

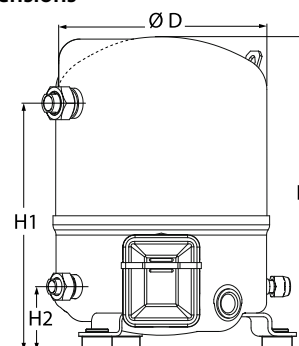
Datasheets

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



General Characteristics

| | | |
|---|--|---|
| Model number (on compressor nameplate) | | MTZ22JC5VE |
| Code number for Singlepack* | | MTZ22-5VI |
| Code number for Industrial pack** | | MTZ22-5VM |
| Drawing number | | 8501021e |
| 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 equalisation connection | | 3/8" flare SAE |
| Oil drain connection | | None |
| LP gauge port | | Schrader |
| IPR valve | | None |
| Cylinders | | 1 |
| Swept volume | | 38.12 cm ³ /rev |
| Displacement @ Nominal speed | | 6.6 m ³ /h @ 2900 rpm |
| Net weight | | 21 kg |
| Oil charge | | 0.95 litre, POE - 175PZ |
| Maximum system test pressure Low Side / High side | | 25 bar(g) / 30 bar(g) |
| Maximum differential test pressure | | 30 bar |
| Maximum number of starts per hour | | 12 |
| Refrigerant charge limit | | 2.5 kg |
| Approved refrigerants | | R404A,R134a,R407A/C/F,R448A,R449A,R452A,R513A |

Dimensions


D=224 mm

H=333 mm

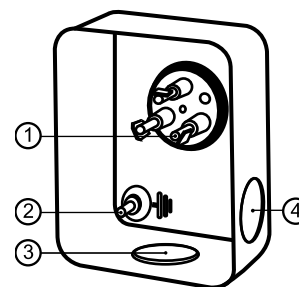
H1=263 mm

H2=68 mm

H3= mm

Electrical Characteristics

| | |
|---|-----------------------------|
| Nominal voltage | 220-240V/1/50Hz |
| Voltage range | 220-240 V |
| Winding resistance (main / start) at 25°C | 1.35 Ω / 3.83 Ω |
| Run capacitors A + C | 20 μF + 10 μF |
| Start capacitor B | 100 μF |
| Start relay | RVA-6AMKL |
| Maximum Continuous Current (MCC) | 15 A |
| Locked Rotor Amps (LRA) | 41 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 | 2 Nm / 2 Nm |
| Mounting bolts | 15 Nm |

Parts shipped with compressor

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

Approvals : CE certified, -, 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.

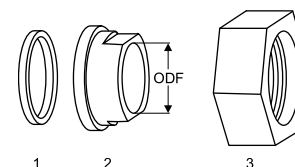
| | |
|---|---------|
| Solder sleeve, P06 (1" Rotolock, 1/2" ODF) | 8153007 |
| Rotolock valve, V06 (1" Rotolock, 1/2" ODF) | 8168031 |
| Gasket, 1" | 8156130 |

Gaskets, sleeves and nuts

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 |



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

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

Crankcase heaters

Code no.

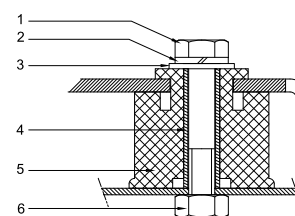
| | |
|--|----------|
| PTC heater 27W, CE mark, UL | 120Z0459 |
| Belt type crankcase heater, 54 W, 230 V, CE mark, UL | 7773106 |

Miscellaneous accessories

Code no.

| | |
|---|----------|
| PSC starting kit, 20 µF, 10 µF | 7701026 |
| CSR starting kit, 20 µF, 10 µF, 98 µF | 7701022 |
| CSR starting kit, prewired box, 20 µF, 10 µF, 98 µF | 7701028 |
| Acoustic hood for 1 cylinder compressor | 120Z0575 |
| Oil equalisation nut | 8153127 |

Mounting kit



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

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 |

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 | 2 000 | 2 757 | 3 672 | 4 762 | 6 046 | 7 543 | 9 269 | - | - |
| 40 | 1 776 | 2 482 | 3 334 | 4 350 | 5 548 | 6 947 | 8 564 | - | - |
| 45 | 1 559 | 2 214 | 3 002 | 3 943 | 5 055 | 6 355 | 7 862 | - | - |
| 50 | - | 1 955 | 2 679 | 3 544 | 4 568 | 5 769 | 7 166 | - | - |
| 55 | - | - | 2 367 | 3 155 | 4 091 | 5 192 | 6 477 | - | - |
| 60 | - | - | - | 2 779 | 3 625 | 4 626 | 5 798 | - | - |
| 65 | - | - | - | 2 416 | 3 173 | 4 072 | 5 132 | - | - |

Power input in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 054 | 1 173 | 1 272 | 1 351 | 1 409 | 1 445 | 1 458 | - | - |
| 40 | 1 075 | 1 212 | 1 331 | 1 430 | 1 508 | 1 565 | 1 598 | - | - |
| 45 | 1 088 | 1 246 | 1 386 | 1 506 | 1 606 | 1 684 | 1 740 | - | - |
| 50 | - | 1 274 | 1 436 | 1 579 | 1 702 | 1 804 | 1 884 | - | - |
| 55 | - | - | 1 483 | 1 650 | 1 798 | 1 925 | 2 030 | - | - |
| 60 | - | - | - | 1 718 | 1 892 | 2 045 | 2 177 | - | - |
| 65 | - | - | - | 1 784 | 1 985 | 2 167 | 2 327 | - | - |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|-------|---|---|
| 35 | 5.26 | 5.70 | 6.08 | 6.40 | 6.64 | 6.79 | 6.85 | - | - |
| 40 | 5.35 | 5.84 | 6.28 | 6.66 | 6.97 | 7.20 | 7.34 | - | - |
| 45 | 5.44 | 5.99 | 6.51 | 6.96 | 7.36 | 7.67 | 7.90 | - | - |
| 50 | - | 6.14 | 6.73 | 7.28 | 7.76 | 8.18 | 8.51 | - | - |
| 55 | - | - | 6.94 | 7.59 | 8.18 | 8.70 | 9.15 | - | - |
| 60 | - | - | - | 7.88 | 8.58 | 9.23 | 9.80 | - | - |
| 65 | - | - | - | 8.12 | 8.95 | 9.73 | 10.45 | - | - |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|---|---|
| 35 | 43 | 59 | 77 | 98 | 123 | 151 | 184 | - | - |
| 40 | 41 | 56 | 73 | 94 | 118 | 146 | 178 | - | - |
| 45 | 38 | 52 | 70 | 90 | 114 | 141 | 171 | - | - |
| 50 | - | 49 | 66 | 86 | 108 | 135 | 165 | - | - |
| 55 | - | - | 62 | 81 | 103 | 129 | 158 | - | - |
| 60 | - | - | - | 77 | 98 | 123 | 151 | - | - |
| 65 | - | - | - | 72 | 93 | 116 | 144 | - | - |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 1.90 | 2.35 | 2.89 | 3.53 | 4.29 | 5.22 | 6.36 | - | - |
| 40 | 1.65 | 2.05 | 2.50 | 3.04 | 3.68 | 4.44 | 5.36 | - | - |
| 45 | 1.43 | 1.78 | 2.17 | 2.62 | 3.15 | 3.77 | 4.52 | - | - |
| 50 | - | 1.53 | 1.87 | 2.24 | 2.68 | 3.20 | 3.80 | - | - |
| 55 | - | - | 1.60 | 1.91 | 2.28 | 2.70 | 3.19 | - | - |
| 60 | - | - | - | 1.62 | 1.92 | 2.26 | 2.66 | - | - |
| 65 | - | - | - | 1.35 | 1.60 | 1.88 | 2.21 | - | - |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 4 568 | W |
| Power input | 1 702 | W |
| Current consumption | 7.76 | A |
| Mass flow | 108 | kg/h |
| C.O.P. | 2.68 | |


Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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 | 2 153 | 2 964 | 3 943 | 5 108 | 6 478 | 8 073 | 9 911 | - | - |
| 40 | 1 922 | 2 682 | 3 598 | 4 689 | 5 974 | 7 471 | 9 200 | - | - |
| 45 | 1 698 | 2 407 | 3 260 | 4 276 | 5 473 | 6 873 | 8 492 | - | - |
| 50 | - | 2 141 | 2 930 | 3 870 | 4 980 | 6 280 | 7 790 | - | - |
| 55 | - | - | 2 610 | 3 474 | 4 496 | 5 697 | 7 095 | - | - |
| 60 | - | - | - | 3 090 | 4 024 | 5 125 | 6 412 | - | - |
| 65 | - | - | - | 2 723 | 3 567 | 4 567 | 5 743 | - | - |

Power input in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 054 | 1 173 | 1 272 | 1 351 | 1 409 | 1 445 | 1 458 | - | - |
| 40 | 1 075 | 1 212 | 1 331 | 1 430 | 1 508 | 1 565 | 1 598 | - | - |
| 45 | 1 088 | 1 246 | 1 386 | 1 506 | 1 606 | 1 684 | 1 740 | - | - |
| 50 | - | 1 274 | 1 436 | 1 579 | 1 702 | 1 804 | 1 884 | - | - |
| 55 | - | - | 1 483 | 1 650 | 1 798 | 1 925 | 2 030 | - | - |
| 60 | - | - | - | 1 718 | 1 892 | 2 045 | 2 177 | - | - |
| 65 | - | - | - | 1 784 | 1 985 | 2 167 | 2 327 | - | - |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|-------|---|---|
| 35 | 5.26 | 5.70 | 6.08 | 6.40 | 6.64 | 6.79 | 6.85 | - | - |
| 40 | 5.35 | 5.84 | 6.28 | 6.66 | 6.97 | 7.20 | 7.34 | - | - |
| 45 | 5.44 | 5.99 | 6.51 | 6.96 | 7.36 | 7.67 | 7.90 | - | - |
| 50 | - | 6.14 | 6.73 | 7.28 | 7.76 | 8.18 | 8.51 | - | - |
| 55 | - | - | 6.94 | 7.59 | 8.18 | 8.70 | 9.15 | - | - |
| 60 | - | - | - | 7.88 | 8.58 | 9.23 | 9.80 | - | - |
| 65 | - | - | - | 8.12 | 8.95 | 9.73 | 10.45 | - | - |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|---|---|
| 35 | 43 | 59 | 77 | 98 | 122 | 150 | 182 | - | - |
| 40 | 40 | 55 | 73 | 94 | 118 | 145 | 177 | - | - |
| 45 | 37 | 52 | 69 | 90 | 113 | 140 | 170 | - | - |
| 50 | - | 49 | 66 | 85 | 108 | 134 | 164 | - | - |
| 55 | - | - | 62 | 81 | 103 | 128 | 157 | - | - |
| 60 | - | - | - | 76 | 97 | 122 | 150 | - | - |
| 65 | - | - | - | 72 | 92 | 116 | 143 | - | - |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.04 | 2.53 | 3.10 | 3.78 | 4.60 | 5.59 | 6.80 | - | - |
| 40 | 1.79 | 2.21 | 2.70 | 3.28 | 3.96 | 4.78 | 5.76 | - | - |
| 45 | 1.56 | 1.93 | 2.35 | 2.84 | 3.41 | 4.08 | 4.88 | - | - |
| 50 | - | 1.68 | 2.04 | 2.45 | 2.93 | 3.48 | 4.13 | - | - |
| 55 | - | - | 1.76 | 2.11 | 2.50 | 2.96 | 3.50 | - | - |
| 60 | - | - | - | 1.80 | 2.13 | 2.51 | 2.94 | - | - |
| 65 | - | - | - | 1.53 | 1.80 | 2.11 | 2.47 | - | - |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 5 064 | W |
| Power input | 1 844 | W |
| Current consumption | 8.36 | A |
| Mass flow | 114 | kg/h |
| C.O.P. | 2.75 | |

Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 35 | 574 | 869 | 1 732 | 2 329 | 3 059 | 3 935 | 4 974 | 6 191 | 7 600 |
| 40 | 487 | 766 | 1 572 | 2 128 | 2 807 | 3 624 | 4 595 | 5 735 | 7 059 |
| 45 | 396 | 660 | 1 408 | 1 922 | 2 550 | 3 308 | 4 211 | 5 274 | 6 513 |
| 50 | 304 | 552 | 1 242 | 1 714 | 2 291 | 2 990 | 3 825 | 4 811 | 5 964 |
| 55 | - | - | 1 075 | 1 505 | 2 032 | 2 671 | 3 437 | 4 346 | 5 414 |
| 60 | - | - | - | 1 298 | 1 773 | 2 352 | 3 050 | 3 882 | 4 864 |
| 65 | - | - | - | - | 1 518 | 2 037 | 2 666 | 3 421 | 4 317 |
| 75 | - | - | - | - | - | - | 1 912 | 2 512 | 3 235 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 35 | 528 | 620 | 794 | 869 | 932 | 978 | 1 004 | 1 005 | 978 |
| 40 | 541 | 636 | 824 | 909 | 982 | 1 041 | 1 081 | 1 099 | 1 090 |
| 45 | 544 | 645 | 848 | 942 | 1 028 | 1 101 | 1 157 | 1 192 | 1 203 |
| 50 | 537 | 644 | 864 | 971 | 1 070 | 1 157 | 1 230 | 1 284 | 1 316 |
| 55 | - | - | 874 | 993 | 1 106 | 1 210 | 1 301 | 1 375 | 1 428 |
| 60 | - | - | - | 1 008 | 1 137 | 1 259 | 1 369 | 1 464 | 1 540 |
| 65 | - | - | - | - | 1 162 | 1 302 | 1 433 | 1 550 | 1 650 |
| 75 | - | - | - | - | - | - | 1 548 | 1 713 | 1 864 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 5.12 | 5.26 | 5.55 | 5.69 | 5.81 | 5.92 | 6.02 | 6.10 | 6.15 |
| 40 | 5.13 | 5.28 | 5.61 | 5.77 | 5.92 | 6.06 | 6.19 | 6.31 | 6.40 |
| 45 | 5.12 | 5.29 | 5.65 | 5.84 | 6.02 | 6.20 | 6.37 | 6.53 | 6.67 |
| 50 | 5.10 | 5.28 | 5.69 | 5.90 | 6.12 | 6.34 | 6.55 | 6.75 | 6.94 |
| 55 | - | - | 5.72 | 5.96 | 6.21 | 6.47 | 6.73 | 6.98 | 7.22 |
| 60 | - | - | - | 6.01 | 6.30 | 6.60 | 6.90 | 7.21 | 7.51 |
| 65 | - | - | - | - | 6.38 | 6.73 | 7.08 | 7.44 | 7.80 |
| 75 | - | - | - | - | - | - | 7.44 | 7.92 | 8.40 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|
| 35 | 15 | 22 | 41 | 54 | 70 | 88 | 109 | 133 | 161 |
| 40 | 13 | 20 | 39 | 52 | 67 | 85 | 105 | 129 | 157 |
| 45 | 11 | 18 | 37 | 50 | 64 | 81 | 102 | 125 | 151 |
| 50 | 9 | 16 | 35 | 47 | 61 | 78 | 97 | 120 | 146 |
| 55 | - | - | 32 | 44 | 58 | 74 | 93 | 115 | 140 |
| 60 | - | - | - | 40 | 54 | 69 | 88 | 109 | 133 |
| 65 | - | - | - | - | 49 | 64 | 82 | 102 | 126 |
| 75 | - | - | - | - | - | - | 69 | 88 | 110 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.09 | 1.40 | 2.18 | 2.68 | 3.28 | 4.02 | 4.96 | 6.16 | 7.77 |
| 40 | 0.90 | 1.20 | 1.91 | 2.34 | 2.86 | 3.48 | 4.25 | 5.22 | 6.47 |
| 45 | 0.73 | 1.02 | 1.66 | 2.04 | 2.48 | 3.01 | 3.64 | 4.43 | 5.42 |
| 50 | 0.57 | 0.86 | 1.44 | 1.77 | 2.14 | 2.58 | 3.11 | 3.75 | 4.53 |
| 55 | - | - | 1.23 | 1.52 | 1.84 | 2.21 | 2.64 | 3.16 | 3.79 |
| 60 | - | - | - | 1.29 | 1.56 | 1.87 | 2.23 | 2.65 | 3.16 |
| 65 | - | - | - | - | 1.31 | 1.56 | 1.86 | 2.21 | 2.62 |
| 75 | - | - | - | - | - | - | 1.24 | 1.47 | 1.74 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 990 | W |
| Power input | 1 157 | W |
| Current consumption | 6.34 | A |
| Mass flow | 78 | kg/h |
| C.O.P. | 2.58 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 50 Hz, ARI rating conditions
R134a

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

Cooling capacity in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 35 | 624 | 943 | 1 872 | 2 515 | 3 297 | 4 235 | 5 346 | 6 644 | 8 146 |
| 40 | 532 | 836 | 1 708 | 2 308 | 3 040 | 3 919 | 4 961 | 6 182 | 7 599 |
| 45 | 436 | 725 | 1 539 | 2 097 | 2 777 | 3 596 | 4 570 | 5 714 | 7 045 |
| 50 | - | 611 | 1 367 | 1 882 | 2 511 | 3 270 | 4 175 | 5 242 | 6 487 |
| 55 | - | - | 1 193 | 1 666 | 2 244 | 2 942 | 3 778 | 4 767 | 5 927 |
| 60 | - | - | - | 1 450 | 1 976 | 2 614 | 3 380 | 4 292 | 5 365 |
| 65 | - | - | - | - | - | 2 286 | 2 984 | 3 818 | 4 804 |
| 75 | - | - | - | - | - | - | 2 200 | 2 879 | 3 694 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 35 | 528 | 620 | 794 | 869 | 932 | 978 | 1 004 | 1 005 | 978 |
| 40 | 541 | 636 | 824 | 909 | 982 | 1 041 | 1 081 | 1 099 | 1 090 |
| 45 | 544 | 645 | 848 | 942 | 1 028 | 1 101 | 1 157 | 1 192 | 1 203 |
| 50 | - | 644 | 864 | 971 | 1 070 | 1 157 | 1 230 | 1 284 | 1 316 |
| 55 | - | - | 874 | 993 | 1 106 | 1 210 | 1 301 | 1 375 | 1 428 |
| 60 | - | - | - | 1 008 | 1 137 | 1 259 | 1 369 | 1 464 | 1 540 |
| 65 | - | - | - | - | - | 1 302 | 1 433 | 1 550 | 1 650 |
| 75 | - | - | - | - | - | - | 1 548 | 1 713 | 1 864 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 5.12 | 5.26 | 5.55 | 5.69 | 5.81 | 5.92 | 6.02 | 6.10 | 6.15 |
| 40 | 5.13 | 5.28 | 5.61 | 5.77 | 5.92 | 6.06 | 6.19 | 6.31 | 6.40 |
| 45 | 5.12 | 5.29 | 5.65 | 5.84 | 6.02 | 6.20 | 6.37 | 6.53 | 6.67 |
| 50 | - | 5.28 | 5.69 | 5.90 | 6.12 | 6.34 | 6.55 | 6.75 | 6.94 |
| 55 | - | - | 5.72 | 5.96 | 6.21 | 6.47 | 6.73 | 6.98 | 7.22 |
| 60 | - | - | - | 6.01 | 6.30 | 6.60 | 6.90 | 7.21 | 7.51 |
| 65 | - | - | - | - | - | 6.73 | 7.08 | 7.44 | 7.80 |
| 75 | - | - | - | - | - | - | 7.44 | 7.92 | 8.40 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|
| 35 | 14 | 22 | 41 | 54 | 69 | 87 | 108 | 133 | 160 |
| 40 | 13 | 20 | 39 | 52 | 67 | 84 | 105 | 129 | 156 |
| 45 | 11 | 18 | 37 | 49 | 64 | 81 | 101 | 124 | 151 |
| 50 | - | 16 | 35 | 47 | 61 | 77 | 97 | 119 | 145 |
| 55 | - | - | 32 | 43 | 57 | 73 | 92 | 114 | 139 |
| 60 | - | - | - | 40 | 53 | 69 | 87 | 108 | 132 |
| 65 | - | - | - | - | - | 64 | 82 | 102 | 125 |
| 75 | - | - | - | - | - | - | 69 | 88 | 109 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.18 | 1.52 | 2.36 | 2.89 | 3.54 | 4.33 | 5.33 | 6.61 | 8.33 |
| 40 | 0.98 | 1.31 | 2.07 | 2.54 | 3.10 | 3.76 | 4.59 | 5.63 | 6.97 |
| 45 | 0.80 | 1.12 | 1.82 | 2.23 | 2.70 | 3.27 | 3.95 | 4.79 | 5.86 |
| 50 | - | 0.95 | 1.58 | 1.94 | 2.35 | 2.83 | 3.39 | 4.08 | 4.93 |
| 55 | - | - | 1.37 | 1.68 | 2.03 | 2.43 | 2.90 | 3.47 | 4.15 |
| 60 | - | - | - | 1.44 | 1.74 | 2.08 | 2.47 | 2.93 | 3.48 |
| 65 | - | - | - | - | - | 1.76 | 2.08 | 2.46 | 2.91 |
| 75 | - | - | - | - | - | - | 1.42 | 1.68 | 1.98 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 3 335 | W |
| Power input | 1 245 | W |
| Current consumption | 6.56 | A |
| Mass flow | 82 | kg/h |
| C.O.P. | 2.68 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 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 | 1 070 | 1 535 | 2 125 | 2 856 | 3 744 | 4 804 | 6 052 | 7 504 | 9 176 |
| 35 | 918 | 1 342 | 1 882 | 2 552 | 3 368 | 4 347 | 5 504 | 6 854 | 8 413 |
| 40 | 774 | 1 156 | 1 643 | 2 251 | 2 995 | 3 891 | 4 954 | 6 201 | 7 647 |
| 45 | 639 | 978 | 1 411 | 1 955 | 2 625 | 3 436 | 4 405 | 5 547 | 6 878 |
| 50 | 515 | 809 | 1 187 | 1 665 | 2 259 | 2 985 | 3 857 | 4 892 | 6 106 |
| 55 | - | 650 | 971 | 1 382 | 1 899 | 2 537 | 3 311 | 4 239 | 5 334 |
| 60 | - | 503 | 765 | 1 108 | 1 545 | 2 094 | 2 769 | 3 587 | 4 563 |

