

Datasheet, technical data

Danfoss inverter scroll compressor, VSH088-G

General Characteristics

Model number (on compressor nameplate)		VSH088AGANB	
Code number for Singlepack*		120G0001	
Drawing number		8560025d	
Suction and discharge connections		Brazed	
Suction connection		1-1/8 " ODF	
Discharge connection		7/8 " ODF	
Oil sight glass		Threaded	
Oil equalisation connection		1-3/4" Rotolock	
Oil drain connection		None	
LP gauge port		Schrader	
IPR valve		None	
Swept volume	88.4 cr	m3/rev	
Displacement @ Nominal speed	15.4 m3/h @ 2900 rpm - 18.6 m3/h @ 3500 rpm		
Net weight	59	kg	
Oil charge	3.3 litre, P0	DE - 160SZ	
Maximum system test pressure Low Side / High side	33.3 bar(g)	/ 45 bar(g)	
Maximum differential test pressure	37	bar	
Maximum number of starts per hour	1	2	
Refrigerant charge limit	5.9	kg	
Approved refrigerants	R41	0A	

Electrical Characteristics

Nominal voltage	Frequency converter CDS302 required with supply voltage 380-480V/3/50-60Hz
Voltage range	342-528 V supply to frequency converter
Rated Load Amps (RLA)	29.9 A
Maximum Must Trip current (MMT)	37.4 A
Locked Rotor Amps (LRA)	159 A
Motor protection	Motor protection by frequency converter

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	15 Nm

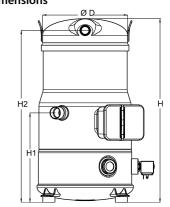
Parts shipped with compressor

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

Approvals: CE certified, UL certified when connected to frequency converter, -

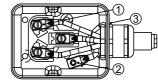
 * Singlepack: Compressor in cardboard box

Dimensions



D=243 mm H=485 mm H1=235 mm H2=451 mm H3=- mm

Terminal box



IP54 (with cable gland)

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

2: Earth M4

3: Hole Ø 33 mm (1.30")



Datasheet, accessories and spare parts

Belt type crankcase heater, 65 W, 400 V, CE mark, UL

Danfoss inverter scroll compressor, VSH088-G

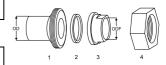
Rotolock accessories, suction side	Code no.
Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge sideCode no.Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)8168030Gasket, 1-3/4"8156132

Rotolock accessories, sets	Code no.
Solder sleeve adapter set (1-3/4" Rotolock, 1-1/8" ODF), (1-1/4" Rotolock, 7/8" ODF)	120Z0125
Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")	120Z0403
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants	Code no.
POE lubricant, 160SZ, 1 litre can	7754023
POE lubricant, 160SZ, 2.5 litre can	120Z0571

Solder sleeve adapter set



1: Rotolock adapter (Suc & Dis)

2: Gasket (Suc & Dis)

120Z0039

3: Solder sleeve (Suc & Dis)

4: Rotolock nut (Suc & Dis)

Crankcase heaters	Code no.
Surface sump heater, 80 W, 24 V, CE mark, UL	120Z0388
Surface sump heater, 80 W, 230 V, CE mark, UL	120Z0389
Surface sump heater, 80 W, 400 V, CE mark, UL	120Z0390
Surface sump heater, 80 W, 460 V, CE mark, UL	120Z0391
Belt type crankcase heater, 50 W, 400 V, UL	7773009
Belt type crankcase heater, 50 W, 240 V, UL	7773003
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, 230 V, CE mark, UL	120Z0038
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	7773117

Miscellaneous accessories	Code no.

Discharge temperature sensor / converter	120Z0157
Discharge temperature sensor	120Z0158
Discharge temperature converter	120Z0159
Acoustic hood for scroll compressor VSH088-G, VSH088-H	120Z0152
Discharge thermostat kit	7750009

Spare parts Code no.

_ spare parts	code no.
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z0066
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box incl cover	120Z0146
Terminal box cover	120Z0149
T block connector 52 x 57 mm	8173230



Danfoss scroll compressor. VSH088-G

Performance data at 30 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	in Evaporating temperature in °C (to)								
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W								
20	-	6 196	7 609	9 287	11 257	13 545	16 179	_	-
30	_	5 528	6 894	8 496	10 362	12 517	14 989	17 803	20 986
40	_	4 696	5 956	7 422	9 122	11 083	13 331	15 893	18 795
50	-	-	-	6 116	7 590	9 296	11 260	13 508	16 068
55	_	-	-	-	6 731	8 286	10 085	12 154	14 519
60	-	_	_	-	-	7 208	8 827	10 701	12 857
65	_	_	-	_	-	-	-	-	-
68	-	_	-	_	-	-	_	_	-
							1		ı
Power input in W									
20	-	2 250	2 250	2 236	2 202	2 144	2 056	-	-
30	-	2 814	2 825	2 828	2 820	2 796	2 750	2 679	2 577
40	-	3 515	3 517	3 520	3 520	3 512	3 490	3 451	3 389
50	-	-	-	4 467	4 457	4 446	4 431	4 406	4 365
55	-	-	-	-	5 062	5 044	5 025	5 000	4 964
60	-	-	-	-	-	5 753	5 726	5 697	5 661
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
.	41 1 4								
20 20	tion in A	5.49	5.67	5.77	5.77	5.67	5.43	_	
	-			1	+	1	1		- - 70
30 40	-	6.06 7.23	6.19 7.25	6.29 7.28	6.34 7.32	6.33 7.34	6.23 7.32	6.03 7.25	5.72
			-	1					7.10
50		-		8.89	8.84	8.83	8.82	8.81	8.77
55 60	-	-	-	-	9.86	9.80	9.78 10.89	9.77	9.77 10.88
		-		-		10.95	-	10.88	-
65 68	-	-	-	-	-	-	-	-	-
00	-		<u> </u>	1	<u> </u>			<u> </u>	
Mass flow in kg/h	l								
20	-	116	141	170	204	243	288	-	-
30	_	114	140	171	205	245	291	343	401
40	-	108	134	165	200	240	286	338	396
50	-	-	-	154	189	228	273	324	382
55	_	-	-	-	181	220	264	314	371
60	-	-	-	-	-	209	253	302	358
65	-	-	-	-	-	-	-		-
68	-	-	-	-	-	-	-	-	-
On affiniació of con-	£a	0.D.)							
Coefficient of per	· '	O.P.) 2.75	3.38	4.15	5.11	6.22	7.87	1	
20	-					6.32		- 6.65	- 0.15
30	-	1.96	2.44	3.00	3.67	4.48	5.45	6.65	8.15
40	-	1.34	1.69	2.11	2.59	3.16	3.82	4.61	5.55
50	-	-	-	1.37	1.70	2.09	2.54	3.07	3.68
55	-	-	-	-	1.33	1.64	2.01	2.43	2.93
60	-	-	-	-	-	1.25	1.54	1.88	2.27
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Nominal performa	ance at to = 5	°C. tc = 50 °C				Pressure switch	settinas		
Cooling capacity	0	11 26	n W		Γ	Maximum HP swi		45	har(n)

Cooling capacity	11 260	W
Power input	4 431	W
Current consumption	8.82	Α
Mass flow	273	kg/h
C.O.P.	2.54	

to: Evaporating temperature at dew point

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 30 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W								
20	-	6 618	8 120	9 902	11 994	14 422	17 215	_	_
30	_	5 963	7 430	9 148	11 147	13 453	16 096	19 104	22 503
	-	5 905				1	1		1
40 50	-	-	6 507	8 099	9 943	12 068 10 324	14 501 12 488	17 271	20 406
		+			8 441	1		14 963	17 778
55	-	-	-	-	-	9 340	11 350	13 658	16 294
60	-	-	-	-	-	-	10 147	12 280	14 730
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
ower input in W									
20	-	2 250	2 250	2 236	2 202	2 144	2 056	-	-
30	-	2 814	2 825	2 828	2 820	2 796	2 750	2 679	2 577
40	-	-	3 517	3 520	3 520	3 512	3 490	3 451	3 389
50	-	-	-	-	4 457	4 446	4 431	4 406	4 365
55	-	-	-	-	-	5 044	5 025	5 000	4 964
60	-	-	-	-	-	-	5 726	5 697	5 661
65	-	-	-	-	-	-	-	-	-
68	-	_	_	_	_	_	_	_	_
		L		I .	I .	II.	l	I	
urrent consump	tion in A								
20	-	5.49	5.67	5.77	5.77	5.67	5.43	-	-
30	-	6.06	6.19	6.29	6.34	6.33	6.23	6.03	5.72
40	-	-	7.25	7.28	7.32	7.34	7.32	7.25	7.10
50	-	-	-	-	8.84	8.83	8.82	8.81	8.77
55	-	-	_	-	-	9.80	9.78	9.77	9.77
60	-	-	-	-	-	-	10.89	10.88	10.88
65	-	-	_	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
<u> </u>		'				1			.1
/lass flow in kg/h									
20	-	115	140	169	203	242	286	-	-
30	-	113	139	170	204	244	289	340	398
40	-	-	134	164	199	239	284	335	393
50	-	-	-	-	188	227	271	322	379
55	-	-	-	-	-	218	262	312	368
60	-	-	-	-	-	-	251	300	355
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
`ff:-!+ -f	fa	0.D.)							
20 20	-	2.94	3.61	4.43	5.45	6.73	8.37	_	_
30	-	2.12	2.63	3.23	3.95	4.81	5.85	7.13	8.73
40	-	-	1.85	2.30	2.82	3.44	4.15	5.00	6.02
50	-	-	-	-	1.89	2.32	2.82	3.40	4.07
55	-	-	-	-	-	1.85	2.02	2.73	3.28
60	-	-	-	-	-	-	1.77	2.16	2.60
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-

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

reciminal portermance at to 7:2 0, to	04.4	
Cooling capacity	12 476	W
Power input	4 938	W
Current consumption	9.65	Α
Mass flow	285	kg/h
C.O.P.	2.53	

to: Evaporating temperature at dew point

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

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 35 Hz, EN 12900 rating conditions

