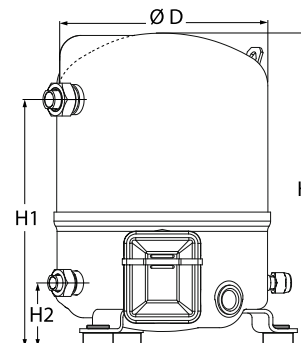
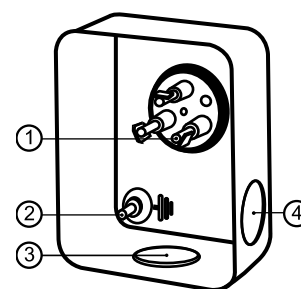


**General Characteristics**

|                                                   |                                               |                    |
|---------------------------------------------------|-----------------------------------------------|--------------------|
| Model number (on compressor nameplate)            |                                               | <b>MTZ22JC3BVE</b> |
| Code number for Singlepack*                       |                                               | MTZ22-3VI          |
| Code number for Industrial pack**                 |                                               | MTZ22-3VM          |
| Drawing number                                    |                                               | 8501024e           |
| Suction and discharge connections                 |                                               | Rotolock           |
| Suction connection                                |                                               | 1 " Rotolock       |
| Discharge connection                              |                                               | 1 " Rotolock       |
| Suction connection with supplied sleeve           |                                               | 1/2 " ODF          |
| Discharge connection with supplied sleeve         |                                               | 3/8 " ODF          |
| Oil sight glass                                   |                                               | Threaded           |
| Oil equalization connection                       |                                               | 3/8" flare SAE     |
| Oil drain connection                              |                                               | None               |
| LP gauge port                                     |                                               | Schrader           |
| IPR valve                                         |                                               | None               |
| Cylinders                                         | 1                                             |                    |
| Swept volume                                      | 2.33 in <sup>3</sup> /rev                     |                    |
| Displacement @ Nominal speed                      | 283 cfh @ 3500 rpm                            |                    |
| Net weight                                        | 46 lbs                                        |                    |
| Oil charge                                        | 32 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                          | 6 lbs                                         |                    |
| Approved refrigerants                             | R404A,R134a,R407A/C/F,R448A,R449A,R452A,R513A |                    |

**Dimensions**


D=8.8 inch, H=13.1 inch,  
H1=10.4 inch, H2=2.7 inch, H3=- inch

**Terminal box**


IP55 (with cable gland)

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

**Electrical Characteristics**

|                                                    |                             |
|----------------------------------------------------|-----------------------------|
| Nominal voltage                                    | 200-230V/3/60Hz             |
| Voltage range                                      | 180-253 V                   |
| Winding resistance (between phases) +/- 7% at 77°F | 2.58 Ω                      |
| Maximum Continuous Current (MCC)                   | 11 A                        |
| Locked Rotor Amps (LRA)                            | 38 A                        |
| Motor protection                                   | Internal overload protector |

**Recommended Installation torques**

|                                      |                     |
|--------------------------------------|---------------------|
| Oil sight glass                      | 37 ft.lbs           |
| Power connections / Earth connection | 1 ft.lbs / 1 ft.lbs |
| Mounting bolts                       | 11 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: 12 Unboxed compressors on pallet (order per multiples of 12)

**Rotolock accessories, suction side**

**Code no.**

|                                             |         |
|---------------------------------------------|---------|
| Solder sleeve, P06 (1" Rotolock, 1/2" ODF)  | 8153007 |
| Rotolock valve, V06 (1" Rotolock, 1/2" ODF) | 8168031 |
| Gasket, 1"                                  | 8156130 |

**Rotolock accessories, discharge side**

**Code no.**

|                                             |         |
|---------------------------------------------|---------|
| Solder sleeve, P01 (1" Rotolock, 3/8" ODF)  | 8153010 |
| Rotolock valve, V01 (1" Rotolock, 3/8" ODF) | 8168027 |
| Gasket, 1"                                  | 8156130 |

**Rotolock accessories, sets**

**Code no.**

|                                                           |         |
|-----------------------------------------------------------|---------|
| Valve set, V06 (1"~1/2"), V01 (1"~3/8")                   | 7703004 |
| 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, 54 W, 230 V, CE mark, UL | 7773106  |

**Miscellaneous accessories**

**Code no.**

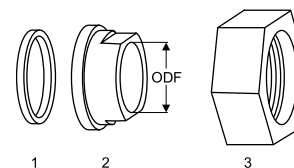
|                                         |          |
|-----------------------------------------|----------|
| Acoustic hood for 1 cylinder compressor | 120Z0575 |
| Oil equalisation nut                    | 8153127  |

**Spare parts**

**Code no.**

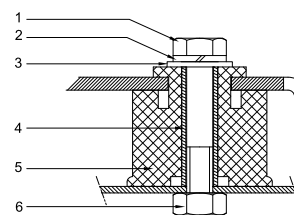
|                                                                             |         |
|-----------------------------------------------------------------------------|---------|
| Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts | 8156001 |
| Oil sight glass with gaskets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

**Gaskets, sleeves and nuts**



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

**Mounting kit**



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

**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 | 2 739 | 4 299 | 6 333 | 8 932 | 12 187 | 16 188 | 21 026 | 26 791 | 30 049 |
| 110 | 2 290 | 3 756 | 5 644 | 8 047 | 11 057 | 14 763 | 19 258 | 24 630 | 27 674 |
| 120 | 1 824 | 3 194 | 4 936 | 7 143 | 9 905  | 13 316 | 17 465 | 22 445 | 25 274 |
| 130 | -     | -     | 4 220 | 6 228 | 8 743  | 11 856 | 15 659 | 20 244 | 22 858 |
| 140 | -     | -     | -     | 5 313 | 7 578  | 10 393 | 13 850 | 18 040 | 20 438 |
| 150 | -     | -     | -     | -     | -      | 8 937  | 12 045 | 15 840 | 18 023 |
| 160 | -     | -     | -     | -     | -      | -      | 10 256 | 13 654 | 15 622 |
| 165 | -     | -     | -     | -     | -      | -      | 9 370  | 12 570 | 14 431 |

