ENGINEERING
TOMORROW

Datasheets

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

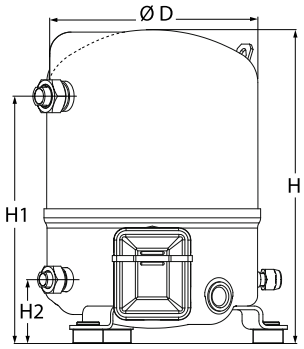
FRCC.UD.160208.154849

www.danfoss.com/odsg

## General Characteristics

| | | |
|---|---|---|
| Model number (on compressor nameplate) | | **MTZ36JG4AVE** |
| Code number for Singlepack* | | MTZ36-4VI |
| Code number for Industrial pack** | | MTZ36-4VM |
| Drawing number | | 8501025f |
| Suction and discharge connections | | Rotolock |
| Suction connection | | 1-1/4 " Rotolock |
| Discharge connection | | 1 " Rotolock |
| Suction connection with supplied sleeve | | 5/8 " ODF |
| Discharge connection with supplied sleeve | | 1/2 " ODF |
| Oil sight glass | | Threaded |
| Oil equalisation connection | | 3/8" flare SAE |
| Oil drain connection | | None |
| LP gauge port | | Schrader |
| IPR valve | | 30 bar / 8 bar |
| Cylinders | 1 | |
| Swept volume | 60,47 cm3/rev | |
| Displacement @ Nominal speed | 10.5 m3/h @ 2900 rpm - 12.7 m3/h @ 3500 rpm | |
| Net weight | 25 kg | |
| Oil charge | 0,95 litre, POE - 160PZ | |
| Maximum system test pressure Low Side / High side | 25 bar(g) / 30 bar(g) | |
| Maximum differential test pressure | 30 bar | |
| Maximum number of starts per hour | 12 | |
| Refrigerant charge limit | 2,5 kg | |
| Approved refrigerants | R404A, R507A, R134a, R407C, R407A, R407F | |

## Dimensions

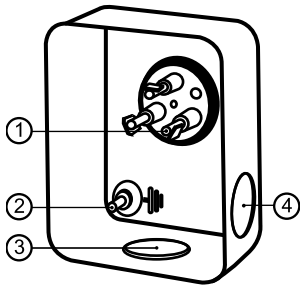



D=224 mm
H=356 mm
H1=263 mm
H2=68 mm
H3=- mm

## Electrical Characteristics

| | |
|---|---|
| Nominal voltage | 380-400V/3/50Hz - 460V/3/60Hz |
| Voltage range | 340-440 V @ 50Hz - 414-506 V @ 60Hz |
| Winding resistance (between phases) +/- 7% at 25ºC | 5.57 Ω |
| Maximum Continuous Current (MCC) | 9 A |
| Locked Rotor Amps (LRA) | 30 A |
| Motor protection | Internal overload protector |

## 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")

## Recommended Installation torques

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

## Parts shipped with compressor

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

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

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 Unboxed compressors on pallet (order per multiples of 12)

| Rotolock accessories, suction side | Code no. |
|---|---|
| Solder sleeve, P09 (1-1/4" Rotolock, 5/8" ODF) | 8153011 |
| Angle adapter, C09 (1-1/4" Rotolock, 5/8" ODF) | 8168009 |
| Rotolock valve, V09 (1-1/4" Rotolock, 5/8" ODF) | 8168033 |
| Gasket, 1-1/4" | 8156131 |

| Rotolock accessories, discharge side | Code no. |
|---|---|
| Solder sleeve, P06 (1" Rotolock, 1/2" ODF) | 8153007 |
| Angle adapter, C06 (1" Rotolock, 1/2" ODF) | 8168007 |
| Rotolock valve, V06 (1" Rotolock, 1/2" ODF) | 8168031 |
| Gasket, 1" | 8156130 |

| Rotolock accessories, sets | Code no. |
|---|---|
| Angle adapter set, C09 (1-1/4"~5/8"), C06 (1"~1/2") | 7703012 |
| Valve set, V09 (1-1/4"~5/8"), V06 (1"~1/2") | 7703005 |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white | 8156009 |

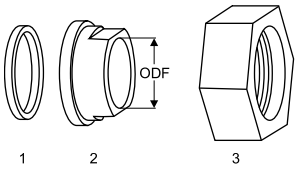
| Oil / lubricants | Code no. |
|---|---|
| POE lubricant, 160PZ, 1 litre can | 7754019 |
| POE lubricant, 160PZ, 2.5 litre can | 120Z0573 |

| Crankcase heaters | Code no. |
|---|---|
| PTC heater 27W,CE mark, UL | 120Z0459 |
| Belt type crankcase heater, 54 W, 230 V, CE mark, UL | 7773106 |
| Belt type crankcase heater, 54 W, 400 V, UL | 7773013 |

| Miscellaneous accessories | Code no. |
|---|---|
| Electronic soft start kit, MCI 15 C | 7705006 |
| Acoustic hood for 1 cylinder compressor | 120Z0471 |
| Oil equalisation nut | 8153127 |