R410A

Cond. temp. in				Evapora	iting temperature i	n °C (to)			
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling conceits	in W								
Cooling capacity 20		7 415	9 096	11 000	12 421	16 125	19 232	_	_
	-	_	+	11 088	13 421	16 125			
30	-	6 592	8 204	10 090	12 281	14 808	17 700	20 988	24 703
40	-	5 652	7 139	8 864	10 858	13 151	15 774	18 756	22 128
50	-	-	-	7 413	9 155	11 159	13 456	16 076	19 051
55	-	-	-	-	8 198	10 037	12 151	14 570	17 325
60	-	-	-	-	-	8 832	10 749	12 953	15 474
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Power input in W	,								
20	-	2 644	2 653	2 651	2 631	2 585	2 508	-	-
30	-	3 225	3 240	3 253	3 258	3 248	3 217	3 159	3 067
40	-	4 002	4 002	4 011	4 022	4 029	4 026	4 005	3 961
50	-	-	-	5 054	5 052	5 057	5 061	5 059	5 043
55	-	-	-	-	5 707	5 703	5 704	5 703	5 695
60	-	-	-	-	-	6 459	6 452	6 448	6 442
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	_	-
•		1					1	•	ı
Current consump	otion in A								
20	-	5.47	5.53	5.53	5.45	5.28	5.02	-	-
30	-	6.77	6.85	6.91	6.93	6.91	6.83	6.69	6.48
40	-	8.20	8.22	8.26	8.30	8.34	8.37	8.37	8.34
50	-	-	-	9.95	9.93	9.95	10.00	10.06	10.14
55	-	-	-	-	10.95	10.93	10.96	11.03	11.13
60	-	-	-	-	-	12.11	12.09	12.14	12.24
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Mass flow in kg/h			1	1				1	
20	-	138	168	203	243	289	342	-	-
30	-	136	167	203	244	290	344	404	472
40	-	130	161	197	238	285	339	399	466
50	-	-	-	187	228	274	327	386	453
55	-	-	-	-	220	266	318	377	443
60	-	-	-	-	-	257	308	366	431
65	-	-	-	-	-	-	-		-
68	-	-	-	-	-	-	-	-	-
Coefficient of per	rformance (C.	O.P.)							
20	-	2.80	3.43	4.18	5.10	6.24	7.67		-
30	-	2.04	2.53	3.10	3.77	4.56	5.50	6.64	8.06
40	-	1.41	1.78	2.21	2.70	3.26	3.92	4.68	5.59
50	-	-	-	1.47	1.81	2.21	2.66	3.18	3.78
55	-	-	-	-	1.44	1.76	2.13	2.55	3.04
60	-	-	-	-	-	1.37	1.67	2.01	2.40
65	-	-	-	-	-	-	-	-	-
68	-	-	_	-	-	-	_	-	-

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Cooling capacity	13 456	W
Power input	5 061	W
Current consumption	10.00	Α
Mass flow	327	kg/h
C.O.P.	2.66	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switc	h setting	45	bar(g)
Minimum LP switch	setting	1.5	bar(g)
LP pump down sett	ing	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 35 Hz, ARI rating conditions

R410A

Cond. temp. in	in Evaporating temperature in °C (to)								
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling capacity in	1 W								
20		7 920	9 707	11 823	14 300	17 169	20 463	-	_
30		7 112	8 842	10 864	13 211	15 915	19 008	22 522	26 489
40	_	-	7 800	9 673	11 836	14 319	17 157	20 382	24 025
50	_	-	-	-	10 181	12 392	14 923	17 808	21 079
55		-	_	-	-	11 313	13 674	16 373	19 443
60	_	-	_	_	_	-	12 358	14 864	17 728
65	_	-	-	_	_	_	-	-	-
68	_	-	-	-	_	_	_	-	_
		1	I	I	1		1	l	1
Power input in W									_
20	-	2 644	2 653	2 651	2 631	2 585	2 508	-	-
30	-	3 225	3 240	3 253	3 258	3 248	3 217	3 159	3 067
40	-	-	4 002	4 011	4 022	4 029	4 026	4 005	3 961
50	-	-	-	-	5 052	5 057	5 061	5 059	5 043
55	-	-	-	-	-	5 703	5 704	5 703	5 695
60	-	-	-	-	-	-	6 452	6 448	6 442
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Current consumpti	ion in A								
20	-	5.47	5.53	5.53	5.45	5.28	5.02	-	_
30	-	6.77	6.85	6.91	6.93	6.91	6.83	6.69	6.48
40	-	-	8.22	8.26	8.30	8.34	8.37	8.37	8.34
50	-	_	_	_	9.93	9.95	10.00	10.06	10.14
55	_	-	-	_	-	10.93	10.96	11.03	11.13
60	-	-	-	-	-	_	12.09	12.14	12.24
65	-	_	_	_	_	_	-	-	-
68	-	-	-	-	-	-	-	-	-
			u.	Ш	•	•		•	•
Mass flow in kg/h								I	
20	-	137	167	202	242	287	340	-	-
30	-	135	166	201	242	288	341	401	468
40	-	-	160	196	237	283	336	396	463
50	-	-	-	-	226	272	324	383	449
55	-	-	-	-	-	264	316	374	440
60	-	-	-	-	-	-	306	363	428
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
coefficient of perfo	· ·				T	T	T	T	T
20	-	3.00	3.66	4.46	5.44	6.64	8.16	-	-
	-	2.21	2.73	3.34	4.06	4.90	5.91	7.13	8.64
30	-	-	1.95	2.41	2.94	3.55	4.26	5.09	6.07
40		1	-	-	2.02	2.45	2.95	3.52	4.18
40 50	-	-	1						1
40 50 55	-	-	-	-	-	1.98	2.40	2.87	3.41
40 50 55 60				-	-	1.98	2.40 1.92	2.87	3.41 2.75
40 50 55	-	-	-						1

Cooling capacity	14 982	W
Power input	5 622	W
Current consumption	10.86	Α
Mass flow	342	kg/h
C.O.P.	2.66	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 40 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling canacity	in W								
20 Cooling capacity		8 621	10 566	12 867	15 550	10 674	22 250	_	_
	-	+	+		15 558	18 674		†	
30	-	7 650	9 504	11 672	14 187	17 084	20 397	24 161	28 409
40	-	6 600	8 313	10 295	12 582	15 208	18 206	21 613	25 461
50	-	-	-	8 695	10 702	13 004	15 637	18 634	22 029
55	-	-	-	-	9 646	11 767	14 197	16 970	20 119
60	-	-	-	-	-	10 433	12 647	15 183	18 074
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Power input in W									
20	-	3 022	3 042	3 051	3 043	3 009	2 942	-	-
30	-	3 643	3 664	3 687	3 705	3 709	3 693	3 648	3 566
40	-	4 499	4 501	4 517	4 540	4 563	4 577	4 574	4 547
50	-	-	-	5 654	5 663	5 683	5 707	5 727	5 735
55	-	-	-	-	6 367	6 378	6 400	6 423	6 441
60	-	-	-	-	-	7 183	7 196	7 219	7 242
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
1					•	•	•	•	1
Current consump	tion in A		1	ı	1		1	1	1
20	-	5.55	5.52	5.43	5.27	5.06	4.77	-	-
30	-	7.50	7.54	7.56	7.56	7.53	7.47	7.38	7.25
40	-	9.16	9.19	9.23	9.28	9.34	9.40	9.48	9.55
50	-	-	-	11.00	11.01	11.06	11.16	11.29	11.47
55	-	-	-	-	12.06	12.07	12.15	12.28	12.47
60	-	-	-	-	-	13.28	13.31	13.42	13.60
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Mass flow in kg/h									
20		160	195	235	282	335	396	_	_
	-	157	193	234	281	335	396	1	
30				234		330		465	543
40	-	151	188		276		391	459	537
50			+	219	266	319	380	447	524
55	-	-	-	-	259	312	372	439	515
60 65	-	-	-	-	-	303	362	429	504
65 68	-	-	-	-	-	-	-	-	-
00	-	-	-	-	-	-	-	-	-
Coefficient of per			Т	Т	T		T	T	T
20	-	2.85	3.47	4.22	5.11	6.21	7.56	-	-
30	-	2.10	2.59	3.17	3.83	4.61	5.52	6.62	7.97
40	-	1.47	1.85	2.28	2.77	3.33	3.98	4.72	5.60
50	-	-	-	1.54	1.89	2.29	2.74	3.25	3.84
55	-	-	-	-	1.52	1.84	2.22	2.64	3.12
60	-	-	-	-	-	1.45	1.76	2.10	2.50
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	_	_	-

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

Cooling capacity	15 637	W
Power input	5 707	W
Current consumption	11.16	Α
Mass flow	380	kg/h
C.O.P.	2.74	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 40 Hz, ARI rating conditions

R410A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W								
20	-	9 208	11 275	13 720	16 577	19 884	23 674	_	_
30		8 252		12 567			21 905		
			10 243		15 261	18 362		25 926	30 463
40	-	-	9 082	11 234	13 714	16 558	19 804	23 486	27 644
50	-	-	-	-	11 902	14 442	17 342	20 640	24 374
55	-	-	-	-	-	13 263	15 977	19 069	22 579
60	-	-	-	-	-	-	14 539	17 423	20 706
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
ower input in W									
20	-	3 022	3 042	3 051	3 043	3 009	2 942	-	-
30	-	3 643	3 664	3 687	3 705	3 709	3 693	3 648	3 566
40	-	-	4 501	4 517	4 540	4 563	4 577	4 574	4 547
50	-	-	-	-	5 663	5 683	5 707	5 727	5 735
55	-	-	-	-	-	6 378	6 400	6 423	6 441
60	-	-	-	-	-	-	7 196	7 219	7 242
65	-	-	-	-	-	-	-	-	-
68	-	_	_	-	_	_	_	_	-
		L		-1	1	1	II.	l	l
urrent consump	tion in A								
20	-	5.55	5.52	5.43	5.27	5.06	4.77	-	-
30	-	7.50	7.54	7.56	7.56	7.53	7.47	7.38	7.25
40	-	-	9.19	9.23	9.28	9.34	9.40	9.48	9.55
50	-	-	-	-	11.01	11.06	11.16	11.29	11.47
55	-	-	_	-	_	12.07	12.15	12.28	12.47
60	-	-	-	-	_	_	13.31	13.42	13.60
65	-	-	-	-	_	_	-	-	-
68	-	-	-	-	-	-	-	-	-
		1	1		1	1	•	•	
lass flow in kg/h				_					
20	-	159	194	234	280	333	393	-	-
30	-	156	192	233	280	333	393	462	539
40	-	-	187	228	275	328	388	456	533
50	-	-	-	-	265	317	377	444	520
55	-	-	-	-	-	310	369	436	511
60	-	-	-	-	-	-	360	426	500
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
		 .							
coefficient of per	rormance (C.C	3.05	3.71	4.50	5.45	6.61	8.05	_	_
30	-	2.27	2.80	3.41	4.12	4.95	5.93	7.11	8.54
40	-	-	2.02	2.49	3.02	3.63	4.33	5.13	6.08
50	-	-	-		2.10	2.54	3.04	3.60	4.25
				-	-			1	
55	-	-	-	-	 	2.08	2.50	2.97	3.51
60	-	-	-	-	-	-	2.02	2.41	2.86
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	_	-	-

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

reciminal portormance at to 7:2	0, 10 04.4 0	
Cooling capacity	17 467	W
Power input	6 322	W
Current consumption	12.07	Α
Mass flow	399	kg/h
C.O.P.	2.76	

to: Evaporating temperature at dew point

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

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 45 Hz, EN 12900 rating conditions

