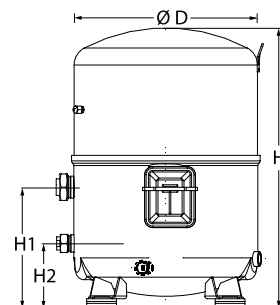
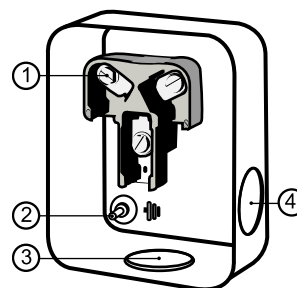


**General Characteristics**

|                                                   |                                               |                    |
|---------------------------------------------------|-----------------------------------------------|--------------------|
| Model number (on compressor nameplate)            |                                               | <b>MTZ100HS3VE</b> |
| Code number for Singlepack*                       |                                               | MTZ100-3VI         |
| Code number for Industrial pack**                 |                                               | MTZ100-3VM         |
| Drawing number                                    |                                               | 8504010f           |
| Suction and discharge connections                 |                                               | Rotolock           |
| Suction connection                                |                                               | 1-3/4 " Rotolock   |
| Discharge connection                              |                                               | 1-1/4 " Rotolock   |
| Suction connection with supplied sleeve           |                                               | 1-1/8 " ODF        |
| Discharge connection with supplied sleeve         |                                               | 3/4 " ODF          |
| Oil sight glass                                   |                                               | Threaded           |
| Oil equalization connection                       |                                               | 3/8" flare SAE     |
| Oil drain connection                              |                                               | None               |
| LP gauge port                                     |                                               | Schrader           |
| IPR valve                                         |                                               | 435 psi / 115 psi  |
| Cylinders                                         | 4                                             |                    |
| Swept volume                                      | 10.45 in3/rev                                 |                    |
| Displacement @ Nominal speed                      | 1270 cfh @ 3500 rpm                           |                    |
| Net weight                                        | 132 lbs                                       |                    |
| Oil charge                                        | 132 oz, POE - 175PZ                           |                    |
| Maximum system test pressure Low Side / High side | 363 psi / 435 psi                             |                    |
| Maximum differential test pressure                | 435 psi                                       |                    |
| Maximum number of starts per hour                 | 12                                            |                    |
| Refrigerant charge limit                          | 22 lbs                                        |                    |
| Approved refrigerants                             | R404A,R134a,R407A/C/F,R448A,R449A,R452A,R513A |                    |

**Dimensions**


D=13.9 inch, H=20.4 inch,  
H1=9.2 inch, H2=4.9 inch, H3=- inch

**Terminal box**


IP54 (with cable gland)

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth M4-12
- 3: Knock-out Ø 29 mm (1.14")
- 4: Knock-out Ø 25.5 mm (1.00")

**Electrical Characteristics**

|                                                    |                             |
|----------------------------------------------------|-----------------------------|
| Nominal voltage                                    | 200-230V/3/60Hz             |
| Voltage range                                      | 180-253 V                   |
| Winding resistance (between phases) +/- 7% at 77°F | 0.51 Ω                      |
| Maximum Continuous Current (MCC)                   | 43 A                        |
| Locked Rotor Amps (LRA)                            | 157 A                       |
| Motor protection                                   | Internal overload protector |

**Recommended Installation torques**

|                                      |                     |
|--------------------------------------|---------------------|
| Oil sight glass                      | 37 ft.lbs           |
| Power connections / Earth connection | 2 ft.lbs / 1 ft.lbs |
| Mounting bolts                       | 37 ft.lbs           |

**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), -

\*Singlepack: Compressor in cardboard box

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

**Rotolock accessories, suction side**

**Code no.**

|                                                   |         |
|---------------------------------------------------|---------|
| Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)  | 8153004 |
| Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF) | 8168028 |
| Gasket, 1-3/4"                                    | 8156132 |

**Rotolock accessories, discharge side**

**Code no.**

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

**Rotolock accessories, sets**

**Code no.**

|                                                           |         |
|-----------------------------------------------------------|---------|
| Valve set, V02 (1-3/4"~1-1/8"), V04 (1-1/4"~3/4")         | 7703009 |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white | 8156009 |

**Oil / lubricants**

**Code no.**

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

**Crankcase heaters**

**Code no.**

|                                                      |          |
|------------------------------------------------------|----------|
| PTC heater 27W, CE mark, UL                          | 120Z0459 |
| Belt type crankcase heater, 75 W, 110 V, CE mark, UL | 7773110  |
| Belt type crankcase heater, 75 W, 230 V, CE mark, UL | 7773108  |

**Miscellaneous accessories**

**Code no.**

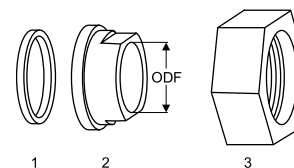
|                                         |          |
|-----------------------------------------|----------|
| Acoustic hood for 4 cylinder compressor | 120Z0473 |
| Oil equalisation nut                    | 8153127  |

**Spare parts**

**Code no.**

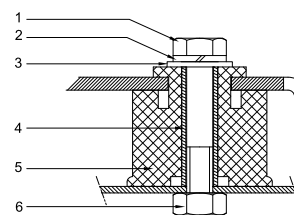
|                                                                            |         |
|----------------------------------------------------------------------------|---------|
| Mounting kit for 4 cylinder compressor & MS, including 4 grommets, 4 bolts | 8156007 |
| Oil sight glass with gaskets (black & white)                               | 8156019 |
| Gasket for oil sight glass (black chloroprene)                             | 8156145 |
| Service kit for terminal box 96 x 115 mm, including 1 cover, 1 clamp       | 8156135 |
| T block connector 2.1" x 2.3"                                              | 8173230 |

**Gaskets, sleeves and nuts**



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

**Mounting kit**



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

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

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |   |    |    |    |    |    |    |    |
|---------------------------|------------------------------------|---|----|----|----|----|----|----|----|
|                           | -10                                | 0 | 10 | 20 | 30 | 40 | 50 | 60 | 65 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |        |        |        |         |         |
|-----|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 100 | 13 514 | 20 519 | 29 555 | 40 996 | 55 217 | 72 590 | 93 485 | 118 272 | 132 239 |
| 110 | 11 607 | 18 194 | 26 631 | 37 298 | 50 569 | 66 819 | 86 419 | 109 740 | 122 912 |
| 120 | 9 713  | 15 875 | 23 708 | 33 593 | 45 907 | 61 026 | 79 324 | 101 174 | 113 547 |
| 130 | -      | -      | 20 807 | 29 903 | 41 252 | 55 234 | 72 225 | 92 598  | 104 170 |
| 140 | -      | -      | -      | 26 250 | 36 629 | 49 468 | 65 145 | 84 038  | 94 807  |
| 150 | -      | -      | -      | -      | -      | 43 751 | 58 112 | 75 524  | 85 491  |
| 160 | -      | -      | -      | -      | -      | -      | 51 154 | 67 086  | 76 254  |
| 165 | -      | -      | -      | -      | -      | -      | 47 712 | 62 908  | 71 678  |

