ENGINEERING TOMORROW



Datasheets

# Danfoss Reciprocating compressors MT / MTZ / NTZ





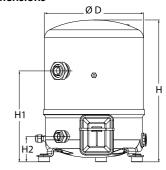


#### Datasheet, technical data

## **General Characteristics**

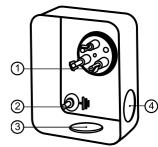
| Model number (on compressor nameplate)                         |                       | MTZ56HL4BVE                                 |  |  |
|--|-----------------------|---|--|--|
| Code number for Singlepack*                                    |                       | MTZ56-4VI                                   |  |  |
| Code number for Industrial pack**                              |                       | MTZ56-4VM                                   |  |  |
| 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   | 96.13 c               | m3/rev                                      |  |  |
| Displacement @ Nominal speed                                   | 16.7 m3/h @ 2900 rpm  | 16.7 m3/h @ 2900 rpm - 20.2 m3/h @ 3500 rpm |  |  |
| Net weight   | 39 kg                 |   |  |  |
| Oil charge   | 1.8 litre, P0         | DE - 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                              | 1                     | 2   |  |  |
| Refrigerant charge limit                                       | 5                     | kg  |  |  |
| Approved refrigerants R404A, R134a, R407C, R407A/F, R448A, R44 |                       |   |  |  |

#### **Dimensions**



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

#### **Terminal box**



# 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℃ | 2.39 Ω                              |
| Maximum Continuous Current (MCC)                  | 12 A                                |
| Locked Rotor Amps (LRA)                           | 64 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)

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")





#### Datasheet, accessories and spare parts

## Maneurop reciprocating compressor, MTZ056-4

| 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  | Gaskets, sleeves and nuts               |
| Gasket, 1-3/4"  | 8156132  |   |
| 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  | 1 2 3                                   |
| Rotolock accessories, sets                                | Code no. | 1: Gasket                               |
| Angle adapter set, C07 (1-3/4"~7/8"), C04 (1-1/4"~3/4")   | 7703013  | 2: Solder sleeve                        |
| Valve set, V07 (1-3/4"~7/8"), V04 (1-1/4"~3/4")           | 7703006  | 3: Rotolock nut                         |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white | 8156009  |   |
| Oil / lubricants  | Code no. |   |
| POE lubricant, 175PZ, 1 litre can                         | 120Z0638 |   |
| POE lubricant, 175PZ, 2.5 litre can                       | 120Z0639 |   |
| Crankcase heaters   | Code no. | Mounting kit                            |
| PTC heater 27W,CE mark, UL                                | 120Z0459 |   |
| Belt type crankcase heater, 65 W, 230 V, CE mark, UL      | 7773107  | 1                                       |
| Belt type crankcase heater, 65 W, 400 V, CE mark, UL      | 7773117  | 2                                       |
| Belt type crankcase heater, 65 W, 460 V, CE mark, UL      | 120Z0466 | J 3                                     |
| Miscellaneous accessories                                 | Code no. | 4                                       |
| Electronic soft start kit, MCI 15 C                       | 7705006  |   |
| Acoustic hood for 2 cylinder compressor                   | 120Z0472 |   |
| Oil equalisation nut                                      | 8153127  | 6—————————————————————————————————————— |

| Spare parts   |  |
|---|--|
| Mounting hit for 1 and 2 cylinder compressor, including 2 growmats, 2 holts |  |

| Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts | 8156001 | 1: Bolt (3x)       |
|---|---------|--------------------|
| Oil sight glass with gaskets (black & white)                                | 8156019 | 2: Lock washer (3  |
| Gasket for oil sight glass (black chloroprene)                              | 8156145 | 3: Flat washer (3: |
| Service kit for terminal box 80 x 96 mm, including 1 cover, 1 clamp         | 8156134 | 4: Sleeve (3x)     |
|   |         | 5: Grommet (3x)    |

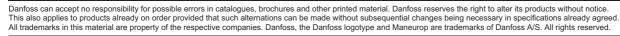
Code no.

(3x)

(3x)

x)

6: Nut (3x)







## Maneurop reciprocating compressor. MTZ056-4

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

**R407C** 

| Cond. temp. in   |                 |       |       | Evapora | ting temperature | in °C (to) |        |   |     |
|------------------|-----------------|-------|-------|---------|------------------|------------|--------|---|-----|
| °C (tc)          | -15             | -10   | -5    | 0       | 5                | 10         | 15     |   |     |
|                  |                 | •     | •     | •       |                  |            |        |   | l . |
| Cooling capacit  | ty in W         |       |       |         |                  |            |        |   |     |
| 35               | 5 227           | 7 074 | 9 303 | 11 962  | 15 099           | 18 762     | 23 001 | - | -   |
| 40               | 4 691           | 6 432 | 8 527 | 11 023  | 13 968           | 17 412     | 21 402 | - | -   |
| 45               | 4 153           | 5 787 | 7 745 | 10 076  | 12 828           | 16 050     | 19 789 | - | -   |
| 50               | -               | 5 141 | 6 961 | 9 125   | 11 682           | 14 680     | 18 167 | - | -   |
| 55               | -               | -     | 6 179 | 8 174   | 10 534           | 13 306     | 16 539 | - | -   |
| 60               | -               | -     | -     | 7 226   | 9 387            | 11 931     | 14 908 | - | -   |
| 65               | -               | -     | -     | 6 285   | 8 245            | 10 560     | 13 278 | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Power input in   | w               |       |       |         |                  |            |        |   |     |
| 35               | 2 398           | 2 677 | 2 912 | 3 111   | 3 281            | 3 430      | 3 564  | - | -   |
| 40               | 2 469           | 2 803 | 3 086 | 3 324   | 3 525            | 3 697      | 3 846  | - | -   |
| 45               | 2 502           | 2 902 | 3 243 | 3 531   | 3 775            | 3 981      | 4 157  | - | -   |
| 50               | -               | 2 965 | 3 375 | 3 725   | 4 022            | 4 273      | 4 487  | - | -   |
| 55               | -               | -     | 3 472 | 3 894   | 4 256            | 4 565      | 4 827  | - | -   |
| 60               | -               | -     | -     | 4 032   | 4 469            | 4 846      | 5 168  | - | -   |
| 65               | -               | -     | -     | 4 127   | 4 652            | 5 107      | 5 500  | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Current consur   | nption in A     |       |       |         |                  |            |        |   |     |
| 35               | 5.55            | 5.83  | 6.11  | 6.37    | 6.61             | 6.81       | 6.96   | - | -   |
| 40               | 5.63            | 5.96  | 6.28  | 6.59    | 6.86             | 7.09       | 7.26   | - | -   |
| 45               | 5.69            | 6.08  | 6.46  | 6.82    | 7.14             | 7.42       | 7.64   | - | -   |
| 50               | -               | 6.17  | 6.63  | 7.06    | 7.45             | 7.79       | 8.07   | - | -   |
| 55               | -               | -     | 6.77  | 7.29    | 7.76             | 8.18       | 8.54   | - | -   |
| 60               | -               | -     | -     | 7.48    | 8.06             | 8.57       | 9.02   | - | -   |
| 65               | -               | -     | -     | 7.62    | 8.31             | 8.94       | 9.50   | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Mass flow in kg  | ı/h             |       |       |         |                  |            |        |   | _   |
| 35               | 113             | 151   | 195   | 247     | 307              | 377        | 456    | - | -   |
| 40               | 107             | 144   | 188   | 239     | 298              | 366        | 444    | - | -   |
| 45               | 100             | 137   | 180   | 230     | 288              | 355        | 431    | - | -   |
| 50               | -               | 129   | 171   | 220     | 277              | 343        | 418    | - | -   |
| 55               | -               | -     | 162   | 210     | 266              | 330        | 403    | - | -   |
| 60               | -               | -     | -     | 199     | 253              | 316        | 388    | - | -   |
| 65               | -               | -     | -     | 187     | 240              | 301        | 371    | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Coefficient of p | erformance (C.O | .P.)  | •     | •       | 1                |            | ,      |   | 1   |
| 35               | 2.18            | 2.64  | 3.19  | 3.84    | 4.60             | 5.47       | 6.45   | - | -   |
| 40               | 1.90            | 2.29  | 2.76  | 3.32    | 3.96             | 4.71       | 5.56   | - | -   |
| 45               | 1.66            | 1.99  | 2.39  | 2.85    | 3.40             | 4.03       | 4.76   | - | -   |
| 50               | -               | 1.73  | 2.06  | 2.45    | 2.90             | 3.44       | 4.05   | - | -   |
| 55               | -               | -     | 1.78  | 2.10    | 2.47             | 2.92       | 3.43   | - | -   |
| 60               | -               | -     | -     | 1.79    | 2.10             | 2.46       | 2.88   | - | -   |
| 65               | _               | _     | _     | 1.52    | 1.77             | 2.07       | 2.41   | _ | _   |

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

| Cooling capacity    | 11 682 | W    |
|---------------------|--------|------|
| Power input         | 4 022  | W    |
| Current consumption | 7.45   | Α    |
| Mass flow           | 277    | kg/h |
| C.O.P.              | 2.90   |      |

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) | ı |
|---------------------------|------|--------|---|
| Minimum LP switch setting | 1.4  | bar(g) | ı |
| LP pump down setting      | 1.7  | bar(g) |   |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

**R407C** 

| Cond. temp. in     |                |       |       | Evapora | ating temperature | in °C (to) |        |   |   |
|--------------------|----------------|-------|-------|---------|-------------------|------------|--------|---|---|
| °C (tc)            | -15            | -10   | -5    | 0       | 5                 | 10         | 15     |   |   |
|                    |                | 1     | •     | •       | •                 |            | 1      |   |   |
| Cooling capacity   | in W           |       |       |         |                   |            |        |   |   |
| 35                 | 5 626          | 7 605 | 9 990 | 12 830  | 16 177            | 20 081     | 24 592 | - | - |
| 40                 | 5 076          | 6 952 | 9 203 | 11 882  | 15 039            | 18 725     | 22 990 | - | - |
| 45                 | 4 523          | 6 293 | 8 410 | 10 925  | 13 891            | 17 357     | 21 375 | - | - |
| 50                 | -              | 5 631 | 7 612 | 9 963   | 12 735            | 15 980     | 19 749 | - | - |
| 55                 | -              | -     | 6 815 | 8 999   | 11 577            | 14 599     | 18 118 | - | - |
| 60                 | -              | -     | -     | 8 038   | 10 419            | 13 218     | 16 486 | - | - |
| 65                 | -              | -     | -     | 7 083   | 9 268             | 11 843     | 14 861 | - | - |
|                    |                |       |       |         |                   |            |        |   |   |
| Power input in W   |                |       | 1     | T       | T                 | 1          |        | I | 1 |
| 35                 | 2 398          | 2 677 | 2 912 | 3 111   | 3 281             | 3 430      | 3 564  | - | - |
| 40                 | 2 469          | 2 803 | 3 086 | 3 324   | 3 525             | 3 697      | 3 846  | - | - |
| 45                 | 2 502          | 2 902 | 3 243 | 3 531   | 3 775             | 3 981      | 4 157  | - | - |
| 50                 | -              | 2 965 | 3 375 | 3 725   | 4 022             | 4 273      | 4 487  | - | - |
| 55                 | -              | -     | 3 472 | 3 894   | 4 256             | 4 565      | 4 827  | - | - |
| 60                 | -              | -     | -     | 4 032   | 4 469             | 4 846      | 5 168  | - | - |
| 65                 | -              | -     | -     | 4 127   | 4 652             | 5 107      | 5 500  | - | - |
| Current consum     | otion in A     |       |       |         |                   |            |        |   |   |
| 35                 | 5.55           | 5.83  | 6.11  | 6.37    | 6.61              | 6.81       | 6.96   | - | - |
| 40                 | 5.63           | 5.96  | 6.28  | 6.59    | 6.86              | 7.09       | 7.26   | - | - |
| 45                 | 5.69           | 6.08  | 6.46  | 6.82    | 7.14              | 7.42       | 7.64   | - | - |
| 50                 | -              | 6.17  | 6.63  | 7.06    | 7.45              | 7.79       | 8.07   | - | - |
| 55                 | -              | -     | 6.77  | 7.29    | 7.76              | 8.18       | 8.54   | - | - |
| 60                 | -              | -     | -     | 7.48    | 8.06              | 8.57       | 9.02   | - | - |
| 65                 | -              | -     | -     | 7.62    | 8.31              | 8.94       | 9.50   | - | - |
| /lass flow in kg/l | _              |       |       |         |                   |            |        |   |   |
| 35                 | 113            | 150   | 194   | 246     | 306               | 374        | 453    | - | _ |
| 40                 | 106            | 143   | 187   | 238     | 296               | 364        | 441    | _ | _ |
| 45                 | 100            | 136   | 179   | 229     | 286               | 353        | 428    | - | _ |
| 50                 | -              | 128   | 170   | 219     | 276               | 341        | 415    | _ | _ |
| 55                 |                | -     | 161   | 209     | 264               | 328        | 401    | - | _ |
| 60                 | _              | _     | -     | 198     | 252               | 314        | 385    | - | _ |
| 65                 | -              | _     | _     | 186     | 239               | 300        | 369    | - | _ |
|                    |                | I.    | 1     | 1       | 1                 | 1          |        | I | l |
| Coefficient of pe  | rformance (C.C | ).P.) | •     |         |                   |            |        |   |   |
| 35                 | 2.35           | 2.84  | 3.43  | 4.12    | 4.93              | 5.85       | 6.90   | - | - |
| 40                 | 2.06           | 2.48  | 2.98  | 3.57    | 4.27              | 5.07       | 5.98   | - | - |
| 45                 | 1.81           | 2.17  | 2.59  | 3.09    | 3.68              | 4.36       | 5.14   | - | - |
| 50                 | -              | 1.90  | 2.26  | 2.67    | 3.17              | 3.74       | 4.40   | - | - |
| 55                 | -              | -     | 1.96  | 2.31    | 2.72              | 3.20       | 3.75   | - | - |
| 60                 | -              | -     | -     | 1.99    | 2.33              | 2.73       | 3.19   | - | - |
|                    |                |       |       | 1.72    | 1.99              | 2.32       | 2.70   |   |   |

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

| Cooling capacity    | 12 999 | W    |
|---------------------|--------|------|
| Power input         | 4 367  | W    |
| Current consumption | 7.91   | Α    |
| Mass flow           | 293    | kg/h |
| C.O.P.              | 2.98   |      |

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) |
| L | LP pump down setting      | 1.7  | bar(g) |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

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

R134a

| Cond. temp. in         | Evaporating temperature in °C (to) |       |       |       |       |          |        |          |        |  |
|------------------------|------------------------------------|-------|-------|-------|-------|----------|--------|----------|--------|--|
| °C (tc)                | -25                                | -20   | -10   | -5    | 0     | 5        | 10     | 15       | 20     |  |
| Caaling aspesits       | . in 14/                           |       |       |       |       |          |        |          |        |  |
| Cooling capacity<br>35 | 1 645                              | 2 349 | 4 415 | 5 878 | 7 694 | 9 914    | 12 588 | 15 766   | 19 498 |  |
| 40                     | 1 392                              | 2 043 | 3 958 | 5 322 | 7 025 | 9 115    | 11 645 | 14 663   | 18 220 |  |
| 45                     | 1 163                              | 1 761 | 3 526 | 4 792 | 6 381 | 8 343    | 10 728 | 13 587   | 16 969 |  |
| 50                     | 957                                | 1 504 | 3 119 | 4 287 | 5 763 | 7 597    | 9 838  | 12 538   | 15 746 |  |
| 55                     | -                                  | -     | 2 738 | 3 809 | 5 172 | 6 878    | 8 976  | 11 517   | 14 552 |  |
| 60                     | -                                  | -     | -     | 3 358 | 4 609 | 6 187    | 8 142  | 10 526   | 13 386 |  |
| 65                     | -                                  | -     | -     | -     | 4 073 | 5 524    | 7 338  | 9 563    | 12 251 |  |
| 75                     | -                                  | _     | _     | _     | -     | -        | 5 818  | 7 729    | 10 073 |  |
|                        |                                    |       |       |       | I.    | <u> </u> |        | <u> </u> |        |  |
| Power input in W       |                                    | T     | T     | 1     | 1     | 1        |        | 1        | 1      |  |
| 35                     | 1 191                              | 1 419 | 1 828 | 2 002 | 2 152 | 2 276    | 2 370  | 2 432    | 2 458  |  |
| 40                     | 1 148                              | 1 396 | 1 848 | 2 046 | 2 222 | 2 372    | 2 494  | 2 585    | 2 642  |  |
| 45                     | 1 109                              | 1 380 | 1 882 | 2 107 | 2 311 | 2 491    | 2 645  | 2 768    | 2 859  |  |
| 50                     | 1 064                              | 1 361 | 1 919 | 2 175 | 2 411 | 2 624    | 2 812  | 2 972    | 3 100  |  |
| 55                     | -                                  | -     | 1 950 | 2 240 | 2 511 | 2 760    | 2 986  | 3 185    | 3 354  |  |
| 60                     | -                                  | -     | -     | 2 292 | 2 601 | 2 890    | 3 157  | 3 398    | 3 611  |  |
| 65                     | -                                  | -     | -     | -     | 2 672 | 3 005    | 3 316  | 3 602    | 3 862  |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 3 555  | 3 943    | 4 306  |  |
| Current consum         | ption in A                         |       |       |       |       |          |        |          |        |  |
| 35                     | 5.20                               | 5.16  | 5.25  | 5.36  | 5.48  | 5.61     | 5.73   | 5.83     | 5.89   |  |
| 40                     | 5.18                               | 5.15  | 5.27  | 5.39  | 5.53  | 5.68     | 5.82   | 5.93     | 6.01   |  |
| 45                     | 5.15                               | 5.15  | 5.31  | 5.45  | 5.62  | 5.79     | 5.95   | 6.09     | 6.20   |  |
| 50                     | 5.11                               | 5.13  | 5.36  | 5.53  | 5.73  | 5.93     | 6.13   | 6.30     | 6.44   |  |
| 55                     | -                                  | -     | 5.39  | 5.60  | 5.84  | 6.08     | 6.32   | 6.54     | 6.72   |  |
| 60                     | -                                  | -     | -     | 5.66  | 5.94  | 6.24     | 6.53   | 6.80     | 7.03   |  |
| 65                     | -                                  | -     | -     | -     | 6.03  | 6.38     | 6.73   | 7.05     | 7.35   |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 7.04   | 7.52     | 7.96   |  |
|                        |                                    |       |       |       |       |          |        |          |        |  |
| Mass flow in kg/       |                                    | T     | T     |       |       | T        |        | 1        | I      |  |
| 35                     | 41                                 | 59    | 105   | 137   | 175   | 221      | 275    | 339      | 414    |  |
| 40                     | 37                                 | 54    | 99    | 130   | 168   | 213      | 267    | 330      | 404    |  |
| 45                     | 33                                 | 49    | 93    | 123   | 160   | 205      | 259    | 321      | 395    |  |
| 50                     | 29                                 | 44    | 87    | 117   | 153   | 197      | 250    | 313      | 386    |  |
| 55                     | -                                  | -     | 81    | 110   | 146   | 190      | 242    | 304      | 376    |  |
| 60                     | -                                  | -     | -     | 104   | 139   | 182      | 234    | 295      | 367    |  |
| 65                     | -                                  | -     | -     | -     | 133   | 175      | 226    | 287      | 358    |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 211    | 271      | 341    |  |
| Coefficient of pe      | rformance (C.O                     | ).P.) |       |       |       |          |        |          |        |  |
| 35                     | 1.38                               | 1.66  | 2.42  | 2.94  | 3.57  | 4.36     | 5.31   | 6.48     | 7.93   |  |
| 40                     | 1.21                               | 1.46  | 2.14  | 2.60  | 3.16  | 3.84     | 4.67   | 5.67     | 6.90   |  |
| 45                     | 1.05                               | 1.28  | 1.87  | 2.27  | 2.76  | 3.35     | 4.06   | 4.91     | 5.93   |  |
| 50                     | 0.90                               | 1.11  | 1.63  | 1.97  | 2.39  | 2.89     | 3.50   | 4.22     | 5.08   |  |
| 55                     | -                                  | -     | 1.40  | 1.70  | 2.06  | 2.49     | 3.01   | 3.62     | 4.34   |  |
| 60                     | -                                  | -     | -     | 1.47  | 1.77  | 2.14     | 2.58   | 3.10     | 3.71   |  |
| 65                     | -                                  | -     | -     | -     | 1.52  | 1.84     | 2.21   | 2.65     | 3.17   |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 1.64   | 1.96     | 2.34   |  |

