



Datasheets

## Danfoss scroll compressors **H series**



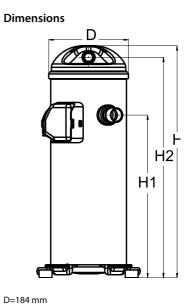
## Danfoss

#### Datasheet, technical data

## Danfoss scroll compressor, HCJ120T4

#### **General Characteristics**

| Model number (on compressor nameplate)            |                        | HCJ120T4LC6          |  |  |  |
|---------------------------------------------------|------------------------|----------------------|--|--|--|
| Code number for Singlepack*                       |                        | 120U2342             |  |  |  |
| Code number for Industrial pack**                 |                        | 120U2339             |  |  |  |
| Drawing number                                    |                        | 0SR7596B             |  |  |  |
| Suction and discharge connections                 |                        | Brazed               |  |  |  |
| Suction connection                                |                        | 1-1/8 " ODF          |  |  |  |
| Discharge connection                              |                        | 7/8 " ODF            |  |  |  |
| Oil sight glass                                   |                        | None                 |  |  |  |
| Oil equalisation connection                       |                        | None                 |  |  |  |
| Oil drain connection                              |                        | None                 |  |  |  |
| LP gauge port                                     |                        | None                 |  |  |  |
| IPR valve                                         |                        | None                 |  |  |  |
| Swept volume                                      | 113,07 c               | m3/rev               |  |  |  |
| Displacement @ Nominal speed                      | 19.7 m3/h @ 2900 rpm - | 23.7 m3/h @ 3500 rpm |  |  |  |
| Net weight                                        | 45,2                   | kg                   |  |  |  |
| Oil charge                                        | 2,66 litre             | e, PVE               |  |  |  |
| Maximum system test pressure Low Side / High side | - bar(g) /             | - bar(g)             |  |  |  |
| Maximum differential test pressure                | - b                    | ar                   |  |  |  |
| Maximum number of starts per hour                 | -                      |                      |  |  |  |
| Refrigerant charge limit                          | 7,26 kg                |                      |  |  |  |
| Approved refrigerants                             | R410A                  |                      |  |  |  |



### **Electrical Characteristics**

| Nominal voltage                                      | 380-415V/3/50Hz - 460V/3/60Hz       | H=537 mm   |
|------------------------------------------------------|-------------------------------------|------------|
| Voltage range                                        | 342-457 V @ 50Hz - 414-506 V @ 60Hz | H1=377 mm  |
| Winding resistance between phases 1-2 +/- 7% at 25°C | 1.13 Ω                              | H2=510 mm  |
| Winding resistance between phases 1-3 +/- 7% at 25°C | 1.11 Ω                              | H3=- mm    |
| Winding resistance between phases 2-3 +/- 7% at 25°C | 1.10 Ω                              |            |
| Rated Load Amps (RLA)                                | 19.2 A                              |            |
| Maximum Continuous Current (MCC)                     | 27.0 A                              |            |
| Locked Rotor Amps (LRA)                              | 140.0 A                             | Terminal b |
| Motor protection                                     | Internal overload protector         |            |

#### **Recommended Installation torques**

| Oil sight glass                      | 52,5 Nm     |
|--------------------------------------|-------------|
| Power connections / Earth connection | 3 Nm / 2 Nm |

## Parts shipped with compressor

Mounting kit with grommets and sleeves Initial oil charge Installation instructions

Approvals : CE certified, UL certified (file SA11565), -\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 12 or 16 Unboxed compressors on pallet

- erminal box
- IP22
- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage



### Datasheet, accessories and spare parts

Danfoss scroll compressor, HCJ120T4

| Rotolock accessories, suction side                                                       | Code no. |                                 |
|------------------------------------------------------------------------------------------|----------|---------------------------------|
| Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)                                         | 8153004  |                                 |
| Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)                                         | 8168005  |                                 |
| Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)                                        | 8168028  |                                 |
| Gasket, 1-3/4"                                                                           | 8156132  |                                 |
| Rotolock accessories, discharge side                                                     | Code no. | Solder sleeve adapter set       |
| Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)                                          | 8168030  |                                 |
| Gasket, 1-3/4"                                                                           | 8156132  |                                 |
|                                                                                          | Code no. |                                 |
| Rotolock accessories, sets                                                               |          |                                 |
| Solder sleeve adapter set (1-3/4" Rotolock, 1-1/8" ODF), (1-1/4" Rotolock, 7/8" ODF)     | 120Z0125 | 1 2 3 4                         |
| Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")                                             | 120Z0403 |                                 |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white                                | 8156009  |                                 |
|                                                                                          |          | 1: Rotolock adapter (Suc & Dis) |
| Oil / lubricants                                                                         | Code no. | 2: Gasket (Suc & Dis)           |
| PVE lubricant, 320HV (FVC68D), 1 litre can                                               | 120Z5034 | 3: Solder sleeve (Suc & Dis)    |
|                                                                                          |          | 4: Rotolock nut (Suc & Dis)     |
| Crankcase heaters                                                                        | Code no. |                                 |
| Belt type crankcase heater, 65 W, 230 V, CE mark, UL                                     | 120Z0059 |                                 |
| Belt type crankcase heater, 65 W, 400 V, CE mark, UL                                     | 120Z0060 |                                 |
| Belt type crankcase heater, 70 W, 240 V, CE mark, UL                                     | 120Z5040 |                                 |
| Belt type crankcase heater, 70 W, 240 V, CE mark, UL                                     | 120Z5040 |                                 |
| Miscellaneous accessories                                                                | Code no. |                                 |
| Acoustic hood                                                                            | 120Z5045 |                                 |
| Discharge thermostat kit                                                                 | 7750009  |                                 |
| Spare parts                                                                              | Code no. |                                 |
| Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers | 120Z5005 |                                 |
|                                                                                          | 120Z5031 |                                 |

## Danfoss scroll compressor. HCJ120T4

Danfoss

**R410A** 

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

| Cond. temp. in   |        |        |        | Evapor | ating temperature | in °C (to) |        |        |    |
|------------------|--------|--------|--------|--------|-------------------|------------|--------|--------|----|
| °C (tc)          | -25    | -20    | -15    | -10    | -5                | 0          | 5      | 10     | 15 |
|                  |        |        |        |        |                   |            |        |        |    |
| Cooling capacity | ' in W | 1      | 1      | 1      | 1                 | 1          | 1      | 1 1    |    |
| 30               | 10 035 | 12 858 | 16 131 | 19 866 | 24 075            | 28 767     | 33 955 | 39 649 | -  |
| 35               | 9 110  | 11 766 | 14 892 | 18 502 | 22 605            | 27 213     | 32 337 | 37 988 | -  |
| 40               | 8 373  | 10 794 | 13 705 | 17 119 | 21 046            | 25 498     | 30 486 | 36 021 | -  |
| 45               | -      | 9 996  | 12 624 | 15 773 | 19 454            | 23 679     | 28 459 | 33 804 | -  |
| 50               | -      | -      | 11 700 | 14 517 | 17 882            | 21 809     | 26 307 | 31 388 | -  |
| 55               | -      | -      | -      | 13 391 | 16 372            | 19 928     | 24 070 | 28 810 | -  |
| 60               | -      | -      | -      | -      | 14 945            | 18 057     | 21 766 | 26 082 | -  |
| 65               | -      | -      | -      | -      | -                 | 16 157     | 19 345 | 23 143 | -  |
|                  |        |        |        |        |                   |            |        |        |    |
| Power input in W | I      |        |        |        |                   |            |        |        |    |
| 30               | 5 242  | 5 402  | 5 511  | 5 576  | 5 603             | 5 596      | 5 562  | 5 507  | -  |
| 35               | 5 911  | 6 011  | 6 093  | 6 165  | 6 231             | 6 297      | 6 369  | 6 452  | -  |
| 40               | 6 774  | 6 767  | 6 775  | 6 806  | 6 864             | 6 956      | 7 087  | 7 263  | -  |
| 45               | -      | 7 756  | 7 644  | 7 587  | 7 591             | 7 662      | 7 805  | 8 026  | -  |
| 50               | -      | -      | 8 787  | 8 595  | 8 498             | 8 501      | 8 609  | 8 828  | -  |
| 55               | -      | -      | -      | 9 918  | 9 672             | 9 559      | 9 586  | 9 756  | -  |
| 60               | -      | -      | -      | -      | 11 201            | 10 926     | 10 823 | 10 898 | -  |
|                  |        |        |        |        |                   | 12 687     | 12 408 | 12 341 |    |

#### Current consumption in A

| 30 | 13.21 | 13.29 | 13.39 | 13.50 | 13.60 | 13.68 | 13.73 | 13.73 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.99 | 14.00 | 14.06 | 14.15 | 14.27 | 14.39 | 14.50 | 14.58 | - |
| 40 | 14.96 | 14.88 | 14.88 | 14.93 | 15.03 | 15.17 | 15.32 | 15.47 | - |
| 45 | -     | 15.99 | 15.90 | 15.89 | 15.96 | 16.09 | 16.26 | 16.46 | - |
| 50 | -     | -     | 17.20 | 17.11 | 17.12 | 17.21 | 17.38 | 17.61 | - |
| 55 | -     | -     | -     | 18.64 | 18.57 | 18.61 | 18.75 | 18.98 | - |
| 60 | -     | -     | -     | -     | 20.37 | 20.34 | 20.43 | 20.64 | - |
| 65 | -     | -     | -     | -     | -     | 22.46 | 22.49 | 22.65 | - |

#### Mass flow in kg/h

| 30 | 223 | 282 | 349 | 424 | 507 | 599 | 699 | 808 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 211 | 269 | 336 | 411 | 496 | 590 | 693 | 806 | - |
| 40 | 203 | 258 | 323 | 398 | 482 | 577 | 681 | 796 | - |
| 45 | -   | 251 | 313 | 385 | 468 | 561 | 666 | 781 | - |
| 50 | -   | -   | 305 | 373 | 453 | 544 | 647 | 762 | - |
| 55 | -   | -   | -   | 364 | 439 | 527 | 627 | 740 | - |
| 60 | -   | -   | -   | -   | 429 | 511 | 606 | 715 | - |
| 65 | -   | -   | -   | -   | -   | 497 | 587 | 691 | - |

#### Coefficient of performance (C.O.P.)

| 30 | 1.91 | 2.38 | 2.93 | 3.56 | 4.30 | 5.14 | 6.10 | 7.20 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.54 | 1.96 | 2.44 | 3.00 | 3.63 | 4.32 | 5.08 | 5.89 | - |
| 40 | 1.24 | 1.60 | 2.02 | 2.52 | 3.07 | 3.67 | 4.30 | 4.96 | - |
| 45 | -    | 1.29 | 1.65 | 2.08 | 2.56 | 3.09 | 3.65 | 4.21 | - |
| 50 | -    | -    | 1.33 | 1.69 | 2.10 | 2.57 | 3.06 | 3.56 | - |
| 55 | -    | -    | -    | 1.35 | 1.69 | 2.08 | 2.51 | 2.95 | - |
| 60 | -    | -    | -    | -    | 1.33 | 1.65 | 2.01 | 2.39 | - |
| 65 | -    | -    | -    | -    | -    | 1.27 | 1.56 | 1.88 | - |

| No  | Nominal performance at to = 5 °C, tc = 50 °C |        |      |  |  |  |  |  |  |
|-----|----------------------------------------------|--------|------|--|--|--|--|--|--|
| Coo | oling capacity                               | 26 307 | W    |  |  |  |  |  |  |
| Pov | ver input                                    | 8 609  | W    |  |  |  |  |  |  |
| Cur | rent consumption                             | 17.38  | А    |  |  |  |  |  |  |
| Ma  | ss flow                                      | 647    | kg/h |  |  |  |  |  |  |
| CC  | ) P                                          | 3.06   |      |  |  |  |  |  |  |

| Pressure switch settings  |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 45  | bar(g) |
| Minimum LP switch setting | 1.5 | bar(g) |
| LP pump down setting      | 2.3 | bar(g) |
|                           |     |        |
| Sound power data          |     |        |
| Sound power level         | 73  | 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%

