

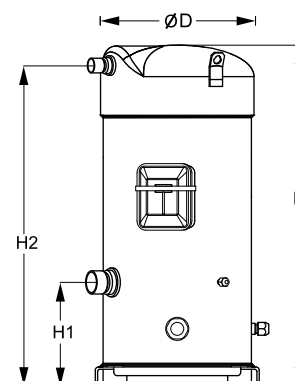
Datasheets

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



General Characteristics

Model number (on compressor nameplate)		SZ148T4VC
Code number for Singlepack*		SZ148-4VAI
Code number for Industrial pack**		SZ148-4VAM
Drawing number		8551106b
Suction and discharge connections		Brazed
Suction connection		1-3/8" ODF
Discharge connection		7/8" ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" flare SAE
Oil drain connection		None
LP gauge port		Schrader
IPR valve		None
Swept volume		199 cm ³ /rev
Displacement @ Nominal speed		34.6 m ³ /h @ 2900 rpm - 41.8 m ³ /h @ 3500 rpm
Net weight		88 kg
Oil charge		3,6 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		12,5 kg
Approved refrigerants		R407C, R134a, R404A, R507A

Dimensions


D=266 mm

H=591 mm

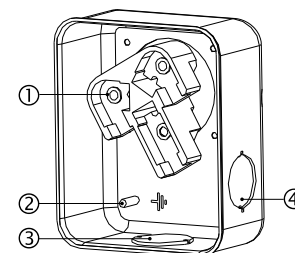
H1=180 mm

H2=556 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	0,94 Ω
Rated Load Amps (RLA)	22,9 A
Maximum Continuous Current (MCC)	32 A
Locked Rotor Amps (LRA)	145 A
Motor protection	Internal overload protector

Terminal box


IP54 (with cable gland)

1: Power connection, 3 x 4.8 mm (3/16")

2: Earth M4-12

3: Knock-out Ø 29 mm (1.14")

4: Knock-out Ø 25.5 mm (1.00")

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 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, P10 (1-3/4" Rotolock, 1-3/8" ODF)	8153003
Rotolock valve, V10 (1-3/4" Rotolock, 1-3/8" ODF)	8168022
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge side
Code no.

Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-3/4"	8156132

Rotolock accessories, sets
Code no.

Solder sleeve adapter set (1-3/4" Rotolock, 1-3/8" ODF), (1-1/4" Rotolock, 7/8" ODF)	7765006
Valve set, V10 (1-3/4"~1-3/8"), V05 (1-1/4"~7/8")	7703392
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

Oil / lubricants
Code no.

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

Crankcase heaters
Code no.

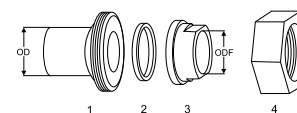
Surface sump heater + bottom insulation, 48 W, 24 V, CE mark, UL	120Z0361
Surface sump heater + bottom insulation, 48 W, 230 V, CE mark, UL	120Z0380
Surface sump heater + bottom insulation, 48 W, 400 V, CE mark, UL	120Z0381
Surface sump heater + bottom insulation, 48 W, 460 V, CE mark, UL	120Z0382
Belt type crankcase heater, 65 W, 460 V, CE mark, UL	120Z0466
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	7773107
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	7773117
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0039

Miscellaneous accessories
Code no.

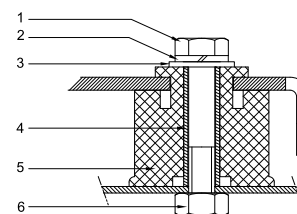
Electronic soft start kit, MCI 25 C	7705007
Acoustic hood for scroll compressor S148-S161 (except code 3)	7755017
Bottom insulation for scroll compressor	120Z0356
Discharge thermostat kit	7750009

Spare parts
Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Service kit for terminal box 96 x 115 mm, including 1 cover, 1 clamp	8156135
T block connector 52 x 57 mm	8173230

Solder sleeve adapter set


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

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 °C (tc)	Evaporating temperature in °C (to)							
	-20	-15	-10	-5	0	5	10	15

Cooling capacity in W

30	13 293	16 939	21 273	26 388	32 377	39 332	47 346	56 513	-
35	12 479	16 003	20 173	25 084	30 827	37 496	45 183	53 981	-
40	11 633	15 017	19 007	23 697	29 178	35 544	42 887	51 301	-
45	-	13 990	17 783	22 235	27 438	33 485	40 468	48 480	-
50	-	-	16 510	20 708	25 616	31 326	37 932	45 527	-
55	-	-	-	19 122	23 719	29 077	35 290	42 450	-
60	-	-	-	-	21 756	26 745	32 549	39 258	-
65	-	-	-	-	19 736	24 340	29 716	35 959	-

Power input in W

30	6 183	6 230	6 268	6 303	6 338	6 378	6 427	6 490	-
35	6 922	6 974	7 015	7 049	7 079	7 111	7 149	7 196	-
40	7 748	7 808	7 852	7 885	7 912	7 936	7 962	7 995	-
45	-	8 749	8 797	8 830	8 854	8 871	8 887	8 906	-
50	-	-	9 870	9 904	9 924	9 935	9 942	9 947	-
55	-	-	-	11 124	11 142	11 147	11 144	11 137	-
60	-	-	-	-	12 526	12 526	12 514	12 495	-
65	-	-	-	-	14 094	14 090	14 070	14 039	-

Current consumption in A

30	13.32	13.38	13.44	13.49	13.55	13.61	13.69	13.79	-
35	14.13	14.20	14.25	14.30	14.34	14.38	14.42	14.48	-
40	15.06	15.15	15.20	15.25	15.27	15.30	15.32	15.35	-
45	-	16.25	16.32	16.37	16.39	16.40	16.40	16.40	-
50	-	-	17.63	17.68	17.71	17.72	17.70	17.68	-
55	-	-	-	19.23	19.26	19.27	19.25	19.22	-
60	-	-	-	-	21.08	21.09	21.07	21.03	-
65	-	-	-	-	23.18	23.21	23.19	23.15	-

Mass flow in kg/h

30	279	351	434	530	640	766	910	1 073	-
35	275	347	431	527	637	763	907	1 069	-
40	270	343	426	522	632	758	902	1 064	-
45	-	337	420	516	626	752	895	1 056	-
50	-	-	414	509	619	744	886	1 046	-
55	-	-	-	501	609	734	875	1 035	-
60	-	-	-	-	599	722	862	1 021	-
65	-	-	-	-	587	709	848	1 005	-

Coefficient of performance (C.O.P.)

30	2.15	2.72	3.39	4.19	5.11	6.17	7.37	8.71	-
35	1.80	2.29	2.88	3.56	4.35	5.27	6.32	7.50	-
40	1.50	1.92	2.42	3.01	3.69	4.48	5.39	6.42	-
45	-	1.60	2.02	2.52	3.10	3.77	4.55	5.44	-
50	-	-	1.67	2.09	2.58	3.15	3.82	4.58	-
55	-	-	-	1.72	2.13	2.61	3.17	3.81	-
60	-	-	-	-	1.74	2.14	2.60	3.14	-
65	-	-	-	-	1.40	1.73	2.11	2.56	-

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

Cooling capacity	31 326	W
Power input	9 935	W
Current consumption	17.72	A
Mass flow	744	kg/h
C.O.P.	3.15	

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	79	dB(A)
With acoustic hood	71	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 can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	14 257	18 146	22 764	28 207	34 573	41 959	50 461	60 175	-
35	13 450	17 225	21 687	26 934	33 063	40 172	48 358	57 716	-
40	12 608	16 252	20 542	25 576	31 453	38 269	46 122	55 110	-
45	-	15 237	19 339	24 144	29 751	36 258	43 764	52 364	-
50	-	-	18 085	22 645	27 968	34 150	41 292	49 491	-
55	-	-	-	21 091	26 113	31 956	38 719	46 502	-
60	-	-	-	-	24 198	29 687	36 059	43 413	-
65	-	-	-	-	22 240	27 361	33 329	40 243	-

