass flow in kg/h**

|    |    |    |     |     |     |     |     |     |     |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 35 | 41 | 58 | 104 | 134 | 171 | 214 | 266 | 325 | 394 |
| 40 | 37 | 53 | 98  | 128 | 164 | 206 | 256 | 315 | 382 |
| 45 | 32 | 49 | 93  | 122 | 157 | 198 | 247 | 304 | 370 |
| 50 | 28 | 44 | 87  | 115 | 150 | 190 | 238 | 294 | 358 |
| 55 | -  | -  | 81  | 109 | 142 | 182 | 228 | 283 | 346 |
| 60 | -  | -  | -   | 102 | 134 | 173 | 219 | 272 | 334 |
| 65 | -  | -  | -   | -   | 126 | 164 | 209 | 261 | 322 |
| 75 | -  | -  | -   | -   | -   | -   | 188 | 238 | 296 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.51 | 1.77 | 2.56 | 3.12 | 3.80 | 4.65 | 5.69 | 6.98 | 8.56 |
| 40 | 1.34 | 1.57 | 2.24 | 2.71 | 3.29 | 4.00 | 4.87 | 5.93 | 7.22 |
| 45 | 1.19 | 1.39 | 1.96 | 2.35 | 2.84 | 3.44 | 4.16 | 5.04 | 6.11 |
| 50 | 1.06 | 1.23 | 1.71 | 2.05 | 2.45 | 2.95 | 3.56 | 4.29 | 5.17 |
| 55 | -    | -    | 1.50 | 1.78 | 2.12 | 2.54 | 3.05 | 3.66 | 4.39 |
| 60 | -    | -    | -    | 1.54 | 1.83 | 2.18 | 2.60 | 3.11 | 3.73 |
| 65 | -    | -    | -    | -    | 1.57 | 1.87 | 2.22 | 2.65 | 3.16 |
| 75 | -    | -    | -    | -    | -    | -    | 1.60 | 1.90 | 2.27 |

**Nominal performance at to = 5 °C, tc = 50 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 7 308 | W    |
| Power input         | 2 474 | W    |
| Current consumption | 4.76  | A    |
| Mass flow           | 190   | kg/h |
| C.O.P.              | 2.95  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                     |   |       |
|---------------------|---|-------|
| Sound power level   | 0 | dB(A) |
| With accoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

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**Performance data at 60 Hz, ARI rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |        |        |        |        |
|----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 35 | 1 746 | 2 512 | 4 714 | 6 239 | 8 106 | 10 359 | 13 042 | 16 199 | 19 874 |
| 40 | 1 493 | 2 215 | 4 270 | 5 692 | 7 437 | 9 549  | 12 072 | 15 051 | 18 530 |
| 45 | 1 247 | 1 927 | 3 839 | 5 161 | 6 786 | 8 760  | 11 127 | 13 931 | 17 215 |
| 50 | -     | 1 648 | 3 423 | 4 647 | 6 155 | 7 993  | 10 206 | 12 836 | 15 930 |
| 55 | -     | -     | 3 019 | 4 148 | 5 543 | 7 248  | 9 309  | 11 769 | 14 675 |
| 60 | -     | -     | -     | 3 666 | 4 949 | 6 524  | 8 436  | 10 730 | 13 450 |
| 65 | -     | -     | -     | -     | -     | 5 822  | 7 588  | 9 718  | 12 257 |
| 75 | -     | -     | -     | -     | -     | -      | 5 969  | 7 783  | 9 972  |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 1 064 | 1 307 | 1 702 | 1 855 | 1 977 | 2 069 | 2 132 | 2 164 | 2 166 |
| 40 | 1 018 | 1 295 | 1 754 | 1 937 | 2 089 | 2 209 | 2 298 | 2 356 | 2 383 |
| 45 | 949   | 1 263 | 1 793 | 2 009 | 2 194 | 2 345 | 2 465 | 2 551 | 2 606 |
| 50 | -     | 1 207 | 1 815 | 2 068 | 2 288 | 2 474 | 2 627 | 2 746 | 2 831 |
| 55 | -     | -     | 1 815 | 2 109 | 2 367 | 2 591 | 2 781 | 2 935 | 3 055 |
| 60 | -     | -     | -     | 2 127 | 2 428 | 2 693 | 2 923 | 3 116 | 3 273 |
| 65 | -     | -     | -     | -     | -     | 2 776 | 3 049 | 3 284 | 3 482 |
| 75 | -     | -     | -     | -     | -     | -     | 3 237 | 3 566 | 3 855 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.58 | 3.82 | 4.16 | 4.28 | 4.37 | 4.43 | 4.49 | 4.53 | 4.58 |
| 40 | 3.54 | 3.81 | 4.20 | 4.34 | 4.44 | 4.53 | 4.60 | 4.67 | 4.73 |
| 45 | 3.48 | 3.78 | 4.23 | 4.39 | 4.53 | 4.64 | 4.74 | 4.83 | 4.91 |
| 50 | -    | 3.72 | 4.24 | 4.44 | 4.61 | 4.76 | 4.89 | 5.01 | 5.12 |
| 55 | -    | -    | 4.24 | 4.48 | 4.69 | 4.87 | 5.04 | 5.19 | 5.34 |
| 60 | -    | -    | -    | 4.49 | 4.74 | 4.97 | 5.18 | 5.38 | 5.57 |
| 65 | -    | -    | -    | -    | -    | 5.05 | 5.31 | 5.56 | 5.80 |
| 75 | -    | -    | -    | -    | -    | -    | 5.48 | 5.85 | 6.20 |

**Mass flow in kg/h**

|    |    |    |     |     |     |     |     |     |     |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 35 | 40 | 57 | 103 | 134 | 170 | 213 | 264 | 323 | 391 |
| 40 | 36 | 53 | 98  | 128 | 163 | 205 | 255 | 313 | 380 |
| 45 | 32 | 49 | 92  | 121 | 156 | 197 | 246 | 302 | 368 |
| 50 | -  | 44 | 87  | 115 | 149 | 189 | 237 | 292 | 356 |
| 55 | -  | -  | 81  | 108 | 141 | 181 | 227 | 281 | 344 |
| 60 | -  | -  | -   | 101 | 134 | 172 | 217 | 270 | 332 |
| 65 | -  | -  | -   | -   | -   | 163 | 208 | 259 | 320 |
| 75 | -  | -  | -   | -   | -   | -   | 187 | 237 | 294 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.64 | 1.92 | 2.77 | 3.36 | 4.10 | 5.01 | 6.12 | 7.49 | 9.18 |
| 40 | 1.47 | 1.71 | 2.43 | 2.94 | 3.56 | 4.32 | 5.25 | 6.39 | 7.78 |
| 45 | 1.31 | 1.53 | 2.14 | 2.57 | 3.09 | 3.74 | 4.51 | 5.46 | 6.61 |
| 50 | -    | 1.37 | 1.89 | 2.25 | 2.69 | 3.23 | 3.89 | 4.67 | 5.63 |
| 55 | -    | -    | 1.66 | 1.97 | 2.34 | 2.80 | 3.35 | 4.01 | 4.80 |
| 60 | -    | -    | -    | 1.72 | 2.04 | 2.42 | 2.89 | 3.44 | 4.11 |
| 65 | -    | -    | -    | -    | -    | 2.10 | 2.49 | 2.96 | 3.52 |
| 75 | -    | -    | -    | -    | -    | -    | 1.84 | 2.18 | 2.59 |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 8 204 | W    |
| Power input         | 2 664 | W    |
| Current consumption | 4.93  | A    |
| Mass flow           | 201   | kg/h |
| C.O.P.              | 3.08  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                    |   |       |
|--------------------|---|-------|
| Sound power level  | 0 | dB(A) |
| With acoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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**Performance data at 60 Hz, EN 12900 rating conditions**
**R404A**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