## Danfoss scroll compressor. HCJ120T4

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**R410A** 

## Performance data at 50 Hz, ARI rating conditions

| Cond. temp. in  |        | Evaporating temperature in °C (to) |        |        |        |        |        |        |    |  |  |  |
|-----------------|--------|------------------------------------|--------|--------|--------|--------|--------|--------|----|--|--|--|
| °C (tc)         | -25    | -20                                | -15    | -10    | -5     | 0      | 5      | 10     | 15 |  |  |  |
|                 |        |                                    |        |        |        |        |        |        |    |  |  |  |
| Cooling capacit | *      |                                    |        |        |        |        |        |        |    |  |  |  |
| 30              | 10 837 | 13 871                             | 17 385 | 21 390 | 25 897 | 30 918 | 36 464 | 42 546 | -  |  |  |  |
| 35              | 9 902  | 12 773                             | 16 150 | 20 042 | 24 462 | 29 421 | 34 929 | 40 999 | -  |  |  |  |
|                 |        |                                    |        |        |        |        |        |        |    |  |  |  |
| 40              | 9 172  | 11 808                             | 14 973 | 18 680 | 22 940 | 27 763 | 33 160 | 39 144 | -  |  |  |  |

| 40 | 9 172 | 11 808 | 14 973 | 18 680 | 22 940 | 27 763 | 33 160 | 39 144 | - |
|----|-------|--------|--------|--------|--------|--------|--------|--------|---|
| 45 | -     | 11 038 | 13 920 | 17 368 | 21 393 | 26 007 | 31 221 | 37 045 | - |
| 50 | -     | -      | 13 053 | 16 169 | 19 887 | 24 219 | 29 175 | 34 768 | - |
| 55 | -     | -      | -      | 15 148 | 18 486 | 22 462 | 27 088 | 32 375 | - |
| 60 | -     | -      | -      | -      | 17 253 | 20 800 | 25 023 | 29 931 | - |
| 65 | -     | -      | -      | -      | -      | 19 298 | 23 043 | 27 499 | - |

#### Power input in W

| 30 | 5 242 | 5 402 | 5 511 | 5 576 | 5 603  | 5 596  | 5 562  | 5 507  | - |
|----|-------|-------|-------|-------|--------|--------|--------|--------|---|
| 35 | 5 911 | 6 011 | 6 093 | 6 165 | 6 231  | 6 297  | 6 369  | 6 452  | - |
| 40 | 6 774 | 6 767 | 6 775 | 6 806 | 6 864  | 6 956  | 7 087  | 7 263  | - |
| 45 | -     | 7 756 | 7 644 | 7 587 | 7 591  | 7 662  | 7 805  | 8 026  | - |
| 50 | -     | -     | 8 787 | 8 595 | 8 498  | 8 501  | 8 609  | 8 828  | - |
| 55 | -     | -     | -     | 9 918 | 9 672  | 9 559  | 9 586  | 9 756  | - |
| 60 | -     | -     | -     | -     | 11 201 | 10 926 | 10 823 | 10 898 | - |
| 65 | -     | -     | -     | -     | -      | 12 687 | 12 408 | 12 341 | - |

#### Current consumption in A

| 30 | 13.21 | 13.29 | 13.39 | 13.50 | 13.60 | 13.68 | 13.73 | 13.73 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.99 | 14.00 | 14.06 | 14.15 | 14.27 | 14.39 | 14.50 | 14.58 | - |
| 40 | 14.96 | 14.88 | 14.88 | 14.93 | 15.03 | 15.17 | 15.32 | 15.47 | - |
| 45 | -     | 15.99 | 15.90 | 15.89 | 15.96 | 16.09 | 16.26 | 16.46 | - |
| 50 | -     | -     | 17.20 | 17.11 | 17.12 | 17.21 | 17.38 | 17.61 | - |
| 55 | -     | -     | -     | 18.64 | 18.57 | 18.61 | 18.75 | 18.98 | - |
| 60 | -     | -     | -     | -     | 20.37 | 20.34 | 20.43 | 20.64 | - |
| 65 | -     | -     | -     | -     | -     | 22.46 | 22.49 | 22.65 | - |

#### Mass flow in kg/h

| 30 | 222 | 280 | 347 | 421 | 504 | 595 | 694 | 803 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 210 | 268 | 334 | 409 | 493 | 586 | 688 | 800 | - |
| 40 | 202 | 257 | 321 | 395 | 479 | 573 | 677 | 790 | - |
| 45 | -   | 249 | 311 | 382 | 465 | 557 | 661 | 776 | - |
| 50 | -   | -   | 303 | 371 | 450 | 541 | 643 | 756 | - |
| 55 | -   | -   | -   | 362 | 437 | 523 | 623 | 734 | - |
| 60 | -   | -   | -   | -   | 426 | 508 | 602 | 710 | - |
| 65 | -   | -   | -   | -   | -   | 494 | 583 | 686 | - |

## Coefficient of performance (C.O.P.)

| 30 | 2.07 | 2.57 | 3.15 | 3.84 | 4.62 | 5.52 | 6.56 | 7.73 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.68 | 2.13 | 2.65 | 3.25 | 3.93 | 4.67 | 5.48 | 6.35 | - |
| 40 | 1.35 | 1.75 | 2.21 | 2.74 | 3.34 | 3.99 | 4.68 | 5.39 | - |
| 45 | -    | 1.42 | 1.82 | 2.29 | 2.82 | 3.39 | 4.00 | 4.62 | - |
| 50 | -    | -    | 1.49 | 1.88 | 2.34 | 2.85 | 3.39 | 3.94 | - |
| 55 | -    | -    | -    | 1.53 | 1.91 | 2.35 | 2.83 | 3.32 | - |
| 60 | -    | -    | -    | -    | 1.54 | 1.90 | 2.31 | 2.75 | - |
| 65 | -    | -    | -    | -    | -    | 1.52 | 1.86 | 2.23 | - |

| Nominal performance at to = 7.2 | °C, tc = 54.4 °C |      |
|---------------------------------|------------------|------|
| Cooling capacity                | 29 601           | W    |
| Power input                     | 9 517            | W    |
| Current consumption             | 18.66            | A    |
| Mass flow                       | 673              | kg/h |
| C.O.P.                          | 3.11             |      |

| Maximum HP switch setting | 45  | bar(g) |  |
|---------------------------|-----|--------|--|
| Minimum LP switch setting | 1.5 | bar(g) |  |
| LP pump down setting      | 2.3 | bar(g) |  |
|                           |     |        |  |
| Sound power data          |     |        |  |
| Sound power level         | 73  | dB(A)  |  |
| With accoustic 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

All performance data +/- 5%

Pressure switch settings

## Danfoss scroll compressor. HCJ120T4

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

| 'erformance       | e data at 60 | ) Hz, EN 129 | 00 rating co | nditions |                   |            |        |        | R410/ |
|-------------------|--------------|--------------|--------------|----------|-------------------|------------|--------|--------|-------|
| Cond. temp. in    |              |              |              | Evapora  | ating temperature | in °C (to) |        |        |       |
| °C (tc)           | -25          | -20          | -15          | -10      | -5                | 0          | 5      | 10     | 15    |
|                   |              |              |              |          |                   |            |        |        |       |
| ooling capacity   |              | 1            | Г            |          |                   |            |        | Т      |       |
| 30                | 12 166       | 15 729       | 19 657       | 24 067   | 29 079            | 34 811     | 41 381 | 48 909 | -     |
| 35                | 11 142       | 14 564       | 18 317       | 22 517   | 27 282            | 32 730     | 38 980 | 46 150 | -     |
| 40                | 10 114       | 13 397       | 16 977       | 20 969   | 25 491            | 30 659     | 36 592 | 43 405 | -     |
| 45                | -            | 12 183       | 15 592       | 19 378   | 23 658            | 28 548     | 34 163 | 40 621 | -     |
| 50                | -            | -            | 14 113       | 17 694   | 21 732            | 26 342     | 31 638 | 37 738 | -     |
| 55                | -            | -            | -            | 15 865   | 19 656            | 23 981     | 28 953 | 34 686 | -     |
| 60                | -            | -            | -            | -        | 17 364            | 21 390     | 26 021 | 31 368 | -     |
| 65                | -            | -            | -            | -        | -                 | 18 445     | 22 695 | 27 611 | -     |
| ower input in W   | ,            |              |              |          |                   |            |        |        |       |
| 30                | 6 314        | 6 437        | 6 534        | 6 628    | 6 747             | 6 915      | 7 157  | 7 501  | -     |
| 35                | 7 006        | 7 128        | 7 216        | 7 295    | 7 392             | 7 531      | 7 739  | 8 040  | -     |
| 40                | 7 780        | 7 906        | 7 990        | 8 060    | 8 140             | 8 256      | 8 433  | 8 698  | -     |
| 45                | -            | 8 770        | 8 857        | 8 922    | 8 991             | 9 089      | 9 241  | 9 474  | -     |
| 50                | -            | -            | 9 816        | 9 881    | 9 944             | 10 029     | 10 162 | 10 369 | -     |
| 55                | -            | -            | -            | 10 938   | 10 999            | 11 077     | 11 195 | 11 381 | -     |
| 60                | -            | -            | -            | -        | 12 157            | 12 232     | 12 341 | 12 511 | -     |
| 65                | -            | -            | -            | -        | -                 | 13 493     | 13 599 | 13 759 | -     |
| Current consump   |              | 1            |              | 1        | 1                 | 1          | 1      | 1      |       |
| 30                | 13.07        | 13.17        | 13.26        | 13.36    | 13.48             | 13.64      | 13.84  | 14.09  | -     |
| 35                | 13.75        | 13.88        | 13.99        | 14.10    | 14.21             | 14.34      | 14.49  | 14.69  | -     |
| 40                | 14.49        | 14.66        | 14.81        | 14.94    | 15.05             | 15.17      | 15.31  | 15.47  | -     |
| 45                | -            | 15.54        | 15.73        | 15.89    | 16.03             | 16.16      | 16.29  | 16.43  | -     |
| 50                | -            | -            | 16.77        | 16.99    | 17.16             | 17.31      | 17.45  | 17.59  | -     |
| 55                | -            | -            | -            | 18.22    | 18.45             | 18.65      | 18.81  | 18.96  | -     |
| 60                | -            | -            | -            | -        | 19.92             | 20.17      | 20.38  | 20.55  | -     |
| 65                | -            | -            | -            | -        | -                 | 21.90      | 22.16  | 22.38  | -     |
| lass flow in kg/h | ı            |              |              |          |                   |            |        |        |       |
| 30                | 271          | 346          | 426          | 514      | 613               | 724        | 851    | 996    | -     |
| 35                | 259          | 333          | 413          | 501      | 598               | 709        | 834    | 978    | -     |
| 40                | 247          | 321          | 400          | 487      | 584               | 693        | 818    | 960    | -     |
| 45                | -            | 307          | 386          | 472      | 568               | 676        | 799    | 940    | -     |
| -                 | -            | -            | 369          | 454      | 549               | 657        | 779    | 918    | -     |
| 50                |              | -            | -            | 433      | 527               | 633        | 754    | 892    | -     |
|                   | -            |              |              |          |                   |            |        |        |       |
| 50<br>55<br>60    | -            | -            | -            | -        | 500               | 605        | 724    | 861    | -     |

#### 30 1.93 2.44 3.01 3.63 4.31 5.03 5.78 6.52 1.59 2.04 3.09 5.04 5.74 35 2.54 3.69 4.35 40 1.30 1.69 2.12 2.60 3.13 3.71 4.34 4.99 1.76 45 1.39 2.17 2.63 3.14 3.70 4.29 50 1.44 1.79 2 19 2.63 3.11 3 64 1.45 2.59 55 1.79 2.17 3.05 -60 1.43 1.75 2.11 2.51 -65 ----1.37 1.67 2.01 --

| Nominal performance at to = 5 °C, tc = 50 °C |        |      |  |  |  |  |  |  |
|----------------------------------------------|--------|------|--|--|--|--|--|--|
| Cooling capacity                             | 31 638 | W    |  |  |  |  |  |  |
| Power input                                  | 10 162 | W    |  |  |  |  |  |  |
| Current consumption                          | 17.45  | А    |  |  |  |  |  |  |
| Mass flow                                    | 779    | kg/h |  |  |  |  |  |  |
| C.O.P.                                       | 3.11   |      |  |  |  |  |  |  |

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

| Pressure switch settings  |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 45  | bar(g) |
| Minimum LP switch setting | 1.5 | bar(g) |
| LP pump down setting      | 2.3 | bar(g) |
|                           |     |        |
| Sound power data          |     |        |
| Sound power level         | 76  | dB(A)  |
| With accoustic hood       | 71  | dB(A)  |