Power input in W

30	6 183	6 230	6 268	6 303	6 338	6 378	6 427	6 490	-
35	6 922	6 974	7 015	7 049	7 079	7 111	7 149	7 196	-
40	7 748	7 808	7 852	7 885	7 912	7 936	7 962	7 995	-
45	-	8 749	8 797	8 830	8 854	8 871	8 887	8 906	-
50	-	-	9 870	9 904	9 924	9 935	9 942	9 947	-
55	-	-	-	11 124	11 142	11 147	11 144	11 137	-
60	-	-	-	-	12 526	12 526	12 514	12 495	-
65	-	-	-	-	14 094	14 090	14 070	14 039	-

Current consumption in A

30	13.32	13.38	13.44	13.49	13.55	13.61	13.69	13.79	-
35	14.13	14.20	14.25	14.30	14.34	14.38	14.42	14.48	-
40	15.06	15.15	15.20	15.25	15.27	15.30	15.32	15.35	-
45	-	16.25	16.32	16.37	16.39	16.40	16.40	16.40	-
50	-	-	17.63	17.68	17.71	17.72	17.70	17.68	-
55	-	-	-	19.23	19.26	19.27	19.25	19.22	-
60	-	-	-	-	21.08	21.09	21.07	21.03	-
65	-	-	-	-	23.18	23.21	23.19	23.15	-

Mass flow in kg/h

30	278	349	431	527	636	762	904	1 066	-
35	274	346	428	524	633	759	901	1 063	-
40	269	341	424	519	629	754	896	1 057	-
45	-	335	418	513	623	748	889	1 050	-
50	-	-	411	506	615	739	880	1 040	-
55	-	-	-	498	606	729	870	1 028	-
60	-	-	-	-	596	718	857	1 014	-
65	-	-	-	-	584	705	843	998	-

Coefficient of performance (C.O.P.)

30	2.31	2.91	3.63	4.48	5.45	6.58	7.85	9.27	-
35	1.94	2.47	3.09	3.82	4.67	5.65	6.76	8.02	-
40	1.63	2.08	2.62	3.24	3.98	4.82	5.79	6.89	-
45	-	1.74	2.20	2.73	3.36	4.09	4.92	5.88	-
50	-	-	1.83	2.29	2.82	3.44	4.15	4.98	-
55	-	-	-	1.90	2.34	2.87	3.47	4.18	-
60	-	-	-	-	1.93	2.37	2.88	3.47	-
65	-	-	-	-	1.58	1.94	2.37	2.87	-

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

Cooling capacity	35 100	W
Power input	10 993	W
Current consumption	19.06	A
Mass flow	790	kg/h
C.O.P.	3.19	

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	79	dB(A)
With acoustic hood	71	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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

35	10 345	13 277	16 793	20 972	25 890	31 626	38 256	-	-
40	9 677	12 462	15 794	19 752	24 413	29 855	36 154	-	-
45	9 020	11 658	14 808	18 546	22 951	28 099	34 069	-	-
50	8 371	10 864	13 832	17 351	21 500	26 356	31 997	-	-
55	-	10 075	12 862	16 163	20 058	24 623	29 936	-	-
60	-	-	11 895	14 980	18 621	22 896	27 881	-	-
65	-	-	-	13 797	17 186	21 171	25 831	-	-
70	-	-	-	12 613	15 750	19 447	23 781	-	-

Power input in W

35	5 013	5 020	5 021	5 018	5 015	5 015	5 021	-	-
40	5 600	5 606	5 609	5 610	5 613	5 621	5 637	-	-
45	6 230	6 236	6 240	6 245	6 254	6 270	6 297	-	-
50	6 922	6 928	6 934	6 943	6 958	6 982	7 018	-	-
55	-	7 703	7 710	7 723	7 743	7 776	7 822	-	-
60	-	-	8 588	8 604	8 631	8 671	8 728	-	-
65	-	-	-	9 607	9 639	9 688	9 754	-	-
70	-	-	-	10 750	10 789	10 845	10 922	-	-

Current consumption in A

35	13.00	13.00	12.99	12.98	13.01	13.09	13.27	-	-
40	13.53	13.54	13.52	13.49	13.49	13.54	13.66	-	-
45	14.13	14.16	14.14	14.11	14.09	14.11	14.19	-	-
50	14.82	14.87	14.87	14.84	14.81	14.81	14.87	-	-
55	-	15.70	15.72	15.71	15.68	15.67	15.71	-	-
60	-	-	16.70	16.71	16.70	16.70	16.72	-	-
65	-	-	-	17.88	17.89	17.90	17.92	-	-
70	-	-	-	19.21	19.26	19.29	19.32	-	-

Mass flow in kg/h

35	251	316	391	478	579	693	824	-	-
40	248	312	386	473	572	686	815	-	-
45	244	308	382	468	566	678	806	-	-
50	241	304	378	462	560	671	798	-	-
55	-	300	373	458	554	664	789	-	-
60	-	-	369	453	548	658	781	-	-
65	-	-	-	448	543	651	774	-	-
70	-	-	-	444	538	645	766	-	-

Coefficient of performance (C.O.P.)

35	2.06	2.64	3.34	4.18	5.16	6.31	7.62	-	-
40	1.73	2.22	2.82	3.52	4.35	5.31	6.41	-	-
45	1.45	1.87	2.37	2.97	3.67	4.48	5.41	-	-
50	1.21	1.57	1.99	2.50	3.09	3.78	4.56	-	-
55	-	1.31	1.67	2.09	2.59	3.17	3.83	-	-
60	-	-	1.39	1.74	2.16	2.64	3.19	-	-
65	-	-	-	1.44	1.78	2.19	2.65	-	-
70	-	-	-	1.17	1.46	1.79	2.18	-	-

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

Cooling capacity	21 500	W
Power input	6 958	W
Current consumption	14.81	A
Mass flow	560	kg/h
C.O.P.	3.09	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	11 205	14 356	18 128	22 604	27 864	33 988	41 057	-	-
40	10 538	13 545	17 136	21 393	26 398	32 231	38 973	-	-
45	9 884	12 748	16 159	20 199	24 950	30 493	36 909	-	-
50	9 239	11 961	15 193	19 018	23 517	28 772	34 863	-	-
55	-	11 182	14 238	17 848	22 097	27 065	32 834	-	-
60	-	-	13 289	16 688	20 688	25 372	30 822	-	-
65	-	-	-	15 536	19 290	23 693	28 826	-	-
70	-	-	-	14 393	17 905	22 030	26 851	-	-

Power input in W

35	5 013	5 020	5 021	5 018	5 015	5 015	5 021	-	-
40	5 600	5 606	5 609	5 610	5 613	5 621	5 637	-	-
45	6 230	6 236	6 240	6 245	6 254	6 270	6 297	-	-
50	6 922	6 928	6 934	6 943	6 958	6 982	7 018	-	-
55	-	7 703	7 710	7 723	7 743	7 776	7 822	-	-
60	-	-	8 588	8 604	8 631	8 671	8 728	-	-
65	-	-	-	9 607	9 639	9 688	9 754	-	-
70	-	-	-	10 750	10 789	10 845	10 922	-	-

Current consumption in A

35	13.00	13.00	12.99	12.98	13.01	13.09	13.27	-	-
40	13.53	13.54	13.52	13.49	13.49	13.54	13.66	-	-
45	14.13	14.16	14.14	14.11	14.09	14.11	14.19	-	-
50	14.82	14.87	14.87	14.84	14.81	14.81	14.87	-	-
55	-	15.70	15.72	15.71	15.68	15.67	15.71	-	-
60	-	-	16.70	16.71	16.70	16.70	16.72	-	-
65	-	-	-	17.88	17.89	17.90	17.92	-	-
70	-	-	-	19.21	19.26	19.29	19.32	-	-

Mass flow in kg/h

35	250	314	389	476	576	690	819	-	-
40	246	310	384	470	569	682	810	-	-
45	243	306	380	465	563	675	802	-	-
50	240	303	376	460	557	668	793	-	-
55	-	299	372	455	551	661	785	-	-
60	-	-	368	451	546	654	777	-	-
65	-	-	-	446	540	648	769	-	-
70	-	-	-	442	535	641	762	-	-

Coefficient of performance (C.O.P.)