**Cooling capacity in W**

|    |       |       |       |       |       |        |        |        |        |
|----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 30 | 2 853 | 4 062 | 5 529 | 7 287 | 9 368 | 11 808 | 14 638 | 17 894 | 21 608 |
| 35 | 2 387 | 3 524 | 4 897 | 6 542 | 8 491 | 10 777 | 13 434 | 16 495 | 19 995 |
| 40 | 1 923 | 2 979 | 4 251 | 5 774 | 7 581 | 9 706  | 12 181 | 15 040 | 18 317 |
| 45 | 1 472 | 2 437 | 3 600 | 4 993 | 6 650 | 8 604  | 10 888 | 13 537 | 16 583 |
| 50 | 1 041 | 1 908 | 2 953 | 4 207 | 5 706 | 7 481  | 9 566  | 11 995 | 14 801 |
| 55 | -     | 1 401 | 2 319 | 3 427 | 4 758 | 6 345  | 8 223  | 10 424 | 12 981 |
| 60 | -     | 926   | 1 708 | 2 660 | 3 815 | 5 207  | 6 868  | 8 833  | 11 133 |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 2 082 | 2 416 | 2 707 | 2 953 | 3 153 | 3 308 | 3 415 | 3 474 | 3 483 |
| 35 | 2 041 | 2 424 | 2 765 | 3 062 | 3 314 | 3 521 | 3 682 | 3 796 | 3 861 |
| 40 | 1 964 | 2 398 | 2 791 | 3 141 | 3 448 | 3 710 | 3 927 | 4 098 | 4 222 |
| 45 | 1 846 | 2 333 | 2 781 | 3 186 | 3 550 | 3 870 | 4 145 | 4 376 | 4 560 |
| 50 | 1 682 | 2 225 | 2 729 | 3 193 | 3 615 | 3 995 | 4 332 | 4 624 | 4 871 |
| 55 | -     | 2 069 | 2 632 | 3 156 | 3 640 | 4 082 | 4 482 | 4 838 | 5 151 |
| 60 | -     | 1 861 | 2 485 | 3 072 | 3 619 | 4 126 | 4 591 | 5 014 | 5 394 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 3.88 | 4.23 | 4.55 | 4.83 | 5.08 | 5.27 | 5.42 | 5.50 | 5.51 |
| 35 | 3.85 | 4.24 | 4.60 | 4.93 | 5.23 | 5.47 | 5.67 | 5.80 | 5.87 |
| 40 | 3.79 | 4.23 | 4.64 | 5.02 | 5.37 | 5.67 | 5.93 | 6.12 | 6.26 |
| 45 | 3.69 | 4.18 | 4.64 | 5.08 | 5.49 | 5.86 | 6.18 | 6.44 | 6.65 |
| 50 | 3.53 | 4.07 | 4.60 | 5.11 | 5.58 | 6.02 | 6.41 | 6.75 | 7.03 |
| 55 | -    | 3.91 | 4.51 | 5.08 | 5.63 | 6.14 | 6.61 | 7.03 | 7.39 |
| 60 | -    | 3.67 | 4.34 | 5.00 | 5.62 | 6.22 | 6.77 | 7.27 | 7.73 |

**Mass flow in kg/h**

|    |    |     |     |     |     |     |     |     |     |
|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 30 | 90 | 125 | 166 | 213 | 267 | 329 | 399 | 478 | 568 |
| 35 | 81 | 116 | 157 | 204 | 258 | 320 | 390 | 469 | 558 |
| 40 | 71 | 106 | 147 | 194 | 248 | 309 | 379 | 457 | 545 |
| 45 | 59 | 95  | 136 | 182 | 236 | 296 | 365 | 443 | 531 |
| 50 | 47 | 82  | 123 | 169 | 222 | 282 | 350 | 428 | 514 |
| 55 | -  | 68  | 108 | 154 | 206 | 266 | 333 | 410 | 495 |
| 60 | -  | 52  | 92  | 137 | 189 | 247 | 314 | 389 | 474 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.37 | 1.68 | 2.04 | 2.47 | 2.97 | 3.57 | 4.29 | 5.15 | 6.20 |
| 35 | 1.17 | 1.45 | 1.77 | 2.14 | 2.56 | 3.06 | 3.65 | 4.35 | 5.18 |
| 40 | 0.98 | 1.24 | 1.52 | 1.84 | 2.20 | 2.62 | 3.10 | 3.67 | 4.34 |
| 45 | 0.80 | 1.04 | 1.29 | 1.57 | 1.87 | 2.22 | 2.63 | 3.09 | 3.64 |
| 50 | 0.62 | 0.86 | 1.08 | 1.32 | 1.58 | 1.87 | 2.21 | 2.59 | 3.04 |
| 55 | -    | 0.68 | 0.88 | 1.09 | 1.31 | 1.55 | 1.83 | 2.15 | 2.52 |
| 60 | -    | 0.50 | 0.69 | 0.87 | 1.05 | 1.26 | 1.50 | 1.76 | 2.06 |

**Nominal performance at to = -10 °C, tc = 45 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 650 | W    |
| Power input         | 3 550 | W    |
| Current consumption | 5.49  | A    |
| Mass flow           | 236   | kg/h |
| C.O.P.              | 1.87  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 27.7 | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.3  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 83 | dB(A) |
| With acoustic hood | 77 | dB(A) |

Tolerance according EN12900

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 60 Hz, ARI rating conditions

## R404A

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |       |       |       |       |        |        |        |        |        |
|----|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 30 | 3 176 | 4 510 | 6 122 | 8 049 | 10 324 | 12 984 | 16 064 | 19 598 | 23 621 |
| 35 | 2 686 | 3 952 | 5 476 | 7 295 | 9 442  | 11 955 | 14 867 | 18 214 | 22 032 |
| 40 | 2 193 | 3 383 | 4 811 | 6 513 | 8 524  | 10 881 | 13 618 | 16 771 | 20 376 |
| 45 | 1 706 | 2 812 | 4 135 | 5 713 | 7 580  | 9 773  | 12 328 | 15 279 | 18 664 |
| 50 | 1 233 | 2 247 | 3 459 | 4 904 | 6 620  | 8 643  | 11 008 | 13 752 | 16 911 |
| 55 | -     | 1 698 | 2 790 | 4 097 | 5 655  | 7 501  | 9 673  | 12 205 | 15 135 |
| 60 | -     | 1 170 | 2 139 | 3 302 | 4 699  | 6 366  | 8 342  | 10 662 | 13 364 |

### Power input in W

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 2 082 | 2 416 | 2 707 | 2 953 | 3 153 | 3 308 | 3 415 | 3 474 | 3 483 |
| 35 | 2 041 | 2 424 | 2 765 | 3 062 | 3 314 | 3 521 | 3 682 | 3 796 | 3 861 |
| 40 | 1 964 | 2 398 | 2 791 | 3 141 | 3 448 | 3 710 | 3 927 | 4 098 | 4 222 |
| 45 | 1 846 | 2 333 | 2 781 | 3 186 | 3 550 | 3 870 | 4 145 | 4 376 | 4 560 |
| 50 | 1 682 | 2 225 | 2 729 | 3 193 | 3 615 | 3 995 | 4 332 | 4 624 | 4 871 |
| 55 | -     | 2 069 | 2 632 | 3 156 | 3 640 | 4 082 | 4 482 | 4 838 | 5 151 |
| 60 | -     | 1 861 | 2 485 | 3 072 | 3 619 | 4 126 | 4 591 | 5 014 | 5 394 |