**Power input in W**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 100 | 3 003 | 3 497 | 3 976 | 4 412 | 4 782 | 5 059 | 5 219 | 5 236 | 5 183 |
| 110 | 3 077 | 3 604 | 4 126 | 4 620 | 5 058 | 5 417 | 5 670 | 5 793 | 5 797 |
| 120 | 3 101 | 3 667 | 4 242 | 4 800 | 5 316 | 5 764 | 6 119 | 6 356 | 6 422 |
| 130 | -     | -     | 4 319 | 4 950 | 5 550 | 6 096 | 6 561 | 6 919 | 7 051 |
| 140 | -     | -     | -     | 5 063 | 5 757 | 6 408 | 6 990 | 7 479 | 7 680 |
| 150 | -     | -     | -     | -     | -     | 6 695 | 7 403 | 8 030 | 8 305 |
| 160 | -     | -     | -     | -     | -     | -     | 7 794 | 8 567 | 8 920 |
| 165 | -     | -     | -     | -     | -     | -     | 7 980 | 8 829 | 9 222 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 100 | 16.23 | 16.94 | 17.61 | 18.24 | 18.78 | 19.21 | 19.48 | 19.58 | 19.55 |
| 110 | 16.21 | 16.98 | 17.75 | 18.49 | 19.18 | 19.77 | 20.24 | 20.55 | 20.64 |
| 120 | 16.12 | 16.97 | 17.85 | 18.73 | 19.57 | 20.34 | 21.02 | 21.56 | 21.78 |
| 130 | -     | -     | 17.91 | 18.94 | 19.95 | 20.93 | 21.83 | 22.62 | 22.97 |
| 140 | -     | -     | -     | 19.13 | 20.33 | 21.52 | 22.66 | 23.72 | 24.21 |
| 150 | -     | -     | -     | -     | -     | 22.12 | 23.51 | 24.86 | 25.50 |
| 160 | -     | -     | -     | -     | -     | -     | 24.39 | 26.03 | 26.83 |
| 165 | -     | -     | -     | -     | -     | -     | 24.83 | 26.63 | 27.51 |

**Mass flow in lbs/h**

|     |     |     |     |     |     |     |       |       |       |
|-----|-----|-----|-----|-----|-----|-----|-------|-------|-------|
| 100 | 207 | 308 | 433 | 586 | 770 | 991 | 1 252 | 1 556 | 1 725 |
| 110 | 188 | 288 | 411 | 561 | 743 | 959 | 1 215 | 1 513 | 1 680 |
| 120 | 167 | 266 | 387 | 534 | 712 | 924 | 1 175 | 1 468 | 1 631 |
| 130 | -   | -   | 360 | 504 | 678 | 886 | 1 131 | 1 418 | 1 578 |
| 140 | -   | -   | -   | 472 | 642 | 844 | 1 084 | 1 364 | 1 521 |
| 150 | -   | -   | -   | -   | -   | 799 | 1 033 | 1 307 | 1 460 |
| 160 | -   | -   | -   | -   | -   | -   | 978   | 1 245 | 1 395 |
| 165 | -   | -   | -   | -   | -   | -   | 949   | 1 212 | 1 360 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |      |      |      |       |       |       |       |       |
|-----|------|------|------|------|-------|-------|-------|-------|-------|
| 100 | 4.50 | 5.87 | 7.43 | 9.29 | 11.55 | 14.35 | 17.91 | 22.59 | 25.52 |
| 110 | 3.77 | 5.05 | 6.45 | 8.07 | 10.00 | 12.34 | 15.24 | 18.94 | 21.20 |
| 120 | 3.13 | 4.33 | 5.59 | 7.00 | 8.64  | 10.59 | 12.96 | 15.92 | 17.68 |
| 130 | -    | -    | 4.82 | 6.04 | 7.43  | 9.06  | 11.01 | 13.38 | 14.77 |
| 140 | -    | -    | -    | 5.19 | 6.36  | 7.72  | 9.32  | 11.24 | 12.34 |
| 150 | -    | -    | -    | -    | -     | 6.54  | 7.85  | 9.41  | 10.29 |
| 160 | -    | -    | -    | -    | -     | -     | 6.56  | 7.83  | 8.55  |
| 165 | -    | -    | -    | -    | -     | -     | 5.98  | 7.13  | 7.77  |

**Nominal performance at to = 45 °F, tc = 130 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 63 330 | Btu/h | Current consumption | 21.39 | A     |
| Power input      | 6 340  | W     | Mass flow           | 1 004 | lbs/h |
| E.E.R.           | 9.99   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 293 | psi(g) |
| Minimum LP switch setting | 1   | psi(g) |
| LP pump down setting      | 6   | psi(g) |

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T<sub>0</sub> : Evaporating temperature at dew point  
T<sub>C</sub> : Condensing temperature at dew point  
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F  
Tolerance according EN12900

**Sound power data**

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

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R404A**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |        |        |         |         |         |
|-----|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 90  | 22 865 | 32 808 | 45 033 | 59 863 | 77 625 | 98 642 | 123 238 | 136 980 | 151 739 |
| 100 | 19 121 | 28 284 | 39 514 | 53 134 | 69 470 | 88 845 | 111 586 | 124 319 | 138 015 |
| 110 | 15 483 | 23 819 | 34 007 | 46 370 | 61 234 | 78 922 | 99 760  | 111 462 | 124 072 |
| 120 | 11 984 | 19 448 | 28 547 | 39 608 | 52 953 | 68 908 | 87 797  | 98 443  | 109 944 |
| 130 | -      | 15 205 | 23 170 | 32 881 | 44 661 | 58 836 | 75 730  | 85 298  | 95 667  |
| 140 | -      | 11 127 | 17 911 | 26 225 | 36 394 | 48 743 | 63 595  | 72 062  | 81 276  |

