



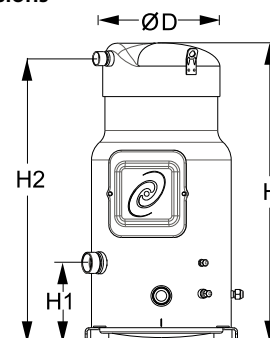
## Datasheets

# Danfoss scroll compressors **SM / SY / SZ / SH / WSH**



**General Characteristics**

|                                                   |                                                                       |                  |
|---------------------------------------------------|-----------------------------------------------------------------------|------------------|
| Model number (on compressor nameplate)            | <b>SZ175S4RC</b>                                                      | <b>SZ175S4CC</b> |
| Code number for Singlepack*                       | SZ175-4RI                                                             | SZ175-4CAI       |
| Code number for Industrial pack**                 | SZ175-4RM                                                             | SZ175-4CAM       |
| Drawing number                                    | 8551119b                                                              | 8551056c         |
| Suction and discharge connections                 | Rotolock                                                              | Brazed           |
| Suction connection                                | 2-1/4 " Rotolock                                                      | 1-5/8 " ODF      |
| Discharge connection                              | 1-3/4 " Rotolock                                                      | 1-1/8 " ODF      |
| Suction connection with supplied sleeve           | 1-3/8 " ODF                                                           |                  |
| Discharge connection with supplied sleeve         | 7/8 " ODF                                                             |                  |
| Oil sight glass                                   | Threaded                                                              | Threaded         |
| Oil equalisation connection                       | 3/8" flare SAE                                                        | 3/8" flare SAE   |
| Oil drain connection                              | 1/4" flare                                                            | 1/4" flare       |
| LP gauge port                                     | Schrader                                                              | Schrader         |
| IPR valve                                         | None                                                                  | None             |
| Swept volume                                      | 233 cm <sup>3</sup> /rev                                              |                  |
| Displacement @ Nominal speed                      | 40.5 m <sup>3</sup> /h @ 2900 rpm - 48.9 m <sup>3</sup> /h @ 3500 rpm |                  |
| Net weight                                        | 100 kg                                                                |                  |
| Oil charge                                        | 6,2 litre, POE - 160SZ                                                |                  |
| Maximum system test pressure Low Side / High side | 25 bar(g) / 32 bar(g)                                                 |                  |
| Maximum differential test pressure                | 24 bar                                                                |                  |
| Maximum number of starts per hour                 | 12                                                                    |                  |
| Refrigerant charge limit                          | 13,5 kg                                                               |                  |
| Approved refrigerants                             | R407C, R134a, R404A, R507A                                            |                  |

**Dimensions**


D=317 mm

H=678 mm

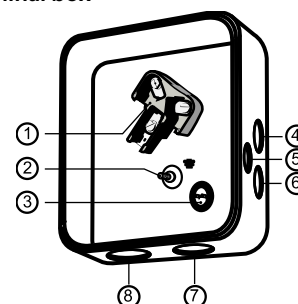
H1=180 mm

H2=643 mm

H3= mm

**Electrical Characteristics**

|                                                    |                                                     |
|----------------------------------------------------|-----------------------------------------------------|
| Nominal voltage                                    | 380-400V/3/50Hz - 460V/3/60Hz                       |
| Voltage range                                      | 340-440 V @ 50Hz - 414-506 V @ 60Hz                 |
| Winding resistance (between phases) +/- 7% at 25°C | 0.77 Ω                                              |
| Maximum Must Trip current (MMT)                    | 35 A                                                |
| Locked Rotor Amps (LRA)                            | 175 A                                               |
| Motor protection                                   | Internal thermostat, ext. overload protector needed |

**Terminal box**


IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M5
- 3: Thermostat connector
- 4: Knock-out Ø 22 mm (7/8") for 1/2" conduit
- 5: Knock-out Ø 16.5 mm (0.65")
- 6: Knock-out Ø 20.5 mm (0.81")
- 7: Double knock-out Ø 32.1 mm (1.26") & Ø 25.4 mm (1")
- 8: Double knock-out Ø 44 mm (1-3/4") for 1-1/4" conduit & Ø 34 mm (1-3/8") for 1" conduit

**Recommended Installation torques**

|                                      |             |
|--------------------------------------|-------------|
| Suction Rotolock nut or valve        | 130 Nm      |
| Discharge Rotolock nut or valve      | 110 Nm      |
| Oil sight glass                      | 50 Nm       |
| Power connections / Earth connection | 3 Nm / 2 Nm |
| Terminal box cover screws            | 2,3 Nm      |
| Mounting bolts                       | 21 Nm       |