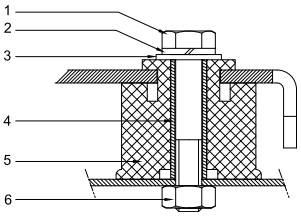
| Spare parts | Code no. |
|---|---|
| Mounting kit for 1 and 2 cylinder compressor, including 3 grommets, 3 bolts | 8156001 |
| Oil sight glass with gaskets (black & white) | 8156019 |
| Gasket for oil sight glass (black chloroprene) | 8156145 |
| Service kit for terminal box 80 x 96 mm, including 1 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 50 Hz, EN 12900 rating conditions

# R407C

| Cond. temp. in °C (tc) | Evaporating temperature in °C (to) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -15 | -10 | -5 | 0 | 5 | 10 | 15 | | |
| **Cooling capacity in W** | | | | | | | | | |
| 35 | 3 688 | 4 851 | 6 219 | 7 815 | 9 660 | 11 776 | 14 186 | - | - |
| 40 | 3 346 | 4 445 | 5 728 | 7 216 | 8 930 | 10 894 | 13 128 | - | - |
| 45 | 2 994 | 4 036 | 5 239 | 6 624 | 8 215 | 10 032 | 12 097 | - | - |
| 50 | - | 3 617 | 4 746 | 6 036 | 7 508 | 9 184 | 11 087 | - | - |
| 55 | - | - | 4 246 | 5 445 | 6 805 | 8 346 | 10 092 | - | - |
| 60 | - | - | - | 4 846 | 6 100 | 7 513 | 9 107 | - | - |
| 65 | - | - | - | 4 235 | 5 388 | 6 678 | 8 127 | - | - |
| **Power input in W** | | | | | | | | | |
| 35 | 1 724 | 1 932 | 2 106 | 2 247 | 2 355 | 2 429 | 2 470 | - | - |
| 40 | 1 779 | 2 025 | 2 233 | 2 405 | 2 540 | 2 637 | 2 698 | - | - |
| 45 | 1 813 | 2 104 | 2 355 | 2 565 | 2 735 | 2 863 | 2 951 | - | - |
| 50 | - | 2 166 | 2 466 | 2 722 | 2 934 | 3 101 | 3 224 | - | - |
| 55 | - | - | 2 560 | 2 870 | 3 132 | 3 345 | 3 511 | - | - |
| 60 | - | - | - | 3 003 | 3 323 | 3 591 | 3 807 | - | - |
| 65 | - | - | - | 3 117 | 3 502 | 3 831 | 4 105 | - | - |
| **Current consumption in A** | | | | | | | | | |
| 35 | 4.01 | 4.27 | 4.46 | 4.62 | 4.74 | 4.85 | 4.97 | - | - |
| 40 | 4.08 | 4.40 | 4.64 | 4.84 | 5.00 | 5.13 | 5.26 | - | - |
| 45 | 4.12 | 4.51 | 4.82 | 5.08 | 5.28 | 5.46 | 5.61 | - | - |
| 50 | - | 4.60 | 4.99 | 5.31 | 5.58 | 5.81 | 6.02 | - | - |
| 55 | - | - | 5.13 | 5.54 | 5.89 | 6.19 | 6.45 | - | - |
| 60 | - | - | - | 5.74 | 6.19 | 6.57 | 6.91 | - | - |
| 65 | - | - | - | 5.91 | 6.46 | 6.95 | 7.38 | - | - |
| **Mass flow in kg/h** | | | | | | | | | |
| 35 | 80 | 104 | 131 | 161 | 197 | 236 | 281 | - | - |
| 40 | 76 | 100 | 126 | 156 | 191 | 229 | 272 | - | - |
| 45 | 72 | 95 | 122 | 151 | 184 | 222 | 263 | - | - |
| 50 | - | 91 | 117 | 146 | 178 | 214 | 255 | - | - |
| 55 | - | - | 111 | 140 | 172 | 207 | 246 | - | - |
| 60 | - | - | - | 133 | 165 | 199 | 237 | - | - |
| 65 | - | - | - | 126 | 157 | 191 | 227 | - | - |
| **Coefficient of performance (C.O.P.)** | | | | | | | | | |
| 35 | 2.14 | 2.51 | 2.95 | 3.48 | 4.10 | 4.85 | 5.74 | - | - |
| 40 | 1.88 | 2.20 | 2.56 | 3.00 | 3.52 | 4.13 | 4.87 | - | - |
| 45 | 1.65 | 1.92 | 2.22 | 2.58 | 3.00 | 3.50 | 4.10 | - | - |
| 50 | - | 1.67 | 1.92 | 2.22 | 2.56 | 2.96 | 3.44 | - | - |
| 55 | - | - | 1.66 | 1.90 | 2.17 | 2.49 | 2.87 | - | - |
| 60 | - | - | - | 1.61 | 1.84 | 2.09 | 2.39 | - | - |
| 65 | - | - | - | 1.36 | 1.54 | 1.74 | 1.98 | - | - |