**Power input in W**

|     |       |       |       |       |       |        |        |        |        |
|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 90  | 5 117 | 5 893 | 6 544 | 7 079 | 7 508 | 7 843  | 8 093  | 8 190  | 8 270  |
| 100 | 5 055 | 5 969 | 6 752 | 7 416 | 7 972 | 8 429  | 8 798  | 8 953  | 9 090  |
| 110 | 4 906 | 5 964 | 6 888 | 7 689 | 8 378 | 8 965  | 9 460  | 9 677  | 9 875  |
| 120 | 4 667 | 5 876 | 6 948 | 7 894 | 8 724 | 9 448  | 10 077 | 10 360 | 10 622 |
| 130 | -     | 5 703 | 6 931 | 8 029 | 9 007 | 9 876  | 10 647 | 10 999 | 11 330 |
| 140 | -     | 5 443 | 6 834 | 8 091 | 9 225 | 10 247 | 11 167 | 11 592 | 11 995 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90  | 17.37 | 18.91 | 20.27 | 21.45 | 22.40 | 23.12 | 23.58 | 23.70 | 23.74 |
| 100 | 17.26 | 19.05 | 20.68 | 22.13 | 23.38 | 24.40 | 25.18 | 25.47 | 25.68 |
| 110 | 16.99 | 19.03 | 20.94 | 22.69 | 24.24 | 25.59 | 26.70 | 27.17 | 27.56 |
| 120 | 16.52 | 18.85 | 21.05 | 23.11 | 24.99 | 26.67 | 28.14 | 28.78 | 29.37 |
| 130 | -     | 18.49 | 21.00 | 23.38 | 25.60 | 27.64 | 29.47 | 30.31 | 31.08 |
| 140 | -     | 17.94 | 20.77 | 23.49 | 26.07 | 28.47 | 30.69 | 31.73 | 32.70 |

**Mass flow in lbs/h**

|     |     |     |     |       |       |       |       |       |       |
|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 90  | 473 | 661 | 881 | 1 137 | 1 435 | 1 778 | 2 172 | 2 389 | 2 621 |
| 100 | 430 | 617 | 835 | 1 089 | 1 382 | 1 721 | 2 109 | 2 323 | 2 552 |
| 110 | 383 | 569 | 785 | 1 035 | 1 325 | 1 659 | 2 041 | 2 251 | 2 476 |
| 120 | 331 | 516 | 729 | 976   | 1 262 | 1 590 | 1 966 | 2 173 | 2 393 |
| 130 | -   | 457 | 668 | 911   | 1 192 | 1 515 | 1 884 | 2 087 | 2 304 |
| 140 | -   | 392 | 600 | 840   | 1 116 | 1 433 | 1 795 | 1 995 | 2 208 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |      |      |      |       |       |       |       |       |
|-----|------|------|------|------|-------|-------|-------|-------|-------|
| 90  | 4.47 | 5.57 | 6.88 | 8.46 | 10.34 | 12.58 | 15.23 | 16.73 | 18.35 |
| 100 | 3.78 | 4.74 | 5.85 | 7.16 | 8.71  | 10.54 | 12.68 | 13.89 | 15.18 |
| 110 | 3.16 | 3.99 | 4.94 | 6.03 | 7.31  | 8.80  | 10.55 | 11.52 | 12.56 |
| 120 | 2.57 | 3.31 | 4.11 | 5.02 | 6.07  | 7.29  | 8.71  | 9.50  | 10.35 |
| 130 | -    | 2.67 | 3.34 | 4.10 | 4.96  | 5.96  | 7.11  | 7.76  | 8.44  |
| 140 | -    | 2.04 | 2.62 | 3.24 | 3.95  | 4.76  | 5.69  | 6.22  | 6.78  |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 52 953 | Btu/h | Current consumption | 24.99 | A     |
| Power input      | 8 724  | W     | Mass flow           | 1 262 | lbs/h |
| E.E.R.           | 6.07   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 402 | psi(g) |
| Minimum LP switch setting | 15  | psi(g) |
| LP pump down setting      | 19  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

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

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R407A**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |        |        |         |         |         |
|-----|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| 90  | 16 438 | 25 673 | 37 255 | 51 538 | 68 877 | 89 626 | 114 138 | 127 915 | 142 765 |
| 100 | 13 886 | 22 631 | 33 498 | 46 842 | 63 016 | 82 376 | 105 275 | 118 162 | 132 066 |
| 110 | 11 177 | 19 409 | 29 536 | 41 916 | 56 901 | 74 848 | 96 109  | 108 094 | 121 039 |
| 120 | -      | 16 048 | 25 412 | 36 802 | 50 575 | 67 083 | 86 682  | 97 751  | 109 726 |
| 130 | -      | -      | 21 168 | 31 545 | 44 078 | 59 124 | 77 036  | 87 178  | 98 169  |
| 140 | -      | -      | -      | 26 184 | 37 455 | 51 013 | 67 214  | 76 416  | 86 412  |

**Power input in W**

|     |       |       |       |       |       |       |        |        |        |
|-----|-------|-------|-------|-------|-------|-------|--------|--------|--------|
| 90  | 3 824 | 4 608 | 5 302 | 5 900 | 6 397 | 6 788 | 7 067  | 7 163  | 7 229  |
| 100 | 3 789 | 4 691 | 5 504 | 6 222 | 6 840 | 7 353 | 7 755  | 7 913  | 8 041  |
| 110 | 3 668 | 4 699 | 5 641 | 6 490 | 7 239 | 7 884 | 8 420  | 8 645  | 8 841  |
| 120 | -     | 4 623 | 5 705 | 6 695 | 7 586 | 8 374 | 9 053  | 9 350  | 9 619  |
| 130 | -     | -     | 5 687 | 6 827 | 7 870 | 8 812 | 9 645  | 10 020 | 10 366 |
| 140 | -     | -     | -     | 6 878 | 8 084 | 9 188 | 10 186 | 10 644 | 11 073 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90  | 17.64 | 18.80 | 19.96 | 21.06 | 22.02 | 22.81 | 23.35 | 23.51 | 23.58 |
| 100 | 17.67 | 18.98 | 20.31 | 21.60 | 22.79 | 23.82 | 24.63 | 24.93 | 25.16 |
| 110 | 17.60 | 19.09 | 20.62 | 22.14 | 23.58 | 24.89 | 26.01 | 26.48 | 26.87 |
| 120 | -     | 19.04 | 20.81 | 22.59 | 24.32 | 25.95 | 27.40 | 28.05 | 28.63 |
| 130 | -     | -     | 20.78 | 22.86 | 24.92 | 26.89 | 28.72 | 29.56 | 30.35 |
| 140 | -     | -     | -     | 22.86 | 25.27 | 27.62 | 29.86 | 30.92 | 31.92 |