Power input in W

| | | | | | | | | | |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 893 | 1 017 | 1 128 | 1 224 | 1 305 | 1 369 | 1 414 | 1 440 | 1 443 |
| 35 | 890 | 1 029 | 1 156 | 1 270 | 1 370 | 1 454 | 1 521 | 1 570 | 1 599 |
| 40 | 879 | 1 032 | 1 176 | 1 309 | 1 428 | 1 534 | 1 624 | 1 697 | 1 752 |
| 45 | 859 | 1 029 | 1 190 | 1 342 | 1 482 | 1 610 | 1 724 | 1 822 | 1 904 |
| 50 | 832 | 1 019 | 1 198 | 1 370 | 1 532 | 1 683 | 1 821 | 1 945 | 2 054 |
| 55 | - | 1 002 | 1 201 | 1 393 | 1 577 | 1 752 | 1 916 | 2 067 | 2 204 |
| 60 | - | 980 | 1 199 | 1 413 | 1 620 | 1 819 | 2 009 | 2 188 | 2 354 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|-------|-------|
| 30 | 6.04 | 6.34 | 6.63 | 6.91 | 7.16 | 7.37 | 7.52 | 7.61 | 7.62 |
| 35 | 6.08 | 6.40 | 6.72 | 7.02 | 7.31 | 7.56 | 7.76 | 7.91 | 7.98 |
| 40 | 6.09 | 6.44 | 6.80 | 7.15 | 7.49 | 7.79 | 8.06 | 8.27 | 8.42 |
| 45 | 6.05 | 6.45 | 6.86 | 7.27 | 7.67 | 8.05 | 8.39 | 8.69 | 8.92 |
| 50 | 5.96 | 6.42 | 6.90 | 7.38 | 7.86 | 8.32 | 8.75 | 9.14 | 9.48 |
| 55 | - | 6.32 | 6.88 | 7.45 | 8.02 | 8.58 | 9.12 | 9.62 | 10.08 |
| 60 | - | 6.14 | 6.79 | 7.47 | 8.15 | 8.82 | 9.48 | 10.10 | 10.69 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|-----|-----|
| 30 | 34 | 47 | 64 | 84 | 107 | 134 | 165 | 200 | 241 |
| 35 | 31 | 44 | 60 | 80 | 102 | 129 | 160 | 195 | 235 |
| 40 | 28 | 41 | 57 | 76 | 98 | 124 | 154 | 189 | 228 |
| 45 | 26 | 38 | 53 | 71 | 93 | 118 | 148 | 182 | 220 |
| 50 | 23 | 35 | 49 | 67 | 88 | 112 | 141 | 174 | 212 |
| 55 | - | 32 | 45 | 62 | 82 | 106 | 134 | 167 | 204 |
| 60 | - | 28 | 41 | 57 | 76 | 100 | 127 | 158 | 194 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.20 | 1.51 | 1.88 | 2.33 | 2.87 | 3.51 | 4.28 | 5.21 | 6.36 |
| 35 | 1.03 | 1.30 | 1.63 | 2.01 | 2.46 | 2.99 | 3.62 | 4.37 | 5.26 |
| 40 | 0.88 | 1.12 | 1.40 | 1.72 | 2.10 | 2.54 | 3.05 | 3.65 | 4.36 |
| 45 | 0.74 | 0.95 | 1.19 | 1.46 | 1.77 | 2.13 | 2.56 | 3.04 | 3.61 |
| 50 | 0.62 | 0.79 | 0.99 | 1.22 | 1.47 | 1.77 | 2.12 | 2.52 | 2.97 |
| 55 | - | 0.65 | 0.81 | 0.99 | 1.20 | 1.45 | 1.73 | 2.05 | 2.42 |
| 60 | - | 0.51 | 0.64 | 0.78 | 0.95 | 1.15 | 1.38 | 1.64 | 1.94 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 625 | W |
| Power input | 1 482 | W |
| Current consumption | 7.67 | A |
| Mass flow | 93 | kg/h |
| C.O.P. | 1.77 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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 | 1 191 | 1 704 | 2 353 | 3 155 | 4 126 | 5 283 | 6 642 | 8 219 | 10 031 |
| 35 | 1 033 | 1 505 | 2 104 | 2 845 | 3 746 | 4 822 | 6 091 | 7 568 | 9 270 |
| 40 | 882 | 1 313 | 1 860 | 2 539 | 3 368 | 4 362 | 5 539 | 6 915 | 8 506 |
| 45 | 741 | 1 128 | 1 621 | 2 237 | 2 992 | 3 903 | 4 987 | 6 261 | 7 741 |
| 50 | 610 | 953 | 1 391 | 1 941 | 2 621 | 3 448 | 4 438 | 5 609 | 6 977 |
| 55 | - | 788 | 1 169 | 1 653 | 2 257 | 2 999 | 3 895 | 4 963 | 6 219 |
| 60 | - | 635 | 958 | 1 375 | 1 903 | 2 560 | 3 363 | 4 330 | 5 477 |

Power input in W

| | | | | | | | | | |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 893 | 1 017 | 1 128 | 1 224 | 1 305 | 1 369 | 1 414 | 1 440 | 1 443 |
| 35 | 890 | 1 029 | 1 156 | 1 270 | 1 370 | 1 454 | 1 521 | 1 570 | 1 599 |
| 40 | 879 | 1 032 | 1 176 | 1 309 | 1 428 | 1 534 | 1 624 | 1 697 | 1 752 |
| 45 | 859 | 1 029 | 1 190 | 1 342 | 1 482 | 1 610 | 1 724 | 1 822 | 1 904 |
| 50 | 832 | 1 019 | 1 198 | 1 370 | 1 532 | 1 683 | 1 821 | 1 945 | 2 054 |
| 55 | - | 1 002 | 1 201 | 1 393 | 1 577 | 1 752 | 1 916 | 2 067 | 2 204 |
| 60 | - | 980 | 1 199 | 1 413 | 1 620 | 1 819 | 2 009 | 2 188 | 2 354 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|-------|-------|
| 30 | 6.04 | 6.34 | 6.63 | 6.91 | 7.16 | 7.37 | 7.52 | 7.61 | 7.62 |
| 35 | 6.08 | 6.40 | 6.72 | 7.02 | 7.31 | 7.56 | 7.76 | 7.91 | 7.98 |
| 40 | 6.09 | 6.44 | 6.80 | 7.15 | 7.49 | 7.79 | 8.06 | 8.27 | 8.42 |
| 45 | 6.05 | 6.45 | 6.86 | 7.27 | 7.67 | 8.05 | 8.39 | 8.69 | 8.92 |
| 50 | 5.96 | 6.42 | 6.90 | 7.38 | 7.86 | 8.32 | 8.75 | 9.14 | 9.48 |
| 55 | - | 6.32 | 6.88 | 7.45 | 8.02 | 8.58 | 9.12 | 9.62 | 10.08 |
| 60 | - | 6.14 | 6.79 | 7.47 | 8.15 | 8.82 | 9.48 | 10.10 | 10.69 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|-----|-----|
| 30 | 33 | 47 | 63 | 83 | 106 | 133 | 164 | 199 | 239 |
| 35 | 31 | 44 | 60 | 79 | 102 | 128 | 159 | 193 | 233 |
| 40 | 28 | 41 | 57 | 75 | 97 | 123 | 153 | 187 | 226 |
| 45 | 26 | 38 | 53 | 71 | 92 | 118 | 147 | 181 | 219 |
| 50 | 23 | 35 | 49 | 66 | 87 | 112 | 140 | 173 | 211 |
| 55 | - | 31 | 45 | 62 | 82 | 106 | 133 | 165 | 202 |
| 60 | - | 28 | 41 | 57 | 76 | 99 | 126 | 157 | 193 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.33 | 1.68 | 2.09 | 2.58 | 3.16 | 3.86 | 4.70 | 5.71 | 6.95 |
| 35 | 1.16 | 1.46 | 1.82 | 2.24 | 2.74 | 3.32 | 4.00 | 4.82 | 5.80 |
| 40 | 1.00 | 1.27 | 1.58 | 1.94 | 2.36 | 2.84 | 3.41 | 4.07 | 4.85 |
| 45 | 0.86 | 1.10 | 1.36 | 1.67 | 2.02 | 2.42 | 2.89 | 3.44 | 4.07 |
| 50 | 0.73 | 0.94 | 1.16 | 1.42 | 1.71 | 2.05 | 2.44 | 2.88 | 3.40 |
| 55 | - | 0.79 | 0.97 | 1.19 | 1.43 | 1.71 | 2.03 | 2.40 | 2.82 |
| 60 | - | 0.65 | 0.80 | 0.97 | 1.17 | 1.41 | 1.67 | 1.98 | 2.33 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 992 | W |
| Power input | 1 482 | W |
| Current consumption | 7.67 | A |
| Mass flow | 92 | kg/h |
| C.O.P. | 2.02 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions
R407A

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

Cooling capacity in W

| | | | | | | | | | |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 791 | 1 221 | 1 768 | 2 447 | 3 273 | 4 261 | 5 426 | 6 783 | 8 347 |
| 35 | 667 | 1 066 | 1 576 | 2 211 | 2 987 | 3 918 | 5 020 | 6 306 | 7 793 |
| 40 | 544 | 911 | 1 381 | 1 970 | 2 693 | 3 564 | 4 599 | 5 812 | 7 218 |
| 45 | 429 | 760 | 1 187 | 1 727 | 2 393 | 3 201 | 4 166 | 5 303 | 6 626 |
| 50 | - | 617 | 999 | 1 486 | 2 093 | 2 836 | 3 728 | 4 785 | 6 023 |
| 55 | - | - | 820 | 1 252 | 1 797 | 2 470 | 3 287 | 4 262 | 5 410 |
| 60 | - | - | - | 1 029 | 1 509 | 2 110 | 2 849 | 3 739 | 4 795 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 30 | 701 | 836 | 963 | 1 078 | 1 176 | 1 255 | 1 309 | 1 336 | 1 332 |
| 35 | 685 | 833 | 975 | 1 107 | 1 225 | 1 325 | 1 405 | 1 459 | 1 486 |
| 40 | 661 | 822 | 980 | 1 130 | 1 269 | 1 393 | 1 499 | 1 582 | 1 639 |
| 45 | 628 | 803 | 978 | 1 147 | 1 308 | 1 457 | 1 590 | 1 703 | 1 793 |
| 50 | - | 775 | 967 | 1 157 | 1 342 | 1 516 | 1 677 | 1 821 | 1 945 |
| 55 | - | - | 948 | 1 160 | 1 368 | 1 570 | 1 760 | 1 937 | 2 094 |
| 60 | - | - | - | 1 153 | 1 387 | 1 617 | 1 838 | 2 048 | 2 241 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|-------|
| 30 | 5.63 | 5.95 | 6.26 | 6.56 | 6.84 | 7.07 | 7.25 | 7.37 | 7.39 |
| 35 | 5.66 | 5.97 | 6.30 | 6.62 | 6.93 | 7.21 | 7.45 | 7.62 | 7.73 |
| 40 | 5.66 | 5.99 | 6.34 | 6.70 | 7.06 | 7.40 | 7.70 | 7.96 | 8.15 |
| 45 | 5.63 | 5.98 | 6.37 | 6.78 | 7.20 | 7.61 | 7.99 | 8.34 | 8.64 |
| 50 | - | 5.92 | 6.37 | 6.84 | 7.33 | 7.82 | 8.30 | 8.76 | 9.18 |
| 55 | - | - | 6.30 | 6.85 | 7.43 | 8.03 | 8.62 | 9.20 | 9.75 |
| 60 | - | - | - | 6.81 | 7.49 | 8.19 | 8.91 | 9.62 | 10.32 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|
| 30 | 19 | 29 | 41 | 55 | 72 | 92 | 116 | 143 | 173 |
| 35 | 17 | 26 | 38 | 52 | 69 | 89 | 113 | 139 | 170 |
| 40 | 14 | 24 | 35 | 49 | 66 | 86 | 109 | 135 | 165 |
| 45 | 12 | 21 | 32 | 46 | 62 | 81 | 104 | 130 | 160 |
| 50 | - | 18 | 29 | 42 | 58 | 77 | 99 | 125 | 154 |
| 55 | - | - | 25 | 38 | 53 | 72 | 94 | 119 | 148 |
| 60 | - | - | - | 34 | 49 | 66 | 88 | 112 | 141 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.13 | 1.46 | 1.83 | 2.27 | 2.78 | 3.40 | 4.14 | 5.08 | 6.26 |
| 35 | 0.97 | 1.28 | 1.62 | 2.00 | 2.44 | 2.96 | 3.57 | 4.32 | 5.25 |
| 40 | 0.82 | 1.11 | 1.41 | 1.74 | 2.12 | 2.56 | 3.07 | 3.67 | 4.40 |
| 45 | 0.68 | 0.95 | 1.21 | 1.51 | 1.83 | 2.20 | 2.62 | 3.11 | 3.70 |
| 50 | - | 0.80 | 1.03 | 1.28 | 1.56 | 1.87 | 2.22 | 2.63 | 3.10 |
| 55 | - | - | 0.86 | 1.08 | 1.31 | 1.57 | 1.87 | 2.20 | 2.58 |
| 60 | - | - | - | 0.89 | 1.09 | 1.31 | 1.55 | 1.83 | 2.14 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 393 | W |
| Power input | 1 308 | W |
| Current consumption | 7.20 | A |
| Mass flow | 62 | kg/h |
| C.O.P. | 1.83 | |

Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, ARI rating conditions
R407A

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

Cooling capacity in W

| | | | | | | | | | |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | 856 | 1 318 | 1 906 | 2 635 | 3 520 | 4 577 | 5 822 | 7 270 | 8 936 |
| 35 | 725 | 1 158 | 1 709 | 2 394 | 3 230 | 4 231 | 5 413 | 6 792 | 8 383 |
| 40 | 596 | 996 | 1 507 | 2 146 | 2 929 | 3 871 | 4 987 | 6 294 | 7 807 |
| 45 | 474 | 837 | 1 306 | 1 895 | 2 622 | 3 502 | 4 549 | 5 782 | 7 213 |
| 50 | - | 686 | 1 109 | 1 646 | 2 313 | 3 128 | 4 104 | 5 258 | 6 607 |
| 55 | - | - | 921 | 1 402 | 2 007 | 2 753 | 3 656 | 4 730 | 5 992 |
| 60 | - | - | - | 1 169 | 1 709 | 2 384 | 3 209 | 4 201 | 5 375 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 30 | 701 | 836 | 963 | 1 078 | 1 176 | 1 255 | 1 309 | 1 336 | 1 332 |
| 35 | 685 | 833 | 975 | 1 107 | 1 225 | 1 325 | 1 405 | 1 459 | 1 486 |
| 40 | 661 | 822 | 980 | 1 130 | 1 269 | 1 393 | 1 499 | 1 582 | 1 639 |
| 45 | 628 | 803 | 978 | 1 147 | 1 308 | 1 457 | 1 590 | 1 703 | 1 793 |
| 50 | - | 775 | 967 | 1 157 | 1 342 | 1 516 | 1 677 | 1 821 | 1 945 |
| 55 | - | - | 948 | 1 160 | 1 368 | 1 570 | 1 760 | 1 937 | 2 094 |
| 60 | - | - | - | 1 153 | 1 387 | 1 617 | 1 838 | 2 048 | 2 241 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|-------|
| 30 | 5.63 | 5.95 | 6.26 | 6.56 | 6.84 | 7.07 | 7.25 | 7.37 | 7.39 |
| 35 | 5.66 | 5.97 | 6.30 | 6.62 | 6.93 | 7.21 | 7.45 | 7.62 | 7.73 |
| 40 | 5.66 | 5.99 | 6.34 | 6.70 | 7.06 | 7.40 | 7.70 | 7.96 | 8.15 |
| 45 | 5.63 | 5.98 | 6.37 | 6.78 | 7.20 | 7.61 | 7.99 | 8.34 | 8.64 |
| 50 | - | 5.92 | 6.37 | 6.84 | 7.33 | 7.82 | 8.30 | 8.76 | 9.18 |
| 55 | - | - | 6.30 | 6.85 | 7.43 | 8.03 | 8.62 | 9.20 | 9.75 |
| 60 | - | - | - | 6.81 | 7.49 | 8.19 | 8.91 | 9.62 | 10.32 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|
| 30 | 19 | 28 | 40 | 55 | 72 | 92 | 115 | 142 | 172 |
| 35 | 17 | 26 | 38 | 52 | 69 | 89 | 112 | 138 | 169 |
| 40 | 14 | 24 | 35 | 49 | 66 | 85 | 108 | 134 | 164 |
| 45 | 12 | 21 | 32 | 45 | 62 | 81 | 104 | 130 | 159 |
| 50 | - | 18 | 29 | 42 | 58 | 76 | 99 | 124 | 154 |
| 55 | - | - | 25 | 38 | 53 | 71 | 93 | 118 | 147 |
| 60 | - | - | - | 34 | 48 | 66 | 87 | 112 | 140 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 30 | 1.22 | 1.58 | 1.98 | 2.44 | 2.99 | 3.65 | 4.45 | 5.44 | 6.71 |
| 35 | 1.06 | 1.39 | 1.75 | 2.16 | 2.64 | 3.19 | 3.85 | 4.65 | 5.64 |
| 40 | 0.90 | 1.21 | 1.54 | 1.90 | 2.31 | 2.78 | 3.33 | 3.98 | 4.76 |
| 45 | 0.76 | 1.04 | 1.34 | 1.65 | 2.00 | 2.40 | 2.86 | 3.40 | 4.02 |
| 50 | - | 0.89 | 1.15 | 1.42 | 1.72 | 2.06 | 2.45 | 2.89 | 3.40 |
| 55 | - | - | 0.97 | 1.21 | 1.47 | 1.75 | 2.08 | 2.44 | 2.86 |
| 60 | - | - | - | 1.01 | 1.23 | 1.47 | 1.75 | 2.05 | 2.40 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 622 | W |
| Power input | 1 308 | W |
| Current consumption | 7.20 | A |
| Mass flow | 62 | kg/h |
| C.O.P. | 2.00 | |

Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions
R407F

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

Cooling capacity in W

| | | | | | | | | | |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 1 326 | 1 939 | 2 700 | 3 626 | 4 737 | 6 051 | 7 585 | 9 359 |
| 35 | - | 1 124 | 1 679 | 2 371 | 3 216 | 4 234 | 5 443 | 6 861 | 8 507 |
| 40 | - | 954 | 1 458 | 2 086 | 2 857 | 3 788 | 4 899 | 6 207 | 7 732 |
| 45 | - | 811 | 1 269 | 1 841 | 2 543 | 3 395 | 4 414 | 5 620 | 7 029 |
| 50 | - | - | 1 109 | 1 631 | 2 272 | 3 050 | 3 984 | 5 093 | 6 394 |
| 55 | - | - | - | 1 451 | 2 037 | 2 749 | 3 604 | 4 623 | 5 822 |
| 60 | - | - | - | - | - | - | - | - | - |

Power input in W

| | | | | | | | | | |
|----|---|-----|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 893 | 1 020 | 1 134 | 1 232 | 1 305 | 1 349 | 1 358 | 1 325 |
| 35 | - | 894 | 1 034 | 1 168 | 1 288 | 1 390 | 1 467 | 1 512 | 1 522 |
| 40 | - | 893 | 1 046 | 1 196 | 1 338 | 1 465 | 1 573 | 1 654 | 1 703 |
| 45 | - | 897 | 1 059 | 1 224 | 1 385 | 1 536 | 1 672 | 1 786 | 1 873 |
| 50 | - | - | 1 080 | 1 257 | 1 435 | 1 608 | 1 770 | 1 916 | 2 038 |
| 55 | - | - | - | 1 300 | 1 493 | 1 686 | 1 872 | 2 047 | 2 203 |
| 60 | - | - | - | - | - | - | - | - | - |

Current consumption in A

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|-------|
| 30 | - | 5.96 | 6.30 | 6.64 | 6.94 | 7.19 | 7.36 | 7.43 | 7.39 |
| 35 | - | 6.05 | 6.41 | 6.76 | 7.10 | 7.40 | 7.63 | 7.79 | 7.83 |
| 40 | - | 6.09 | 6.47 | 6.86 | 7.25 | 7.61 | 7.93 | 8.17 | 8.33 |
| 45 | - | 6.09 | 6.50 | 6.95 | 7.40 | 7.84 | 8.25 | 8.60 | 8.88 |
| 50 | - | - | 6.53 | 7.04 | 7.57 | 8.10 | 8.62 | 9.10 | 9.51 |
| 55 | - | - | - | 7.14 | 7.77 | 8.41 | 9.05 | 9.66 | 10.23 |
| 60 | - | - | - | - | - | - | - | - | - |

Mass flow in kg/h

| | | | | | | | | | |
|----|---|----|----|----|----|----|-----|-----|-----|
| 30 | - | 27 | 39 | 54 | 72 | 92 | 116 | 144 | 176 |
| 35 | - | 24 | 36 | 50 | 66 | 86 | 109 | 136 | 167 |
| 40 | - | 22 | 33 | 46 | 62 | 81 | 103 | 129 | 159 |
| 45 | - | 19 | 30 | 43 | 58 | 76 | 98 | 123 | 152 |
| 50 | - | - | 28 | 40 | 55 | 73 | 94 | 118 | 146 |
| 55 | - | - | - | 38 | 53 | 70 | 90 | 114 | 141 |
| 60 | - | - | - | - | - | - | - | - | - |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 1.48 | 1.90 | 2.38 | 2.94 | 3.63 | 4.49 | 5.59 | 7.06 |
| 35 | - | 1.26 | 1.62 | 2.03 | 2.50 | 3.05 | 3.71 | 4.54 | 5.59 |
| 40 | - | 1.07 | 1.39 | 1.74 | 2.14 | 2.59 | 3.12 | 3.75 | 4.54 |
| 45 | - | 0.90 | 1.20 | 1.50 | 1.84 | 2.21 | 2.64 | 3.15 | 3.75 |
| 50 | - | - | 1.03 | 1.30 | 1.58 | 1.90 | 2.25 | 2.66 | 3.14 |
| 55 | - | - | - | 1.12 | 1.36 | 1.63 | 1.93 | 2.26 | 2.64 |
| 60 | - | - | - | - | - | - | - | - | - |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 543 | W |
| Power input | 1 385 | W |
| Current consumption | 7.40 | A |
| Mass flow | 58 | kg/h |
| C.O.P. | 1.84 | |

Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, ARI rating conditions
R407F

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

Cooling capacity in W

| | | | | | | | | | |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 1 421 | 2 076 | 2 888 | 3 875 | 5 058 | 6 454 | 8 084 | 9 966 |
| 35 | - | 1 211 | 1 806 | 2 547 | 3 451 | 4 539 | 5 830 | 7 342 | 9 095 |
| 40 | - | 1 033 | 1 576 | 2 253 | 3 081 | 4 081 | 5 272 | 6 674 | 8 304 |
| 45 | - | 883 | 1 381 | 2 000 | 2 760 | 3 679 | 4 778 | 6 075 | 7 590 |
| 50 | - | - | 1 216 | 1 785 | 2 483 | 3 328 | 4 342 | 5 543 | 6 950 |
| 55 | - | - | - | 1 603 | 2 246 | 3 026 | 3 962 | 5 074 | 6 381 |
| 60 | - | - | - | - | - | - | - | - | - |

Power input in W

| | | | | | | | | | |
|----|---|-----|-------|-------|-------|-------|-------|-------|-------|
| 30 | - | 893 | 1 020 | 1 134 | 1 232 | 1 305 | 1 349 | 1 358 | 1 325 |
| 35 | - | 894 | 1 034 | 1 168 | 1 288 | 1 390 | 1 467 | 1 512 | 1 522 |
| 40 | - | 893 | 1 046 | 1 196 | 1 338 | 1 465 | 1 573 | 1 654 | 1 703 |
| 45 | - | 897 | 1 059 | 1 224 | 1 385 | 1 536 | 1 672 | 1 786 | 1 873 |
| 50 | - | - | 1 080 | 1 257 | 1 435 | 1 608 | 1 770 | 1 916 | 2 038 |
| 55 | - | - | - | 1 300 | 1 493 | 1 686 | 1 872 | 2 047 | 2 203 |
| 60 | - | - | - | - | - | - | - | - | - |

Current consumption in A

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|-------|
| 30 | - | 5.96 | 6.30 | 6.64 | 6.94 | 7.19 | 7.36 | 7.43 | 7.39 |
| 35 | - | 6.05 | 6.41 | 6.76 | 7.10 | 7.40 | 7.63 | 7.79 | 7.83 |
| 40 | - | 6.09 | 6.47 | 6.86 | 7.25 | 7.61 | 7.93 | 8.17 | 8.33 |
| 45 | - | 6.09 | 6.50 | 6.95 | 7.40 | 7.84 | 8.25 | 8.60 | 8.88 |
| 50 | - | - | 6.53 | 7.04 | 7.57 | 8.10 | 8.62 | 9.10 | 9.51 |
| 55 | - | - | - | 7.14 | 7.77 | 8.41 | 9.05 | 9.66 | 10.23 |
| 60 | - | - | - | - | - | - | - | - | - |