All performance data +/- 5%

## Danfoss scroll compressor. HCJ120T4

38 978

35 996

32 808

Danfoss

**R410A** 

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## Performance data at 60 Hz, ARI rating conditions

| Cond. temp. in   |        | Evaporating temperature in °C (to) |        |        |        |        |        |        |    |  |  |  |
|------------------|--------|------------------------------------|--------|--------|--------|--------|--------|--------|----|--|--|--|
| °C (tc)          | -25    | -20                                | -15    | -10    | -5     | 0      | 5      | 10     | 15 |  |  |  |
|                  |        |                                    |        |        |        |        |        |        |    |  |  |  |
| Cooling capacity | y in W | •                                  |        |        |        |        |        |        |    |  |  |  |
| 30               | 13 138 | 16 968                             | 21 184 | 25 913 | 31 281 | 37 414 | 44 439 | 52 483 | -  |  |  |  |
| 35               | 12 111 | 15 812                             | 19 863 | 24 392 | 29 524 | 35 387 | 42 106 | 49 808 | -  |  |  |  |
| 40               | 11 080 | 14 656                             | 18 548 | 22 882 | 27 785 | 33 383 | 39 802 | 47 169 | -  |  |  |  |
| 45               | -      | 13 453                             | 17 192 | 21 337 | 26 016 | 31 354 | 37 479 | 44 516 | -  |  |  |  |
| 50               | -      | -                                  | 15 746 | 19 708 | 24 168 | 29 253 | 35 089 | 41 802 | -  |  |  |  |

22 194

20 045

27 031

24 639

22 031

32 583

29 914

27 034

17 946

\_

#### Power input in W

55

60

65

| 30 | 6 314 | 6 437 | 6 534 | 6 628  | 6 747  | 6 915  | 7 157  | 7 501  | - |
|----|-------|-------|-------|--------|--------|--------|--------|--------|---|
| 35 | 7 006 | 7 128 | 7 216 | 7 295  | 7 392  | 7 531  | 7 739  | 8 040  | - |
| 40 | 7 780 | 7 906 | 7 990 | 8 060  | 8 140  | 8 256  | 8 433  | 8 698  | - |
| 45 | -     | 8 770 | 8 857 | 8 922  | 8 991  | 9 089  | 9 241  | 9 474  | - |
| 50 | -     | -     | 9 816 | 9 881  | 9 944  | 10 029 | 10 162 | 10 369 | - |
| 55 | -     | -     | -     | 10 938 | 10 999 | 11 077 | 11 195 | 11 381 | - |
| 60 | -     | -     | -     | -      | 12 157 | 12 232 | 12 341 | 12 511 | - |
| 65 | -     | -     | -     | -      | -      | 13 493 | 13 599 | 13 759 | - |

#### Current consumption in A

| 30 | 13.07 | 13.17 | 13.26 | 13.36 | 13.48 | 13.64 | 13.84 | 14.09 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.75 | 13.88 | 13.99 | 14.10 | 14.21 | 14.34 | 14.49 | 14.69 | - |
| 40 | 14.49 | 14.66 | 14.81 | 14.94 | 15.05 | 15.17 | 15.31 | 15.47 | - |
| 45 | -     | 15.54 | 15.73 | 15.89 | 16.03 | 16.16 | 16.29 | 16.43 | - |
| 50 | -     | -     | 16.77 | 16.99 | 17.16 | 17.31 | 17.45 | 17.59 | - |
| 55 | -     | -     | -     | 18.22 | 18.45 | 18.65 | 18.81 | 18.96 | - |
| 60 | -     | -     | -     | -     | 19.92 | 20.17 | 20.38 | 20.55 | - |
| 65 | -     | -     | -     | -     | -     | 21.90 | 22.16 | 22.38 | - |

#### Mass flow in kg/h

| 30 | 269 | 344 | 423 | 511 | 609 | 719 | 845 | 989 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 257 | 331 | 411 | 497 | 594 | 704 | 829 | 971 | - |
| 40 | 245 | 319 | 398 | 484 | 580 | 689 | 812 | 953 | - |
| 45 | -   | 305 | 383 | 469 | 564 | 672 | 794 | 933 | - |
| 50 | -   | -   | 366 | 451 | 546 | 652 | 773 | 911 | - |
| 55 | -   | -   | -   | 430 | 524 | 629 | 749 | 885 | - |
| 60 | -   | -   | -   | -   | 496 | 601 | 719 | 855 | - |
| 65 | -   | -   | -   | -   | -   | 566 | 684 | 818 | - |

## Coefficient of performance (C.O.P.)

| 30 | 2.08 | 2.64 | 3.24 | 3.91 | 4.64 | 5.41 | 6.21 | 7.00 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.73 | 2.22 | 2.75 | 3.34 | 3.99 | 4.70 | 5.44 | 6.20 | - |
| 40 | 1.42 | 1.85 | 2.32 | 2.84 | 3.41 | 4.04 | 4.72 | 5.42 | - |
| 45 | -    | 1.53 | 1.94 | 2.39 | 2.89 | 3.45 | 4.06 | 4.70 | - |
| 50 | -    | -    | 1.60 | 1.99 | 2.43 | 2.92 | 3.45 | 4.03 | - |
| 55 | -    | -    | -    | 1.64 | 2.02 | 2.44 | 2.91 | 3.42 | - |
| 60 | -    | -    | -    | -    | 1.65 | 2.01 | 2.42 | 2.88 | - |
| 65 | -    | -    | -    | -    | -    | 1.63 | 1.99 | 2.38 | - |

| Nominal performance at to = 7.2 °C | , tc = 54.4 °C |      |
|------------------------------------|----------------|------|
| Cooling capacity                   | 35 610         | W    |
| Power input                        | 11 138         | W    |
| Current consumption                | 18.70          | A    |
| Mass flow                          | 810            | kg/h |
| C.O.P.                             | 3.20           |      |

| Maximum HP switch setting          | 45  | bar(g) |  |
|------------------------------------|-----|--------|--|
| Minimum LP switch setting          | 1.5 | bar(g) |  |
| LP pump down setting               | 2.3 | bar(g) |  |
|                                    |     |        |  |
|                                    |     |        |  |
| Sound power data                   |     | _      |  |
| Sound power data Sound power level | 76  | dB(A)  |  |

Pressure switch settings

All performance data +/- 5%

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

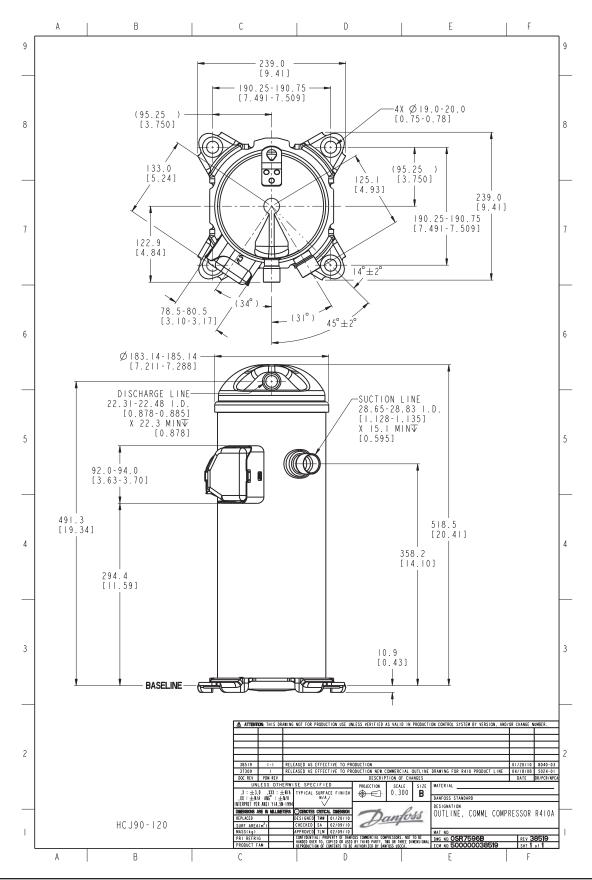
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

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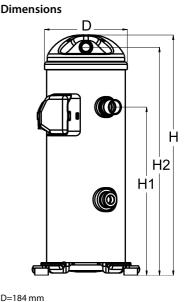
# Danfoss

#### Datasheet, technical data

## Danfoss scroll compressor, HCJ120T4

#### **General Characteristics**

| Model number (on compressor nameplate)            |                        | HCJ120T4LC7            |  |  |  |  |
|---------------------------------------------------|------------------------|------------------------|--|--|--|--|
| Code number for Singlepack*                       |                        | 120U2558               |  |  |  |  |
| Code number for Industrial pack**                 |                        | 120U2555               |  |  |  |  |
| Drawing number                                    |                        | 0SR7509B               |  |  |  |  |
| Suction and discharge connections                 |                        | Brazed                 |  |  |  |  |
| Suction connection                                |                        | 1-1/8 " ODF            |  |  |  |  |
| Discharge connection                              |                        | 7/8 " ODF              |  |  |  |  |
| Oil sight glass                                   |                        | Threaded               |  |  |  |  |
| Oil equalisation connection                       |                        | None                   |  |  |  |  |
| Oil drain connection                              |                        | None                   |  |  |  |  |
| LP gauge port                                     |                        | None                   |  |  |  |  |
| IPR valve                                         |                        | None                   |  |  |  |  |
| Swept volume                                      | 113,07 c               | cm3/rev                |  |  |  |  |
| Displacement @ Nominal speed                      | 19.7 m3/h @ 2900 rpm - | - 23.7 m3/h @ 3500 rpm |  |  |  |  |
| Net weight                                        | 45,2                   | 2 kg                   |  |  |  |  |
| Oil charge                                        | 2,66 litre             | 2,66 litre, PVE        |  |  |  |  |
| Maximum system test pressure Low Side / High side | - bar(g) /             | ′ - bar(g)             |  |  |  |  |
| Maximum differential test pressure                | - b                    | - bar                  |  |  |  |  |
| Maximum number of starts per hour                 | -                      | -                      |  |  |  |  |
| Refrigerant charge limit                          | 7,26 kg                |                        |  |  |  |  |
| Approved refrigerants                             | R41                    | R410A                  |  |  |  |  |



### **Electrical Characteristics**

| Nominal voltage                                      | 380-415V/3/50Hz - 460V/3/60Hz       | D=184 mm               |
|------------------------------------------------------|-------------------------------------|------------------------|
| Voltage range                                        | 342-457 V @ 50Hz - 414-506 V @ 60Hz | H=537 mm               |
| Winding resistance between phases 1-2 +/- 7% at 25°C | 1.13 Ω                              | H1=377 mm<br>H2=510 mm |
| Winding resistance between phases 1-3 +/- 7% at 25°C | 1.11 Ω                              | H2=510 mm<br>H3=- mm   |
| Winding resistance between phases 2-3 +/- 7% at 25°C | 1.10 Ω                              | H3=- mm                |
| Rated Load Amps (RLA)                                | 19.2 A                              |                        |
| Maximum Continuous Current (MCC)                     | 27.0 A                              |                        |
| Locked Rotor Amps (LRA)                              | 140.0 A                             | Terminal b             |
| Motor protection                                     | Internal overload protector         | Terminari              |

#### **Recommended Installation torgues**

| Oil sight glass                      | 52,5 Nm     |
|--------------------------------------|-------------|
| Power connections / Earth connection | 3 Nm / 2 Nm |

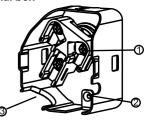
### Parts shipped with compressor

Mounting kit with grommets and sleeves Initial oil charge Installation instructions

Approvals : CE certified, UL certified (file SA11565), -\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 12 or 16 Unboxed compressors on pallet

erminal box



#### IP22 1:

Screw connectors 10-32 UNF x 9.5

2: Earth connection 3:

Power cable passage



### Datasheet, accessories and spare parts

Danfoss scroll compressor, HCJ120T4

| Rotolock accessories, suction side                                                       | Code no. |                                 |
|------------------------------------------------------------------------------------------|----------|---------------------------------|
| Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)                                         | 8153004  |                                 |
| Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)                                         | 8168005  |                                 |
| Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)                                        | 8168028  |                                 |
| Gasket, 1-3/4"                                                                           | 8156132  |                                 |
| Rotolock accessories, discharge side                                                     | Code no. | Solder sleeve adapter set       |
| Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)                                          | 8168030  |                                 |
| Gasket, 1-3/4"                                                                           | 8156132  |                                 |
|                                                                                          | Code no. |                                 |
| Rotolock accessories, sets                                                               |          |                                 |
| Solder sleeve adapter set (1-3/4" Rotolock, 1-1/8" ODF), (1-1/4" Rotolock, 7/8" ODF)     | 120Z0125 | 1 2 3 4                         |
| Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")                                             | 120Z0403 |                                 |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white                                | 8156009  |                                 |
|                                                                                          |          | 1: Rotolock adapter (Suc & Dis) |
| Oil / lubricants                                                                         | Code no. | 2: Gasket (Suc & Dis)           |
| PVE lubricant, 320HV (FVC68D), 1 litre can                                               | 120Z5034 | 3: Solder sleeve (Suc & Dis)    |
|                                                                                          |          | 4: Rotolock nut (Suc & Dis)     |
| Crankcase heaters                                                                        | Code no. |                                 |
| Belt type crankcase heater, 65 W, 230 V, CE mark, UL                                     | 120Z0059 |                                 |
| Belt type crankcase heater, 65 W, 400 V, CE mark, UL                                     | 120Z0060 |                                 |
| Belt type crankcase heater, 70 W, 240 V, CE mark, UL                                     | 120Z5040 |                                 |
| Belt type crankcase heater, 70 W, 240 V, CE mark, UL                                     | 120Z5040 |                                 |
| Miscellaneous accessories                                                                | Code no. |                                 |
| Acoustic hood                                                                            | 120Z5045 |                                 |
| Discharge thermostat kit                                                                 | 7750009  |                                 |
| Spare parts                                                                              | Code no. |                                 |
| Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers | 120Z5005 |                                 |
|                                                                                          | 120Z5031 |                                 |

## Danfoss scroll compressor. HCJ120T4

Danfoss

**R410A** 

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

| Cond. temp. in   |        |        |        | Evapor | ating temperature | in °C (to) |        |        |    |
|------------------|--------|--------|--------|--------|-------------------|------------|--------|--------|----|
| °C (tc)          | -25    | -20    | -15    | -10    | -5                | 0          | 5      | 10     | 15 |
|                  |        |        |        |        |                   |            |        |        |    |
| Cooling capacity | ' in W | 1      | 1      | 1      | 1                 | 1          | 1      | 1 1    |    |
| 30               | 10 035 | 12 858 | 16 131 | 19 866 | 24 075            | 28 767     | 33 955 | 39 649 | -  |
| 35               | 9 110  | 11 766 | 14 892 | 18 502 | 22 605            | 27 213     | 32 337 | 37 988 | -  |
| 40               | 8 373  | 10 794 | 13 705 | 17 119 | 21 046            | 25 498     | 30 486 | 36 021 | -  |
| 45               | -      | 9 996  | 12 624 | 15 773 | 19 454            | 23 679     | 28 459 | 33 804 | -  |
| 50               | -      | -      | 11 700 | 14 517 | 17 882            | 21 809     | 26 307 | 31 388 | -  |
| 55               | -      | -      | -      | 13 391 | 16 372            | 19 928     | 24 070 | 28 810 | -  |
| 60               | -      | -      | -      | -      | 14 945            | 18 057     | 21 766 | 26 082 | -  |
| 65               | -      | -      | -      | -      | -                 | 16 157     | 19 345 | 23 143 | -  |
|                  |        |        |        |        |                   |            |        |        |    |
| Power input in W | I      |        |        |        |                   |            |        |        |    |
| 30               | 5 242  | 5 402  | 5 511  | 5 576  | 5 603             | 5 596      | 5 562  | 5 507  | -  |
| 35               | 5 911  | 6 011  | 6 093  | 6 165  | 6 231             | 6 297      | 6 369  | 6 452  | -  |
| 40               | 6 774  | 6 767  | 6 775  | 6 806  | 6 864             | 6 956      | 7 087  | 7 263  | -  |
| 45               | -      | 7 756  | 7 644  | 7 587  | 7 591             | 7 662      | 7 805  | 8 026  | -  |
| 50               | -      | -      | 8 787  | 8 595  | 8 498             | 8 501      | 8 609  | 8 828  | -  |
| 55               | -      | -      | -      | 9 918  | 9 672             | 9 559      | 9 586  | 9 756  | -  |
| 60               | -      | -      | -      | -      | 11 201            | 10 926     | 10 823 | 10 898 | -  |
|                  |        |        |        |        |                   | 12 687     | 12 408 | 12 341 |    |

#### Current consumption in A

| 30 | 13.21 | 13.29 | 13.39 | 13.50 | 13.60 | 13.68 | 13.73 | 13.73 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.99 | 14.00 | 14.06 | 14.15 | 14.27 | 14.39 | 14.50 | 14.58 | - |
| 40 | 14.96 | 14.88 | 14.88 | 14.93 | 15.03 | 15.17 | 15.32 | 15.47 | - |
| 45 | -     | 15.99 | 15.90 | 15.89 | 15.96 | 16.09 | 16.26 | 16.46 | - |
| 50 | -     | -     | 17.20 | 17.11 | 17.12 | 17.21 | 17.38 | 17.61 | - |
| 55 | -     | -     | -     | 18.64 | 18.57 | 18.61 | 18.75 | 18.98 | - |
| 60 | -     | -     | -     | -     | 20.37 | 20.34 | 20.43 | 20.64 | - |
| 65 | -     | -     | -     | -     | -     | 22.46 | 22.49 | 22.65 | - |

#### Mass flow in kg/h

| 30 | 223 | 282 | 349 | 424 | 507 | 599 | 699 | 808 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 211 | 269 | 336 | 411 | 496 | 590 | 693 | 806 | - |
| 40 | 203 | 258 | 323 | 398 | 482 | 577 | 681 | 796 | - |
| 45 | -   | 251 | 313 | 385 | 468 | 561 | 666 | 781 | - |
| 50 | -   | -   | 305 | 373 | 453 | 544 | 647 | 762 | - |
| 55 | -   | -   | -   | 364 | 439 | 527 | 627 | 740 | - |
| 60 | -   | -   | -   | -   | 429 | 511 | 606 | 715 | - |
| 65 | -   | -   | -   | -   | -   | 497 | 587 | 691 | - |

#### Coefficient of performance (C.O.P.)

| 30 | 1.91 | 2.38 | 2.93 | 3.56 | 4.30 | 5.14 | 6.10 | 7.20 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.54 | 1.96 | 2.44 | 3.00 | 3.63 | 4.32 | 5.08 | 5.89 | - |
| 40 | 1.24 | 1.60 | 2.02 | 2.52 | 3.07 | 3.67 | 4.30 | 4.96 | - |
| 45 | -    | 1.29 | 1.65 | 2.08 | 2.56 | 3.09 | 3.65 | 4.21 | - |
| 50 | -    | -    | 1.33 | 1.69 | 2.10 | 2.57 | 3.06 | 3.56 | - |
| 55 | -    | -    | -    | 1.35 | 1.69 | 2.08 | 2.51 | 2.95 | - |
| 60 | -    | -    | -    | -    | 1.33 | 1.65 | 2.01 | 2.39 | - |
| 65 | -    | -    | -    | -    | -    | 1.27 | 1.56 | 1.88 | - |

| No  | minal performance at to = 5 °C | , tc = 50 °C |      |  |
|-----|--------------------------------|--------------|------|--|
| Coo | oling capacity                 | 26 307       | W    |  |
| Pov | ver input                      | 8 609        | W    |  |
| Cur | rent consumption               | 17.38        | A    |  |
| Ma  | ss flow                        | 647          | kg/h |  |
| CC  | ) P                            | 3.06         |      |  |

| Pressure switch settings  |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 45  | bar(g) |
| Minimum LP switch setting | 1.5 | bar(g) |
| LP pump down setting      | 2.3 | bar(g) |
|                           |     |        |
| Sound power data          |     |        |
| Sound power level         | 73  | 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%

## Danfoss scroll compressor. HCJ120T4

Danfoss

**R410A** 

## Performance data at 50 Hz, ARI rating conditions

| Cond. temp. in  |        | Evaporating temperature in °C (to) |        |        |        |        |        |        |    |  |  |  |
|-----------------|--------|------------------------------------|--------|--------|--------|--------|--------|--------|----|--|--|--|
| °C (tc)         | -25    | -20                                | -15    | -10    | -5     | 0      | 5      | 10     | 15 |  |  |  |
|                 |        |                                    |        |        |        |        |        |        |    |  |  |  |
| Cooling capacit | *      |                                    |        |        |        |        |        |        |    |  |  |  |
| 30              | 10 837 | 13 871                             | 17 385 | 21 390 | 25 897 | 30 918 | 36 464 | 42 546 | -  |  |  |  |
| 35              | 9 902  | 12 773                             | 16 150 | 20 042 | 24 462 | 29 421 | 34 929 | 40 999 | -  |  |  |  |
|                 |        |                                    |        |        |        |        |        |        |    |  |  |  |
| 40              | 9 172  | 11 808                             | 14 973 | 18 680 | 22 940 | 27 763 | 33 160 | 39 144 | -  |  |  |  |

| 40 | 9 172 | 11 808 | 14 973 | 18 680 | 22 940 | 27 763 | 33 160 | 39 144 | - |
|----|-------|--------|--------|--------|--------|--------|--------|--------|---|
| 45 | -     | 11 038 | 13 920 | 17 368 | 21 393 | 26 007 | 31 221 | 37 045 | - |
| 50 | -     | -      | 13 053 | 16 169 | 19 887 | 24 219 | 29 175 | 34 768 | - |
| 55 | -     | -      | -      | 15 148 | 18 486 | 22 462 | 27 088 | 32 375 | - |
| 60 | -     | -      | -      | -      | 17 253 | 20 800 | 25 023 | 29 931 | - |
| 65 | -     | -      | -      | -      | -      | 19 298 | 23 043 | 27 499 | - |

#### Power input in W

| 30 | 5 242 | 5 402 | 5 511 | 5 576 | 5 603  | 5 596  | 5 562  | 5 507  | - |
|----|-------|-------|-------|-------|--------|--------|--------|--------|---|
| 35 | 5 911 | 6 011 | 6 093 | 6 165 | 6 231  | 6 297  | 6 369  | 6 452  | - |
| 40 | 6 774 | 6 767 | 6 775 | 6 806 | 6 864  | 6 956  | 7 087  | 7 263  | - |
| 45 | -     | 7 756 | 7 644 | 7 587 | 7 591  | 7 662  | 7 805  | 8 026  | - |
| 50 | -     | -     | 8 787 | 8 595 | 8 498  | 8 501  | 8 609  | 8 828  | - |
| 55 | -     | -     | -     | 9 918 | 9 672  | 9 559  | 9 586  | 9 756  | - |
| 60 | -     | -     | -     | -     | 11 201 | 10 926 | 10 823 | 10 898 | - |
| 65 | -     | -     | -     | -     | -      | 12 687 | 12 408 | 12 341 | - |

#### Current consumption in A

| 30 | 13.21 | 13.29 | 13.39 | 13.50 | 13.60 | 13.68 | 13.73 | 13.73 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.99 | 14.00 | 14.06 | 14.15 | 14.27 | 14.39 | 14.50 | 14.58 | - |
| 40 | 14.96 | 14.88 | 14.88 | 14.93 | 15.03 | 15.17 | 15.32 | 15.47 | - |
| 45 | -     | 15.99 | 15.90 | 15.89 | 15.96 | 16.09 | 16.26 | 16.46 | - |
| 50 | -     | -     | 17.20 | 17.11 | 17.12 | 17.21 | 17.38 | 17.61 | - |
| 55 | -     | -     | -     | 18.64 | 18.57 | 18.61 | 18.75 | 18.98 | - |
| 60 | -     | -     | -     | -     | 20.37 | 20.34 | 20.43 | 20.64 | - |
| 65 | -     | -     | -     | -     | -     | 22.46 | 22.49 | 22.65 | - |

#### Mass flow in kg/h

| 30 | 222 | 280 | 347 | 421 | 504 | 595 | 694 | 803 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 210 | 268 | 334 | 409 | 493 | 586 | 688 | 800 | - |
| 40 | 202 | 257 | 321 | 395 | 479 | 573 | 677 | 790 | - |
| 45 | -   | 249 | 311 | 382 | 465 | 557 | 661 | 776 | - |
| 50 | -   | -   | 303 | 371 | 450 | 541 | 643 | 756 | - |
| 55 | -   | -   | -   | 362 | 437 | 523 | 623 | 734 | - |
| 60 | -   | -   | -   | -   | 426 | 508 | 602 | 710 | - |
| 65 | -   | -   | -   | -   | -   | 494 | 583 | 686 | - |