**Mass flow in lbs/h**

|     |     |     |     |     |     |       |       |       |       |
|-----|-----|-----|-----|-----|-----|-------|-------|-------|-------|
| 90  | 256 | 392 | 556 | 753 | 986 | 1 259 | 1 578 | 1 755 | 1 945 |
| 100 | 230 | 366 | 530 | 725 | 955 | 1 224 | 1 537 | 1 711 | 1 897 |
| 110 | 198 | 335 | 498 | 691 | 917 | 1 182 | 1 489 | 1 659 | 1 841 |
| 120 | -   | 298 | 460 | 650 | 873 | 1 133 | 1 433 | 1 599 | 1 778 |
| 130 | -   | -   | 415 | 602 | 821 | 1 075 | 1 369 | 1 532 | 1 706 |
| 140 | -   | -   | -   | 547 | 761 | 1 010 | 1 297 | 1 456 | 1 626 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |      |      |      |       |       |       |       |       |
|-----|------|------|------|------|-------|-------|-------|-------|-------|
| 90  | 4.30 | 5.57 | 7.03 | 8.73 | 10.77 | 13.20 | 16.15 | 17.86 | 19.75 |
| 100 | 3.66 | 4.82 | 6.09 | 7.53 | 9.21  | 11.20 | 13.58 | 14.93 | 16.42 |
| 110 | 3.05 | 4.13 | 5.24 | 6.46 | 7.86  | 9.49  | 11.41 | 12.50 | 13.69 |
| 120 | -    | 3.47 | 4.45 | 5.50 | 6.67  | 8.01  | 9.57  | 10.45 | 11.41 |
| 130 | -    | -    | 3.72 | 4.62 | 5.60  | 6.71  | 7.99  | 8.70  | 9.47  |
| 140 | -    | -    | -    | 3.81 | 4.63  | 5.55  | 6.60  | 7.18  | 7.80  |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 50 575 | Btu/h | Current consumption | 24.32 | A     |
| Power input      | 7 586  | W     | Mass flow           | 873   | lbs/h |
| E.E.R.           | 6.67   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 374 | psi(g) |
| Minimum LP switch setting | 13  | psi(g) |
| LP pump down setting      | 17  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

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

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

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |    |    |    |    |    |    |    |    |
|---------------------------|------------------------------------|----|----|----|----|----|----|----|----|
|                           | 10                                 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |        |         |         |         |         |
|-----|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 100 | 48 573 | 65 758 | 75 648 | 86 484 | 98 326 | 111 235 | 125 271 | 140 494 | 156 966 |
| 110 | 43 812 | 59 987 | 69 264 | 79 416 | 90 503 | 102 585 | 115 723 | 129 977 | 145 408 |
| 120 | -      | 54 109 | 62 778 | 72 250 | 82 586 | 93 846  | 106 090 | 119 378 | 133 772 |
| 130 | -      | 48 133 | 56 198 | 64 995 | 74 584 | 85 026  | 96 380  | 108 707 | 122 069 |
| 140 | -      | -      | 49 535 | 57 661 | 66 507 | 76 134  | 86 603  | 97 974  | 110 307 |
| 150 | -      | -      | -      | -      | 58 364 | 67 182  | 76 769  | 87 187  | 98 496  |

**Power input in W**

|     |       |       |       |       |        |        |        |        |        |
|-----|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| 100 | 6 129 | 6 725 | 6 974 | 7 196 | 7 398  | 7 584  | 7 760  | 7 931  | 8 101  |
| 110 | 6 382 | 7 143 | 7 462 | 7 747 | 8 004  | 8 238  | 8 453  | 8 655  | 8 850  |
| 120 | -     | 7 487 | 7 894 | 8 261 | 8 590  | 8 889  | 9 162  | 9 414  | 9 650  |
| 130 | -     | 7 737 | 8 251 | 8 715 | 9 135  | 9 517  | 9 864  | 10 184 | 10 480 |
| 140 | -     | -     | 8 509 | 9 089 | 9 617  | 10 099 | 10 540 | 10 944 | 11 318 |
| 150 | -     | -     | -     | -     | 10 016 | 10 616 | 11 167 | 11 674 | 12 142 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 100 | 19.67 | 20.90 | 21.44 | 21.94 | 22.40 | 22.82 | 23.19 | 23.53 | 23.82 |
| 110 | 20.18 | 21.73 | 22.42 | 23.05 | 23.63 | 24.15 | 24.62 | 25.04 | 25.40 |
| 120 | -     | 22.46 | 23.34 | 24.15 | 24.90 | 25.57 | 26.18 | 26.73 | 27.21 |
| 130 | -     | 22.99 | 24.11 | 25.14 | 26.10 | 26.98 | 27.79 | 28.51 | 29.16 |
| 140 | -     | -     | 24.62 | 25.93 | 27.15 | 28.29 | 29.33 | 30.28 | 31.14 |
| 150 | -     | -     | -     | -     | 27.95 | 29.38 | 30.70 | 31.93 | 33.06 |

**Mass flow in lbs/h**

|     |     |     |     |       |       |       |       |       |       |
|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 100 | 639 | 850 | 969 | 1 099 | 1 239 | 1 391 | 1 554 | 1 730 | 1 919 |
| 110 | 607 | 815 | 933 | 1 061 | 1 198 | 1 347 | 1 507 | 1 680 | 1 865 |
| 120 | -   | 777 | 893 | 1 018 | 1 154 | 1 299 | 1 457 | 1 625 | 1 807 |
| 130 | -   | 734 | 848 | 971   | 1 104 | 1 247 | 1 401 | 1 567 | 1 744 |
| 140 | -   | -   | 798 | 920   | 1 050 | 1 191 | 1 341 | 1 503 | 1 677 |
| 150 | -   | -   | -   | -     | 990   | 1 128 | 1 276 | 1 434 | 1 604 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |      |       |       |       |       |       |       |       |
|-----|------|------|-------|-------|-------|-------|-------|-------|-------|
| 100 | 7.93 | 9.78 | 10.85 | 12.02 | 13.29 | 14.67 | 16.14 | 17.72 | 19.38 |
| 110 | 6.86 | 8.40 | 9.28  | 10.25 | 11.31 | 12.45 | 13.69 | 15.02 | 16.43 |
| 120 | -    | 7.23 | 7.95  | 8.75  | 9.61  | 10.56 | 11.58 | 12.68 | 13.86 |
| 130 | -    | 6.22 | 6.81  | 7.46  | 8.16  | 8.93  | 9.77  | 10.67 | 11.65 |
| 140 | -    | -    | 5.82  | 6.34  | 6.92  | 7.54  | 8.22  | 8.95  | 9.75  |
| 150 | -    | -    | -     | -     | 5.83  | 6.33  | 6.87  | 7.47  | 8.11  |