**Parts shipped with compressor**

|                                                              |
|--------------------------------------------------------------|
| Mounting kit with grommets, bolts, nuts, sleeves and washers |
| Initial oil charge                                           |
| Installation instructions                                    |

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

\*Singlepack: Compressor in cardboard box

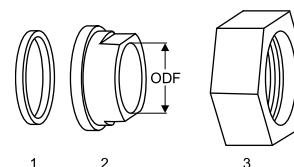
\*\*Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

**Rotolock accessories, suction side**
**Code no.**

|                                                   |         |
|---------------------------------------------------|---------|
| Solder sleeve, P08 (2-1/4" Rotolock, 1-3/8" ODF)  | 8153005 |
| Solder sleeve, P03 (2-1/4" Rotolock, 1-5/8" ODF)  | 8153006 |
| Rotolock valve, V08 (2-1/4" Rotolock, 1-3/8" ODF) | 8168025 |
| Rotolock valve, V03 (2-1/4" Rotolock, 1-5/8" ODF) | 8168026 |
| Gasket, 2-1/4"                                    | 8156133 |

**Rotolock accessories, discharge side**
**Code no.**

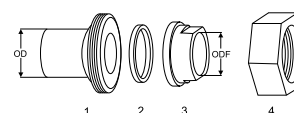
|                                                   |         |
|---------------------------------------------------|---------|
| Solder sleeve, P07 (1-3/4" Rotolock, 7/8" ODF)    | 8153013 |
| Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)  | 8153004 |
| Angle adapter, C07 (1-3/4" Rotolock, 7/8" ODF)    | 8168008 |
| Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)  | 8168005 |
| Rotolock valve, V07 (1-3/4" Rotolock, 7/8" ODF)   | 8168032 |
| Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF) | 8168028 |
| Gasket, 1-3/4"                                    | 8156132 |

**Gaskets, sleeves and nuts**


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

**Rotolock accessories, sets**
**Code no.**

|                                                                                        |         |
|----------------------------------------------------------------------------------------|---------|
| Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1"1/8 ODF) | 7765028 |
| Valve set, V08 (2-1/4"~1-3/8"), V07 (1-3/4"~7/8")                                      | 7703010 |
| Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white                          | 8156013 |

**Solder sleeve adapter set**


- 1: Rotolock adapter (Suc & Dis)  
2: Gasket (Suc & Dis)  
3: Solder sleeve (Suc & Dis)  
4: Rotolock nut (Suc & Dis)

**Oil / lubricants**
**Code no.**

|                                     |          |
|-------------------------------------|----------|
| POE lubricant, 160SZ, 1 litre can   | 7754023  |
| POE lubricant, 160SZ, 2.5 litre can | 120Z0571 |

**Crankcase heaters**
**Code no.**

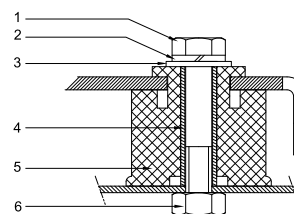
|                                                                   |          |
|-------------------------------------------------------------------|----------|
| Surface sump heater + bottom insulation, 56 W, 24 V, CE mark, UL  | 120Z0360 |
| Surface sump heater + bottom insulation, 56 W, 230 V, CE mark, UL | 120Z0376 |
| Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL | 120Z0377 |
| Surface sump heater + bottom insulation, 56 W, 460 V, CE mark, UL | 120Z0378 |
| Belt type crankcase heater, 75 W, 230 V, CE mark, UL              | 7773108  |
| Belt type crankcase heater, 75 W, 400 V, CE mark, UL              | 7773118  |
| Belt type crankcase heater, 75 W, 460 V, CE mark, UL              | 120Z0464 |

**Miscellaneous accessories**
**Code no.**

|                                                  |          |
|--------------------------------------------------|----------|
| Electronic soft start kit, MCI 25 C              | 7705007  |
| Acoustic hood for scroll compressor S175-S185    | 7755007  |
| Acoustic bottom insulation for scroll compressor | 120Z0353 |
| Discharge thermostat kit                         | 7750009  |

**Spare parts**
**Code no.**

|                                                                                                                                        |         |
|----------------------------------------------------------------------------------------------------------------------------------------|---------|
| Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers                                               | 8156138 |
| Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers, 2 rotolock nuts, 2 solder sleeves, 2 gaskets | 8156147 |
| Oil sight glass with gaskets (black & white)                                                                                           | 8156019 |
| Gasket for oil sight glass (white teflon)                                                                                              | 8156129 |
| Terminal box 186 x 198 mm, incl cover                                                                                                  | 8156139 |
| T block connector 60 x 75 mm                                                                                                           | 8173021 |