**Power input in W**

|     |     |     |     |       |       |       |       |       |       |
|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 100 | 655 | 775 | 892 | 999   | 1 092 | 1 163 | 1 208 | 1 219 | 1 211 |
| 110 | 666 | 793 | 920 | 1 041 | 1 149 | 1 240 | 1 306 | 1 342 | 1 346 |
| 120 | 663 | 799 | 939 | 1 074 | 1 201 | 1 311 | 1 401 | 1 463 | 1 482 |
| 130 | -   | -   | 946 | 1 098 | 1 244 | 1 378 | 1 492 | 1 583 | 1 617 |
| 140 | -   | -   | -   | 1 112 | 1 280 | 1 437 | 1 579 | 1 700 | 1 750 |
| 150 | -   | -   | -   | -     | -     | 1 490 | 1 661 | 1 813 | 1 881 |
| 160 | -   | -   | -   | -     | -     | -     | 1 737 | 1 923 | 2 008 |
| 165 | -   | -   | -   | -     | -     | -     | 1 772 | 1 976 | 2 070 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 100 | 4.13 | 4.26 | 4.40 | 4.53 | 4.66 | 4.78 | 4.88 | 4.96 | 5.00 |
| 110 | 4.13 | 4.28 | 4.44 | 4.59 | 4.75 | 4.89 | 5.03 | 5.16 | 5.22 |
| 120 | 4.12 | 4.29 | 4.46 | 4.64 | 4.83 | 5.01 | 5.19 | 5.36 | 5.44 |
| 130 | -    | -    | 4.48 | 4.69 | 4.90 | 5.13 | 5.35 | 5.57 | 5.67 |
| 140 | -    | -    | -    | 4.72 | 4.98 | 5.24 | 5.51 | 5.78 | 5.91 |
| 150 | -    | -    | -    | -    | -    | 5.35 | 5.67 | 5.99 | 6.15 |
| 160 | -    | -    | -    | -    | -    | -    | 5.82 | 6.21 | 6.40 |
| 165 | -    | -    | -    | -    | -    | -    | 5.90 | 6.31 | 6.52 |

**Mass flow in lbs/h**

|     |    |    |    |     |     |     |     |     |     |
|-----|----|----|----|-----|-----|-----|-----|-----|-----|
| 100 | 42 | 65 | 93 | 128 | 170 | 221 | 281 | 353 | 392 |
| 110 | 37 | 59 | 87 | 121 | 162 | 212 | 271 | 340 | 378 |
| 120 | 31 | 53 | 81 | 114 | 154 | 202 | 259 | 326 | 363 |
| 130 | -  | -  | 73 | 105 | 144 | 190 | 245 | 310 | 346 |
| 140 | -  | -  | -  | 95  | 133 | 177 | 230 | 293 | 328 |
| 150 | -  | -  | -  | -   | -   | 163 | 214 | 274 | 308 |
| 160 | -  | -  | -  | -   | -   | -   | 196 | 253 | 286 |
| 165 | -  | -  | -  | -   | -   | -   | 186 | 242 | 274 |

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

|     |      |      |      |      |       |       |       |       |       |
|-----|------|------|------|------|-------|-------|-------|-------|-------|
| 100 | 4.18 | 5.55 | 7.10 | 8.94 | 11.16 | 13.92 | 17.41 | 21.98 | 24.82 |
| 110 | 3.44 | 4.73 | 6.13 | 7.73 | 9.62  | 11.91 | 14.75 | 18.36 | 20.55 |
| 120 | 2.75 | 4.00 | 5.26 | 6.65 | 8.25  | 10.15 | 12.47 | 15.34 | 17.05 |
| 130 | -    | -    | 4.46 | 5.67 | 7.03  | 8.61  | 10.49 | 12.79 | 14.14 |
| 140 | -    | -    | -    | 4.78 | 5.92  | 7.23  | 8.77  | 10.61 | 11.68 |
| 150 | -    | -    | -    | -    | -     | 6.00  | 7.25  | 8.73  | 9.58  |
| 160 | -    | -    | -    | -    | -     | -     | 5.90  | 7.10  | 7.78  |
| 165 | -    | -    | -    | -    | -     | -     | 5.29  | 6.36  | 6.97  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 13 666 | Btu/h | Current consumption | 5.24 | A     |
| Power input      | 1 438  | W     | Mass flow           | 217  | lbs/h |
| E.E.R.           | 9.51   |       |                     |      |       |

**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 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   | 0 | dB(A) |
| With accoustic hood | 0 | dB(A) |

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | 4 632 | 6 797 | 9 525 | 12 902 | 17 013 | 21 945 | 27 784 | 31 070 | 34 615 |
| 100 | 4 027 | 6 074 | 8 635 | 11 795 | 15 641 | 20 259 | 25 735 | 28 821 | 32 154 |
| 110 | 3 353 | 5 247 | 7 606 | 10 516 | 14 062 | 18 331 | 23 409 | 26 278 | 29 381 |
| 120 | 2 641 | 4 347 | 6 470 | 9 094  | 12 306 | 16 191 | 20 837 | 23 471 | 26 327 |
| 130 | -     | 3 406 | 5 257 | 7 561  | 10 403 | 13 871 | 18 049 | 20 431 | 23 024 |
| 140 | -     | 2 452 | 3 997 | 5 946  | 8 385  | 11 400 | 15 076 | 17 190 | 19 500 |