**Nominal performance at to = 45 °F, tc = 130 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 96 380 | Btu/h | Current consumption | 27.79 | A     |
| Power input      | 9 864  | W     | Mass flow           | 1 401 | lbs/h |
| E.E.R.           | 9.77   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 426 | psi(g) |
| Minimum LP switch setting | 20  | psi(g) |
| LP pump down setting      | 25  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

Tolerance according EN12900

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 90 | dB(A) |
| With acoustic hood | 84 | dB(A) |

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R407F**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |   |        |        |        |        |        |         |         |         |
|-----|---|--------|--------|--------|--------|--------|---------|---------|---------|
| 90  | - | 27 409 | 40 222 | 56 111 | 75 503 | 98 821 | 126 491 | 142 090 | 158 936 |
| 100 | - | 23 707 | 35 374 | 49 738 | 67 224 | 88 257 | 113 262 | 127 387 | 142 664 |
| 110 | - | 20 490 | 31 275 | 44 377 | 60 221 | 79 232 | 101 836 | 114 618 | 128 457 |
| 120 | - | -      | 27 689 | 39 792 | 54 257 | 71 510 | 91 976  | 103 546 | 116 080 |
| 130 | - | -      | -      | 35 747 | 49 098 | 64 856 | 83 447  | 93 938  | 105 298 |
| 140 | - | -      | -      | -      | -      | -      | -       | -       | -       |

**Power input in W**

|     |   |       |       |       |       |       |        |        |        |
|-----|---|-------|-------|-------|-------|-------|--------|--------|--------|
| 90  | - | 4 856 | 5 586 | 6 221 | 6 732 | 7 089 | 7 261  | 7 269  | 7 219  |
| 100 | - | 4 967 | 5 800 | 6 560 | 7 215 | 7 736 | 8 093  | 8 201  | 8 256  |
| 110 | - | 5 066 | 5 990 | 6 860 | 7 646 | 8 318 | 8 846  | 9 046  | 9 199  |
| 120 | - | -     | 6 181 | 7 148 | 8 051 | 8 859 | 9 544  | 9 830  | 10 074 |
| 130 | - | -     | -     | 7 448 | 8 453 | 9 385 | 10 213 | 10 579 | 10 907 |
| 140 | - | -     | -     | -     | -     | -     | -      | -      | -      |

**Current consumption in A**

|     |   |       |       |       |       |       |       |       |       |
|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 90  | - | 18.98 | 20.25 | 21.45 | 22.49 | 23.28 | 23.72 | 23.78 | 23.73 |
| 100 | - | 19.30 | 20.73 | 22.13 | 23.41 | 24.48 | 25.25 | 25.49 | 25.62 |
| 110 | - | 19.44 | 21.07 | 22.71 | 24.27 | 25.66 | 26.78 | 27.22 | 27.55 |
| 120 | - | -     | 21.34 | 23.25 | 25.13 | 26.87 | 28.39 | 29.03 | 29.59 |
| 130 | - | -     | -     | 23.81 | 26.03 | 28.17 | 30.12 | 30.99 | 31.79 |
| 140 | - | -     | -     | -     | -     | -     | -     | -     | -     |

**Mass flow in lbs/h**

|     |   |     |     |     |     |       |       |       |       |
|-----|---|-----|-----|-----|-----|-------|-------|-------|-------|
| 90  | - | 370 | 533 | 731 | 968 | 1 248 | 1 576 | 1 759 | 1 956 |
| 100 | - | 337 | 495 | 683 | 908 | 1 173 | 1 482 | 1 655 | 1 841 |
| 110 | - | 309 | 463 | 645 | 860 | 1 113 | 1 407 | 1 572 | 1 748 |
| 120 | - | -   | 437 | 615 | 824 | 1 067 | 1 349 | 1 507 | 1 675 |
| 130 | - | -   | -   | 593 | 798 | 1 035 | 1 308 | 1 459 | 1 621 |
| 140 | - | -   | -   | -   | -   | -     | -     | -     | -     |

**Energy Efficiency Ratio (E.E.R.)**

|     |   |      |      |      |       |       |       |       |       |
|-----|---|------|------|------|-------|-------|-------|-------|-------|
| 90  | - | 5.64 | 7.20 | 9.02 | 11.22 | 13.94 | 17.42 | 19.55 | 22.02 |
| 100 | - | 4.77 | 6.10 | 7.58 | 9.32  | 11.41 | 13.99 | 15.53 | 17.28 |
| 110 | - | 4.04 | 5.22 | 6.47 | 7.88  | 9.53  | 11.51 | 12.67 | 13.96 |
| 120 | - | -    | 4.48 | 5.57 | 6.74  | 8.07  | 9.64  | 10.53 | 11.52 |
| 130 | - | -    | -    | 4.80 | 5.81  | 6.91  | 8.17  | 8.88  | 9.65  |
| 140 | - | -    | -    | -    | -     | -     | -     | -     | -     |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 54 257 | Btu/h | Current consumption | 25.13 | A     |
| Power input      | 8 051  | W     | Mass flow           | 824   | lbs/h |
| E.E.R.           | 6.74   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 348 | psi(g) |
| Minimum LP switch setting | 15  | psi(g) |
| LP pump down setting      | 18  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

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

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R448A**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |         |         |         |         |         |
|-----|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 50  | 32 448 | 45 649 | 62 677 | 83 991 | -       | -       | -       | -       | -       |
| 60  | 29 039 | 41 333 | 57 202 | 77 106 | 101 504 | -       | -       | -       | -       |
| 70  | 25 805 | 37 214 | 51 946 | 70 461 | 93 218  | 120 677 | -       | -       | -       |
| 80  | 22 736 | 33 281 | 46 897 | 64 044 | 85 182  | 110 770 | 141 267 | -       | -       |
| 100 | 17 054 | 25 935 | 37 383 | 51 858 | 69 821  | 91 732  | 118 049 | 133 004 | 149 231 |
| 120 | -      | 19 212 | 28 577 | 40 466 | 55 339  | 73 658  | 95 881  | 108 600 | 122 468 |
| 140 | -      | -      | -      | -      | 41 655  | 56 466  | 74 681  | 85 209  | 96 759  |