Mass flow in kg/h

| | | | | | | | | | |
|----|---|----|----|----|----|----|-----|-----|-----|
| 30 | - | 27 | 39 | 54 | 71 | 92 | 116 | 143 | 175 |
| 35 | - | 24 | 36 | 49 | 66 | 86 | 109 | 135 | 166 |
| 40 | - | 22 | 32 | 46 | 62 | 81 | 103 | 128 | 158 |
| 45 | - | 19 | 30 | 43 | 58 | 76 | 97 | 122 | 151 |
| 50 | - | - | 28 | 40 | 55 | 72 | 93 | 117 | 145 |
| 55 | - | - | - | 38 | 52 | 69 | 89 | 113 | 140 |
| 60 | - | - | - | - | - | - | - | - | - |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|------|
| 30 | - | 1.59 | 2.04 | 2.55 | 3.15 | 3.88 | 4.78 | 5.95 | 7.52 |
| 35 | - | 1.35 | 1.75 | 2.18 | 2.68 | 3.27 | 3.98 | 4.85 | 5.98 |
| 40 | - | 1.16 | 1.51 | 1.88 | 2.30 | 2.79 | 3.35 | 4.04 | 4.88 |
| 45 | - | 0.98 | 1.30 | 1.63 | 1.99 | 2.39 | 2.86 | 3.40 | 4.05 |
| 50 | - | - | 1.13 | 1.42 | 1.73 | 2.07 | 2.45 | 2.89 | 3.41 |
| 55 | - | - | - | 1.23 | 1.50 | 1.79 | 2.12 | 2.48 | 2.90 |
| 60 | - | - | - | - | - | - | - | - | - |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 760 | W |
| Power input | 1 385 | W |
| Current consumption | 7.40 | A |
| Mass flow | 58 | kg/h |
| C.O.P. | 1.99 | |

Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 35 | 574 | 869 | 1 732 | 2 329 | 3 059 | 3 935 | 4 974 | 6 191 | 7 600 |
| 40 | 487 | 766 | 1 572 | 2 128 | 2 807 | 3 624 | 4 595 | 5 735 | 7 059 |
| 45 | 396 | 660 | 1 408 | 1 922 | 2 550 | 3 308 | 4 211 | 5 274 | 6 513 |
| 50 | 304 | 552 | 1 242 | 1 714 | 2 291 | 2 990 | 3 825 | 4 811 | 5 964 |
| 55 | - | - | 1 075 | 1 505 | 2 032 | 2 671 | 3 437 | 4 346 | 5 414 |
| 60 | - | - | - | 1 298 | 1 773 | 2 352 | 3 050 | 3 882 | 4 864 |
| 65 | - | - | - | - | 1 518 | 2 037 | 2 666 | 3 421 | 4 317 |
| 75 | - | - | - | - | - | - | 1 912 | 2 512 | 3 235 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 35 | 528 | 620 | 794 | 869 | 932 | 978 | 1 004 | 1 005 | 978 |
| 40 | 541 | 636 | 824 | 909 | 982 | 1 041 | 1 081 | 1 099 | 1 090 |
| 45 | 544 | 645 | 848 | 942 | 1 028 | 1 101 | 1 157 | 1 192 | 1 203 |
| 50 | 537 | 644 | 864 | 971 | 1 070 | 1 157 | 1 230 | 1 284 | 1 316 |
| 55 | - | - | 874 | 993 | 1 106 | 1 210 | 1 301 | 1 375 | 1 428 |
| 60 | - | - | - | 1 008 | 1 137 | 1 259 | 1 369 | 1 464 | 1 540 |
| 65 | - | - | - | - | 1 162 | 1 302 | 1 433 | 1 550 | 1 650 |
| 75 | - | - | - | - | - | - | 1 548 | 1 713 | 1 864 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 5.12 | 5.26 | 5.55 | 5.69 | 5.81 | 5.92 | 6.02 | 6.10 | 6.15 |
| 40 | 5.13 | 5.28 | 5.61 | 5.77 | 5.92 | 6.06 | 6.19 | 6.31 | 6.40 |
| 45 | 5.12 | 5.29 | 5.65 | 5.84 | 6.02 | 6.20 | 6.37 | 6.53 | 6.67 |
| 50 | 5.10 | 5.28 | 5.69 | 5.90 | 6.12 | 6.34 | 6.55 | 6.75 | 6.94 |
| 55 | - | - | 5.72 | 5.96 | 6.21 | 6.47 | 6.73 | 6.98 | 7.22 |
| 60 | - | - | - | 6.01 | 6.30 | 6.60 | 6.90 | 7.21 | 7.51 |
| 65 | - | - | - | - | 6.38 | 6.73 | 7.08 | 7.44 | 7.80 |
| 75 | - | - | - | - | - | - | 7.44 | 7.92 | 8.40 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|
| 35 | 15 | 22 | 41 | 54 | 70 | 88 | 109 | 133 | 161 |
| 40 | 13 | 20 | 39 | 52 | 67 | 85 | 105 | 129 | 157 |
| 45 | 11 | 18 | 37 | 50 | 64 | 81 | 102 | 125 | 151 |
| 50 | 9 | 16 | 35 | 47 | 61 | 78 | 97 | 120 | 146 |
| 55 | - | - | 32 | 44 | 58 | 74 | 93 | 115 | 140 |
| 60 | - | - | - | 40 | 54 | 69 | 88 | 109 | 133 |
| 65 | - | - | - | - | 49 | 64 | 82 | 102 | 126 |
| 75 | - | - | - | - | - | - | 69 | 88 | 110 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.09 | 1.40 | 2.18 | 2.68 | 3.28 | 4.02 | 4.96 | 6.16 | 7.77 |
| 40 | 0.90 | 1.20 | 1.91 | 2.34 | 2.86 | 3.48 | 4.25 | 5.22 | 6.47 |
| 45 | 0.73 | 1.02 | 1.66 | 2.04 | 2.48 | 3.01 | 3.64 | 4.43 | 5.42 |
| 50 | 0.57 | 0.86 | 1.44 | 1.77 | 2.14 | 2.58 | 3.11 | 3.75 | 4.53 |
| 55 | - | - | 1.23 | 1.52 | 1.84 | 2.21 | 2.64 | 3.16 | 3.79 |
| 60 | - | - | - | 1.29 | 1.56 | 1.87 | 2.23 | 2.65 | 3.16 |
| 65 | - | - | - | - | 1.31 | 1.56 | 1.86 | 2.21 | 2.62 |
| 75 | - | - | - | - | - | - | 1.24 | 1.47 | 1.74 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 990 | W |
| Power input | 1 157 | W |
| Current consumption | 6.34 | A |
| Mass flow | 78 | kg/h |
| C.O.P. | 2.58 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 50 Hz, ARI rating conditions
R134a

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

Cooling capacity in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 35 | 624 | 943 | 1 872 | 2 515 | 3 297 | 4 235 | 5 346 | 6 644 | 8 146 |
| 40 | 532 | 836 | 1 708 | 2 308 | 3 040 | 3 919 | 4 961 | 6 182 | 7 599 |
| 45 | 436 | 725 | 1 539 | 2 097 | 2 777 | 3 596 | 4 570 | 5 714 | 7 045 |
| 50 | - | 611 | 1 367 | 1 882 | 2 511 | 3 270 | 4 175 | 5 242 | 6 487 |
| 55 | - | - | 1 193 | 1 666 | 2 244 | 2 942 | 3 778 | 4 767 | 5 927 |
| 60 | - | - | - | 1 450 | 1 976 | 2 614 | 3 380 | 4 292 | 5 365 |
| 65 | - | - | - | - | - | 2 286 | 2 984 | 3 818 | 4 804 |
| 75 | - | - | - | - | - | - | 2 200 | 2 879 | 3 694 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| 35 | 528 | 620 | 794 | 869 | 932 | 978 | 1 004 | 1 005 | 978 |
| 40 | 541 | 636 | 824 | 909 | 982 | 1 041 | 1 081 | 1 099 | 1 090 |
| 45 | 544 | 645 | 848 | 942 | 1 028 | 1 101 | 1 157 | 1 192 | 1 203 |
| 50 | - | 644 | 864 | 971 | 1 070 | 1 157 | 1 230 | 1 284 | 1 316 |
| 55 | - | - | 874 | 993 | 1 106 | 1 210 | 1 301 | 1 375 | 1 428 |
| 60 | - | - | - | 1 008 | 1 137 | 1 259 | 1 369 | 1 464 | 1 540 |
| 65 | - | - | - | - | - | 1 302 | 1 433 | 1 550 | 1 650 |
| 75 | - | - | - | - | - | - | 1 548 | 1 713 | 1 864 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 5.12 | 5.26 | 5.55 | 5.69 | 5.81 | 5.92 | 6.02 | 6.10 | 6.15 |
| 40 | 5.13 | 5.28 | 5.61 | 5.77 | 5.92 | 6.06 | 6.19 | 6.31 | 6.40 |
| 45 | 5.12 | 5.29 | 5.65 | 5.84 | 6.02 | 6.20 | 6.37 | 6.53 | 6.67 |
| 50 | - | 5.28 | 5.69 | 5.90 | 6.12 | 6.34 | 6.55 | 6.75 | 6.94 |
| 55 | - | - | 5.72 | 5.96 | 6.21 | 6.47 | 6.73 | 6.98 | 7.22 |
| 60 | - | - | - | 6.01 | 6.30 | 6.60 | 6.90 | 7.21 | 7.51 |
| 65 | - | - | - | - | - | 6.73 | 7.08 | 7.44 | 7.80 |
| 75 | - | - | - | - | - | - | 7.44 | 7.92 | 8.40 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|----|-----|-----|-----|
| 35 | 14 | 22 | 41 | 54 | 69 | 87 | 108 | 133 | 160 |
| 40 | 13 | 20 | 39 | 52 | 67 | 84 | 105 | 129 | 156 |
| 45 | 11 | 18 | 37 | 49 | 64 | 81 | 101 | 124 | 151 |
| 50 | - | 16 | 35 | 47 | 61 | 77 | 97 | 119 | 145 |
| 55 | - | - | 32 | 43 | 57 | 73 | 92 | 114 | 139 |
| 60 | - | - | - | 40 | 53 | 69 | 87 | 108 | 132 |
| 65 | - | - | - | - | - | 64 | 82 | 102 | 125 |
| 75 | - | - | - | - | - | - | 69 | 88 | 109 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 35 | 1.18 | 1.52 | 2.36 | 2.89 | 3.54 | 4.33 | 5.33 | 6.61 | 8.33 |
| 40 | 0.98 | 1.31 | 2.07 | 2.54 | 3.10 | 3.76 | 4.59 | 5.63 | 6.97 |
| 45 | 0.80 | 1.12 | 1.82 | 2.23 | 2.70 | 3.27 | 3.95 | 4.79 | 5.86 |
| 50 | - | 0.95 | 1.58 | 1.94 | 2.35 | 2.83 | 3.39 | 4.08 | 4.93 |
| 55 | - | - | 1.37 | 1.68 | 2.03 | 2.43 | 2.90 | 3.47 | 4.15 |
| 60 | - | - | - | 1.44 | 1.74 | 2.08 | 2.47 | 2.93 | 3.48 |
| 65 | - | - | - | - | - | 1.76 | 2.08 | 2.46 | 2.91 |
| 75 | - | - | - | - | - | - | 1.42 | 1.68 | 1.98 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 3 335 | W |
| Power input | 1 245 | W |
| Current consumption | 6.56 | A |
| Mass flow | 82 | kg/h |
| C.O.P. | 2.68 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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Performance data at 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 | 2 000 | 2 757 | 3 672 | 4 762 | 6 046 | 7 543 | 9 269 | - | - |
| 40 | 1 776 | 2 482 | 3 334 | 4 350 | 5 548 | 6 947 | 8 564 | - | - |
| 45 | 1 559 | 2 214 | 3 002 | 3 943 | 5 055 | 6 355 | 7 862 | - | - |
| 50 | - | 1 955 | 2 679 | 3 544 | 4 568 | 5 769 | 7 166 | - | - |
| 55 | - | - | 2 367 | 3 155 | 4 091 | 5 192 | 6 477 | - | - |
| 60 | - | - | - | 2 779 | 3 625 | 4 626 | 5 798 | - | - |
| 65 | - | - | - | 2 416 | 3 173 | 4 072 | 5 132 | - | - |