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

| Cooling capacity    | 7 597 | W    |
|---------------------|-------|------|
| Power input         | 2 624 | W    |
| Current consumption | 5.93  | Α    |
| Mass flow           | 197   | kg/h |
| C.O.P.              | 2.89  |      |

to: Evaporating temperature at dew point

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

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 



## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

R134a

| Cond. temp. in         | Evaporating temperature in °C (to) |       |       |       |       |          |        |          |        |  |
|------------------------|------------------------------------|-------|-------|-------|-------|----------|--------|----------|--------|--|
| °C (tc)                | -25                                | -20   | -10   | -5    | 0     | 5        | 10     | 15       | 20     |  |
| Cooling canacity       | in W                               |       |       |       |       |          |        |          |        |  |
| Cooling capacity<br>35 | 1 788                              | 2 548 | 4 774 | 6 345 | 8 293 | 10 670   | 13 528 | 16 920   | 20 898 |  |
| 40                     | 1 522                              | 2 229 | 4 302 | 5 775 | 7 608 | 9 857    | 12 572 | 15 806   | 19 612 |  |
| 45                     | 1 280                              | 1 934 | 3 855 | 5 229 | 6 949 | 9 069    | 11 642 | 14 719   | 18 354 |  |
| 50                     | -                                  | 1 664 | 3 434 | 4 709 | 6 317 | 8 309    | 10 740 | 13 661   | 17 126 |  |
| 55                     | _                                  | -     | 3 039 | 4 216 | 5 711 | 7 577    | 9 866  | 12 633   | 15 929 |  |
| 60                     | -                                  | _     | -     | 3 751 | 5 134 | 6 874    | 9 023  | 11 636   | 14 764 |  |
| 65                     | -                                  | _     | _     | -     | -     | 6 201    | 8 212  | 10 672   | 13 636 |  |
| 75                     | -                                  | _     | _     | _     | _     | -        | 6 694  | 8 859    | 11 502 |  |
|                        |                                    | l     |       |       | I.    | <u> </u> |        |          |        |  |
| Power input in W       |                                    |       |       | T     | 1     | 1        |        | 1        | 1      |  |
| 35                     | 1 191                              | 1 419 | 1 828 | 2 002 | 2 152 | 2 276    | 2 370  | 2 432    | 2 458  |  |
| 40                     | 1 148                              | 1 396 | 1 848 | 2 046 | 2 222 | 2 372    | 2 494  | 2 585    | 2 642  |  |
| 45                     | 1 109                              | 1 380 | 1 882 | 2 107 | 2 311 | 2 491    | 2 645  | 2 768    | 2 859  |  |
| 50                     | -                                  | 1 361 | 1 919 | 2 175 | 2 411 | 2 624    | 2 812  | 2 972    | 3 100  |  |
| 55                     | -                                  | -     | 1 950 | 2 240 | 2 511 | 2 760    | 2 986  | 3 185    | 3 354  |  |
| 60                     | -                                  | -     | -     | 2 292 | 2 601 | 2 890    | 3 157  | 3 398    | 3 611  |  |
| 65                     | -                                  | -     | -     | -     | -     | 3 005    | 3 316  | 3 602    | 3 862  |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 3 555  | 3 943    | 4 306  |  |
| Current consum         | otion in A                         |       |       |       |       |          |        |          |        |  |
| 35                     | 5.20                               | 5.16  | 5.25  | 5.36  | 5.48  | 5.61     | 5.73   | 5.83     | 5.89   |  |
| 40                     | 5.18                               | 5.15  | 5.27  | 5.39  | 5.53  | 5.68     | 5.82   | 5.93     | 6.01   |  |
| 45                     | 5.15                               | 5.15  | 5.31  | 5.45  | 5.62  | 5.79     | 5.95   | 6.09     | 6.20   |  |
| 50                     | -                                  | 5.13  | 5.36  | 5.53  | 5.73  | 5.93     | 6.13   | 6.30     | 6.44   |  |
| 55                     | -                                  | -     | 5.39  | 5.60  | 5.84  | 6.08     | 6.32   | 6.54     | 6.72   |  |
| 60                     | -                                  | -     | -     | 5.66  | 5.94  | 6.24     | 6.53   | 6.80     | 7.03   |  |
| 65                     | -                                  | -     | -     | -     | -     | 6.38     | 6.73   | 7.05     | 7.35   |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 7.04   | 7.52     | 7.96   |  |
|                        |                                    |       |       |       |       |          |        |          |        |  |
| Mass flow in kg/l      |                                    |       | 105   | 100   | 1     | 1 000    |        | 1 007    |        |  |
| 35                     | 41                                 | 58    | 105   | 136   | 174   | 220      | 274    | 337      | 411    |  |
| 40                     | 37                                 | 53    | 99    | 129   | 167   | 212      | 265    | 329      | 402    |  |
| 45                     | 33                                 | 49    | 93    | 123   | 160   | 204      | 257    | 320      | 393    |  |
| 50                     | -                                  | 44    | 87    | 116   | 152   | 196      | 249    | 311      | 383    |  |
| 55                     | -                                  | -     | 81    | 110   | 145   | 189      | 241    | 302      | 374    |  |
| 60                     | -                                  | -     | -     | 104   | 139   | 181      | 233    | 293      | 365    |  |
| 65                     | -                                  | -     | -     | -     | -     | 174      | 225    | 285      | 356    |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 210    | 269      | 339    |  |
| Coefficient of pe      | rformance (C.C                     | ).P.) | 1     |       | 1     | ı        | _      | <b>.</b> | 1      |  |
| 35                     | 1.50                               | 1.80  | 2.61  | 3.17  | 3.85  | 4.69     | 5.71   | 6.96     | 8.50   |  |
| 40                     | 1.33                               | 1.60  | 2.33  | 2.82  | 3.42  | 4.16     | 5.04   | 6.11     | 7.42   |  |
| 45                     | 1.15                               | 1.40  | 2.05  | 2.48  | 3.01  | 3.64     | 4.40   | 5.32     | 6.42   |  |
| 50                     | -                                  | 1.22  | 1.79  | 2.17  | 2.62  | 3.17     | 3.82   | 4.60     | 5.52   |  |
| 55                     | -                                  | -     | 1.56  | 1.88  | 2.27  | 2.74     | 3.30   | 3.97     | 4.75   |  |
| 60                     | -                                  | -     | -     | 1.64  | 1.97  | 2.38     | 2.86   | 3.42     | 4.09   |  |
| 65                     | -                                  | -     | -     | -     | -     | 2.06     | 2.48   | 2.96     | 3.53   |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 1.88   | 2.25     | 2.67   |  |

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

| Cooling capacity    | 8 622 | W    |  |
|---------------------|-------|------|--|
| Power input         | 2 845 | W    |  |
| Current consumption | 6.17  | Α    |  |
| Mass flow           | 211   | kg/h |  |
| C.O.P.              | 3.03  |      |  |

to: Evaporating temperature at dew point

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

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point



## Maneurop reciprocating compressor. MTZ056-4

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

**R404A** 

| Cond. temp. in   |                 |              |              | Evapora      | ating temperature | in °C (to)   |              |              |              |
|------------------|-----------------|--------------|--------------|--------------|-------------------|--------------|--------------|--------------|--------------|
| °C (tc)          | -30             | -25          | -20          | -15          | -10               | -5           | 0            | 5            | 10           |
|                  |                 |              |              |              | _                 |              |              |              |              |
| Cooling capacity |                 |              |              | T            |                   |              |              | T            |              |
| 30               | 2 833           | 4 001        | 5 466        | 7 268        | 9 449             | 12 051       | 15 115       | 18 682       | 22 794       |
| 35               | 2 439           | 3 509        | 4 849        | 6 498        | 8 499             | 10 893       | 13 722       | 17 026       | 20 847       |
| 40               | 2 074           | 3 049        | 4 266        | 5 765        | 7 588             | 9 776        | 12 371       | 15 415       | 18 948       |
| 45               | 1 734           | 2 616        | 3 712        | 5 062        | 6 709             | 8 694        | 11 058       | 13 843       | 17 090       |
| 50               | 1 414           | 2 205        | 3 182        | 4 386        | 5 859             | 7 643        | 9 778        | 12 306       | 15 268       |
| 55               | -               | 1 810        | 2 670        | 3 730        | 5 032             | 6 616        | 8 524        | 10 798       | 13 478       |
| 60               | -               | 1 426        | 2 172        | 3 090        | 4 222             | 5 609        | 7 293        | 9 314        | 11 714       |
| Power input in V | W               |              |              |              |                   |              |              |              |              |
| 30               | 2 050           | 2 351        | 2 635        | 2 896        | 3 130             | 3 334        | 3 503        | 3 632        | 3 718        |
| 35               | 2 058           | 2 386        | 2 697        | 2 988        | 3 254             | 3 491        | 3 694        | 3 860        | 3 983        |
| 40               | 2 055           | 2 413        | 2 757        | 3 082        | 3 383             | 3 657        | 3 898        | 4 104        | 4 269        |
| 45               | 2 038           | 2 431        | 2 810        | 3 173        | 3 513             | 3 827        | 4 112        | 4 361        | 4 572        |
| 50               | 2 002           | 2 433        | 2 853        | 3 256        | 3 640             | 3 999        | 4 329        | 4 626        | 4 886        |
| 55               | -               | 2 417        | 2 880        | 3 329        | 3 759             | 4 167        | 4 547        | 4 896        | 5 209        |
| 60               | -               | 2 377        | 2 888        | 3 386        | 3 867             | 4 327        | 4 761        | 5 165        | 5 535        |
| Current consum   |                 | 1            | 1            | 1            | 1                 | 1            | I            | 1            | T            |
| 30               | 5.22            | 5.51         | 5.81         | 6.11         | 6.40              | 6.66         | 6.87         | 7.02         | 7.09         |
| 35               | 5.23            | 5.54         | 5.87         | 6.21         | 6.53              | 6.83         | 7.09         | 7.29         | 7.42         |
| 40               | 5.23            | 5.57         | 5.93         | 6.31         | 6.68              | 7.03         | 7.34         | 7.60         | 7.79         |
| 45               | 5.21            | 5.58         | 5.99         | 6.41         | 6.83              | 7.23         | 7.61         | 7.93         | 8.19         |
| 50               | 5.17            | 5.58         | 6.04         | 6.51         | 6.99              | 7.45         | 7.89         | 8.28         | 8.62         |
| 55               | -               | 5.57         | 6.07         | 6.60         | 7.14              | 7.68         | 8.18         | 8.65         | 9.07         |
| 60               | -               | 5.53         | 6.09         | 6.69         | 7.30              | 7.90         | 8.49         | 9.04         | 9.54         |
| Mass flow in kg  | /h              |              |              |              |                   |              |              |              |              |
| 30               | 89              | 123          | 164          | 212          | 269               | 336          | 412          | 500          | 600          |
| 35               | 83              | 116          | 156          | 203          | 258               | 323          | 398          | 484          | 582          |
| 40               | 76              | 109          | 148          | 194          | 248               | 311          | 384          | 468          | 564          |
| 45               | 70              | 102          | 140          | 185          | 238               | 300          | 371          | 453          | 547          |
| 50               | 63              | 95           | 132          | 176          | 228               | 288          | 358          | 439          | 530          |
| 55               | -               | 88           | 124          | 167          | 218               | 277          | 346          | 424          | 514          |
| 60               | -               | 81           | 117          | 159          | 209               | 267          | 334          | 411          | 499          |
| Coefficient of n | erformance (C.O | (.P.)        |              |              |                   |              |              |              |              |
| 30               | 1.38            | 1.70         | 2.07         | 2.51         | 3.02              | 3.61         | 4.32         | 5.14         | 6.13         |
| 35               | 1.19            | 1.47         | 1.80         | 2.17         | 2.61              | 3.12         | 3.71         | 4.41         | 5.23         |
| 40               | 1.01            | 1.26         | 1.55         | 1.87         | 2.24              | 2.67         | 3.17         | 3.76         | 4.44         |
|                  |                 | 1.08         | 1.32         | 1.60         | 1.91              | 2.27         | 2.69         | 3.17         | 3.74         |
|                  | 0.85            |              |              |              | ·                 | +            | +            | +            | 1            |
| 45               |                 | 1            | 1.12         | 1.35         | 1.61              | 1.91         | 2.26         | 2.66         | 3 12         |
|                  | 0.85<br>0.71    | 0.91<br>0.75 | 1.12<br>0.93 | 1.35<br>1.12 | 1.61<br>1.34      | 1.91<br>1.59 | 2.26<br>1.87 | 2.66<br>2.21 | 3.12<br>2.59 |

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

| Cooling capacity    | 6 709 | W    |
|---------------------|-------|------|
| Power input         | 3 513 | W    |
| Current consumption | 6.83  | Α    |
| Mass flow           | 238   | kg/h |
| C.O.P.              | 1.91  |      |

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 settin  | g 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   | 81 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 74 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

**R404A** 

| Cond. temp. in   |                 |       |       | Evapora | iting temperature | in °C (to) |        |        |        |
|------------------|-----------------|-------|-------|---------|-------------------|------------|--------|--------|--------|
| °C (tc)          | -30             | -25   | -20   | -15     | -10               | -5         | 0      | 5      | 10     |
|                  |                 |       |       |         |                   |            |        |        |        |
| Cooling capacit  |                 |       |       | T       | Т                 | Т          |        |        |        |
| 30               | 3 154           | 4 442 | 6 052 | 8 028   | 10 413            | 13 252     | 16 587 | 20 461 | 24 918 |
| 35               | 2 744           | 3 936 | 5 422 | 7 246   | 9 452             | 12 084     | 15 185 | 18 800 | 22 971 |
| 40               | 2 364           | 3 463 | 4 827 | 6 502   | 8 531             | 10 960     | 13 831 | 17 189 | 21 077 |
| 45               | 2 010           | 3 018 | 4 264 | 5 792   | 7 648             | 9 876      | 12 520 | 15 625 | 19 235 |
| 50               | 1 675           | 2 597 | 3 727 | 5 113   | 6 798             | 8 830      | 11 252 | 14 109 | 17 445 |
| 55               | -               | 2 193 | 3 213 | 4 460   | 5 981             | 7 822      | 10 027 | 12 643 | 15 714 |
| 60               | -               | 1 803 | 2 720 | 3 836   | 5 200             | 6 858      | 8 857  | 11 243 | 14 062 |
| Power input in \ | N               |       |       |         |                   |            |        |        |        |
| 30               | 2 050           | 2 351 | 2 635 | 2 896   | 3 130             | 3 334      | 3 503  | 3 632  | 3 718  |
| 35               | 2 058           | 2 386 | 2 697 | 2 988   | 3 254             | 3 491      | 3 694  | 3 860  | 3 983  |
| 40               | 2 055           | 2 413 | 2 757 | 3 082   | 3 383             | 3 657      | 3 898  | 4 104  | 4 269  |
| 45               | 2 038           | 2 431 | 2 810 | 3 173   | 3 513             | 3 827      | 4 112  | 4 361  | 4 572  |
| 50               | 2 002           | 2 433 | 2 853 | 3 256   | 3 640             | 3 999      | 4 329  | 4 626  | 4 886  |
| 55               | -               | 2 417 | 2 880 | 3 329   | 3 759             | 4 167      | 4 547  | 4 896  | 5 209  |
| 60               | -               | 2 377 | 2 888 | 3 386   | 3 867             | 4 327      | 4 761  | 5 165  | 5 535  |
| Current consum   | -               | 1     | 1     | ı       | 1                 | T          | 1      | 1      | 1      |
| 30               | 5.22            | 5.51  | 5.81  | 6.11    | 6.40              | 6.66       | 6.87   | 7.02   | 7.09   |
| 35               | 5.23            | 5.54  | 5.87  | 6.21    | 6.53              | 6.83       | 7.09   | 7.29   | 7.42   |
| 40               | 5.23            | 5.57  | 5.93  | 6.31    | 6.68              | 7.03       | 7.34   | 7.60   | 7.79   |
| 45               | 5.21            | 5.58  | 5.99  | 6.41    | 6.83              | 7.23       | 7.61   | 7.93   | 8.19   |
| 50               | 5.17            | 5.58  | 6.04  | 6.51    | 6.99              | 7.45       | 7.89   | 8.28   | 8.62   |
| 55               | -               | 5.57  | 6.07  | 6.60    | 7.14              | 7.68       | 8.18   | 8.65   | 9.07   |
| 60               | -               | 5.53  | 6.09  | 6.69    | 7.30              | 7.90       | 8.49   | 9.04   | 9.54   |
| Mass flow in kg  | /h              |       |       |         |                   |            |        |        |        |
| 30               | 89              | 122   | 163   | 211     | 268               | 334        | 410    | 497    | 596    |
| 35               | 82              | 115   | 155   | 202     | 257               | 321        | 395    | 481    | 578    |
| 40               | 76              | 108   | 147   | 193     | 246               | 309        | 382    | 465    | 560    |
| 45               | 69              | 101   | 139   | 184     | 236               | 298        | 369    | 450    | 543    |
| 50               | 63              | 94    | 131   | 175     | 227               | 287        | 356    | 436    | 527    |
| 55               | -               | 87    | 124   | 166     | 217               | 276        | 344    | 422    | 511    |
| 60               | -               | 80    | 116   | 158     | 207               | 265        | 331    | 408    | 495    |
| Coefficient of n | erformance (C.C | ) P ) |       |         |                   |            |        |        |        |
| 30               | 1.54            | 1.89  | 2.30  | 2.77    | 3.33              | 3.97       | 4.74   | 5.63   | 6.70   |
| 35               | 1.33            | 1.65  | 2.01  | 2.42    | 2.90              | 3.46       | 4.11   | 4.87   | 5.77   |
| 40               | 1.15            | 1.43  | 1.75  | 2.11    | 2.52              | 3.00       | 3.55   | 4.19   | 4.94   |
| 45               | 0.99            | 1.24  | 1.52  | 1.83    | 2.18              | 2.58       | 3.05   | 3.58   | 4.21   |
| 50               | 0.84            | 1.07  | 1.31  | 1.57    | 1.87              | 2.21       | 2.60   | 3.05   | 3.57   |
|                  |                 |       |       |         |                   |            | +      |        | 1      |
| 55               | -               | 0.91  | 1.12  | 1.34    | 1.59              | 1.88       | 2.21   | 2.58   | 3.02   |

| Nominal performance at to = -10 °C, tc = 45 °C | 3 |
|--|---|
|--|---|

| Cooling capacity    | 7 648 | W    |
|---------------------|-------|------|
| Power input         | 3 513 | W    |
| Current consumption | 6.83  | Α    |
| Mass flow           | 236   | kg/h |
| C.O.P.              | 2.18  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

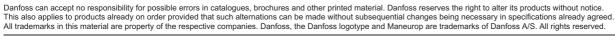
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

| 27.7 | bar(g) |
|------|--------|
| 1    | bar(g) |
| 1.3  | bar(g) |
|      | 1      |

Sound power data

| Sou | ınd power level  | 81 | dB(A) |
|-----|------------------|----|-------|
| Wit | h accoustic hood | 74 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

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

**R407A** 

| Cond. temp. in      |                |         |       | Evapora        | ting temperature | in °C (to)     |                |                 |                  |
|---------------------|----------------|---------|-------|----------------|------------------|----------------|----------------|-----------------|------------------|
| °C (tc)             | -30            | -25     | -20   | -15            | -10              | -5             | 0              | 5               | 10               |
|                     |                |         |       |                |                  |                |                |                 |                  |
| Cooling capacity 30 | 2 094          | 3 177   | 4 537 | 6 214          | 8 247            | 10 676         | 13 541         | 16 882          | 20 738           |
| 35                  | 1 772          | 2 785   | 4 055 | 5 623          | 7 528            | 9 810          | 12 509         | 15 663          | 19 314           |
| 40                  | 1 461          | 2 403   | 3 583 | 5 041          | 6 817            | 8 951          | 12 509         | 14 449          | 17 893           |
| 45                  | 1 164          | 2 034   | 3 123 | 4 471          | 6 117            | 8 101          | 10 463         | 13 242          | 16 479           |
| 50                  | -              | 1 683   | 1     |                | 5 430            |                | 9 456          | +               |                  |
| 55                  | -              | - 1 083 | 2 680 | 3 915          |                  | 7 264<br>6 443 |                | 12 047          | 15 075<br>13 684 |
| 60                  | <u> </u>       | -       | 2 255 | 3 378<br>2 863 | 4 761            | 5 642          | 8 465<br>7 492 | 10 865<br>9 701 | 12 309           |
| 60                  | -              | -       | -     | 2 803          | 4 113            | 5 042          | 7 492          | 9 /01           | 12 309           |
| Power input in W    | ı              |         |       |                |                  |                | _              |                 |                  |
| 30                  | 1 569          | 1 880   | 2 174 | 2 447          | 2 692            | 2 905          | 3 082          | 3 216           | 3 304            |
| 35                  | 1 540          | 1 880   | 2 205 | 2 511          | 2 793            | 3 046          | 3 264          | 3 444           | 3 579            |
| 40                  | 1 495          | 1 866   | 2 225 | 2 568          | 2 890            | 3 184          | 3 448          | 3 675           | 3 862            |
| 45                  | 1 433          | 1 839   | 2 235 | 2 617          | 2 981            | 3 321          | 3 633          | 3 911           | 4 150            |
| 50                  | -              | 1 798   | 2 234 | 2 659          | 3 068            | 3 456          | 3 818          | 4 150           | 4 446            |
| 55                  | -              | -       | 2 223 | 2 693          | 3 150            | 3 589          | 4 005          | 4 393           | 4 748            |
| 60                  | -              | -       | -     | 2 720          | 3 228            | 3 720          | 4 193          | 4 640           | 5 057            |
| Current consum      |                | _       | 1     | Γ              | T                |                | •              | _               | T                |
| 30                  | 4.67           | 4.95    | 5.26  | 5.56           | 5.86             | 6.12           | 6.34           | 6.51            | 6.59             |
| 35                  | 4.67           | 4.96    | 5.28  | 5.61           | 5.94             | 6.25           | 6.52           | 6.74            | 6.89             |
| 40                  | 4.66           | 4.97    | 5.31  | 5.67           | 6.03             | 6.39           | 6.72           | 7.01            | 7.23             |
| 45                  | 4.64           | 4.96    | 5.33  | 5.73           | 6.14             | 6.55           | 6.94           | 7.30            | 7.60             |
| 50                  | -              | 4.94    | 5.35  | 5.79           | 6.25             | 6.72           | 7.18           | 7.61            | 8.00             |
| 55                  | -              | -       | 5.34  | 5.83           | 6.35             | 6.89           | 7.42           | 7.93            | 8.42             |
| 60                  | -              | -       | -     | 5.86           | 6.44             | 7.04           | 7.66           | 8.26            | 8.84             |
| Mass flow in kg/l   | h              |         |       |                |                  |                |                |                 |                  |
| 30                  | 50             | 74      | 104   | 140            | 182              | 232            | 289            | 355             | 431              |
| 35                  | 44             | 69      | 98    | 133            | 175              | 224            | 280            | 346             | 421              |
| 40                  | 39             | 63      | 91    | 126            | 167              | 215            | 271            | 336             | 410              |
| 45                  | 33             | 56      | 85    | 118            | 159              | 206            | 262            | 325             | 398              |
| 50                  | -              | 50      | 78    | 111            | 150              | 197            | 251            | 314             | 386              |
| 55                  | -              | -       | 70    | 103            | 142              | 188            | 241            | 303             | 374              |
| 60                  | -              | -       | -     | 95             | 133              | 178            | 230            | 291             | 361              |
| Coefficient of pe   | rformance (C.C | D.P.)   |       |                |                  |                |                |                 |                  |
| 30                  | 1.34           | 1.69    | 2.09  | 2.54           | 3.06             | 3.67           | 4.39           | 5.25            | 6.28             |
| 35                  | 1.15           | 1.48    | 1.84  | 2.24           | 2.70             | 3.22           | 3.83           | 4.55            | 5.40             |
| 40                  | 0.98           | 1.29    | 1.61  | 1.96           | 2.36             | 2.81           | 3.33           | 3.93            | 4.63             |
| 45                  | 0.81           | 1.11    | 1.40  | 1.71           | 2.05             | 2.44           | 2.88           | 3.39            | 3.97             |
| 50                  | -              | 0.94    | 1.20  | 1.47           | 1.77             | 2.10           | 2.48           | 2.90            | 3.39             |
|                     |                | †       | 1.01  | 1.25           | 1.51             | 1.80           | 2.11           | 2.47            | 2.88             |
| 55                  | -              | -       | 1.01  |                |                  |                |                |                 |                  |

| Nominal performance at to = -10 °C, tc = 45 °C | 3 |
|--|---|
|--|---|

| Cooling capacity    | 6 117 | W    |
|---------------------|-------|------|
| Power input         | 2 981 | W    |
| Current consumption | 6.14  | Α    |
| Mass flow           | 159   | kg/h |
| C.O.P.              | 2.05  | · ·  |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