R410A

Cond. temp. in		T	Г		ting temperature		1	1	1
°C (tc)		-20	-15	-10	-5	0	5	10	15
ooling capacity i	n W	Т	Т	Т	T	Т	T	T	1
20	-	9 814	12 018	14 623	17 669	21 192	25 233	-	-
30	-	8 699	10 795	13 242	16 079	19 346	23 080	27 320	32 105
40	-	7 541	9 476	11 714	14 294	17 253	20 630	24 463	28 792
50	-	-	-	9 962	12 232	14 833	17 803	21 179	25 002
55	-	-	-	-	11 074	13 477	16 223	19 353	22 903
60	-	-	-	-	-	12 009	14 520	17 390	20 655
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
ower input in W									
20	-	3 385	3 415	3 436	3 440	3 417	3 360	-	-
30	-	4 069	4 098	4 132	4 162	4 180	4 177	4 144	4 074
40	-	5 006	5 013	5 039	5 075	5 113	5 143	5 158	5 149
50	-	-	-	6 267	6 288	6 325	6 368	6 410	6 442
55	-	-	-	-	7 041	7 070	7 112	7 160	7 203
60	-	-	-	-	-	7 925	7 961	8 009	8 061
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
<u> </u>		•	•	•	•	•	•	•	•
urrent consump	tion in A								
20	_	5.74	5.63	5.47	5.25	4.99	4.69	_	_
30	-	8.24	8.26	8.25	8.23	8.19	8.14	8.10	8.05
40	-	10.11	10.15	10.19	10.25	10.33	10.43	10.56	10.72
50	_	-	-	12.05	12.09	12.17	12.31	12.51	12.77
55	_	_	_	-	13.17	13.22	13.33	13.53	13.80
60	-	_	_	_	-	14.47	14.54	14.70	14.96
65	_	_	-	_	_	-	-	-	-
68	_	-	_	-	_	-	_	_	_
00		<u> </u>			<u> </u>		<u>-</u>	<u>-</u>	
lass flow in kg/h									
20		182	221	267	320	380	449	_	
30	-	179	219	266	319	379	449		613
	-	+	†		1	†	1	526	
40	-	173	214	261	314	374	443	520	607
50	-	-	-	251	304	364	432	509	594
55	-	-	-	-	298	357	425	501	586
60	-	-	-	-	-	349	416	491	576
65	-	-	-	-	-	-			-
68	-	-	-	-	<u> </u>	-	-	-	-
pefficient of perf	ormance (C.C	T '	T	T	Т	T	1	1	1
· ·	-	2.90	3.52	4.26	5.14	6.20	7.51	-	-
20	-	2.14	2.63	3.21	3.86	4.63	5.53	6.59	7.88
20 30		1.51	1.89	2.32	2.82	3.37	4.01	4.74	5.59
	-		1	1.59	1.95	2.35	2.80	3.30	3.88
30	-	-	-						
30 40		-	-	-	1.57	1.91	2.28	2.70	3.18
30 40 50	-				1.57	1.91 1.52	2.28 1.82	2.70 2.17	3.18 2.56
30 40 50 55	-	-	-	-		+			

Cooling capacity Power input

Mass flow

C.O.P.

Current consumption

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

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

17 803

6 368

12.31

432

2.80

W

W

kg/h

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound	power	data
Oouna	POWE	uutt

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VSH088-G

Performance data at 45 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)		-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W								
20	-	10 481	12 825	15 593	18 826	22 565	26 848	T -	_
30		9 385	11 633	14 257	17 297	20 793	24 786	29 317	34 425
		9 363	1			1		1	
40 50	-	-	10 353	12 783	15 580	18 785 16 473	22 439 19 744	26 584 23 460	31 261 27 663
					13 604	1	+		
55	-	-	-	-	-	15 190	18 257 16 693	21 747	25 703
60		-		-	-		+	19 955	23 664
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Power input in W									
20	-	3 385	3 415	3 436	3 440	3 417	3 360	-	-
30	-	4 069	4 098	4 132	4 162	4 180	4 177	4 144	4 074
40	-	-	5 013	5 039	5 075	5 113	5 143	5 158	5 149
50	-	-	-	-	6 288	6 325	6 368	6 410	6 442
55	-	-	-	-	-	7 070	7 112	7 160	7 203
60	-	-	-	-	-	-	7 961	8 009	8 061
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	_	-	-
		•		· I		· L	· L		I.
Current consump	tion in A	1		1				1	ı
20	-	5.74	5.63	5.47	5.25	4.99	4.69	-	-
30	-	8.24	8.26	8.25	8.23	8.19	8.14	8.10	8.05
40	-	-	10.15	10.19	10.25	10.33	10.43	10.56	10.72
50	-	-	-	-	12.09	12.17	12.31	12.51	12.77
55	-	-	-	-	-	13.22	13.33	13.53	13.80
60	-	-	-	-	-	-	14.54	14.70	14.96
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-
Mass flow in kg/h									
20	-	181	220	266	318	378	446	-	-
30	-	178	218	264	317	377	445	522	609
40	_	_	213	259	312	372	440	516	602
50	_	_		-	302	362	429	505	590
55	_	_	-	_	-	355	422	497	581
60	_	_	_	-	-	-	413	488	571
65	-	_	_	-	_	-	-	-	-
68	-	-	-	-	-	-	_	_	-
20 Coefficient of perf	formance (C.	3.10	3.76	4.54	5.47	6.60	7.99	-	-
30	-	2.31	2.84	3.45	4.16	4.97	5.93	7.07	8.45
40		-	2.07	2.54	3.07	3.67	4.36	5.15	6.07
50	-	-	-	-	2.16	2.60	3.10	3.66	4.29
55	-	-	-	-	-	2.00	2.57	3.04	3.57
					 			1	
60	-	-	-	-	-	-	2.10	2.49	2.94
65	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-

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

rionniai portornianos at to	_ 0, to	04.4	
Cooling capacity		19 933	W
Power input		7 038	W
Current consumption		13.28	Α
Mass flow		455	kg/h
C.O.P.		2.83	

to: Evaporating temperature at dew point

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

Maximum HP switc	h setting	45	bar(g)
Minimum LP switch	setting	1.5	bar(g)
LP pump down sett	ing	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 50 Hz, EN 12900 rating conditions

R410A

Cond. temp. in				Evapora	ting temperature i	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling canacit	v in W								
Cooling capacity 20	8 937	10 993	13 452	16 358	19 753	23 680	28 181	_	_
				+				1	
30	7 757	9 742	12 075	14 799	17 958	21 594	25 749	30 467	35 790
40	-	8 474	10 629	13 122	15 993	19 286	23 043	27 308	32 123
50	-	-	-	11 214	13 746	16 645	19 953	23 714	27 969
55	-	-	-	-	12 483	15 166	18 230	21 719	25 676
60	-	-	-	-	-	13 561	16 369	19 574	23 219
65	-	-	-	-	-	-	14 357	17 265	20 585
68	-	-	-	-	-	-	-	15 795	18 914
Power input in V	W								
20	3 691	3 732	3 773	3 805	3 820	3 809	3 762	-	-
30	4 478	4 502	4 541	4 586	4 629	4 659	4 669	4 649	4 591
40	-	5 523	5 539	5 577	5 626	5 679	5 726	5 757	5 765
50	-	-	-	6 892	6 929	6 983	7 046	7 109	7 163
55	-	-	-	-	7 730	7 778	7 841	7 912	7 981
60	-	-	-	-	-	8 687	8 746	8 819	8 898
65	-	-	-	-	-	-	9 773	9 845	9 929
68	-	-	-	-	-	-	-	10 523	10 608
						_			
Current consum	•	1		5.05	T		1.70	1	1
20	6.14	6.04	5.87	5.65	5.38	5.09	4.78	-	-
30	8.95	8.99	8.99	8.97	8.93	8.89	8.86	8.84	8.86
40	-	11.03	11.09	11.15	11.22	11.32	11.44	11.62	11.85
50	-	-	-	13.10	13.16	13.28	13.45	13.70	14.04
55	-	-	-	-	14.29	14.37	14.52	14.77	15.11
60	-	-	-	-	-	15.68	15.79	16.00	16.32
65	-	-	-	-	-	-	17.36	17.51	17.78
68	-	-	-	-	-	-	-	18.59	18.82
Mass flow in kg	/h								
20	165	203	248	299	357	425	501	-	-
30	161	200	245	297	356	423	500	586	684
40	-	194	240	292	351	418	495	580	677
50	-	-	-	283	342	409	484	569	665
55	-	-	-	-	335	402	477	562	657
60	-	-	-	-	-	394	469	553	647
65	-	-	-	-	-	-	459	542	636
68	-	-	-	-	-	-	-	535	628
Coefficient of pe	erformance (C.C).P.)							
20	2.42	2.95	3.57	4.30	5.17	6.22	7.49	_	-
30	1.73	2.16	2.66	3.23	3.88	4.63	5.51	6.55	7.80
40	-	1.53	1.92	2.35	2.84	3.40	4.02	4.74	5.57
50	-	-	-	1.63	1.98	2.38	2.83	3.34	3.90
	-	-	_	-	1.61	1.95	2.32	2.75	3.22
55		1	1				1.87		2.61
55 60		_	_	_	-	1.56		///	
55 60 65	-	-	-	-	-	1.56	1.47	2.22 1.75	2.07

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

	•••		
Cooling capacity	19 953	W	
Power input	7 046	W	
Current consumption	13.45	Α	
Mass flow	484	kg/h	
C.O.P.	2.83		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 50 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capaci	tv in W								
20	9 553	11 741	14 355	17 443	21 047	25 213	29 986	_	_
30	8 377	10 509	13 013	15 934	19 318	23 209	27 652	32 693	38 377
40	-	-	11 613	14 319	17 432	20 999	25 065	29 676	34 877
50	-	_	-	-	15 287	18 485	22 129	26 268	30 946
55	_	_	_	-	-	17 094	20 516	24 406	28 814
60	_	_	_	_	_	-	18 818	22 462	26 601
65	-	_	_	_	_	_	-	20 515	24 406
68	-	_	_	_	_	_	_	19 444	23 219
			1	1					
Power input in	W	1	,	1		1			
20	3 691	3 732	3 773	3 805	3 820	3 809	3 762	-	-
30	4 478	4 502	4 541	4 586	4 629	4 659	4 669	4 649	4 591
40	-	-	5 539	5 577	5 626	5 679	5 726	5 757	5 765
50	-	-	-	-	6 929	6 983	7 046	7 109	7 163
55	-	-	-	-	-	7 778	7 841	7 912	7 981
60	-	-	-	-	-	-	8 746	8 819	8 898
65	-	-	-	-	-	-	-	9 845	9 929
68	-	-	-	-	-	-	-	10 523	10 608
Current consur	nntion in A								
20	6.14	6.04	5.87	5.65	5.38	5.09	4.78	_	_
30	8.95	8.99	8.99	8.97	8.93	8.89	8.86	8.84	8.86
40	-	-	11.09	11.15	11.22	11.32	11.44	11.62	11.85
50	_	_	-	-	13.16	13.28	13.45	13.70	14.04
55	-	-	_	_	-	14.37	14.52	14.77	15.11
60	-	_	_	-	_	-	15.79	16.00	16.32
65	_	_	-	-	_	-	-	17.51	17.78
68	-	_	_	-	_	-	_	18.59	18.82
	L					I			
Mass flow in kg	164	202	246	297	355	422	498	_	_
30	160	199	244	295	354	421	496	582	679
40	-	-	239	290	349	416	491	576	672
50	-	-	-	-	349	406	481	565	660
55	-	-	-	-	-	399	474	558	652
60	-	-	-	-	-	-	466	549	642
65	-	-	-	-	-	-	-	538	631
68	-	-	_	-	-	-	_	531	623
			_	_	_			1 001	020
-	erformance (C.C	1	1 0.00	1 ,		1 0.00		1	1
20	2.59	3.15	3.80	4.58	5.51	6.62	7.97	-	-
	1.87	2.33	2.87	3.47	4.17	4.98	5.92	7.03	8.36
30	1	-	2.10	2.57	3.10	3.70	4.38	5.15	6.05
40					2.21	2.65	3.14	3.70	4.32
40 50	-	-	-	-					
40 50 55	-	-	-	-	-	2.20	2.62	3.08	3.61
40 50 55 60		-	-	-	-	2.20	2.62 2.15	3.08 2.55	2.99
40 50 55	-	-	-	-	-	2.20	2.62	3.08	1