## Coefficient of performance (C.O.P.)

| 30 | 2.07 | 2.57 | 3.15 | 3.84 | 4.62 | 5.52 | 6.56 | 7.73 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.68 | 2.13 | 2.65 | 3.25 | 3.93 | 4.67 | 5.48 | 6.35 | - |
| 40 | 1.35 | 1.75 | 2.21 | 2.74 | 3.34 | 3.99 | 4.68 | 5.39 | - |
| 45 | -    | 1.42 | 1.82 | 2.29 | 2.82 | 3.39 | 4.00 | 4.62 | - |
| 50 | -    | -    | 1.49 | 1.88 | 2.34 | 2.85 | 3.39 | 3.94 | - |
| 55 | -    | -    | -    | 1.53 | 1.91 | 2.35 | 2.83 | 3.32 | - |
| 60 | -    | -    | -    | -    | 1.54 | 1.90 | 2.31 | 2.75 | - |
| 65 | -    | -    | -    | -    | -    | 1.52 | 1.86 | 2.23 | - |

| Nominal performance at to = 7.2 °C, tc = 54.4 °C |        |      |  |  |  |  |  |  |  |
|--------------------------------------------------|--------|------|--|--|--|--|--|--|--|
| Cooling capacity                                 | 29 601 | W    |  |  |  |  |  |  |  |
| Power input                                      | 9 517  | W    |  |  |  |  |  |  |  |
| Current consumption                              | 18.66  | A    |  |  |  |  |  |  |  |
| Mass flow                                        | 673    | kg/h |  |  |  |  |  |  |  |
| C.O.P.                                           | 3.11   |      |  |  |  |  |  |  |  |

| Maximum HP switch setting | 45  | bar(g) |  |
|---------------------------|-----|--------|--|
| Minimum LP switch setting | 1.5 | bar(g) |  |
| LP pump down setting      | 2.3 | bar(g) |  |
|                           |     |        |  |
| Sound power data          |     |        |  |
| Sound power level         | 73  | dB(A)  |  |
| With accoustic 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

All performance data +/- 5%

Pressure switch settings

## Danfoss scroll compressor. HCJ120T4

Danfoss

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

| Performance       | e data at 60  | ) Hz, EN 129 | 00 rating co | nditions |                   |                  |                  |                  | R4104 |
|-------------------|---------------|--------------|--------------|----------|-------------------|------------------|------------------|------------------|-------|
| Cond. temp. in    |               |              |              | Evapora  | ating temperature | in °C (to)       |                  |                  |       |
| °C (tc)           | -25           | -20          | -15          | -10      | -5                | 0                | 5                | 10               | 15    |
| ooling capacity   | in W          |              |              |          |                   |                  |                  |                  |       |
| 30                | 12 166        | 15 729       | 19 657       | 24 067   | 29 079            | 34 811           | 41 381           | 48 909           | -     |
| 35                | 11 142        | 14 564       | 18 317       | 22 517   | 27 282            | 32 730           | 38 980           | 46 150           | _     |
| 40                | 10 114        | 13 397       | 16 977       | 20 969   | 25 491            | 30 659           | 36 592           | 43 405           | _     |
| 45                | -             | 12 183       | 15 592       | 19 378   | 23 658            | 28 548           | 34 163           | 40 621           | -     |
| 50                | -             | -            | 14 113       | 17 694   | 21 732            | 26 342           | 31 638           | 37 738           | -     |
| 55                | -             | -            | -            | 15 865   | 19 656            | 23 981           | 28 953           | 34 686           | -     |
| 60                | -             | -            | -            | -        | 17 364            | 21 390           | 26 021           | 31 368           | -     |
| 65                | -             | -            | -            | _        | -                 | 18 445           | 22 695           | 27 611           |       |
|                   |               |              |              |          |                   | 10 110           |                  | 2. 0             |       |
| ower input in W   |               | 0.407        | 0.504        | 0.000    | 0.747             | 0.045            | 7 4 5 7          | 7 504            |       |
| 30                | 6 314         | 6 437        | 6 534        | 6 628    | 6 747             | 6 915            | 7 157            | 7 501            | -     |
| 35                | 7 006         | 7 128        | 7 216        | 7 295    | 7 392             | 7 531            | 7 739            | 8 040            | -     |
| 40                | 7 780         | 7 906        | 7 990        | 8 060    | 8 140             | 8 256            | 8 433            | 8 698            | -     |
| 45                | -             | 8 770        | 8 857        | 8 922    | 8 991             | 9 089            | 9 241            | 9 474            | -     |
| 50                | -             | -            | 9 816        | 9 881    | 9 944             | 10 029           | 10 162           | 10 369           | -     |
| 55                | -             | -            | -            | 10 938   | 10 999            | 11 077           | 11 195           | 11 381           | -     |
| 60<br>65          | -             | -            | -            | -        | 12 157            | 12 232<br>13 493 | 12 341<br>13 599 | 12 511<br>13 759 | -     |
| urrent consump    |               |              | 1            | 1        | T                 |                  |                  | 1                |       |
| 30                | 13.07         | 13.17        | 13.26        | 13.36    | 13.48             | 13.64            | 13.84            | 14.09            | -     |
| 35                | 13.75         | 13.88        | 13.99        | 14.10    | 14.21             | 14.34            | 14.49            | 14.69            | -     |
| 40                | 14.49         | 14.66        | 14.81        | 14.94    | 15.05             | 15.17            | 15.31            | 15.47            | -     |
| 45                | -             | 15.54        | 15.73        | 15.89    | 16.03             | 16.16            | 16.29            | 16.43            | -     |
| 50                | -             | -            | 16.77        | 16.99    | 17.16             | 17.31            | 17.45            | 17.59            | -     |
| 55                | -             | -            | -            | 18.22    | 18.45             | 18.65            | 18.81            | 18.96            | -     |
| 60                | -             | -            | -            | -        | 19.92             | 20.17            | 20.38            | 20.55            | -     |
| 65                | -             | -            | -            | -        | -                 | 21.90            | 22.16            | 22.38            | -     |
| lass flow in kg/ł | ı             |              |              |          |                   |                  |                  |                  |       |
| 30                | 271           | 346          | 426          | 514      | 613               | 724              | 851              | 996              | -     |
| 35                | 259           | 333          | 413          | 501      | 598               | 709              | 834              | 978              | -     |
| 40                | 247           | 321          | 400          | 487      | 584               | 693              | 818              | 960              | -     |
| 45                | -             | 307          | 386          | 472      | 568               | 676              | 799              | 940              | -     |
| 50                | -             | -            | 369          | 454      | 549               | 657              | 779              | 918              | -     |
| 55                | -             | -            | -            | 433      | 527               | 633              | 754              | 892              | -     |
| 60                | -             | -            | -            | -        | 500               | 605              | 724              | 861              | -     |
| 65                | -             | -            | -            | -        | -                 | 570              | 689              | 823              | -     |
| oefficient of pe  | formanco (C C | ) P )        |              |          |                   |                  |                  |                  |       |
|                   | 1 02          | 244          | 2.01         | 2.62     | 4.21              | E 02             | E 70             | 6.52             | -     |

| 30 | 1.93 | 2.44 | 3.01 | 3.63 | 4.31 | 5.03 | 5.78 | 6.52 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.59 | 2.04 | 2.54 | 3.09 | 3.69 | 4.35 | 5.04 | 5.74 | - |
| 40 | 1.30 | 1.69 | 2.12 | 2.60 | 3.13 | 3.71 | 4.34 | 4.99 | - |
| 45 | -    | 1.39 | 1.76 | 2.17 | 2.63 | 3.14 | 3.70 | 4.29 | - |
| 50 | -    | -    | 1.44 | 1.79 | 2.19 | 2.63 | 3.11 | 3.64 | - |
| 55 | -    | -    | -    | 1.45 | 1.79 | 2.17 | 2.59 | 3.05 | - |
| 60 | -    | -    | -    | -    | 1.43 | 1.75 | 2.11 | 2.51 | - |
| 65 | -    | -    | -    | -    | -    | 1.37 | 1.67 | 2.01 | - |

| Nominal performance at to = 5 °C, tc = 50 °C |        |      |  |  |  |  |  |
|----------------------------------------------|--------|------|--|--|--|--|--|
| Cooling capacity                             | 31 638 | W    |  |  |  |  |  |
| Power input                                  | 10 162 | W    |  |  |  |  |  |
| Current consumption                          | 17.45  | А    |  |  |  |  |  |
| Mass flow                                    | 779    | kg/h |  |  |  |  |  |
| C.O.P.                                       | 3.11   |      |  |  |  |  |  |

| Pressure switch settings  |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 45  | bar(g) |
| Minimum LP switch setting | 1.5 | bar(g) |
| LP pump down setting      | 2.3 | bar(g) |
| -                         |     |        |
| Sound power data          |     |        |
| Sound power level         | 76  | dB(A)  |
| With accoustic hood       | 71  | dB(A)  |

All performance data +/- 5%

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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## Danfoss scroll compressor. HCJ120T4

38 978

35 996

32 808

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**R410A** 

## Performance data at 60 Hz, ARI rating conditions

| Cond. temp. in   |        | Evaporating temperature in °C (to) |        |        |        |        |        |        |    |
|------------------|--------|------------------------------------|--------|--------|--------|--------|--------|--------|----|
| °C (tc)          | -25    | -20                                | -15    | -10    | -5     | 0      | 5      | 10     | 15 |
|                  |        |                                    |        |        |        |        |        |        |    |
| Cooling capacity | / in W |                                    |        |        |        |        |        |        |    |
| 30               | 13 138 | 16 968                             | 21 184 | 25 913 | 31 281 | 37 414 | 44 439 | 52 483 | -  |
| 35               | 12 111 | 15 812                             | 19 863 | 24 392 | 29 524 | 35 387 | 42 106 | 49 808 | -  |
| 40               | 11 080 | 14 656                             | 18 548 | 22 882 | 27 785 | 33 383 | 39 802 | 47 169 | -  |
| 45               | -      | 13 453                             | 17 192 | 21 337 | 26 016 | 31 354 | 37 479 | 44 516 | -  |
| 50               | -      | -                                  | 15 746 | 19 708 | 24 168 | 29 253 | 35 089 | 41 802 | -  |

22 194

20 045

27 031

24 639

22 031

32 583

29 914

27 034

17 946

\_

#### Power input in W

55

60

65

| 30 | 6 314 | 6 437 | 6 534 | 6 628  | 6 747  | 6 915  | 7 157  | 7 501  | - |
|----|-------|-------|-------|--------|--------|--------|--------|--------|---|
| 35 | 7 006 | 7 128 | 7 216 | 7 295  | 7 392  | 7 531  | 7 739  | 8 040  | - |
| 40 | 7 780 | 7 906 | 7 990 | 8 060  | 8 140  | 8 256  | 8 433  | 8 698  | - |
| 45 | -     | 8 770 | 8 857 | 8 922  | 8 991  | 9 089  | 9 241  | 9 474  | - |
| 50 | -     | -     | 9 816 | 9 881  | 9 944  | 10 029 | 10 162 | 10 369 | - |
| 55 | -     | -     | -     | 10 938 | 10 999 | 11 077 | 11 195 | 11 381 | - |
| 60 | -     | -     | -     | -      | 12 157 | 12 232 | 12 341 | 12 511 | - |
| 65 | -     | -     | -     | -      | -      | 13 493 | 13 599 | 13 759 | - |

#### Current consumption in A

| 30 | 13.07 | 13.17 | 13.26 | 13.36 | 13.48 | 13.64 | 13.84 | 14.09 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.75 | 13.88 | 13.99 | 14.10 | 14.21 | 14.34 | 14.49 | 14.69 | - |
| 40 | 14.49 | 14.66 | 14.81 | 14.94 | 15.05 | 15.17 | 15.31 | 15.47 | - |
| 45 | -     | 15.54 | 15.73 | 15.89 | 16.03 | 16.16 | 16.29 | 16.43 | - |
| 50 | -     | -     | 16.77 | 16.99 | 17.16 | 17.31 | 17.45 | 17.59 | - |
| 55 | -     | -     | -     | 18.22 | 18.45 | 18.65 | 18.81 | 18.96 | - |
| 60 | -     | -     | -     | -     | 19.92 | 20.17 | 20.38 | 20.55 | - |
| 65 | -     | -     | -     | -     | -     | 21.90 | 22.16 | 22.38 | - |