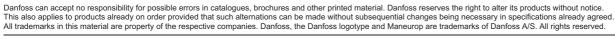
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

| Maximum HP switch setting | 25.8 | bar(g) | ٦ |
|---------------------------|------|--------|---|
| Minimum LP switch setting | 0.9  | bar(g) |   |
| LP pump down setting      | 1.2  | bar(g) |   |

Sound power data

| Sound power level   | 80 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 73 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

**R407A** 

| Cond. temp. in    |                 |       |       | Evapora | iting temperature | in °C (to) |        |        |        |
|-------------------|-----------------|-------|-------|---------|-------------------|------------|--------|--------|--------|
| °C (tc)           | -30             | -25   | -20   | -15     | -10               | -5         | 0      | 5      | 10     |
| 0 11 16           |                 |       |       |         |                   |            |        |        |        |
| Cooling capacit   | 2 265           | 3 431 | 4 893 | 6 692   | 8 870             | 11 469     | 14 530 | 18 094 | 22 202 |
| 35                | 1 928           | 3 025 | 4 398 | 6 089   | 8 140             | 10 593     | 13 489 | 16 869 | 20 776 |
| 40                | 1 600           | 2 627 | 3 911 | 5 493   | 7 416             | 9 722      | 12 452 | 15 649 | 19 353 |
| 45                | 1 286           | 2 242 | 3 435 | 4 908   | 6 702             | 8 860      | 11 425 | 14 437 | 17 938 |
| 50                | -               | 1 873 | 2 975 | 4 337   | 6 002             | 8 012      | 10 410 | 13 237 | 16 537 |
| 55                |                 | -     | 2 533 | 3 784   | 5 319             | 7 181      | 9 413  | 12 057 | 15 155 |
| 60                | _               | _     | -     | 3 253   | 4 659             | 6 374      | 8 440  | 10 902 | 13 800 |
| Power input in \  |                 |       |       | 0 200   | 1 000             | 0 07 1     | 0.110  | 10 002 | 10 000 |
| 30                | 1 569           | 1 880 | 2 174 | 2 447   | 2 692             | 2 905      | 3 082  | 3 216  | 3 304  |
| 35                | 1 540           | 1 880 | 2 205 | 2 511   | 2 793             | 3 046      | 3 264  | 3 444  | 3 579  |
| 40                | 1 495           | 1 866 | 2 225 | 2 568   | 2 890             | 3 184      | 3 448  | 3 675  | 3 862  |
| 45                | 1 433           | 1 839 | 2 235 | 2 617   | 2 981             | 3 321      | 3 633  | 3 911  | 4 150  |
| 50                | -               | 1 798 | 2 234 | 2 659   | 3 068             | 3 456      | 3 818  | 4 150  | 4 446  |
| 55                | -               | -     | 2 223 | 2 693   | 3 150             | 3 589      | 4 005  | 4 393  | 4 748  |
| 60                | -               | _     | -     | 2 720   | 3 228             | 3 720      | 4 193  | 4 640  | 5 057  |
|                   |                 | •     | •     | •       | •                 | 1          | •      | •      | 1      |
| 30                | 4.67            | 4.95  | 5.26  | 5.56    | 5.86              | 6.12       | 6.34   | 6.51   | 6.59   |
| 35                | 4.67            | 4.96  | 5.28  | 5.61    | 5.94              | 6.25       | 6.52   | 6.74   | 6.89   |
| 40                | 4.66            | 4.97  | 5.31  | 5.67    | 6.03              | 6.39       | 6.72   | 7.01   | 7.23   |
| 45                | 4.64            | 4.96  | 5.33  | 5.73    | 6.14              | 6.55       | 6.94   | 7.30   | 7.60   |
| 50                | -               | 4.94  | 5.35  | 5.79    | 6.25              | 6.72       | 7.18   | 7.61   | 8.00   |
| 55                | -               | _     | 5.34  | 5.83    | 6.35              | 6.89       | 7.42   | 7.93   | 8.42   |
| 60                | -               | -     | -     | 5.86    | 6.44              | 7.04       | 7.66   | 8.26   | 8.84   |
| Mass flow in kg   | /h              |       |       |         |                   |            |        |        |        |
| 30                | 49              | 74    | 104   | 139     | 181               | 230        | 288    | 353    | 428    |
| 35                | 44              | 68    | 97    | 132     | 174               | 222        | 279    | 344    | 418    |
| 40                | 39              | 62    | 91    | 125     | 166               | 214        | 270    | 334    | 407    |
| 45                | 33              | 56    | 84    | 118     | 158               | 205        | 260    | 323    | 396    |
| 50                | -               | 50    | 77    | 110     | 150               | 196        | 250    | 313    | 384    |
| 55                | -               | -     | 70    | 102     | 141               | 186        | 240    | 301    | 372    |
| 60                | -               | -     | -     | 94      | 132               | 177        | 229    | 290    | 359    |
| Coefficient of pe | erformance (C.O | ).P.) |       |         |                   |            |        |        |        |
| 30                | 1.44            | 1.82  | 2.25  | 2.74    | 3.30              | 3.95       | 4.72   | 5.63   | 6.72   |
| 35                | 1.25            | 1.61  | 1.99  | 2.42    | 2.91              | 3.48       | 4.13   | 4.90   | 5.80   |
| 40                | 1.07            | 1.41  | 1.76  | 2.14    | 2.57              | 3.05       | 3.61   | 4.26   | 5.01   |
| 45                | 0.90            | 1.22  | 1.54  | 1.88    | 2.25              | 2.67       | 3.14   | 3.69   | 4.32   |
| 50                | -               | 1.04  | 1.33  | 1.63    | 1.96              | 2.32       | 2.73   | 3.19   | 3.72   |
|                   | _               | _     | 1.14  | 1.41    | 1.69              | 2.00       | 2.35   | 2.74   | 3.19   |
| 55                |                 |       |       |         |                   |            |        |        |        |

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

| Cooling capacity    | 6 702 | W    |
|---------------------|-------|------|
| Power input         | 2 981 | W    |
| Current consumption | 6.14  | Α    |
| Mass flow           | 158   | kg/h |
| C.O.P.              | 2.25  |      |

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   | 80 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 73 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

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

**R407F** 

| Cond. temp. in     | Evaporating temperature in °C (to) |                |                |                |                |                |                  |                  |                  |
|--------------------|------------------------------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|------------------|
| °C (tc)            | -30                                | -25            | -20            | -15            | -10            | -5             | 0                | 5                | 10               |
|                    |                                    |                |                |                |                |                |                  |                  |                  |
| Cooling capacity   |                                    | 2.454          | 4.004          | 0.007          | 0.450          | 14.004         | 45.440           | 40.040           | 22.220           |
| 30                 | -                                  | 3 454          | 4 981<br>4 326 | 6 867          | 9 159          | 11 904         | 15 149           | 18 942<br>17 064 | 23 329           |
| 35<br>40           | -                                  | 2 946<br>2 528 | 3 786          | 6 032          | 8 112<br>7 233 | 10 613         | 13 581<br>12 232 |                  | 21 110           |
| 45                 | -                                  | 2 179          | 3 342          | 5 339<br>4 767 | 6 500          | 9 515<br>8 588 | 11 080           | 15 432<br>14 022 | 19 161<br>17 461 |
| 50                 | -                                  | 2 179          | 2 971          | 4 293          | 5 892          | +              | 10 105           | 1                |                  |
| 55                 | -                                  | -              | - 2971         |                |                | 7 813          | 9 284            | 12 814           | 15 988           |
| 60                 |                                    | -              | -              | 3 898          | 5 387          | 7 167          | 9 204            | 11 787           | 14 721           |
| 00                 | -                                  | -              | -              | -              | -              | -              | -                | -                | -                |
| Power input in W   |                                    |                |                |                |                |                |                  |                  |                  |
| 30                 | -                                  | 1 982          | 2 290          | 2 579          | 2 836          | 3 044          | 3 189            | 3 256            | 3 231            |
| 35                 | -                                  | 1 988          | 2 321          | 2 645          | 2 947          | 3 211          | 3 421            | 3 564            | 3 623            |
| 40                 | -                                  | 2 001          | 2 354          | 2 708          | 3 050          | 3 363          | 3 633            | 3 845            | 3 985            |
| 45                 | -                                  | 2 035          | 2 401          | 2 780          | 3 156          | 3 513          | 3 837            | 4 113            | 4 326            |
| 50                 | -                                  | -              | 2 476          | 2 873          | 3 277          | 3 672          | 4 045            | 4 379            | 4 661            |
| 55                 | -                                  | -              | -              | 2 999          | 3 425          | 3 854          | 4 269            | 4 656            | 5 000            |
| 60                 | -                                  | -              | -              | -              | -              | -              | -                | -                | -                |
| Current consump    | tion in A                          | <b>T</b>       | 1              | T              | 1              | <b>.</b>       | T                | 1                |                  |
| 30                 | -                                  | 4.96           | 5.29           | 5.62           | 5.94           | 6.22           | 6.44             | 6.57             | 6.59             |
| 35                 | -                                  | 5.03           | 5.37           | 5.73           | 6.08           | 6.41           | 6.68             | 6.88             | 6.99             |
| 40                 | -                                  | 5.05           | 5.41           | 5.80           | 6.20           | 6.58           | 6.92             | 7.19             | 7.39             |
| 45                 | -                                  | 5.06           | 5.44           | 5.87           | 6.31           | 6.75           | 7.16             | 7.53             | 7.81             |
| 50                 | -                                  | -              | 5.48           | 5.95           | 6.45           | 6.96           | 7.45             | 7.90             | 8.29             |
| 55                 | -                                  | -              | -              | 6.07           | 6.64           | 7.21           | 7.79             | 8.34             | 8.83             |
| 60                 | -                                  | -              | -              | -              | -              | -              | -                | -                | -                |
| Mass flow in kg/h  |                                    |                |                |                |                |                |                  |                  |                  |
| 30                 | -                                  | 71             | 101            | 138            | 181            | 232            | 292              | 360              | 439              |
| 35                 | -                                  | 64             | 92             | 127            | 168            | 216            | 273              | 339              | 414              |
| 40                 | -                                  | 58             | 85             | 118            | 157            | 204            | 258              | 321              | 394              |
| 45                 | -                                  | 53             | 79             | 111            | 149            | 194            | 246              | 307              | 377              |
| 50                 | -                                  | -              | 75             | 106            | 143            | 186            | 237              | 296              | 364              |
| 55                 | -                                  | -              | -              | 103            | 139            | 182            | 232              | 289              | 356              |
| 60                 | -                                  | -              | -              | -              | -              | -              | -                | -                | -                |
| Coefficient of per | formance (C.0                      | D.P.)          |                |                |                |                |                  |                  |                  |
| 30                 | -                                  | 1.74           | 2.18           | 2.66           | 3.23           | 3.91           | 4.75             | 5.82             | 7.22             |
| 35                 | -                                  | 1.48           | 1.86           | 2.28           | 2.75           | 3.31           | 3.97             | 4.79             | 5.83             |
| 40                 | -                                  | 1.26           | 1.61           | 1.97           | 2.37           | 2.83           | 3.37             | 4.01             | 4.81             |
| 45                 | -                                  | 1.07           | 1.39           | 1.71           | 2.06           | 2.44           | 2.89             | 3.41             | 4.04             |
|                    |                                    | -              | 1.20           | 1.49           | 1.80           | 2.13           | 2.50             | 2.93             | 3.43             |
|                    | -                                  |                | 1.20           | 10             | 1.00           | 2.10           | 2.00             | 2.00             | 0.10             |
| 50                 | -                                  | _              | -              | 1.30           | 1.57           | 1.86           | 2.17             | 2.53             | 2.94             |

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

| Cooling capacity    | 6 500 | W    |  |
|---------------------|-------|------|--|
| Power input         | 3 156 | W    |  |
| Current consumption | 6.31  | Α    |  |
| Mass flow           | 149   | kg/h |  |
| C.O.P.              | 2.06  |      |  |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

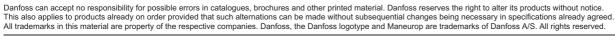
Rating conditions : Superheat = 10 K , Subcooling = 0 K

Pressure switch settings

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

Sound power data

| Sound power level   | 80 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 73 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

**R407F** 

| Cond. temp. in       |                |       |       | Evapora | iting temperature | in °C (to) |          |        |        |
|----------------------|----------------|-------|-------|---------|-------------------|------------|----------|--------|--------|
| °C (tc)              | -30            | -25   | -20   | -15     | -10               | -5         | 0        | 5      | 10     |
|                      |                | •     |       |         |                   | •          |          |        | •      |
| Cooling capacit      | y in W         |       |       |         |                   |            |          |        |        |
| 30                   | -              | 3 702 | 5 333 | 7 345   | 9 786             | 12 708     | 16 158   | 20 186 | 24 842 |
| 35                   | -              | 3 172 | 4 652 | 6 480   | 8 706             | 11 378     | 14 546   | 18 260 | 22 569 |
| 40                   | -              | 2 736 | 4 094 | 5 765   | 7 801             | 10 251     | 13 164   | 16 590 | 20 580 |
| 45                   | -              | 2 374 | 3 636 | 5 179   | 7 052             | 9 307      | 11 992   | 15 158 | 18 855 |
| 50                   | -              | -     | 3 257 | 4 699   | 6 438             | 8 526      | 11 012   | 13 946 | 17 379 |
| 55                   | -              | -     | -     | 4 307   | 5 941             | 7 890      | 10 205   | 12 937 | 16 135 |
| 60                   | -              | -     | -     | -       | -                 | -          | -        |        | -      |
| Daa. i.a             | .,             |       |       |         |                   |            |          |        |        |
| Power input in \ 30  | -<br>-         | 1 982 | 2 290 | 2 579   | 2 836             | 3 044      | 3 189    | 3 256  | 3 231  |
| 35                   | -              | 1 988 | 2 321 | 2 645   | 2 947             | 3 211      | 3 421    | 3 564  | 3 623  |
| 40                   | -              | 2 001 | 2 354 | 2 708   | 3 050             | 3 363      | 3 633    | 3 845  | 3 985  |
| 45                   | -              | 2 001 | 2 401 | 2 708   | 3 156             | 3 513      | 3 837    | 4 113  | 4 326  |
| 50                   |                | 2 033 | 2 476 | 2 873   | 3 277             | 3 672      | 4 045    | 4 379  | 4 661  |
| 55                   | -              | -     | -     | 2 999   | 3 425             | 3 854      | 4 045    | 4 656  | 5 000  |
| 60                   | -              | -     | -     | 2 999   | 3 423             | -          |          |        | -      |
| 60                   | -              | -     | _     | -       | -                 | -          | -        | -      | -      |
| Current consum       | nption in A    |       |       |         |                   |            |          |        |        |
| 30                   | -              | 4.96  | 5.29  | 5.62    | 5.94              | 6.22       | 6.44     | 6.57   | 6.59   |
| 35                   | -              | 5.03  | 5.37  | 5.73    | 6.08              | 6.41       | 6.68     | 6.88   | 6.99   |
| 40                   | -              | 5.05  | 5.41  | 5.80    | 6.20              | 6.58       | 6.92     | 7.19   | 7.39   |
| 45                   | -              | 5.06  | 5.44  | 5.87    | 6.31              | 6.75       | 7.16     | 7.53   | 7.81   |
| 50                   | -              | -     | 5.48  | 5.95    | 6.45              | 6.96       | 7.45     | 7.90   | 8.29   |
| 55                   | -              | -     | -     | 6.07    | 6.64              | 7.21       | 7.79     | 8.34   | 8.83   |
| 60                   | -              | -     | -     | -       | -                 | -          | -        |        | -      |
| Mara - 61 ann la Ian | п-             |       |       |         |                   |            |          |        |        |
| Mass flow in kg      | /n<br>-        | 71    | 101   | 137     | 180               | 231        | 290      | 358    | 436    |
| 35                   | -              | 64    | 92    | 126     | 167               | 215        | 271      | 337    | 412    |
| 40                   | -              | 57    | 84    | 117     | 156               | 202        | 256      | 319    | 391    |
| 45                   | -              | 52    | 79    | 110     | 148               | 192        | 245      | 305    | 374    |
| 50                   | -              | - 52  | 74    | 105     | 140               | 185        | 236      | 295    | 362    |
| 55                   | -              | -     | -     | 103     | 138               | 181        | 230      | 288    | 353    |
| 60                   | -              | -     | -     | -       | -                 | -          | -        | -      | - 303  |
| 00                   |                |       |       |         | <u> </u>          | <u> </u>   | <u> </u> |        |        |
| Coefficient of po    | erformance (C. | O.P.) |       |         |                   |            |          |        |        |
| 30                   | -              | 1.87  | 2.33  | 2.85    | 3.45              | 4.18       | 5.07     | 6.20   | 7.69   |
| 35                   | -              | 1.60  | 2.00  | 2.45    | 2.95              | 3.54       | 4.25     | 5.12   | 6.23   |
| 40                   | -              | 1.37  | 1.74  | 2.13    | 2.56              | 3.05       | 3.62     | 4.31   | 5.16   |
| 45                   | -              | 1.17  | 1.51  | 1.86    | 2.23              | 2.65       | 3.13     | 3.69   | 4.36   |
| 50                   | -              | -     | 1.32  | 1.64    | 1.96              | 2.32       | 2.72     | 3.18   | 3.73   |
| 55                   | -              | -     | -     | 1.44    | 1.73              | 2.05       | 2.39     | 2.78   | 3.23   |
|                      |                |       |       | 1       |                   |            |          |        |        |

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

| Cooling capacity    | 7 052 | W    |
|---------------------|-------|------|
| Power input         | 3 156 | W    |
| Current consumption | 6.31  | Α    |
| Mass flow           | 148   | kg/h |
| C.O.P.              | 2.23  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

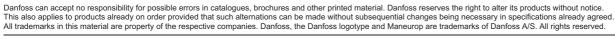
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

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   | 80 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 73 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