**Mounting kit**


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

**Performance data at 50 Hz, EN 12900 rating conditions**
**R407C**

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

**Cooling capacity in W**

|    |        |        |        |        |        |        |        |        |   |
|----|--------|--------|--------|--------|--------|--------|--------|--------|---|
| 30 | 15 352 | 19 551 | 24 558 | 30 458 | 37 334 | 45 272 | 54 354 | 64 666 | - |
| 35 | 14 349 | 18 420 | 23 258 | 28 946 | 35 568 | 43 207 | 51 948 | 61 873 | - |
| 40 | 13 314 | 17 230 | 21 871 | 27 319 | 33 657 | 40 969 | 49 338 | 58 849 | - |
| 45 | -      | 15 979 | 20 395 | 25 574 | 31 600 | 38 556 | 46 525 | 55 591 | - |
| 50 | -      | -      | 18 827 | 23 709 | 29 394 | 35 965 | 43 505 | 52 096 | - |
| 55 | -      | -      | -      | 21 723 | 27 039 | 33 195 | 40 276 | 48 362 | - |
| 60 | -      | -      | -      | -      | 24 530 | 30 243 | 36 834 | 44 384 | - |
| 65 | -      | -      | -      | -      | 21 865 | 27 103 | 33 172 | 40 153 | - |

**Power input in W**

|    |       |        |        |        |        |        |        |        |   |
|----|-------|--------|--------|--------|--------|--------|--------|--------|---|
| 30 | 7 140 | 7 215  | 7 283  | 7 337  | 7 375  | 7 394  | 7 387  | 7 353  | - |
| 35 | 7 959 | 8 037  | 8 106  | 8 163  | 8 205  | 8 227  | 8 225  | 8 196  | - |
| 40 | 8 890 | 8 969  | 9 041  | 9 102  | 9 147  | 9 173  | 9 176  | 9 153  | - |
| 45 | -     | 10 027 | 10 102 | 10 166 | 10 215 | 10 246 | 10 255 | 10 237 | - |
| 50 | -     | -      | 11 302 | 11 370 | 11 424 | 11 460 | 11 474 | 11 463 | - |
| 55 | -     | -      | -      | 12 728 | 12 787 | 12 828 | 12 849 | 12 844 | - |
| 60 | -     | -      | -      | -      | 14 317 | 14 365 | 14 392 | 14 394 | - |
| 65 | -     | -      | -      | -      | 16 030 | 16 084 | 16 117 | 16 127 | - |

**Current consumption in A**

|    |       |       |       |       |       |       |       |       |   |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 30 | 15.59 | 15.71 | 15.81 | 15.89 | 15.94 | 15.96 | 15.94 | 15.87 | - |
| 35 | 16.48 | 16.60 | 16.71 | 16.79 | 16.85 | 16.88 | 16.87 | 16.82 | - |
| 40 | 17.55 | 17.68 | 17.79 | 17.88 | 17.95 | 17.98 | 17.98 | 17.94 | - |
| 45 | -     | 18.95 | 19.07 | 19.17 | 19.24 | 19.29 | 19.30 | 19.27 | - |
| 50 | -     | -     | 20.58 | 20.68 | 20.77 | 20.83 | 20.85 | 20.83 | - |
| 55 | -     | -     | -     | 22.46 | 22.56 | 22.63 | 22.66 | 22.66 | - |
| 60 | -     | -     | -     | -     | 24.63 | 24.71 | 24.76 | 24.77 | - |
| 65 | -     | -     | -     | -     | 27.02 | 27.11 | 27.17 | 27.20 | - |

**Mass flow in kg/h**

|    |     |     |     |     |     |     |       |       |   |
|----|-----|-----|-----|-----|-----|-----|-------|-------|---|
| 30 | 320 | 400 | 493 | 601 | 724 | 865 | 1 023 | 1 202 | - |
| 35 | 314 | 395 | 490 | 598 | 722 | 864 | 1 023 | 1 202 | - |
| 40 | 307 | 389 | 484 | 594 | 719 | 860 | 1 020 | 1 199 | - |
| 45 | -   | 382 | 478 | 587 | 712 | 854 | 1 014 | 1 193 | - |
| 50 | -   | -   | 469 | 579 | 704 | 845 | 1 004 | 1 183 | - |
| 55 | -   | -   | -   | 568 | 692 | 833 | 991   | 1 169 | - |
| 60 | -   | -   | -   | -   | 677 | 817 | 974   | 1 151 | - |
| 65 | -   | -   | -   | -   | 659 | 797 | 953   | 1 128 | - |