#### Mass flow in kg/h

| 30 | 269 | 344 | 423 | 511 | 609 | 719 | 845 | 989 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 257 | 331 | 411 | 497 | 594 | 704 | 829 | 971 | - |
| 40 | 245 | 319 | 398 | 484 | 580 | 689 | 812 | 953 | - |
| 45 | -   | 305 | 383 | 469 | 564 | 672 | 794 | 933 | - |
| 50 | -   | -   | 366 | 451 | 546 | 652 | 773 | 911 | - |
| 55 | -   | -   | -   | 430 | 524 | 629 | 749 | 885 | - |
| 60 | -   | -   | -   | -   | 496 | 601 | 719 | 855 | - |
| 65 | -   | -   | -   | -   | -   | 566 | 684 | 818 | - |

#### Coefficient of performance (C.O.P.)

| 30 | 2.08 | 2.64 | 3.24 | 3.91 | 4.64 | 5.41 | 6.21 | 7.00 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.73 | 2.22 | 2.75 | 3.34 | 3.99 | 4.70 | 5.44 | 6.20 | - |
| 40 | 1.42 | 1.85 | 2.32 | 2.84 | 3.41 | 4.04 | 4.72 | 5.42 | - |
| 45 | -    | 1.53 | 1.94 | 2.39 | 2.89 | 3.45 | 4.06 | 4.70 | - |
| 50 | -    | -    | 1.60 | 1.99 | 2.43 | 2.92 | 3.45 | 4.03 | - |
| 55 | -    | -    | -    | 1.64 | 2.02 | 2.44 | 2.91 | 3.42 | - |
| 60 | -    | -    | -    | -    | 1.65 | 2.01 | 2.42 | 2.88 | - |
| 65 | -    | -    | -    | -    | -    | 1.63 | 1.99 | 2.38 | - |

| Nominal performance at to = 7.2 °C, tc = 54.4 °C |        |      |  |  |  |  |  |
|--------------------------------------------------|--------|------|--|--|--|--|--|
| Cooling capacity                                 | 35 610 | W    |  |  |  |  |  |
| Power input                                      | 11 138 | W    |  |  |  |  |  |
| Current consumption                              | 18.70  | A    |  |  |  |  |  |
| Mass flow                                        | 810    | kg/h |  |  |  |  |  |
| C.O.P.                                           | 3.20   |      |  |  |  |  |  |

| Maximum HP switch setting          | 45  | bar(g) |
|------------------------------------|-----|--------|
| Minimum LP switch setting          | 1.5 | bar(g) |
| LP pump down setting               | 2.3 | bar(g) |
|                                    |     |        |
|                                    |     |        |
| Sound power data                   |     |        |
| Sound power data Sound power level | 76  | dB(A)  |

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

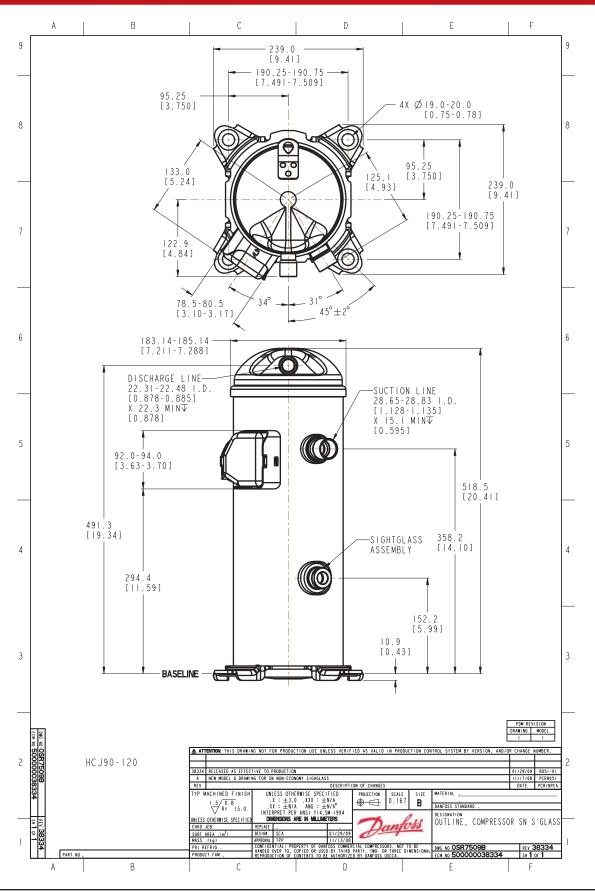
Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

All performance data +/- 5%

Pressure switch settings



ENGINEERING TOMORROW



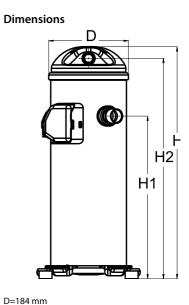
# Dantoss

#### Datasheet, technical data

## Danfoss scroll compressor, HCJ120T4

#### **General Characteristics**

| Model number (on compressor nameplate)            |                        | HCJ120T4LC8            |  |  |  |
|---------------------------------------------------|------------------------|------------------------|--|--|--|
| Code number for Singlepack*                       |                        | 120U2562               |  |  |  |
| Code number for Industrial pack**                 |                        | 120U2559               |  |  |  |
| Drawing number                                    |                        | 0SR7508B               |  |  |  |
| Suction and discharge connections                 |                        | Brazed                 |  |  |  |
| Suction connection                                |                        | 1-1/8 " ODF            |  |  |  |
| Discharge connection                              |                        | 7/8 " ODF              |  |  |  |
| Oil sight glass                                   |                        | None                   |  |  |  |
| Oil equalisation connection                       |                        | 1/2"                   |  |  |  |
| Oil drain connection                              |                        | None                   |  |  |  |
| LP gauge port                                     |                        | None                   |  |  |  |
| IPR valve                                         |                        | None                   |  |  |  |
| Swept volume                                      | 113,07 0               | cm3/rev                |  |  |  |
| Displacement @ Nominal speed                      | 19.7 m3/h @ 2900 rpm · | - 23.7 m3/h @ 3500 rpm |  |  |  |
| Net weight                                        | 45,2                   | 2 kg                   |  |  |  |
| Oil charge                                        | 2,66 litre             | e, PVE                 |  |  |  |
| Maximum system test pressure Low Side / High side | - bar(g) ,             | / - bar(g)             |  |  |  |
| Maximum differential test pressure                | - bar                  |                        |  |  |  |
| Maximum number of starts per hour                 | -                      |                        |  |  |  |
| Refrigerant charge limit                          | 7,26                   | ó kg                   |  |  |  |
| Approved refrigerants                             | R41                    | 10A                    |  |  |  |



### **Electrical Characteristics**

| Nominal voltage                                      | 380-415V/3/50Hz - 460V/3/60Hz       | H=537 mm   |
|------------------------------------------------------|-------------------------------------|------------|
| Voltage range                                        | 342-457 V @ 50Hz - 414-506 V @ 60Hz | H1=377 mm  |
| Winding resistance between phases 1-2 +/- 7% at 25°C | 1.13 Ω                              | H2=510 mm  |
| Winding resistance between phases 1-3 +/- 7% at 25°C | 1.11 Ω                              | H3=- mm    |
| Winding resistance between phases 2-3 +/- 7% at 25°C | 1.10 Ω                              |            |
| Rated Load Amps (RLA)                                | 19.2 A                              |            |
| Maximum Continuous Current (MCC)                     | 27.0 A                              |            |
| Locked Rotor Amps (LRA)                              | 140.0 A                             | Terminal b |
| Motor protection                                     | Internal overload protector         |            |

### **Recommended Installation torgues**

| Oil sight glass                      | 52,5 Nm     |
|--------------------------------------|-------------|
| Power connections / Earth connection | 3 Nm / 2 Nm |

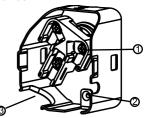
## Parts shipped with compressor

Mounting kit with grommets and sleeves Initial oil charge Installation instructions

Approvals : CE certified, UL certified (file SA11565), -\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 12 or 16 Unboxed compressors on pallet

- **Ferminal box**
- IP22 1:
  - Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage





### Datasheet, accessories and spare parts

Danfoss scroll compressor, HCJ120T4

| Rotolock accessories, suction side                                                       | Code no. |                                 |
|------------------------------------------------------------------------------------------|----------|---------------------------------|
| Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)                                         | 8153004  |                                 |
| Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)                                         | 8168005  |                                 |
| Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)                                        | 8168028  |                                 |
| Gasket, 1-3/4"                                                                           | 8156132  |                                 |
| Rotolock accessories, discharge side                                                     | Code no. | Solder sleeve adapter set       |
| Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)                                          | 8168030  |                                 |
| Gasket, 1-3/4"                                                                           | 8156132  |                                 |
|                                                                                          | Code no. |                                 |
| Rotolock accessories, sets                                                               |          |                                 |
| Solder sleeve adapter set (1-3/4" Rotolock, 1-1/8" ODF), (1-1/4" Rotolock, 7/8" ODF)     | 120Z0125 | 1 2 3 4                         |
| Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")                                             | 120Z0403 |                                 |
| Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white                                | 8156009  |                                 |
|                                                                                          |          | 1: Rotolock adapter (Suc & Dis) |
| Oil / lubricants                                                                         | Code no. | 2: Gasket (Suc & Dis)           |
| PVE lubricant, 320HV (FVC68D), 1 litre can                                               | 120Z5034 | 3: Solder sleeve (Suc & Dis)    |
|                                                                                          |          | 4: Rotolock nut (Suc & Dis)     |
| Crankcase heaters                                                                        | Code no. |                                 |
| Belt type crankcase heater, 65 W, 230 V, CE mark, UL                                     | 120Z0059 |                                 |
| Belt type crankcase heater, 65 W, 400 V, CE mark, UL                                     | 120Z0060 |                                 |
| Belt type crankcase heater, 70 W, 240 V, CE mark, UL                                     | 120Z5040 |                                 |
| Belt type crankcase heater, 70 W, 240 V, CE mark, UL                                     | 120Z5040 |                                 |
| Miscellaneous accessories                                                                | Code no. |                                 |
| Acoustic hood                                                                            | 120Z5045 |                                 |
| Discharge thermostat kit                                                                 | 7750009  |                                 |
| Spare parts                                                                              | Code no. |                                 |
| Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers | 120Z5005 |                                 |
|                                                                                          | 120Z5031 |                                 |

## Danfoss scroll compressor. HCJ120T4

Danfoss

**R410A** 

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

| Cond. temp. in   |        | Evaporating temperature in °C (to) |        |        |        |        |        |        |    |
|------------------|--------|------------------------------------|--------|--------|--------|--------|--------|--------|----|
| °C (tc)          | -25    | -20                                | -15    | -10    | -5     | 0      | 5      | 10     | 15 |
| Cooling capacity | in W   |                                    |        |        |        |        |        |        |    |
| 30               | 10 035 | 12 858                             | 16 131 | 19 866 | 24 075 | 28 767 | 33 955 | 39 649 | -  |
| 35               | 9 110  | 11 766                             | 14 892 | 18 502 | 22 605 | 27 213 | 32 337 | 37 988 | -  |
| 40               | 8 373  | 10 794                             | 13 705 | 17 119 | 21 046 | 25 498 | 30 486 | 36 021 | -  |
| 45               | -      | 9 996                              | 12 624 | 15 773 | 19 454 | 23 679 | 28 459 | 33 804 | -  |
| 50               | -      | -                                  | 11 700 | 14 517 | 17 882 | 21 809 | 26 307 | 31 388 | -  |
| 55               | -      | -                                  | -      | 13 391 | 16 372 | 19 928 | 24 070 | 28 810 | -  |
| 60               | -      | -                                  | -      | -      | 14 945 | 18 057 | 21 766 | 26 082 | -  |
| 65               | -      | -                                  | -      | -      | -      | 16 157 | 19 345 | 23 143 | -  |
| Power input in W | 1      | 1                                  | ſ      | 1      |        | 1      |        |        |    |
| 30               | 5 242  | 5 402                              | 5 511  | 5 576  | 5 603  | 5 596  | 5 562  | 5 507  | -  |
| 35               | 5 911  | 6 011                              | 6 093  | 6 165  | 6 231  | 6 297  | 6 369  | 6 452  | -  |
| 40               | 6 774  | 6 767                              | 6 775  | 6 806  | 6 864  | 6 956  | 7 087  | 7 263  | -  |
| 45               | -      | 7 756                              | 7 644  | 7 587  | 7 591  | 7 662  | 7 805  | 8 026  | -  |
| 50               | -      | -                                  | 8 787  | 8 595  | 8 498  | 8 501  | 8 609  | 8 828  | -  |
| 55               | -      | -                                  | -      | 9 918  | 9 672  | 9 559  | 9 586  | 9 756  | -  |
| 60               | -      | -                                  | -      | -      | 11 201 | 10 926 | 10 823 | 10 898 | -  |
| 65               | -      | -                                  | -      | -      | -      | 12 687 | 12 408 | 12 341 | -  |