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

R134a

| Cond. temp. in         |                | Evaporating temperature in °C (to) |       |       |       |          |        |          |        |
|------------------------|----------------|------------------------------------|-------|-------|-------|----------|--------|----------|--------|
| °C (tc)                | -25            | -20                                | -10   | -5    | 0     | 5        | 10     | 15       | 20     |
| Caaling aspesits       | . in 14/       |                                    |       |       |       |          |        |          |        |
| Cooling capacity<br>35 | 1 645          | 2 349                              | 4 415 | 5 878 | 7 694 | 9 914    | 12 588 | 15 766   | 19 498 |
| 40                     | 1 392          | 2 043                              | 3 958 | 5 322 | 7 025 | 9 115    | 11 645 | 14 663   | 18 220 |
| 45                     | 1 163          | 1 761                              | 3 526 | 4 792 | 6 381 | 8 343    | 10 728 | 13 587   | 16 969 |
| 50                     | 957            | 1 504                              | 3 119 | 4 287 | 5 763 | 7 597    | 9 838  | 12 538   | 15 746 |
| 55                     | -              | -                                  | 2 738 | 3 809 | 5 172 | 6 878    | 8 976  | 11 517   | 14 552 |
| 60                     | -              | -                                  | -     | 3 358 | 4 609 | 6 187    | 8 142  | 10 526   | 13 386 |
| 65                     | -              | -                                  | -     | -     | 4 073 | 5 524    | 7 338  | 9 563    | 12 251 |
| 75                     | -              | _                                  | _     | _     | -     | -        | 5 818  | 7 729    | 10 073 |
|                        |                |                                    |       |       | I.    | <u> </u> |        | <u> </u> |        |
| Power input in W       |                | T                                  | T     | 1     | 1     | 1        |        | 1        | 1      |
| 35                     | 1 191          | 1 419                              | 1 828 | 2 002 | 2 152 | 2 276    | 2 370  | 2 432    | 2 458  |
| 40                     | 1 148          | 1 396                              | 1 848 | 2 046 | 2 222 | 2 372    | 2 494  | 2 585    | 2 642  |
| 45                     | 1 109          | 1 380                              | 1 882 | 2 107 | 2 311 | 2 491    | 2 645  | 2 768    | 2 859  |
| 50                     | 1 064          | 1 361                              | 1 919 | 2 175 | 2 411 | 2 624    | 2 812  | 2 972    | 3 100  |
| 55                     | -              | -                                  | 1 950 | 2 240 | 2 511 | 2 760    | 2 986  | 3 185    | 3 354  |
| 60                     | -              | -                                  | -     | 2 292 | 2 601 | 2 890    | 3 157  | 3 398    | 3 611  |
| 65                     | -              | -                                  | -     | -     | 2 672 | 3 005    | 3 316  | 3 602    | 3 862  |
| 75                     | -              | -                                  | -     | -     | -     | -        | 3 555  | 3 943    | 4 306  |
| Current consum         | ption in A     |                                    |       |       |       |          |        |          |        |
| 35                     | 5.20           | 5.16                               | 5.25  | 5.36  | 5.48  | 5.61     | 5.73   | 5.83     | 5.89   |
| 40                     | 5.18           | 5.15                               | 5.27  | 5.39  | 5.53  | 5.68     | 5.82   | 5.93     | 6.01   |
| 45                     | 5.15           | 5.15                               | 5.31  | 5.45  | 5.62  | 5.79     | 5.95   | 6.09     | 6.20   |
| 50                     | 5.11           | 5.13                               | 5.36  | 5.53  | 5.73  | 5.93     | 6.13   | 6.30     | 6.44   |
| 55                     | -              | -                                  | 5.39  | 5.60  | 5.84  | 6.08     | 6.32   | 6.54     | 6.72   |
| 60                     | -              | -                                  | -     | 5.66  | 5.94  | 6.24     | 6.53   | 6.80     | 7.03   |
| 65                     | -              | -                                  | -     | -     | 6.03  | 6.38     | 6.73   | 7.05     | 7.35   |
| 75                     | -              | -                                  | -     | -     | -     | -        | 7.04   | 7.52     | 7.96   |
|                        |                |                                    |       |       |       |          |        |          |        |
| Mass flow in kg/       |                | T                                  | T     |       |       | T        |        | 1        | I      |
| 35                     | 41             | 59                                 | 105   | 137   | 175   | 221      | 275    | 339      | 414    |
| 40                     | 37             | 54                                 | 99    | 130   | 168   | 213      | 267    | 330      | 404    |
| 45                     | 33             | 49                                 | 93    | 123   | 160   | 205      | 259    | 321      | 395    |
| 50                     | 29             | 44                                 | 87    | 117   | 153   | 197      | 250    | 313      | 386    |
| 55                     | -              | -                                  | 81    | 110   | 146   | 190      | 242    | 304      | 376    |
| 60                     | -              | -                                  | -     | 104   | 139   | 182      | 234    | 295      | 367    |
| 65                     | -              | -                                  | -     | -     | 133   | 175      | 226    | 287      | 358    |
| 75                     | -              | -                                  | -     | -     | -     | -        | 211    | 271      | 341    |
| Coefficient of pe      | rformance (C.O | ).P.)                              |       |       |       |          |        |          |        |
| 35                     | 1.38           | 1.66                               | 2.42  | 2.94  | 3.57  | 4.36     | 5.31   | 6.48     | 7.93   |
| 40                     | 1.21           | 1.46                               | 2.14  | 2.60  | 3.16  | 3.84     | 4.67   | 5.67     | 6.90   |
| 45                     | 1.05           | 1.28                               | 1.87  | 2.27  | 2.76  | 3.35     | 4.06   | 4.91     | 5.93   |
| 50                     | 0.90           | 1.11                               | 1.63  | 1.97  | 2.39  | 2.89     | 3.50   | 4.22     | 5.08   |
| 55                     | -              | -                                  | 1.40  | 1.70  | 2.06  | 2.49     | 3.01   | 3.62     | 4.34   |
| 60                     | -              | -                                  | -     | 1.47  | 1.77  | 2.14     | 2.58   | 3.10     | 3.71   |
| 65                     | -              | -                                  | -     | -     | 1.52  | 1.84     | 2.21   | 2.65     | 3.17   |
| 75                     | -              | -                                  | -     | -     | -     | -        | 1.64   | 1.96     | 2.34   |

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

| Cooling capacity    | 7 597 | W    |
|---------------------|-------|------|
| Power input         | 2 624 | W    |
| Current consumption | 5.93  | Α    |
| Mass flow           | 197   | kg/h |
| C.O.P.              | 2.89  |      |

to: Evaporating temperature at dew point

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

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ 



## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

R134a

| Cond. temp. in         | Evaporating temperature in °C (to) |       |       |       |       |          |        |          |        |  |
|------------------------|------------------------------------|-------|-------|-------|-------|----------|--------|----------|--------|--|
| °C (tc)                | -25                                | -20   | -10   | -5    | 0     | 5        | 10     | 15       | 20     |  |
| Cooling canacity       | in W                               |       |       |       |       |          |        |          |        |  |
| Cooling capacity<br>35 | 1 788                              | 2 548 | 4 774 | 6 345 | 8 293 | 10 670   | 13 528 | 16 920   | 20 898 |  |
| 40                     | 1 522                              | 2 229 | 4 302 | 5 775 | 7 608 | 9 857    | 12 572 | 15 806   | 19 612 |  |
| 45                     | 1 280                              | 1 934 | 3 855 | 5 229 | 6 949 | 9 069    | 11 642 | 14 719   | 18 354 |  |
| 50                     | -                                  | 1 664 | 3 434 | 4 709 | 6 317 | 8 309    | 10 740 | 13 661   | 17 126 |  |
| 55                     | _                                  | -     | 3 039 | 4 216 | 5 711 | 7 577    | 9 866  | 12 633   | 15 929 |  |
| 60                     | -                                  | _     | -     | 3 751 | 5 134 | 6 874    | 9 023  | 11 636   | 14 764 |  |
| 65                     | -                                  | _     | _     | -     | -     | 6 201    | 8 212  | 10 672   | 13 636 |  |
| 75                     | -                                  | _     | _     | _     | _     | -        | 6 694  | 8 859    | 11 502 |  |
|                        |                                    | l     |       |       | I.    | <u> </u> |        |          |        |  |
| Power input in W       |                                    |       |       | T     | 1     | 1        |        | 1        | 1      |  |
| 35                     | 1 191                              | 1 419 | 1 828 | 2 002 | 2 152 | 2 276    | 2 370  | 2 432    | 2 458  |  |
| 40                     | 1 148                              | 1 396 | 1 848 | 2 046 | 2 222 | 2 372    | 2 494  | 2 585    | 2 642  |  |
| 45                     | 1 109                              | 1 380 | 1 882 | 2 107 | 2 311 | 2 491    | 2 645  | 2 768    | 2 859  |  |
| 50                     | -                                  | 1 361 | 1 919 | 2 175 | 2 411 | 2 624    | 2 812  | 2 972    | 3 100  |  |
| 55                     | -                                  | -     | 1 950 | 2 240 | 2 511 | 2 760    | 2 986  | 3 185    | 3 354  |  |
| 60                     | -                                  | -     | -     | 2 292 | 2 601 | 2 890    | 3 157  | 3 398    | 3 611  |  |
| 65                     | -                                  | -     | -     | -     | -     | 3 005    | 3 316  | 3 602    | 3 862  |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 3 555  | 3 943    | 4 306  |  |
| Current consum         | otion in A                         |       |       |       |       |          |        |          |        |  |
| 35                     | 5.20                               | 5.16  | 5.25  | 5.36  | 5.48  | 5.61     | 5.73   | 5.83     | 5.89   |  |
| 40                     | 5.18                               | 5.15  | 5.27  | 5.39  | 5.53  | 5.68     | 5.82   | 5.93     | 6.01   |  |
| 45                     | 5.15                               | 5.15  | 5.31  | 5.45  | 5.62  | 5.79     | 5.95   | 6.09     | 6.20   |  |
| 50                     | -                                  | 5.13  | 5.36  | 5.53  | 5.73  | 5.93     | 6.13   | 6.30     | 6.44   |  |
| 55                     | -                                  | -     | 5.39  | 5.60  | 5.84  | 6.08     | 6.32   | 6.54     | 6.72   |  |
| 60                     | -                                  | -     | -     | 5.66  | 5.94  | 6.24     | 6.53   | 6.80     | 7.03   |  |
| 65                     | -                                  | -     | -     | -     | -     | 6.38     | 6.73   | 7.05     | 7.35   |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 7.04   | 7.52     | 7.96   |  |
|                        |                                    |       |       |       |       |          |        |          |        |  |
| Mass flow in kg/l      |                                    |       | 105   | 100   | 1     | 1 000    |        | 1 007    |        |  |
| 35                     | 41                                 | 58    | 105   | 136   | 174   | 220      | 274    | 337      | 411    |  |
| 40                     | 37                                 | 53    | 99    | 129   | 167   | 212      | 265    | 329      | 402    |  |
| 45                     | 33                                 | 49    | 93    | 123   | 160   | 204      | 257    | 320      | 393    |  |
| 50                     | -                                  | 44    | 87    | 116   | 152   | 196      | 249    | 311      | 383    |  |
| 55                     | -                                  | -     | 81    | 110   | 145   | 189      | 241    | 302      | 374    |  |
| 60                     | -                                  | -     | -     | 104   | 139   | 181      | 233    | 293      | 365    |  |
| 65                     | -                                  | -     | -     | -     | -     | 174      | 225    | 285      | 356    |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 210    | 269      | 339    |  |
| Coefficient of pe      | rformance (C.C                     | ).P.) | 1     |       | 1     | ı        | _      | <b>.</b> | 1      |  |
| 35                     | 1.50                               | 1.80  | 2.61  | 3.17  | 3.85  | 4.69     | 5.71   | 6.96     | 8.50   |  |
| 40                     | 1.33                               | 1.60  | 2.33  | 2.82  | 3.42  | 4.16     | 5.04   | 6.11     | 7.42   |  |
| 45                     | 1.15                               | 1.40  | 2.05  | 2.48  | 3.01  | 3.64     | 4.40   | 5.32     | 6.42   |  |
| 50                     | -                                  | 1.22  | 1.79  | 2.17  | 2.62  | 3.17     | 3.82   | 4.60     | 5.52   |  |
| 55                     | -                                  | -     | 1.56  | 1.88  | 2.27  | 2.74     | 3.30   | 3.97     | 4.75   |  |
| 60                     | -                                  | -     | -     | 1.64  | 1.97  | 2.38     | 2.86   | 3.42     | 4.09   |  |
| 65                     | -                                  | -     | -     | -     | -     | 2.06     | 2.48   | 2.96     | 3.53   |  |
| 75                     | -                                  | -     | -     | -     | -     | -        | 1.88   | 2.25     | 2.67   |  |

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

| Cooling capacity    | 8 622 | W    |  |
|---------------------|-------|------|--|
| Power input         | 2 845 | W    |  |
| Current consumption | 6.17  | Α    |  |
| Mass flow           | 211   | kg/h |  |
| C.O.P.              | 3.03  |      |  |

to: Evaporating temperature at dew point

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

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point



## Maneurop reciprocating compressor. MTZ056-4

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

**R407C** 

| Cond. temp. in   |                 |       |       | Evapora | ting temperature | in °C (to) |        |   |     |
|------------------|-----------------|-------|-------|---------|------------------|------------|--------|---|-----|
| °C (tc)          | -15             | -10   | -5    | 0       | 5                | 10         | 15     |   |     |
|                  |                 | •     | •     | •       |                  |            |        |   | l . |
| Cooling capacit  | ty in W         |       |       |         |                  |            |        |   |     |
| 35               | 5 227           | 7 074 | 9 303 | 11 962  | 15 099           | 18 762     | 23 001 | - | -   |
| 40               | 4 691           | 6 432 | 8 527 | 11 023  | 13 968           | 17 412     | 21 402 | - | -   |
| 45               | 4 153           | 5 787 | 7 745 | 10 076  | 12 828           | 16 050     | 19 789 | - | -   |
| 50               | -               | 5 141 | 6 961 | 9 125   | 11 682           | 14 680     | 18 167 | - | -   |
| 55               | -               | -     | 6 179 | 8 174   | 10 534           | 13 306     | 16 539 | - | -   |
| 60               | -               | -     | -     | 7 226   | 9 387            | 11 931     | 14 908 | - | -   |
| 65               | -               | -     | -     | 6 285   | 8 245            | 10 560     | 13 278 | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Power input in   | w               |       |       |         |                  |            |        |   |     |
| 35               | 2 398           | 2 677 | 2 912 | 3 111   | 3 281            | 3 430      | 3 564  | - | -   |
| 40               | 2 469           | 2 803 | 3 086 | 3 324   | 3 525            | 3 697      | 3 846  | - | -   |
| 45               | 2 502           | 2 902 | 3 243 | 3 531   | 3 775            | 3 981      | 4 157  | - | -   |
| 50               | -               | 2 965 | 3 375 | 3 725   | 4 022            | 4 273      | 4 487  | - | -   |
| 55               | -               | -     | 3 472 | 3 894   | 4 256            | 4 565      | 4 827  | - | -   |
| 60               | -               | -     | -     | 4 032   | 4 469            | 4 846      | 5 168  | - | -   |
| 65               | -               | -     | -     | 4 127   | 4 652            | 5 107      | 5 500  | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Current consur   | nption in A     |       |       |         |                  |            |        |   |     |
| 35               | 5.55            | 5.83  | 6.11  | 6.37    | 6.61             | 6.81       | 6.96   | - | -   |
| 40               | 5.63            | 5.96  | 6.28  | 6.59    | 6.86             | 7.09       | 7.26   | - | -   |
| 45               | 5.69            | 6.08  | 6.46  | 6.82    | 7.14             | 7.42       | 7.64   | - | -   |
| 50               | -               | 6.17  | 6.63  | 7.06    | 7.45             | 7.79       | 8.07   | - | -   |
| 55               | -               | -     | 6.77  | 7.29    | 7.76             | 8.18       | 8.54   | - | -   |
| 60               | -               | -     | -     | 7.48    | 8.06             | 8.57       | 9.02   | - | -   |
| 65               | -               | -     | -     | 7.62    | 8.31             | 8.94       | 9.50   | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Mass flow in kg  | ı/h             |       |       |         |                  |            |        |   | _   |
| 35               | 113             | 151   | 195   | 247     | 307              | 377        | 456    | - | -   |
| 40               | 107             | 144   | 188   | 239     | 298              | 366        | 444    | - | -   |
| 45               | 100             | 137   | 180   | 230     | 288              | 355        | 431    | - | -   |
| 50               | -               | 129   | 171   | 220     | 277              | 343        | 418    | - | -   |
| 55               | -               | -     | 162   | 210     | 266              | 330        | 403    | - | -   |
| 60               | -               | -     | -     | 199     | 253              | 316        | 388    | - | -   |
| 65               | -               | -     | -     | 187     | 240              | 301        | 371    | - | -   |
|                  |                 |       |       |         |                  |            |        |   |     |
| Coefficient of p | erformance (C.O | .P.)  | •     | •       | 1                |            | ,      |   | 1   |
| 35               | 2.18            | 2.64  | 3.19  | 3.84    | 4.60             | 5.47       | 6.45   | - | -   |
| 40               | 1.90            | 2.29  | 2.76  | 3.32    | 3.96             | 4.71       | 5.56   | - | -   |
| 45               | 1.66            | 1.99  | 2.39  | 2.85    | 3.40             | 4.03       | 4.76   | - | -   |
| 50               | -               | 1.73  | 2.06  | 2.45    | 2.90             | 3.44       | 4.05   | - | -   |
| 55               | -               | -     | 1.78  | 2.10    | 2.47             | 2.92       | 3.43   | - | -   |
| 60               | -               | -     | -     | 1.79    | 2.10             | 2.46       | 2.88   | - | -   |
| 65               | _               | _     | _     | 1.52    | 1.77             | 2.07       | 2.41   | _ | _   |

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

| Cooling capacity    | 11 682 | W    |
|---------------------|--------|------|
| Power input         | 4 022  | W    |
| Current consumption | 7.45   | Α    |
| Mass flow           | 277    | kg/h |
| C.O.P.              | 2.90   |      |

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) | ı |
|---------------------------|------|--------|---|
| Minimum LP switch setting | 1.4  | bar(g) | ı |
| LP pump down setting      | 1.7  | bar(g) |   |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 50 Hz, ARI rating conditions

**R407C** 

| Cond. temp. in     |                |       |       | Evapora | ating temperature | in °C (to) |        |   |   |
|--------------------|----------------|-------|-------|---------|-------------------|------------|--------|---|---|
| °C (tc)            | -15            | -10   | -5    | 0       | 5                 | 10         | 15     |   |   |
|                    |                | 1     | •     | •       | •                 |            | 1      |   |   |
| Cooling capacity   | in W           |       |       |         |                   |            |        |   |   |
| 35                 | 5 626          | 7 605 | 9 990 | 12 830  | 16 177            | 20 081     | 24 592 | - | - |
| 40                 | 5 076          | 6 952 | 9 203 | 11 882  | 15 039            | 18 725     | 22 990 | - | - |
| 45                 | 4 523          | 6 293 | 8 410 | 10 925  | 13 891            | 17 357     | 21 375 | - | - |
| 50                 | -              | 5 631 | 7 612 | 9 963   | 12 735            | 15 980     | 19 749 | - | - |
| 55                 | -              | -     | 6 815 | 8 999   | 11 577            | 14 599     | 18 118 | - | - |
| 60                 | -              | -     | -     | 8 038   | 10 419            | 13 218     | 16 486 | - | - |
| 65                 | -              | -     | -     | 7 083   | 9 268             | 11 843     | 14 861 | - | - |
|                    |                |       |       |         |                   |            |        |   |   |
| Power input in W   |                |       | 1     | T       | T                 | 1          |        | I | 1 |
| 35                 | 2 398          | 2 677 | 2 912 | 3 111   | 3 281             | 3 430      | 3 564  | - | - |
| 40                 | 2 469          | 2 803 | 3 086 | 3 324   | 3 525             | 3 697      | 3 846  | - | - |
| 45                 | 2 502          | 2 902 | 3 243 | 3 531   | 3 775             | 3 981      | 4 157  | - | - |
| 50                 | -              | 2 965 | 3 375 | 3 725   | 4 022             | 4 273      | 4 487  | - | - |
| 55                 | -              | -     | 3 472 | 3 894   | 4 256             | 4 565      | 4 827  | - | - |
| 60                 | -              | -     | -     | 4 032   | 4 469             | 4 846      | 5 168  | - | - |
| 65                 | -              | -     | -     | 4 127   | 4 652             | 5 107      | 5 500  | - | - |
| Current consum     | otion in A     |       |       |         |                   |            |        |   |   |
| 35                 | 5.55           | 5.83  | 6.11  | 6.37    | 6.61              | 6.81       | 6.96   | - | - |
| 40                 | 5.63           | 5.96  | 6.28  | 6.59    | 6.86              | 7.09       | 7.26   | - | - |
| 45                 | 5.69           | 6.08  | 6.46  | 6.82    | 7.14              | 7.42       | 7.64   | - | - |
| 50                 | -              | 6.17  | 6.63  | 7.06    | 7.45              | 7.79       | 8.07   | - | - |
| 55                 | -              | -     | 6.77  | 7.29    | 7.76              | 8.18       | 8.54   | - | - |
| 60                 | -              | -     | -     | 7.48    | 8.06              | 8.57       | 9.02   | - | - |
| 65                 | -              | -     | -     | 7.62    | 8.31              | 8.94       | 9.50   | - | - |
| /lass flow in kg/l | _              |       |       |         |                   |            |        |   |   |
| 35                 | 113            | 150   | 194   | 246     | 306               | 374        | 453    | - | _ |
| 40                 | 106            | 143   | 187   | 238     | 296               | 364        | 441    | _ | _ |
| 45                 | 100            | 136   | 179   | 229     | 286               | 353        | 428    | - | _ |
| 50                 | -              | 128   | 170   | 219     | 276               | 341        | 415    | _ | _ |
| 55                 |                | -     | 161   | 209     | 264               | 328        | 401    | - | _ |
| 60                 | _              | _     | -     | 198     | 252               | 314        | 385    | - | _ |
| 65                 | -              | _     | _     | 186     | 239               | 300        | 369    | - | _ |
|                    |                | I.    | 1     | 1       | 1                 | 1          |        | I | l |
| Coefficient of pe  | rformance (C.C | ).P.) | •     |         |                   |            |        |   |   |
| 35                 | 2.35           | 2.84  | 3.43  | 4.12    | 4.93              | 5.85       | 6.90   | - | - |
| 40                 | 2.06           | 2.48  | 2.98  | 3.57    | 4.27              | 5.07       | 5.98   | - | - |
| 45                 | 1.81           | 2.17  | 2.59  | 3.09    | 3.68              | 4.36       | 5.14   | - | - |
| 50                 | -              | 1.90  | 2.26  | 2.67    | 3.17              | 3.74       | 4.40   | - | - |
| 55                 | -              | -     | 1.96  | 2.31    | 2.72              | 3.20       | 3.75   | - | - |
| 60                 | -              | -     | -     | 1.99    | 2.33              | 2.73       | 3.19   | - | - |
|                    |                |       |       | 1.72    | 1.99              | 2.32       | 2.70   |   |   |

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

| Cooling capacity    | 12 999 | W    |
|---------------------|--------|------|
| Power input         | 4 367  | W    |
| Current consumption | 7.91   | Α    |
| Mass flow           | 293    | kg/h |
| C.O.P.              | 2.98   |      |

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) |
| L | LP pump down setting      | 1.7  | bar(g) |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