**Power input in W**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90  | 1 117 | 1 293 | 1 449 | 1 584 | 1 700 | 1 795 | 1 870 | 1 900 | 1 925 |
| 100 | 1 136 | 1 339 | 1 522 | 1 684 | 1 826 | 1 947 | 2 048 | 2 091 | 2 128 |
| 110 | 1 132 | 1 366 | 1 579 | 1 772 | 1 943 | 2 094 | 2 223 | 2 280 | 2 332 |
| 120 | 1 102 | 1 370 | 1 616 | 1 842 | 2 046 | 2 229 | 2 391 | 2 464 | 2 532 |
| 130 | -     | 1 346 | 1 629 | 1 891 | 2 131 | 2 350 | 2 548 | 2 638 | 2 723 |
| 140 | -     | 1 289 | 1 612 | 1 914 | 2 194 | 2 452 | 2 688 | 2 797 | 2 901 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 90  | 4.94 | 5.27 | 5.60 | 5.91 | 6.19 | 6.42 | 6.59 | 6.65 | 6.68 |
| 100 | 4.99 | 5.37 | 5.75 | 6.12 | 6.46 | 6.76 | 6.99 | 7.08 | 7.15 |
| 110 | 4.98 | 5.43 | 5.89 | 6.33 | 6.75 | 7.12 | 7.43 | 7.56 | 7.66 |
| 120 | 4.90 | 5.44 | 5.98 | 6.51 | 7.01 | 7.47 | 7.87 | 8.05 | 8.20 |
| 130 | -    | 5.35 | 5.99 | 6.62 | 7.23 | 7.79 | 8.30 | 8.52 | 8.73 |
| 140 | -    | 5.14 | 5.90 | 6.64 | 7.36 | 8.04 | 8.67 | 8.96 | 9.22 |

**Mass flow in lbs/h**

|     |    |     |     |     |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 90  | 96 | 137 | 186 | 245 | 314 | 395 | 489 | 541 | 597 |
| 100 | 91 | 133 | 183 | 242 | 311 | 393 | 487 | 539 | 595 |
| 110 | 83 | 125 | 175 | 235 | 304 | 385 | 479 | 531 | 587 |
| 120 | 73 | 115 | 165 | 224 | 293 | 374 | 467 | 518 | 574 |
| 130 | -  | 102 | 151 | 209 | 277 | 357 | 449 | 500 | 554 |
| 140 | -  | 86  | 134 | 191 | 257 | 335 | 425 | 476 | 529 |

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

|     |      |      |      |      |       |       |       |       |       |
|-----|------|------|------|------|-------|-------|-------|-------|-------|
| 90  | 4.15 | 5.26 | 6.57 | 8.14 | 10.01 | 12.22 | 14.85 | 16.35 | 17.98 |
| 100 | 3.55 | 4.54 | 5.67 | 7.00 | 8.57  | 10.40 | 12.56 | 13.78 | 15.11 |
| 110 | 2.96 | 3.84 | 4.82 | 5.94 | 7.24  | 8.76  | 10.53 | 11.52 | 12.60 |
| 120 | 2.40 | 3.17 | 4.00 | 4.94 | 6.01  | 7.26  | 8.71  | 9.52  | 10.40 |
| 130 | -    | 2.53 | 3.23 | 4.00 | 4.88  | 5.90  | 7.08  | 7.75  | 8.46  |
| 140 | -    | 1.90 | 2.48 | 3.11 | 3.82  | 4.65  | 5.61  | 6.15  | 6.72  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 12 306 | Btu/h | Current consumption | 7.01 | A     |
| Power input      | 2 046  | W     | Mass flow           | 293  | lbs/h |
| E.E.R.           | 6.01   |       |                     |      |       |

**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  | 77 | dB(A) |
| With acoustic hood | 71 | dB(A) |

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | 3 358 | 5 393 | 8 031 | 11 356 | 15 451 | 20 401 | 26 287 | 29 608 | 33 194 |
| 100 | 2 765 | 4 631 | 7 063 | 10 145 | 13 959 | 18 590 | 24 120 | 27 249 | 30 633 |
| 110 | 2 194 | 3 876 | 6 085 | 8 906  | 12 423 | 16 718 | 21 875 | 24 803 | 27 978 |
| 120 | -     | 3 149 | 5 119 | 7 664  | 10 866 | 14 809 | 19 577 | 22 296 | 25 253 |
| 130 | -     | -     | 4 191 | 6 441  | 9 312  | 12 887 | 17 249 | 19 751 | 22 482 |
| 140 | -     | -     | -     | 5 264  | 7 787  | 10 976 | 14 915 | 17 192 | 19 688 |

**Power input in W**

|     |     |       |       |       |       |       |       |       |       |
|-----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 90  | 838 | 1 017 | 1 183 | 1 330 | 1 453 | 1 545 | 1 602 | 1 614 | 1 616 |
| 100 | 817 | 1 014 | 1 203 | 1 378 | 1 532 | 1 659 | 1 755 | 1 789 | 1 813 |
| 110 | 782 | 1 001 | 1 214 | 1 418 | 1 605 | 1 770 | 1 907 | 1 963 | 2 010 |
| 120 | -   | 975   | 1 215 | 1 449 | 1 671 | 1 875 | 2 055 | 2 134 | 2 205 |
| 130 | -   | -     | 1 204 | 1 471 | 1 730 | 1 974 | 2 199 | 2 302 | 2 398 |
| 140 | -   | -     | -     | 1 481 | 1 778 | 2 065 | 2 336 | 2 464 | 2 586 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 90  | 4.56 | 4.84 | 5.12 | 5.39 | 5.63 | 5.82 | 5.95 | 5.99 | 6.01 |
| 100 | 4.58 | 4.87 | 5.17 | 5.47 | 5.75 | 6.01 | 6.21 | 6.29 | 6.35 |
| 110 | 4.56 | 4.88 | 5.22 | 5.57 | 5.91 | 6.24 | 6.53 | 6.65 | 6.76 |
| 120 | -    | 4.85 | 5.25 | 5.66 | 6.08 | 6.49 | 6.88 | 7.06 | 7.23 |
| 130 | -    | -    | 5.23 | 5.72 | 6.24 | 6.75 | 7.26 | 7.50 | 7.73 |
| 140 | -    | -    | -    | 5.74 | 6.36 | 6.99 | 7.62 | 7.93 | 8.24 |