Cooling capacity	22 378	W
Power input	7 771	W
Current consumption	14.48	Α
Mass flow	511	kg/h
C.O.P.	2.88	

to: Evaporating temperature at dew point

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

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 55 Hz, EN 12900 rating conditions

R410A

Cond. temp. in		Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15		
Cooling capacity	y in W					•					
20	9 893	12 159	14 869	18 070	21 810	26 136	31 095	_	_		
30	8 591	10 776	13 345	16 345	19 824	23 827	28 404	33 600	39 464		
40	-	9 399	11 773	14 517	17 680	21 308	25 447	30 147	35 453		
50	-	-	-	12 451	15 243	18 440	22 089	26 237	30 931		
55	-	-		-	13 872	16 834	20 217	24 069	28 437		
60		-	-		-	15 090	18 193	21 736	25 764		
65	_	-	-	_	-	10 000	16 001	19 221	22 896		
68	_	-	-	-	-	-	-	17 617	21 074		
00								17 017	21074		
Power input in \	W										
20	4 011	4 063	4 116	4 160	4 185	4 184	4 146	-	-		
30	4 906	4 942	4 993	5 050	5 105	5 148	5 170	5 163	5 116		
40	-	6 049	6 079	6 130	6 194	6 262	6 324	6 371	6 396		
50	-	-	-	7 531	7 585	7 657	7 739	7 823	7 898		
55	-	-	-	-	8 434	8 502	8 587	8 681	8 774		
60	-	-	-	-	-	9 467	9 550	9 649	9 755		
65	-	-	-	-	-	-	10 644	10 744	10 858		
68	-	-	-	-	-	-	-	11 468	11 585		
Current consum	nption in A										
20	6.57	6.44	6.23	5.97	5.67	5.35	5.04	-	-		
30	9.71	9.76	9.76	9.72	9.67	9.63	9.60	9.62	9.69		
40	-	11.95	12.03	12.11	12.19	12.30	12.45	12.66	12.95		
50	-	-	-	14.14	14.24	14.38	14.59	14.88	15.27		
55	-	-	-	-	15.41	15.52	15.71	16.00	16.40		
60	-	-	-	-	-	16.90	17.05	17.30	17.68		
65	-	-	-	-	-	-	18.72	18.90	19.23		
68	-	-	-	-	-	-	-	20.07	20.34		
Mass flow in kg	/h										
20	182	224	273	330	395	469	553	_	_		
30	178	221	271	328	393	467	552	647	754		
40	-	215	266	323	388	462	546	641	747		
50	-	-	-	314	379	453	536	630	735		
55	-	-	-	-	373	446	529	623	727		
60	-	-	_	-	-	438	521	614	718		
65	-	-	-	-	_	-	511	604	707		
68	-	-	-	-	-	-	-	597	700		
Coefficient of ne	erformance (C.C).P.)									
20	2.47	2.99	3.61	4.34	5.21	6.25	7.50	-	-		
30	1.75	2.18	2.67	3.24	3.88	4.63	5.49	6.51	7.71		
40	-	1.55	1.94	2.37	2.85	3.40	4.02	4.73	5.54		
50	-	-	-	1.65	2.01	2.41	2.85	3.35	3.92		
		-	_	-	1.64	1.98	2.35	2.77	3.24		
	-			1	ļ						
55	-		-	_	_	1.59	1.91	2.25	2 64		
	-	-	-	-	-	1.59	1.91 1.50	2.25 1.79	2.64 2.11		

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

tronnia portornianos arto o o, to		
Cooling capacity	22 089	W
Power input	7 739	W
Current consumption	14.59	Α
Mass flow	536	kg/h
C.O.P.	2.85	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 55 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapor	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
cooling capaci	ſ	T	T	T	T	T	T		
20	10 576	12 986	15 867	19 268	23 239	27 828	33 086	-	-
30	9 278	11 625	14 382	17 598	21 324	25 609	30 503	36 056	42 316
40	-	-	12 862	15 842	19 271	23 200	27 680	32 760	38 492
50	-	-	-	-	16 952	20 478	24 498	29 063	34 224
55	-	-	-	-	-	18 974	22 752	27 047	31 913
60	-	-	-	-	-	-	20 916	24 943	29 517
65	-	-	-	-	-	-	-	22 839	27 146
68	-	-	-	-	-	-	-	21 688	25 871
ower input in	w								
20	4 011	4 063	4 116	4 160	4 185	4 184	4 146	-	-
30	4 906	4 942	4 993	5 050	5 105	5 148	5 170	5 163	5 116
40	-	-	6 079	6 130	6 194	6 262	6 324	6 371	6 396
50	_	-	-	-	7 585	7 657	7 739	7 823	7 898
55	-	-	_	-	-	8 502	8 587	8 681	8 774
60	_	-	-	_	_	-	9 550	9 649	9 755
65	-	_	_	_	-	-	-	10 744	10 858
68	_	_	_	_	_	_	_	11 468	11 585
	1	ı	I		<u> </u>	1	1		11000
urrent consun	nption in A								
20	6.57	6.44	6.23	5.97	5.67	5.35	5.04	-	-
30	9.71	9.76	9.76	9.72	9.67	9.63	9.60	9.62	9.69
40	_	-	12.03	12.11	12.19	12.30	12.45	12.66	12.95
50	_	_	_	_	14.24	14.38	14.59	14.88	15.27
55	-	-	-	-	-	15.52	15.71	16.00	16.40
60	_	_	-	_	-	-	17.05	17.30	17.68
65	_	_	_	_	_	_	-	18.90	19.23
68	_	_	-	_	_	-	_	20.07	20.34
				_				20.07	20.04
lass flow in kg	ı/h								
20	181	223	272	328	392	466	549	-	-
30	177	220	269	326	391	464	548	642	748
40	-	-	264	321	386	459	542	636	741
50	-	-	-	-	377	450	533	625	730
55	_	-	-	-	_	443	526	618	722
60	_	_	_	_	_	-	517	610	713
65	_	-	-	_	_	-	-	599	702
68	_	_	_	_	 -	 	_	592	694
	_	_			1 -			332	004
oefficient of p	erformance (C.C	D.P.)							
20	2.64	3.20	3.85	4.63	5.55	6.65	7.98	-	-
30	1.89	2.35	2.88	3.48	4.18	4.97	5.90	6.98	8.27
40	-	-	2.12	2.58	3.11	3.71	4.38	5.14	6.02
50	-	-	-	-	2.24	2.67	3.17	3.72	4.33
55	-	-	-	-	-	2.23	2.65	3.12	3.64
60	-	-	-	-	-	-	2.19	2.59	3.03
65	_	-	-	-	-	-	-	2.13	2.50
			 	 	+	1	ł	+ · · · · ·	+

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

reciminal portermance at to 7:2 0, to	U-1T U	
Cooling capacity	24 804	W
Power input	8 520	W
Current consumption	15.69	Α
Mass flow	566	kg/h
C.O.P.	2.91	

to: Evaporating temperature at dew point

68

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

Pressure switch settings

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

1.89

2.23

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 60 Hz, EN 12900 rating conditions

R410A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Casling consoit	· in M								
Cooling capacity 20	10 840	13 311	16 267	19 760	23 841	28 562	33 974	_	_
30	9 420	11 803	14 605	17 879	21 675	26 047	31 045	36 721	43 128
	9 420		1						
40 50		10 317	12 906	15 901	19 355	23 318 20 219	27 842 24 210	32 979 28 749	38 782 33 888
				13 672	16 723				
55 60	-	-	-	-	15 242	18 482 16 594	22 185 19 993	26 403	31 188 28 292
65				-	-			23 876	
68	-	-	-	-	-	-	17 617	21 149 19 408	25 182 23 204
00	-	-		-	_	-	-	19 406	23 204
Power input in V	v								
20	4 313	4 380	4 444	4 499	4 534	4 542	4 514	-	-
30	5 338	5 389	5 455	5 525	5 591	5 645	5 679	5 684	5 651
40	-	6 585	6 632	6 699	6 778	6 860	6 937	7 001	7 041
50	-	-	-	8 182	8 256	8 347	8 449	8 552	8 648
55	-	-	-	-	9 153	9 242	9 349	9 465	9 582
60	-	-	-	-	-	10 266	10 373	10 498	10 631
65	-	-	-	-	-	-	11 541	11 669	11 814
68	-	-	-	-	-	-	-	12 447	12 596
						•			•
Current consum	ption in A								
20	7.08	6.94	6.72	6.43	6.11	5.78	5.46	-	-
30	10.47	10.54	10.54	10.51	10.45	10.40	10.39	10.42	10.54
40	-	12.84	12.96	13.06	13.15	13.27	13.44	13.68	14.01
50	-	-	-	15.19	15.31	15.48	15.71	16.04	16.48
55	-	-	-	-	16.54	16.69	16.91	17.23	17.67
60	-	-	-	-	-	18.14	18.32	18.61	19.04
65	-	-	-	-	-	-	20.10	20.33	20.70
68	-	-	-	-	-	-	-	21.57	21.89
Mass flow in kg/	h								
20	199	246	299	361	431	512	604	-	-
30	195	243	297	359	430	511	603	707	824
40	-	237	291	354	425	506	597	701	817
50	-	-	-	345	416	497	588	690	806
55	-	-	-	-	410	490	581	683	798
60	-	-	-	-	-	482	573	674	788
65	-	-	-	-	-	-	563	664	778
68	-	-	-	-	-	-	-	657	770
Sa afficient of		\ D \							
Coefficient of pe	rformance (C.C 2.51	3.04	3.66	4.39	5.26	6.29	7.53	-	_
30	1.76	2.19	2.68	3.24	3.88	4.61	5.47	6.46	7.63
40	-	1.57	1.95	2.37	2.86	3.40	4.01	4.71	
				1		+			5.51
50 EE	-	-	-	1.67	2.03	2.42	2.87	3.36	3.92
55	-	-	-	-	1.67	2.00	2.37	2.79	3.25
60	-	-	-	-	-	1.62	1.93	2.27	2.66
	-	-	-	-	-	-	1.53	1.81	2.13
65 68	_	-	-	-	_	-		1.56	1.84

to: Evaporating temperature at dew point

Cooling capacity Power input

Mass flow

C.O.P.