**Power input in W**

|     |       |       |       |       |       |        |        |        |        |
|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 50  | 3 752 | 4 111 | 4 325 | 4 359 | -     | -      | -      | -      | -      |
| 60  | 3 993 | 4 460 | 4 806 | 4 996 | 4 992 | -      | -      | -      | -      |
| 70  | 4 167 | 4 734 | 5 205 | 5 543 | 5 712 | 5 675  | -      | -      | -      |
| 80  | 4 285 | 4 945 | 5 532 | 6 011 | 6 345 | 6 497  | 6 431  | -      | -      |
| 100 | 4 396 | 5 217 | 6 015 | 6 752 | 7 393 | 7 900  | 8 237  | 8 330  | 8 367  |
| 120 | -     | 5 361 | 6 338 | 7 303 | 8 219 | 9 050  | 9 759  | 10 056 | 10 309 |
| 140 | -     | -     | -     | -     | 8 908 | 10 032 | 11 082 | 11 568 | 12 022 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 18.69 | 19.96 | 20.97 | 21.62 | -     | -     | -     | -     | -     |
| 60  | 17.82 | 19.05 | 20.10 | 20.85 | 21.20 | -     | -     | -     | -     |
| 70  | 17.29 | 18.51 | 19.60 | 20.47 | 21.01 | 21.12 | -     | -     | -     |
| 80  | 17.04 | 18.25 | 19.41 | 20.40 | 21.14 | 21.52 | 21.44 | -     | -     |
| 100 | 17.05 | 18.30 | 19.62 | 20.92 | 22.09 | 23.04 | 23.67 | 23.83 | 23.87 |
| 120 | -     | 18.59 | 20.14 | 21.80 | 23.46 | 25.04 | 26.43 | 27.02 | 27.53 |
| 140 | -     | -     | -     | -     | 24.65 | 26.91 | 29.12 | 30.17 | 31.18 |

**Mass flow in lbs/h**

|     |     |     |     |     |       |       |       |       |       |
|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|
| 50  | 399 | 554 | 746 | 982 | -     | -     | -     | -     | -     |
| 60  | 374 | 524 | 711 | 940 | 1 217 | -     | -     | -     | -     |
| 70  | 349 | 495 | 677 | 899 | 1 168 | 1 489 | -     | -     | -     |
| 80  | 323 | 465 | 642 | 858 | 1 120 | 1 433 | 1 801 | -     | -     |
| 100 | 272 | 405 | 571 | 775 | 1 022 | 1 318 | 1 668 | 1 864 | 2 076 |
| 120 | -   | 344 | 499 | 690 | 922   | 1 201 | 1 532 | 1 719 | 1 920 |
| 140 | -   | -   | -   | -   | 819   | 1 081 | 1 393 | 1 569 | 1 760 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |       |       |       |       |       |       |       |       |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 8.65 | 11.10 | 14.49 | 19.27 | -     | -     | -     | -     | -     |
| 60  | 7.27 | 9.27  | 11.90 | 15.43 | 20.33 | -     | -     | -     | -     |
| 70  | 6.19 | 7.86  | 9.98  | 12.71 | 16.32 | 21.26 | -     | -     | -     |
| 80  | 5.31 | 6.73  | 8.48  | 10.65 | 13.42 | 17.05 | 21.97 | -     | -     |
| 100 | 3.88 | 4.97  | 6.22  | 7.68  | 9.44  | 11.61 | 14.33 | 15.97 | 17.84 |
| 120 | -    | 3.58  | 4.51  | 5.54  | 6.73  | 8.14  | 9.83  | 10.80 | 11.88 |
| 140 | -    | -     | -     | -     | 4.68  | 5.63  | 6.74  | 7.37  | 8.05  |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 55 339 | Btu/h | Current consumption | 23.46 | A     |
| Power input      | 8 219  | W     | Mass flow           | 922   | lbs/h |
| E.E.R.           | 6.73   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 402 | psi(g) |
| Minimum LP switch setting | 15  | psi(g) |
| LP pump down setting      | 19  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 86 | dB(A) |
| With acoustic hood | 80 | dB(A) |

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**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R449A**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |         |         |         |         |         |
|-----|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 50  | 32 451 | 45 652 | 62 681 | 83 996 | -       | -       | -       | -       | -       |
| 60  | 29 041 | 41 336 | 57 206 | 77 111 | 101 510 | -       | -       | -       | -       |
| 70  | 25 807 | 37 217 | 51 950 | 70 466 | 93 224  | 120 684 | -       | -       | -       |
| 80  | 22 739 | 33 284 | 46 901 | 64 049 | 85 189  | 110 778 | 141 276 | -       | -       |
| 100 | 17 056 | 25 938 | 37 387 | 51 863 | 69 828  | 91 740  | 118 059 | 133 014 | 149 243 |
| 120 | -      | 19 215 | 28 581 | 40 471 | 55 346  | 73 666  | 95 891  | 108 611 | 122 480 |
| 140 | -      | -      | -      | -      | 41 661  | 56 474  | 74 691  | 85 220  | 96 771  |

**Power input in W**

|     |       |       |       |       |       |        |        |        |        |
|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 50  | 3 752 | 4 111 | 4 325 | 4 359 | -     | -      | -      | -      | -      |
| 60  | 3 993 | 4 460 | 4 806 | 4 996 | 4 992 | -      | -      | -      | -      |
| 70  | 4 167 | 4 734 | 5 205 | 5 543 | 5 712 | 5 675  | -      | -      | -      |
| 80  | 4 285 | 4 945 | 5 532 | 6 011 | 6 345 | 6 497  | 6 431  | -      | -      |
| 100 | 4 396 | 5 217 | 6 015 | 6 752 | 7 393 | 7 900  | 8 237  | 8 330  | 8 367  |
| 120 | -     | 5 361 | 6 338 | 7 303 | 8 219 | 9 050  | 9 759  | 10 056 | 10 309 |
| 140 | -     | -     | -     | -     | 8 908 | 10 032 | 11 082 | 11 568 | 12 022 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 18.69 | 19.96 | 20.97 | 21.62 | -     | -     | -     | -     | -     |
| 60  | 17.82 | 19.05 | 20.10 | 20.85 | 21.20 | -     | -     | -     | -     |
| 70  | 17.29 | 18.51 | 19.60 | 20.47 | 21.01 | 21.12 | -     | -     | -     |
| 80  | 17.04 | 18.25 | 19.41 | 20.40 | 21.14 | 21.52 | 21.44 | -     | -     |
| 100 | 17.05 | 18.30 | 19.62 | 20.92 | 22.09 | 23.04 | 23.67 | 23.83 | 23.87 |
| 120 | -     | 18.59 | 20.14 | 21.80 | 23.46 | 25.04 | 26.43 | 27.02 | 27.53 |
| 140 | -     | -     | -     | -     | 24.65 | 26.91 | 29.12 | 30.17 | 31.18 |

