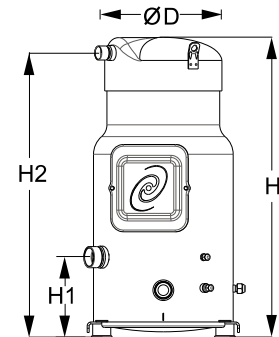


General Characteristics

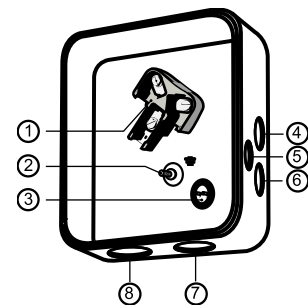
| | | |
|---|--|---|
| Model number (on compressor nameplate) | | SM175S4QC |
| Code number for Singlepack* | | SM175-4QAI |
| Code number for Industrial pack** | | SM175-4QAM |
| Drawing number | | 8551065c |
| Suction and discharge connections | | Brazed |
| Suction connection | | 1-5/8" ODF |
| Discharge connection | | 1-1/8" ODF |
| Oil sight glass | | Threaded |
| Oil equalization connection | | 3/8" ODF |
| Oil drain connection | | 1/4" flare |
| LP gauge port | | Schrader |
| IPR valve | | None |
| Swept volume | | 14.22 in ³ /rev |
| Displacement @ Nominal speed | | 1432 cfh @ 2900 rpm - 1728 cfh @ 3500 rpm |
| Net weight | | 220 lbs |
| Oil charge | | 210 oz, Mineral - 160P |
| Maximum system test pressure Low Side / High side | | 363 psi / 464 psi |
| Maximum differential test pressure | | 348 psi |
| Maximum number of starts per hour | | 12 |
| Refrigerant charge limit | | 30 lbs |
| Approved refrigerants | | R22, R417A-160SZ |

Dimensions


D=12.5 inch, H=26.7 inch,
H1=7.1 inch, H2=25.3 inch

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 77°F | 0.77 # |
| 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

| | |
|--------------------------------------|---------------------|
| Oil sight glass | 37 ft.lbs |
| Power connections / Earth connection | 2 ft.lbs / 1 ft.lbs |
| Terminal box cover screws | 2 ft.lbs |
| Mounting bolts | 15 ft.lbs |

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. |
|---|-----------------|

| | |
|---|-----------------|
| Rotolock accessories, discharge side | Code no. |
|---|-----------------|

| | |
|-----------------------------------|-----------------|
| Rotolock accessories, sets | Code no. |
|-----------------------------------|-----------------|

| | |
|-------------------------|-----------------|
| Oil / lubricants | Code no. |
|-------------------------|-----------------|

| | |
|--------------------------------|---------|
| Mineral oil, 160P, 2 liter can | 7754001 |
| Mineral oil, 160P, 5 liter can | 7754002 |

| | |
|--------------------------|-----------------|
| Crankcase heaters | Code no. |
|--------------------------|-----------------|

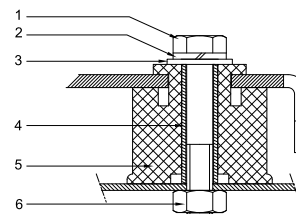
| | |
|---|----------|
| Surface sump heater + bottom insulation, 56 W, 24 V, CE mark, UL | 120Z0360 |
| Surface sump heater + bottom insulation, 56 W, 230 V, CE mark, UL | 120Z0376 |
| Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL | 120Z0377 |
| Surface sump heater + bottom insulation, 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 SH180-SH380 | 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 | 8156147 |
| Oil sight glass with gaskets (black & white) | 8156019 |
| Gasket for oil sight glass (white teflon) | 8156129 |
| Terminal box 7.3" x 7.8" incl cover | 8156139 |
| T block connector 2.4" x 3" | 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 60 Hz, ARI rating conditions
R22

| Cond. temp. in °F (tc) | Evaporating temperature in °F (to) | | | | | | | |
|---------------------------|------------------------------------|----|----|----|----|----|----|----|
| | 0 | 10 | 20 | 30 | 35 | 40 | 45 | 50 |