### Current consumption in A

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 3.88 | 4.23 | 4.55 | 4.83 | 5.08 | 5.27 | 5.42 | 5.50 | 5.51 |
| 35 | 3.85 | 4.24 | 4.60 | 4.93 | 5.23 | 5.47 | 5.67 | 5.80 | 5.87 |
| 40 | 3.79 | 4.23 | 4.64 | 5.02 | 5.37 | 5.67 | 5.93 | 6.12 | 6.26 |
| 45 | 3.69 | 4.18 | 4.64 | 5.08 | 5.49 | 5.86 | 6.18 | 6.44 | 6.65 |
| 50 | 3.53 | 4.07 | 4.60 | 5.11 | 5.58 | 6.02 | 6.41 | 6.75 | 7.03 |
| 55 | -    | 3.91 | 4.51 | 5.08 | 5.63 | 6.14 | 6.61 | 7.03 | 7.39 |
| 60 | -    | 3.67 | 4.34 | 5.00 | 5.62 | 6.22 | 6.77 | 7.27 | 7.73 |

### Mass flow in kg/h

|    |    |     |     |     |     |     |     |     |     |
|----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 30 | 89 | 124 | 165 | 212 | 266 | 327 | 396 | 475 | 564 |
| 35 | 80 | 116 | 156 | 203 | 257 | 318 | 387 | 466 | 554 |
| 40 | 70 | 106 | 146 | 193 | 246 | 307 | 376 | 454 | 542 |
| 45 | 59 | 94  | 135 | 181 | 234 | 295 | 363 | 440 | 527 |
| 50 | 46 | 82  | 122 | 168 | 220 | 280 | 348 | 425 | 511 |
| 55 | -  | 67  | 107 | 153 | 205 | 264 | 331 | 407 | 492 |
| 60 | -  | 52  | 91  | 136 | 187 | 246 | 312 | 387 | 471 |

### Coefficient of performance (C.O.P.)

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.53 | 1.87 | 2.26 | 2.73 | 3.27 | 3.93 | 4.70 | 5.64 | 6.78 |
| 35 | 1.32 | 1.63 | 1.98 | 2.38 | 2.85 | 3.39 | 4.04 | 4.80 | 5.71 |
| 40 | 1.12 | 1.41 | 1.72 | 2.07 | 2.47 | 2.93 | 3.47 | 4.09 | 4.83 |
| 45 | 0.92 | 1.21 | 1.49 | 1.79 | 2.14 | 2.53 | 2.97 | 3.49 | 4.09 |
| 50 | 0.73 | 1.01 | 1.27 | 1.54 | 1.83 | 2.16 | 2.54 | 2.97 | 3.47 |
| 55 | -    | 0.82 | 1.06 | 1.30 | 1.55 | 1.84 | 2.16 | 2.52 | 2.94 |
| 60 | -    | 0.63 | 0.86 | 1.07 | 1.30 | 1.54 | 1.82 | 2.13 | 2.48 |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 7 580 | W    |
| Power input         | 3 550 | W    |
| Current consumption | 5.49  | A    |
| Mass flow           | 234   | kg/h |
| C.O.P.              | 2.14  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 27.7 | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.3  | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 83 | dB(A) |
| With acoustic hood | 77 | dB(A) |

Tolerance according EN12900

**Performance data at 60 Hz, EN 12900 rating conditions**
**R407A**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 30 | 2 001 | 3 021 | 4 287 | 5 833 | 7 694 | 9 905 | 12 501 | 15 517 | 18 989 |
| 35 | 1 707 | 2 681 | 3 884 | 5 351 | 7 117 | 9 217 | 11 686 | 14 559 | 17 871 |
| 40 | 1 403 | 2 324 | 3 458 | 4 840 | 6 505 | 8 488 | 10 824 | 13 548 | 16 695 |
| 45 | 1 098 | 1 960 | 3 019 | 4 310 | 5 868 | 7 727 | 9 924  | 12 492 | 15 468 |
| 50 | -     | 1 596 | 2 574 | 3 767 | 5 212 | 6 942 | 8 993  | 11 400 | 14 198 |
| 55 | -     | -     | 2 131 | 3 221 | 4 545 | 6 140 | 8 039  | 10 279 | 12 893 |
| 60 | -     | -     | -     | 2 678 | 3 877 | 5 330 | 7 071  | 9 136  | 11 561 |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 1 511 | 1 808 | 2 079 | 2 323 | 2 542 | 2 735 | 2 902 | 3 045 | 3 162 |
| 35 | 1 479 | 1 810 | 2 113 | 2 390 | 2 639 | 2 862 | 3 058 | 3 229 | 3 373 |
| 40 | 1 426 | 1 796 | 2 137 | 2 450 | 2 735 | 2 993 | 3 223 | 3 426 | 3 601 |
| 45 | 1 351 | 1 764 | 2 148 | 2 502 | 2 827 | 3 124 | 3 392 | 3 632 | 3 845 |
| 50 | -     | 1 712 | 2 142 | 2 543 | 2 913 | 3 254 | 3 565 | 3 847 | 4 100 |
| 55 | -     | -     | 2 118 | 2 569 | 2 990 | 3 379 | 3 738 | 4 066 | 4 365 |
| 60 | -     | -     | -     | 2 579 | 3 054 | 3 497 | 3 908 | 4 288 | 4 637 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 3.86 | 4.06 | 4.27 | 4.50 | 4.74 | 5.01 | 5.30 | 5.63 | 5.98 |
| 35 | 3.85 | 4.08 | 4.31 | 4.56 | 4.82 | 5.10 | 5.40 | 5.72 | 6.07 |
| 40 | 3.83 | 4.09 | 4.36 | 4.63 | 4.91 | 5.21 | 5.53 | 5.86 | 6.22 |
| 45 | 3.78 | 4.09 | 4.39 | 4.70 | 5.02 | 5.34 | 5.68 | 6.03 | 6.40 |
| 50 | -    | 4.06 | 4.41 | 4.76 | 5.12 | 5.48 | 5.84 | 6.22 | 6.61 |
| 55 | -    | -    | 4.39 | 4.80 | 5.20 | 5.60 | 6.01 | 6.42 | 6.84 |
| 60 | -    | -    | -    | 4.80 | 5.26 | 5.71 | 6.16 | 6.62 | 7.08 |

**Mass flow in kg/h**

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 30 | 48 | 71 | 98 | 131 | 170 | 215 | 267 | 327 | 395 |
| 35 | 43 | 66 | 94 | 127 | 165 | 210 | 262 | 322 | 389 |
| 40 | 37 | 61 | 88 | 121 | 159 | 204 | 256 | 315 | 382 |
| 45 | 31 | 54 | 82 | 114 | 152 | 197 | 248 | 307 | 374 |
| 50 | -  | 47 | 74 | 107 | 144 | 188 | 239 | 297 | 364 |
| 55 | -  | -  | 66 | 98  | 135 | 179 | 229 | 287 | 352 |
| 60 | -  | -  | -  | 89  | 125 | 168 | 217 | 274 | 339 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.32 | 1.67 | 2.06 | 2.51 | 3.03 | 3.62 | 4.31 | 5.10 | 6.00 |
| 35 | 1.15 | 1.48 | 1.84 | 2.24 | 2.70 | 3.22 | 3.82 | 4.51 | 5.30 |
| 40 | 0.98 | 1.29 | 1.62 | 1.98 | 2.38 | 2.84 | 3.36 | 3.96 | 4.64 |
| 45 | 0.81 | 1.11 | 1.41 | 1.72 | 2.08 | 2.47 | 2.93 | 3.44 | 4.02 |
| 50 | -    | 0.93 | 1.20 | 1.48 | 1.79 | 2.13 | 2.52 | 2.96 | 3.46 |
| 55 | -    | -    | 1.01 | 1.25 | 1.52 | 1.82 | 2.15 | 2.53 | 2.95 |
| 60 | -    | -    | -    | 1.04 | 1.27 | 1.52 | 1.81 | 2.13 | 2.49 |