Current consumption

tc: Condensing temperature at dew point

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

24 210

8 449

15.71

588

2.87

W

W

kg/h

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound	power	data
Oouna	POWE	uutt

Sound power level	dB(A)
With accoustic hood	dB(A)



Danfoss scroll compressor. VSH088-G

Performance data at 60 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature i	n °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
									•
Cooling capacit	y in W			,		1	1	r	1
20	11 588	14 217	17 360	21 070	25 403	30 411	36 149	-	-
30	10 173	12 733	15 740	19 250	23 316	27 995	33 339	39 405	46 245
40	-	-	14 100	17 352	21 096	25 389	30 284	35 839	42 107
50	-	-	-	-	18 598	22 453	26 850	31 845	37 495
55	-	-	-	-	-	20 832	24 966	29 669	35 000
60	-	-	-	-	-	-	22 985	27 398	32 413
65	-	-	-	-	-	-	-	25 129	29 856
68	-	-	-	-	-	-	-	23 893	28 486
Danier immed in V	.,								
Power input in V		4 200	4 444	4.400	4 524	4.540	4.514	_	_
20	4 313	4 380	4 444	4 499	4 534 5 501	4 542	4 514 5 670		
30	5 338	5 389	5 455	5 525	5 591	5 645	5 679	5 684	5 651
40	-	-	6 632	6 699	6 778	6 860	6 937	7 001	7 041
50	-	-	-	-	8 256	8 347	8 449	8 552	8 648
55	-	-	-	-	-	9 242	9 349	9 465	9 582
60	-	-	-	-	-	-	10 373	10 498	10 631
65	-	-	-	-	-	-	-	11 669	11 814
68	-	-	-	-	-	-	-	12 447	12 596
Current consum	notion in A								
20	7.08	6.94	6.72	6.43	6.11	5.78	5.46	-	_
30	10.47	10.54	10.54	10.51	10.45	10.40	10.39	10.42	10.54
40	-	-	12.96	13.06	13.15	13.27	13.44	13.68	14.01
50	_	_	-	-	15.31	15.48	15.71	16.04	16.48
55	-	-	_	_	-	16.69	16.91	17.23	17.67
60	_	-	_	_	_	-	18.32	18.61	19.04
65	_	_	_	_	_	_	-	20.33	20.70
68	-	_	_	_	_	_	-	21.57	21.89
		-I		<u> </u>		1	<u> </u>		
Mass flow in kg	/h								
20	198	244	297	358	429	509	600	-	-
30	194	241	295	357	427	507	599	702	818
40	-	-	290	352	422	502	593	696	811
50	-	-	-	-	413	493	584	685	800
55	-	-	-	-	-	487	577	678	792
60	-	-	-	-	-	-	569	670	783
65	-	-	-	-	-	-	-	659	772
68	-	_	-	-	-	-	-	652	764
			•						
Coefficient of pe	erformance (C.C	D.P.)							
20	2.69	3.25	3.91	4.68	5.60	6.70	8.01	-	-
30	1.91	2.36	2.89	3.48	4.17	4.96	5.87	6.93	8.18
40	-	-	2.13	2.59	3.11	3.70	4.37	5.12	5.98
50	-	-	-	-	2.25	2.69	3.18	3.72	4.34
55	-	-	-	-	-	2.25	2.67	3.13	3.65
60	-	-	-	-	-	-	2.22	2.61	3.05
65	-	-	-	-	-	-	-	2.15	2.53
68	-	-	-	-	-	-	-	1.92	2.26
				•				•	

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

	• •	
Cooling capacity	27 209	W
Power input	9 285	W
Current consumption	16.88	Α
Mass flow	621	kg/h
C.O.P.	2.93	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

With accoustic hood	dB(A)
Sound power level	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 65 Hz, EN 12900 rating conditions

R410A

Cond. temp. in		1	1	Evapora	ating temperature	in °C (to)		1	
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity		1	1	1	T	T	T	1	1
20	11 778	14 451	17 648	21 427	25 845	30 956	36 819	-	-
30	10 245	12 822	15 855	19 400	23 514	28 252	33 672	39 829	46 781
40	-	11 227	14 029	17 274	21 017	25 316	30 227	35 806	42 110
50	-	-	-	14 879	18 187	21 980	26 316	31 250	36 840
55	-	-	-	-	16 593	20 109	24 132	28 720	33 928
60	-	-	-	-	-	18 074	21 769	25 993	30 802
65	-	-	-	-	-	-	19 204	23 048	27 442
68	-	-	-	-	-	-	-	21 167	25 305
Power input in V					T	T		П	
20	4 598	4 680	4 758	4 822	4 867	4 883	4 865	-	-
30	5 773	5 844	5 926	6 009	6 087	6 152	6 197	6 213	6 194
40	-	7 130	7 199	7 284	7 379	7 476	7 567	7 645	7 702
50	-	-	-	8 847	8 942	9 053	9 174	9 296	9 412
55	-	-	-	-	9 887	9 999	10 128	10 267	10 406
60	-	-	-	-	-	11 083	11 217	11 367	11 526
65	-	-	-	-	-	-	12 464	12 622	12 795
68	-	-	-	-	-	-	-	13 459	13 640
Current consum	•				T	T		П	
20	7.68	7.55	7.33	7.04	6.70	6.37	6.05	-	-
30	11.22	11.33	11.36	11.33	11.27	11.22	11.21	11.26	11.41
40	-	13.72	13.88	14.00	14.11	14.24	14.41	14.67	15.04
50	-	-	-	16.23	16.39	16.58	16.83	17.18	17.65
55	-	-	-	-	17.67	17.85	18.10	18.45	18.93
60	-	-	-	-	-	19.39	19.61	19.93	20.39
65	-	-	-	-	-	-	21.50	21.77	22.18
68	-	-	-	-	-	-	-	23.10	23.47
Mass flow in kg/			1					П	
20	216	267	324	391	467	555	655		-
30	212	263	322	389	466	554	654	767	894
40	-	257	317	384	461	549	649	761	887
50	-	-	-	375	452	540	639	750	876
55	-	-	-	-	446	533	632	743	868
60	-	-	-	-	-	525	623	734	858
65	-	-	-	-	-	-	613	724	847
68	-	-	-	-	-	-	-	717	840
0 60 - 1 - 1 - 1									
Coefficient of pe	•		0.74	1 444	F 04	0.04	7.57	T	
20	2.56	3.09	3.71	4.44	5.31	6.34	7.57	-	-
30	1.77	2.19	2.68	3.23	3.86	4.59	5.43	6.41	7.55
40	-	1.57	1.95	2.37	2.85	3.39	3.99	4.68	5.47
50	-	-	-	1.68	2.03	2.43	2.87	3.36	3.91
55	-	-	-	-	1.68	2.01	2.38	2.80	3.26
60	-	-	-	-	-	1.63	1.94	2.29	2.67
65	-	-	-	-	-	-	1.54	1.83	2.14
68	-	-	-	_	-	_	-	1.57	1.86

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

Cooling capacity	26 316	W
Power input	9 174	W
Current consumption	16.83	Α
Mass flow	639	kg/h
C.O.P.	2.87	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 65 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
<u> </u>					•				
Cooling capacity	in W					_			
20	12 590	15 434	18 834	22 849	27 538	32 961	39 176	-	-
30	11 064	13 833	17 087	20 888	25 294	30 365	36 160	42 740	50 163
40	-	-	15 328	18 850	22 909	27 565	32 879	38 910	45 720
50	-	-	-	-	20 226	24 409	29 186	34 616	40 761
55	-	-	-	-	-	22 666	27 158	32 273	38 075
60	-	-	-	-	-	-	25 026	29 828	35 289
65	-	-	-	-	-	-	-	27 386	32 536
68	-	-	-	-	-	-	-	26 058	31 065
Power input in W			I			T		I	1
20	4 598	4 680	4 758	4 822	4 867	4 883	4 865	-	- 0.404
30	5 773	5 844	5 926	6 009	6 087	6 152	6 197	6 213	6 194
40	-	-	7 199	7 284	7 379	7 476	7 567	7 645	7 702
50	-	-	-	-	8 942	9 053	9 174	9 296	9 412
55	-	-	-	-	-	9 999	10 128	10 267	10 406
60	-	-	-	-	-	-	11 217	11 367	11 526
65	-	-	-	-	-	-	-	12 622	12 795
68	-	-	-	-	-	-	-	13 459	13 640
Current consum						1		ı	
20	7.68	7.55	7.33	7.04	6.70	6.37	6.05	-	-
30	11.22	11.33	11.36	11.33	11.27	11.22	11.21	11.26	11.41
40	-	-	13.88	14.00	14.11	14.24	14.41	14.67	15.04
50	-	-	-	-	16.39	16.58	16.83	17.18	17.65
55	-	-	-	-	-	17.85	18.10	18.45	18.93
60	-	-	-	-	-	-	19.61	19.93	20.39
65	-	-	-	-	-	-	-	21.77	22.18
68	-	-	-	-	-	-	-	23.10	23.47
	i.								
Mass flow in kg/l		205	222	200	405	554	050	I	_
20	215	265	322	389	465	551	650	- 761	
30	211	262	320	387	463	550	649	761	887
40	-	-	315	382	459	546	644	756	881
50	-	-	-	-	449	536	634	745	869
55	-	-	-	-	-	530	628	738	861
60	-	-	-	-	-	-	619	729	852
65	-	-	-	-	-	-	-	718	841
68	-	-	-	-	_	-	-	711	833
Coefficient of pe	rformanco (C O) P)							
20	2.74	3.30	3.96	4.74	5.66	6.75	8.05	-	_
+		+		1		+			
30	1.92	2.37	2.88	3.48	4.16	4.94	5.84	6.88	8.10
40	-	-	2.13	2.59	3.10	3.69	4.35	5.09	5.94
50	-	-	-	-	2.26	2.70	3.18	3.72	4.33
55	-	-	-	-	-	2.27	2.68	3.14	3.66
60	-	-	-	-	-	-	2.23	2.62	3.06
65	-	-	-	-	-	-	-	2.17	2.54
68	-	-	-	-	-	-	-	1.94	2.28