Power input in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 054 | 1 173 | 1 272 | 1 351 | 1 409 | 1 445 | 1 458 | - | - |
| 40 | 1 075 | 1 212 | 1 331 | 1 430 | 1 508 | 1 565 | 1 598 | - | - |
| 45 | 1 088 | 1 246 | 1 386 | 1 506 | 1 606 | 1 684 | 1 740 | - | - |
| 50 | - | 1 274 | 1 436 | 1 579 | 1 702 | 1 804 | 1 884 | - | - |
| 55 | - | - | 1 483 | 1 650 | 1 798 | 1 925 | 2 030 | - | - |
| 60 | - | - | - | 1 718 | 1 892 | 2 045 | 2 177 | - | - |
| 65 | - | - | - | 1 784 | 1 985 | 2 167 | 2 327 | - | - |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|-------|---|---|
| 35 | 5.26 | 5.70 | 6.08 | 6.40 | 6.64 | 6.79 | 6.85 | - | - |
| 40 | 5.35 | 5.84 | 6.28 | 6.66 | 6.97 | 7.20 | 7.34 | - | - |
| 45 | 5.44 | 5.99 | 6.51 | 6.96 | 7.36 | 7.67 | 7.90 | - | - |
| 50 | - | 6.14 | 6.73 | 7.28 | 7.76 | 8.18 | 8.51 | - | - |
| 55 | - | - | 6.94 | 7.59 | 8.18 | 8.70 | 9.15 | - | - |
| 60 | - | - | - | 7.88 | 8.58 | 9.23 | 9.80 | - | - |
| 65 | - | - | - | 8.12 | 8.95 | 9.73 | 10.45 | - | - |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|---|---|
| 35 | 43 | 59 | 77 | 98 | 123 | 151 | 184 | - | - |
| 40 | 41 | 56 | 73 | 94 | 118 | 146 | 178 | - | - |
| 45 | 38 | 52 | 70 | 90 | 114 | 141 | 171 | - | - |
| 50 | - | 49 | 66 | 86 | 108 | 135 | 165 | - | - |
| 55 | - | - | 62 | 81 | 103 | 129 | 158 | - | - |
| 60 | - | - | - | 77 | 98 | 123 | 151 | - | - |
| 65 | - | - | - | 72 | 93 | 116 | 144 | - | - |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 1.90 | 2.35 | 2.89 | 3.53 | 4.29 | 5.22 | 6.36 | - | - |
| 40 | 1.65 | 2.05 | 2.50 | 3.04 | 3.68 | 4.44 | 5.36 | - | - |
| 45 | 1.43 | 1.78 | 2.17 | 2.62 | 3.15 | 3.77 | 4.52 | - | - |
| 50 | - | 1.53 | 1.87 | 2.24 | 2.68 | 3.20 | 3.80 | - | - |
| 55 | - | - | 1.60 | 1.91 | 2.28 | 2.70 | 3.19 | - | - |
| 60 | - | - | - | 1.62 | 1.92 | 2.26 | 2.66 | - | - |
| 65 | - | - | - | 1.35 | 1.60 | 1.88 | 2.21 | - | - |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 4 568 | W |
| Power input | 1 702 | W |
| Current consumption | 7.76 | A |
| Mass flow | 108 | kg/h |
| C.O.P. | 2.68 | |


Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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 | 2 153 | 2 964 | 3 943 | 5 108 | 6 478 | 8 073 | 9 911 | - | - |
| 40 | 1 922 | 2 682 | 3 598 | 4 689 | 5 974 | 7 471 | 9 200 | - | - |
| 45 | 1 698 | 2 407 | 3 260 | 4 276 | 5 473 | 6 873 | 8 492 | - | - |
| 50 | - | 2 141 | 2 930 | 3 870 | 4 980 | 6 280 | 7 790 | - | - |
| 55 | - | - | 2 610 | 3 474 | 4 496 | 5 697 | 7 095 | - | - |
| 60 | - | - | - | 3 090 | 4 024 | 5 125 | 6 412 | - | - |
| 65 | - | - | - | 2 723 | 3 567 | 4 567 | 5 743 | - | - |

Power input in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 1 054 | 1 173 | 1 272 | 1 351 | 1 409 | 1 445 | 1 458 | - | - |
| 40 | 1 075 | 1 212 | 1 331 | 1 430 | 1 508 | 1 565 | 1 598 | - | - |
| 45 | 1 088 | 1 246 | 1 386 | 1 506 | 1 606 | 1 684 | 1 740 | - | - |
| 50 | - | 1 274 | 1 436 | 1 579 | 1 702 | 1 804 | 1 884 | - | - |
| 55 | - | - | 1 483 | 1 650 | 1 798 | 1 925 | 2 030 | - | - |
| 60 | - | - | - | 1 718 | 1 892 | 2 045 | 2 177 | - | - |
| 65 | - | - | - | 1 784 | 1 985 | 2 167 | 2 327 | - | - |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|-------|---|---|
| 35 | 5.26 | 5.70 | 6.08 | 6.40 | 6.64 | 6.79 | 6.85 | - | - |
| 40 | 5.35 | 5.84 | 6.28 | 6.66 | 6.97 | 7.20 | 7.34 | - | - |
| 45 | 5.44 | 5.99 | 6.51 | 6.96 | 7.36 | 7.67 | 7.90 | - | - |
| 50 | - | 6.14 | 6.73 | 7.28 | 7.76 | 8.18 | 8.51 | - | - |
| 55 | - | - | 6.94 | 7.59 | 8.18 | 8.70 | 9.15 | - | - |
| 60 | - | - | - | 7.88 | 8.58 | 9.23 | 9.80 | - | - |
| 65 | - | - | - | 8.12 | 8.95 | 9.73 | 10.45 | - | - |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|---|---|
| 35 | 43 | 59 | 77 | 98 | 122 | 150 | 182 | - | - |
| 40 | 40 | 55 | 73 | 94 | 118 | 145 | 177 | - | - |
| 45 | 37 | 52 | 69 | 90 | 113 | 140 | 170 | - | - |
| 50 | - | 49 | 66 | 85 | 108 | 134 | 164 | - | - |
| 55 | - | - | 62 | 81 | 103 | 128 | 157 | - | - |
| 60 | - | - | - | 76 | 97 | 122 | 150 | - | - |
| 65 | - | - | - | 72 | 92 | 116 | 143 | - | - |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.04 | 2.53 | 3.10 | 3.78 | 4.60 | 5.59 | 6.80 | - | - |
| 40 | 1.79 | 2.21 | 2.70 | 3.28 | 3.96 | 4.78 | 5.76 | - | - |
| 45 | 1.56 | 1.93 | 2.35 | 2.84 | 3.41 | 4.08 | 4.88 | - | - |
| 50 | - | 1.68 | 2.04 | 2.45 | 2.93 | 3.48 | 4.13 | - | - |
| 55 | - | - | 1.76 | 2.11 | 2.50 | 2.96 | 3.50 | - | - |
| 60 | - | - | - | 1.80 | 2.13 | 2.51 | 2.94 | - | - |
| 65 | - | - | - | 1.53 | 1.80 | 2.11 | 2.47 | - | - |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 5 064 | W |
| Power input | 1 844 | W |
| Current consumption | 8.36 | A |
| Mass flow | 114 | kg/h |
| C.O.P. | 2.75 | |

Pressure switch settings

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

Sound power data

| | | |
|--------------------|----|-------|
| Sound power level | 73 | dB(A) |
| With acoustic hood | 67 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R448A

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

Cooling capacity in W

| | | | | | | | | | |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 10 | - | 1 915 | 2 671 | 3 599 | 4 714 | - | - | - | - |
| 20 | - | 1 680 | 2 393 | 3 258 | 4 291 | 5 508 | 6 925 | - | - |
| 30 | - | 1 355 | 2 018 | 2 814 | 3 758 | 4 865 | 6 152 | 7 635 | 9 338 |
| 40 | - | - | 1 570 | 2 291 | 3 140 | 4 131 | 5 280 | 6 602 | 8 116 |
| 50 | - | - | - | 1 712 | 2 460 | 3 330 | 4 336 | 5 490 | 6 810 |
| 60 | - | - | - | - | 1 744 | 2 488 | 3 345 | 4 327 | 5 447 |

Power input in W

| | | | | | | | | | |
|----|---|-----|-------|-------|-------|-------|-------|-------|-------|
| 10 | - | 983 | 1 055 | 1 089 | 1 080 | - | - | - | - |
| 20 | - | 960 | 1 076 | 1 161 | 1 208 | 1 211 | 1 165 | - | - |
| 30 | - | 921 | 1 080 | 1 213 | 1 314 | 1 378 | 1 399 | 1 371 | 1 287 |
| 40 | - | - | 1 053 | 1 233 | 1 387 | 1 510 | 1 596 | 1 639 | 1 632 |
| 50 | - | - | - | 1 209 | 1 415 | 1 595 | 1 744 | 1 856 | 1 925 |
| 60 | - | - | - | - | 1 384 | 1 620 | 1 831 | 2 010 | 2 153 |

Current consumption in A

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|-------|
| 10 | - | 5.16 | 5.56 | 5.80 | 5.88 | - | - | - | - |
| 20 | - | 4.78 | 5.30 | 5.68 | 5.92 | 5.99 | 5.89 | - | - |
| 30 | - | 4.60 | 5.27 | 5.82 | 6.23 | 6.51 | 6.63 | 6.58 | 6.36 |
| 40 | - | - | 5.23 | 5.98 | 6.61 | 7.12 | 7.49 | 7.71 | 7.77 |
| 50 | - | - | - | 5.95 | 6.82 | 7.59 | 8.24 | 8.76 | 9.14 |
| 60 | - | - | - | - | 6.65 | 7.71 | 8.67 | 9.52 | 10.25 |

Mass flow in kg/h

| | | | | | | | | | |
|----|---|----|----|----|----|----|-----|-----|-----|
| 10 | - | 33 | 46 | 61 | 80 | - | - | - | - |
| 20 | - | 30 | 43 | 58 | 77 | 99 | 126 | - | - |
| 30 | - | 26 | 39 | 54 | 72 | 95 | 121 | 152 | 189 |
| 40 | - | - | 33 | 48 | 66 | 88 | 114 | 144 | 180 |
| 50 | - | - | - | 40 | 58 | 79 | 104 | 134 | 169 |
| 60 | - | - | - | - | 47 | 68 | 92 | 121 | 155 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|------|
| 10 | - | 1.95 | 2.53 | 3.30 | 4.37 | - | - | - | - |
| 20 | - | 1.75 | 2.22 | 2.81 | 3.55 | 4.55 | 5.94 | - | - |
| 30 | - | 1.47 | 1.87 | 2.32 | 2.86 | 3.53 | 4.40 | 5.57 | 7.25 |
| 40 | - | - | 1.49 | 1.86 | 2.26 | 2.74 | 3.31 | 4.03 | 4.97 |
| 50 | - | - | - | 1.42 | 1.74 | 2.09 | 2.49 | 2.96 | 3.54 |
| 60 | - | - | - | - | 1.26 | 1.54 | 1.83 | 2.15 | 2.53 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 806 | W |
| Power input | 1 408 | W |
| Current consumption | 6.75 | A |
| Mass flow | 63 | kg/h |
| C.O.P. | 1.99 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R448A