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

|    |      |      |      |      |      |      |      |      |   |
|----|------|------|------|------|------|------|------|------|---|
| 30 | 2.15 | 2.71 | 3.37 | 4.15 | 5.06 | 6.12 | 7.36 | 8.79 | - |
| 35 | 1.80 | 2.29 | 2.87 | 3.55 | 4.33 | 5.25 | 6.32 | 7.55 | - |
| 40 | 1.50 | 1.92 | 2.42 | 3.00 | 3.68 | 4.47 | 5.38 | 6.43 | - |
| 45 | -    | 1.59 | 2.02 | 2.52 | 3.09 | 3.76 | 4.54 | 5.43 | - |
| 50 | -    | -    | 1.67 | 2.09 | 2.57 | 3.14 | 3.79 | 4.54 | - |
| 55 | -    | -    | -    | 1.71 | 2.11 | 2.59 | 3.13 | 3.77 | - |
| 60 | -    | -    | -    | -    | 1.71 | 2.11 | 2.56 | 3.08 | - |
| 65 | -    | -    | -    | -    | 1.36 | 1.69 | 2.06 | 2.49 | - |

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

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 35 965 | W    |
| Power input         | 11 460 | W    |
| Current consumption | 20.83  | A    |
| Mass flow           | 845    | kg/h |
| C.O.P.              | 3.14   |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.5 | bar(g) |
| Minimum LP switch setting | 0.5  | bar(g) |
| LP pump down setting      | 1    | bar(g) |

**Sound power data**

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 81 | dB(A) |
| With acoustic hood | 73 | 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%

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# Datasheet, performance data

# Danfoss scroll compressor. SZ175-4

## Performance data at 50 Hz, ARI rating conditions

## R407C

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

### Cooling capacity in W

|    |        |        |        |        |        |        |        |        |   |
|----|--------|--------|--------|--------|--------|--------|--------|--------|---|
| 30 | 16 466 | 20 944 | 26 279 | 32 558 | 39 868 | 48 296 | 57 930 | 68 857 | - |
| 35 | 15 464 | 19 827 | 25 003 | 31 082 | 38 148 | 46 291 | 55 598 | 66 154 | - |
| 40 | 14 429 | 18 648 | 23 637 | 29 486 | 36 281 | 44 110 | 53 060 | 63 218 | - |
| 45 | -      | 17 404 | 22 178 | 27 769 | 34 264 | 41 750 | 50 314 | 60 045 | - |
| 50 | -      | -      | 20 623 | 25 928 | 32 093 | 39 208 | 47 358 | 56 633 | - |
| 55 | -      | -      | -      | 23 960 | 29 767 | 36 482 | 44 190 | 52 979 | - |
| 60 | -      | -      | -      | -      | 27 284 | 33 569 | 40 806 | 49 081 | - |
| 65 | -      | -      | -      | -      | 24 640 | 30 468 | 37 205 | 44 938 | - |

### Power input in W

|    |       |        |        |        |        |        |        |        |   |
|----|-------|--------|--------|--------|--------|--------|--------|--------|---|
| 30 | 7 140 | 7 215  | 7 283  | 7 337  | 7 375  | 7 394  | 7 387  | 7 353  | - |
| 35 | 7 959 | 8 037  | 8 106  | 8 163  | 8 205  | 8 227  | 8 225  | 8 196  | - |
| 40 | 8 890 | 8 969  | 9 041  | 9 102  | 9 147  | 9 173  | 9 176  | 9 153  | - |
| 45 | -     | 10 027 | 10 102 | 10 166 | 10 215 | 10 246 | 10 255 | 10 237 | - |
| 50 | -     | -      | 11 302 | 11 370 | 11 424 | 11 460 | 11 474 | 11 463 | - |
| 55 | -     | -      | -      | 12 728 | 12 787 | 12 828 | 12 849 | 12 844 | - |
| 60 | -     | -      | -      | -      | 14 317 | 14 365 | 14 392 | 14 394 | - |
| 65 | -     | -      | -      | -      | 16 030 | 16 084 | 16 117 | 16 127 | - |

### Current consumption in A

|    |       |       |       |       |       |       |       |       |   |
|----|-------|-------|-------|-------|-------|-------|-------|-------|---|
| 30 | 15.59 | 15.71 | 15.81 | 15.89 | 15.94 | 15.96 | 15.94 | 15.87 | - |
| 35 | 16.48 | 16.60 | 16.71 | 16.79 | 16.85 | 16.88 | 16.87 | 16.82 | - |
| 40 | 17.55 | 17.68 | 17.79 | 17.88 | 17.95 | 17.98 | 17.98 | 17.94 | - |
| 45 | -     | 18.95 | 19.07 | 19.17 | 19.24 | 19.29 | 19.30 | 19.27 | - |
| 50 | -     | -     | 20.58 | 20.68 | 20.77 | 20.83 | 20.85 | 20.83 | - |
| 55 | -     | -     | -     | 22.46 | 22.56 | 22.63 | 22.66 | 22.66 | - |
| 60 | -     | -     | -     | -     | 24.63 | 24.71 | 24.76 | 24.77 | - |
| 65 | -     | -     | -     | -     | 27.02 | 27.11 | 27.17 | 27.20 | - |