**Mass flow in lbs/h**

|     |    |    |     |     |     |     |     |     |     |
|-----|----|----|-----|-----|-----|-----|-----|-----|-----|
| 90  | 52 | 82 | 120 | 166 | 221 | 287 | 363 | 406 | 452 |
| 100 | 46 | 75 | 112 | 157 | 211 | 276 | 352 | 395 | 440 |
| 110 | 39 | 67 | 103 | 147 | 200 | 264 | 339 | 381 | 426 |
| 120 | -  | 58 | 93  | 135 | 187 | 250 | 324 | 365 | 410 |
| 130 | -  | -  | 82  | 123 | 173 | 234 | 306 | 347 | 391 |
| 140 | -  | -  | -   | 110 | 158 | 217 | 288 | 327 | 370 |

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

|     |      |      |      |      |       |       |       |       |       |
|-----|------|------|------|------|-------|-------|-------|-------|-------|
| 90  | 4.01 | 5.30 | 6.79 | 8.54 | 10.63 | 13.20 | 16.41 | 18.34 | 20.54 |
| 100 | 3.39 | 4.57 | 5.87 | 7.36 | 9.11  | 11.20 | 13.74 | 15.23 | 16.90 |
| 110 | 2.80 | 3.87 | 5.01 | 6.28 | 7.74  | 9.45  | 11.47 | 12.64 | 13.92 |
| 120 | -    | 3.23 | 4.21 | 5.29 | 6.50  | 7.90  | 9.53  | 10.45 | 11.45 |
| 130 | -    | -    | 3.48 | 4.38 | 5.38  | 6.53  | 7.84  | 8.58  | 9.38  |
| 140 | -    | -    | -    | 3.55 | 4.38  | 5.31  | 6.38  | 6.98  | 7.61  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 10 866 | Btu/h | Current consumption | 6.08 | A     |
| Power input      | 1 671  | W     | Mass flow           | 187  | lbs/h |
| E.E.R.           | 6.50   |       |                     |      |       |

**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  | 76 | dB(A) |
| With acoustic hood | 70 | 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 | 10 709 | 14 623 | 16 879 | 19 351 | 22 054 | 25 000 | 28 203 | 31 675 | 35 431 |
| 110 | 9 758  | 13 400 | 15 485 | 17 763 | 20 248 | 22 954 | 25 892 | 29 077 | 32 522 |
| 120 | -      | 12 183 | 14 107 | 16 202 | 18 480 | 20 954 | 23 639 | 26 547 | 29 692 |
| 130 | -      | 10 960 | 12 734 | 14 655 | 16 736 | 18 991 | 21 432 | 24 073 | 26 927 |
| 140 | -      | -      | 11 356 | 13 113 | 15 008 | 17 052 | 19 260 | 21 645 | 24 219 |
| 150 | -      | -      | -      | -      | 13 282 | 15 127 | 17 112 | 19 250 | 21 554 |

**Power input in W**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 100 | 1 347 | 1 497 | 1 562 | 1 620 | 1 673 | 1 720 | 1 762 | 1 801 | 1 835 |
| 110 | 1 416 | 1 599 | 1 677 | 1 749 | 1 813 | 1 871 | 1 922 | 1 969 | 2 011 |
| 120 | -     | 1 694 | 1 790 | 1 877 | 1 957 | 2 028 | 2 093 | 2 150 | 2 202 |
| 130 | -     | 1 772 | 1 889 | 1 996 | 2 093 | 2 182 | 2 262 | 2 335 | 2 400 |
| 140 | -     | -     | 1 964 | 2 093 | 2 213 | 2 322 | 2 421 | 2 511 | 2 594 |
| 150 | -     | -     | -     | -     | 2 304 | 2 436 | 2 558 | 2 670 | 2 772 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 100 | 5.28 | 5.59 | 5.73 | 5.86 | 5.98 | 6.09 | 6.18 | 6.26 | 6.34 |
| 110 | 5.44 | 5.82 | 5.99 | 6.15 | 6.30 | 6.44 | 6.56 | 6.67 | 6.77 |
| 120 | -    | 6.03 | 6.25 | 6.45 | 6.64 | 6.81 | 6.97 | 7.12 | 7.25 |
| 130 | -    | 6.22 | 6.49 | 6.73 | 6.97 | 7.19 | 7.39 | 7.58 | 7.75 |
| 140 | -    | -    | 6.68 | 6.98 | 7.27 | 7.54 | 7.80 | 8.04 | 8.26 |
| 150 | -    | -    | -    | -    | 7.52 | 7.85 | 8.17 | 8.46 | 8.74 |

**Mass flow in lbs/h**

|     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 100 | 141 | 189 | 216 | 246 | 278 | 313 | 350 | 390 | 433 |
| 110 | 135 | 182 | 209 | 237 | 268 | 301 | 337 | 376 | 417 |
| 120 | -   | 175 | 201 | 228 | 258 | 290 | 325 | 361 | 401 |
| 130 | -   | 167 | 192 | 219 | 248 | 279 | 312 | 347 | 385 |
| 140 | -   | -   | 183 | 209 | 237 | 267 | 298 | 332 | 368 |
| 150 | -   | -   | -   | -   | 225 | 254 | 284 | 317 | 351 |

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

|     |      |      |       |       |       |       |       |       |       |
|-----|------|------|-------|-------|-------|-------|-------|-------|-------|
| 100 | 7.95 | 9.77 | 10.81 | 11.94 | 13.19 | 14.54 | 16.00 | 17.59 | 19.30 |
| 110 | 6.89 | 8.38 | 9.23  | 10.16 | 11.17 | 12.27 | 13.47 | 14.77 | 16.18 |
| 120 | -    | 7.19 | 7.88  | 8.63  | 9.44  | 10.33 | 11.30 | 12.35 | 13.48 |
| 130 | -    | 6.19 | 6.74  | 7.34  | 8.00  | 8.70  | 9.47  | 10.31 | 11.22 |
| 140 | -    | -    | 5.78  | 6.26  | 6.78  | 7.35  | 7.96  | 8.62  | 9.34  |
| 150 | -    | -    | -     | -     | 5.77  | 6.21  | 6.69  | 7.21  | 7.78  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 21 432 | Btu/h | Current consumption | 7.39 | A     |
| Power input      | 2 262  | W     | Mass flow           | 312  | lbs/h |
| E.E.R.           | 9.47   |       |                     |      |       |