Cooling capacity in Btu/h

| | | | | | | | | | |
|-----|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 90 | 82 177 | 103 986 | 129 511 | 159 083 | 175 489 | 193 031 | 211 749 | 231 685 | 252 880 |
| 100 | 77 424 | 98 679 | 123 493 | 152 197 | 168 110 | 185 119 | 203 266 | 222 591 | 243 136 |
| 110 | - | 93 156 | 117 155 | 144 886 | 160 254 | 176 678 | 194 201 | 212 863 | 232 705 |
| 120 | - | 87 424 | 110 504 | 137 158 | 151 928 | 167 716 | 184 562 | 202 508 | 221 596 |
| 130 | - | - | 103 544 | 129 017 | 143 138 | 158 236 | 174 355 | 191 533 | 209 814 |
| 140 | - | - | - | 120 470 | 133 889 | 148 247 | 163 585 | 179 944 | 197 365 |
| 150 | - | - | - | - | - | 137 752 | 152 258 | 167 745 | 184 256 |

Power input in W

| | | | | | | | | | |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 90 | 9 390 | 9 574 | 9 752 | 9 919 | 9 996 | 10 068 | 10 134 | 10 193 | 10 246 |
| 100 | 10 420 | 10 608 | 10 790 | 10 962 | 11 042 | 11 117 | 11 187 | 11 250 | 11 306 |
| 110 | - | 11 788 | 11 975 | 12 153 | 12 236 | 12 315 | 12 388 | 12 456 | 12 516 |
| 120 | - | 13 127 | 13 320 | 13 504 | 13 591 | 13 674 | 13 751 | 13 823 | 13 888 |
| 130 | - | - | 14 837 | 15 029 | 15 119 | 15 206 | 15 288 | 15 365 | 15 435 |
| 140 | - | - | - | 16 738 | 16 833 | 16 925 | 17 011 | 17 093 | 17 168 |
| 150 | - | - | - | - | - | 18 842 | 18 934 | 19 020 | 19 101 |

Current consumption in A

| | | | | | | | | | |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90 | 15.68 | 15.89 | 16.09 | 16.26 | 16.34 | 16.40 | 16.46 | 16.51 | 16.55 |
| 100 | 16.76 | 16.98 | 17.19 | 17.38 | 17.46 | 17.54 | 17.61 | 17.67 | 17.71 |
| 110 | - | 18.27 | 18.49 | 18.70 | 18.79 | 18.88 | 18.96 | 19.03 | 19.09 |
| 120 | - | 19.78 | 20.02 | 20.25 | 20.35 | 20.45 | 20.54 | 20.62 | 20.69 |
| 130 | - | - | 21.80 | 22.04 | 22.16 | 22.27 | 22.37 | 22.46 | 22.55 |
| 140 | - | - | - | 24.11 | 24.24 | 24.36 | 24.48 | 24.59 | 24.69 |
| 150 | - | - | - | - | - | 26.76 | 26.89 | 27.01 | 27.13 |

Mass flow in lbs/h

| | | | | | | | | | |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90 | 1 082 | 1 350 | 1 658 | 2 011 | 2 204 | 2 410 | 2 628 | 2 860 | 3 105 |
| 100 | 1 061 | 1 333 | 1 645 | 2 000 | 2 195 | 2 403 | 2 622 | 2 855 | 3 101 |
| 110 | - | 1 313 | 1 627 | 1 985 | 2 181 | 2 389 | 2 610 | 2 843 | 3 090 |
| 120 | - | 1 289 | 1 605 | 1 964 | 2 160 | 2 369 | 2 590 | 2 824 | 3 071 |
| 130 | - | - | 1 578 | 1 937 | 2 133 | 2 342 | 2 562 | 2 796 | 3 043 |
| 140 | - | - | - | 1 903 | 2 099 | 2 307 | 2 527 | 2 760 | 3 006 |
| 150 | - | - | - | - | - | 2 265 | 2 484 | 2 716 | 2 961 |

Energy Efficiency Ratio (E.E.R.)

| | | | | | | | | | |
|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 90 | 8.75 | 10.86 | 13.28 | 16.04 | 17.56 | 19.17 | 20.90 | 22.73 | 24.68 |
| 100 | 7.43 | 9.30 | 11.44 | 13.88 | 15.22 | 16.65 | 18.17 | 19.79 | 21.50 |
| 110 | - | 7.90 | 9.78 | 11.92 | 13.10 | 14.35 | 15.68 | 17.09 | 18.59 |
| 120 | - | 6.66 | 8.30 | 10.16 | 11.18 | 12.27 | 13.42 | 14.65 | 15.96 |
| 130 | - | - | 6.98 | 8.58 | 9.47 | 10.41 | 11.40 | 12.47 | 13.59 |
| 140 | - | - | - | 7.20 | 7.95 | 8.76 | 9.62 | 10.53 | 11.50 |
| 150 | - | - | - | - | - | 7.31 | 8.04 | 8.82 | 9.65 |