**Nominal performance at to = -10 °C, tc = 45 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 5 868 | W    |
| Power input         | 2 827 | W    |
| Current consumption | 5.02  | A    |
| Mass flow           | 152   | kg/h |
| C.O.P.              | 2.08  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 25.8 | bar(g) |
| Minimum LP switch setting | 0.9  | bar(g) |
| LP pump down setting      | 1.2  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 82 | dB(A) |
| With acoustic hood | 76 | dB(A) |

Tolerance according EN12900



# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 60 Hz, ARI rating conditions

## R407A

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |       |       |       |       |       |        |        |        |        |
|----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 30 | 2 164 | 3 263 | 4 623 | 6 282 | 8 275 | 10 641 | 13 414 | 16 631 | 20 329 |
| 35 | 1 857 | 2 912 | 4 211 | 5 794 | 7 695 | 9 952  | 12 601 | 15 680 | 19 224 |
| 40 | 1 537 | 2 541 | 3 775 | 5 274 | 7 077 | 9 220  | 11 739 | 14 673 | 18 057 |
| 45 | 1 213 | 2 160 | 3 321 | 4 731 | 6 429 | 8 452  | 10 836 | 13 619 | 16 838 |
| 50 | -     | 1 776 | 2 857 | 4 173 | 5 760 | 7 657  | 9 900  | 12 527 | 15 575 |
| 55 | -     | -     | 2 393 | 3 607 | 5 078 | 6 843  | 8 940  | 11 406 | 14 278 |
| 60 | -     | -     | -     | 3 043 | 4 392 | 6 020  | 7 966  | 10 267 | 12 961 |

### Power input in W

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 1 511 | 1 808 | 2 079 | 2 323 | 2 542 | 2 735 | 2 902 | 3 045 | 3 162 |
| 35 | 1 479 | 1 810 | 2 113 | 2 390 | 2 639 | 2 862 | 3 058 | 3 229 | 3 373 |
| 40 | 1 426 | 1 796 | 2 137 | 2 450 | 2 735 | 2 993 | 3 223 | 3 426 | 3 601 |
| 45 | 1 351 | 1 764 | 2 148 | 2 502 | 2 827 | 3 124 | 3 392 | 3 632 | 3 845 |
| 50 | -     | 1 712 | 2 142 | 2 543 | 2 913 | 3 254 | 3 565 | 3 847 | 4 100 |
| 55 | -     | -     | 2 118 | 2 569 | 2 990 | 3 379 | 3 738 | 4 066 | 4 365 |
| 60 | -     | -     | -     | 2 579 | 3 054 | 3 497 | 3 908 | 4 288 | 4 637 |

### Current consumption in A

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 3.86 | 4.06 | 4.27 | 4.50 | 4.74 | 5.01 | 5.30 | 5.63 | 5.98 |
| 35 | 3.85 | 4.08 | 4.31 | 4.56 | 4.82 | 5.10 | 5.40 | 5.72 | 6.07 |
| 40 | 3.83 | 4.09 | 4.36 | 4.63 | 4.91 | 5.21 | 5.53 | 5.86 | 6.22 |
| 45 | 3.78 | 4.09 | 4.39 | 4.70 | 5.02 | 5.34 | 5.68 | 6.03 | 6.40 |
| 50 | -    | 4.06 | 4.41 | 4.76 | 5.12 | 5.48 | 5.84 | 6.22 | 6.61 |
| 55 | -    | -    | 4.39 | 4.80 | 5.20 | 5.60 | 6.01 | 6.42 | 6.84 |
| 60 | -    | -    | -    | 4.80 | 5.26 | 5.71 | 6.16 | 6.62 | 7.08 |

### Mass flow in kg/h

|    |    |    |    |     |     |     |     |     |     |
|----|----|----|----|-----|-----|-----|-----|-----|-----|
| 30 | 47 | 70 | 98 | 131 | 169 | 214 | 265 | 325 | 392 |
| 35 | 43 | 66 | 93 | 126 | 164 | 209 | 260 | 320 | 387 |
| 40 | 37 | 60 | 88 | 120 | 158 | 203 | 254 | 313 | 380 |
| 45 | 31 | 54 | 81 | 114 | 152 | 196 | 247 | 305 | 372 |
| 50 | -  | 47 | 74 | 106 | 144 | 187 | 238 | 296 | 362 |
| 55 | -  | -  | 66 | 97  | 135 | 178 | 228 | 285 | 350 |
| 60 | -  | -  | -  | 88  | 124 | 167 | 216 | 273 | 337 |

### Coefficient of performance (C.O.P.)

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.43 | 1.80 | 2.22 | 2.70 | 3.26 | 3.89 | 4.62 | 5.46 | 6.43 |
| 35 | 1.26 | 1.61 | 1.99 | 2.42 | 2.92 | 3.48 | 4.12 | 4.86 | 5.70 |
| 40 | 1.08 | 1.42 | 1.77 | 2.15 | 2.59 | 3.08 | 3.64 | 4.28 | 5.01 |
| 45 | 0.90 | 1.22 | 1.55 | 1.89 | 2.27 | 2.71 | 3.19 | 3.75 | 4.38 |
| 50 | -    | 1.04 | 1.33 | 1.64 | 1.98 | 2.35 | 2.78 | 3.26 | 3.80 |
| 55 | -    | -    | 1.13 | 1.40 | 1.70 | 2.03 | 2.39 | 2.80 | 3.27 |
| 60 | -    | -    | -    | 1.18 | 1.44 | 1.72 | 2.04 | 2.39 | 2.79 |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 429 | W    |
| Power input         | 2 827 | W    |
| Current consumption | 5.02  | A    |
| Mass flow           | 152   | kg/h |
| C.O.P.              | 2.27  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 25.8 | bar(g) |
| Minimum LP switch setting | 0.9  | bar(g) |
| LP pump down setting      | 1.2  | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 82 | dB(A) |
| With acoustic hood | 76 | dB(A) |

Tolerance according EN12900

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 60 Hz, EN 12900 rating conditions

# R407F

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |   |       |       |       |       |        |        |        |        |
|----|---|-------|-------|-------|-------|--------|--------|--------|--------|
| 30 | - | 3 285 | 4 703 | 6 440 | 8 538 | 11 040 | 13 989 | 17 428 | 21 398 |
| 35 | - | 2 838 | 4 142 | 5 735 | 7 661 | 9 962  | 12 681 | 15 860 | 19 542 |
| 40 | - | 2 447 | 3 657 | 5 127 | 6 900 | 9 020  | 11 528 | 14 467 | 17 879 |
| 45 | - | 2 097 | 3 232 | 4 598 | 6 238 | 8 195  | 10 511 | 13 229 | 16 392 |
| 50 | - | -     | 2 850 | 4 131 | 5 657 | 7 471  | 9 615  | 12 132 | 15 065 |
| 55 | - | -     | -     | 3 710 | 5 141 | 6 831  | 8 823  | 11 158 | 13 879 |
| 60 | - | -     | -     | -     | -     | -      | -      | -      | -      |