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

**R407C** 

| -15          | -10   | -5                              | _      |        |        | 1      |       |  |
|--------------|---|---------------------------------|--------|--------|--------|--------|-------|--|
|              |   |                                 | 0      | 5      | 10     | 15     |       |  |
|              |   |                                 |        |        |        |        |       |  |
| n W          | 1   | 1                               |        | 1      | 1      | 1      |       | 1  |
| 6 847        | 9 024   | 11 655                          | 14 801 | 18 524 | 22 886 | 27 950 | -     | -  |
| 6 200        | 8 245   | 10 713                          | 13 663 | 17 158 | 21 260 | 26 031 | -     | -  |
| 5 557        | 7 470   | 9 772                           | 12 525 | 15 791 | 19 631 | 24 106 | -     | -  |
| -            | 6 700   | 8 836                           | 11 390 | 14 425 | 18 001 | 22 179 | -     | -  |
| -            | -   | 7 908                           | 10 262 | 13 064 | 16 373 | 20 252 | -     | -  |
| -            | -   | -                               | 9 143  | 11 709 | 14 750 | 18 327 | -     | -  |
| -            | -   | -                               | 8 035  | 10 363 | 13 132 | 16 403 | -     | -  |
|              |   |                                 |        |        |        |        |       |  |
| 3 072        | 3 388   | 3 655                           | 3 886  | 4 093  | 4 291  | 4 492  | -     | _  |
|              |   | 1                               | 1      | 1      | 1      | 1      | -     | _  |
|              |   | 4 068                           | 4 399  | 1      | 4 961  |        | _     | -  |
| -            |   |                                 | 1      |        | 1      | 1      | -     | -  |
| -            |   |                                 |        |        |        |        | _     | _  |
|              |   |                                 |        |        |        |        |       | _  |
| -            | -   | -                               | +      | 1      | 1      |        | -     | _  |
|              | I   |                                 | 0.02   | 0.01   | 0 20 . | 0.00   |       | 1  |
| tion in A    |   |                                 |        |        |        |        |       |  |
| 5.37         | 5.69  | 5.96                            | 6.21   | 6.43   | 6.63   | 6.81   | -     | -  |
| 5.48         | 5.87  | 6.21                            | 6.52   | 6.80   | 7.06   | 7.30   | -     | -  |
| 5.56         | 6.02  | 6.44                            | 6.82   | 7.17   | 7.49   | 7.79   | -     | -  |
| -            | 6.14  | 6.64                            | 7.10   | 7.52   | 7.92   | 8.29   | -     | -  |
| -            | -   | 6.81                            | 7.35   | 7.86   | 8.33   | 8.77   | -     | -  |
| -            | -   | -                               | 7.57   | 8.16   | 8.72   | 9.24   | -     | -  |
| -            | -   | -                               | 7.75   | 8.44   | 9.08   | 9.69   | -     | -  |
|              |   |                                 |        |        |        |        |       |  |
| 110          | 100   | 1 0.5                           |        | 1      | 1 450  |        |       |  |
|              |   |                                 |        |        |        |        |       | -  |
|              |   | 1                               | 1      |        | 1      | 1      |       | -  |
|              |   |                                 | +      | 1      | 1      |        |       | -  |
|              |   |                                 |        |        | +      | 1      |       | -  |
|              |   | t                               | 1      | 1      | -      | 1      |       | -  |
| -            | -   |                                 |        |        |        |        | -     | -  |
| -            | -   | -                               | 239    | 302    | 375    | 459    | -     | -  |
| ormance (C.O | .P.)  |                                 |        |        |        |        |       |  |
| 2.23         | 2.66  | 3.19                            | 3.81   | 4.53   | 5.33   | 6.22   | -     | -  |
| 1.95         | 2.32  | 2.77                            | 3.29   | 3.91   | 4.60   | 5.37   | -     | -  |
|              |   | 1                               | 1      | 1      | 1      | 1      | -     | -  |
| -            |   |                                 |        |        |        |        | -     | -  |
| _            |   |                                 |        | 1      | +      |        | -     | _  |
|              | _   |                                 | 1      | 1      | 1      | 1      |       | _  |
|              |   |                                 |        |        | +      |        |       | _  |
|              | 6 200 5 557 3 072 3 174 3 239 tion in A 5.37 5.48 5.56 149 141 134 formance (C.O 2.23 1.95 1.72 | 6 200 8 245 5 557 7 470 - 6 700 | 6 200  | 6 200  | 6 200  | 6 200  | 6 200 | 6 200 8 245 10 713 13 663 17 158 21 280 28 031 - 5557 7470 9772 12 525 15 791 19 631 24 106 6 700 8 838 11 390 14 425 18 001 22 179 7 908 10 282 13 084 16 373 20 252 9 143 11 709 14 750 18 327 9 143 11 709 14 750 18 327 8 035 10 383 13 132 16 403 8 035 10 383 13 132 16 403 8 035 10 383 13 132 16 403 8 035 10 383 13 132 16 403 8 035 10 383 13 132 16 403 8 035 10 383 13 132 16 403 8 035 10 383 13 132 16 403 |

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

| Cooling capacity    | 14 425 | W    |
|---------------------|--------|------|
| Power input         | 4 984  | W    |
| Current consumption | 7.52   | Α    |
| Mass flow           | 342    | kg/h |
| C.O.P.              | 2.89   |      |

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) |
| L | LP pump down setting      | 1.7  | bar(g) |

Sound power data

| Sound power level   | 86 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 79 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

**R407C** 

|                      |  |   | Evapora              | ting temperature  | in °C (to)  |   |  |   |
|----------------------|--|---|----------------------|---|---|---|--|---|
| -15                  | -10  | -5  | 0                    | 5   | 10  | 15  |  |   |
|                      | •  | •   | •                    | •   | •   | •   | •  | •   |
| y in W               |  |   |                      |   |   |   |  |   |
| 7 370                | 9 701  | 12 515  | 15 875               | 19 846  | 24 494  | 29 884  | -  | -   |
| 6 710                | 8 911  | 11 562  | 14 728               | 18 474  | 22 864  | 27 963  | -  | -   |
| 6 053                | 8 123  | 10 611  | 13 581               | 17 099  | 21 230  | 26 037  | -  | -   |
| -                    | 7 340  | 9 663   | 12 436               | 15 725  | 19 595  | 24 110  | -  | -   |
| -                    | -  | 8 722   | 11 298               | 14 357  | 17 965  | 22 186  | -  | -   |
| -                    | -  | -   | 10 169               | 12 997  | 16 341  | 20 267  | -  | -   |
| -                    | -  | -   | 9 054                | 11 649  | 14 729  | 18 358  | -  | -   |
|                      |  |   |                      |   |   |   |  |   |
| N                    | T  | 1   | T                    | T   | 1   |   | Т  | T   |
|                      |  |   |                      |   | +   | ł   | -  | -   |
| 3 174                | 3 551  | 3 871   |                      | 4 393   |   |   | -  | -   |
|                      | 1  | 1   |                      | 1   | 1   |   |  | -   |
| -                    | 3 786  | 4 240   | 4 635                | 4 984   | 5 302   | 5 600   | -  | -   |
| -                    | -  | 4 382   |                      |   |   |   | -  | -   |
| -                    | -  | -   |                      | 1   | 1   |   | -  | -   |
| -                    | -  | -   | 5 192                | 5 764   | 6 281   | 6 758   | -  | -   |
|                      |  |   |                      |   |   |   |  |   |
|                      | 5.00   | 5.00  | 0.04                 | 0.40  | 0.00  | 0.04  | Ī  | I   |
|                      |  | 1   |                      |   |   |   |  | -   |
|                      |  |   |                      |   |   |   |  | -   |
|                      |  | 1   |                      |   | 1   |   |  | -   |
|                      |  | 1   |                      |   |   |   |  | -   |
|                      | +  |   |                      | 1   | +   | +   |  | -   |
|                      | <b>†</b>                                     |   |                      |   |   |   |  | -   |
| -                    | -  | -   | 7.75                 | 8.44  | 9.08  | 9.69  | -  | -   |
| /h                   |  |   |                      |   |   |   |  |   |
|                      | 102  | 242   | 204                  | 275   | 457   | 550   |  | _   |
|                      |  | 1   |                      |   |   |   |  | -   |
|                      | 1  |   |                      | 1   | 1   | ł   |  | -   |
|                      | 1  | 1   |                      | 1   | 1   | ł   |  | -   |
|                      |  |   |                      |   |   |   |  | -   |
|                      | <b>†</b>                                     | 1   |                      | 1   | 1   | ł   |  | -   |
|                      |  |   |                      |   |   |   |  | -   |
|                      |  |   | 250                  | 300   | 373   | 400   |  |   |
|                      |  |   |                      |   |   |   |  |   |
| erformance (C.C      | ).P.)  |   |                      |   | 1   |   |  | _   |
| erformance (C.C      |  | 3.42  | 4.09                 | 4.85  | 5.71  | 6.65  | -  |   |
| 2.40                 | 2.86   | 3.42<br>2.99  | 4.09<br>3.55         | 4.85<br>4.20  | 5.71<br>4.95  | 6.65<br>5.77  | -  | -   |
|                      | 2.86<br>2.51                                 | 2.99  | 3.55                 | 4.20  | 4.95  | 5.77  |  | -   |
| 2.40<br>2.11         | 2.86   | 2.99<br>2.61  | 3.55<br>3.09         | 4.20<br>3.64  | 4.95<br>4.28  | 5.77<br>4.99  | -  | -   |
| 2.40<br>2.11<br>1.87 | 2.86<br>2.51<br>2.20<br>1.94                 | 2.99<br>2.61<br>2.28  | 3.55<br>3.09<br>2.68 | 4.20<br>3.64<br>3.16  | 4.95<br>4.28<br>3.70  | 5.77<br>4.99<br>4.31  | -  | -   |
| 2.40<br>2.11<br>1.87 | 2.86<br>2.51<br>2.20                         | 2.99<br>2.61  | 3.55<br>3.09         | 4.20<br>3.64  | 4.95<br>4.28  | 5.77<br>4.99  |  |   |
|                      | y in W 7 370 6 710 6 053 N 3 072 3 174 3 239 | y in W  7 370 9 701 6 710 8 911 6 053 8 123 - 7 340  N  3 072 3 388 3 174 3 551 3 239 3 685 - 3 786  nption in A  5.37 5.69 5.48 5.87 5.56 6.02 - 6.14  /h  148 192 141 184 133 176 - 167 | y in W  7 370        | yin W       7 370     9 701     12 515     15 875       6 710     8 911     11 562     14 728       6 053     8 123     10 611     13 581       -     7 340     9 663     12 436       -     -     8 722     11 298       -     -     -     10 169       -     -     -     9 054       N       3 072     3 388     3 655     3 886       3 174     3 551     3 871     4 147       3 239     3 685     4 068     4 399       -     -     4 382     4 849       -     -     -     5 037       -     -     -     5 192       Inption in A       5 5.37     5.69     5.96     6.21       5.48     5.87     6.21     6.52       5.56     6.02     6.44     6.82       -     -     -     7.57       -     -     -     7.57       -     -     -     7.75       Ih     148     192     243     304       141     184     235     294       133     176     226     284       -     - | yin W  7 370 9 701 12 515 15 875 19 846 6 710 8 911 11 562 14 728 18 474 6 053 8 123 10 611 13 581 17 099 - 7 340 9 663 12 436 15 725 8 722 11 298 14 357 10 169 12 997 9 054 11 649   N  3 072 3 388 3 655 3 886 4 093 3 174 3 551 3 871 4 147 4 393 3 239 3 685 4 068 4 399 4 692 - 3 786 4 240 4 635 4 984 4 382 4 849 5 264 5 5037 5 526 5 192 5 764   aption in A  5.37 5.69 5.96 6.21 6.43 5.48 5.87 6.21 6.52 6.80 5.56 6.02 6.44 6.82 7.17 - 6.14 6.64 7.10 7.52 6.14 6.64 7.10 7.52 7.57 8.16 7.57 8.16 7.75 8.44  /h  148 192 243 304 375 141 184 235 294 364 133 176 226 284 352 - 167 216 273 340 - 206 262 328 167 216 273 340 - 206 262 328 206 262 328 206 262 328 206 262 328 206 262 328 206 262 328 206 262 328 | y in W  7 370 9 701 12 515 15 875 19 846 24 494 6 710 8 911 11 562 14 728 18 474 22 864 6 053 8 123 10 611 13 581 17 099 21 230 - 7 340 9 663 12 436 15 725 19 595 8 722 11 298 14 357 17 965 10 169 12 997 16 341 9 054 11 649 14 729  N  8 3 072 3 388 3 655 3 886 4 093 4 291 3 174 3 551 3 871 4 147 4 393 4 622 3 239 3 685 4 068 4 399 4 692 4 961 - 3 786 4 240 4 635 4 984 5 302 5 5037 5 526 5 968 5 5037 5 526 5 968 5 5192 5 764 6 281  applion in A  1 537 5.69 5.96 6.21 6.43 6.63 5.48 5.87 6.21 6.52 6.80 7.06 5.56 6.02 6.44 6.82 7.17 7.49 - 6.14 6.64 7.10 7.52 7.92 6.81 7.35 7.86 8.33 7 7.57 8.16 8.72 - 7.75 8.44 9.08  /h  148 192 243 304 375 457 141 184 235 294 364 444 133 176 226 284 352 431 - 167 216 273 340 418 138 176 226 284 352 431 - 167 216 273 340 418 138 7 167 216 273 340 418 138 7 167 216 273 340 418 138 7 - 17 206 262 328 403 17 206 262 328 403 17 206 262 328 403 17 206 262 328 403 17 206 262 328 403 17 206 262 328 403 167 216 273 340 418 206 262 328 403 | yin W  7 370 9 701 12 515 15 875 19 846 24 494 29 884 6 710 8 911 11 562 14 728 18 474 22 864 27 963 6 053 8 123 10 611 13 881 17 099 21 230 26 037 - 7 340 9 663 12 436 15 725 19 595 24 110 8 722 11 298 14 357 17 965 22 186 10 169 12 997 16 341 20 267 9 054 11 649 14 729 18 358  N  8 3072 3 388 3 655 3 886 4 093 4 291 4 492 3 174 3 351 3 871 4 147 4 393 4 622 4 846 3 3 239 3 685 4 068 4 399 4 692 4 961 5 218 4 382 4 849 5 264 5 639 5 988 5 5037 5 526 5 968 6 376 5 596 6.21 6.43 6.63 6.81 5.48 5.87 6.21 6.62 6.80 7.06 7.30 5.56 6.02 6.44 6.82 7.17 7.49 7.79 - 6.14 6.64 7.10 7.52 7.92 8.29 6.81 7.35 7.86 8.33 8.77 7.75 8.44 9.08 9.69  /h  148 192 243 304 375 7.86 8.32 431 522 - 167 216 226 284 362 403 449 577 206 262 328 403 449 577 206 262 328 403 449 577 206 262 328 403 449 577 206 262 328 403 449 577 206 262 328 403 449 577 206 262 328 403 449 577 206 262 328 403 474 | yin W  7 370 9 701 12 515 15 875 19 846 24 494 29 884 - 6 710 8 911 11 682 14 728 18 474 22 864 27 963 - 6 670 8 911 11 682 14 728 18 474 22 864 27 963 - 6 653 8 123 10 611 13 581 17 099 21 230 26 037 7 340 9 663 12 436 15 725 19 595 24 110 8 722 11 298 14 357 17 965 22 186 10 169 12 997 16 341 20 267 19 054 11 649 14 729 18 358 -   N   N  N  3 072 3 388 3 655 3 886 4 093 4 291 4 492 - 3 3174 3 551 3 871 4 147 4 393 4 622 4 846 - 3 3 239 3 685 4 068 4 399 4 692 4 961 5 218 3 786 4 240 4 635 4 984 5 302 5 600 4 4 382 4 849 5 264 5 639 5 988 5 1537 5 566 6 376 5 192 5 764 6 281 6 758 -  1 1010 1 A  5 377 5 6.9 5 .96 6 .21 6 .43 6 .63 6 .81 1010 1 A  5 5.56 6 .002 6 .44 6 .82 7.17 7 .49 7.79 6 .14 6 .64 7 .10 7.52 7.92 8.29 1 - 7.75 8 .16 8.72 9.24 1 - 7.75 8 .16 8.72 9.24 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.77 550 1 - 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.72 9.24 1 - 1 - 7.75 8 .16 8.77 550 1 - 1 - 167 216 273 340 448 552 431 522 1 - 167 216 273 340 448 552 449 364 444 556 1 - 167 216 273 340 448 552 449 364 444 556 1 - 167 216 273 340 448 552 449 368 474 250 314 388 474 - |

| Nominal performance at to = 7.2 °C, tc = 54.4 °C | С |
|--|---|
|--|---|

| Cooling capacity    | 16 050 | W    |
|---------------------|--------|------|
| Power input         | 5 397  | W    |
| Current consumption | 8.03   | Α    |
| Mass flow           | 361    | kg/h |
| C.O.P.              | 2.97   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

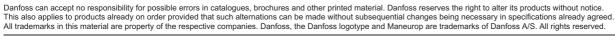
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

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(q) |  |

Sound power data

| Sound power level   | 86 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 79 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

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

R134a

| Cond. temp. in         | Evaporating temperature in °C (to) |       |       |       |       |        |        |        |        |  |
|------------------------|------------------------------------|-------|-------|-------|-------|--------|--------|--------|--------|--|
| °C (tc)                | -25                                | -20   | -10   | -5    | 0     | 5      | 10     | 15     | 20     |  |
| Cooling canacity       | in W                               |       |       |       |       |        |        |        |        |  |
| Cooling capacity<br>35 | 1 974                              | 2 818 | 5 298 | 7 054 | 9 233 | 11 897 | 15 106 | 18 919 | 23 398 |  |
| 40                     | 1 670                              | 2 452 | 4 750 | 6 387 | 8 430 | 10 939 | 13 974 | 17 595 | 21 864 |  |
| 45                     | 1 395                              | 2 114 | 4 231 | 5 750 | 7 657 | 10 011 | 12 873 | 16 304 | 20 363 |  |
| 50                     | 1 149                              | 1 805 | 3 743 | 5 144 | 6 916 | 9 116  | 11 806 | 15 045 | 18 895 |  |
| 55                     | -                                  | -     | 3 285 | 4 571 | 6 206 | 8 253  | 10 771 | 13 821 | 17 462 |  |
| 60                     | -                                  | -     | -     | 4 029 | 5 530 | 7 424  | 9 771  | 12 631 | 16 064 |  |
| 65                     | _                                  | _     | _     | -     | 4 888 | 6 629  | 8 805  | 11 476 | 14 702 |  |
| 75                     | -                                  | _     | _     | _     | -     | -      | 6 981  | 9 275  | 12 088 |  |
|                        |                                    |       |       |       | l     | 1      | 1 222  |        |        |  |
| Power input in W       |                                    | T     | T     | T     | 1     | 1      | 1      | 1      | 1      |  |
| 35                     | 1 429                              | 1 703 | 2 193 | 2 402 | 2 583 | 2 731  | 2 844  | 2 918  | 2 949  |  |
| 40                     | 1 377                              | 1 675 | 2 217 | 2 455 | 2 666 | 2 847  | 2 993  | 3 102  | 3 170  |  |
| 45                     | 1 330                              | 1 655 | 2 258 | 2 528 | 2 773 | 2 990  | 3 174  | 3 322  | 3 431  |  |
| 50                     | 1 276                              | 1 633 | 2 303 | 2 610 | 2 893 | 3 149  | 3 374  | 3 566  | 3 720  |  |
| 55                     | -                                  | -     | 2 340 | 2 687 | 3 013 | 3 312  | 3 583  | 3 822  | 4 025  |  |
| 60                     | -                                  | -     | -     | 2 750 | 3 121 | 3 469  | 3 789  | 4 078  | 4 334  |  |
| 65                     | -                                  | -     | -     | -     | 3 207 | 3 605  | 3 979  | 4 323  | 4 635  |  |
| 75                     | -                                  | -     | -     | -     | -     | -      | 4 266  | 4 731  | 5 167  |  |
| Current consum         | ption in A                         |       |       |       |       |        |        |        |        |  |
| 35                     | 5.42                               | 5.38  | 5.48  | 5.59  | 5.72  | 5.85   | 5.98   | 6.08   | 6.14   |  |
| 40                     | 5.40                               | 5.37  | 5.50  | 5.62  | 5.77  | 5.92   | 6.07   | 6.19   | 6.27   |  |
| 45                     | 5.37                               | 5.37  | 5.54  | 5.69  | 5.86  | 6.04   | 6.21   | 6.35   | 6.46   |  |
| 50                     | 5.33                               | 5.35  | 5.59  | 5.77  | 5.97  | 6.18   | 6.39   | 6.57   | 6.72   |  |
| 55                     | -                                  | -     | 5.62  | 5.84  | 6.09  | 6.35   | 6.59   | 6.82   | 7.01   |  |
| 60                     | -                                  | -     | -     | 5.90  | 6.20  | 6.51   | 6.81   | 7.09   | 7.33   |  |
| 65                     | -                                  | -     | -     | -     | 6.29  | 6.65   | 7.02   | 7.36   | 7.66   |  |
| 75                     | -                                  | -     | -     | -     | -     | -      | 7.35   | 7.84   | 8.30   |  |
| •                      |                                    |       |       |       | •     | •      | •      | •      | •      |  |
| Mass flow in kg/l      |                                    | T     | T     |       | T     | 1      | T      | T      | ı      |  |
| 35                     | 50                                 | 70    | 126   | 164   | 210   | 265    | 330    | 407    | 496    |  |
| 40                     | 45                                 | 64    | 119   | 156   | 201   | 256    | 320    | 396    | 485    |  |
| 45                     | 40                                 | 59    | 112   | 148   | 193   | 246    | 310    | 386    | 474    |  |
| 50                     | 35                                 | 53    | 105   | 140   | 184   | 237    | 300    | 375    | 463    |  |
| 55                     | -                                  | -     | 98    | 132   | 175   | 228    | 290    | 364    | 451    |  |
| 60                     | -                                  | -     | -     | 125   | 167   | 219    | 281    | 354    | 440    |  |
| 65                     | -                                  | -     | -     | -     | 159   | 210    | 271    | 344    | 430    |  |
| 75                     | -                                  | -     | -     | -     | -     | -      | 254    | 325    | 409    |  |
| Coefficient of pe      | rformance (C.O                     | ).P.) |       |       |       |        |        |        |        |  |
| 35                     | 1.38                               | 1.66  | 2.42  | 2.94  | 3.57  | 4.36   | 5.31   | 6.48   | 7.93   |  |
| 40                     | 1.21                               | 1.46  | 2.14  | 2.60  | 3.16  | 3.84   | 4.67   | 5.67   | 6.90   |  |
| 45                     | 1.05                               | 1.28  | 1.87  | 2.27  | 2.76  | 3.35   | 4.06   | 4.91   | 5.93   |  |
| 50                     | 0.90                               | 1.11  | 1.63  | 1.97  | 2.39  | 2.89   | 3.50   | 4.22   | 5.08   |  |
| 55                     | -                                  | -     | 1.40  | 1.70  | 2.06  | 2.49   | 3.01   | 3.62   | 4.34   |  |
| 60                     | -                                  | -     | -     | 1.47  | 1.77  | 2.14   | 2.58   | 3.10   | 3.71   |  |
| 65                     | -                                  | -     | -     | -     | 1.52  | 1.84   | 2.21   | 2.65   | 3.17   |  |
| 75                     | -                                  | -     | -     | -     | -     | -      | 1.64   | 1.96   | 2.34   |  |