#### Current consumption in A

| 30 | 13.21 | 13.29 | 13.39 | 13.50 | 13.60 | 13.68 | 13.73 | 13.73 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.99 | 14.00 | 14.06 | 14.15 | 14.27 | 14.39 | 14.50 | 14.58 | - |
| 40 | 14.96 | 14.88 | 14.88 | 14.93 | 15.03 | 15.17 | 15.32 | 15.47 | - |
| 45 | -     | 15.99 | 15.90 | 15.89 | 15.96 | 16.09 | 16.26 | 16.46 | - |
| 50 | -     | -     | 17.20 | 17.11 | 17.12 | 17.21 | 17.38 | 17.61 | - |
| 55 | -     | -     | -     | 18.64 | 18.57 | 18.61 | 18.75 | 18.98 | - |
| 60 | -     | -     | -     | -     | 20.37 | 20.34 | 20.43 | 20.64 | - |
| 65 | -     | -     | -     | -     | -     | 22.46 | 22.49 | 22.65 | - |

#### Mass flow in kg/h

| 30 | 223 | 282 | 349 | 424 | 507 | 599 | 699 | 808 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 211 | 269 | 336 | 411 | 496 | 590 | 693 | 806 | - |
| 40 | 203 | 258 | 323 | 398 | 482 | 577 | 681 | 796 | - |
| 45 | -   | 251 | 313 | 385 | 468 | 561 | 666 | 781 | - |
| 50 | -   | -   | 305 | 373 | 453 | 544 | 647 | 762 | - |
| 55 | -   | -   | -   | 364 | 439 | 527 | 627 | 740 | - |
| 60 | -   | -   | -   | -   | 429 | 511 | 606 | 715 | - |
| 65 | -   | -   | -   | -   | -   | 497 | 587 | 691 | - |

#### Coefficient of performance (C.O.P.)

| 30 | 1.91 | 2.38 | 2.93 | 3.56 | 4.30 | 5.14 | 6.10 | 7.20 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.54 | 1.96 | 2.44 | 3.00 | 3.63 | 4.32 | 5.08 | 5.89 | - |
| 40 | 1.24 | 1.60 | 2.02 | 2.52 | 3.07 | 3.67 | 4.30 | 4.96 | - |
| 45 | -    | 1.29 | 1.65 | 2.08 | 2.56 | 3.09 | 3.65 | 4.21 | - |
| 50 | -    | -    | 1.33 | 1.69 | 2.10 | 2.57 | 3.06 | 3.56 | - |
| 55 | -    | -    | -    | 1.35 | 1.69 | 2.08 | 2.51 | 2.95 | - |
| 60 | -    | -    | -    | -    | 1.33 | 1.65 | 2.01 | 2.39 | - |
| 65 | -    | -    | -    | -    | -    | 1.27 | 1.56 | 1.88 | - |

| No  | minal performance at to = 5 °C | , tc = 50 °C |      |  |
|-----|--------------------------------|--------------|------|--|
| Coo | oling capacity                 | 26 307       | W    |  |
| Pov | ver input                      | 8 609        | W    |  |
| Cur | rent consumption               | 17.38        | A    |  |
| Ma  | ss flow                        | 647          | kg/h |  |
| CC  | ) P                            | 3.06         |      |  |

| Pressure switch settings  |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 45  | bar(g) |
| Minimum LP switch setting | 1.5 | bar(g) |
| LP pump down setting      | 2.3 | bar(g) |
| Cound a succe data        |     |        |
| Sound power data          | 70  |        |
| Sound power level         | 73  | 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%

## Danfoss scroll compressor. HCJ120T4

Danfoss

**R410A** 

## Performance data at 50 Hz, ARI rating conditions

| Cond. temp. in  |                           | Evaporating temperature in °C (to)           -25         -20         -15         -10         -5         0         5         10         1 |        |        |        |        |        |        |   |  |  |  |
|-----------------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|--------|--------|---|--|--|--|
| °C (tc)         | -25 -20 -15 -10 -5 0 5 10 |                                                                                                                                          |        |        |        |        |        |        |   |  |  |  |
|                 |                           |                                                                                                                                          |        |        |        |        |        |        |   |  |  |  |
| Cooling capacit | *                         |                                                                                                                                          |        |        |        |        |        |        |   |  |  |  |
| 30              | 10 837                    | 13 871                                                                                                                                   | 17 385 | 21 390 | 25 897 | 30 918 | 36 464 | 42 546 | - |  |  |  |
| 35              | 9 902                     | 12 773                                                                                                                                   | 16 150 | 20 042 | 24 462 | 29 421 | 34 929 | 40 999 | - |  |  |  |
|                 |                           |                                                                                                                                          |        |        |        |        |        |        |   |  |  |  |
| 40              | 9 172                     | 11 808                                                                                                                                   | 14 973 | 18 680 | 22 940 | 27 763 | 33 160 | 39 144 | - |  |  |  |

| 40 | 9 172 | 11 808 | 14 973 | 18 680 | 22 940 | 27 763 | 33 160 | 39 144 | - |
|----|-------|--------|--------|--------|--------|--------|--------|--------|---|
| 45 | -     | 11 038 | 13 920 | 17 368 | 21 393 | 26 007 | 31 221 | 37 045 | - |
| 50 | -     | -      | 13 053 | 16 169 | 19 887 | 24 219 | 29 175 | 34 768 | - |
| 55 | -     | -      | -      | 15 148 | 18 486 | 22 462 | 27 088 | 32 375 | - |
| 60 | -     | -      | -      | -      | 17 253 | 20 800 | 25 023 | 29 931 | - |
| 65 | -     | -      | -      | -      | -      | 19 298 | 23 043 | 27 499 | - |

#### Power input in W

| 30 | 5 242 | 5 402 | 5 511 | 5 576 | 5 603  | 5 596  | 5 562  | 5 507  | - |
|----|-------|-------|-------|-------|--------|--------|--------|--------|---|
| 35 | 5 911 | 6 011 | 6 093 | 6 165 | 6 231  | 6 297  | 6 369  | 6 452  | - |
| 40 | 6 774 | 6 767 | 6 775 | 6 806 | 6 864  | 6 956  | 7 087  | 7 263  | - |
| 45 | -     | 7 756 | 7 644 | 7 587 | 7 591  | 7 662  | 7 805  | 8 026  | - |
| 50 | -     | -     | 8 787 | 8 595 | 8 498  | 8 501  | 8 609  | 8 828  | - |
| 55 | -     | -     | -     | 9 918 | 9 672  | 9 559  | 9 586  | 9 756  | - |
| 60 | -     | -     | -     | -     | 11 201 | 10 926 | 10 823 | 10 898 | - |
| 65 | -     | -     | -     | -     | -      | 12 687 | 12 408 | 12 341 | - |

#### Current consumption in A

| 30 | 13.21 | 13.29 | 13.39 | 13.50 | 13.60 | 13.68 | 13.73 | 13.73 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.99 | 14.00 | 14.06 | 14.15 | 14.27 | 14.39 | 14.50 | 14.58 | - |
| 40 | 14.96 | 14.88 | 14.88 | 14.93 | 15.03 | 15.17 | 15.32 | 15.47 | - |
| 45 | -     | 15.99 | 15.90 | 15.89 | 15.96 | 16.09 | 16.26 | 16.46 | - |
| 50 | -     | -     | 17.20 | 17.11 | 17.12 | 17.21 | 17.38 | 17.61 | - |
| 55 | -     | -     | -     | 18.64 | 18.57 | 18.61 | 18.75 | 18.98 | - |
| 60 | -     | -     | -     | -     | 20.37 | 20.34 | 20.43 | 20.64 | - |
| 65 | -     | -     | -     | -     | -     | 22.46 | 22.49 | 22.65 | - |

#### Mass flow in kg/h

| 30 | 222 | 280 | 347 | 421 | 504 | 595 | 694 | 803 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 210 | 268 | 334 | 409 | 493 | 586 | 688 | 800 | - |
| 40 | 202 | 257 | 321 | 395 | 479 | 573 | 677 | 790 | - |
| 45 | -   | 249 | 311 | 382 | 465 | 557 | 661 | 776 | - |
| 50 | -   | -   | 303 | 371 | 450 | 541 | 643 | 756 | - |
| 55 | -   | -   | -   | 362 | 437 | 523 | 623 | 734 | - |
| 60 | -   | -   | -   | -   | 426 | 508 | 602 | 710 | - |
| 65 | -   | -   | -   | -   | -   | 494 | 583 | 686 | - |

## Coefficient of performance (C.O.P.)

| 30 | 2.07 | 2.57 | 3.15 | 3.84 | 4.62 | 5.52 | 6.56 | 7.73 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.68 | 2.13 | 2.65 | 3.25 | 3.93 | 4.67 | 5.48 | 6.35 | - |
| 40 | 1.35 | 1.75 | 2.21 | 2.74 | 3.34 | 3.99 | 4.68 | 5.39 | - |
| 45 | -    | 1.42 | 1.82 | 2.29 | 2.82 | 3.39 | 4.00 | 4.62 | - |
| 50 | -    | -    | 1.49 | 1.88 | 2.34 | 2.85 | 3.39 | 3.94 | - |
| 55 | -    | -    | -    | 1.53 | 1.91 | 2.35 | 2.83 | 3.32 | - |
| 60 | -    | -    | -    | -    | 1.54 | 1.90 | 2.31 | 2.75 | - |
| 65 | -    | -    | -    | -    | -    | 1.52 | 1.86 | 2.23 | - |

| Nominal performance at to = 7.2 | Nominal performance at to = 7.2 °C, tc = 54.4 °C |      |  |  |  |  |  |  |
|---------------------------------|--------------------------------------------------|------|--|--|--|--|--|--|
| Cooling capacity                | 29 601                                           | W    |  |  |  |  |  |  |
| Power input                     | 9 517                                            | W    |  |  |  |  |  |  |
| Current consumption             | 18.66                                            | A    |  |  |  |  |  |  |
| Mass flow                       | 673                                              | kg/h |  |  |  |  |  |  |
| C.O.P.                          | 3.11                                             |      |  |  |  |  |  |  |

| Maximum HP switch setting | 45  | bar(g) |  |
|---------------------------|-----|--------|--|
| Minimum LP switch setting | 1.5 | bar(g) |  |
| LP pump down setting      | 2.3 | bar(g) |  |
|                           |     |        |  |
| Sound power data          |     |        |  |
| Sound power level         | 73  | dB(A)  |  |
| With accoustic 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