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

	• •		
Cooling capacity	29 594	W	
Power input	10 067	W	
Current consumption	18.08	Α	
Mass flow	675	kg/h	
C.O.P.	2.94		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 70 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	in Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15	
Caaling canacity	in M									
Cooling capacity 20	12 707	15 577	19 012	23 073	27 822	33 320	39 629	_	_	
30	11 064	13 834	17 095	20 910	25 338	30 443	36 284	42 924	50 424	
40	-	12 129	15 142	18 635	22 668	27 303	32 602	38 626	45 437	
50		-	- 15 142	16 070	19 633	23 725	28 407	33 740	39 786	
55		-	_	10 070	17 924	21 716	26 060	31 020	36 656	
60		-	-	-	-	19 530	23 520	28 087	33 294	
65		-	_	-	_	-	20 762	24 918	29 677	
68	-	-	-	-	-	-	-	22 894	27 376	
00	<u> </u>			<u> </u>	<u>-</u>		<u> </u>	22 094	21 310	
Power input in W				Т	1		1	T	1	
20	4 866	4 966	5 056	5 131	5 184	5 208	5 199	-	-	
30	6 211	6 307	6 406	6 503	6 593	6 668	6 723	6 751	6 747	
40	-	7 685	7 779	7 885	7 996	8 107	8 212	8 304	8 377	
50	-	-	-	9 524	9 643	9 775	9 915	10 055	10 191	
55	-	-	-	-	10 635	10 772	10 924	11 084	11 245	
60	-	-	-	-	-	11 920	12 080	12 255	12 439	
65	-	-	-	-	-	-	13 414	13 601	13 804	
68	-	-	-	-	-	-	-	14 505	14 717	
Current consum	ption in A									
20	8.36	8.27	8.07	7.78	7.45	7.11	6.80	-	-	
30	11.98	12.14	12.19	12.18	12.13	12.08	12.06	12.13	12.29	
40	-	14.59	14.80	14.94	15.07	15.20	15.38	15.64	16.03	
50	-	_	_	17.27	17.46	17.67	17.94	18.30	18.78	
55	-	-	-	-	18.82	19.03	19.30	19.67	20.17	
60	-	_	_	_	-	20.66	20.91	21.26	21.75	
65	_	_	_	_	_	-	22.93	23.24	23.69	
68	-	-	-	-	-	-	-	24.66	25.07	
•		•	•	1	•	•	•	•	•	
Mass flow in kg/l				1	1		1	1	1	
20	233	287	349	421	503	597	705	-	-	
30	229	284	347	420	502	597	704	826	963	
40	-	278	342	415	498	592	700	821	957	
50	-	-	-	405	488	583	690	810	946	
55	-	-	-	-	482	576	682	803	938	
60	-	-	-	-	-	567	674	793	928	
65	-	-	-	-	-	-	663	782	916	
68	-	-	-	-	-	-	-	775	908	
Coefficient of per	rformance (C.O).P.)								
20	2.61	3.14	3.76	4.50	5.37	6.40	7.62	-	-	
30	1.78	2.19	2.67	3.22	3.84	4.57	5.40	6.36	7.47	
40	-	1.58	1.95	2.36	2.83	3.37	3.97	4.65	5.42	
50	-	-	-	1.69	2.04	2.43	2.87	3.36	3.90	
55	-	-	-	-	1.69	2.02	2.39	2.80	3.26	
60	-	_	-	-	-	1.64	1.95	2.29	2.68	
	-	_	-	-	_	-	1.55	1.83	2.15	
65										

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

Cooling capacity	28 407	W
Power input	9 915	W
Current consumption	17.94	Α
Mass flow	690	kg/h
C.O.P.	2.87	

to: Evaporating temperature at dew point

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

Pressure switch settings

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 70 Hz, ARI rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15	
Cooling capacity	ı in W									
20	13 583	16 637	20 288	24 603	29 645	35 477	42 166	_	_	
30	11 949	14 924	18 424	22 513	27 257	32 719	38 966	46 061	54 069	
40	-	-	16 544	20 335	24 708	29 728	35 462	41 975	49 333	
50	_	_	-	-	21 834	26 347	31 504	37 373	44 021	
55		_	_	_	-	24 477	29 328	34 858	41 137	
60	-	_	_	_	_	-	27 039	32 231	38 143	
65	-	_	_	_	_	-	-	29 608	35 186	
68	-	-	_	_	_	_	_	28 184	33 606	
									1 22 222	
Power input in V	/					1			1	
20	4 866	4 966	5 056	5 131	5 184	5 208	5 199	-	-	
30	6 211	6 307	6 406	6 503	6 593	6 668	6 723	6 751	6 747	
40	-	-	7 779	7 885	7 996	8 107	8 212	8 304	8 377	
50	-	-	-	-	9 643	9 775	9 915	10 055	10 191	
55	-	-	-	-	-	10 772	10 924	11 084	11 245	
60	-	-	-	-	-	-	12 080	12 255	12 439	
65	-	-	-	-	-	-	-	13 601	13 804	
68	-	-	-	-	-	-	-	14 505	14 717	
Current consum	ntion in A									
20	8.36	8.27	8.07	7.78	7.45	7.11	6.80	_	_	
30	11.98	12.14	12.19	12.18	12.13	12.08	12.06	12.13	12.29	
40	-	-	14.80	14.94	15.07	15.20	15.38	15.64	16.03	
50	_	_	-	-	17.46	17.67	17.94	18.30	18.78	
55	-	-	_	_	-	19.03	19.30	19.67	20.17	
60	_	_	_	_	_	-	20.91	21.26	21.75	
65	_	_	_	_	_	_	-	23.24	23.69	
68	-	-	-	-	-	-	-	24.66	25.07	
		l.	l		l.	I		l	l	
Mass flow in kg/		1	1		1	T		1	1	
20	232	286	347	418	500	593	700	-	-	
30	228	283	345	417	499	593	700	820	956	
40	-	-	340	412	495	588	695	815	950	
50	-	-	-	-	485	579	685	804	939	
55	-	-	-	-	-	572	678	797	931	
60	-	-	-	-	-	-	669	788	921	
65	-	-	-	-	-	-	-	777	909	
68	-	-	-	-	-	-	-	769	901	
Coefficient of pe	rformance (C.O).P.)								
20	2.79	3.35	4.01	4.80	5.72	6.81	8.11	-	-	
30	1.92	2.37	2.88	3.46	4.13	4.91	5.80	6.82	8.01	
40	-	-	2.13	2.58	3.09	3.67	4.32	5.06	5.89	
50	-	-	-	-	2.26	2.70	3.18	3.72	4.32	
55	-	-	-	-	-	2.27	2.68	3.14	3.66	
60	-	-	-	-	-	-	2.24	2.63	3.07	
65	-	-	-	-	-	-	-	2.18	2.55	
68	_	-	-	_	-	-	_	1.94	2.28	

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

reciminal portermance at to 7:2 0, to	U-1T U	
Cooling capacity	31 959	W
Power input	10 865	W
Current consumption	19.27	Α
Mass flow	729	kg/h
C.O.P.	2.94	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 75 Hz, EN 12900 rating conditions

R410A

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
0 11 16									
Cooling capacity		16 600	20.257	24 606	20.772	25 652	42.404	1	
20	13 627	16 690	20 357	24 696	29 772	35 653	42 404	40,000	
30	11 879	14 838	18 326	22 407	27 150	32 619	38 883	46 006	54 056
40	-	13 024	16 245	19 984	24 306	29 279	34 968	41 441	48 764
50	-			17 247	21 063	25 453	30 482	36 218	42 727
55	-	-	-	-	19 236	23 302 20 962	27 969	33 304	39 374
60		-		-	-		25 246	30 159	35 768
65 68	-	-	-	-	-	-	22 291	26 760 24 590	31 887 29 417
66	-	-		-	_	-		24 590	29 417
Power input in V	v								
20	5 116	5 235	5 340	5 424	5 484	5 517	5 516	-	-
30	6 653	6 776	6 896	7 008	7 108	7 193	7 257	7 297	7 308
40	-	8 250	8 373	8 501	8 630	8 755	8 873	8 978	9 066
50	-	-	-	10 214	10 359	10 513	10 672	10 830	10 985
55	-	-	-	-	11 398	11 562	11 736	11 917	12 100
60	-	-	-	-	-	12 775	12 963	13 164	13 372
65	-	-	-	-	-	-	14 390	14 607	14 838
68	-	-	-	-	-	-	-	15 584	15 827
20		9.09	8.93	8.67	8.35	8.02	7.72		
	9.13	<u> </u>	†		1	+	<u> </u>	12.02	42.20
30 40	12.74	12.96 15.44	13.05	13.06 15.88	13.02 16.02	12.97 16.16	12.96 16.34	13.02 16.60	13.20 16.98
-		-	15.70	1					
50				18.30	18.53	18.76	19.03	19.40	19.89
55 60	-	-	-	-	19.97	20.21	20.50 22.23	20.88	21.39
	-	-	-	-	-	21.95	<u> </u>	22.60	23.11
65 68	-	-	-	-	-	-	24.38	24.73 26.25	25.21 26.70
00	-			-	-		<u> </u>	20.25	20.70
Mass flow in kg/	h								
20	250	308	374	451	539	639	754	-	-
30	246	305	372	450	538	640	755	886	1 033
40	-	299	367	445	534	635	750	881	1 028
50	-	-	-	435	524	625	740	870	1 016
55	-	-	-	-	517	618	732	862	1 007
60	-	-	-	-	-	609	723	852	997
65	-	-	-	-	-	-	712	840	984
68	-	-	-	-	-	-	-	832	976
Coefficient of pe	rformance (C. C).P.)							
20	2.66	3.19	3.81	4.55	5.43	6.46	7.69	-	_
30	1.79	2.19	2.66	3.20	3.82	4.53	5.36	6.30	7.40
40	-	1.58	1.94	2.35	2.82	3.34	3.94	4.62	5.38
50	-	-	-	1.69	2.03	2.42	2.86	3.34	3.89
55	-	-	-	-	1.69	2.02	2.38	2.79	3.25
60	-	_	-	-	-	1.64	1.95	2.29	2.67
65	-	_	-	-	-	-	1.55	1.83	2.15
		_	-	-	_	-		1.58	1.86
68	-					-			

Cooling capacity	30 482	W
Power input	10 672	W
Current consumption	19.03	Α
Mass flow	740	kg/h
C.O.P.	2.86	

to: Evaporating temperature at dew point

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 75 Hz, ARI rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)										
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15		
Cooling capacity	, in W										
20	14 567	17 825	21 724	26 334	31 723	37 961	45 119	-	-		
30	12 828	16 007	19 750	24 125	29 205	35 059	41 756	49 368	57 964		
40	-	-	17 749	21 807	26 493	31 879	38 036	45 034	52 945		
50	-	-	-	-	23 424	28 266	33 806	40 119	47 275		
55	-	-	-	-	-	26 265	31 476	37 425	44 187		
60	-	-	-	-	-	-	29 023	34 609	40 978		
65	-	-	-	-	-	-	-	31 797	37 806		
68	-	-	-	-	-	-	-	30 271	36 112		
Power input in V	v										
20	5 116	5 235	5 340	5 424	5 484	5 517	5 516	_	_		
30	6 653	6 776	6 896	7 008	7 108	7 193	7 257	7 297	7 308		
40	-	-	8 373	8 501	8 630	8 755	8 873	8 978	9 066		
50	-	_	-	-	10 359	10 513	10 672	10 830	10 985		
55	-	_	-	-	-	11 562	11 736	11 917	12 100		
60	-	_	-	-	_	-	12 963	13 164	13 372		
65	-	_	-	-	-	-	_	14 607	14 838		
68	-	-	-	-	-	-	-	15 584	15 827		
			•		•	•			•		
Current consum	ption in A										
20	9.13	9.09	8.93	8.67	8.35	8.02	7.72	-	-		
30	12.74	12.96	13.05	13.06	13.02	12.97	12.96	13.02	13.20		
40	-	-	15.70	15.88	16.02	16.16	16.34	16.60	16.98		
50	-	-	-	-	18.53	18.76	19.03	19.40	19.89		
55	-	-	-	-	-	20.21	20.50	20.88	21.39		
60	-	-	-	-	-	-	22.23	22.60	23.11		
65	-	-	-	-	-	-	-	24.73	25.21		
68	-	-	-	-	-	-	-	26.25	26.70		
Mass flow in kg/	h										
20	249	306	372	448	535	635	749	-	-		
30	245	303	370	447	535	635	750	879	1 025		
40	-	-	365	442	530	631	745	874	1 020		
50	-	-	-	-	521	621	735	863	1 008		
55	-	-	-	-	-	614	727	855	1 000		
60	-	-	-	-	-	-	718	846	989		
65	-	-	-	-	-	-	-	834	977		
68	-	-	-	-	-	-	-	826	969		
Coefficient of pe	rformance (C.C) P)									
20	2.85	3.40	4.07	4.85	5.78	6.88	8.18	_	_		
30	1.93	2.36	2.86	3.44	4.11	4.87	5.75	6.77	7.93		
40	-	-	2.12	2.57	3.07	3.64	4.29	5.02	5.84		
50	-	_	-	-	2.26	2.69	3.17	3.70	4.30		
55	-	_	-	-	-	2.27	2.68	3.14	3.65		
60	-	_	-	-	_	-	2.24	2.63	3.06		
65	-	-	-	-	-	-	-	2.18	2.55		
68	-	_	-	-	-	-	-	1.94	2.28		

to: Evaporating	temperature	at dew point

Cooling capacity
Power input

Mass flow

C.O.P.