### Mass flow in kg/h

|    |     |     |     |     |     |     |       |       |   |
|----|-----|-----|-----|-----|-----|-----|-------|-------|---|
| 30 | 318 | 398 | 491 | 598 | 720 | 860 | 1 017 | 1 195 | - |
| 35 | 312 | 393 | 487 | 595 | 718 | 859 | 1 017 | 1 195 | - |
| 40 | 305 | 387 | 482 | 591 | 715 | 855 | 1 014 | 1 192 | - |
| 45 | -   | 380 | 475 | 584 | 708 | 849 | 1 008 | 1 186 | - |
| 50 | -   | -   | 467 | 576 | 700 | 840 | 998   | 1 176 | - |
| 55 | -   | -   | -   | 565 | 688 | 828 | 986   | 1 162 | - |
| 60 | -   | -   | -   | -   | 673 | 812 | 969   | 1 144 | - |
| 65 | -   | -   | -   | -   | 655 | 793 | 948   | 1 121 | - |

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

|    |      |      |      |      |      |      |      |      |   |
|----|------|------|------|------|------|------|------|------|---|
| 30 | 2.31 | 2.90 | 3.61 | 4.44 | 5.41 | 6.53 | 7.84 | 9.36 | - |
| 35 | 1.94 | 2.47 | 3.08 | 3.81 | 4.65 | 5.63 | 6.76 | 8.07 | - |
| 40 | 1.62 | 2.08 | 2.61 | 3.24 | 3.97 | 4.81 | 5.78 | 6.91 | - |
| 45 | -    | 1.74 | 2.20 | 2.73 | 3.35 | 4.07 | 4.91 | 5.87 | - |
| 50 | -    | -    | 1.82 | 2.28 | 2.81 | 3.42 | 4.13 | 4.94 | - |
| 55 | -    | -    | -    | 1.88 | 2.33 | 2.84 | 3.44 | 4.12 | - |
| 60 | -    | -    | -    | -    | 1.91 | 2.34 | 2.84 | 3.41 | - |
| 65 | -    | -    | -    | -    | 1.54 | 1.89 | 2.31 | 2.79 | - |

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

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 40 106 | W    |
| Power input         | 12 667 | W    |
| Current consumption | 22.41  | A    |
| Mass flow           | 897    | kg/h |
| C.O.P.              | 3.17   |      |

### Pressure switch settings

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 29.5 | bar(g) |
| Minimum LP switch setting | 0.5  | bar(g) |
| LP pump down setting      | 1    | bar(g) |

### Sound power data

|                    |    |       |
|--------------------|----|-------|
| Sound power level  | 81 | dB(A) |
| With acoustic hood | 73 | 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%

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**Performance data at 50 Hz, EN 12900 rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |        |        |        |        |        |        |        |   |   |
|----|--------|--------|--------|--------|--------|--------|--------|---|---|
| 35 | 12 171 | 15 608 | 19 649 | 24 353 | 29 784 | 36 002 | 43 069 | - | - |
| 40 | 11 378 | 14 696 | 18 592 | 23 125 | 28 358 | 34 351 | 41 165 | - | - |
| 45 | 10 565 | 13 749 | 17 483 | 21 829 | 26 847 | 32 599 | 39 145 | - | - |
| 50 | 9 735  | 12 769 | 16 326 | 20 468 | 25 255 | 30 749 | 37 010 | - | - |
| 55 | -      | 11 760 | 15 124 | 19 046 | 23 586 | 28 804 | 34 763 | - | - |
| 60 | -      | -      | 13 880 | 17 565 | 21 841 | 26 768 | 32 407 | - | - |
| 65 | -      | -      | -      | 16 030 | 20 024 | 24 642 | 29 944 | - | - |
| 70 | -      | -      | -      | 14 441 | 18 137 | 22 428 | 27 373 | - | - |