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

| | | |
|---|---|---|
| Cooling capacity | 7 508 | W |
| Power input | 2 934 | W |
| Current consumption | 5.58 | A |
| Mass flow | 178 | kg/h |
| C.O.P. | 2.56 | |

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**Pressure switch settings**

| | | |
|---|---|---|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 0.2 | bar(g) |
| LP pump down setting | 1.3 | bar(g) |

**Sound power data**

| | | |
|---|---|---|
| Sound power level | 74 | dB(A) |
| With accoustic hood | 68 | dB(A) |

to: Evaporating temperature at dew point
tc: Condensing temperature at dew point
Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

## Performance data at 50 Hz, ARI rating conditions

# R407C

| Cond. temp. in °C (tc) | Evaporating temperature in °C (to) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -15 | -10 | -5 | 0 | 5 | 10 | 15 | | |
| **Cooling capacity in W** | | | | | | | | | |
| 35 | 3 970 | 5 215 | 6 678 | 8 382 | 10 349 | 12 604 | 15 167 | - | - |
| 40 | 3 621 | 4 804 | 6 182 | 7 778 | 9 615 | 11 716 | 14 103 | - | - |
| 45 | 3 261 | 4 389 | 5 688 | 7 183 | 8 895 | 10 849 | 13 066 | - | - |
| 50 | - | 3 962 | 5 191 | 6 590 | 8 185 | 9 998 | 12 052 | - | - |
| 55 | - | - | 4 683 | 5 995 | 7 478 | 9 157 | 11 055 | - | - |
| 60 | - | - | - | 5 390 | 6 771 | 8 323 | 10 071 | - | - |
| 65 | - | - | - | 4 772 | 6 056 | 7 490 | 9 096 | - | - |
| **Power input in W** | | | | | | | | | |
| 35 | 1 724 | 1 932 | 2 106 | 2 247 | 2 355 | 2 429 | 2 470 | - | - |
| 40 | 1 779 | 2 025 | 2 233 | 2 405 | 2 540 | 2 637 | 2 698 | - | - |
| 45 | 1 813 | 2 104 | 2 355 | 2 565 | 2 735 | 2 863 | 2 951 | - | - |
| 50 | - | 2 166 | 2 466 | 2 722 | 2 934 | 3 101 | 3 224 | - | - |
| 55 | - | - | 2 560 | 2 870 | 3 132 | 3 345 | 3 511 | - | - |
| 60 | - | - | - | 3 003 | 3 323 | 3 591 | 3 807 | - | - |
| 65 | - | - | - | 3 117 | 3 502 | 3 831 | 4 105 | - | - |
| **Current consumption in A** | | | | | | | | | |
| 35 | 4.01 | 4.27 | 4.46 | 4.62 | 4.74 | 4.85 | 4.97 | - | - |
| 40 | 4.08 | 4.40 | 4.64 | 4.84 | 5.00 | 5.13 | 5.26 | - | - |
| 45 | 4.12 | 4.51 | 4.82 | 5.08 | 5.28 | 5.46 | 5.61 | - | - |
| 50 | - | 4.60 | 4.99 | 5.31 | 5.58 | 5.81 | 6.02 | - | - |
| 55 | - | - | 5.13 | 5.54 | 5.89 | 6.19 | 6.45 | - | - |
| 60 | - | - | - | 5.74 | 6.19 | 6.57 | 6.91 | - | - |
| 65 | - | - | - | 5.91 | 6.46 | 6.95 | 7.38 | - | - |
| **Mass flow in kg/h** | | | | | | | | | |
| 35 | 80 | 103 | 130 | 161 | 196 | 235 | 279 | - | - |
| 40 | 76 | 99 | 126 | 156 | 189 | 228 | 271 | - | - |
| 45 | 72 | 95 | 121 | 150 | 183 | 220 | 262 | - | - |
| 50 | - | 90 | 116 | 145 | 177 | 213 | 253 | - | - |
| 55 | - | - | 111 | 139 | 171 | 206 | 244 | - | - |
| 60 | - | - | - | 133 | 164 | 198 | 235 | - | - |
| 65 | - | - | - | 125 | 156 | 189 | 226 | - | - |
| **Coefficient of performance (C.O.P.)** | | | | | | | | | |
| 35 | 2.30 | 2.70 | 3.17 | 3.73 | 4.40 | 5.19 | 6.14 | - | - |
| 40 | 2.04 | 2.37 | 2.77 | 3.23 | 3.79 | 4.44 | 5.23 | - | - |
| 45 | 1.80 | 2.09 | 2.42 | 2.80 | 3.25 | 3.79 | 4.43 | - | - |
| 50 | - | 1.83 | 2.10 | 2.42 | 2.79 | 3.22 | 3.74 | - | - |
| 55 | - | - | 1.83 | 2.09 | 2.39 | 2.74 | 3.15 | - | - |
| 60 | - | - | - | 1.79 | 2.04 | 2.32 | 2.65 | - | - |
| 65 | - | - | - | 1.53 | 1.73 | 1.96 | 2.22 | - | - |