**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  | 76 | dB(A) |
| With acoustic hood | 70 | dB(A) |

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | - | 5 787 | 8 699 | 12 372 | 16 908 | 22 412 | 28 983 | 32 702 | 36 726 |
| 100 | - | 4 868 | 7 481 | 10 790 | 14 898 | 19 907 | 25 919 | 29 333 | 33 037 |
| 110 | - | 4 105 | 6 456 | 9 438  | 13 153 | 17 704 | 23 194 | 26 323 | 29 725 |
| 120 | - | -     | 5 598 | 8 289  | 11 648 | 15 779 | 20 782 | 23 644 | 26 762 |
| 130 | - | -     | -     | 7 316  | 10 357 | 14 103 | 18 658 | 21 270 | 24 123 |
| 140 | - | -     | -     | -      | -      | -      | -      | -      | -      |

**Power input in W**

|     |   |       |       |       |       |       |       |       |       |
|-----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 90  | - | 1 084 | 1 250 | 1 399 | 1 521 | 1 607 | 1 647 | 1 647 | 1 632 |
| 100 | - | 1 088 | 1 275 | 1 453 | 1 611 | 1 740 | 1 831 | 1 859 | 1 874 |
| 110 | - | 1 093 | 1 299 | 1 501 | 1 692 | 1 861 | 1 999 | 2 054 | 2 097 |
| 120 | - | -     | 1 329 | 1 553 | 1 773 | 1 979 | 2 161 | 2 240 | 2 310 |
| 130 | - | -     | -     | 1 616 | 1 862 | 2 101 | 2 323 | 2 426 | 2 520 |
| 140 | - | -     | -     | -     | -     | -     | -     | -     | -     |

**Current consumption in A**

|     |   |      |      |      |      |      |      |      |      |
|-----|---|------|------|------|------|------|------|------|------|
| 90  | - | 4.89 | 5.19 | 5.49 | 5.74 | 5.94 | 6.05 | 6.06 | 6.05 |
| 100 | - | 4.95 | 5.28 | 5.61 | 5.91 | 6.17 | 6.36 | 6.43 | 6.46 |
| 110 | - | 4.97 | 5.33 | 5.71 | 6.09 | 6.43 | 6.72 | 6.84 | 6.93 |
| 120 | - | -    | 5.38 | 5.83 | 6.28 | 6.73 | 7.13 | 7.31 | 7.47 |
| 130 | - | -    | -    | 5.96 | 6.52 | 7.07 | 7.61 | 7.86 | 8.10 |
| 140 | - | -    | -    | -    | -    | -    | -    | -    | -    |

**Mass flow in lbs/h**

|     |   |    |     |     |     |     |     |     |     |
|-----|---|----|-----|-----|-----|-----|-----|-----|-----|
| 90  | - | 78 | 115 | 161 | 217 | 283 | 361 | 405 | 452 |
| 100 | - | 69 | 105 | 148 | 201 | 265 | 339 | 381 | 427 |
| 110 | - | 62 | 96  | 137 | 188 | 249 | 321 | 361 | 405 |
| 120 | - | -  | 88  | 128 | 177 | 235 | 305 | 344 | 386 |
| 130 | - | -  | -   | 121 | 168 | 225 | 292 | 330 | 371 |
| 140 | - | -  | -   | -   | -   | -   | -   | -   | -   |

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

|     |   |      |      |      |       |       |       |       |       |
|-----|---|------|------|------|-------|-------|-------|-------|-------|
| 90  | - | 5.34 | 6.96 | 8.84 | 11.12 | 13.95 | 17.60 | 19.85 | 22.50 |
| 100 | - | 4.48 | 5.87 | 7.43 | 9.25  | 11.44 | 14.16 | 15.78 | 17.63 |
| 110 | - | 3.75 | 4.97 | 6.29 | 7.77  | 9.51  | 11.60 | 12.82 | 14.18 |
| 120 | - | -    | 4.21 | 5.34 | 6.57  | 7.97  | 9.62  | 10.56 | 11.59 |
| 130 | - | -    | -    | 4.53 | 5.56  | 6.71  | 8.03  | 8.77  | 9.57  |
| 140 | - | -    | -    | -    | -     | -     | -     | -     | -     |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 11 648 | Btu/h | Current consumption | 6.28 | A     |
| Power input      | 1 773  | W     | Mass flow           | 177  | lbs/h |
| E.E.R.           | 6.57   |       |                     |      |       |

**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  | 76 | dB(A) |
| With acoustic hood | 70 | dB(A) |

**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | 7 139 | 9 830 | 13 412 | 18 019 | -      | -      | -      | -      | -      |
| 60  | 6 525 | 9 006 | 12 304 | 16 553 | 21 890 | -      | -      | -      | -      |
| 70  | 5 953 | 8 238 | 11 266 | 15 172 | 20 092 | 26 161 | -      | -      | -      |
| 80  | 5 413 | 7 516 | 10 288 | 13 865 | 18 382 | 23 975 | 30 778 | -      | -      |
| 100 | 4 385 | 6 165 | 8 468  | 11 430 | 15 184 | 19 868 | 25 616 | 28 930 | 32 562 |
| 120 | -     | 4 869 | 6 760  | 9 162  | 12 210 | 16 041 | 20 789 | 23 550 | 26 591 |
| 140 | -     | -     | -      | -      | 9 373  | 12 408 | 16 214 | 18 448 | 20 926 |