35	2.24	2.86	3.61	4.50	5.56	6.78	8.18	-	-
40	1.88	2.42	3.06	3.81	4.70	5.73	6.91	-	-
45	1.59	2.04	2.59	3.23	3.99	4.86	5.86	-	-
50	1.33	1.73	2.19	2.74	3.38	4.12	4.97	-	-
55	-	1.45	1.85	2.31	2.85	3.48	4.20	-	-
60	-	-	1.55	1.94	2.40	2.93	3.53	-	-
65	-	-	-	1.62	2.00	2.45	2.96	-	-
70	-	-	-	1.34	1.66	2.03	2.46	-	-

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

Cooling capacity	24 373	W
Power input	7 656	W
Current consumption	15.56	A
Mass flow	598	kg/h
C.O.P.	3.18	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, EN 12900 rating conditions

R134a

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

Cooling capacity in W

35	10 345	13 277	16 793	20 972	25 890	31 626	38 256	-	-
40	9 677	12 462	15 794	19 752	24 413	29 855	36 154	-	-
45	9 020	11 658	14 808	18 546	22 951	28 099	34 069	-	-
50	8 371	10 864	13 832	17 351	21 500	26 356	31 997	-	-
55	-	10 075	12 862	16 163	20 058	24 623	29 936	-	-
60	-	-	11 895	14 980	18 621	22 896	27 881	-	-
65	-	-	-	13 797	17 186	21 171	25 831	-	-
70	-	-	-	12 613	15 750	19 447	23 781	-	-

Power input in W

35	5 013	5 020	5 021	5 018	5 015	5 015	5 021	-	-
40	5 600	5 606	5 609	5 610	5 613	5 621	5 637	-	-
45	6 230	6 236	6 240	6 245	6 254	6 270	6 297	-	-
50	6 922	6 928	6 934	6 943	6 958	6 982	7 018	-	-
55	-	7 703	7 710	7 723	7 743	7 776	7 822	-	-
60	-	-	8 588	8 604	8 631	8 671	8 728	-	-
65	-	-	-	9 607	9 639	9 688	9 754	-	-
70	-	-	-	10 750	10 789	10 845	10 922	-	-

Current consumption in A

35	13.00	13.00	12.99	12.98	13.01	13.09	13.27	-	-
40	13.53	13.54	13.52	13.49	13.49	13.54	13.66	-	-
45	14.13	14.16	14.14	14.11	14.09	14.11	14.19	-	-
50	14.82	14.87	14.87	14.84	14.81	14.81	14.87	-	-
55	-	15.70	15.72	15.71	15.68	15.67	15.71	-	-
60	-	-	16.70	16.71	16.70	16.70	16.72	-	-
65	-	-	-	17.88	17.89	17.90	17.92	-	-
70	-	-	-	19.21	19.26	19.29	19.32	-	-

Mass flow in kg/h

35	251	316	391	478	579	693	824	-	-
40	248	312	386	473	572	686	815	-	-
45	244	308	382	468	566	678	806	-	-
50	241	304	378	462	560	671	798	-	-
55	-	300	373	458	554	664	789	-	-
60	-	-	369	453	548	658	781	-	-
65	-	-	-	448	543	651	774	-	-
70	-	-	-	444	538	645	766	-	-

Coefficient of performance (C.O.P.)

35	2.06	2.64	3.34	4.18	5.16	6.31	7.62	-	-
40	1.73	2.22	2.82	3.52	4.35	5.31	6.41	-	-
45	1.45	1.87	2.37	2.97	3.67	4.48	5.41	-	-
50	1.21	1.57	1.99	2.50	3.09	3.78	4.56	-	-
55	-	1.31	1.67	2.09	2.59	3.17	3.83	-	-
60	-	-	1.39	1.74	2.16	2.64	3.19	-	-
65	-	-	-	1.44	1.78	2.19	2.65	-	-
70	-	-	-	1.17	1.46	1.79	2.18	-	-

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

Cooling capacity	21 500	W
Power input	6 958	W
Current consumption	14.81	A
Mass flow	560	kg/h
C.O.P.	3.09	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	11 205	14 356	18 128	22 604	27 864	33 988	41 057	-	-
40	10 538	13 545	17 136	21 393	26 398	32 231	38 973	-	-
45	9 884	12 748	16 159	20 199	24 950	30 493	36 909	-	-
50	9 239	11 961	15 193	19 018	23 517	28 772	34 863	-	-
55	-	11 182	14 238	17 848	22 097	27 065	32 834	-	-
60	-	-	13 289	16 688	20 688	25 372	30 822	-	-
65	-	-	-	15 536	19 290	23 693	28 826	-	-
70	-	-	-	14 393	17 905	22 030	26 851	-	-

Power input in W

35	5 013	5 020	5 021	5 018	5 015	5 015	5 021	-	-
40	5 600	5 606	5 609	5 610	5 613	5 621	5 637	-	-
45	6 230	6 236	6 240	6 245	6 254	6 270	6 297	-	-
50	6 922	6 928	6 934	6 943	6 958	6 982	7 018	-	-
55	-	7 703	7 710	7 723	7 743	7 776	7 822	-	-
60	-	-	8 588	8 604	8 631	8 671	8 728	-	-
65	-	-	-	9 607	9 639	9 688	9 754	-	-
70	-	-	-	10 750	10 789	10 845	10 922	-	-

Current consumption in A

35	13.00	13.00	12.99	12.98	13.01	13.09	13.27	-	-
40	13.53	13.54	13.52	13.49	13.49	13.54	13.66	-	-
45	14.13	14.16	14.14	14.11	14.09	14.11	14.19	-	-
50	14.82	14.87	14.87	14.84	14.81	14.81	14.87	-	-
55	-	15.70	15.72	15.71	15.68	15.67	15.71	-	-
60	-	-	16.70	16.71	16.70	16.70	16.72	-	-
65	-	-	-	17.88	17.89	17.90	17.92	-	-
70	-	-	-	19.21	19.26	19.29	19.32	-	-

Mass flow in kg/h

35	250	314	389	476	576	690	819	-	-
40	246	310	384	470	569	682	810	-	-
45	243	306	380	465	563	675	802	-	-
50	240	303	376	460	557	668	793	-	-
55	-	299	372	455	551	661	785	-	-
60	-	-	368	451	546	654	777	-	-
65	-	-	-	446	540	648	769	-	-
70	-	-	-	442	535	641	762	-	-

Coefficient of performance (C.O.P.)