### Power input in W

|    |   |       |       |       |       |       |       |       |       |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 1 905 | 2 186 | 2 442 | 2 665 | 2 848 | 2 981 | 3 057 | 3 068 |
| 35 | - | 1 913 | 2 224 | 2 516 | 2 782 | 3 011 | 3 198 | 3 333 | 3 408 |
| 40 | - | 1 923 | 2 260 | 2 584 | 2 887 | 3 160 | 3 395 | 3 584 | 3 720 |
| 45 | - | 1 945 | 2 304 | 2 656 | 2 991 | 3 303 | 3 583 | 3 823 | 4 015 |
| 50 | - | -     | 2 367 | 2 742 | 3 107 | 3 453 | 3 774 | 4 060 | 4 303 |
| 55 | - | -     | -     | 2 854 | 3 243 | 3 620 | 3 977 | 4 305 | 4 596 |
| 60 | - | -     | -     | -     | -     | -     | -     | -     | -     |

### Current consumption in A

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 4.06 | 4.29 | 4.55 | 4.81 | 5.09 | 5.38 | 5.68 | 5.99 |
| 35 | - | 4.13 | 4.38 | 4.65 | 4.94 | 5.23 | 5.53 | 5.84 | 6.16 |
| 40 | - | 4.16 | 4.44 | 4.74 | 5.05 | 5.36 | 5.69 | 6.02 | 6.35 |
| 45 | - | 4.16 | 4.48 | 4.82 | 5.16 | 5.51 | 5.86 | 6.22 | 6.58 |
| 50 | - | -    | 4.52 | 4.90 | 5.28 | 5.67 | 6.06 | 6.46 | 6.85 |
| 55 | - | -    | -    | 4.99 | 5.43 | 5.87 | 6.31 | 6.75 | 7.18 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Mass flow in kg/h

|    |   |    |    |     |     |     |     |     |     |
|----|---|----|----|-----|-----|-----|-----|-----|-----|
| 30 | - | 68 | 96 | 129 | 169 | 215 | 269 | 332 | 403 |
| 35 | - | 62 | 88 | 121 | 158 | 203 | 255 | 315 | 383 |
| 40 | - | 56 | 82 | 113 | 150 | 193 | 243 | 301 | 367 |
| 45 | - | 51 | 76 | 107 | 143 | 185 | 233 | 290 | 354 |
| 50 | - | -  | 72 | 102 | 137 | 178 | 226 | 281 | 343 |
| 55 | - | -  | -  | 98  | 133 | 173 | 220 | 274 | 335 |
| 60 | - | -  | -  | -   | -   | -   | -   | -   | -   |

### Coefficient of performance (C.O.P.)

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 1.72 | 2.15 | 2.64 | 3.20 | 3.88 | 4.69 | 5.70 | 6.98 |
| 35 | - | 1.48 | 1.86 | 2.28 | 2.75 | 3.31 | 3.97 | 4.76 | 5.73 |
| 40 | - | 1.27 | 1.62 | 1.98 | 2.39 | 2.85 | 3.40 | 4.04 | 4.81 |
| 45 | - | 1.08 | 1.40 | 1.73 | 2.09 | 2.48 | 2.93 | 3.46 | 4.08 |
| 50 | - | -    | 1.20 | 1.51 | 1.82 | 2.16 | 2.55 | 2.99 | 3.50 |
| 55 | - | -    | -    | 1.30 | 1.59 | 1.89 | 2.22 | 2.59 | 3.02 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 238 | W    |
| Power input         | 2 991 | W    |
| Current consumption | 5.16  | A    |
| Mass flow           | 143   | kg/h |
| C.O.P.              | 2.09  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 24   | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.26 | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 82 | dB(A) |
| With acoustic hood | 76 | dB(A) |

Tolerance according EN12900

# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 60 Hz, ARI rating conditions

# R407F

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |     |     |    |   |   |    |
|---------------------------|------------------------------------|-----|-----|-----|-----|----|---|---|----|
|                           | -30                                | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |

### Cooling capacity in W

|    |   |       |       |       |       |        |        |        |        |
|----|---|-------|-------|-------|-------|--------|--------|--------|--------|
| 30 | - | 3 521 | 5 035 | 6 888 | 9 123 | 11 786 | 14 921 | 18 573 | 22 785 |
| 35 | - | 3 055 | 4 454 | 6 162 | 8 222 | 10 681 | 13 582 | 16 971 | 20 892 |
| 40 | - | 2 649 | 3 954 | 5 536 | 7 443 | 9 718  | 12 406 | 15 553 | 19 203 |
| 45 | - | 2 285 | 3 516 | 4 995 | 6 768 | 8 880  | 11 376 | 14 302 | 17 702 |
| 50 | - | -     | 3 124 | 4 521 | 6 182 | 8 153  | 10 478 | 13 204 | 16 375 |
| 55 | - | -     | -     | 4 098 | 5 670 | 7 521  | 9 698  | 12 246 | 15 212 |
| 60 | - | -     | -     | -     | -     | -      | -      | -      | -      |

### Power input in W

|    |   |       |       |       |       |       |       |       |       |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 1 905 | 2 186 | 2 442 | 2 665 | 2 848 | 2 981 | 3 057 | 3 068 |
| 35 | - | 1 913 | 2 224 | 2 516 | 2 782 | 3 011 | 3 198 | 3 333 | 3 408 |
| 40 | - | 1 923 | 2 260 | 2 584 | 2 887 | 3 160 | 3 395 | 3 584 | 3 720 |
| 45 | - | 1 945 | 2 304 | 2 656 | 2 991 | 3 303 | 3 583 | 3 823 | 4 015 |
| 50 | - | -     | 2 367 | 2 742 | 3 107 | 3 453 | 3 774 | 4 060 | 4 303 |
| 55 | - | -     | -     | 2 854 | 3 243 | 3 620 | 3 977 | 4 305 | 4 596 |
| 60 | - | -     | -     | -     | -     | -     | -     | -     | -     |

### Current consumption in A

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 4.06 | 4.29 | 4.55 | 4.81 | 5.09 | 5.38 | 5.68 | 5.99 |
| 35 | - | 4.13 | 4.38 | 4.65 | 4.94 | 5.23 | 5.53 | 5.84 | 6.16 |
| 40 | - | 4.16 | 4.44 | 4.74 | 5.05 | 5.36 | 5.69 | 6.02 | 6.35 |
| 45 | - | 4.16 | 4.48 | 4.82 | 5.16 | 5.51 | 5.86 | 6.22 | 6.58 |
| 50 | - | -    | 4.52 | 4.90 | 5.28 | 5.67 | 6.06 | 6.46 | 6.85 |
| 55 | - | -    | -    | 4.99 | 5.43 | 5.87 | 6.31 | 6.75 | 7.18 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Mass flow in kg/h

|    |   |    |    |     |     |     |     |     |     |
|----|---|----|----|-----|-----|-----|-----|-----|-----|
| 30 | - | 67 | 95 | 128 | 168 | 214 | 268 | 329 | 400 |
| 35 | - | 61 | 88 | 120 | 158 | 202 | 253 | 313 | 381 |
| 40 | - | 55 | 82 | 112 | 149 | 192 | 242 | 299 | 365 |
| 45 | - | 50 | 76 | 106 | 142 | 184 | 232 | 288 | 352 |
| 50 | - | -  | 71 | 101 | 136 | 177 | 224 | 279 | 341 |
| 55 | - | -  | -  | 97  | 132 | 172 | 219 | 272 | 333 |
| 60 | - | -  | -  | -   | -   | -   | -   | -   | -   |