**Power input in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 5 701 | 5 770 | 5 826 | 5 865  | 5 884  | 5 877  | 5 842  | - | - |
| 40 | 6 277 | 6 349 | 6 409 | 6 454  | 6 478  | 6 478  | 6 450  | - | - |
| 45 | 6 928 | 7 004 | 7 069 | 7 119  | 7 150  | 7 157  | 7 137  | - | - |
| 50 | 7 661 | 7 741 | 7 811 | 7 867  | 7 904  | 7 920  | 7 908  | - | - |
| 55 | -     | 8 565 | 8 641 | 8 704  | 8 749  | 8 772  | 8 769  | - | - |
| 60 | -     | -     | 9 566 | 9 635  | 9 688  | 9 720  | 9 727  | - | - |
| 65 | -     | -     | -     | 10 668 | 10 729 | 10 770 | 10 787 | - | - |
| 70 | -     | -     | -     | 11 808 | 11 878 | 11 929 | 11 956 | - | - |

**Current consumption in A**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 14.11 | 14.20 | 14.26 | 14.30 | 14.31 | 14.27 | 14.20 | - | - |
| 40 | 14.67 | 14.75 | 14.82 | 14.87 | 14.89 | 14.87 | 14.81 | - | - |
| 45 | 15.33 | 15.43 | 15.50 | 15.56 | 15.59 | 15.58 | 15.54 | - | - |
| 50 | 16.12 | 16.22 | 16.31 | 16.38 | 16.42 | 16.43 | 16.39 | - | - |
| 55 | -     | 17.16 | 17.26 | 17.34 | 17.39 | 17.41 | 17.40 | - | - |
| 60 | -     | -     | 18.36 | 18.46 | 18.52 | 18.56 | 18.56 | - | - |
| 65 | -     | -     | -     | 19.74 | 19.82 | 19.87 | 19.89 | - | - |
| 70 | -     | -     | -     | 21.20 | 21.30 | 21.37 | 21.40 | - | - |

**Mass flow in kg/h**

|    |     |     |     |     |     |     |     |   |   |
|----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 295 | 370 | 456 | 554 | 664 | 788 | 927 | - | - |
| 40 | 290 | 366 | 453 | 551 | 662 | 787 | 926 | - | - |
| 45 | 284 | 361 | 449 | 548 | 659 | 784 | 924 | - | - |
| 50 | 278 | 355 | 443 | 543 | 655 | 780 | 920 | - | - |
| 55 | -   | 349 | 437 | 537 | 649 | 774 | 914 | - | - |
| 60 | -   | -   | 430 | 530 | 642 | 767 | 906 | - | - |
| 65 | -   | -   | -   | 521 | 633 | 757 | 896 | - | - |
| 70 | -   | -   | -   | 511 | 622 | 746 | 884 | - | - |

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

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.13 | 2.71 | 3.37 | 4.15 | 5.06 | 6.13 | 7.37 | - | - |
| 40 | 1.81 | 2.31 | 2.90 | 3.58 | 4.38 | 5.30 | 6.38 | - | - |
| 45 | 1.52 | 1.96 | 2.47 | 3.07 | 3.76 | 4.55 | 5.48 | - | - |
| 50 | 1.27 | 1.65 | 2.09 | 2.60 | 3.20 | 3.88 | 4.68 | - | - |
| 55 | -    | 1.37 | 1.75 | 2.19 | 2.70 | 3.28 | 3.96 | - | - |
| 60 | -    | -    | 1.45 | 1.82 | 2.25 | 2.75 | 3.33 | - | - |
| 65 | -    | -    | -    | 1.50 | 1.87 | 2.29 | 2.78 | - | - |
| 70 | -    | -    | -    | 1.22 | 1.53 | 1.88 | 2.29 | - | - |

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

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 25 255 | W    |
| Power input         | 7 904  | W    |
| Current consumption | 16.42  | A    |
| Mass flow           | 655    | kg/h |
| C.O.P.              | 3.20   |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.5 | bar(g) |
| Minimum LP switch setting | 0.5  | bar(g) |
| LP pump down setting      | 0.5  | bar(g) |

**Sound power data**

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

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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**Performance data at 50 Hz, ARI rating conditions**
**R134a**

| Cond. temp. in<br>°C (tc) | Evaporating temperature in °C (to) |     |    |   |   |    |    |  |
|---------------------------|------------------------------------|-----|----|---|---|----|----|--|
|                           | -15                                | -10 | -5 | 0 | 5 | 10 | 15 |  |