35	2.24	2.86	3.61	4.50	5.56	6.78	8.18	-	-
40	1.88	2.42	3.06	3.81	4.70	5.73	6.91	-	-
45	1.59	2.04	2.59	3.23	3.99	4.86	5.86	-	-
50	1.33	1.73	2.19	2.74	3.38	4.12	4.97	-	-
55	-	1.45	1.85	2.31	2.85	3.48	4.20	-	-
60	-	-	1.55	1.94	2.40	2.93	3.53	-	-
65	-	-	-	1.62	2.00	2.45	2.96	-	-
70	-	-	-	1.34	1.66	2.03	2.46	-	-

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

Cooling capacity	24 373	W
Power input	7 656	W
Current consumption	15.56	A
Mass flow	598	kg/h
C.O.P.	3.18	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, EN 12900 rating conditions
R407C

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

Cooling capacity in W

30	13 293	16 939	21 273	26 388	32 377	39 332	47 346	56 513	-
35	12 479	16 003	20 173	25 084	30 827	37 496	45 183	53 981	-
40	11 633	15 017	19 007	23 697	29 178	35 544	42 887	51 301	-
45	-	13 990	17 783	22 235	27 438	33 485	40 468	48 480	-
50	-	-	16 510	20 708	25 616	31 326	37 932	45 527	-
55	-	-	-	19 122	23 719	29 077	35 290	42 450	-
60	-	-	-	-	21 756	26 745	32 549	39 258	-
65	-	-	-	-	19 736	24 340	29 716	35 959	-

Power input in W

30	6 183	6 230	6 268	6 303	6 338	6 378	6 427	6 490	-
35	6 922	6 974	7 015	7 049	7 079	7 111	7 149	7 196	-
40	7 748	7 808	7 852	7 885	7 912	7 936	7 962	7 995	-
45	-	8 749	8 797	8 830	8 854	8 871	8 887	8 906	-
50	-	-	9 870	9 904	9 924	9 935	9 942	9 947	-
55	-	-	-	11 124	11 142	11 147	11 144	11 137	-
60	-	-	-	-	12 526	12 526	12 514	12 495	-
65	-	-	-	-	14 094	14 090	14 070	14 039	-

Current consumption in A

30	13.32	13.38	13.44	13.49	13.55	13.61	13.69	13.79	-
35	14.13	14.20	14.25	14.30	14.34	14.38	14.42	14.48	-
40	15.06	15.15	15.20	15.25	15.27	15.30	15.32	15.35	-
45	-	16.25	16.32	16.37	16.39	16.40	16.40	16.40	-
50	-	-	17.63	17.68	17.71	17.72	17.70	17.68	-
55	-	-	-	19.23	19.26	19.27	19.25	19.22	-
60	-	-	-	-	21.08	21.09	21.07	21.03	-
65	-	-	-	-	23.18	23.21	23.19	23.15	-

Mass flow in kg/h

30	279	351	434	530	640	766	910	1 073	-
35	275	347	431	527	637	763	907	1 069	-
40	270	343	426	522	632	758	902	1 064	-
45	-	337	420	516	626	752	895	1 056	-
50	-	-	414	509	619	744	886	1 046	-
55	-	-	-	501	609	734	875	1 035	-
60	-	-	-	-	599	722	862	1 021	-
65	-	-	-	-	587	709	848	1 005	-

Coefficient of performance (C.O.P.)

30	2.15	2.72	3.39	4.19	5.11	6.17	7.37	8.71	-
35	1.80	2.29	2.88	3.56	4.35	5.27	6.32	7.50	-
40	1.50	1.92	2.42	3.01	3.69	4.48	5.39	6.42	-
45	-	1.60	2.02	2.52	3.10	3.77	4.55	5.44	-
50	-	-	1.67	2.09	2.58	3.15	3.82	4.58	-
55	-	-	-	1.72	2.13	2.61	3.17	3.81	-
60	-	-	-	-	1.74	2.14	2.60	3.14	-
65	-	-	-	-	1.40	1.73	2.11	2.56	-

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

Cooling capacity	31 326	W
Power input	9 935	W
Current consumption	17.72	A
Mass flow	744	kg/h
C.O.P.	3.15	

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	79	dB(A)
With acoustic hood	71	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 can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	14 257	18 146	22 764	28 207	34 573	41 959	50 461	60 175	-
35	13 450	17 225	21 687	26 934	33 063	40 172	48 358	57 716	-
40	12 608	16 252	20 542	25 576	31 453	38 269	46 122	55 110	-
45	-	15 237	19 339	24 144	29 751	36 258	43 764	52 364	-
50	-	-	18 085	22 645	27 968	34 150	41 292	49 491	-
55	-	-	-	21 091	26 113	31 956	38 719	46 502	-
60	-	-	-	-	24 198	29 687	36 059	43 413	-
65	-	-	-	-	22 240	27 361	33 329	40 243	-

Power input in W

30	6 183	6 230	6 268	6 303	6 338	6 378	6 427	6 490	-
35	6 922	6 974	7 015	7 049	7 079	7 111	7 149	7 196	-
40	7 748	7 808	7 852	7 885	7 912	7 936	7 962	7 995	-
45	-	8 749	8 797	8 830	8 854	8 871	8 887	8 906	-
50	-	-	9 870	9 904	9 924	9 935	9 942	9 947	-
55	-	-	-	11 124	11 142	11 147	11 144	11 137	-
60	-	-	-	-	12 526	12 526	12 514	12 495	-
65	-	-	-	-	14 094	14 090	14 070	14 039	-

Current consumption in A

30	13.32	13.38	13.44	13.49	13.55	13.61	13.69	13.79	-
35	14.13	14.20	14.25	14.30	14.34	14.38	14.42	14.48	-
40	15.06	15.15	15.20	15.25	15.27	15.30	15.32	15.35	-
45	-	16.25	16.32	16.37	16.39	16.40	16.40	16.40	-
50	-	-	17.63	17.68	17.71	17.72	17.70	17.68	-
55	-	-	-	19.23	19.26	19.27	19.25	19.22	-
60	-	-	-	-	21.08	21.09	21.07	21.03	-
65	-	-	-	-	23.18	23.21	23.19	23.15	-

Mass flow in kg/h

30	278	349	431	527	636	762	904	1 066	-
35	274	346	428	524	633	759	901	1 063	-
40	269	341	424	519	629	754	896	1 057	-
45	-	335	418	513	623	748	889	1 050	-
50	-	-	411	506	615	739	880	1 040	-
55	-	-	-	498	606	729	870	1 028	-
60	-	-	-	-	596	718	857	1 014	-
65	-	-	-	-	584	705	843	998	-

Coefficient of performance (C.O.P.)

30	2.31	2.91	3.63	4.48	5.45	6.58	7.85	9.27	-
35	1.94	2.47	3.09	3.82	4.67	5.65	6.76	8.02	-
40	1.63	2.08	2.62	3.24	3.98	4.82	5.79	6.89	-
45	-	1.74	2.20	2.73	3.36	4.09	4.92	5.88	-
50	-	-	1.83	2.29	2.82	3.44	4.15	4.98	-
55	-	-	-	1.90	2.34	2.87	3.47	4.18	-
60	-	-	-	-	1.93	2.37	2.88	3.47	-
65	-	-	-	-	1.58	1.94	2.37	2.87	-

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

Cooling capacity	35 100	W
Power input	10 993	W
Current consumption	19.06	A
Mass flow	790	kg/h
C.O.P.	3.19	

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	79	dB(A)
With acoustic hood	71	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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, EN 12900 rating conditions
R407C

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

Cooling capacity in W

30	16 283	20 657	25 847	31 966	39 125	47 438	57 020	67 982	-
35	15 340	19 565	24 558	30 431	37 297	45 269	54 459	64 981	-
40	14 354	18 411	23 189	28 799	35 354	42 966	51 746	61 809	-
45	-	17 206	21 751	27 080	33 306	40 538	48 890	58 475	-
50	-	-	20 253	25 283	31 160	37 995	45 900	54 986	-
55	-	-	-	23 415	28 925	35 344	42 781	51 348	-
60	-	-	-	-	26 608	32 589	39 538	47 565	-
65	-	-	-	-	24 209	29 732	36 170	43 633	-