**Mass flow in lbs/h**

|     |     |     |     |       |       |       |       |       |       |
|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 50  | 387 | 556 | 761 | 1 006 | -     | -     | -     | -     | -     |
| 60  | 364 | 527 | 725 | 963   | 1 246 | -     | -     | -     | -     |
| 70  | 342 | 498 | 689 | 920   | 1 195 | 1 521 | -     | -     | -     |
| 80  | 320 | 470 | 654 | 877   | 1 145 | 1 462 | 1 835 | -     | -     |
| 100 | 274 | 413 | 583 | 792   | 1 045 | 1 345 | 1 700 | 1 899 | 2 114 |
| 120 | -   | 353 | 511 | 706   | 943   | 1 227 | 1 565 | 1 755 | 1 960 |
| 140 | -   | -   | -   | -     | 837   | 1 106 | 1 426 | 1 608 | 1 804 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |       |       |       |       |       |       |       |       |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 8.65 | 11.11 | 14.49 | 19.27 | -     | -     | -     | -     | -     |
| 60  | 7.27 | 9.27  | 11.90 | 15.44 | 20.33 | -     | -     | -     | -     |
| 70  | 6.19 | 7.86  | 9.98  | 12.71 | 16.32 | 21.26 | -     | -     | -     |
| 80  | 5.31 | 6.73  | 8.48  | 10.65 | 13.43 | 17.05 | 21.97 | -     | -     |
| 100 | 3.88 | 4.97  | 6.22  | 7.68  | 9.45  | 11.61 | 14.33 | 15.97 | 17.84 |
| 120 | -    | 3.58  | 4.51  | 5.54  | 6.73  | 8.14  | 9.83  | 10.80 | 11.88 |
| 140 | -    | -     | -     | -     | 4.68  | 5.63  | 6.74  | 7.37  | 8.05  |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 55 346 | Btu/h | Current consumption | 23.46 | A     |
| Power input      | 8 219  | W     | Mass flow           | 943   | lbs/h |
| E.E.R.           | 6.73   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 402 | psi(g) |
| Minimum LP switch setting | 15  | psi(g) |
| LP pump down setting      | 19  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 86 | dB(A) |
| With acoustic hood | 80 | dB(A) |

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**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R452A**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |        |        |        |        |         |         |         |         |         |
|-----|--------|--------|--------|--------|---------|---------|---------|---------|---------|
| 50  | 37 683 | 51 024 | 68 273 | 89 880 | -       | -       | -       | -       | -       |
| 60  | 34 271 | 46 871 | 63 078 | 83 341 | 108 109 | -       | -       | -       | -       |
| 70  | 30 904 | 42 763 | 57 927 | 76 846 | 99 968  | 127 741 | -       | -       | -       |
| 80  | 27 559 | 38 676 | 52 797 | 70 371 | 91 847  | 117 673 | 148 296 | -       | -       |
| 100 | 20 843 | 30 476 | 42 509 | 57 391 | 75 572  | 97 502  | 123 628 | 138 404 | 154 397 |
| 120 | 13 939 | 22 087 | 32 030 | 44 218 | 59 103  | 77 134  | 98 760  | 111 062 | 124 431 |
| 140 | -      | -      | -      | 30 669 | 42 256  | 56 388  | 73 515  | 83 342  | 94 087  |

**Power input in W**

|     |       |       |       |       |       |        |        |        |        |
|-----|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| 50  | 4 197 | 4 577 | 4 877 | 5 092 | -     | -      | -      | -      | -      |
| 60  | 4 406 | 4 853 | 5 219 | 5 496 | 5 681 | -      | -      | -      | -      |
| 70  | 4 622 | 5 150 | 5 594 | 5 950 | 6 210 | 6 369  | -      | -      | -      |
| 80  | 4 821 | 5 444 | 5 982 | 6 429 | 6 779 | 7 027  | 7 167  | -      | -      |
| 100 | 5 078 | 5 933 | 6 700 | 7 373 | 7 945 | 8 412  | 8 768  | 8 902  | 9 006  |
| 120 | 4 993 | 6 137 | 7 189 | 8 144 | 8 995 | 9 738  | 10 366 | 10 635 | 10 873 |
| 140 | -     | -     | -     | 8 559 | 9 746 | 10 820 | 11 777 | 12 209 | 12 610 |

**Current consumption in A**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 19.16 | 19.82 | 20.37 | 20.79 | -     | -     | -     | -     | -     |
| 60  | 18.50 | 19.22 | 19.85 | 20.35 | 20.69 | -     | -     | -     | -     |
| 70  | 18.16 | 19.00 | 19.73 | 20.35 | 20.81 | 21.09 | -     | -     | -     |
| 80  | 18.05 | 19.03 | 19.92 | 20.68 | 21.30 | 21.74 | 21.97 | -     | -     |
| 100 | 18.11 | 19.49 | 20.79 | 21.97 | 23.00 | 23.87 | 24.54 | 24.79 | 24.99 |
| 120 | 17.87 | 19.80 | 21.64 | 23.38 | 24.98 | 26.43 | 27.68 | 28.22 | 28.71 |
| 140 | -     | -     | -     | 24.11 | 26.43 | 28.59 | 30.56 | 31.48 | 32.33 |

**Mass flow in lbs/h**

|     |     |     |       |       |       |       |       |       |       |
|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 50  | 601 | 804 | 1 056 | 1 364 | -     | -     | -     | -     | -     |
| 60  | 574 | 773 | 1 018 | 1 317 | 1 675 | -     | -     | -     | -     |
| 70  | 548 | 743 | 983   | 1 273 | 1 621 | 2 032 | -     | -     | -     |
| 80  | 521 | 714 | 949   | 1 231 | 1 569 | 1 968 | 2 436 | -     | -     |
| 100 | 456 | 648 | 875   | 1 146 | 1 466 | 1 844 | 2 284 | 2 530 | 2 794 |
| 120 | 366 | 559 | 783   | 1 046 | 1 353 | 1 711 | 2 128 | 2 361 | 2 610 |
| 140 | -   | -   | -     | 916   | 1 213 | 1 557 | 1 954 | 2 175 | 2 412 |

**Energy Efficiency Ratio (E.E.R.)**

|     |      |       |       |       |       |       |       |       |       |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 8.98 | 11.15 | 14.00 | 17.65 | -     | -     | -     | -     | -     |
| 60  | 7.78 | 9.66  | 12.09 | 15.16 | 19.03 | -     | -     | -     | -     |
| 70  | 6.69 | 8.30  | 10.35 | 12.92 | 16.10 | 20.06 | -     | -     | -     |
| 80  | 5.72 | 7.10  | 8.83  | 10.95 | 13.55 | 16.75 | 20.69 | -     | -     |
| 100 | 4.10 | 5.14  | 6.34  | 7.78  | 9.51  | 11.59 | 14.10 | 15.55 | 17.14 |
| 120 | 2.79 | 3.60  | 4.46  | 5.43  | 6.57  | 7.92  | 9.53  | 10.44 | 11.44 |
| 140 | -    | -     | -     | 3.58  | 4.34  | 5.21  | 6.24  | 6.83  | 7.46  |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 59 103 | Btu/h | Current consumption | 24.98 | A     |
| Power input      | 8 995  | W     | Mass flow           | 1 353 | lbs/h |
| E.E.R.           | 6.57   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 402 | psi(g) |
| Minimum LP switch setting | 15  | psi(g) |
| LP pump down setting      | 19  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 85 | dB(A) |
| With acoustic hood | 79 | dB(A) |