**Cooling capacity in W**

|    |        |        |        |        |        |        |        |   |   |
|----|--------|--------|--------|--------|--------|--------|--------|---|---|
| 35 | 13 182 | 16 876 | 21 211 | 26 249 | 32 054 | 38 691 | 46 222 | - | - |
| 40 | 12 390 | 15 974 | 20 172 | 25 047 | 30 664 | 37 085 | 44 375 | - | - |
| 45 | 11 576 | 15 033 | 19 078 | 23 774 | 29 186 | 35 376 | 42 408 | - | - |
| 50 | 10 745 | 14 058 | 17 934 | 22 434 | 27 624 | 33 566 | 40 325 | - | - |
| 55 | -      | 13 053 | 16 742 | 21 031 | 25 983 | 31 661 | 38 129 | - | - |
| 60 | -      | -      | 15 508 | 19 568 | 24 265 | 29 663 | 35 825 | - | - |
| 65 | -      | -      | -      | 18 050 | 22 476 | 27 577 | 33 416 | - | - |
| 70 | -      | -      | -      | 16 480 | 20 619 | 25 407 | 30 907 | - | - |

**Power input in W**

|    |       |       |       |        |        |        |        |   |   |
|----|-------|-------|-------|--------|--------|--------|--------|---|---|
| 35 | 5 701 | 5 770 | 5 826 | 5 865  | 5 884  | 5 877  | 5 842  | - | - |
| 40 | 6 277 | 6 349 | 6 409 | 6 454  | 6 478  | 6 478  | 6 450  | - | - |
| 45 | 6 928 | 7 004 | 7 069 | 7 119  | 7 150  | 7 157  | 7 137  | - | - |
| 50 | 7 661 | 7 741 | 7 811 | 7 867  | 7 904  | 7 920  | 7 908  | - | - |
| 55 | -     | 8 565 | 8 641 | 8 704  | 8 749  | 8 772  | 8 769  | - | - |
| 60 | -     | -     | 9 566 | 9 635  | 9 688  | 9 720  | 9 727  | - | - |
| 65 | -     | -     | -     | 10 668 | 10 729 | 10 770 | 10 787 | - | - |
| 70 | -     | -     | -     | 11 808 | 11 878 | 11 929 | 11 956 | - | - |

**Current consumption in A**

|    |       |       |       |       |       |       |       |   |   |
|----|-------|-------|-------|-------|-------|-------|-------|---|---|
| 35 | 14.11 | 14.20 | 14.26 | 14.30 | 14.31 | 14.27 | 14.20 | - | - |
| 40 | 14.67 | 14.75 | 14.82 | 14.87 | 14.89 | 14.87 | 14.81 | - | - |
| 45 | 15.33 | 15.43 | 15.50 | 15.56 | 15.59 | 15.58 | 15.54 | - | - |
| 50 | 16.12 | 16.22 | 16.31 | 16.38 | 16.42 | 16.43 | 16.39 | - | - |
| 55 | -     | 17.16 | 17.26 | 17.34 | 17.39 | 17.41 | 17.40 | - | - |
| 60 | -     | -     | 18.36 | 18.46 | 18.52 | 18.56 | 18.56 | - | - |
| 65 | -     | -     | -     | 19.74 | 19.82 | 19.87 | 19.89 | - | - |
| 70 | -     | -     | -     | 21.20 | 21.30 | 21.37 | 21.40 | - | - |

**Mass flow in kg/h**

|    |     |     |     |     |     |     |     |   |   |
|----|-----|-----|-----|-----|-----|-----|-----|---|---|
| 35 | 294 | 368 | 454 | 551 | 661 | 784 | 922 | - | - |
| 40 | 288 | 364 | 451 | 548 | 659 | 783 | 921 | - | - |
| 45 | 283 | 359 | 446 | 545 | 656 | 780 | 919 | - | - |
| 50 | 276 | 354 | 441 | 540 | 651 | 776 | 915 | - | - |
| 55 | -   | 347 | 435 | 534 | 646 | 770 | 909 | - | - |
| 60 | -   | -   | 428 | 527 | 638 | 763 | 901 | - | - |
| 65 | -   | -   | -   | 518 | 629 | 753 | 891 | - | - |
| 70 | -   | -   | -   | 508 | 619 | 742 | 879 | - | - |

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

|    |      |      |      |      |      |      |      |   |   |
|----|------|------|------|------|------|------|------|---|---|
| 35 | 2.31 | 2.92 | 3.64 | 4.48 | 5.45 | 6.58 | 7.91 | - | - |
| 40 | 1.97 | 2.52 | 3.15 | 3.88 | 4.73 | 5.72 | 6.88 | - | - |
| 45 | 1.67 | 2.15 | 2.70 | 3.34 | 4.08 | 4.94 | 5.94 | - | - |
| 50 | 1.40 | 1.82 | 2.30 | 2.85 | 3.49 | 4.24 | 5.10 | - | - |
| 55 | -    | 1.52 | 1.94 | 2.42 | 2.97 | 3.61 | 4.35 | - | - |
| 60 | -    | -    | 1.62 | 2.03 | 2.50 | 3.05 | 3.68 | - | - |
| 65 | -    | -    | -    | 1.69 | 2.09 | 2.56 | 3.10 | - | - |
| 70 | -    | -    | -    | 1.40 | 1.74 | 2.13 | 2.59 | - | - |