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

| Cooling capacity    | 9 116 | W    |  |
|---------------------|-------|------|--|
| Power input         | 3 149 | W    |  |
| Current consumption | 6.18  | Α    |  |
| Mass flow           | 237   | kg/h |  |
| C.O.P.              | 2.89  |      |  |

to: Evaporating temperature at dew point

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point

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



## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

R134a

| -25             | -20          | -10   | -5    | ting temperature<br>0   | 5      | 40           | 45           |              |
|-----------------|--------------|-------|-------|---|--------|--------------|--------------|--------------|
|                 |              |       |       |   |        | 10           | 15           | 20           |
|                 |              |       | •     | 1   | 1      | •            |              | I.           |
| y in W          |              |       |       | 1   |        |              |              | T            |
| 2 146           | 3 058        | 5 729 | 7 614 | 9 952   | 12 804 | 16 234       | 20 304       | 25 078       |
| 1 827           | 2 675        | 5 162 | 6 929 | 9 130   | 11 828 | 15 086       | 18 967       | 23 534       |
| 1 536           | 2 321        | 4 626 | 6 275 | 8 339   | 10 883 | 13 970       | 17 663       | 22 025       |
| -               | 1 997        | 4 121 | 5 651 | 7 580   | 9 971  | 12 887       | 16 393       | 20 551       |
| -               | -            | 3 647 | 5 060 | 6 853   | 9 092  | 11 839       | 15 159       | 19 114       |
| -               | -            | -     | 4 501 | 6 161   | 8 248  | 10 828       | 13 963       | 17 717       |
| -               | -            | -     | -     | -   | 7 441  | 9 854        | 12 807       | 16 363       |
| -               | -            | -     | -     | -   | -      | 8 033        | 10 630       | 13 802       |
|                 |              |       |       |   |        |              |              |              |
|                 | 1 700        | 0.400 | 0.400 | 0.500   | 0.704  | 0.044        | 0.040        | 0.040        |
|                 |              |       |       |   |        |              |              | 2 949        |
|                 | 1            | ł     | ł     | ł   | +      |              |              | 3 170        |
|                 |              |       |       |   |        |              |              | 3 431        |
|                 |              |       |       |   |        |              |              | 3 720        |
|                 |              | +     |       | †   | +      |              |              | 4 025        |
| -               |              |       |       |   |        |              |              | 4 334        |
| -               | -            | -     | -     | -   |        | t            |              | 4 635        |
| -               | -            | -     | -     | -   | -      | 4 266        | 4 731        | 5 167        |
| ption in A      |              |       |       |   |        |              |              |              |
| •               | 5.38         | 5.48  | 5.59  | 5.72  | 5.85   | 5.98         | 6.08         | 6.14         |
|                 |              |       |       |   |        |              |              | 6.27         |
|                 |              |       |       |   |        |              |              | 6.46         |
|                 | 1            |       |       |   | +      |              |              | 6.72         |
|                 | 1            |       |       |   |        |              |              | 7.01         |
|                 |              |       |       |   |        |              |              | 7.33         |
|                 |              |       |       |   | +      |              |              | 7.66         |
| -               | -            | _     | _     | _   | -      | 7.35         | 7.84         | 8.30         |
|                 |              | .1    | .1    |   |        |              |              | I            |
| h               |              |       |       | 1   | 1      | 1            |              | T            |
| 49              | 70           | 126   | 163   | 209   | 264    | 329          | 405          | 494          |
| 44              | 64           | 118   | 155   | 200   | 254    | 319          | 394          | 482          |
| 40              | 58           | 111   | 147   | 192   | 245    | 309          | 384          | 471          |
| -               | 53           | 104   | 139   | 183   | 236    | 299          | 373          | 460          |
| -               | -            | 97    | 132   | 174   | 226    | 289          | 362          | 449          |
| -               | -            | -     | 124   | 166   | 217    | 279          | 352          | 438          |
| -               | -            | -     | -     | -   | 209    | 270          | 342          | 427          |
| -               | -            | -     | -     | -   | -      | 252          | 323          | 407          |
| uformores (C.C. | \ <b>D</b> \ |       |       |   |        |              |              |              |
| `               | T .          | 2.61  | 3 17  | 3.85  | 4 60   | 5 71         | 6.96         | 8.50         |
|                 |              | 1     | 1     | 1   |        |              |              | 7.42         |
|                 |              |       |       |   |        |              |              | 6.42         |
|                 | 1            |       |       |   |        |              |              | 5.52         |
|                 |              |       |       |   |        |              |              | 4.75         |
|                 |              |       |       |   |        |              |              |              |
|                 | 1            |       |       |   |        |              |              | 4.09         |
| -               | -            | -     | -     | -   | 2.06   | 2.48<br>1.88 | 2.96<br>2.25 | 3.53<br>2.67 |
|                 | 1 536        | 1 536 | 1 536 | 1 536         2 321         4 626         6 275           -         1 997         4 121         5 651           -         -         3 647         5 060           -         -         -         4 501           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         1633         2 303         2 610           -         -         2 340         2 687           -         -         -         2 750           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         - </td <td>  1 536</td> <td>1 536</td> <td>  1536</td> <td>  1536</td> | 1 536  | 1 536        | 1536         | 1536         |

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

| Nominal performance at to 7.2 0, to | 04.4 0 |      |
|-------------------------------------|--------|------|
| Cooling capacity                    | 10 347 | W    |
| Power input                         | 3 413  | W    |
| Current consumption                 | 6.44   | Α    |
| Mass flow                           | 254    | kg/h |
| C.O.P.                              | 3.03   |      |

to: Evaporating temperature at dew point

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

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point



## Maneurop reciprocating compressor. MTZ056-4

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

**R404A** 

| Cond. temp. in Evaporating temperature in °C (to) |                |       |       |       |        |        |        |        |        |
|---|----------------|-------|-------|-------|--------|--------|--------|--------|--------|
| °C (tc)   | -30            | -25   | -20   | -15   | -10    | -5     | 0      | 5      | 10     |
|   |                |       |       |       |        |        |        |        |        |
| Cooling capacity                                  |                | T     | T     | 1     | Т      | 1      |        | T      | T      |
| 30  | 3 911          | 5 473 | 7 362 | 9 615 | 12 269 | 15 361 | 18 928 | 23 009 | 27 641 |
| 35  | 3 327          | 4 799 | 6 572 | 8 683 | 11 170 | 14 070 | 17 419 | 21 257 | 25 619 |
| 40  | 2 742          | 4 115 | 5 763 | 7 725 | 10 036 | 12 735 | 15 858 | 19 443 | 23 528 |
| 45  | 2 164          | 3 429 | 4 944 | 6 747 | 8 874  | 11 363 | 14 252 | 17 577 | 21 375 |
| 50  | 1 601          | 2 749 | 4 123 | 5 758 | 7 693  | 9 964  | 12 609 | 15 665 | 19 168 |
| 55  | -              | 2 083 | 3 306 | 4 766 | 6 500  | 8 544  | 10 937 | 13 715 | 16 915 |
| 60  | -              | 1 439 | 2 503 | 3 779 | 5 303  | 7 112  | 9 243  | 11 735 | 14 623 |
| Power input in V                                  | v              |       |       |       |        |        |        |        |        |
| 30  | 2 670          | 3 093 | 3 459 | 3 783 | 4 078  | 4 356  | 4 632  | 4 919  | 5 230  |
| 35  | 2 638          | 3 129 | 3 554 | 3 926 | 4 259  | 4 566  | 4 861  | 5 157  | 5 467  |
| 40  | 2 554          | 3 124 | 3 618 | 4 049 | 4 431  | 4 778  | 5 102  | 5 417  | 5 737  |
| 45  | 2 409          | 3 068 | 3 641 | 4 142 | 4 584  | 4 981  | 5 345  | 5 690  | 6 030  |
| 50  | 2 191          | 2 950 | 3 614 | 4 195 | 4 707  | 5 164  | 5 579  | 5 965  | 6 336  |
| 55  | -              | 2 760 | 3 524 | 4 196 | 4 790  | 5 317  | 5 793  | 6 231  | 6 643  |
| 60  | -              | 2 487 | 3 363 | 4 136 | 4 821  | 5 431  | 5 979  | 6 478  | 6 942  |
|   |                |       |       |       |        | •      |        |        | •      |
| Current consum                                    | ption in A     |       |       |       |        |        |        |        |        |
| 30  | 4.92           | 5.37  | 5.80  | 6.20  | 6.55   | 6.84   | 7.06   | 7.18   | 7.20   |
| 35  | 4.91           | 5.40  | 5.87  | 6.31  | 6.70   | 7.04   | 7.31   | 7.48   | 7.56   |
| 40  | 4.87           | 5.40  | 5.93  | 6.42  | 6.88   | 7.27   | 7.60   | 7.84   | 7.98   |
| 45  | 4.76           | 5.36  | 5.96  | 6.52  | 7.05   | 7.52   | 7.92   | 8.24   | 8.46   |
| 50  | 4.58           | 5.26  | 5.93  | 6.58  | 7.19   | 7.75   | 8.24   | 8.65   | 8.96   |
| 55  | -              | 5.07  | 5.83  | 6.58  | 7.29   | 7.95   | 8.54   | 9.05   | 9.47   |
| 60  | -              | 4.76  | 5.64  | 6.49  | 7.31   | 8.09   | 8.80   | 9.43   | 9.97   |
| Mass flow in kg/                                  | 'h             |       |       |       |        |        |        |        |        |
| 30 30   | 123            | 168   | 221   | 281   | 350    | 428    | 517    | 616    | 727    |
| 35  | 113            | 158   | 211   | 271   | 340    | 418    | 505    | 604    | 714    |
| 40  | 101            | 147   | 199   | 260   | 328    | 405    | 493    | 590    | 700    |
| 45  | 87             | 133   | 186   | 246   | 314    | 392    | 478    | 575    | 684    |
| 50  | 72             | 118   | 171   | 231   | 299    | 376    | 462    | 558    | 666    |
| 55  | -              | 101   | 154   | 214   | 282    | 358    | 443    | 539    | 646    |
| 60  | <u>-</u>       | 81    | 134   | 194   | 262    | 338    | 423    | 518    | 623    |
| 00  |                | 1 01  | 101   | 101   | 202    | 1 000  | 1.20   | 0.0    | 020    |
| Coefficient of pe                                 | rformance (C.O | ).P.) |       |       |        |        |        |        |        |
| 30  | 1.46           | 1.77  | 2.13  | 2.54  | 3.01   | 3.53   | 4.09   | 4.68   | 5.29   |
| 35  | 1.26           | 1.53  | 1.85  | 2.21  | 2.62   | 3.08   | 3.58   | 4.12   | 4.69   |
| 40  | 1.07           | 1.32  | 1.59  | 1.91  | 2.26   | 2.67   | 3.11   | 3.59   | 4.10   |
| 45  | 0.90           | 1.12  | 1.36  | 1.63  | 1.94   | 2.28   | 2.67   | 3.09   | 3.54   |
| 50  | 0.73           | 0.93  | 1.14  | 1.37  | 1.63   | 1.93   | 2.26   | 2.63   | 3.03   |
| 55  | -              | 0.75  | 0.94  | 1.14  | 1.36   | 1.61   | 1.89   | 2.20   | 2.55   |
|   | -              | 0.58  | 0.74  | 0.91  | 1.10   | 1.31   | 1.55   | 1.81   | 2.11   |

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

| Cooling capacity    | 8 874 | W    |
|---------------------|-------|------|
| Power input         | 4 584 | W    |
| Current consumption | 7.05  | Α    |
| Mass flow           | 314   | kg/h |
| C.O.P.              | 1.94  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

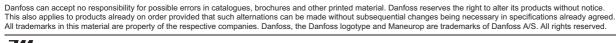
Rating conditions : Superheat = 10 K , Subcooling = 0 K

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   | 84 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 77 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

# **R404A**

| Cond. temp. in   |                 |                      |       | Evapora      | ating temperature | in °C (to)   |              |              |              |
|------------------|-----------------|----------------------|-------|--------------|-------------------|--------------|--------------|--------------|--------------|
| °C (tc)          | -30             | -25                  | -20   | -15          | -10               | -5           | 0            | 5            | 10           |
|                  |                 |                      |       |              |                   |              |              |              |              |
| Cooling capacit  |                 | 0.070                | 0.450 | 40.004       | 10.504            | 10.000       | 00.770       | 05.000       | 00.040       |
| 30               | 4 353           | 6 076                | 8 152 | 10 621       | 13 521            | 16 892       | 20 772       | 25 200       | 30 216       |
| 35               | 3 743           | 5 382                | 7 349 | 9 682        | 12 422            | 15 607       | 19 277       | 23 471       | 28 229       |
| 40               | 3 126           | 4 673                | 6 522 | 8 712        | 11 284            | 14 276       | 17 729       | 21 681       | 26 172       |
| 45               | 2 508           | 3 956                | 5 680 | 7 720        | 10 116            | 12 908       | 16 136       | 19 839       | 24 058       |
| 50               | 1 896           | 3 238                | 4 829 | 6 712        | 8 926             | 11 512       | 14 510       | 17 959       | 21 901       |
| 55               | -               | 2 524                | 3 979 | 5 699        | 7 726             | 10 101       | 12 865       | 16 058       | 19 721       |
| 60               | -               | 1 819                | 3 134 | 4 691        | 6 530             | 8 695        | 11 226       | 14 165       | 17 553       |
| Power input in \ | W               |                      |       |              |                   |              |              |              | •            |
| 30               | 2 670           | 3 093                | 3 459 | 3 783        | 4 078             | 4 356        | 4 632        | 4 919        | 5 230        |
| 35               | 2 638           | 3 129                | 3 554 | 3 926        | 4 259             | 4 566        | 4 861        | 5 157        | 5 467        |
| 40               | 2 554           | 3 124                | 3 618 | 4 049        | 4 431             | 4 778        | 5 102        | 5 417        | 5 737        |
| 45               | 2 409           | 3 068                | 3 641 | 4 142        | 4 584             | 4 981        | 5 345        | 5 690        | 6 030        |
| 50               | 2 191           | 2 950                | 3 614 | 4 195        | 4 707             | 5 164        | 5 579        | 5 965        | 6 336        |
| 55               | -               | 2 760                | 3 524 | 4 196        | 4 790             | 5 317        | 5 793        | 6 231        | 6 643        |
| 60               | -               | 2 487                | 3 363 | 4 136        | 4 821             | 5 431        | 5 979        | 6 478        | 6 942        |
| Current consum   | nption in A     |                      |       |              |                   |              |              |              |              |
| 30               | 4.92            | 5.37                 | 5.80  | 6.20         | 6.55              | 6.84         | 7.06         | 7.18         | 7.20         |
| 35               | 4.91            | 5.40                 | 5.87  | 6.31         | 6.70              | 7.04         | 7.31         | 7.48         | 7.56         |
| 40               | 4.87            | 5.40                 | 5.93  | 6.42         | 6.88              | 7.27         | 7.60         | 7.84         | 7.98         |
| 45               | 4.76            | 5.36                 | 5.96  | 6.52         | 7.05              | 7.52         | 7.92         | 8.24         | 8.46         |
| 50               | 4.58            | 5.26                 | 5.93  | 6.58         | 7.19              | 7.75         | 8.24         | 8.65         | 8.96         |
| 55               | -               | 5.07                 | 5.83  | 6.58         | 7.29              | 7.95         | 8.54         | 9.05         | 9.47         |
| 60               | -               | 4.76                 | 5.64  | 6.49         | 7.31              | 8.09         | 8.80         | 9.43         | 9.97         |
| Mass flow in kg  | /h              |                      |       |              |                   |              |              |              |              |
| 30               | 122             | 168                  | 220   | 280          | 348               | 426          | 513          | 612          | 722          |
| 35               | 112             | 157                  | 210   | 270          | 338               | 415          | 502          | 600          | 709          |
| 40               | 100             | 146                  | 198   | 258          | 326               | 403          | 489          | 587          | 695          |
| 45               | 87              | 133                  | 185   | 245          | 313               | 389          | 475          | 572          | 679          |
| 50               | 71              | 118                  | 170   | 230          | 297               | 373          | 459          | 555          | 661          |
| 55               | -               | 100                  | 153   | 213          | 280               | 356          | 441          | 536          | 641          |
| 60               | -               | 81                   | 134   | 193          | 260               | 336          | 420          | 514          | 619          |
| Coefficient of n | erformance (C.C | D.P.)                |       |              |                   |              |              |              |              |
| 30               | 1.63            | 1.96                 | 2.36  | 2.81         | 3.32              | 3.88         | 4.48         | 5.12         | 5.78         |
| 35               | 1.42            | 1.72                 | 2.07  | 2.47         | 2.92              | 3.42         | 3.97         | 4.55         | 5.16         |
|                  | 1.22            | 1.50                 | 1.80  | 2.15         | 2.55              | 2.99         | 3.47         | 4.00         | 4.56         |
| 40               |                 |                      | 1.56  | 1.86         | 2.21              | 2.59         | 3.02         | 3.49         | 3.99         |
| _                | 1.04            | 1.29                 |       |              |                   |              |              |              |              |
| 45               | 1.04<br>0.87    | 1                    |       |              | 1.90              | 2.23         | 2.60         | 3.01         | 3 46         |
| -                | 1.04<br>0.87    | 1.29<br>1.10<br>0.91 | 1.34  | 1.60<br>1.36 | 1.90<br>1.61      | 2.23<br>1.90 | 2.60<br>2.22 | 3.01<br>2.58 | 3.46<br>2.97 |

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

| Cooling capacity    | 10 116 | W    |
|---------------------|--------|------|
| Power input         | 4 584  | W    |
| Current consumption | 7.05   | Α    |
| Mass flow           | 313    | kg/h |
| C.O.P.              | 2.21   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

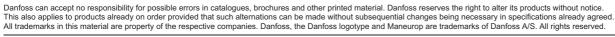
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

| 27.7 | bar(g) |
|------|--------|
| 1    | bar(g) |
| 1.3  | bar(g) |
|      | 1      |

Sound power data

| Sound power level   | 84 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 77 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

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

**R407A** 

| Cond. temp. in    | Evaporating temperature in °C (to) |       |       |       |        |        |        |        |        |
|-------------------|------------------------------------|-------|-------|-------|--------|--------|--------|--------|--------|
| °C (tc)           | -30                                | -25   | -20   | -15   | -10    | -5     | 0      | 5      | 10     |
|                   |                                    |       |       |       |        |        |        |        |        |
| Cooling capacity  |                                    | 0.040 |       | 7.450 | 1 0000 | 10.044 | 10.050 | 00.050 | 04.000 |
| 30                | 2 513                              | 3 813 | 5 445 | 7 456 | 9 896  | 12 811 | 16 250 | 20 258 | 24 886 |
| 35                | 2 126                              | 3 342 | 4 866 | 6 748 | 9 034  | 11 772 | 15 010 | 18 796 | 23 177 |
| 40                | 1 753                              | 2 883 | 4 300 | 6 049 | 8 181  | 10 741 | 13 778 | 17 339 | 21 472 |
| 45                | 1 397                              | 2 441 | 3 748 | 5 365 | 7 340  | 9 721  | 12 555 | 15 891 | 19 775 |
| 50                | -                                  | 2 020 | 3 215 | 4 699 | 6 516  | 8 717  | 11 347 | 14 456 | 18 090 |
| 55                | -                                  | -     | 2 706 | 4 054 | 5 713  | 7 732  | 10 158 | 13 038 | 16 420 |
| 60                | -                                  | -     | -     | 3 435 | 4 935  | 6 771  | 8 990  | 11 641 | 14 771 |
| Power input in W  | 1                                  |       |       |       |        |        |        |        |        |
| 30                | 1 883                              | 2 256 | 2 609 | 2 936 | 3 230  | 3 486  | 3 698  | 3 859  | 3 965  |
| 35                | 1 848                              | 2 256 | 2 646 | 3 013 | 3 352  | 3 655  | 3 917  | 4 133  | 4 295  |
| 40                | 1 794                              | 2 239 | 2 670 | 3 082 | 3 467  | 3 821  | 4 138  | 4 411  | 4 634  |
| 45                | 1 720                              | 2 206 | 2 682 | 3 141 | 3 577  | 3 986  | 4 359  | 4 693  | 4 980  |
| 50                | -                                  | 2 158 | 2 681 | 3 191 | 3 682  | 4 147  | 4 582  | 4 980  | 5 335  |
| 55                | -                                  | -     | 2 667 | 3 232 | 3 780  | 4 307  | 4 806  | 5 272  | 5 698  |
| 60                | -                                  | -     | -     | 3 263 | 3 873  | 4 465  | 5 032  | 5 568  | 6 069  |
| 2                 |                                    |       |       |       |        |        |        |        |        |
| 30                | 4.87                               | 5.17  | 5.48  | 5.80  | 6.11   | 6.39   | 6.62   | 6.79   | 6.87   |
| 35                | 4.87                               | 5.17  | 5.50  | 5.85  | 6.19   | 6.51   | 6.80   | 7.03   | 7.19   |
| 40                | 4.86                               | 5.18  | 5.53  | 5.91  | 6.29   | 6.67   | 7.01   | 7.31   | 7.19   |
| 45                | 4.84                               | 5.18  | 5.56  | 5.98  | 6.41   | 6.83   | 7.01   | 7.61   | 7.93   |
| 50                | -                                  | 5.16  | 5.58  | 6.03  | 6.52   | 7.01   | 7.49   | 7.01   | 8.35   |
| 55                |                                    | -     | 5.57  | 6.08  | 6.62   | 7.18   | 7.74   | 8.28   | 8.78   |
| 60                |                                    | _     | -     | 6.11  | 6.72   | 7.35   | 7.99   | 8.62   | 9.22   |
|                   |                                    | I     | l     |       | -      |        |        |        |        |
| Mass flow in kg/l |                                    | Γ     | 1     | 1     | 1      |        | 1      | _      | 1      |
| 30                | 60                                 | 89    | 125   | 168   | 218    | 278    | 347    | 426    | 517    |
| 35                | 53                                 | 82    | 117   | 160   | 210    | 268    | 336    | 415    | 505    |
| 40                | 47                                 | 75    | 110   | 151   | 200    | 258    | 325    | 403    | 492    |
| 45                | 40                                 | 68    | 101   | 142   | 191    | 248    | 314    | 390    | 478    |
| 50                | -                                  | 60    | 93    | 133   | 180    | 236    | 302    | 377    | 464    |
| 55                | -                                  | -     | 84    | 123   | 170    | 225    | 289    | 364    | 449    |
| 60                | -                                  | -     | -     | 114   | 159    | 213    | 276    | 350    | 434    |
| Coefficient of pe | rformance (C.C                     | ).P.) |       |       |        |        |        |        |        |
| 30                | 1.34                               | 1.69  | 2.09  | 2.54  | 3.06   | 3.67   | 4.39   | 5.25   | 6.28   |
| 35                | 1.15                               | 1.48  | 1.84  | 2.24  | 2.70   | 3.22   | 3.83   | 4.55   | 5.40   |
| 40                | 0.98                               | 1.29  | 1.61  | 1.96  | 2.36   | 2.81   | 3.33   | 3.93   | 4.63   |
| 45                | 0.81                               | 1.11  | 1.40  | 1.71  | 2.05   | 2.44   | 2.88   | 3.39   | 3.97   |
| 50                | -                                  | 0.94  | 1.20  | 1.47  | 1.77   | 2.10   | 2.48   | 2.90   | 3.39   |
|                   | _                                  | _     | 1.01  | 1.25  | 1.51   | 1.80   | 2.11   | 2.47   | 2.88   |
| 55                |                                    |       |       |       |        |        |        |        |        |