Current consumption

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

34 304

11 679

20.46

783

2.94

W

W

kg/h

Pressure switch settings

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 80 Hz, EN 12900 rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
									•
cooling capacity	/ in W								
20	14 538	17 790	21 685	26 297	31 696	37 955	45 144	-	-
30	12 689	15 835	19 546	23 893	28 947	34 782	41 467	49 075	57 678
40	-	13 911	17 338	21 321	25 932	31 243	37 325	44 249	52 089
50	-	-	-	18 408	22 476	27 164	32 543	38 685	45 662
55	-	-	-	-	20 528	24 867	29 858	35 572	42 081
60	-	-	-	-	-	22 370	26 948	32 208	38 224
65	-	-	-	-	-	-	23 791	28 573	34 071
68	-	-	-	-	-	-	-	26 253	31 428
Power input in V	v								
20	5 349	5 490	5 608	5 702	5 769	5 808	5 817	1 -	_
30	7 099	7 253	7 395	7 522	7 633	7 727	7 800	7 851	7 878
40	-	8 824	8 981	9 134	9 281	9 420	9 549	9 667	9 771
50	<u> </u>	8 824	8 981	10 916	11 091	11 267	9 549 11 444	11 620	11 792
	<u>-</u>	-	-			12 368	12 565	12 767	
55				-	12 175	+		1	12 971
60	-	-	-	-	-	13 649	13 866	14 091	14 324
65	-	-	-	-	-	-	15 393	15 640	15 899
68	-	-	-	-	-	-	-	16 697	16 971
urrent consum	ption in A								
20	9.98	10.02	9.91	9.69	9.41	9.10	8.81	-	-
30	13.49	13.79	13.94	13.98	13.95	13.91	13.89	13.95	14.12
40	-	16.27	16.59	16.81	16.97	17.11	17.28	17.53	17.89
50	-	-	-	19.34	19.60	19.84	20.12	20.48	20.96
55	-	-	-	-	21.12	21.39	21.70	22.08	22.59
60	-	-	-	-	-	23.25	23.56	23.95	24.47
65	-	-	-	-	-	-	25.86	26.24	26.74
68	-	-	-	-	-	-	-	27.87	28.36
'		•	•			•	•	•	•
lass flow in kg/		000	000	100	F70	1 000	000	1	I
20	267	328	399	480	573	680	803	-	
30	263	325	397	480	574	682	805	945	1 102
40	-	319	391	474	569	678	801	940	1 098
50	-	-	-	464	559	667	790	929	1 086
55	-	-	-	-	552	659	782	920	1 076
60	-	-	-	-	-	650	772	910	1 065
65	-	-	-	-	-	-	760	897	1 052
68	-	-	-	-	-	-	-	889	1 043
coefficient of pe	rformance (C.C	P.P.)							
20	2.72	3.24	3.87	4.61	5.49	6.53	7.76	-	-
30	1.79	2.18	2.64	3.18	3.79	4.50	5.32	6.25	7.32
40	-	1.58	1.93	2.33	2.79	3.32	3.91	4.58	5.33
50	-	-	-	1.69	2.03	2.41	2.84	3.33	3.87
55	-	-	-	-	1.69	2.01	2.38	2.79	3.24
60	-	-	_	_	-	1.64	1.94	2.29	2.67
65	-	_	_	-	-	-	1.55	1.83	2.14
60			1	1	1	1			

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

	•••		
Cooling capacity	32 543	W	
Power input	11 444	W	
Current consumption	20.12	Α	
Mass flow	790	kg/h	
C.O.P.	2.84		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 80 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
			•	•	П				
Cooling capacity		19 000	22 141	28 041	22 772	40 412	49.024	_	_
20	15 541		23 141		33 773		48 034	1	
30	13 703	17 083	21 065	25 725	31 139	37 383	44 532	52 661	61 847
40	-	-	18 943	23 266	28 266	34 018	40 599	48 086	56 555
50	-	-	-	-	24 996	30 166	36 092	42 851	50 523
55	-	-	-	-	-	28 029	33 601	39 973	47 224
60	-	-	-	-	-	-	30 980	36 961	43 792
65	-	-	-	-	-	-	-	33 952	40 395
68	-	-	-	-	-	-	-	32 319	38 581
Power input in W	ı								
20	5 349	5 490	5 608	5 702	5 769	5 808	5 817	-	-
30	7 099	7 253	7 395	7 522	7 633	7 727	7 800	7 851	7 878
40	-	-	8 981	9 134	9 281	9 420	9 549	9 667	9 771
50	-	-	-	-	11 091	11 267	11 444	11 620	11 792
55	-	-	-	-	-	12 368	12 565	12 767	12 971
60	-	-	-	-	-	-	13 866	14 091	14 324
65	-	-	-	-	-	-	-	15 640	15 899
68	-	-	-	-	-	-	-	16 697	16 971
Current consum		1	1	1		T	1	1	T
20	9.98	10.02	9.91	9.69	9.41	9.10	8.81	-	-
30	13.49	13.79	13.94	13.98	13.95	13.91	13.89	13.95	14.12
40	-	-	16.59	16.81	16.97	17.11	17.28	17.53	17.89
50	-	-	-	-	19.60	19.84	20.12	20.48	20.96
55	-	-	-	-	-	21.39	21.70	22.08	22.59
60	-	-	-	-	-	-	23.56	23.95	24.47
65	-	-	-	-	-	-	-	26.24	26.74
68	-	-	-	-	-	-	-	27.87	28.36
Mass flow in kg/l	h								
20	266	326	396	477	570	676	797	-	-
30	261	323	395	477	570	678	800	938	1 094
40	-	-	389	471	566	673	795	934	1 089
50	-	-	-	-	555	663	785	922	1 077
55	-	-	-	-	-	655	776	914	1 068
60	-	-	-	-	-	-	767	903	1 057
65	-	-	-	-	-	-	-	891	1 044
68	-	-	-	-	-	-	-	882	1 035
Coefficient of pe	rformance (C C) P)							
20	2.91	3.46	4.13	4.92	5.85	6.96	8.26	-	_
30	1.93	2.36	2.85	3.42	4.08	4.84	5.71	6.71	7.85
40	-	-	2.11	2.55	3.05	3.61	4.25	4.97	5.79
50	_	_	-	-	2.25	2.68	3.15	3.69	4.28
55	<u>-</u>	_	-	-	-	2.27	2.67	3.13	3.64
60	<u>-</u>	-	-	-	-	-	2.23	2.62	3.04
							1		2.54
65	-	-	-	-	-	-	-	2.17	2.54

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

recinitial portormaneo acto	. 0, 10 04.4 0	
Cooling capacity	36 629	W
Power input	12 510	W
Current consumption	21.65	Α
Mass flow	836	kg/h
C.O.P.	2.93	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

1.94

2.27

Sound power data

With accoustic hood	dB(A)
Sound power level	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 85 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15	
Cooling capacity	in W									
20	15 440	18 876	22 995	27 875	33 593	40 226	47 850	_	-	
30	13 494	16 824	20 756	25 366	30 732	36 930	44 037	52 132	61 289	
40	10 494	14 791	18 421	22 647	27 546	33 195	39 671	47 052	55 414	
50	-	-	-	19 554	23 872	28 858	34 589	41 141	48 593	
55		-	-	-	21 801	26 412	31 727	37 823	44 777	
60	<u> </u>	_	_	-	-	23 755	28 625	34 236	40 663	
65	_	_	_	-	_	-	25 262	30 358	36 230	
68		_	_	-	-	-	-	27 885	33 410	
W.								2. 000	00 1.10	
Power input in W		,	,	1		1		,	1	
20	5 564	5 729	5 862	5 965	6 038	6 084	6 101	-	-	
30	7 549	7 737	7 903	8 046	8 168	8 270	8 351	8 413	8 457	
40	-	9 409	9 602	9 782	9 947	10 100	10 241	10 371	10 490	
50	-	-	-	11 632	11 837	12 037	12 233	12 425	12 615	
55	-	-	-	-	12 968	13 190	13 411	13 633	13 856	
60	-	-	-	-	-	14 542	14 788	15 039	15 294	
65	-	-	-	-	-	-	16 422	16 700	16 987	
68	-	-	-	-	-	-	-	17 843	18 148	
Current consum	ntion in A									
20	10.91	11.06	11.02	10.86	10.61	10.33	10.07	_	_	
30	14.25	14.64	14.85	14.92	14.92	14.88	14.86	14.90	15.06	
40	-	17.09	17.48	17.74	17.91	18.05	18.21	18.43	18.77	
50	-	-	-	20.37	20.66	20.92	21.20	21.55	22.01	
55	_	_	_	-	22.28	22.58	22.90	23.28	23.78	
60		_	_	_	-	24.57	24.91	25.31	25.83	
65	_	_	_	-	_	-	27.36	27.77	28.30	
68	-	_	-	-	-	-	-	29.51	30.03	
		1	1	1		1				
Mass flow in kg/l	h	,	,	1				,	ı	
20	284	348	423	509	608	721	851	-	-	
30	279	346	422	509	609	724	855	1 003	1 171	
40	-	339	416	504	605	720	851	1 000	1 168	
50	-	-	-	493	594	709	840	988	1 155	
55	-	-	-	-	586	700	831	979	1 145	
60	-	-	-	-	-	690	820	967	1 133	
65	-	-	-	-	-	-	807	953	1 118	
68	-	-	-	-	-	-	-	944	1 108	
Coefficient of pe	rformance (C.O	.P.)								
20	2.77	3.30	3.92	4.67	5.56	6.61	7.84	-	-	
30	1.79	2.17	2.63	3.15	3.76	4.47	5.27	6.20	7.25	
40	-	1.57	1.92	2.32	2.77	3.29	3.87	4.54	5.28	
50	-	-	-	1.68	2.02	2.40	2.83	3.31	3.85	
55	-	-	-	-	1.68	2.00	2.37	2.77	3.23	
60	-	-	-	-	-	1.63	1.94	2.28	2.66	
65	-	-	-	-	-	-	1.54	1.82	2.13	
68	_	_	_	_	_	_	_	1.56	1.84	