### Coefficient of performance (C.O.P.)

|    |   |      |      |      |      |      |      |      |      |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 1.85 | 2.30 | 2.82 | 3.42 | 4.14 | 5.00 | 6.07 | 7.43 |
| 35 | - | 1.60 | 2.00 | 2.45 | 2.96 | 3.55 | 4.25 | 5.09 | 6.13 |
| 40 | - | 1.38 | 1.75 | 2.14 | 2.58 | 3.08 | 3.65 | 4.34 | 5.16 |
| 45 | - | 1.17 | 1.53 | 1.88 | 2.26 | 2.69 | 3.17 | 3.74 | 4.41 |
| 50 | - | -    | 1.32 | 1.65 | 1.99 | 2.36 | 2.78 | 3.25 | 3.81 |
| 55 | - | -    | -    | 1.44 | 1.75 | 2.08 | 2.44 | 2.84 | 3.31 |
| 60 | - | -    | -    | -    | -    | -    | -    | -    | -    |

### Nominal performance at to = -10 °C, tc = 45 °C

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 6 768 | W    |
| Power input         | 2 991 | W    |
| Current consumption | 5.16  | A    |
| Mass flow           | 142   | kg/h |
| C.O.P.              | 2.26  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 24   | bar(g) |
| Minimum LP switch setting | 1    | bar(g) |
| LP pump down setting      | 1.26 | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 82 | dB(A) |
| With acoustic hood | 76 | dB(A) |

Tolerance according EN12900

**Performance data at 60 Hz, EN 12900 rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |       |        |        |        |
|----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 35 | 1 606 | 2 315 | 4 360 | 5 780 | 7 521 | 9 625 | 12 136 | 15 094 | 18 543 |
| 40 | 1 366 | 2 030 | 3 928 | 5 246 | 6 866 | 8 831 | 11 182 | 13 963 | 17 215 |
| 45 | 1 133 | 1 755 | 3 511 | 4 730 | 6 231 | 8 058 | 10 253 | 12 859 | 15 916 |
| 50 | 907   | 1 489 | 3 109 | 4 230 | 5 616 | 7 308 | 9 349  | 11 781 | 14 646 |
| 55 | -     | -     | 2 720 | 3 747 | 5 020 | 6 579 | 8 469  | 10 730 | 13 406 |
| 60 | -     | -     | -     | 3 282 | 4 443 | 5 872 | 7 613  | 9 706  | 12 195 |
| 65 | -     | -     | -     | -     | 3 885 | 5 187 | 6 780  | 8 708  | 11 012 |
| 75 | -     | -     | -     | -     | -     | -     | 5 187  | 6 791  | 8 733  |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 1 064 | 1 307 | 1 702 | 1 855 | 1 977 | 2 069 | 2 132 | 2 164 | 2 166 |
| 40 | 1 018 | 1 295 | 1 754 | 1 937 | 2 089 | 2 209 | 2 298 | 2 356 | 2 383 |
| 45 | 949   | 1 263 | 1 793 | 2 009 | 2 194 | 2 345 | 2 465 | 2 551 | 2 606 |
| 50 | 853   | 1 207 | 1 815 | 2 068 | 2 288 | 2 474 | 2 627 | 2 746 | 2 831 |
| 55 | -     | -     | 1 815 | 2 109 | 2 367 | 2 591 | 2 781 | 2 935 | 3 055 |
| 60 | -     | -     | -     | 2 127 | 2 428 | 2 693 | 2 923 | 3 116 | 3 273 |
| 65 | -     | -     | -     | -     | 2 467 | 2 776 | 3 049 | 3 284 | 3 482 |
| 75 | -     | -     | -     | -     | -     | -     | 3 237 | 3 566 | 3 855 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.58 | 3.82 | 4.16 | 4.28 | 4.37 | 4.43 | 4.49 | 4.53 | 4.58 |
| 40 | 3.54 | 3.81 | 4.20 | 4.34 | 4.44 | 4.53 | 4.60 | 4.67 | 4.73 |
| 45 | 3.48 | 3.78 | 4.23 | 4.39 | 4.53 | 4.64 | 4.74 | 4.83 | 4.91 |
| 50 | 3.38 | 3.72 | 4.24 | 4.44 | 4.61 | 4.76 | 4.89 | 5.01 | 5.12 |
| 55 | -    | -    | 4.24 | 4.48 | 4.69 | 4.87 | 5.04 | 5.19 | 5.34 |
| 60 | -    | -    | -    | 4.49 | 4.74 | 4.97 | 5.18 | 5.38 | 5.57 |
| 65 | -    | -    | -    | -    | 4.77 | 5.05 | 5.31 | 5.56 | 5.80 |
| 75 | -    | -    | -    | -    | -    | -    | 5.48 | 5.85 | 6.20 |

**Mass flow in kg/h**

|    |    |    |     |     |     |     |     |     |     |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 35 | 41 | 58 | 104 | 134 | 171 | 214 | 266 | 325 | 394 |
| 40 | 37 | 53 | 98  | 128 | 164 | 206 | 256 | 315 | 382 |
| 45 | 32 | 49 | 93  | 122 | 157 | 198 | 247 | 304 | 370 |
| 50 | 28 | 44 | 87  | 115 | 150 | 190 | 238 | 294 | 358 |
| 55 | -  | -  | 81  | 109 | 142 | 182 | 228 | 283 | 346 |
| 60 | -  | -  | -   | 102 | 134 | 173 | 219 | 272 | 334 |
| 65 | -  | -  | -   | -   | 126 | 164 | 209 | 261 | 322 |
| 75 | -  | -  | -   | -   | -   | -   | 188 | 238 | 296 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.51 | 1.77 | 2.56 | 3.12 | 3.80 | 4.65 | 5.69 | 6.98 | 8.56 |
| 40 | 1.34 | 1.57 | 2.24 | 2.71 | 3.29 | 4.00 | 4.87 | 5.93 | 7.22 |
| 45 | 1.19 | 1.39 | 1.96 | 2.35 | 2.84 | 3.44 | 4.16 | 5.04 | 6.11 |
| 50 | 1.06 | 1.23 | 1.71 | 2.05 | 2.45 | 2.95 | 3.56 | 4.29 | 5.17 |
| 55 | -    | -    | 1.50 | 1.78 | 2.12 | 2.54 | 3.05 | 3.66 | 4.39 |
| 60 | -    | -    | -    | 1.54 | 1.83 | 2.18 | 2.60 | 3.11 | 3.73 |
| 65 | -    | -    | -    | -    | 1.57 | 1.87 | 2.22 | 2.65 | 3.16 |
| 75 | -    | -    | -    | -    | -    | -    | 1.60 | 1.90 | 2.27 |

**Nominal performance at to = 5 °C, tc = 50 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 7 308 | W    |
| Power input         | 2 474 | W    |
| Current consumption | 4.76  | A    |
| Mass flow           | 190   | kg/h |
| C.O.P.              | 2.95  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                     |   |       |
|---------------------|---|-------|
| Sound power level   | 0 | dB(A) |
| With accoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

Tolerance according EN12900

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**Performance data at 60 Hz, ARI rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |     |    |   |   |    |    |    |
|---------------------------|------------------------------------|-----|-----|----|---|---|----|----|----|
|                           | -25                                | -20 | -10 | -5 | 0 | 5 | 10 | 15 | 20 |