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

| | | |
|---|---|---|
| Cooling capacity | 8 283 | W |
| Power input | 3 206 | W |
| Current consumption | 5.99 | A |
| Mass flow | 186 | kg/h |
| C.O.P. | 2.58 | |

to: Evaporating temperature at dew point
tc: Condensing temperature at dew point
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

| | | |
|---|---|---|
| Maximum HP switch setting | 29.4 | bar(g) |
| Minimum LP switch setting | 0.2 | bar(g) |
| LP pump down setting | 1.3 | bar(g) |

**Sound power data**

| | | |
|---|---|---|
| Sound power level | 74 | dB(A) |
| With accoustic hood | 68 | dB(A) |

All performance data +/- 5%

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

# R134a

| Cond. temp. in °C (tc) | Evaporating temperature in °C (to) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 | |
| **Cooling capacity in W** | | | | | | | | | |
| 35 | 2 448 | 3 221 | 4 157 | 5 276 | 6 598 | 8 143 | 9 933 | 11 988 | - |
| 40 | 2 246 | 2 983 | 3 873 | 4 937 | 6 195 | 7 668 | 9 377 | 11 341 | - |
| 45 | 2 049 | 2 743 | 3 582 | 4 586 | 5 776 | 7 171 | 8 793 | 10 661 | - |
| 50 | 1 857 | 2 503 | 3 286 | 4 224 | 5 340 | 6 652 | 8 181 | 9 948 | - |
| 55 | 1 669 | 2 263 | 2 984 | 3 852 | 4 888 | 6 111 | 7 542 | 9 202 | - |
| 60 | - | 2 022 | 2 676 | 3 469 | 4 420 | 5 549 | 6 877 | 8 424 | - |
| 65 | - | - | - | 3 076 | 3 937 | 4 967 | 6 186 | 7 615 | - |
| 70 | - | - | - | - | - | 4 364 | 5 469 | 6 774 | - |
| **Power input in W** | | | | | | | | | |
| 35 | 1 197 | 1 329 | 1 450 | 1 556 | 1 640 | 1 699 | 1 728 | 1 720 | - |
| 40 | 1 250 | 1 393 | 1 528 | 1 650 | 1 753 | 1 834 | 1 887 | 1 906 | - |
| 45 | 1 295 | 1 450 | 1 600 | 1 740 | 1 865 | 1 969 | 2 047 | 2 096 | - |
| 50 | 1 329 | 1 499 | 1 666 | 1 826 | 1 973 | 2 102 | 2 209 | 2 287 | - |
| 55 | 1 352 | 1 538 | 1 724 | 1 906 | 2 077 | 2 233 | 2 369 | 2 480 | - |
| 60 | - | 1 567 | 1 774 | 1 979 | 2 176 | 2 361 | 2 528 | 2 673 | - |
| 65 | - | - | - | 2 043 | 2 268 | 2 484 | 2 685 | 2 865 | - |
| 70 | - | - | - | - | - | 2 601 | 2 837 | 3 056 | - |
| **Current consumption in A** | | | | | | | | | |
| 35 | 3.10 | 3.22 | 3.32 | 3.42 | 3.50 | 3.56 | 3.59 | 3.60 | - |
| 40 | 3.14 | 3.27 | 3.40 | 3.52 | 3.62 | 3.71 | 3.78 | 3.82 | - |
| 45 | 3.17 | 3.32 | 3.47 | 3.62 | 3.75 | 3.87 | 3.98 | 4.06 | - |
| 50 | 3.20 | 3.37 | 3.55 | 3.72 | 3.88 | 4.04 | 4.18 | 4.31 | - |
| 55 | 3.23 | 3.42 | 3.62 | 3.82 | 4.02 | 4.21 | 4.40 | 4.57 | - |
| 60 | - | 3.46 | 3.69 | 3.92 | 4.16 | 4.39 | 4.62 | 4.84 | - |
| 65 | - | - | - | 4.02 | 4.29 | 4.57 | 4.84 | 5.11 | - |
| 70 | - | - | - | - | - | 4.75 | 5.07 | 5.39 | - |
| **Mass flow in kg/h** | | | | | | | | | |
| 35 | 59 | 76 | 97 | 120 | 147 | 178 | 214 | 254 | - |
| 40 | 57 | 74 | 94 | 118 | 145 | 176 | 211 | 251 | - |
| 45 | 55 | 72 | 92 | 115 | 142 | 173 | 207 | 247 | - |
| 50 | 53 | 70 | 89 | 112 | 138 | 169 | 203 | 242 | - |
| 55 | 51 | 67 | 86 | 109 | 135 | 164 | 198 | 237 | - |
| 60 | - | 64 | 83 | 105 | 130 | 159 | 192 | 230 | - |
| 65 | - | - | - | 100 | 125 | 153 | 185 | 222 | - |
| 70 | - | - | - | - | - | 146 | 178 | 213 | - |
| **Coefficient of performance (C.O.P.)** | | | | | | | | | |
| 35 | 2.04 | 2.42 | 2.87 | 3.39 | 4.02 | 4.79 | 5.75 | 6.97 | - |
| 40 | 1.80 | 2.14 | 2.53 | 2.99 | 3.53 | 4.18 | 4.97 | 5.95 | - |
| 45 | 1.58 | 1.89 | 2.24 | 2.64 | 3.10 | 3.64 | 4.29 | 5.09 | - |
| 50 | 1.40 | 1.67 | 1.97 | 2.31 | 2.71 | 3.16 | 3.70 | 4.35 | - |
| 55 | 1.23 | 1.47 | 1.73 | 2.02 | 2.35 | 2.74 | 3.18 | 3.71 | - |
| 60 | - | 1.29 | 1.51 | 1.75 | 2.03 | 2.35 | 2.72 | 3.15 | - |
| 65 | - | - | - | 1.51 | 1.74 | 2.00 | 2.30 | 2.66 | - |
| 70 | - | - | - | - | - | 1.68 | 1.93 | 2.22 | - |