All performance data +/- 5%

Pressure switch settings

## Danfoss scroll compressor. HCJ120T4

Danfoss

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

| Performance       | e data at 60  | ) Hz, EN 129 | 00 rating co | nditions |                   |                  |                  |                  | R4104 |
|-------------------|---------------|--------------|--------------|----------|-------------------|------------------|------------------|------------------|-------|
| Cond. temp. in    |               |              |              | Evapora  | ating temperature | in °C (to)       |                  |                  |       |
| °C (tc)           | -25           | -20          | -15          | -10      | -5                | 0                | 5                | 10               | 15    |
| ooling capacity   | in W          |              |              |          |                   |                  |                  |                  |       |
| 30                | 12 166        | 15 729       | 19 657       | 24 067   | 29 079            | 34 811           | 41 381           | 48 909           | -     |
| 35                | 11 142        | 14 564       | 18 317       | 22 517   | 27 282            | 32 730           | 38 980           | 46 150           | _     |
| 40                | 10 114        | 13 397       | 16 977       | 20 969   | 25 491            | 30 659           | 36 592           | 43 405           | _     |
| 45                | -             | 12 183       | 15 592       | 19 378   | 23 658            | 28 548           | 34 163           | 40 621           | -     |
| 50                | -             | -            | 14 113       | 17 694   | 21 732            | 26 342           | 31 638           | 37 738           | -     |
| 55                | -             | -            | -            | 15 865   | 19 656            | 23 981           | 28 953           | 34 686           | -     |
| 60                | -             | -            | -            | -        | 17 364            | 21 390           | 26 021           | 31 368           | -     |
| 65                | -             | -            | -            | _        | -                 | 18 445           | 22 695           | 27 611           |       |
|                   |               |              |              |          |                   | 10 110           |                  | 2. 0             |       |
| ower input in W   |               | 0.407        | 0.504        | 0.000    | 0.747             | 0.045            | 7 4 5 7          | 7 504            |       |
| 30                | 6 314         | 6 437        | 6 534        | 6 628    | 6 747             | 6 915            | 7 157            | 7 501            | -     |
| 35                | 7 006         | 7 128        | 7 216        | 7 295    | 7 392             | 7 531            | 7 739            | 8 040            | -     |
| 40                | 7 780         | 7 906        | 7 990        | 8 060    | 8 140             | 8 256            | 8 433            | 8 698            | -     |
| 45                | -             | 8 770        | 8 857        | 8 922    | 8 991             | 9 089            | 9 241            | 9 474            | -     |
| 50                | -             | -            | 9 816        | 9 881    | 9 944             | 10 029           | 10 162           | 10 369           | -     |
| 55                | -             | -            | -            | 10 938   | 10 999            | 11 077           | 11 195           | 11 381           | -     |
| 60<br>65          | -             | -            | -            | -        | 12 157            | 12 232<br>13 493 | 12 341<br>13 599 | 12 511<br>13 759 | -     |
| urrent consump    |               |              | 1            | 1        | T                 |                  |                  | 1                |       |
| 30                | 13.07         | 13.17        | 13.26        | 13.36    | 13.48             | 13.64            | 13.84            | 14.09            | -     |
| 35                | 13.75         | 13.88        | 13.99        | 14.10    | 14.21             | 14.34            | 14.49            | 14.69            | -     |
| 40                | 14.49         | 14.66        | 14.81        | 14.94    | 15.05             | 15.17            | 15.31            | 15.47            | -     |
| 45                | -             | 15.54        | 15.73        | 15.89    | 16.03             | 16.16            | 16.29            | 16.43            | -     |
| 50                | -             | -            | 16.77        | 16.99    | 17.16             | 17.31            | 17.45            | 17.59            | -     |
| 55                | -             | -            | -            | 18.22    | 18.45             | 18.65            | 18.81            | 18.96            | -     |
| 60                | -             | -            | -            | -        | 19.92             | 20.17            | 20.38            | 20.55            | -     |
| 65                | -             | -            | -            | -        | -                 | 21.90            | 22.16            | 22.38            | -     |
| lass flow in kg/ł | ı             |              |              |          |                   |                  |                  |                  |       |
| 30                | 271           | 346          | 426          | 514      | 613               | 724              | 851              | 996              | -     |
| 35                | 259           | 333          | 413          | 501      | 598               | 709              | 834              | 978              | -     |
| 40                | 247           | 321          | 400          | 487      | 584               | 693              | 818              | 960              | -     |
| 45                | -             | 307          | 386          | 472      | 568               | 676              | 799              | 940              | -     |
| 50                | -             | -            | 369          | 454      | 549               | 657              | 779              | 918              | -     |
| 55                | -             | -            | -            | 433      | 527               | 633              | 754              | 892              | -     |
| 60                | -             | -            | -            | -        | 500               | 605              | 724              | 861              | -     |
| 65                | -             | -            | -            | -        | -                 | 570              | 689              | 823              | -     |
| oefficient of pe  | formanco (C C | ) P )        |              |          |                   |                  |                  |                  |       |
|                   | 1 02          | 244          | 2.01         | 2.62     | 4.21              | E 02             | E 70             | 6.52             | -     |

| 30 | 1.93 | 2.44 | 3.01 | 3.63 | 4.31 | 5.03 | 5.78 | 6.52 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.59 | 2.04 | 2.54 | 3.09 | 3.69 | 4.35 | 5.04 | 5.74 | - |
| 40 | 1.30 | 1.69 | 2.12 | 2.60 | 3.13 | 3.71 | 4.34 | 4.99 | - |
| 45 | -    | 1.39 | 1.76 | 2.17 | 2.63 | 3.14 | 3.70 | 4.29 | - |
| 50 | -    | -    | 1.44 | 1.79 | 2.19 | 2.63 | 3.11 | 3.64 | - |
| 55 | -    | -    | -    | 1.45 | 1.79 | 2.17 | 2.59 | 3.05 | - |
| 60 | -    | -    | -    | -    | 1.43 | 1.75 | 2.11 | 2.51 | - |
| 65 | -    | -    | -    | -    | -    | 1.37 | 1.67 | 2.01 | - |

| Nominal performance at to = 5 °C, tc = 50 °C |        |      |  |  |  |  |  |  |
|----------------------------------------------|--------|------|--|--|--|--|--|--|
| Cooling capacity                             | 31 638 | W    |  |  |  |  |  |  |
| Power input                                  | 10 162 | W    |  |  |  |  |  |  |
| Current consumption                          | 17.45  | А    |  |  |  |  |  |  |
| Mass flow                                    | 779    | kg/h |  |  |  |  |  |  |
| C.O.P.                                       | 3.11   |      |  |  |  |  |  |  |

| Pressure switch settings  |     |        |
|---------------------------|-----|--------|
| Maximum HP switch setting | 45  | bar(g) |
| Minimum LP switch setting | 1.5 | bar(g) |
| LP pump down setting      | 2.3 | bar(g) |
| -                         |     |        |
| Sound power data          |     |        |
| Sound power level         | 76  | dB(A)  |
| With accoustic hood       | 71  | dB(A)  |

All performance data +/- 5%

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

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## Danfoss scroll compressor. HCJ120T4

38 978

35 996

32 808

Danfoss

**R410A** 

## Performance data at 60 Hz, ARI rating conditions

| Cond. temp. in   | Evaporating temperature in °C (to) |        |        |        |        |        |        |        |    |  |  |  |
|------------------|------------------------------------|--------|--------|--------|--------|--------|--------|--------|----|--|--|--|
| °C (tc)          | -25                                | -20    | -15    | -10    | -5     | 0      | 5      | 10     | 15 |  |  |  |
|                  |                                    |        |        |        |        |        |        |        |    |  |  |  |
| Cooling capacity | / in W                             |        |        |        |        |        |        |        |    |  |  |  |
| 30               | 13 138                             | 16 968 | 21 184 | 25 913 | 31 281 | 37 414 | 44 439 | 52 483 | -  |  |  |  |
| 35               | 12 111                             | 15 812 | 19 863 | 24 392 | 29 524 | 35 387 | 42 106 | 49 808 | -  |  |  |  |
| 40               | 11 080                             | 14 656 | 18 548 | 22 882 | 27 785 | 33 383 | 39 802 | 47 169 | -  |  |  |  |
| 45               | -                                  | 13 453 | 17 192 | 21 337 | 26 016 | 31 354 | 37 479 | 44 516 | -  |  |  |  |
| 50               | -                                  | -      | 15 746 | 19 708 | 24 168 | 29 253 | 35 089 | 41 802 | -  |  |  |  |

22 194

20 045

27 031

24 639

22 031

32 583

29 914

27 034

17 946

\_

#### Power input in W

55

60

65

| 30 | 6 314 | 6 437 | 6 534 | 6 628  | 6 747  | 6 915  | 7 157  | 7 501  | - |
|----|-------|-------|-------|--------|--------|--------|--------|--------|---|
| 35 | 7 006 | 7 128 | 7 216 | 7 295  | 7 392  | 7 531  | 7 739  | 8 040  | - |
| 40 | 7 780 | 7 906 | 7 990 | 8 060  | 8 140  | 8 256  | 8 433  | 8 698  | - |
| 45 | -     | 8 770 | 8 857 | 8 922  | 8 991  | 9 089  | 9 241  | 9 474  | - |
| 50 | -     | -     | 9 816 | 9 881  | 9 944  | 10 029 | 10 162 | 10 369 | - |
| 55 | -     | -     | -     | 10 938 | 10 999 | 11 077 | 11 195 | 11 381 | - |
| 60 | -     | -     | -     | -      | 12 157 | 12 232 | 12 341 | 12 511 | - |
| 65 | -     | -     | -     | -      | -      | 13 493 | 13 599 | 13 759 | - |

#### Current consumption in A

| 30 | 13.07 | 13.17 | 13.26 | 13.36 | 13.48 | 13.64 | 13.84 | 14.09 | - |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 35 | 13.75 | 13.88 | 13.99 | 14.10 | 14.21 | 14.34 | 14.49 | 14.69 | - |
| 40 | 14.49 | 14.66 | 14.81 | 14.94 | 15.05 | 15.17 | 15.31 | 15.47 | - |
| 45 | -     | 15.54 | 15.73 | 15.89 | 16.03 | 16.16 | 16.29 | 16.43 | - |
| 50 | -     | -     | 16.77 | 16.99 | 17.16 | 17.31 | 17.45 | 17.59 | - |
| 55 | -     | -     | -     | 18.22 | 18.45 | 18.65 | 18.81 | 18.96 | - |
| 60 | -     | -     | -     | -     | 19.92 | 20.17 | 20.38 | 20.55 | - |
| 65 | -     | -     | -     | -     | -     | 21.90 | 22.16 | 22.38 | - |

#### Mass flow in kg/h

| 30 | 269 | 344 | 423 | 511 | 609 | 719 | 845 | 989 | - |
|----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| 35 | 257 | 331 | 411 | 497 | 594 | 704 | 829 | 971 | - |
| 40 | 245 | 319 | 398 | 484 | 580 | 689 | 812 | 953 | - |
| 45 | -   | 305 | 383 | 469 | 564 | 672 | 794 | 933 | - |
| 50 | -   | -   | 366 | 451 | 546 | 652 | 773 | 911 | - |
| 55 | -   | -   | -   | 430 | 524 | 629 | 749 | 885 | - |
| 60 | -   | -   | -   | -   | 496 | 601 | 719 | 855 | - |
| 65 | -   | -   | -   | -   | -   | 566 | 684 | 818 | - |

#### Coefficient of performance (C.O.P.)

| 30 | 2.08 | 2.64 | 3.24 | 3.91 | 4.64 | 5.41 | 6.21 | 7.00 | - |
|----|------|------|------|------|------|------|------|------|---|
| 35 | 1.73 | 2.22 | 2.75 | 3.34 | 3.99 | 4.70 | 5.44 | 6.20 | - |
| 40 | 1.42 | 1.85 | 2.32 | 2.84 | 3.41 | 4.04 | 4.72 | 5.42 | - |
| 45 | -    | 1.53 | 1.94 | 2.39 | 2.89 | 3.45 | 4.06 | 4.70 | - |
| 50 | -    | -    | 1.60 | 1.99 | 2.43 | 2.92 | 3.45 | 4.03 | - |
| 55 | -    | -    | -    | 1.64 | 2.02 | 2.44 | 2.91 | 3.42 | - |
| 60 | -    | -    | -    | -    | 1.65 | 2.01 | 2.42 | 2.88 | - |
| 65 | -    | -    | -    | -    | -    | 1.63 | 1.99 | 2.38 | - |

| Nominal performance at to = 7.2 °C | , tc = 54.4 °C |      |
|------------------------------------|----------------|------|
| Cooling capacity                   | 35 610         | W    |
| Power input                        | 11 138         | W    |
| Current consumption                | 18.70          | A    |
| Mass flow                          | 810            | kg/h |
| C.O.P.                             | 3.20           |      |

| Maximum HP switch setting          | 45  | bar(g) |
|------------------------------------|-----|--------|
| Minimum LP switch setting          | 1.5 | bar(g) |
| LP pump down setting               | 2.3 | bar(g) |
|                                    |     |        |
|                                    |     |        |
| Sound power data                   |     |        |
| Sound power data Sound power level | 76  | 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%

Pressure switch settings



ENGINEERING TOMORROW