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

|                     |        |      |
|---------------------|--------|------|
| Cooling capacity    | 28 603 | W    |
| Power input         | 8 655  | W    |
| Current consumption | 17.28  | A    |
| Mass flow           | 699    | kg/h |
| C.O.P.              | 3.30   |      |

**Pressure switch settings**

|                           |      |        |
|---------------------------|------|--------|
| Maximum HP switch setting | 20.5 | bar(g) |
| Minimum LP switch setting | 0.5  | bar(g) |
| LP pump down setting      | 0.5  | bar(g) |

**Sound power data**

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

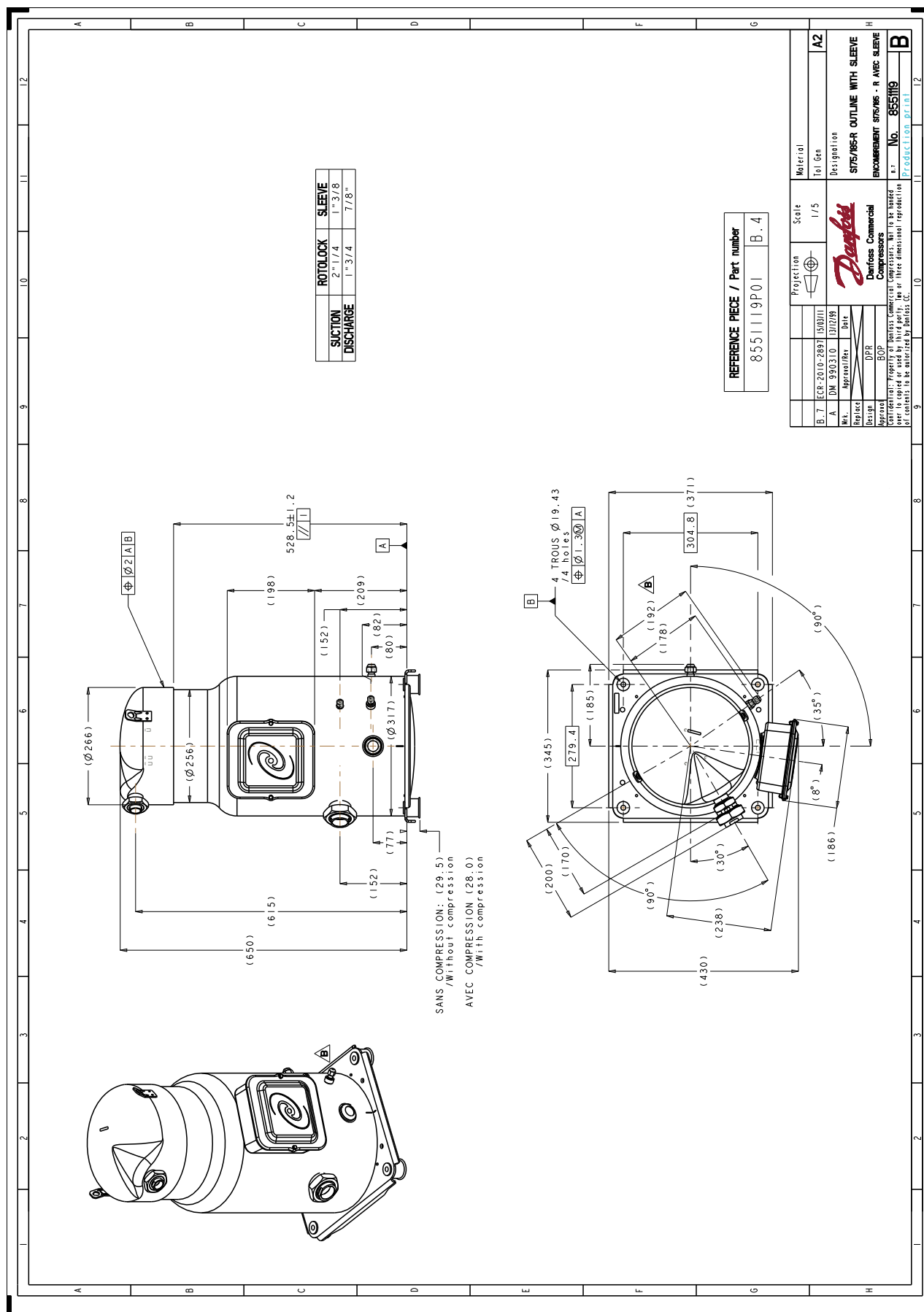
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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