**Cooling capacity in W**

|    |       |       |       |       |       |        |        |        |        |
|----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 35 | 1 746 | 2 512 | 4 714 | 6 239 | 8 106 | 10 359 | 13 042 | 16 199 | 19 874 |
| 40 | 1 493 | 2 215 | 4 270 | 5 692 | 7 437 | 9 549  | 12 072 | 15 051 | 18 530 |
| 45 | 1 247 | 1 927 | 3 839 | 5 161 | 6 786 | 8 760  | 11 127 | 13 931 | 17 215 |
| 50 | -     | 1 648 | 3 423 | 4 647 | 6 155 | 7 993  | 10 206 | 12 836 | 15 930 |
| 55 | -     | -     | 3 019 | 4 148 | 5 543 | 7 248  | 9 309  | 11 769 | 14 675 |
| 60 | -     | -     | -     | 3 666 | 4 949 | 6 524  | 8 436  | 10 730 | 13 450 |
| 65 | -     | -     | -     | -     | -     | 5 822  | 7 588  | 9 718  | 12 257 |
| 75 | -     | -     | -     | -     | -     | -      | 5 969  | 7 783  | 9 972  |

**Power input in W**

|    |       |       |       |       |       |       |       |       |       |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 35 | 1 064 | 1 307 | 1 702 | 1 855 | 1 977 | 2 069 | 2 132 | 2 164 | 2 166 |
| 40 | 1 018 | 1 295 | 1 754 | 1 937 | 2 089 | 2 209 | 2 298 | 2 356 | 2 383 |
| 45 | 949   | 1 263 | 1 793 | 2 009 | 2 194 | 2 345 | 2 465 | 2 551 | 2 606 |
| 50 | -     | 1 207 | 1 815 | 2 068 | 2 288 | 2 474 | 2 627 | 2 746 | 2 831 |
| 55 | -     | -     | 1 815 | 2 109 | 2 367 | 2 591 | 2 781 | 2 935 | 3 055 |
| 60 | -     | -     | -     | 2 127 | 2 428 | 2 693 | 2 923 | 3 116 | 3 273 |
| 65 | -     | -     | -     | -     | -     | 2 776 | 3 049 | 3 284 | 3 482 |
| 75 | -     | -     | -     | -     | -     | -     | 3 237 | 3 566 | 3 855 |

**Current consumption in A**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 3.58 | 3.82 | 4.16 | 4.28 | 4.37 | 4.43 | 4.49 | 4.53 | 4.58 |
| 40 | 3.54 | 3.81 | 4.20 | 4.34 | 4.44 | 4.53 | 4.60 | 4.67 | 4.73 |
| 45 | 3.48 | 3.78 | 4.23 | 4.39 | 4.53 | 4.64 | 4.74 | 4.83 | 4.91 |
| 50 | -    | 3.72 | 4.24 | 4.44 | 4.61 | 4.76 | 4.89 | 5.01 | 5.12 |
| 55 | -    | -    | 4.24 | 4.48 | 4.69 | 4.87 | 5.04 | 5.19 | 5.34 |
| 60 | -    | -    | -    | 4.49 | 4.74 | 4.97 | 5.18 | 5.38 | 5.57 |
| 65 | -    | -    | -    | -    | -    | 5.05 | 5.31 | 5.56 | 5.80 |
| 75 | -    | -    | -    | -    | -    | -    | 5.48 | 5.85 | 6.20 |

**Mass flow in kg/h**

|    |    |    |     |     |     |     |     |     |     |
|----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 35 | 40 | 57 | 103 | 134 | 170 | 213 | 264 | 323 | 391 |
| 40 | 36 | 53 | 98  | 128 | 163 | 205 | 255 | 313 | 380 |
| 45 | 32 | 49 | 92  | 121 | 156 | 197 | 246 | 302 | 368 |
| 50 | -  | 44 | 87  | 115 | 149 | 189 | 237 | 292 | 356 |
| 55 | -  | -  | 81  | 108 | 141 | 181 | 227 | 281 | 344 |
| 60 | -  | -  | -   | 101 | 134 | 172 | 217 | 270 | 332 |
| 65 | -  | -  | -   | -   | -   | 163 | 208 | 259 | 320 |
| 75 | -  | -  | -   | -   | -   | -   | 187 | 237 | 294 |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |      |      |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.64 | 1.92 | 2.77 | 3.36 | 4.10 | 5.01 | 6.12 | 7.49 | 9.18 |
| 40 | 1.47 | 1.71 | 2.43 | 2.94 | 3.56 | 4.32 | 5.25 | 6.39 | 7.78 |
| 45 | 1.31 | 1.53 | 2.14 | 2.57 | 3.09 | 3.74 | 4.51 | 5.46 | 6.61 |
| 50 | -    | 1.37 | 1.89 | 2.25 | 2.69 | 3.23 | 3.89 | 4.67 | 5.63 |
| 55 | -    | -    | 1.66 | 1.97 | 2.34 | 2.80 | 3.35 | 4.01 | 4.80 |
| 60 | -    | -    | -    | 1.72 | 2.04 | 2.42 | 2.89 | 3.44 | 4.11 |
| 65 | -    | -    | -    | -    | -    | 2.10 | 2.49 | 2.96 | 3.52 |
| 75 | -    | -    | -    | -    | -    | -    | 1.84 | 2.18 | 2.59 |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |       |      |
|---------------------|-------|------|
| Cooling capacity    | 8 204 | W    |
| Power input         | 2 664 | W    |
| Current consumption | 4.93  | A    |
| Mass flow           | 201   | kg/h |
| C.O.P.              | 3.08  |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.2 | bar(g) |
| Minimum LP switch setting | 0.1  | bar(g) |
| LP pump down setting      | 0.4  | bar(g) |

**Sound power data**

|                    |   |       |
|--------------------|---|-------|
| Sound power level  | 0 | dB(A) |
| With acoustic hood | 0 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Tolerance according EN12900

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# Datasheet, performance data

# Maneurop reciprocating compressor. MTZ044-4

## Performance data at 60 Hz, EN 12900 rating conditions

## R407C

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

### Cooling capacity in W

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 5 313 | 7 086 | 9 182 | 11 641 | 14 506 | 17 818 | 21 617 | - | - |
| 40 | 4 754 | 6 457 | 8 465 | 10 821 | 13 564 | 16 735 | 20 377 | - | - |
| 45 | 4 167 | 5 787 | 7 697 | 9 935  | 12 544 | 15 565 | 19 037 | - | - |
| 50 | -     | 5 090 | 6 888 | 8 998  | 11 461 | 14 318 | 17 608 | - | - |
| 55 | -     | -     | 6 052 | 8 022  | 10 327 | 13 007 | 16 103 | - | - |
| 60 | -     | -     | -     | 7 019  | 9 154  | 11 645 | 14 534 | - | - |
| 65 | -     | -     | -     | 6 002  | 7 953  | 10 243 | 12 911 | - | - |

### Power input in W

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 2 396 | 2 653 | 2 856 | 3 013 | 3 132 | 3 219 | 3 284 | - | - |
| 40 | 2 460 | 2 781 | 3 041 | 3 246 | 3 403 | 3 522 | 3 610 | - | - |
| 45 | 2 474 | 2 871 | 3 198 | 3 462 | 3 671 | 3 833 | 3 955 | - | - |
| 50 | -     | 2 911 | 3 316 | 3 651 | 3 922 | 4 138 | 4 307 | - | - |
| 55 | -     | -     | 3 385 | 3 802 | 4 147 | 4 429 | 4 655 | - | - |
| 60 | -     | -     | -     | 3 903 | 4 333 | 4 693 | 4 988 | - | - |
| 65 | -     | -     | -     | 3 943 | 4 471 | 4 918 | 5 294 | - | - |