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

| | | |
|---|---|---|
| Cooling capacity | 5 340 | W |
| Power input | 1 973 | W |
| Current consumption | 3.88 | A |
| Mass flow | 138 | kg/h |
| C.O.P. | 2.71 | |

**Pressure switch settings**

| | | |
|---|---|---|
| Maximum HP switch setting | 22.6 | bar(g) |
| Minimum LP switch setting | 0.2 | bar(g) |
| LP pump down setting | 0.5 | bar(g) |

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

## Performance data at 50 Hz, ARI rating conditions

# R134a

| Cond. temp. in °C (tc) | Evaporating temperature in °C (to) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -15 | -10 | -5 | 0 | 5 | 10 | 15 | 20 | |
| **Cooling capacity in W** | | | | | | | | | |
| 35 | 2 651 | 3 483 | 4 488 | 5 686 | 7 101 | 8 752 | 10 660 | 12 849 | - |
| 40 | 2 446 | 3 242 | 4 202 | 5 347 | 6 699 | 8 279 | 10 108 | 12 208 | - |
| 45 | 2 246 | 3 000 | 3 909 | 4 995 | 6 279 | 7 782 | 9 526 | 11 531 | - |
| 50 | 2 049 | 2 756 | 3 609 | 4 630 | 5 840 | 7 261 | 8 914 | 10 820 | - |
| 55 | 1 858 | 2 511 | 3 303 | 4 253 | 5 384 | 6 717 | 8 273 | 10 073 | - |
| 60 | - | 2 266 | 2 990 | 3 864 | 4 910 | 6 149 | 7 603 | 9 292 | - |
| 65 | - | - | - | 3 463 | 4 419 | 5 558 | 6 903 | 8 476 | - |
| 70 | - | - | - | - | - | 4 944 | 6 176 | 7 625 | - |
| **Power input in W** | | | | | | | | | |
| 35 | 1 197 | 1 329 | 1 450 | 1 556 | 1 640 | 1 699 | 1 728 | 1 720 | - |
| 40 | 1 250 | 1 393 | 1 528 | 1 650 | 1 753 | 1 834 | 1 887 | 1 906 | - |
| 45 | 1 295 | 1 450 | 1 600 | 1 740 | 1 865 | 1 969 | 2 047 | 2 096 | - |
| 50 | 1 329 | 1 499 | 1 666 | 1 826 | 1 973 | 2 102 | 2 209 | 2 287 | - |
| 55 | 1 352 | 1 538 | 1 724 | 1 906 | 2 077 | 2 233 | 2 369 | 2 480 | - |
| 60 | - | 1 567 | 1 774 | 1 979 | 2 176 | 2 361 | 2 528 | 2 673 | - |
| 65 | - | - | - | 2 043 | 2 268 | 2 484 | 2 685 | 2 865 | - |
| 70 | - | - | - | - | - | 2 601 | 2 837 | 3 056 | - |
| **Current consumption in A** | | | | | | | | | |
| 35 | 3.10 | 3.22 | 3.32 | 3.42 | 3.50 | 3.56 | 3.59 | 3.60 | - |
| 40 | 3.14 | 3.27 | 3.40 | 3.52 | 3.62 | 3.71 | 3.78 | 3.82 | - |
| 45 | 3.17 | 3.32 | 3.47 | 3.62 | 3.75 | 3.87 | 3.98 | 4.06 | - |
| 50 | 3.20 | 3.37 | 3.55 | 3.72 | 3.88 | 4.04 | 4.18 | 4.31 | - |
| 55 | 3.23 | 3.42 | 3.62 | 3.82 | 4.02 | 4.21 | 4.40 | 4.57 | - |
| 60 | - | 3.46 | 3.69 | 3.92 | 4.16 | 4.39 | 4.62 | 4.84 | - |
| 65 | - | - | - | 4.02 | 4.29 | 4.57 | 4.84 | 5.11 | - |
| 70 | - | - | - | - | - | 4.75 | 5.07 | 5.39 | - |
| **Mass flow in kg/h** | | | | | | | | | |
| 35 | 59 | 76 | 96 | 119 | 146 | 177 | 212 | 252 | - |
| 40 | 57 | 74 | 94 | 117 | 144 | 175 | 210 | 249 | - |
| 45 | 55 | 72 | 91 | 115 | 141 | 172 | 206 | 246 | - |
| 50 | 53 | 69 | 89 | 112 | 138 | 168 | 202 | 241 | - |
| 55 | 51 | 67 | 86 | 108 | 134 | 163 | 197 | 235 | - |
| 60 | - | 64 | 83 | 104 | 129 | 158 | 191 | 229 | - |
| 65 | - | - | - | 100 | 124 | 152 | 184 | 221 | - |
| 70 | - | - | - | - | - | 146 | 177 | 212 | - |
| **Coefficient of performance (C.O.P.)** | | | | | | | | | |
| 35 | 2.21 | 2.62 | 3.09 | 3.66 | 4.33 | 5.15 | 6.17 | 7.47 | - |
| 40 | 1.96 | 2.33 | 2.75 | 3.24 | 3.82 | 4.51 | 5.36 | 6.40 | - |
| 45 | 1.73 | 2.07 | 2.44 | 2.87 | 3.37 | 3.95 | 4.65 | 5.50 | - |
| 50 | 1.54 | 1.84 | 2.17 | 2.54 | 2.96 | 3.45 | 4.04 | 4.73 | - |
| 55 | 1.37 | 1.63 | 1.92 | 2.23 | 2.59 | 3.01 | 3.49 | 4.06 | - |
| 60 | - | 1.45 | 1.69 | 1.95 | 2.26 | 2.60 | 3.01 | 3.48 | - |
| 65 | - | - | - | 1.69 | 1.95 | 2.24 | 2.57 | 2.96 | - |
| 70 | - | - | - | - | - | 1.90 | 2.18 | 2.50 | - |