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

| Cooling capacity    | 7 340 | W    |
|---------------------|-------|------|
| Power input         | 3 577 | W    |
| Current consumption | 6.41  | Α    |
| Mass flow           | 191   | kg/h |
| C.O.P.              | 2.05  | · ·  |

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) | ٦ |
|---------------------------|------|--------|---|
| Minimum LP switch setting | 0.9  | bar(g) |   |
| LP pump down setting      | 1.2  | bar(g) |   |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

**R407A** 

| Cond. temp. in    |                 |       |       | Evapora | iting temperature | in °C (to) |        |        |        |
|-------------------|-----------------|-------|-------|---------|-------------------|------------|--------|--------|--------|
| °C (tc)           | -30             | -25   | -20   | -15     | -10               | -5         | 0      | 5      | 10     |
|                   |                 |       |       |         |                   |            |        |        |        |
| Cooling capacit   |                 |       |       |         |                   | T          | T      |        |        |
| 30                | 2 718           | 4 118 | 5 872 | 8 030   | 10 644            | 13 763     | 17 435 | 21 712 | 26 643 |
| 35                | 2 313           | 3 630 | 5 277 | 7 307   | 9 768             | 12 711     | 16 186 | 20 243 | 24 931 |
| 40                | 1 920           | 3 153 | 4 693 | 6 592   | 8 899             | 11 666     | 14 943 | 18 778 | 23 224 |
| 45                | 1 543           | 2 691 | 4 122 | 5 889   | 8 042             | 10 632     | 13 710 | 17 324 | 21 526 |
| 50                | -               | 2 247 | 3 570 | 5 204   | 7 202             | 9 614      | 12 492 | 15 885 | 19 844 |
| 55                | -               | -     | 3 039 | 4 541   | 6 383             | 8 618      | 11 296 | 14 468 | 18 185 |
| 60                | -               | -     | -     | 3 904   | 5 591             | 7 649      | 10 128 | 13 082 | 16 560 |
| Power input in \  | N               |       |       |         |                   |            |        |        |        |
| 30                | 1 883           | 2 256 | 2 609 | 2 936   | 3 230             | 3 486      | 3 698  | 3 859  | 3 965  |
| 35                | 1 848           | 2 256 | 2 646 | 3 013   | 3 352             | 3 655      | 3 917  | 4 133  | 4 295  |
| 40                | 1 794           | 2 239 | 2 670 | 3 082   | 3 467             | 3 821      | 4 138  | 4 411  | 4 634  |
| 45                | 1 720           | 2 206 | 2 682 | 3 141   | 3 577             | 3 986      | 4 359  | 4 693  | 4 980  |
| 50                | -               | 2 158 | 2 681 | 3 191   | 3 682             | 4 147      | 4 582  | 4 980  | 5 335  |
| 55                | -               | -     | 2 667 | 3 232   | 3 780             | 4 307      | 4 806  | 5 272  | 5 698  |
| 60                | -               | -     | -     | 3 263   | 3 873             | 4 465      | 5 032  | 5 568  | 6 069  |
| Current consum    | -               | 1     | ı     | 1       | 1                 |            | 1      | 1      | 1      |
| 30                | 4.87            | 5.17  | 5.48  | 5.80    | 6.11              | 6.39       | 6.62   | 6.79   | 6.87   |
| 35                | 4.87            | 5.17  | 5.50  | 5.85    | 6.19              | 6.51       | 6.80   | 7.03   | 7.19   |
| 40                | 4.86            | 5.18  | 5.53  | 5.91    | 6.29              | 6.67       | 7.01   | 7.31   | 7.54   |
| 45                | 4.84            | 5.18  | 5.56  | 5.98    | 6.41              | 6.83       | 7.24   | 7.61   | 7.93   |
| 50                | -               | 5.16  | 5.58  | 6.03    | 6.52              | 7.01       | 7.49   | 7.94   | 8.35   |
| 55                | -               | -     | 5.57  | 6.08    | 6.62              | 7.18       | 7.74   | 8.28   | 8.78   |
| 60                | -               | -     | -     | 6.11    | 6.72              | 7.35       | 7.99   | 8.62   | 9.22   |
| Mass flow in kg   | /h              |       |       |         |                   |            |        |        |        |
| 30                | 59              | 89    | 124   | 167     | 217               | 276        | 345    | 424    | 514    |
| 35                | 53              | 82    | 117   | 159     | 208               | 267        | 335    | 413    | 502    |
| 40                | 46              | 75    | 109   | 150     | 199               | 257        | 324    | 401    | 489    |
| 45                | 40              | 67    | 101   | 141     | 190               | 246        | 312    | 388    | 475    |
| 50                | -               | 60    | 93    | 132     | 180               | 235        | 300    | 375    | 461    |
| 55                | -               | -     | 84    | 123     | 169               | 224        | 288    | 361    | 446    |
| 60                | -               | -     | -     | 113     | 158               | 212        | 275    | 347    | 431    |
| Coefficient of pe | erformance (C.C | ).P.) |       |         |                   |            |        |        |        |
| 30                | 1.44            | 1.82  | 2.25  | 2.74    | 3.30              | 3.95       | 4.72   | 5.63   | 6.72   |
| 35                | 1.25            | 1.61  | 1.99  | 2.42    | 2.91              | 3.48       | 4.13   | 4.90   | 5.80   |
| 40                | 1.07            | 1.41  | 1.76  | 2.14    | 2.57              | 3.05       | 3.61   | 4.26   | 5.01   |
| 45                | 0.90            | 1.22  | 1.54  | 1.88    | 2.25              | 2.67       | 3.14   | 3.69   | 4.32   |
| 50                | -               | 1.04  | 1.33  | 1.63    | 1.96              | 2.32       | 2.73   | 3.19   | 3.72   |
|                   | -               | -     | 1.14  | 1.41    | 1.69              | 2.00       | 2.35   | 2.74   | 3.19   |
| 55                |                 |       |       |         |                   |            |        |        |        |

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

| Cooling capacity    | 8 042 | W    |
|---------------------|-------|------|
| Power input         | 3 577 | W    |
| Current consumption | 6.41  | Α    |
| Mass flow           | 190   | kg/h |
| C.O.P.              | 2.25  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

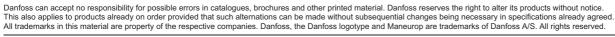
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

| Maximum HP switch setting | 25.8 | bar(g) | ٦ |
|---------------------------|------|--------|---|
| Minimum LP switch setting | 0.9  | bar(g) |   |
| LP pump down setting      | 1.2  | bar(g) |   |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

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

**R407F** 

| Cond. temp. in    |              |       | T     |       | ting temperature |        | 1      | 1      | 1      |
|-------------------|--------------|-------|-------|-------|------------------|--------|--------|--------|--------|
| °C (tc)           | -30          | -25   | -20   | -15   | -10              | -5     | 0      | 5      | 10     |
| Cooling capacity  | in W         |       |       |       |                  |        |        |        |        |
| 30                | -            | 4 145 | 5 977 | 8 240 | 10 990           | 14 284 | 18 179 | 22 730 | 27 995 |
| 35                | -            | 3 535 | 5 191 | 7 238 | 9 734            | 12 735 | 16 297 | 20 477 | 25 332 |
| 40                | -            | 3 033 | 4 544 | 6 407 | 8 679            | 11 417 | 14 678 | 18 518 | 22 993 |
| 45                | -            | 2 615 | 4 010 | 5 720 | 7 800            | 10 306 | 13 296 | 16 826 | 20 953 |
| 50                | -            | -     | 3 565 | 5 152 | 7 070            | 9 376  | 12 126 | 15 377 | 19 185 |
| 55                | -            | -     | -     | 4 678 | 6 465            | 8 600  | 11 141 | 14 144 | 17 666 |
| 60                | -            | -     | -     | -     | -                | -      | -      | -      | -      |
| Power input in V  | ı            |       |       |       |                  |        |        |        |        |
| 30                | -            | 2 379 | 2 748 | 3 095 | 3 403            | 3 652  | 3 827  | 3 907  | 3 877  |
| 35                | -            | 2 385 | 2 785 | 3 175 | 3 537            | 3 853  | 4 106  | 4 277  | 4 348  |
| 40                | -            | 2 401 | 2 825 | 3 250 | 3 660            | 4 036  | 4 360  | 4 615  | 4 782  |
| 45                | -            | 2 442 | 2 882 | 3 336 | 3 787            | 4 215  | 4 605  | 4 936  | 5 192  |
| 50                | -            | -     | 2 971 | 3 447 | 3 932            | 4 407  | 4 854  | 5 255  | 5 593  |
| 55                | -            | -     | -     | 3 599 | 4 110            | 4 624  | 5 123  | 5 587  | 6 000  |
| 60                | -            | -     | -     | -     | -                | -      | -      | -      | -      |
| Current consum    | ption in A   |       |       |       |                  |        |        |        |        |
| 30                | -            | 5.17  | 5.52  | 5.87  | 6.20             | 6.49   | 6.72   | 6.85   | 6.88   |
| 35                | -            | 5.24  | 5.60  | 5.97  | 6.34             | 6.68   | 6.97   | 7.18   | 7.29   |
| 40                | -            | 5.27  | 5.64  | 6.05  | 6.46             | 6.86   | 7.21   | 7.50   | 7.70   |
| 45                | -            | 5.27  | 5.68  | 6.12  | 6.58             | 7.04   | 7.47   | 7.85   | 8.15   |
| 50                | -            | -     | 5.72  | 6.21  | 6.73             | 7.26   | 7.77   | 8.24   | 8.64   |
| 55                | -            | -     | -     | 6.34  | 6.92             | 7.52   | 8.12   | 8.69   | 9.21   |
| 60                | -            | -     | -     | -     | -                | -      | -      | -      | -      |
| Mass flow in kg/  | h            |       |       |       |                  |        |        |        |        |
| 30                | -            | 86    | 122   | 165   | 217              | 278    | 350    | 432    | 527    |
| 35                | -            | 77    | 111   | 152   | 201              | 260    | 328    | 407    | 497    |
| 40                | -            | 69    | 102   | 141   | 189              | 244    | 310    | 385    | 472    |
| 45                | -            | 63    | 95    | 133   | 179              | 232    | 295    | 368    | 452    |
| 50                | -            | -     | 90    | 127   | 171              | 224    | 285    | 356    | 437    |
| 55                | -            | -     | -     | 123   | 167              | 218    | 278    | 347    | 427    |
| 60                | -            | -     | -     | -     | -                | -      | -      | -      | -      |
| Coefficient of pe | rformance (C | O.P.) |       |       |                  |        |        |        |        |
| 30                | -            | 1.74  | 2.18  | 2.66  | 3.23             | 3.91   | 4.75   | 5.82   | 7.22   |
| 35                | -            | 1.48  | 1.86  | 2.28  | 2.75             | 3.31   | 3.97   | 4.79   | 5.83   |
| 40                | -            | 1.26  | 1.61  | 1.97  | 2.37             | 2.83   | 3.37   | 4.01   | 4.81   |
| 45                | -            | 1.07  | 1.39  | 1.71  | 2.06             | 2.44   | 2.89   | 3.41   | 4.04   |
|                   | _            | -     | 1.20  | 1.49  | 1.80             | 2.13   | 2.50   | 2.93   | 3.43   |
| 50                |              | +     | 1     | 1     | +                | 1      | 1      | 1      |        |
| 50<br>55          | _            | -     | _     | 1.30  | 1.57             | 1.86   | 2.17   | 2.53   | 2.94   |

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

| Cooling capacity    | 7 800 | W    |
|---------------------|-------|------|
| Power input         | 3 787 | W    |
| Current consumption | 6.58  | Α    |
| Mass flow           | 179   | kg/h |
| C.O.P.              | 2.06  |      |

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) | 1 |
| Minimum LP switch setting | 1    | bar(g) | ı |
| LP pump down setting      | 1.26 | bar(g) | ı |

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

**R407F** 

| Cond. temp. in    |                |       |        | Evapora | ating temperature | in °C (to) |        |        |        |
|-------------------|----------------|-------|--------|---------|-------------------|------------|--------|--------|--------|
| °C (tc)           | -30            | -25   | -20    | -15     | -10               | -5         | 0      | 5      | 10     |
|                   |                |       |        |         |                   |            |        |        |        |
| Cooling capacit   |                |       |        |         |                   |            |        |        |        |
| 30                | -              | 4 443 | 6 400  | 8 814   | 11 744            | 15 249     | 19 390 | 24 224 | 29 810 |
| 35                | -              | 3 806 | 5 583  | 7 776   | 10 447            | 13 653     | 17 455 | 21 912 | 27 082 |
| 40                | -              | 3 284 | 4 913  | 6 919   | 9 361             | 12 301     | 15 797 | 19 909 | 24 695 |
| 45                | -              | 2 849 | 4 363  | 6 214   | 8 463             | 11 168     | 14 391 | 18 190 | 22 626 |
| 50                | -              | -     | 3 909  | 5 639   | 7 726             | 10 231     | 13 214 | 16 735 | 20 854 |
| 55                | -              | -     | -      | 5 168   | 7 129             | 9 468      | 12 246 | 15 524 | 19 362 |
| 60                | -              | -     | -      | -       | -                 | -          | -      | -      | -      |
| Power input in V  | N              |       |        |         |                   |            |        |        |        |
| 30                | -              | 2 379 | 2 748  | 3 095   | 3 403             | 3 652      | 3 827  | 3 907  | 3 877  |
| 35                | -              | 2 385 | 2 785  | 3 175   | 3 537             | 3 853      | 4 106  | 4 277  | 4 348  |
| 40                | -              | 2 401 | 2 825  | 3 250   | 3 660             | 4 036      | 4 360  | 4 615  | 4 782  |
| 45                | -              | 2 442 | 2 882  | 3 336   | 3 787             | 4 215      | 4 605  | 4 936  | 5 192  |
| 50                | -              | -     | 2 971  | 3 447   | 3 932             | 4 407      | 4 854  | 5 255  | 5 593  |
| 55                | -              | -     | -      | 3 599   | 4 110             | 4 624      | 5 123  | 5 587  | 6 000  |
| 60                | -              | -     | -      | -       | -                 | -          | -      | -      | -      |
| Current consum    |                | 1     | T = == | T       | 1 000             | T 0.40     | T 0.=0 | 1      | 1      |
| 30                | -              | 5.17  | 5.52   | 5.87    | 6.20              | 6.49       | 6.72   | 6.85   | 6.88   |
| 35                | -              | 5.24  | 5.60   | 5.97    | 6.34              | 6.68       | 6.97   | 7.18   | 7.29   |
| 40                | -              | 5.27  | 5.64   | 6.05    | 6.46              | 6.86       | 7.21   | 7.50   | 7.70   |
| 45                | -              | 5.27  | 5.68   | 6.12    | 6.58              | 7.04       | 7.47   | 7.85   | 8.15   |
| 50                | -              | -     | 5.72   | 6.21    | 6.73              | 7.26       | 7.77   | 8.24   | 8.64   |
| 55                | -              | -     | -      | 6.34    | 6.92              | 7.52       | 8.12   | 8.69   | 9.21   |
| 60                | -              | -     | -      | -       | -                 | -          | -      | -      | -      |
| lass flow in kg   | /h             |       |        |         |                   |            |        |        |        |
| 30                | -              | 85    | 121    | 164     | 216               | 277        | 348    | 430    | 524    |
| 35                | -              | 76    | 110    | 151     | 200               | 258        | 326    | 404    | 494    |
| 40                | -              | 69    | 101    | 141     | 187               | 243        | 308    | 383    | 469    |
| 45                | -              | 63    | 94     | 132     | 178               | 231        | 293    | 366    | 449    |
| 50                | -              | -     | 89     | 126     | 170               | 222        | 283    | 353    | 434    |
| 55                | -              | -     | -      | 123     | 166               | 217        | 276    | 345    | 424    |
| 60                | -              | -     | -      | -       | -                 | -          | -      | -      | -      |
| Coefficient of pe | erformance (C. | O.P.) |        |         |                   |            |        |        |        |
| 30                | -              | 1.87  | 2.33   | 2.85    | 3.45              | 4.18       | 5.07   | 6.20   | 7.69   |
| 35                | -              | 1.60  | 2.00   | 2.45    | 2.95              | 3.54       | 4.25   | 5.12   | 6.23   |
| 40                | -              | 1.37  | 1.74   | 2.13    | 2.56              | 3.05       | 3.62   | 4.31   | 5.16   |
| 45                | -              | 1.17  | 1.51   | 1.86    | 2.23              | 2.65       | 3.13   | 3.69   | 4.36   |
| 50                | _              | -     | 1.32   | 1.64    | 1.96              | 2.32       | 2.72   | 3.18   | 3.73   |
| ~~                |                |       | -      | 1.44    | 1.73              | 2.05       | 2.39   | 2.78   | 3.23   |
| 55                | -              | _     | -      |         |                   |            | 2.39   |        | 3.23   |

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

| Cooling capacity    | 8 463 | W    |
|---------------------|-------|------|
| Power input         | 3 787 | W    |
| Current consumption | 6.58  | Α    |
| Mass flow           | 178   | kg/h |
| C.O.P.              | 2.23  |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

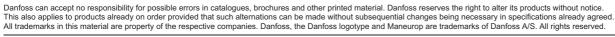
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

Pressure switch settings

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

Sound power data

| Sound power level   | 83 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 76 | dB(A) |