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**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ100-3**
**Performance data at 60 Hz, ARI rating conditions**
**R513A**

| Cond. temp.<br>in °F (tc) | Evaporating temperature in °F (to) |     |   |    |    |    |    |    |    |
|---------------------------|------------------------------------|-----|---|----|----|----|----|----|----|
|                           | -20                                | -10 | 0 | 10 | 20 | 30 | 40 | 45 | 50 |

**Cooling capacity in Btu/h**

|     |   |        |        |        |        |        |        |        |         |
|-----|---|--------|--------|--------|--------|--------|--------|--------|---------|
| 50  | - | 26 213 | 35 345 | 46 848 | 60 992 | 78 045 | -      | -      | -       |
| 60  | - | 24 062 | 32 893 | 43 988 | 57 618 | 74 050 | 93 553 | -      | -       |
| 70  | - | 21 804 | 30 276 | 40 905 | 53 961 | 69 714 | 88 430 | 98 983 | -       |
| 80  | - | 19 490 | 27 543 | 37 647 | 50 071 | 65 084 | 82 955 | 93 046 | 103 951 |
| 100 | - | 14 883 | 21 922 | 30 799 | 41 782 | 55 141 | 71 144 | 80 221 | 90 060  |
| 120 | - | 10 631 | 16 421 | 23 834 | 33 141 | 44 609 | 58 509 | 66 455 | 75 109  |
| 140 | - | -      | -      | -      | 24 535 | 33 877 | 45 438 | 52 134 | 59 486  |

**Power input in W**

|     |   |       |       |       |       |       |       |       |       |
|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | - | 2 861 | 3 059 | 3 213 | 3 325 | 3 399 | -     | -     | -     |
| 60  | - | 3 034 | 3 283 | 3 483 | 3 636 | 3 744 | 3 810 | -     | -     |
| 70  | - | 3 177 | 3 488 | 3 744 | 3 948 | 4 101 | 4 206 | 4 241 | -     |
| 80  | - | 3 282 | 3 665 | 3 987 | 4 250 | 4 458 | 4 612 | 4 670 | 4 715 |
| 100 | - | 3 340 | 3 895 | 4 379 | 4 792 | 5 138 | 5 420 | 5 537 | 5 640 |
| 120 | - | 3 132 | 3 900 | 4 584 | 5 187 | 5 712 | 6 160 | 6 357 | 6 535 |
| 140 | - | -     | -     | -     | 5 360 | 6 102 | 6 757 | 7 053 | 7 328 |

**Current consumption in A**

|     |   |       |       |       |       |       |       |       |       |
|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | - | 13.83 | 14.31 | 14.68 | 14.91 | 14.97 | -     | -     | -     |
| 60  | - | 13.93 | 14.44 | 14.86 | 15.15 | 15.29 | 15.25 | -     | -     |
| 70  | - | 14.05 | 14.62 | 15.10 | 15.47 | 15.70 | 15.77 | 15.73 | -     |
| 80  | - | 14.16 | 14.81 | 15.38 | 15.85 | 16.19 | 16.38 | 16.41 | 16.39 |
| 100 | - | 14.22 | 15.09 | 15.91 | 16.64 | 17.26 | 17.76 | 17.95 | 18.10 |
| 120 | - | 13.89 | 15.06 | 16.19 | 17.26 | 18.25 | 19.13 | 19.53 | 19.88 |
| 140 | - | -     | -     | -     | 17.48 | 18.92 | 20.27 | 20.90 | 21.50 |

**Mass flow in lbs/h**

|     |   |     |     |     |     |       |       |       |       |
|-----|---|-----|-----|-----|-----|-------|-------|-------|-------|
| 50  | - | 378 | 501 | 647 | 820 | 1 023 | -     | -     | -     |
| 60  | - | 364 | 488 | 636 | 810 | 1 015 | 1 253 | -     | -     |
| 70  | - | 347 | 472 | 620 | 796 | 1 002 | 1 242 | 1 374 | -     |
| 80  | - | 329 | 453 | 602 | 778 | 984   | 1 224 | 1 357 | 1 500 |
| 100 | - | 286 | 408 | 554 | 729 | 934   | 1 173 | 1 306 | 1 448 |
| 120 | - | 238 | 354 | 495 | 664 | 865   | 1 100 | 1 231 | 1 371 |
| 140 | - | -   | -   | -   | 586 | 779   | 1 006 | 1 134 | 1 271 |

**Energy Efficiency Ratio (E.E.R.)**

|     |   |      |       |       |       |       |       |       |       |
|-----|---|------|-------|-------|-------|-------|-------|-------|-------|
| 50  | - | 9.16 | 11.55 | 14.58 | 18.34 | 22.96 | -     | -     | -     |
| 60  | - | 7.93 | 10.02 | 12.63 | 15.85 | 19.78 | 24.55 | -     | -     |
| 70  | - | 6.86 | 8.68  | 10.92 | 13.67 | 17.00 | 21.03 | 23.34 | -     |
| 80  | - | 5.94 | 7.52  | 9.44  | 11.78 | 14.60 | 17.99 | 19.93 | 22.05 |
| 100 | - | 4.46 | 5.63  | 7.03  | 8.72  | 10.73 | 13.13 | 14.49 | 15.97 |
| 120 | - | 3.39 | 4.21  | 5.20  | 6.39  | 7.81  | 9.50  | 10.45 | 11.49 |
| 140 | - | -    | -     | -     | 4.58  | 5.55  | 6.72  | 7.39  | 8.12  |

**Nominal performance at to = 20 °F, tc = 120 °F**

|                  |        |       |                     |       |       |
|------------------|--------|-------|---------------------|-------|-------|
| Cooling capacity | 33 141 | Btu/h | Current consumption | 17.26 | A     |
| Power input      | 5 187  | W     | Mass flow           | 664   | lbs/h |
| E.E.R.           | 6.39   |       |                     |       |       |

**Pressure switch settings**

|                           |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 402 | psi(g) |
| Minimum LP switch setting | 15  | psi(g) |
| LP pump down setting      | 19  | psi(g) |

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 0 °F

Tolerance according EN12900

**Sound power data**

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

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