### Current consumption in A

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.26 | 4.52 | 4.75 | 4.93 | 5.07 | 5.17 | 5.23 | - | - |
| 40 | 4.34 | 4.66 | 4.94 | 5.17 | 5.36 | 5.50 | 5.59 | - | - |
| 45 | 4.37 | 4.77 | 5.12 | 5.41 | 5.66 | 5.85 | 5.98 | - | - |
| 50 | -    | 4.82 | 5.26 | 5.63 | 5.95 | 6.21 | 6.40 | - | - |
| 55 | -    | -    | 5.34 | 5.81 | 6.22 | 6.56 | 6.83 | - | - |
| 60 | -    | -    | -    | 5.94 | 6.45 | 6.89 | 7.25 | - | - |
| 65 | -    | -    | -    | 6.00 | 6.62 | 7.17 | 7.64 | - | - |

### Mass flow in kg/h

|    |     |     |     |     |     |     |     |   |   |
|----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 115 | 151 | 193 | 241 | 295 | 358 | 428 | - | - |
| 40 | 108 | 145 | 187 | 235 | 289 | 352 | 423 | - | - |
| 45 | 100 | 137 | 179 | 227 | 282 | 344 | 415 | - | - |
| 50 | -   | 128 | 169 | 217 | 272 | 334 | 405 | - | - |
| 55 | -   | -   | 158 | 206 | 260 | 322 | 392 | - | - |
| 60 | -   | -   | -   | 193 | 247 | 308 | 378 | - | - |
| 65 | -   | -   | -   | 178 | 232 | 292 | 361 | - | - |

### Coefficient of performance (C.O.P.)

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.22 | 2.67 | 3.21 | 3.86 | 4.63 | 5.53 | 6.58 | - | - |
| 40 | 1.93 | 2.32 | 2.78 | 3.33 | 3.99 | 4.75 | 5.64 | - | - |
| 45 | 1.68 | 2.02 | 2.41 | 2.87 | 3.42 | 4.06 | 4.81 | - | - |
| 50 | -    | 1.75 | 2.08 | 2.46 | 2.92 | 3.46 | 4.09 | - | - |
| 55 | -    | -    | 1.79 | 2.11 | 2.49 | 2.94 | 3.46 | - | - |
| 60 | -    | -    | -    | 1.80 | 2.11 | 2.48 | 2.91 | - | - |
| 65 | -    | -    | -    | 1.52 | 1.78 | 2.08 | 2.44 | - | - |

### Nominal performance at to = 5 °C, tc = 50 °C

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 11 461 | W    |
| Power input         | 3 922  | W    |
| Current consumption | 5.95   | A    |
| Mass flow           | 272    | kg/h |
| C.O.P.              | 2.92   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 87 | dB(A) |
| With acoustic hood | 81 | dB(A) |

Tolerance according EN12900

**Performance data at 60 Hz, ARI rating conditions**
**R407C**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 5 718 | 7 617 | 9 859 | 12 486 | 15 542 | 19 070 | 23 113 | - | - |
| 40 | 5 145 | 6 978 | 9 137 | 11 664 | 14 604 | 17 998 | 21 890 | - | - |
| 45 | 4 538 | 6 294 | 8 357 | 10 773 | 13 584 | 16 832 | 20 562 | - | - |
| 50 | -     | 5 575 | 7 533 | 9 825  | 12 495 | 15 586 | 19 141 | - | - |
| 55 | -     | -     | 6 675 | 8 832  | 11 349 | 14 271 | 17 641 | - | - |
| 60 | -     | -     | -     | 7 807  | 10 160 | 12 901 | 16 072 | - | - |
| 65 | -     | -     | -     | 6 763  | 8 940  | 11 488 | 14 449 | - | - |

**Power input in W**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 2 396 | 2 653 | 2 856 | 3 013 | 3 132 | 3 219 | 3 284 | - | - |
| 40 | 2 460 | 2 781 | 3 041 | 3 246 | 3 403 | 3 522 | 3 610 | - | - |
| 45 | 2 474 | 2 871 | 3 198 | 3 462 | 3 671 | 3 833 | 3 955 | - | - |
| 50 | -     | 2 911 | 3 316 | 3 651 | 3 922 | 4 138 | 4 307 | - | - |
| 55 | -     | -     | 3 385 | 3 802 | 4 147 | 4 429 | 4 655 | - | - |
| 60 | -     | -     | -     | 3 903 | 4 333 | 4 693 | 4 988 | - | - |
| 65 | -     | -     | -     | 3 943 | 4 471 | 4 918 | 5 294 | - | - |

**Current consumption in A**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 4.26 | 4.52 | 4.75 | 4.93 | 5.07 | 5.17 | 5.23 | - | - |
| 40 | 4.34 | 4.66 | 4.94 | 5.17 | 5.36 | 5.50 | 5.59 | - | - |
| 45 | 4.37 | 4.77 | 5.12 | 5.41 | 5.66 | 5.85 | 5.98 | - | - |
| 50 | -    | 4.82 | 5.26 | 5.63 | 5.95 | 6.21 | 6.40 | - | - |
| 55 | -    | -    | 5.34 | 5.81 | 6.22 | 6.56 | 6.83 | - | - |
| 60 | -    | -    | -    | 5.94 | 6.45 | 6.89 | 7.25 | - | - |
| 65 | -    | -    | -    | 6.00 | 6.62 | 7.17 | 7.64 | - | - |

**Mass flow in kg/h**

|    |     |     |     |     |     |     |     |   |   |
|----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 115 | 150 | 192 | 239 | 294 | 355 | 426 | - | - |
| 40 | 108 | 144 | 186 | 233 | 288 | 350 | 420 | - | - |
| 45 | 100 | 136 | 178 | 225 | 280 | 342 | 412 | - | - |
| 50 | -   | 127 | 168 | 216 | 270 | 332 | 402 | - | - |
| 55 | -   | -   | 158 | 205 | 259 | 320 | 390 | - | - |
| 60 | -   | -   | -   | 192 | 246 | 307 | 376 | - | - |
| 65 | -   | -   | -   | 177 | 230 | 291 | 359 | - | - |

**Coefficient of performance (C.O.P.)**

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.39 | 2.87 | 3.45 | 4.14 | 4.96 | 5.92 | 7.04 | - | - |
| 40 | 2.09 | 2.51 | 3.00 | 3.59 | 4.29 | 5.11 | 6.06 | - | - |
| 45 | 1.83 | 2.19 | 2.61 | 3.11 | 3.70 | 4.39 | 5.20 | - | - |
| 50 | -    | 1.92 | 2.27 | 2.69 | 3.19 | 3.77 | 4.44 | - | - |
| 55 | -    | -    | 1.97 | 2.32 | 2.74 | 3.22 | 3.79 | - | - |
| 60 | -    | -    | -    | 2.00 | 2.34 | 2.75 | 3.22 | - | - |
| 65 | -    | -    | -    | 1.72 | 2.00 | 2.34 | 2.73 | - | - |

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 12 732 | W    |
| Power input         | 4 249  | W    |
| Current consumption | 6.34   | A    |
| Mass flow           | 287    | kg/h |
| C.O.P.              | 3.00   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 1.4  | bar(g) |
| LP pump down setting      | 1.7  | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 87 | dB(A) |
| With acoustic hood | 81 | dB(A) |

Tolerance according EN12900