Power input in W

30	7 413	7 529	7 664	7 797	7 905	7 966	7 957	7 855	-
35	8 312	8 398	8 519	8 655	8 782	8 877	8 919	8 885	-
40	9 334	9 377	9 472	9 597	9 730	9 848	9 929	9 950	-
45	-	10 501	10 557	10 660	10 786	10 914	11 021	11 084	-
50	-	-	11 808	11 876	11 983	12 109	12 229	12 323	-
55	-	-	-	13 281	13 357	13 467	13 589	13 700	-
60	-	-	-	-	14 941	15 024	15 135	15 251	-
65	-	-	-	-	16 771	16 813	16 900	17 009	-

Current consumption in A

30	12.54	12.67	12.81	12.95	13.11	13.27	13.43	13.61	-
35	13.46	13.59	13.73	13.86	13.99	14.12	14.25	14.38	-
40	14.49	14.64	14.77	14.90	15.02	15.13	15.23	15.32	-
45	-	15.83	15.98	16.11	16.23	16.33	16.42	16.48	-
50	-	-	17.38	17.53	17.65	17.75	17.83	17.88	-
55	-	-	-	19.16	19.31	19.42	19.49	19.54	-
60	-	-	-	-	21.22	21.35	21.44	21.49	-
65	-	-	-	-	23.43	23.59	23.70	23.76	-

Mass flow in kg/h

30	342	428	527	641	773	924	1 096	1 290	-
35	338	425	524	639	771	921	1 093	1 287	-
40	334	420	520	635	766	917	1 088	1 282	-
45	-	415	514	629	760	910	1 081	1 274	-
50	-	-	508	622	752	902	1 072	1 264	-
55	-	-	-	613	743	892	1 060	1 251	-
60	-	-	-	-	732	880	1 047	1 236	-
65	-	-	-	-	720	866	1 032	1 220	-

Coefficient of performance (C.O.P.)

30	2.20	2.74	3.37	4.10	4.95	5.96	7.17	8.65	-
35	1.85	2.33	2.88	3.52	4.25	5.10	6.11	7.31	-
40	1.54	1.96	2.45	3.00	3.63	4.36	5.21	6.21	-
45	-	1.64	2.06	2.54	3.09	3.71	4.44	5.28	-
50	-	-	1.72	2.13	2.60	3.14	3.75	4.46	-
55	-	-	-	1.76	2.17	2.62	3.15	3.75	-
60	-	-	-	-	1.78	2.17	2.61	3.12	-
65	-	-	-	-	1.44	1.77	2.14	2.57	-

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

Cooling capacity	37 995	W
Power input	12 109	W
Current consumption	17.75	A
Mass flow	902	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	83	dB(A)
With acoustic hood	75	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 can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	17 464	22 130	27 659	34 170	41 780	50 607	60 770	72 388	-
35	16 533	21 059	26 400	32 676	40 003	48 500	58 285	69 477	-
40	15 557	19 925	25 062	31 084	38 111	46 260	55 649	66 398	-
45	-	18 740	23 653	29 405	36 113	43 896	52 872	63 160	-
50	-	-	22 186	27 649	34 021	41 420	49 965	59 774	-
55	-	-	-	25 826	31 845	38 843	46 938	56 250	-
60	-	-	-	-	29 595	36 173	43 802	52 599	-
65	-	-	-	-	27 281	33 423	40 567	48 832	-

Power input in W

30	7 413	7 529	7 664	7 797	7 905	7 966	7 957	7 855	-
35	8 312	8 398	8 519	8 655	8 782	8 877	8 919	8 885	-
40	9 334	9 377	9 472	9 597	9 730	9 848	9 929	9 950	-
45	-	10 501	10 557	10 660	10 786	10 914	11 021	11 084	-
50	-	-	11 808	11 876	11 983	12 109	12 229	12 323	-
55	-	-	-	13 281	13 357	13 467	13 589	13 700	-
60	-	-	-	-	14 941	15 024	15 135	15 251	-
65	-	-	-	-	16 771	16 813	16 900	17 009	-

Current consumption in A

30	12.54	12.67	12.81	12.95	13.11	13.27	13.43	13.61	-
35	13.46	13.59	13.73	13.86	13.99	14.12	14.25	14.38	-
40	14.49	14.64	14.77	14.90	15.02	15.13	15.23	15.32	-
45	-	15.83	15.98	16.11	16.23	16.33	16.42	16.48	-
50	-	-	17.38	17.53	17.65	17.75	17.83	17.88	-
55	-	-	-	19.16	19.31	19.42	19.49	19.54	-
60	-	-	-	-	21.22	21.35	21.44	21.49	-
65	-	-	-	-	23.43	23.59	23.70	23.76	-

Mass flow in kg/h

30	341	426	524	638	769	919	1 089	1 282	-
35	337	422	521	635	766	916	1 086	1 279	-
40	332	418	517	631	762	912	1 082	1 274	-
45	-	412	512	625	756	905	1 075	1 266	-
50	-	-	505	618	748	897	1 065	1 256	-
55	-	-	-	610	739	887	1 054	1 244	-
60	-	-	-	-	728	875	1 041	1 229	-
65	-	-	-	-	716	861	1 026	1 212	-

Coefficient of performance (C.O.P.)

30	2.36	2.94	3.61	4.38	5.29	6.35	7.64	9.22	-
35	1.99	2.51	3.10	3.78	4.56	5.46	6.53	7.82	-
40	1.67	2.12	2.65	3.24	3.92	4.70	5.60	6.67	-
45	-	1.78	2.24	2.76	3.35	4.02	4.80	5.70	-
50	-	-	1.88	2.33	2.84	3.42	4.09	4.85	-
55	-	-	-	1.94	2.38	2.88	3.45	4.11	-
60	-	-	-	-	1.98	2.41	2.89	3.45	-
65	-	-	-	-	1.63	1.99	2.40	2.87	-

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

Cooling capacity	42 600	W
Power input	13 348	W
Current consumption	19.24	A
Mass flow	959	kg/h
C.O.P.	3.19	

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	83	dB(A)
With acoustic hood	75	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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, EN 12900 rating conditions
R134a

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

Cooling capacity in W

35	12 405	15 800	19 840	24 614	30 209	36 716	44 224	-	-
40	11 639	14 899	18 771	23 345	28 708	34 950	42 161	-	-
45	10 856	13 971	17 668	22 034	27 156	33 126	40 030	-	-
50	10 059	13 022	16 535	20 683	25 557	31 244	37 833	-	-
55	-	12 056	15 375	19 298	23 914	29 309	35 573	-	-
60	-	-	14 192	17 881	22 229	27 323	33 252	-	-
65	-	-	-	16 434	20 504	25 288	30 871	-	-
70	-	-	-	14 958	18 740	23 201	28 428	-	-

Power input in W

35	5 998	6 140	6 234	6 274	6 255	6 169	6 010	-	-
40	6 637	6 792	6 897	6 946	6 932	6 849	6 691	-	-
45	7 352	7 523	7 642	7 702	7 697	7 620	7 465	-	-
50	8 146	8 337	8 472	8 546	8 553	8 485	8 336	-	-
55	-	9 236	9 391	9 483	9 504	9 448	9 309	-	-
60	-	-	10 403	10 515	10 553	10 513	10 386	-	-
65	-	-	-	11 646	11 706	11 683	11 572	-	-
70	-	-	-	12 881	12 964	12 963	12 870	-	-

Current consumption in A

35	11.69	11.84	11.98	12.10	12.19	12.21	12.15	-	-
40	12.28	12.41	12.54	12.65	12.71	12.70	12.61	-	-
45	12.98	13.12	13.25	13.34	13.39	13.36	13.25	-	-
50	13.80	13.95	14.09	14.18	14.22	14.19	14.06	-	-
55	-	14.91	15.06	15.17	15.21	15.18	15.05	-	-
60	-	-	16.16	16.29	16.35	16.33	16.21	-	-
65	-	-	-	17.55	17.64	17.65	17.54	-	-
70	-	-	-	18.94	19.08	19.11	19.03	-	-

Mass flow in kg/h

35	301	376	462	561	675	805	952	-	-
40	298	373	459	559	673	803	950	-	-
45	294	369	456	555	670	800	947	-	-
50	289	365	451	551	666	796	943	-	-
55	-	359	446	546	661	791	938	-	-
60	-	-	441	541	655	785	932	-	-
65	-	-	-	534	648	777	924	-	-
70	-	-	-	527	640	770	916	-	-

Coefficient of performance (C.O.P.)