**Power input in W**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 831   | 911   | 973   | 1 013 | -     | -     | -     | -     | -     |
| 60  | 876   | 968   | 1 045 | 1 103 | 1 139 | -     | -     | -     | -     |
| 70  | 920   | 1 025 | 1 118 | 1 196 | 1 253 | 1 286 | -     | -     | -     |
| 80  | 960   | 1 080 | 1 191 | 1 288 | 1 369 | 1 428 | 1 461 | -     | -     |
| 100 | 1 029 | 1 181 | 1 330 | 1 472 | 1 603 | 1 718 | 1 813 | 1 852 | 1 884 |
| 120 | -     | 1 263 | 1 456 | 1 646 | 1 832 | 2 007 | 2 169 | 2 243 | 2 312 |
| 140 | -     | -     | -     | -     | 2 047 | 2 288 | 2 521 | 2 633 | 2 741 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 50  | 3.02 | 3.12 | 3.23 | 3.30 | -    | -    | -    | -    | -    |
| 60  | 3.53 | 3.63 | 3.75 | 3.84 | 3.88 | -    | -    | -    | -    |
| 70  | 3.91 | 4.01 | 4.14 | 4.26 | 4.34 | 4.36 | -    | -    | -    |
| 80  | 4.18 | 4.29 | 4.43 | 4.58 | 4.70 | 4.78 | 4.76 | -    | -    |
| 100 | 4.49 | 4.60 | 4.79 | 5.00 | 5.23 | 5.42 | 5.56 | 5.60 | 5.62 |
| 120 | -    | 4.76 | 5.00 | 5.29 | 5.62 | 5.96 | 6.26 | 6.39 | 6.50 |
| 140 | -    | -    | -    | -    | 6.07 | 6.55 | 7.03 | 7.26 | 7.48 |

**Mass flow in lbs/h**

|     |    |     |     |     |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50  | 88 | 119 | 160 | 211 | -   | -   | -   | -   | -   |
| 60  | 84 | 114 | 153 | 202 | 263 | -   | -   | -   | -   |
| 70  | 80 | 109 | 146 | 193 | 252 | 323 | -   | -   | -   |
| 80  | 77 | 105 | 141 | 186 | 241 | 310 | 393 | -   | -   |
| 100 | 70 | 96  | 130 | 171 | 222 | 285 | 362 | 406 | 453 |
| 120 | -  | 87  | 118 | 156 | 204 | 262 | 332 | 372 | 417 |
| 140 | -  | -   | -   | -   | 184 | 238 | 303 | 340 | 381 |

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

|     |      |       |       |       |       |       |       |       |       |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 8.59 | 10.80 | 13.79 | 17.78 | -     | -     | -     | -     | -     |
| 60  | 7.45 | 9.31  | 11.77 | 15.00 | 19.22 | -     | -     | -     | -     |
| 70  | 6.47 | 8.04  | 10.08 | 12.69 | 16.04 | 20.35 | -     | -     | -     |
| 80  | 5.64 | 6.96  | 8.64  | 10.76 | 13.43 | 16.79 | 21.06 | -     | -     |
| 100 | 4.26 | 5.22  | 6.37  | 7.76  | 9.47  | 11.57 | 14.13 | 15.63 | 17.29 |
| 120 | -    | 3.85  | 4.64  | 5.56  | 6.67  | 7.99  | 9.59  | 10.50 | 11.50 |
| 140 | -    | -     | -     | -     | 4.58  | 5.42  | 6.43  | 7.01  | 7.64  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 12 210 | Btu/h | Current consumption | 5.62 | A     |
| Power input      | 1 832  | W     | Mass flow           | 204  | lbs/h |
| E.E.R.           | 6.67   |       |                     |      |       |

**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  | 77 | dB(A) |
| With acoustic hood | 71 | dB(A) |

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**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | 7 139 | 9 831 | 13 413 | 18 020 | -      | -      | -      | -      | -      |
| 60  | 6 525 | 9 006 | 12 304 | 16 554 | 21 891 | -      | -      | -      | -      |
| 70  | 5 954 | 8 238 | 11 266 | 15 173 | 20 093 | 26 162 | -      | -      | -      |
| 80  | 5 414 | 7 516 | 10 288 | 13 866 | 18 384 | 23 977 | 30 780 | -      | -      |
| 100 | 4 386 | 6 166 | 8 469  | 11 431 | 15 186 | 19 870 | 25 618 | 28 933 | 32 564 |
| 120 | -     | 4 870 | 6 761  | 9 163  | 12 212 | 16 043 | 20 792 | 23 552 | 26 593 |
| 140 | -     | -     | -      | -      | 9 375  | 12 410 | 16 216 | 18 451 | 20 929 |

**Power input in W**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 831   | 911   | 973   | 1 013 | -     | -     | -     | -     | -     |
| 60  | 876   | 968   | 1 045 | 1 103 | 1 139 | -     | -     | -     | -     |
| 70  | 920   | 1 025 | 1 118 | 1 196 | 1 253 | 1 286 | -     | -     | -     |
| 80  | 960   | 1 080 | 1 191 | 1 288 | 1 369 | 1 428 | 1 461 | -     | -     |
| 100 | 1 029 | 1 181 | 1 330 | 1 472 | 1 603 | 1 718 | 1 813 | 1 852 | 1 884 |
| 120 | -     | 1 263 | 1 456 | 1 646 | 1 832 | 2 007 | 2 169 | 2 243 | 2 312 |
| 140 | -     | -     | -     | -     | 2 047 | 2 288 | 2 521 | 2 633 | 2 741 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 50  | 3.01 | 3.12 | 3.23 | 3.30 | -    | -    | -    | -    | -    |
| 60  | 3.53 | 3.63 | 3.75 | 3.84 | 3.88 | -    | -    | -    | -    |
| 70  | 3.91 | 4.01 | 4.14 | 4.26 | 4.34 | 4.36 | -    | -    | -    |
| 80  | 4.18 | 4.29 | 4.43 | 4.58 | 4.70 | 4.78 | 4.76 | -    | -    |
| 100 | 4.49 | 4.60 | 4.79 | 5.00 | 5.23 | 5.42 | 5.56 | 5.60 | 5.62 |
| 120 | -    | 4.76 | 5.00 | 5.29 | 5.62 | 5.95 | 6.26 | 6.39 | 6.50 |
| 140 | -    | -    | -    | -    | 6.07 | 6.55 | 7.03 | 7.26 | 7.48 |