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

| | | |
|---|---|---|
| Cooling capacity | 6 005 | W |
| Power input | 2 134 | W |
| Current consumption | 4.09 | A |
| Mass flow | 147 | kg/h |
| C.O.P. | 2.81 | |

**Pressure switch settings**

| | | |
|---|---|---|
| Maximum HP switch setting | 22.6 | bar(g) |
| Minimum LP switch setting | 0.2 | bar(g) |
| LP pump down setting | 0.5 | bar(g) |

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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

# R404A

| Cond. temp. in °C (tc) | Evaporating temperature in °C (to) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |
| **Cooling capacity in W** | | | | | | | | | |
| 30 | 2 064 | 2 857 | 3 827 | 4 996 | 6 384 | 8 013 | 9 904 | 12 078 | 14 557 |
| 35 | 1 809 | 2 550 | 3 451 | 4 533 | 5 817 | 7 324 | 9 076 | 11 093 | 13 398 |
| 40 | 1 554 | 2 243 | 3 073 | 4 067 | 5 245 | 6 630 | 8 241 | 10 101 | 12 230 |
| 45 | 1 300 | 1 934 | 2 693 | 3 598 | 4 670 | 5 930 | 7 400 | 9 101 | 11 054 |
| 50 | 1 046 | 1 624 | 2 311 | 3 125 | 4 089 | 5 225 | 6 552 | 8 093 | 9 868 |
| 55 | - | 1 313 | 1 926 | 2 649 | 3 504 | 4 513 | 5 697 | 7 077 | 8 674 |
| 60 | - | 1 001 | 1 538 | 2 169 | 2 914 | 3 796 | 4 835 | 6 052 | 7 469 |
| **Power input in W** | | | | | | | | | |
| 30 | 1 473 | 1 685 | 1 882 | 2 060 | 2 216 | 2 346 | 2 446 | 2 512 | 2 541 |
| 35 | 1 495 | 1 730 | 1 953 | 2 159 | 2 344 | 2 506 | 2 640 | 2 743 | 2 811 |
| 40 | 1 504 | 1 764 | 2 013 | 2 248 | 2 465 | 2 660 | 2 830 | 2 970 | 3 078 |
| 45 | 1 498 | 1 784 | 2 061 | 2 327 | 2 576 | 2 806 | 3 013 | 3 192 | 3 340 |
| 50 | 1 476 | 1 789 | 2 096 | 2 393 | 2 677 | 2 942 | 3 187 | 3 407 | 3 598 |
| 55 | - | 1 778 | 2 116 | 2 446 | 2 764 | 3 068 | 3 352 | 3 613 | 3 848 |
| 60 | - | 1 748 | 2 119 | 2 483 | 2 838 | 3 180 | 3 505 | 3 809 | 4 089 |
| **Current consumption in A** | | | | | | | | | |
| 30 | 3.53 | 3.76 | 4.01 | 4.27 | 4.52 | 4.74 | 4.91 | 5.02 | 5.05 |
| 35 | 3.56 | 3.81 | 4.08 | 4.37 | 4.64 | 4.89 | 5.09 | 5.23 | 5.29 |