35	2.07	2.57	3.18	3.92	4.83	5.95	7.36	-	-
40	1.75	2.19	2.72	3.36	4.14	5.10	6.30	-	-
45	1.48	1.86	2.31	2.86	3.53	4.35	5.36	-	-
50	1.23	1.56	1.95	2.42	2.99	3.68	4.54	-	-
55	-	1.31	1.64	2.04	2.52	3.10	3.82	-	-
60	-	-	1.36	1.70	2.11	2.60	3.20	-	-
65	-	-	-	1.41	1.75	2.16	2.67	-	-
70	-	-	-	1.16	1.45	1.79	2.21	-	-

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

Cooling capacity	25 557	W
Power input	8 553	W
Current consumption	14.22	A
Mass flow	666	kg/h
C.O.P.	2.99	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	13 435	17 084	21 418	26 529	32 512	39 458	47 461	-	-
40	12 674	16 194	20 366	25 285	31 042	37 733	45 448	-	-
45	11 895	15 277	19 279	23 997	29 522	35 947	43 367	-	-
50	11 102	14 337	18 162	22 670	27 954	34 107	41 222	-	-
55	-	13 381	17 020	21 310	26 344	32 216	39 018	-	-
60	-	-	15 856	19 920	24 696	30 279	36 760	-	-
65	-	-	-	18 505	23 015	28 300	34 451	-	-
70	-	-	-	17 069	21 305	26 284	32 098	-	-

Power input in W

35	5 998	6 140	6 234	6 274	6 255	6 169	6 010	-	-
40	6 637	6 792	6 897	6 946	6 932	6 849	6 691	-	-
45	7 352	7 523	7 642	7 702	7 697	7 620	7 465	-	-
50	8 146	8 337	8 472	8 546	8 553	8 485	8 336	-	-
55	-	9 236	9 391	9 483	9 504	9 448	9 309	-	-
60	-	-	10 403	10 515	10 553	10 513	10 386	-	-
65	-	-	-	11 646	11 706	11 683	11 572	-	-
70	-	-	-	12 881	12 964	12 963	12 870	-	-

Current consumption in A

35	11.69	11.84	11.98	12.10	12.19	12.21	12.15	-	-
40	12.28	12.41	12.54	12.65	12.71	12.70	12.61	-	-
45	12.98	13.12	13.25	13.34	13.39	13.36	13.25	-	-
50	13.80	13.95	14.09	14.18	14.22	14.19	14.06	-	-
55	-	14.91	15.06	15.17	15.21	15.18	15.05	-	-
60	-	-	16.16	16.29	16.35	16.33	16.21	-	-
65	-	-	-	17.55	17.64	17.65	17.54	-	-
70	-	-	-	18.94	19.08	19.11	19.03	-	-

Mass flow in kg/h

35	300	374	460	558	672	801	947	-	-
40	296	371	457	556	669	799	945	-	-
45	292	367	453	553	666	796	942	-	-
50	288	363	449	548	662	791	938	-	-
55	-	358	444	543	657	786	933	-	-
60	-	-	438	538	651	780	927	-	-
65	-	-	-	531	644	773	919	-	-
70	-	-	-	524	637	765	911	-	-

Coefficient of performance (C.O.P.)

35	2.24	2.78	3.44	4.23	5.20	6.40	7.90	-	-
40	1.91	2.38	2.95	3.64	4.48	5.51	6.79	-	-
45	1.62	2.03	2.52	3.12	3.84	4.72	5.81	-	-
50	1.36	1.72	2.14	2.65	3.27	4.02	4.94	-	-
55	-	1.45	1.81	2.25	2.77	3.41	4.19	-	-
60	-	-	1.52	1.89	2.34	2.88	3.54	-	-
65	-	-	-	1.59	1.97	2.42	2.98	-	-
70	-	-	-	1.33	1.64	2.03	2.49	-	-

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

Cooling capacity	29 029	W
Power input	9 369	W
Current consumption	15.08	A
Mass flow	713	kg/h
C.O.P.	3.10	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, EN 12900 rating conditions
R134a

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

Cooling capacity in W

35	12 405	15 800	19 840	24 614	30 209	36 716	44 224	-	-
40	11 639	14 899	18 771	23 345	28 708	34 950	42 161	-	-
45	10 856	13 971	17 668	22 034	27 156	33 126	40 030	-	-
50	10 059	13 022	16 535	20 683	25 557	31 244	37 833	-	-
55	-	12 056	15 375	19 298	23 914	29 309	35 573	-	-
60	-	-	14 192	17 881	22 229	27 323	33 252	-	-
65	-	-	-	16 434	20 504	25 288	30 871	-	-
70	-	-	-	14 958	18 740	23 201	28 428	-	-

Power input in W

35	5 998	6 140	6 234	6 274	6 255	6 169	6 010	-	-
40	6 637	6 792	6 897	6 946	6 932	6 849	6 691	-	-
45	7 352	7 523	7 642	7 702	7 697	7 620	7 465	-	-
50	8 146	8 337	8 472	8 546	8 553	8 485	8 336	-	-
55	-	9 236	9 391	9 483	9 504	9 448	9 309	-	-
60	-	-	10 403	10 515	10 553	10 513	10 386	-	-
65	-	-	-	11 646	11 706	11 683	11 572	-	-
70	-	-	-	12 881	12 964	12 963	12 870	-	-

Current consumption in A

35	11.69	11.84	11.98	12.10	12.19	12.21	12.15	-	-
40	12.28	12.41	12.54	12.65	12.71	12.70	12.61	-	-
45	12.98	13.12	13.25	13.34	13.39	13.36	13.25	-	-
50	13.80	13.95	14.09	14.18	14.22	14.19	14.06	-	-
55	-	14.91	15.06	15.17	15.21	15.18	15.05	-	-
60	-	-	16.16	16.29	16.35	16.33	16.21	-	-
65	-	-	-	17.55	17.64	17.65	17.54	-	-
70	-	-	-	18.94	19.08	19.11	19.03	-	-

Mass flow in kg/h

35	301	376	462	561	675	805	952	-	-
40	298	373	459	559	673	803	950	-	-
45	294	369	456	555	670	800	947	-	-
50	289	365	451	551	666	796	943	-	-
55	-	359	446	546	661	791	938	-	-
60	-	-	441	541	655	785	932	-	-
65	-	-	-	534	648	777	924	-	-
70	-	-	-	527	640	770	916	-	-

Coefficient of performance (C.O.P.)