**Mass flow in lbs/h**

|     |    |     |     |     |     |     |     |     |     |
|-----|----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50  | 91 | 122 | 163 | 215 | -   | -   | -   | -   | -   |
| 60  | 86 | 117 | 156 | 206 | 268 | -   | -   | -   | -   |
| 70  | 82 | 112 | 150 | 197 | 257 | 329 | -   | -   | -   |
| 80  | 79 | 107 | 144 | 189 | 246 | 316 | 400 | -   | -   |
| 100 | 71 | 99  | 132 | 174 | 227 | 291 | 369 | 413 | 462 |
| 120 | -  | 89  | 121 | 160 | 208 | 267 | 339 | 380 | 425 |
| 140 | -  | -   | -   | -   | 189 | 243 | 310 | 348 | 389 |

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

|     |      |       |       |       |       |       |       |       |       |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 8.59 | 10.80 | 13.79 | 17.78 | -     | -     | -     | -     | -     |
| 60  | 7.45 | 9.31  | 11.77 | 15.00 | 19.22 | -     | -     | -     | -     |
| 70  | 6.47 | 8.04  | 10.08 | 12.69 | 16.04 | 20.35 | -     | -     | -     |
| 80  | 5.64 | 6.96  | 8.64  | 10.76 | 13.43 | 16.79 | 21.06 | -     | -     |
| 100 | 4.26 | 5.22  | 6.37  | 7.76  | 9.47  | 11.57 | 14.13 | 15.63 | 17.29 |
| 120 | -    | 3.85  | 4.64  | 5.57  | 6.67  | 7.99  | 9.59  | 10.50 | 11.50 |
| 140 | -    | -     | -     | -     | 4.58  | 5.42  | 6.43  | 7.01  | 7.64  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 12 212 | Btu/h | Current consumption | 5.62 | A     |
| Power input      | 1 832  | W     | Mass flow           | 208  | lbs/h |
| E.E.R.           | 6.67   |       |                     |      |       |

**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  | 77 | dB(A) |
| With acoustic hood | 71 | dB(A) |

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**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | 8 864 | 11 812 | 15 505 | 20 024 | -      | -      | -      | -      | -      |
| 60  | 7 813 | 10 565 | 14 011 | 18 230 | 23 300 | -      | -      | -      | -      |
| 70  | 6 850 | 9 408  | 12 608 | 16 528 | 21 247 | 26 843 | -      | -      | -      |
| 80  | 5 965 | 8 330  | 11 285 | 14 908 | 19 279 | 24 474 | 30 573 | -      | -      |
| 100 | 4 389 | 6 374  | 8 844  | 11 879 | 15 557 | 19 955 | 25 154 | 28 077 | 31 229 |
| 120 | 3 012 | 4 623  | 6 615  | 9 067  | 12 058 | 15 666 | 19 971 | 22 408 | 25 049 |
| 140 | -     | -      | -      | 6 397  | 8 708  | 11 533 | 14 950 | 16 905 | 19 038 |

**Power input in W**

|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 1 003 | 1 090 | 1 146 | 1 162 | -     | -     | -     | -     | -     |
| 60  | 1 037 | 1 143 | 1 221 | 1 264 | 1 266 | -     | -     | -     | -     |
| 70  | 1 065 | 1 190 | 1 291 | 1 361 | 1 394 | 1 384 | -     | -     | -     |
| 80  | 1 088 | 1 232 | 1 355 | 1 452 | 1 516 | 1 542 | 1 523 | -     | -     |
| 100 | 1 117 | 1 299 | 1 470 | 1 622 | 1 749 | 1 846 | 1 906 | 1 920 | 1 923 |
| 120 | 1 126 | 1 349 | 1 567 | 1 775 | 1 967 | 2 136 | 2 276 | 2 333 | 2 381 |
| 140 | -     | -     | -     | 1 915 | 2 172 | 2 414 | 2 636 | 2 737 | 2 831 |

**Current consumption in A**

|     |      |      |      |      |      |      |      |      |      |
|-----|------|------|------|------|------|------|------|------|------|
| 50  | 3.14 | 3.14 | 3.14 | 3.14 | -    | -    | -    | -    | -    |
| 60  | 3.74 | 3.77 | 3.81 | 3.85 | 3.86 | -    | -    | -    | -    |
| 70  | 4.16 | 4.22 | 4.30 | 4.37 | 4.43 | 4.45 | -    | -    | -    |
| 80  | 4.43 | 4.52 | 4.64 | 4.76 | 4.86 | 4.94 | 4.97 | -    | -    |
| 100 | 4.64 | 4.81 | 5.01 | 5.23 | 5.45 | 5.64 | 5.80 | 5.86 | 5.91 |
| 120 | 4.67 | 4.92 | 5.22 | 5.55 | 5.89 | 6.21 | 6.51 | 6.65 | 6.77 |
| 140 | -    | -    | -    | 5.99 | 6.46 | 6.93 | 7.38 | 7.60 | 7.80 |

**Mass flow in lbs/h**

|     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 50  | 137 | 182 | 235 | 298 | -   | -   | -   | -   | -   |
| 60  | 129 | 172 | 224 | 285 | 357 | -   | -   | -   | -   |
| 70  | 121 | 163 | 213 | 273 | 343 | 425 | -   | -   | -   |
| 80  | 112 | 154 | 203 | 261 | 329 | 409 | 500 | -   | -   |
| 100 | 96  | 135 | 182 | 237 | 302 | 378 | 465 | 513 | 565 |
| 120 | 79  | 117 | 162 | 214 | 276 | 348 | 431 | 477 | 526 |
| 140 | -   | -   | -   | 191 | 250 | 318 | 397 | 441 | 488 |

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

|     |      |       |       |       |       |       |       |       |       |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 50  | 8.84 | 10.83 | 13.54 | 17.23 | -     | -     | -     | -     | -     |
| 60  | 7.53 | 9.24  | 11.48 | 14.42 | 18.40 | -     | -     | -     | -     |
| 70  | 6.43 | 7.90  | 9.77  | 12.15 | 15.24 | 19.39 | -     | -     | -     |
| 80  | 5.48 | 6.76  | 8.33  | 10.27 | 12.71 | 15.87 | 20.07 | -     | -     |
| 100 | 3.93 | 4.91  | 6.02  | 7.33  | 8.89  | 10.81 | 13.20 | 14.62 | 16.24 |
| 120 | 2.68 | 3.43  | 4.22  | 5.11  | 6.13  | 7.34  | 8.78  | 9.60  | 10.52 |
| 140 | -    | -     | -     | 3.34  | 4.01  | 4.78  | 5.67  | 6.18  | 6.72  |