| 40 | 3.59 | 3.86 | 4.17 | 4.48 | 4.79 | 5.07 | 5.31 | 5.49 | 5.60 |
| 45 | 3.59 | 3.90 | 4.25 | 4.60 | 4.95 | 5.28 | 5.57 | 5.80 | 5.95 |
| 50 | 3.56 | 3.92 | 4.31 | 4.71 | 5.12 | 5.50 | 5.84 | 6.13 | 6.34 |
| 55 | - | 3.89 | 4.34 | 4.80 | 5.27 | 5.71 | 6.12 | 6.48 | 6.76 |
| 60 | - | 3.81 | 4.32 | 4.86 | 5.39 | 5.91 | 6.39 | 6.82 | 7.19 |
| **Mass flow in kg/h** | | | | | | | | | |
| 30 | 65 | 88 | 115 | 146 | 182 | 223 | 270 | 324 | 384 |
| 35 | 61 | 84 | 111 | 142 | 177 | 217 | 263 | 315 | 374 |
| 40 | 57 | 80 | 106 | 137 | 171 | 211 | 256 | 307 | 364 |
| 45 | 52 | 75 | 101 | 131 | 166 | 204 | 248 | 298 | 353 |
| 50 | 47 | 70 | 96 | 126 | 159 | 197 | 240 | 288 | 342 |
| 55 | - | 64 | 90 | 119 | 152 | 189 | 231 | 278 | 331 |
| 60 | - | 57 | 82 | 111 | 144 | 180 | 221 | 267 | 319 |
| **Coefficient of performance (C.O.P.)** | | | | | | | | | |
| 30 | 1.40 | 1.70 | 2.03 | 2.42 | 2.88 | 3.42 | 4.05 | 4.81 | 5.73 |
| 35 | 1.21 | 1.47 | 1.77 | 2.10 | 2.48 | 2.92 | 3.44 | 4.04 | 4.77 |
| 40 | 1.03 | 1.27 | 1.53 | 1.81 | 2.13 | 2.49 | 2.91 | 3.40 | 3.97 |
| 45 | 0.87 | 1.08 | 1.31 | 1.55 | 1.81 | 2.11 | 2.46 | 2.85 | 3.31 |
| 50 | 0.71 | 0.91 | 1.10 | 1.31 | 1.53 | 1.78 | 2.06 | 2.38 | 2.74 |
| 55 | - | 0.74 | 0.91 | 1.08 | 1.27 | 1.47 | 1.70 | 1.96 | 2.25 |
| 60 | - | 0.57 | 0.73 | 0.87 | 1.03 | 1.19 | 1.38 | 1.59 | 1.83 |

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

| | | |
|---|---|---|
| Cooling capacity | 4 670 | W |
| Power input | 2 576 | W |
| Current consumption | 4.95 | A |
| Mass flow | 166 | kg/h |
| C.O.P. | 1.81 | |

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**Pressure switch settings**

| | | |
|---|---|---|
| Maximum HP switch setting | 27.7 | bar(g) |
| Minimum LP switch setting | 0.2 | bar(g) |
| LP pump down setting | 0.9 | bar(g) |

**Sound power data**

| | | |
|---|---|---|
| Sound power level | 70 | dB(A) |
| With accoustic hood | 64 | dB(A) |

to: Evaporating temperature at dew point
tc: Condensing temperature at dew point
Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