35	2.07	2.57	3.18	3.92	4.83	5.95	7.36	-	-
40	1.75	2.19	2.72	3.36	4.14	5.10	6.30	-	-
45	1.48	1.86	2.31	2.86	3.53	4.35	5.36	-	-
50	1.23	1.56	1.95	2.42	2.99	3.68	4.54	-	-
55	-	1.31	1.64	2.04	2.52	3.10	3.82	-	-
60	-	-	1.36	1.70	2.11	2.60	3.20	-	-
65	-	-	-	1.41	1.75	2.16	2.67	-	-
70	-	-	-	1.16	1.45	1.79	2.21	-	-

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

Cooling capacity	25 557	W
Power input	8 553	W
Current consumption	14.22	A
Mass flow	666	kg/h
C.O.P.	2.99	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, ARI rating conditions

R134a

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

Cooling capacity in W

35	13 435	17 084	21 418	26 529	32 512	39 458	47 461	-	-
40	12 674	16 194	20 366	25 285	31 042	37 733	45 448	-	-
45	11 895	15 277	19 279	23 997	29 522	35 947	43 367	-	-
50	11 102	14 337	18 162	22 670	27 954	34 107	41 222	-	-
55	-	13 381	17 020	21 310	26 344	32 216	39 018	-	-
60	-	-	15 856	19 920	24 696	30 279	36 760	-	-
65	-	-	-	18 505	23 015	28 300	34 451	-	-
70	-	-	-	17 069	21 305	26 284	32 098	-	-

Power input in W

35	5 998	6 140	6 234	6 274	6 255	6 169	6 010	-	-
40	6 637	6 792	6 897	6 946	6 932	6 849	6 691	-	-
45	7 352	7 523	7 642	7 702	7 697	7 620	7 465	-	-
50	8 146	8 337	8 472	8 546	8 553	8 485	8 336	-	-
55	-	9 236	9 391	9 483	9 504	9 448	9 309	-	-
60	-	-	10 403	10 515	10 553	10 513	10 386	-	-
65	-	-	-	11 646	11 706	11 683	11 572	-	-
70	-	-	-	12 881	12 964	12 963	12 870	-	-

Current consumption in A

35	11.69	11.84	11.98	12.10	12.19	12.21	12.15	-	-
40	12.28	12.41	12.54	12.65	12.71	12.70	12.61	-	-
45	12.98	13.12	13.25	13.34	13.39	13.36	13.25	-	-
50	13.80	13.95	14.09	14.18	14.22	14.19	14.06	-	-
55	-	14.91	15.06	15.17	15.21	15.18	15.05	-	-
60	-	-	16.16	16.29	16.35	16.33	16.21	-	-
65	-	-	-	17.55	17.64	17.65	17.54	-	-
70	-	-	-	18.94	19.08	19.11	19.03	-	-

Mass flow in kg/h

35	300	374	460	558	672	801	947	-	-
40	296	371	457	556	669	799	945	-	-
45	292	367	453	553	666	796	942	-	-
50	288	363	449	548	662	791	938	-	-
55	-	358	444	543	657	786	933	-	-
60	-	-	438	538	651	780	927	-	-
65	-	-	-	531	644	773	919	-	-
70	-	-	-	524	637	765	911	-	-

Coefficient of performance (C.O.P.)

35	2.24	2.78	3.44	4.23	5.20	6.40	7.90	-	-
40	1.91	2.38	2.95	3.64	4.48	5.51	6.79	-	-
45	1.62	2.03	2.52	3.12	3.84	4.72	5.81	-	-
50	1.36	1.72	2.14	2.65	3.27	4.02	4.94	-	-
55	-	1.45	1.81	2.25	2.77	3.41	4.19	-	-
60	-	-	1.52	1.89	2.34	2.88	3.54	-	-
65	-	-	-	1.59	1.97	2.42	2.98	-	-
70	-	-	-	1.33	1.64	2.03	2.49	-	-

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

Cooling capacity	29 029	W
Power input	9 369	W
Current consumption	15.08	A
Mass flow	713	kg/h
C.O.P.	3.10	

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%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, EN 12900 rating conditions
R407C

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

Cooling capacity in W

30	16 283	20 657	25 847	31 966	39 125	47 438	57 020	67 982	-
35	15 340	19 565	24 558	30 431	37 297	45 269	54 459	64 981	-
40	14 354	18 411	23 189	28 799	35 354	42 966	51 746	61 809	-
45	-	17 206	21 751	27 080	33 306	40 538	48 890	58 475	-
50	-	-	20 253	25 283	31 160	37 995	45 900	54 986	-
55	-	-	-	23 415	28 925	35 344	42 781	51 348	-
60	-	-	-	-	26 608	32 589	39 538	47 565	-
65	-	-	-	-	24 209	29 732	36 170	43 633	-

Power input in W

30	7 413	7 529	7 664	7 797	7 905	7 966	7 957	7 855	-
35	8 312	8 398	8 519	8 655	8 782	8 877	8 919	8 885	-
40	9 334	9 377	9 472	9 597	9 730	9 848	9 929	9 950	-
45	-	10 501	10 557	10 660	10 786	10 914	11 021	11 084	-
50	-	-	11 808	11 876	11 983	12 109	12 229	12 323	-
55	-	-	-	13 281	13 357	13 467	13 589	13 700	-
60	-	-	-	-	14 941	15 024	15 135	15 251	-
65	-	-	-	-	16 771	16 813	16 900	17 009	-

Current consumption in A

30	12.54	12.67	12.81	12.95	13.11	13.27	13.43	13.61	-
35	13.46	13.59	13.73	13.86	13.99	14.12	14.25	14.38	-
40	14.49	14.64	14.77	14.90	15.02	15.13	15.23	15.32	-
45	-	15.83	15.98	16.11	16.23	16.33	16.42	16.48	-
50	-	-	17.38	17.53	17.65	17.75	17.83	17.88	-
55	-	-	-	19.16	19.31	19.42	19.49	19.54	-
60	-	-	-	-	21.22	21.35	21.44	21.49	-
65	-	-	-	-	23.43	23.59	23.70	23.76	-

Mass flow in kg/h

30	342	428	527	641	773	924	1 096	1 290	-
35	338	425	524	639	771	921	1 093	1 287	-
40	334	420	520	635	766	917	1 088	1 282	-
45	-	415	514	629	760	910	1 081	1 274	-
50	-	-	508	622	752	902	1 072	1 264	-
55	-	-	-	613	743	892	1 060	1 251	-
60	-	-	-	-	732	880	1 047	1 236	-
65	-	-	-	-	720	866	1 032	1 220	-

Coefficient of performance (C.O.P.)

30	2.20	2.74	3.37	4.10	4.95	5.96	7.17	8.65	-
35	1.85	2.33	2.88	3.52	4.25	5.10	6.11	7.31	-
40	1.54	1.96	2.45	3.00	3.63	4.36	5.21	6.21	-
45	-	1.64	2.06	2.54	3.09	3.71	4.44	5.28	-
50	-	-	1.72	2.13	2.60	3.14	3.75	4.46	-
55	-	-	-	1.76	2.17	2.62	3.15	3.75	-
60	-	-	-	-	1.78	2.17	2.61	3.12	-
65	-	-	-	-	1.44	1.77	2.14	2.57	-

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

Cooling capacity	37 995	W
Power input	12 109	W
Current consumption	17.75	A
Mass flow	902	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	83	dB(A)
With acoustic hood	75	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 can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 60 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	17 464	22 130	27 659	34 170	41 780	50 607	60 770	72 388	-
35	16 533	21 059	26 400	32 676	40 003	48 500	58 285	69 477	-
40	15 557	19 925	25 062	31 084	38 111	46 260	55 649	66 398	-
45	-	18 740	23 653	29 405	36 113	43 896	52 872	63 160	-
50	-	-	22 186	27 649	34 021	41 420	49 965	59 774	-
55	-	-	-	25 826	31 845	38 843	46 938	56 250	-
60	-	-	-	-	29 595	36 173	43 802	52 599	-
65	-	-	-	-	27 281	33 423	40 567	48 832	-