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

Cooling capacity in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10 | 1 319 | 1 924 | 2 686 | 3 621 | 4 744 | - | - | - | - |
| 20 | 1 095 | 1 669 | 2 383 | 3 252 | 4 290 | 5 514 | 6 938 | - | - |
| 30 | 791 | 1 328 | 1 985 | 2 780 | 3 727 | 4 841 | 6 137 | 7 631 | 9 338 |
| 40 | 437 | 927 | 1 521 | 2 234 | 3 082 | 4 078 | 5 240 | 6 581 | 8 116 |
| 50 | - | 495 | 1 018 | 1 642 | 2 382 | 3 254 | 4 273 | 5 453 | 6 810 |
| 60 | - | - | 504 | 1 031 | 1 657 | 2 396 | 3 264 | 4 276 | 5 447 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 10 | 879 | 983 | 1 055 | 1 089 | 1 080 | - | - | - | - |
| 20 | 818 | 960 | 1 076 | 1 161 | 1 208 | 1 211 | 1 165 | - | - |
| 30 | 742 | 921 | 1 080 | 1 213 | 1 314 | 1 378 | 1 399 | 1 371 | 1 287 |
| 40 | 639 | 853 | 1 053 | 1 233 | 1 387 | 1 510 | 1 596 | 1 639 | 1 632 |
| 50 | - | 744 | 984 | 1 209 | 1 415 | 1 595 | 1 744 | 1 856 | 1 925 |
| 60 | - | - | 860 | 1 129 | 1 384 | 1 620 | 1 831 | 2 010 | 2 153 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|-------|
| 10 | 4.61 | 5.16 | 5.56 | 5.80 | 5.88 | - | - | - | - |
| 20 | 4.14 | 4.78 | 5.30 | 5.68 | 5.92 | 5.99 | 5.89 | - | - |
| 30 | 3.83 | 4.60 | 5.27 | 5.82 | 6.23 | 6.51 | 6.63 | 6.58 | 6.36 |
| 40 | 3.47 | 4.39 | 5.23 | 5.98 | 6.61 | 7.12 | 7.49 | 7.71 | 7.77 |
| 50 | - | 3.94 | 4.98 | 5.95 | 6.82 | 7.59 | 8.24 | 8.76 | 9.14 |
| 60 | - | - | 4.29 | 5.51 | 6.65 | 7.71 | 8.67 | 9.52 | 10.25 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|-----|-----|-----|-----|
| 10 | 27 | 38 | 52 | 69 | 88 | - | - | - | - |
| 20 | 23 | 35 | 49 | 65 | 84 | 107 | 133 | - | - |
| 30 | 18 | 30 | 44 | 60 | 80 | 102 | 127 | 156 | 189 |
| 40 | 11 | 23 | 37 | 54 | 73 | 95 | 120 | 148 | 180 |
| 50 | - | 14 | 28 | 45 | 64 | 85 | 110 | 138 | 169 |
| 60 | - | - | 16 | 33 | 52 | 73 | 97 | 124 | 155 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 10 | 1.50 | 1.96 | 2.55 | 3.32 | 4.39 | - | - | - | - |
| 20 | 1.34 | 1.74 | 2.21 | 2.80 | 3.55 | 4.55 | 5.95 | - | - |
| 30 | 1.07 | 1.44 | 1.84 | 2.29 | 2.84 | 3.51 | 4.39 | 5.57 | 7.25 |
| 40 | 0.68 | 1.09 | 1.44 | 1.81 | 2.22 | 2.70 | 3.28 | 4.02 | 4.97 |
| 50 | - | 0.67 | 1.04 | 1.36 | 1.68 | 2.04 | 2.45 | 2.94 | 3.54 |
| 60 | - | - | 0.59 | 0.91 | 1.20 | 1.48 | 1.78 | 2.13 | 2.53 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 737 | W |
| Power input | 1 408 | W |
| Current consumption | 6.75 | A |
| Mass flow | 69 | kg/h |
| C.O.P. | 1.94 | |

Pressure switch settings

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

Sound power data

| | | |
|---------------------|----|-------|
| Sound power level | 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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R449A

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

Cooling capacity in W

| | | | | | | | | | |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 10 | - | 1 918 | 2 675 | 3 603 | 4 718 | - | - | - | - |
| 20 | - | 1 684 | 2 397 | 3 263 | 4 296 | 5 512 | 6 929 | - | - |
| 30 | - | 1 358 | 2 022 | 2 819 | 3 763 | 4 870 | 6 156 | 7 638 | 9 338 |
| 40 | - | - | 1 574 | 2 295 | 3 145 | 4 136 | 5 284 | 6 605 | 8 116 |
| 50 | - | - | - | 1 716 | 2 465 | 3 335 | 4 340 | 5 493 | 6 810 |
| 60 | - | - | - | - | 1 748 | 2 492 | 3 349 | 4 329 | 5 447 |

Power input in W

| | | | | | | | | | |
|----|---|-----|-------|-------|-------|-------|-------|-------|-------|
| 10 | - | 983 | 1 055 | 1 089 | 1 080 | - | - | - | - |
| 20 | - | 960 | 1 076 | 1 161 | 1 208 | 1 211 | 1 165 | - | - |
| 30 | - | 921 | 1 080 | 1 213 | 1 314 | 1 378 | 1 399 | 1 371 | 1 287 |
| 40 | - | - | 1 053 | 1 233 | 1 387 | 1 510 | 1 596 | 1 639 | 1 632 |
| 50 | - | - | - | 1 209 | 1 415 | 1 595 | 1 744 | 1 856 | 1 925 |
| 60 | - | - | - | - | 1 384 | 1 620 | 1 831 | 2 010 | 2 153 |

Current consumption in A

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|-------|
| 10 | - | 5.16 | 5.56 | 5.80 | 5.88 | - | - | - | - |
| 20 | - | 4.78 | 5.30 | 5.68 | 5.92 | 5.99 | 5.89 | - | - |
| 30 | - | 4.60 | 5.27 | 5.82 | 6.23 | 6.51 | 6.63 | 6.58 | 6.36 |
| 40 | - | - | 5.23 | 5.98 | 6.61 | 7.12 | 7.49 | 7.71 | 7.77 |
| 50 | - | - | - | 5.95 | 6.82 | 7.59 | 8.24 | 8.76 | 9.14 |
| 60 | - | - | - | - | 6.65 | 7.71 | 8.67 | 9.52 | 10.25 |

Mass flow in kg/h

| | | | | | | | | | |
|----|---|----|----|----|----|-----|-----|-----|-----|
| 10 | - | 33 | 46 | 62 | 81 | - | - | - | - |
| 20 | - | 30 | 43 | 59 | 78 | 101 | 128 | - | - |
| 30 | - | 26 | 39 | 55 | 74 | 96 | 123 | 155 | 192 |
| 40 | - | - | 34 | 49 | 68 | 90 | 116 | 147 | 183 |
| 50 | - | - | - | 41 | 59 | 81 | 107 | 137 | 172 |
| 60 | - | - | - | - | 48 | 69 | 94 | 124 | 158 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|------|
| 10 | - | 1.95 | 2.54 | 3.31 | 4.37 | - | - | - | - |
| 20 | - | 1.75 | 2.23 | 2.81 | 3.56 | 4.55 | 5.95 | - | - |
| 30 | - | 1.48 | 1.87 | 2.32 | 2.86 | 3.53 | 4.40 | 5.57 | 7.25 |
| 40 | - | - | 1.49 | 1.86 | 2.27 | 2.74 | 3.31 | 4.03 | 4.97 |
| 50 | - | - | - | 1.42 | 1.74 | 2.09 | 2.49 | 2.96 | 3.54 |
| 60 | - | - | - | - | 1.26 | 1.54 | 1.83 | 2.15 | 2.53 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 811 | W |
| Power input | 1 408 | W |
| Current consumption | 6.75 | A |
| Mass flow | 64 | kg/h |
| C.O.P. | 2.00 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R449A

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

Cooling capacity in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10 | 1 319 | 1 924 | 2 686 | 3 621 | 4 744 | - | - | - | - |
| 20 | 1 095 | 1 669 | 2 383 | 3 252 | 4 290 | 5 514 | 6 938 | - | - |
| 30 | 791 | 1 328 | 1 985 | 2 780 | 3 727 | 4 841 | 6 137 | 7 631 | 9 338 |
| 40 | 437 | 927 | 1 521 | 2 234 | 3 082 | 4 078 | 5 240 | 6 581 | 8 116 |
| 50 | - | 495 | 1 018 | 1 642 | 2 382 | 3 254 | 4 273 | 5 453 | 6 810 |
| 60 | - | - | 504 | 1 031 | 1 657 | 2 396 | 3 264 | 4 276 | 5 447 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 10 | 879 | 983 | 1 055 | 1 089 | 1 080 | - | - | - | - |
| 20 | 818 | 960 | 1 076 | 1 161 | 1 208 | 1 211 | 1 165 | - | - |
| 30 | 742 | 921 | 1 080 | 1 213 | 1 314 | 1 378 | 1 399 | 1 371 | 1 287 |
| 40 | 639 | 853 | 1 053 | 1 233 | 1 387 | 1 510 | 1 596 | 1 639 | 1 632 |
| 50 | - | 744 | 984 | 1 209 | 1 415 | 1 595 | 1 744 | 1 856 | 1 925 |
| 60 | - | - | 860 | 1 129 | 1 384 | 1 620 | 1 831 | 2 010 | 2 153 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|-------|
| 10 | 4.61 | 5.16 | 5.56 | 5.80 | 5.88 | - | - | - | - |
| 20 | 4.14 | 4.78 | 5.30 | 5.68 | 5.92 | 5.99 | 5.89 | - | - |
| 30 | 3.83 | 4.60 | 5.27 | 5.82 | 6.23 | 6.51 | 6.63 | 6.58 | 6.36 |
| 40 | 3.47 | 4.39 | 5.23 | 5.98 | 6.61 | 7.12 | 7.49 | 7.71 | 7.77 |
| 50 | - | 3.94 | 4.98 | 5.95 | 6.82 | 7.59 | 8.24 | 8.76 | 9.14 |
| 60 | - | - | 4.29 | 5.51 | 6.65 | 7.71 | 8.67 | 9.52 | 10.25 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|----|-----|-----|-----|-----|
| 10 | 26 | 38 | 52 | 69 | 89 | - | - | - | - |
| 20 | 23 | 35 | 49 | 66 | 86 | 109 | 135 | - | - |
| 30 | 18 | 31 | 45 | 62 | 81 | 104 | 129 | 159 | 192 |
| 40 | 11 | 24 | 38 | 55 | 74 | 97 | 122 | 151 | 183 |
| 50 | - | 14 | 29 | 46 | 65 | 87 | 112 | 140 | 172 |
| 60 | - | - | 17 | 34 | 53 | 75 | 99 | 127 | 158 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 10 | 1.50 | 1.96 | 2.55 | 3.32 | 4.39 | - | - | - | - |
| 20 | 1.34 | 1.74 | 2.21 | 2.80 | 3.55 | 4.55 | 5.95 | - | - |
| 30 | 1.07 | 1.44 | 1.84 | 2.29 | 2.84 | 3.51 | 4.39 | 5.57 | 7.25 |
| 40 | 0.68 | 1.09 | 1.44 | 1.81 | 2.22 | 2.70 | 3.28 | 4.02 | 4.97 |
| 50 | - | 0.67 | 1.04 | 1.36 | 1.68 | 2.04 | 2.45 | 2.94 | 3.54 |
| 60 | - | - | 0.59 | 0.91 | 1.20 | 1.48 | 1.78 | 2.13 | 2.53 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 737 | W |
| Power input | 1 408 | W |
| Current consumption | 6.75 | A |
| Mass flow | 70 | kg/h |
| C.O.P. | 1.94 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Suction temp. = 20 °C
R452A

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

Cooling capacity in W

| | | | | | | | | | |
|----|---|-------|-------|-------|-------|-------|-------|-------|-------|
| 10 | - | 2 032 | 2 739 | 3 600 | 4 626 | - | - | - | - |
| 20 | - | 1 778 | 2 447 | 3 250 | 4 198 | 5 305 | 6 585 | - | - |
| 30 | - | 1 449 | 2 069 | 2 803 | 3 662 | 4 659 | 5 806 | 7 117 | 8 611 |
| 40 | - | 1 071 | 1 630 | 2 284 | 3 043 | 3 918 | 4 921 | 6 064 | 7 363 |
| 50 | - | - | 1 155 | 1 717 | 2 366 | 3 109 | 3 958 | 4 922 | 6 014 |
| 60 | - | - | - | 1 129 | 1 657 | 2 259 | 2 945 | 3 721 | 4 595 |