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

|                  |        |       |                     |      |       |
|------------------|--------|-------|---------------------|------|-------|
| Cooling capacity | 12 058 | Btu/h | Current consumption | 5.89 | A     |
| Power input      | 1 967  | W     | Mass flow           | 276  | lbs/h |
| E.E.R.           | 6.13   |       |                     |      |       |

**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  | 77 | dB(A) |
| With acoustic hood | 71 | dB(A) |

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**Datasheet, performance data**
**Maneurop reciprocating compressor. MTZ022-3**
**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  | - | 6 166 | 8 458 | 11 341 | 14 880 | 19 140 | -      | -      | -      |
| 60  | - | 5 530 | 7 696 | 10 417 | 13 758 | 17 786 | 22 566 | -      | -      |
| 70  | - | 4 915 | 6 955 | 9 514  | 12 658 | 16 454 | 20 966 | 23 511 | -      |
| 80  | - | 4 322 | 6 236 | 8 634  | 11 581 | 15 144 | 19 388 | 21 786 | 24 379 |
| 100 | - | 3 210 | 4 871 | 6 945  | 9 498  | 12 596 | 16 305 | 18 409 | 20 690 |
| 120 | - | 2 201 | 3 609 | 5 360  | 7 519  | 10 152 | 13 325 | 15 134 | 17 104 |
| 140 | - | -     | -     | -      | 5 651  | 7 819  | 10 457 | 11 972 | 13 629 |

**Power input in W**

|     |   |     |     |       |       |       |       |       |       |
|-----|---|-----|-----|-------|-------|-------|-------|-------|-------|
| 50  | - | 760 | 810 | 827   | 807   | 749   | -     | -     | -     |
| 60  | - | 781 | 854 | 897   | 906   | 879   | 810   | -     | -     |
| 70  | - | 788 | 883 | 951   | 988   | 990   | 954   | 921   | -     |
| 80  | - | 784 | 900 | 992   | 1 055 | 1 086 | 1 081 | 1 064 | 1 037 |
| 100 | - | 748 | 903 | 1 039 | 1 151 | 1 237 | 1 291 | 1 306 | 1 311 |
| 120 | - | 689 | 878 | 1 053 | 1 210 | 1 345 | 1 455 | 1 498 | 1 534 |
| 140 | - | -   | -   | -     | 1 248 | 1 428 | 1 587 | 1 658 | 1 722 |

**Current consumption in A**

|     |   |      |      |      |      |      |      |      |      |
|-----|---|------|------|------|------|------|------|------|------|
| 50  | - | 3.48 | 3.56 | 3.62 | 3.67 | 3.69 | -    | -    | -    |
| 60  | - | 3.63 | 3.71 | 3.78 | 3.83 | 3.86 | 3.85 | -    | -    |
| 70  | - | 3.75 | 3.85 | 3.93 | 4.00 | 4.04 | 4.04 | 4.03 | -    |
| 80  | - | 3.84 | 3.96 | 4.07 | 4.16 | 4.22 | 4.25 | 4.25 | 4.23 |
| 100 | - | 3.90 | 4.10 | 4.29 | 4.45 | 4.58 | 4.68 | 4.71 | 4.73 |
| 120 | - | 3.75 | 4.06 | 4.36 | 4.64 | 4.88 | 5.08 | 5.17 | 5.24 |
| 140 | - | -    | -    | -    | 4.67 | 5.05 | 5.40 | 5.56 | 5.71 |

**Mass flow in lbs/h**

|     |   |    |     |     |     |     |     |     |     |
|-----|---|----|-----|-----|-----|-----|-----|-----|-----|
| 50  | - | 89 | 120 | 156 | 200 | 252 | -   | -   | -   |
| 60  | - | 84 | 114 | 150 | 194 | 244 | 303 | -   | -   |
| 70  | - | 78 | 108 | 144 | 187 | 237 | 295 | 327 | -   |
| 80  | - | 73 | 103 | 138 | 180 | 229 | 286 | 318 | 352 |
| 100 | - | 62 | 91  | 125 | 166 | 213 | 268 | 299 | 332 |
| 120 | - | 49 | 78  | 111 | 151 | 197 | 250 | 280 | 312 |
| 140 | - | -  | -   | -   | 135 | 180 | 232 | 261 | 292 |

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

|     |   |      |       |       |       |       |       |       |       |
|-----|---|------|-------|-------|-------|-------|-------|-------|-------|
| 50  | - | 8.11 | 10.45 | 13.72 | 18.43 | 25.57 | -     | -     | -     |
| 60  | - | 7.08 | 9.01  | 11.62 | 15.18 | 20.24 | 27.86 | -     | -     |
| 70  | - | 6.23 | 7.87  | 10.00 | 12.81 | 16.61 | 21.97 | 25.54 | -     |
| 80  | - | 5.51 | 6.93  | 8.70  | 10.98 | 13.94 | 17.93 | 20.47 | 23.51 |
| 100 | - | 4.29 | 5.39  | 6.68  | 8.25  | 10.19 | 12.63 | 14.10 | 15.78 |
| 120 | - | 3.20 | 4.11  | 5.09  | 6.21  | 7.55  | 9.16  | 10.10 | 11.15 |
| 140 | - | -    | -     | -     | 4.53  | 5.48  | 6.59  | 7.22  | 7.91  |

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

|                  |       |       |                     |      |       |
|------------------|-------|-------|---------------------|------|-------|
| Cooling capacity | 7 519 | Btu/h | Current consumption | 4.64 | A     |
| Power input      | 1 210 | W     | Mass flow           | 151  | lbs/h |
| E.E.R.           | 6.21  |       |                     |      |       |

**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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