## Maneurop reciprocating compressor. MTZ056-4

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

R134a

| Cond. temp. in         | Evaporating temperature in °C (to) |       |       |       |       |        |        |        |        |
|------------------------|------------------------------------|-------|-------|-------|-------|--------|--------|--------|--------|
| °C (tc)                | -25                                | -20   | -10   | -5    | 0     | 5      | 10     | 15     | 20     |
| Cooling canacity       | in W                               |       |       |       |       |        |        |        |        |
| Cooling capacity<br>35 | 1 974                              | 2 818 | 5 298 | 7 054 | 9 233 | 11 897 | 15 106 | 18 919 | 23 398 |
| 40                     | 1 670                              | 2 452 | 4 750 | 6 387 | 8 430 | 10 939 | 13 974 | 17 595 | 21 864 |
| 45                     | 1 395                              | 2 114 | 4 231 | 5 750 | 7 657 | 10 011 | 12 873 | 16 304 | 20 363 |
| 50                     | 1 149                              | 1 805 | 3 743 | 5 144 | 6 916 | 9 116  | 11 806 | 15 045 | 18 895 |
| 55                     | -                                  | -     | 3 285 | 4 571 | 6 206 | 8 253  | 10 771 | 13 821 | 17 462 |
| 60                     | -                                  | -     | -     | 4 029 | 5 530 | 7 424  | 9 771  | 12 631 | 16 064 |
| 65                     | _                                  | _     | _     | -     | 4 888 | 6 629  | 8 805  | 11 476 | 14 702 |
| 75                     | -                                  | _     | _     | _     | -     | -      | 6 981  | 9 275  | 12 088 |
|                        |                                    |       |       |       | l     | 1      | 1 222  |        |        |
| Power input in W       |                                    | T     | T     | T     | 1     | 1      | 1      | 1      | 1      |
| 35                     | 1 429                              | 1 703 | 2 193 | 2 402 | 2 583 | 2 731  | 2 844  | 2 918  | 2 949  |
| 40                     | 1 377                              | 1 675 | 2 217 | 2 455 | 2 666 | 2 847  | 2 993  | 3 102  | 3 170  |
| 45                     | 1 330                              | 1 655 | 2 258 | 2 528 | 2 773 | 2 990  | 3 174  | 3 322  | 3 431  |
| 50                     | 1 276                              | 1 633 | 2 303 | 2 610 | 2 893 | 3 149  | 3 374  | 3 566  | 3 720  |
| 55                     | -                                  | -     | 2 340 | 2 687 | 3 013 | 3 312  | 3 583  | 3 822  | 4 025  |
| 60                     | -                                  | -     | -     | 2 750 | 3 121 | 3 469  | 3 789  | 4 078  | 4 334  |
| 65                     | -                                  | -     | -     | -     | 3 207 | 3 605  | 3 979  | 4 323  | 4 635  |
| 75                     | -                                  | -     | -     | -     | -     | -      | 4 266  | 4 731  | 5 167  |
| Current consum         | ption in A                         |       |       |       |       |        |        |        |        |
| 35                     | 5.42                               | 5.38  | 5.48  | 5.59  | 5.72  | 5.85   | 5.98   | 6.08   | 6.14   |
| 40                     | 5.40                               | 5.37  | 5.50  | 5.62  | 5.77  | 5.92   | 6.07   | 6.19   | 6.27   |
| 45                     | 5.37                               | 5.37  | 5.54  | 5.69  | 5.86  | 6.04   | 6.21   | 6.35   | 6.46   |
| 50                     | 5.33                               | 5.35  | 5.59  | 5.77  | 5.97  | 6.18   | 6.39   | 6.57   | 6.72   |
| 55                     | -                                  | -     | 5.62  | 5.84  | 6.09  | 6.35   | 6.59   | 6.82   | 7.01   |
| 60                     | -                                  | -     | -     | 5.90  | 6.20  | 6.51   | 6.81   | 7.09   | 7.33   |
| 65                     | -                                  | -     | -     | -     | 6.29  | 6.65   | 7.02   | 7.36   | 7.66   |
| 75                     | -                                  | -     | -     | -     | -     | -      | 7.35   | 7.84   | 8.30   |
| •                      |                                    |       |       |       | •     | •      | •      | •      | •      |
| Mass flow in kg/l      |                                    | T     | T     |       | T     | 1      | T      | T      | ı      |
| 35                     | 50                                 | 70    | 126   | 164   | 210   | 265    | 330    | 407    | 496    |
| 40                     | 45                                 | 64    | 119   | 156   | 201   | 256    | 320    | 396    | 485    |
| 45                     | 40                                 | 59    | 112   | 148   | 193   | 246    | 310    | 386    | 474    |
| 50                     | 35                                 | 53    | 105   | 140   | 184   | 237    | 300    | 375    | 463    |
| 55                     | -                                  | -     | 98    | 132   | 175   | 228    | 290    | 364    | 451    |
| 60                     | -                                  | -     | -     | 125   | 167   | 219    | 281    | 354    | 440    |
| 65                     | -                                  | -     | -     | -     | 159   | 210    | 271    | 344    | 430    |
| 75                     | -                                  | -     | -     | -     | -     | -      | 254    | 325    | 409    |
| Coefficient of pe      | rformance (C.O                     | ).P.) |       |       |       |        |        |        |        |
| 35                     | 1.38                               | 1.66  | 2.42  | 2.94  | 3.57  | 4.36   | 5.31   | 6.48   | 7.93   |
| 40                     | 1.21                               | 1.46  | 2.14  | 2.60  | 3.16  | 3.84   | 4.67   | 5.67   | 6.90   |
| 45                     | 1.05                               | 1.28  | 1.87  | 2.27  | 2.76  | 3.35   | 4.06   | 4.91   | 5.93   |
| 50                     | 0.90                               | 1.11  | 1.63  | 1.97  | 2.39  | 2.89   | 3.50   | 4.22   | 5.08   |
| 55                     | -                                  | -     | 1.40  | 1.70  | 2.06  | 2.49   | 3.01   | 3.62   | 4.34   |
| 60                     | -                                  | -     | -     | 1.47  | 1.77  | 2.14   | 2.58   | 3.10   | 3.71   |
| 65                     | -                                  | -     | -     | -     | 1.52  | 1.84   | 2.21   | 2.65   | 3.17   |
| 75                     | -                                  | -     | -     | -     | -     | -      | 1.64   | 1.96   | 2.34   |

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

| Cooling capacity    | 9 116 | W    |  |
|---------------------|-------|------|--|
| Power input         | 3 149 | W    |  |
| Current consumption | 6.18  | Α    |  |
| Mass flow           | 237   | kg/h |  |
| C.O.P.              | 2.89  |      |  |

to: Evaporating temperature at dew point

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point

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



## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

R134a

| -25             | -20          | -10   | -5    | ting temperature 0  | 5      | 40           | 45           |              |
|-----------------|--------------|-------|-------|---|--------|--------------|--------------|--------------|
|                 |              |       |       |   |        | 10           | 15           | 20           |
|                 |              |       | •     | 1   | 1      | •            |              | I.           |
| y in W          |              |       |       | 1   |        |              |              | T            |
| 2 146           | 3 058        | 5 729 | 7 614 | 9 952   | 12 804 | 16 234       | 20 304       | 25 078       |
| 1 827           | 2 675        | 5 162 | 6 929 | 9 130   | 11 828 | 15 086       | 18 967       | 23 534       |
| 1 536           | 2 321        | 4 626 | 6 275 | 8 339   | 10 883 | 13 970       | 17 663       | 22 025       |
| -               | 1 997        | 4 121 | 5 651 | 7 580   | 9 971  | 12 887       | 16 393       | 20 551       |
| -               | -            | 3 647 | 5 060 | 6 853   | 9 092  | 11 839       | 15 159       | 19 114       |
| -               | -            | -     | 4 501 | 6 161   | 8 248  | 10 828       | 13 963       | 17 717       |
| -               | -            | -     | -     | -   | 7 441  | 9 854        | 12 807       | 16 363       |
| -               | -            | -     | -     | -   | -      | 8 033        | 10 630       | 13 802       |
|                 |              |       |       |   |        |              |              |              |
|                 | 1 700        | 0.400 | 0.400 | 0.500   | 0.704  | 0.044        | 0.040        | 0.040        |
|                 |              |       |       |   |        |              |              | 2 949        |
|                 | 1            | ł     | ł     | ł   | +      |              |              | 3 170        |
|                 |              |       |       |   |        |              |              | 3 431        |
|                 |              |       |       |   |        |              |              | 3 720        |
|                 |              | +     |       | †   | +      |              |              | 4 025        |
| -               |              |       |       |   |        |              |              | 4 334        |
| -               | -            | -     | -     | -   |        | t            |              | 4 635        |
| -               | -            | -     | -     | -   | -      | 4 266        | 4 731        | 5 167        |
| ption in A      |              |       |       |   |        |              |              |              |
| •               | 5.38         | 5.48  | 5.59  | 5.72  | 5.85   | 5.98         | 6.08         | 6.14         |
|                 |              |       |       |   |        |              |              | 6.27         |
|                 |              |       |       |   |        |              |              | 6.46         |
|                 | 1            |       |       |   | +      |              |              | 6.72         |
|                 | 1            |       |       |   |        |              |              | 7.01         |
|                 |              |       |       |   |        |              |              | 7.33         |
|                 |              |       |       |   | +      |              |              | 7.66         |
| -               | _            | _     | _     | _   | -      | 7.35         | 7.84         | 8.30         |
|                 |              | .1    | .1    |   |        |              |              | I            |
| h               |              |       |       | 1   | 1      | 1            |              | T            |
| 49              | 70           | 126   | 163   | 209   | 264    | 329          | 405          | 494          |
| 44              | 64           | 118   | 155   | 200   | 254    | 319          | 394          | 482          |
| 40              | 58           | 111   | 147   | 192   | 245    | 309          | 384          | 471          |
| -               | 53           | 104   | 139   | 183   | 236    | 299          | 373          | 460          |
| -               | -            | 97    | 132   | 174   | 226    | 289          | 362          | 449          |
| -               | -            | -     | 124   | 166   | 217    | 279          | 352          | 438          |
| -               | -            | -     | -     | -   | 209    | 270          | 342          | 427          |
| -               | -            | -     | -     | -   | -      | 252          | 323          | 407          |
| uformores (C.C. | \ <b>D</b> \ |       |       |   |        |              |              |              |
| •               | T .          | 2.61  | 3 17  | 3.85  | 4 60   | 5 71         | 6.96         | 8.50         |
|                 |              | 1     | 1     | 1   |        |              |              | 7.42         |
|                 |              |       |       |   |        |              |              | 6.42         |
|                 | 1            |       |       |   |        |              |              | 5.52         |
|                 |              |       |       |   |        |              |              | 4.75         |
|                 |              |       |       |   |        |              |              |              |
|                 | 1            |       |       |   |        |              |              | 4.09         |
| -               | -            | -     | -     | -   | 2.06   | 2.48<br>1.88 | 2.96<br>2.25 | 3.53<br>2.67 |
|                 | 1 536        | 1 536 | 1 536 | 1 536         2 321         4 626         6 275           -         1 997         4 121         5 651           -         -         3 647         5 060           -         -         -         4 501           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         1633         2 303         2 610           -         -         2 340         2 687           -         -         -         2 750           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         -         -           -         -         - </td <td>  1 536</td> <td>1 536</td> <td>  1536</td> <td>  1536</td> | 1 536  | 1 536        | 1536         | 1536         |

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

| Nominal performance at to 7.2 0, to | 04.4 0 |      |
|-------------------------------------|--------|------|
| Cooling capacity                    | 10 347 | W    |
| Power input                         | 3 413  | W    |
| Current consumption                 | 6.44   | Α    |
| Mass flow                           | 254    | kg/h |
| C.O.P.                              | 3.03   |      |

to: Evaporating temperature at dew point

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

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) |

Tolerance according EN12900



tc: Condensing temperature at dew point



## Maneurop reciprocating compressor. MTZ056-4

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

**R407C** 

| Cond. temp. in     |            |       |        | Evapora | iting temperature | in °C (to) |         |          |   |
|--------------------|------------|-------|--------|---------|-------------------|------------|---------|----------|---|
| °C (tc)            | -15        | -10   | -5     | 0       | 5                 | 10         | 15      |          |   |
|                    |            |       |        |         |                   |            |         |          |   |
| Cooling capacity   |            | T     | T      | T       | T                 | 1          |         |          | 1 |
| 35                 | 6 847      | 9 024 | 11 655 | 14 801  | 18 524            | 22 886     | 27 950  | -        | - |
| 40                 | 6 200      | 8 245 | 10 713 | 13 663  | 17 158            | 21 260     | 26 031  | -        | - |
| 45                 | 5 557      | 7 470 | 9 772  | 12 525  | 15 791            | 19 631     | 24 106  | -        | - |
| 50                 | -          | 6 700 | 8 836  | 11 390  | 14 425            | 18 001     | 22 179  | -        | - |
| 55                 | -          | -     | 7 908  | 10 262  | 13 064            | 16 373     | 20 252  | -        | - |
| 60                 | -          | -     | -      | 9 143   | 11 709            | 14 750     | 18 327  | -        | - |
| 65                 | -          | -     | -      | 8 035   | 10 363            | 13 132     | 16 403  | -        | - |
| Danna immod im M   | ,          |       |        |         |                   |            |         |          |   |
| Power input in W   | 3 072      | 3 388 | 3 655  | 3 886   | 4 093             | 4 291      | 4 492   | _        | _ |
| 40                 | 3 174      | 3 551 | 3 871  | 4 147   | 4 393             | 4 622      | 4 846   | -        |   |
| 45                 | 3 239      | 3 685 | 4 068  | 4 399   | 4 692             | 4 961      | 5 218   | -        |   |
| 50                 | -          | 3 786 | 4 240  | 4 635   | 4 984             | 5 302      | 5 600   | -        | _ |
| 55                 | <u>-</u>   | -     | 4 382  | 4 849   | 5 264             | 5 639      | 5 988   | -        | - |
| 60                 |            | _     |        | 5 037   | 5 526             | 5 968      | 6 376   | <u> </u> | - |
| 65                 |            | -     | _      | 5 192   | 5 764             | 6 281      | 6 758   | <u> </u> | _ |
| 05                 |            |       |        | 3 192   | 3 704             | 0 201      | 0 7 3 0 |          |   |
| Current consum     | otion in A |       |        |         |                   |            |         |          |   |
| 35                 | 5.37       | 5.69  | 5.96   | 6.21    | 6.43              | 6.63       | 6.81    | -        | _ |
| 40                 | 5.48       | 5.87  | 6.21   | 6.52    | 6.80              | 7.06       | 7.30    | -        | - |
| 45                 | 5.56       | 6.02  | 6.44   | 6.82    | 7.17              | 7.49       | 7.79    | -        | - |
| 50                 | -          | 6.14  | 6.64   | 7.10    | 7.52              | 7.92       | 8.29    | -        | - |
| 55                 | -          | -     | 6.81   | 7.35    | 7.86              | 8.33       | 8.77    | -        | - |
| 60                 | -          | -     | -      | 7.57    | 8.16              | 8.72       | 9.24    | -        | - |
| 65                 | -          | -     | -      | 7.75    | 8.44              | 9.08       | 9.69    | -        | - |
| 1                  |            | •     | •      | •       | •                 | •          | 1       |          |   |
| Mass flow in kg/l  | 'n         |       |        |         |                   |            |         |          |   |
| 35                 | 149        | 193   | 245    | 306     | 377               | 459        | 554     | -        | - |
| 40                 | 141        | 185   | 236    | 296     | 366               | 447        | 540     | -        | - |
| 45                 | 134        | 177   | 227    | 286     | 355               | 434        | 525     | -        | - |
| 50                 | -          | 168   | 217    | 275     | 342               | 420        | 510     | -        | - |
| 55                 | -          | -     | 207    | 264     | 330               | 406        | 494     | -        | - |
| 60                 | -          | -     | -      | 252     | 316               | 391        | 477     | -        | - |
| 65                 | -          | -     | -      | 239     | 302               | 375        | 459     | -        | - |
|                    |            |       |        |         |                   |            |         |          |   |
| Coefficient of per | •          | 1     | T -    | T -     | T .               | T _        |         |          | 1 |
| 35                 | 2.23       | 2.66  | 3.19   | 3.81    | 4.53              | 5.33       | 6.22    | -        | - |
| 40                 | 1.95       | 2.32  | 2.77   | 3.29    | 3.91              | 4.60       | 5.37    | -        | - |
| 45                 | 1.72       | 2.03  | 2.40   | 2.85    | 3.37              | 3.96       | 4.62    | -        | - |
| 50                 | -          | 1.77  | 2.08   | 2.46    | 2.89              | 3.40       | 3.96    | -        | - |
| 55                 | -          | -     | 1.80   | 2.12    | 2.48              | 2.90       | 3.38    | -        | - |
| 60                 | -          | -     | -      | 1.82    | 2.12              | 2.47       | 2.87    | -        | - |
|                    |            |       | _      | 1.55    | 1.80              | 2.09       |         |          |   |

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

| Cooling capacity    | 14 425 | W    |
|---------------------|--------|------|
| Power input         | 4 984  | W    |
| Current consumption | 7.52   | Α    |
| Mass flow           | 342    | kg/h |
| C.O.P.              | 2.89   |      |

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) |
| L | LP pump down setting      | 1.7  | bar(g) |

Sound power data

| Sound power level   | 86 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 79 | dB(A) |

Tolerance according EN12900





## Maneurop reciprocating compressor. MTZ056-4

## Performance data at 60 Hz, ARI rating conditions

**R407C** 

| Cond. temp. in    |        |       |        | Evapora | iting temperature | in °C (to) |        |   |   |
|-------------------|--------|-------|--------|---------|-------------------|------------|--------|---|---|
| °C (tc)           | -15    | -10   | -5     | 0       | 5                 | 10         | 15     |   |   |
|                   |        | •     | •      | •       |                   | •          | •      | • | • |
| Cooling capacity  | y in W |       |        |         |                   |            |        |   |   |
| 35                | 7 370  | 9 701 | 12 515 | 15 875  | 19 846            | 24 494     | 29 884 | - | - |
| 40                | 6 710  | 8 911 | 11 562 | 14 728  | 18 474            | 22 864     | 27 963 | - | - |
| 45                | 6 053  | 8 123 | 10 611 | 13 581  | 17 099            | 21 230     | 26 037 | - | - |
| 50                | -      | 7 340 | 9 663  | 12 436  | 15 725            | 19 595     | 24 110 | - | - |
| 55                | -      | -     | 8 722  | 11 298  | 14 357            | 17 965     | 22 186 | - | - |
| 60                | -      | -     | -      | 10 169  | 12 997            | 16 341     | 20 267 | - | - |
| 65                | -      | -     | -      | 9 054   | 11 649            | 14 729     | 18 358 | - | - |
|                   |        |       |        |         |                   |            |        |   |   |
| Power input in V  |        | 1     | T      | T       | 1                 | 1          | T      | Т | T |
| 35                | 3 072  | 3 388 | 3 655  | 3 886   | 4 093             | 4 291      | 4 492  | - | - |
| 40                | 3 174  | 3 551 | 3 871  | 4 147   | 4 393             | 4 622      | 4 846  | - | - |
| 45                | 3 239  | 3 685 | 4 068  | 4 399   | 4 692             | 4 961      | 5 218  | - | - |
| 50                | -      | 3 786 | 4 240  | 4 635   | 4 984             | 5 302      | 5 600  | - | - |
| 55                | -      | -     | 4 382  | 4 849   | 5 264             | 5 639      | 5 988  | - | - |
| 60                | -      | -     | -      | 5 037   | 5 526             | 5 968      | 6 376  | - | - |
| 65                | -      | -     | -      | 5 192   | 5 764             | 6 281      | 6 758  | - | - |
|                   |        |       |        |         |                   |            |        |   |   |
| Current consum    |        | 1     | 1      | 1       | 1                 | T          | 1      | Т | T |
| 35                | 5.37   | 5.69  | 5.96   | 6.21    | 6.43              | 6.63       | 6.81   | - | - |
| 40                | 5.48   | 5.87  | 6.21   | 6.52    | 6.80              | 7.06       | 7.30   | - | - |
| 45                | 5.56   | 6.02  | 6.44   | 6.82    | 7.17              | 7.49       | 7.79   | - | - |
| 50                | -      | 6.14  | 6.64   | 7.10    | 7.52              | 7.92       | 8.29   | - | - |
| 55                | -      | -     | 6.81   | 7.35    | 7.86              | 8.33       | 8.77   | - | - |
| 60                | -      | -     | -      | 7.57    | 8.16              | 8.72       | 9.24   | - | - |
| 65                | -      | -     | -      | 7.75    | 8.44              | 9.08       | 9.69   | - | - |
|                   | _      |       |        |         |                   |            |        |   |   |
| Mass flow in kg/  |        | 100   | 1 040  | 1 00.   | 075               | 1          |        |   | I |
| 35                | 148    | 192   | 243    | 304     | 375               | 457        | 550    | - | - |
| 40                | 141    | 184   | 235    | 294     | 364               | 444        | 536    | - | - |
| 45                | 133    | 176   | 226    | 284     | 352               | 431        | 522    | - | - |
| 50                | -      | 167   | 216    | 273     | 340               | 418        | 507    | - | - |
| 55                | -      | -     | 206    | 262     | 328               | 403        | 491    | - | - |
| 60                | -      | -     | -      | 250     | 314               | 388        | 474    | - | - |
| 65                | -      | -     | -      | 238     | 300               | 373        | 456    | - | - |
| 0 651 - 1 4 - 5   |        |       |        |         |                   |            |        |   |   |
| Coefficient of pe |        |       | 0.10   | 1.00    | 105               | T 574      | 0.05   | I | l |
| 35                | 2.40   | 2.86  | 3.42   | 4.09    | 4.85              | 5.71       | 6.65   | - | - |
| 40                | 2.11   | 2.51  | 2.99   | 3.55    | 4.20              | 4.95       | 5.77   | - | - |
| 45                | 1.87   | 2.20  | 2.61   | 3.09    | 3.64              | 4.28       | 4.99   | - | - |
| 50                | -      | 1.94  | 2.28   | 2.68    | 3.16              | 3.70       | 4.31   | - | - |
| 55                | -      | -     | 1.99   | 2.33    | 2.73              | 3.19       | 3.71   | - | - |
| 60                | -      | -     | -      | 2.02    | 2.35              | 2.74       | 3.18   | - | - |
| 65                | -      | -     | -      | 1.74    | 2.02              | 2.34       | 2.72   | - | - |

| Nominal performance at to = 7.2 °C, tc = 54.4 °C | С |
|--|---|
|--|---|

| Cooling capacity    | 16 050 | W    |
|---------------------|--------|------|
| Power input         | 5 397  | W    |
| Current consumption | 8.03   | Α    |
| Mass flow           | 361    | kg/h |
| C.O.P.              | 2.97   |      |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

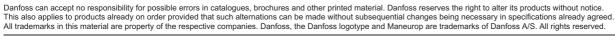
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

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(q) |  |

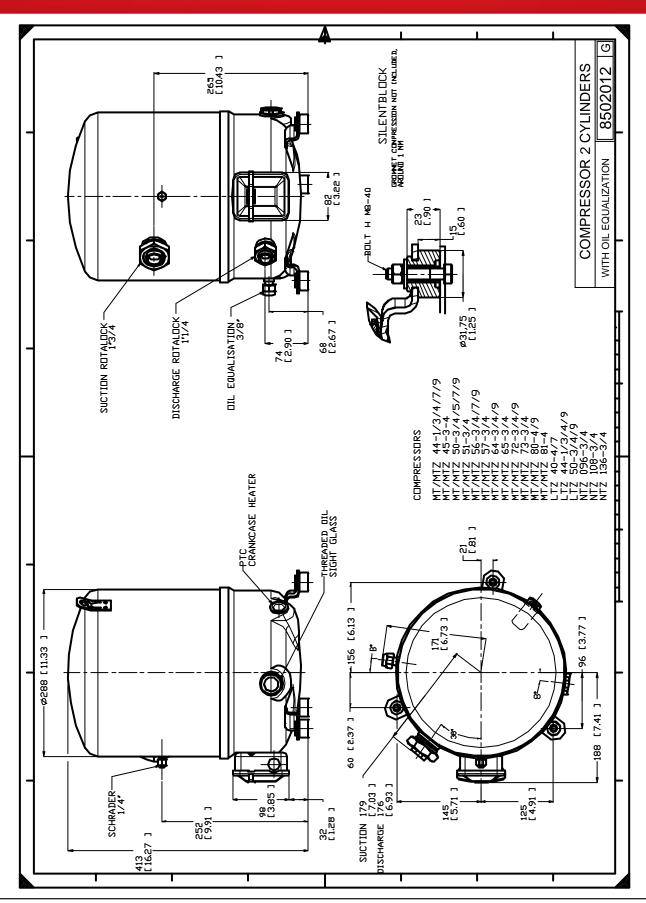
Sound power data

| Sound power level   | 86 | dB(A) |
|---------------------|----|-------|
| With accoustic hood | 79 | dB(A) |









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