Power input in W

30	7 413	7 529	7 664	7 797	7 905	7 966	7 957	7 855	-
35	8 312	8 398	8 519	8 655	8 782	8 877	8 919	8 885	-
40	9 334	9 377	9 472	9 597	9 730	9 848	9 929	9 950	-
45	-	10 501	10 557	10 660	10 786	10 914	11 021	11 084	-
50	-	-	11 808	11 876	11 983	12 109	12 229	12 323	-
55	-	-	-	13 281	13 357	13 467	13 589	13 700	-
60	-	-	-	-	14 941	15 024	15 135	15 251	-
65	-	-	-	-	16 771	16 813	16 900	17 009	-

Current consumption in A

30	12.54	12.67	12.81	12.95	13.11	13.27	13.43	13.61	-
35	13.46	13.59	13.73	13.86	13.99	14.12	14.25	14.38	-
40	14.49	14.64	14.77	14.90	15.02	15.13	15.23	15.32	-
45	-	15.83	15.98	16.11	16.23	16.33	16.42	16.48	-
50	-	-	17.38	17.53	17.65	17.75	17.83	17.88	-
55	-	-	-	19.16	19.31	19.42	19.49	19.54	-
60	-	-	-	-	21.22	21.35	21.44	21.49	-
65	-	-	-	-	23.43	23.59	23.70	23.76	-

Mass flow in kg/h

30	341	426	524	638	769	919	1 089	1 282	-
35	337	422	521	635	766	916	1 086	1 279	-
40	332	418	517	631	762	912	1 082	1 274	-
45	-	412	512	625	756	905	1 075	1 266	-
50	-	-	505	618	748	897	1 065	1 256	-
55	-	-	-	610	739	887	1 054	1 244	-
60	-	-	-	-	728	875	1 041	1 229	-
65	-	-	-	-	716	861	1 026	1 212	-

Coefficient of performance (C.O.P.)

30	2.36	2.94	3.61	4.38	5.29	6.35	7.64	9.22	-
35	1.99	2.51	3.10	3.78	4.56	5.46	6.53	7.82	-
40	1.67	2.12	2.65	3.24	3.92	4.70	5.60	6.67	-
45	-	1.78	2.24	2.76	3.35	4.02	4.80	5.70	-
50	-	-	1.88	2.33	2.84	3.42	4.09	4.85	-
55	-	-	-	1.94	2.38	2.88	3.45	4.11	-
60	-	-	-	-	1.98	2.41	2.89	3.45	-
65	-	-	-	-	1.63	1.99	2.40	2.87	-

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

Cooling capacity	42 600	W
Power input	13 348	W
Current consumption	19.24	A
Mass flow	959	kg/h
C.O.P.	3.19	

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	83	dB(A)
With acoustic hood	75	dB(A)

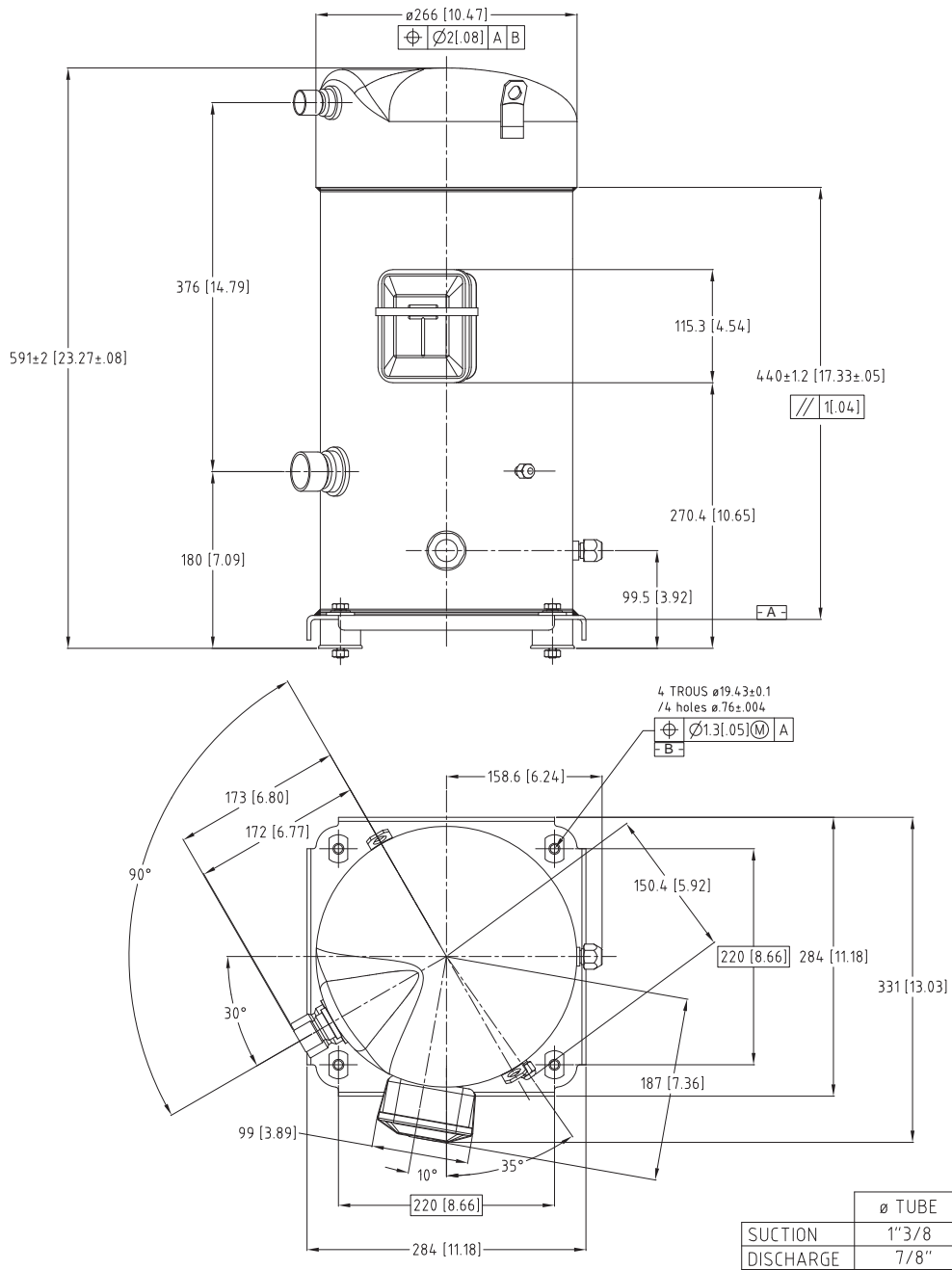
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.



B	JAP	19/11/02	DOM	DC 1020770
A	PEP	02/06/99	MAP	CREATION PLAN SERIE
IND	RT	PAR	DATE	APPROBATION
				MODIFICATIONS
MATERIE:				
Ech.: 1/4	Tol.gén.: ± 0.8 [± .03] ± 2°			
ENCOMBREMENT S148/161-4V				Danfoss Maneurop S.A.
S148/161-4V OUTLINE				Z.I. de REYRIEUX - B.P. 331F 01603 TREVOUX - FRANCE
Ce plan est la propriété de Danfoss Maneurop S.A. toute copie ou communication à des tiers est interdite sans autorisation. This drawing is proprietary and shall not be copied or its contents disclosed to outside parties without the written consent of Danfoss Maneurop S.A.				85 51 106