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

Γ	Cooling capacity	34 589	W
	Power input	12 233	W
	Current consumption	21.20	Α
	Mass flow	840	kg/h
	C.O.P.	2.83	

to: Evaporating temperature at dew point

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. VSH088-G

Performance data at 85 Hz, ARI rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
•		•		•	•	•	•	•	•
Cooling capacity	in W					_			
20	16 505	20 160	24 539	29 724	35 794	42 831	50 914	-	-
30	14 572	18 150	22 369	27 311	33 058	39 692	47 292	55 941	65 720
40	-	-	20 126	24 713	30 025	36 143	43 152	51 131	60 165
50	-	-	-	-	26 548	32 047	38 361	45 572	53 765
55	-	-	-	-	-	29 771	35 705	42 503	50 250
60	-	-	-	-	-	-	32 908	39 287	46 585
65	-	-	-	-	-	-	-	36 073	42 955
68	-	-	-	-	-	-	-	34 327	41 014
Power input in W		5 700	5,000	5,005	0.000	0.004	0.404	T	
20	5 564	5 729	5 862	5 965	6 038	6 084	6 101	- 0.440	- 0.457
30	7 549	7 737	7 903	8 046	8 168	8 270	8 351	8 413	8 457
40	-	-	9 602	9 782	9 947	10 100	10 241	10 371	10 490
50	-	-	-	-	11 837	12 037	12 233	12 425	12 615
55	-	-	-	-	-	13 190	13 411	13 633	13 856
60	-	-	-	-	-	-	14 788	15 039	15 294
65	-	-	-	-	-	-	-	16 700	16 987
68	-	-	-	-	-	-	-	17 843	18 148
Current consum	ntion in A								
20	10.91	11.06	11.02	10.86	10.61	10.33	10.07	-	_
30	14.25	14.64	14.85	14.92	14.92	14.88	14.86	14.90	15.06
40	-	-	17.48	17.74	17.91	18.05	18.21	18.43	18.77
50		-	-	-	20.66	20.92	21.20	21.55	22.01
55	<u> </u>	-	_	-	-	22.58	22.90	23.28	23.78
60	<u> </u>	-	_	_	-	-	24.91	25.31	25.83
65	<u>-</u>	-	_	-	-	-	-	27.77	28.30
68	-	-	_	-		-	-	29.51	30.03
00		· -	_				· -	29.51	30.03
/lass flow in kg/l	h								
20	282	346	420	506	604	716	845	-	-
30	278	344	419	506	606	719	849	996	1 162
40	-	-	413	501	601	715	845	993	1 159
50	-	-	-	-	590	704	834	981	1 147
55	-	-	-	-	-	696	825	972	1 137
60	-	-	-	-	-	-	814	960	1 124
65	-	-	-	-	-	-	-	946	1 110
68	-	-	-	-	-	-	-	937	1 100
		. = .							
coefficient of pe		· ·	4.40	4.00	E 00	7.04	0.05		
20	2.97	3.52	4.19	4.98	5.93	7.04	8.35	- 0.05	-
30	1.93	2.35	2.83	3.39	4.05	4.80	5.66	6.65	7.77
40	-	-	2.10	2.53	3.02	3.58	4.21	4.93	5.74
50	-	-	-	-	2.24	2.66	3.14	3.67	4.26
55	-	-	-	-	-	2.26	2.66	3.12	3.63
60	-	-	-	-	-	-	2.23	2.61	3.05
65	-	-	-	-	-	-	-	2.16	2.53
68	-	-	-	-	-	-	-	1.92	2.26

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

recimial performance at to	0, 10 04.4 0	
Cooling capacity	38 933	W
Power input	13 356	W
Current consumption	22.84	Α
Mass flow	888	kg/h
C.O.P.	2.91	

to: Evaporating temperature at dew point

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

Pressure switch settings

	Maximum HP switch setting	45	bar(g)
	Minimum LP switch setting	1.5	bar(g)
L	LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 90 Hz, EN 12900 rating conditions

R410A

cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacit		40.040	04.000	00.400	05.404	40.400	50.504	1	
20	16 333	19 949	24 288	29 432	35 464	42 466	50 521	-	-
30	14 294	17 806	21 956	26 827	32 502	39 064	46 594	55 175	64 890
40	-	15 663	19 494	23 961	29 147	35 136	42 009	49 848	58 738
50	-	-	-	20 685	25 251	30 535	36 619	43 586	51 518
55	-	-	-	-	23 054	27 937	33 577	40 058	47 461
60	-	-	-	-	-	25 115	30 278	36 240	43 083
65	-	-	-	-	-	-	26 705	32 115	38 364
68	-	-	-	-	-	-	-	29 484	35 361
Power input in \	W								
20	5 763	5 952	6 100	6 212	6 292	6 342	6 368	-	-
30	8 001	8 229	8 421	8 581	8 713	8 822	8 911	8 984	9 045
40	-	10 002	10 237	10 445	10 631	10 797	10 949	11 089	11 223
50	-	-	-	12 361	12 599	12 823	13 037	13 245	13 451
55	-	-	-	-	13 775	14 028	14 273	14 515	14 758
60	-	-	_	-	-	15 454	15 730	16 006	16 284
65	-	_	-	-	-	-	17 477	17 786	18 100
68	-	_	-	-	-	-	-	19 022	19 358
			1	1	1	1	1		
Current consun	nption in A								
20	11.93	12.20	12.26	12.17	11.97	11.73	11.49	-	-
30	15.01	15.50	15.78	15.91	15.93	15.89	15.86	15.88	16.01
40	-	17.89	18.35	18.66	18.85	18.99	19.13	19.32	19.62
50	-	-	-	21.40	21.73	22.00	22.27	22.59	23.01
55	-	-	-	-	23.45	23.78	24.10	24.47	24.94
60	-	-	-	-	-	25.90	26.27	26.68	27.19
65	-	-	-	-	-	-	28.89	29.33	29.87
68	-	-	-	-	-	-	-	31.19	31.74
Mass flow in kg	/h								
20	300	368	447	537	642	761	898	-	-
30	296	366	446	539	645	766	905	1 062	1 239
40	1	359	440	533	640	762	901	1 060	1 238
50	-	-	-	522	628	750	889	1 047	1 225
55	-	-	-	-	620	741	879	1 036	1 214
60	1	-	-	-	-	730	867	1 024	1 200
65	-	-	-	-	-	-	853	1 008	1 184
68	-	-	-	-	-	-	-	998	1 173
	erformance (C.C		2.00	4.74	F 0.4	6.70	7.00		1
20	2.83	3.35	3.98	4.74	5.64	6.70	7.93	- 6.14	7 17
30	1.79	2.16	2.61	3.13	3.73	4.43	5.23	6.14	7.17
40	-	1.57	1.90	2.29	2.74	3.25	3.84	4.50	5.23
50	-	-	-	1.67	2.00	2.38	2.81	3.29	3.83
55	-	-	-	-	1.67	1.99	2.35	2.76	3.22
60	-	-	-	-	-	1.63	1.92	2.26	2.65
0.5	-	-	-	-	-	-	1.53	1.81	2.12
65 68	-	_	-	_	_	_		1.55	1.83

36 619 W Cooling capacity Power input 13 037 W Current consumption 22.27 Mass flow 889 kg/h C.O.P. 2.81

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

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point



Danfoss scroll compressor. VSH088-G

Performance data at 90 Hz, ARI rating conditions

R410A

Cond. temp. in	in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacit	v in W								
20	17 459	21 306	25 919	31 384	37 787	45 216	53 756	_	-
30	15 436	19 209	23 662	28 885	34 963	41 985	50 037	59 207	69 581
40	-	-	21 298	26 147	31 770	38 257	45 694	54 170	63 774
50	<u>-</u>	_	-	-	28 082	33 910	40 613	48 280	57 001
55	-	_	_	_	-	31 489	37 786	45 014	53 263
60	-	_	_	_	_	-	34 809	41 587	49 358
65	_	_	_	_	_	_	-	38 160	45 485
68	_	_	-	_	_	_	_	36 297	43 410
Power input in \			l .	l		1			10 110
•		5.050	0.400	0.040	0.000	0.040	0.000	Γ	1
20	5 763	5 952	6 100	6 212	6 292	6 342	6 368	- 0.04	0.045
30	8 001	8 229	8 421	8 581	8 713	8 822	8 911	8 984	9 045
40	-	-	10 237	10 445	10 631	10 797	10 949	11 089	11 223
50	-	-	-	-	12 599	12 823	13 037	13 245	13 451
55	-	-	-	-	-	14 028	14 273	14 515	14 758
60	-	-	-	-	-	-	15 730	16 006	16 284
65	-	-	-	-	-	-	-	17 786	18 100
68	-	-	-	-	-	-	-	19 022	19 358
Current consum	ption in A								
20	11.93	12.20	12.26	12.17	11.97	11.73	11.49	-	-
30	15.01	15.50	15.78	15.91	15.93	15.89	15.86	15.88	16.01
40	-	-	18.35	18.66	18.85	18.99	19.13	19.32	19.62
50	-	-	-	-	21.73	22.00	22.27	22.59	23.01
55	-	-	-	-	-	23.78	24.10	24.47	24.94
60	-	-	-	-	-	-	26.27	26.68	27.19
65	-	-	-	-	-	-	-	29.33	29.87
68	-	-	-	-	-	-	-	31.19	31.74
Mass flow in kg	/h								
20	299	366	444	534	638	756	892	-	-
30	294	364	443	535	640	761	898	1 054	1 230
40	-	-	437	530	636	757	895	1 052	1 229
50	-	-	-	-	624	745	883	1 039	1 216
55	-	-	-	-	-	736	873	1 029	1 205
60	-	-	-	-	-	-	861	1 016	1 191
65	-	-	-	-	-	-	-	1 001	1 175
68	-	-	-	-	-	-	-	991	1 164
Coefficient of n	orformanae (C.C	\ D \							
Coefficient of pe	3.03	1	4.25	5.05	6.01	7 12	Q 44		
20 30	1.93	3.58 2.33	2.81	5.05 3.37	6.01 4.01	7.13 4.76	8.44 5.62	6.59	7.69
40	-	- 2.33	2.81	2.50	2.99	3.54	4.17	4.88	5.68
			-	-		1	3.12		4.24
50 55	-	-			2.23	2.64	2.65	3.65 3.10	3.61
60	-	-	-	-	-	-	2.05	2.60	3.03
65	-	-	-	-	-	-	- 2.21	2.00	2.51
	-	-	-	-	-	-	-	1.91	2.24
68	<u>-</u>	_	<u> </u>					1.81	2.24

Nominal performance at to = 7.2 °C, tc = 54.4 °C			
Cooling capacity	41 218	W	
Power input	14 220	W	
Current consumption	24.02	Α	
Mass flow	941	kg/h	
C.O.P.	2.90		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	dB(A)
With accoustic hood	dB(A)

tc: Condensing temperature at dew point