## Performance data at 50 Hz, ARI rating conditions

# R404A

| Cond. temp. in °C (tc) | Evaporating temperature in °C (to) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | -30 | -25 | -20 | -15 | -10 | -5 | 0 | 5 | 10 |
| **Cooling capacity in W** | | | | | | | | | |
| 30 | 2 297 | 3 172 | 4 238 | 5 518 | 7 036 | 8 812 | 10 869 | 13 228 | 15 913 |
| 35 | 2 035 | 2 860 | 3 859 | 5 054 | 6 469 | 8 124 | 10 044 | 12 249 | 14 763 |
| 40 | 1 772 | 2 547 | 3 478 | 4 587 | 5 898 | 7 432 | 9 214 | 11 264 | 13 605 |
| 45 | 1 507 | 2 231 | 3 093 | 4 116 | 5 323 | 6 736 | 8 378 | 10 273 | 12 441 |
| 50 | 1 239 | 1 913 | 2 707 | 3 643 | 4 745 | 6 036 | 7 540 | 9 278 | 11 275 |
| 55 | - | 1 592 | 2 317 | 3 167 | 4 165 | 5 336 | 6 701 | 8 286 | 10 112 |
| 60 | - | 1 265 | 1 926 | 2 692 | 3 589 | 4 641 | 5 872 | 7 306 | 8 966 |
| **Power input in W** | | | | | | | | | |
| 30 | 1 473 | 1 685 | 1 882 | 2 060 | 2 216 | 2 346 | 2 446 | 2 512 | 2 541 |
| 35 | 1 495 | 1 730 | 1 953 | 2 159 | 2 344 | 2 506 | 2 640 | 2 743 | 2 811 |
| 40 | 1 504 | 1 764 | 2 013 | 2 248 | 2 465 | 2 660 | 2 830 | 2 970 | 3 078 |
| 45 | 1 498 | 1 784 | 2 061 | 2 327 | 2 576 | 2 806 | 3 013 | 3 192 | 3 340 |
| 50 | 1 476 | 1 789 | 2 096 | 2 393 | 2 677 | 2 942 | 3 187 | 3 407 | 3 598 |
| 55 | - | 1 778 | 2 116 | 2 446 | 2 764 | 3 068 | 3 352 | 3 613 | 3 848 |
| 60 | - | 1 748 | 2 119 | 2 483 | 2 838 | 3 180 | 3 505 | 3 809 | 4 089 |
| **Current consumption in A** | | | | | | | | | |
| 30 | 3.53 | 3.76 | 4.01 | 4.27 | 4.52 | 4.74 | 4.91 | 5.02 | 5.05 |
| 35 | 3.56 | 3.81 | 4.08 | 4.37 | 4.64 | 4.89 | 5.09 | 5.23 | 5.29 |
| 40 | 3.59 | 3.86 | 4.17 | 4.48 | 4.79 | 5.07 | 5.31 | 5.49 | 5.60 |
| 45 | 3.59 | 3.90 | 4.25 | 4.60 | 4.95 | 5.28 | 5.57 | 5.80 | 5.95 |
| 50 | 3.56 | 3.92 | 4.31 | 4.71 | 5.12 | 5.50 | 5.84 | 6.13 | 6.34 |
| 55 | - | 3.89 | 4.34 | 4.80 | 5.27 | 5.71 | 6.12 | 6.48 | 6.76 |
| 60 | - | 3.81 | 4.32 | 4.86 | 5.39 | 5.91 | 6.39 | 6.82 | 7.19 |
| **Mass flow in kg/h** | | | | | | | | | |
| 30 | 65 | 87 | 114 | 145 | 181 | 222 | 269 | 321 | 381 |
| 35 | 61 | 84 | 110 | 141 | 176 | 216 | 262 | 313 | 371 |
| 40 | 57 | 80 | 106 | 136 | 170 | 210 | 254 | 305 | 361 |
| 45 | 52 | 75 | 101 | 131 | 165 | 203 | 247 | 296 | 351 |
| 50 | 47 | 69 | 95 | 125 | 158 | 196 | 238 | 286 | 340 |
| 55 | - | 63 | 89 | 118 | 151 | 188 | 230 | 276 | 329 |
| 60 | - | 56 | 82 | 111 | 143 | 179 | 220 | 266 | 317 |
| **Coefficient of performance (C.O.P.)** | | | | | | | | | |
| 30 | 1.56 | 1.88 | 2.25 | 2.68 | 3.17 | 3.76 | 4.44 | 5.27 | 6.26 |
| 35 | 1.36 | 1.65 | 1.98 | 2.34 | 2.76 | 3.24 | 3.80 | 4.47 | 5.25 |
| 40 | 1.18 | 1.44 | 1.73 | 2.04 | 2.39 | 2.79 | 3.26 | 3.79 | 4.42 |
| 45 | 1.01 | 1.25 | 1.50 | 1.77 | 2.07 | 2.40 | 2.78 | 3.22 | 3.72 |
| 50 | 0.84 | 1.07 | 1.29 | 1.52 | 1.77 | 2.05 | 2.37 | 2.72 | 3.13 |
| 55 | - | 0.90 | 1.10 | 1.29 | 1.51 | 1.74 | 2.00 | 2.29 | 2.63 |
| 60 | - | 0.72 | 0.91 | 1.08 | 1.26 | 1.46 | 1.68 | 1.92 | 2.19 |

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

| | | |
|---|---|---|
| Cooling capacity | 5 323 | W |
| Power input | 2 576 | W |
| Current consumption | 4.95 | A |
| Mass flow | 165 | kg/h |
| C.O.P. | 2.07 | |

to: Evaporating temperature at dew point
tc: Condensing temperature at dew point
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

**Pressure switch settings**

| | | |
|---|---|---|
| Maximum HP switch setting | 27.7 | bar(g) |
| Minimum LP switch setting | 0.2 | bar(g) |
| LP pump down setting | 0.9 | bar(g) |

**Sound power data**

| | | |
|---|---|---|
| Sound power level | 70 | dB(A) |
| With accoustic hood | 64 | dB(A) |

All performance data +/- 5%