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

| | | | | | |
|------------------|---------|-------|---------------------|-------|-------|
| Cooling capacity | 174 355 | Btu/h | Current consumption | 22.37 | A |
| Power input | 15 288 | W | Mass flow | 2 562 | lbs/h |
| E.E.R. | 11.40 | | | | |

Pressure switch settings

| | | |
|---------------------------|-----|--------|
| Maximum HP switch setting | 406 | psi(g) |
| Minimum LP switch setting | 7 | psi(g) |
| LP pump down setting | 19 | psi(g) |

T 0 : Evaporating temperature at dew point

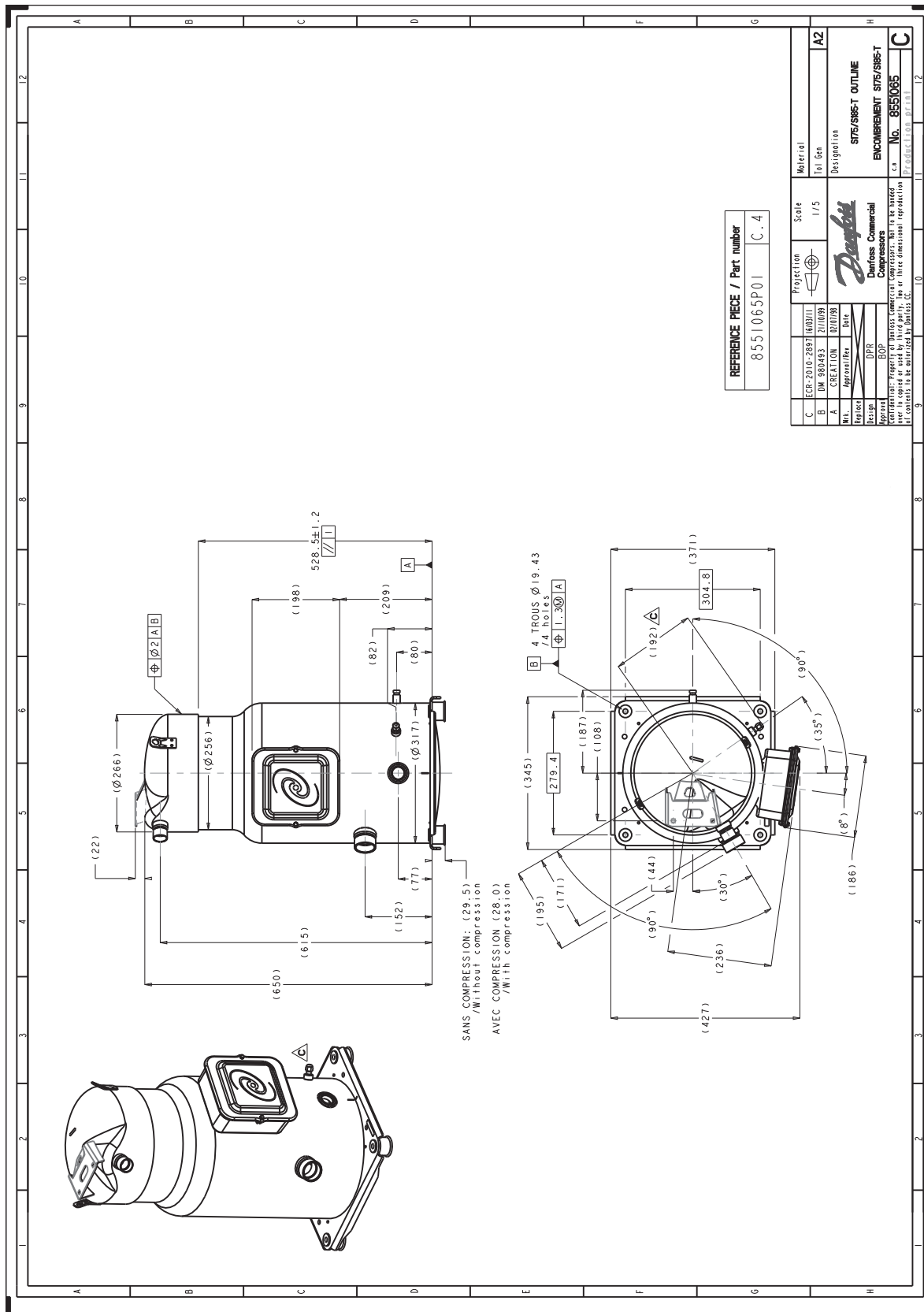
T C : Condensing temperature at dew point

Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

| | | |
|--------------------|------|-------|
| Sound power level | 82.5 | dB(A) |
| With acoustic hood | 75 | dB(A) |



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