Power input in W

| | | | | | | | | | |
|----|---|-----|-------|-------|-------|-------|-------|-------|-------|
| 10 | - | 876 | 923 | 949 | 957 | - | - | - | - |
| 20 | - | 938 | 1 018 | 1 076 | 1 113 | 1 132 | 1 133 | - | - |
| 30 | - | 970 | 1 088 | 1 183 | 1 256 | 1 307 | 1 340 | 1 355 | 1 353 |
| 40 | - | 959 | 1 121 | 1 257 | 1 370 | 1 461 | 1 531 | 1 581 | 1 613 |
| 50 | - | - | 1 100 | 1 285 | 1 444 | 1 579 | 1 691 | 1 782 | 1 853 |
| 60 | - | - | - | 1 251 | 1 462 | 1 646 | 1 807 | 1 944 | 2 060 |

Current consumption in A

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|-------|
| 10 | - | 5.28 | 5.77 | 6.10 | 6.28 | - | - | - | - |
| 20 | - | 5.19 | 5.66 | 6.00 | 6.22 | 6.31 | 6.29 | - | - |
| 30 | - | 5.41 | 5.89 | 6.28 | 6.58 | 6.78 | 6.90 | 6.94 | 6.89 |
| 40 | - | 5.60 | 6.15 | 6.63 | 7.04 | 7.40 | 7.70 | 7.96 | 8.16 |
| 50 | - | - | 6.11 | 6.72 | 7.30 | 7.85 | 8.38 | 8.89 | 9.38 |
| 60 | - | - | - | 6.25 | 7.03 | 7.82 | 8.61 | 9.42 | 10.24 |

Mass flow in kg/h

| | | | | | | | | | |
|----|---|----|----|----|----|-----|-----|-----|-----|
| 10 | - | 43 | 58 | 76 | 98 | - | - | - | - |
| 20 | - | 40 | 55 | 73 | 95 | 121 | 151 | - | - |
| 30 | - | 35 | 51 | 69 | 90 | 116 | 146 | 181 | 223 |
| 40 | - | 29 | 44 | 62 | 84 | 109 | 138 | 173 | 214 |
| 50 | - | - | 36 | 54 | 74 | 99 | 128 | 161 | 201 |
| 60 | - | - | - | 42 | 62 | 86 | 114 | 146 | 185 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|---|------|------|------|------|------|------|------|------|
| 10 | - | 2.32 | 2.97 | 3.79 | 4.83 | - | - | - | - |
| 20 | - | 1.90 | 2.40 | 3.02 | 3.77 | 4.69 | 5.81 | - | - |
| 30 | - | 1.49 | 1.90 | 2.37 | 2.92 | 3.56 | 4.33 | 5.25 | 6.36 |
| 40 | - | 1.12 | 1.45 | 1.82 | 2.22 | 2.68 | 3.21 | 3.84 | 4.56 |
| 50 | - | - | 1.05 | 1.34 | 1.64 | 1.97 | 2.34 | 2.76 | 3.24 |
| 60 | - | - | - | 0.90 | 1.13 | 1.37 | 1.63 | 1.91 | 2.23 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 710 | W |
| Power input | 1 413 | W |
| Current consumption | 7.22 | A |
| Mass flow | 79 | kg/h |
| C.O.P. | 1.92 | |

Pressure switch settings

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

Sound power data

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Suction gas temp. = 20 °C , Subcooling = 0 K

Tolerance according EN12900

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R452A

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

Cooling capacity in W

| | | | | | | | | | |
|----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 10 | 1 417 | 1 978 | 2 682 | 3 544 | 4 577 | - | - | - | - |
| 20 | 1 168 | 1 702 | 2 362 | 3 161 | 4 114 | 5 234 | 6 534 | - | - |
| 30 | 863 | 1 358 | 1 961 | 2 685 | 3 545 | 4 553 | 5 725 | 7 073 | 8 611 |
| 40 | 533 | 975 | 1 508 | 2 144 | 2 898 | 3 783 | 4 813 | 6 002 | 7 363 |
| 50 | 206 | 583 | 1 033 | 1 568 | 2 203 | 2 952 | 3 827 | 4 843 | 6 014 |
| 60 | - | 210 | 563 | 985 | 1 489 | 2 088 | 2 796 | 3 627 | 4 595 |

Power input in W

| | | | | | | | | | |
|----|-----|-----|-------|-------|-------|-------|-------|-------|-------|
| 10 | 807 | 876 | 923 | 949 | 957 | - | - | - | - |
| 20 | 835 | 938 | 1 018 | 1 076 | 1 113 | 1 132 | 1 133 | - | - |
| 30 | 828 | 970 | 1 088 | 1 183 | 1 256 | 1 307 | 1 340 | 1 355 | 1 353 |
| 40 | 771 | 959 | 1 121 | 1 257 | 1 370 | 1 461 | 1 531 | 1 581 | 1 613 |
| 50 | 650 | 889 | 1 100 | 1 285 | 1 444 | 1 579 | 1 691 | 1 782 | 1 853 |
| 60 | - | 748 | 1 014 | 1 251 | 1 462 | 1 646 | 1 807 | 1 944 | 2 060 |

Current consumption in A

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|-------|
| 10 | 4.62 | 5.28 | 5.77 | 6.10 | 6.28 | - | - | - | - |
| 20 | 4.59 | 5.19 | 5.66 | 6.00 | 6.22 | 6.31 | 6.29 | - | - |
| 30 | 4.82 | 5.41 | 5.89 | 6.28 | 6.58 | 6.78 | 6.90 | 6.94 | 6.89 |
| 40 | 4.99 | 5.60 | 6.15 | 6.63 | 7.04 | 7.40 | 7.70 | 7.96 | 8.16 |
| 50 | 4.79 | 5.47 | 6.11 | 6.72 | 7.30 | 7.85 | 8.38 | 8.89 | 9.38 |
| 60 | - | 4.69 | 5.47 | 6.25 | 7.03 | 7.82 | 8.61 | 9.42 | 10.24 |

Mass flow in kg/h

| | | | | | | | | | |
|----|----|----|----|----|-----|-----|-----|-----|-----|
| 10 | 37 | 50 | 66 | 85 | 107 | - | - | - | - |
| 20 | 32 | 46 | 63 | 82 | 104 | 130 | 159 | - | - |
| 30 | 27 | 41 | 58 | 77 | 99 | 125 | 154 | 186 | 223 |
| 40 | 19 | 34 | 51 | 70 | 92 | 117 | 146 | 178 | 214 |
| 50 | 9 | 24 | 41 | 60 | 82 | 107 | 135 | 166 | 201 |
| 60 | - | 11 | 28 | 47 | 69 | 93 | 120 | 150 | 185 |

Coefficient of performance (C.O.P.)

| | | | | | | | | | |
|----|------|------|------|------|------|------|------|------|------|
| 10 | 1.76 | 2.26 | 2.91 | 3.73 | 4.78 | - | - | - | - |
| 20 | 1.40 | 1.81 | 2.32 | 2.94 | 3.70 | 4.62 | 5.77 | - | - |
| 30 | 1.04 | 1.40 | 1.80 | 2.27 | 2.82 | 3.48 | 4.27 | 5.22 | 6.36 |
| 40 | 0.69 | 1.02 | 1.35 | 1.71 | 2.11 | 2.59 | 3.14 | 3.80 | 4.56 |
| 50 | 0.32 | 0.66 | 0.94 | 1.22 | 1.53 | 1.87 | 2.26 | 2.72 | 3.24 |
| 60 | - | 0.28 | 0.56 | 0.79 | 1.02 | 1.27 | 1.55 | 1.87 | 2.23 |

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

| | | |
|---------------------|-------|------|
| Cooling capacity | 2 555 | W |
| Power input | 1 413 | W |
| Current consumption | 7.22 | A |
| Mass flow | 87 | kg/h |
| C.O.P. | 1.81 | |

Pressure switch settings

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

Sound power data

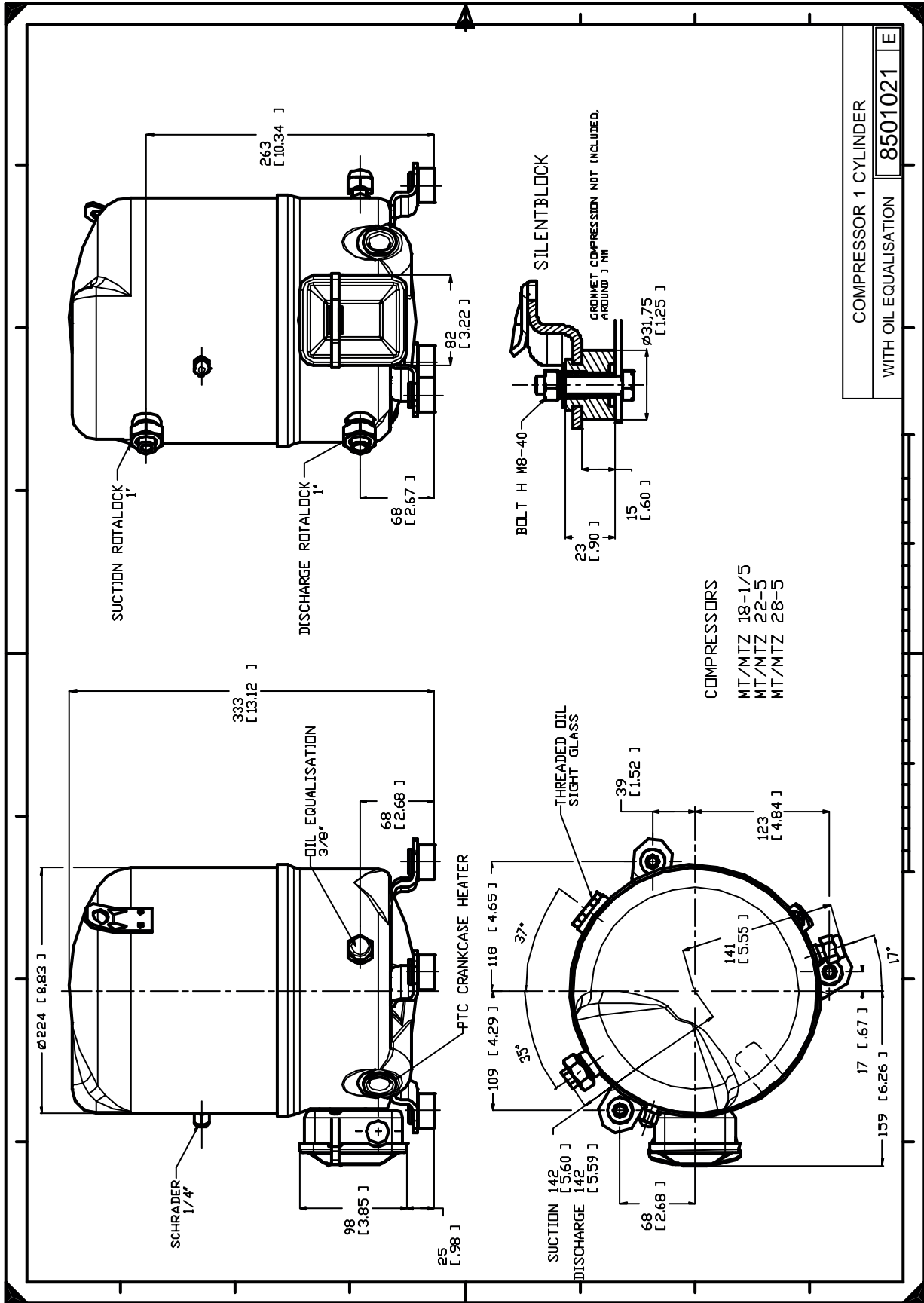
| | | |
|--------------------|----|-------|
| Sound power level | 74 | dB(A) |
| With acoustic hood | 68 | dB(A) |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900



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