ENGINEERING



Datasheets

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





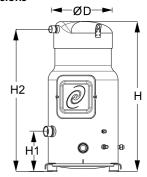


Datasheet, technical data

General Characteristics

Model number (on compressor nameplate)	SZ185S4RC SZ185S4CC				
Code number for Singlepack*	SZ185-4RI	SZ185-4CAI			
Code number for Industrial pack**	SZ185-4RM	SZ185-4CAM			
Drawing number	8551119b	8551056c			
Suction and discharge connections	Rotolock	Brazed			
Suction connection	2-1/4 " Rotolock	1-5/8 " ODF			
Discharge connection	1-3/4 " Rotolock	1-1/8 " ODF			
Suction connection with supplied sleeve	1-3/8 " ODF				
Discharge connection with supplied sleeve	7/8 " ODF				
Oil sight glass	Threaded	Threaded			
Oil equalisation connection	3/8" flare SAE	3/8" flare SAE			
Oil drain connection	1/4" flare	1/4" flare			
LP gauge port	Schrader	Schrader			
IPR valve	None	None			
Swept volume	249.9 cm3/rev				
Displacement @ Nominal speed	43.5 m3/h @ 2900 rpm -	- 52.5 m3/h @ 3500 rpm			
Net weight	100	kg			
Oil charge	6.2 litre, PO	DE - 160SZ			
Maximum system test pressure Low Side / High side	25 bar(g) / 32 bar(g)				
Maximum differential test pressure	24 bar				
Maximum number of starts per hour	12				
Refrigerant charge limit	13.5 kg				
Approved refrigerants	R407C, R134a, R404A, R507A				

Dimensions



D=317 mm H=678 mm H1=180 mm H2=643 mm H3=- mm

Electrical Characteristics

Electrical characteristics	
Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	342-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25℃	0.77 Ω
Maximum Must Trip current (MMT)	35 A
Locked Rotor Amps (LRA)	175 A
Motor protection	Internal thermostat, ext. overload protector needed

Recommended Installation torques

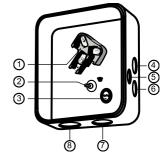
Suction Rotolock nut or valve	130 Nm		
Discharge Rotolock nut or valve	110 Nm		
Oil sight glass	50 Nm		
Power connections / Earth connection	3 Nm / 2 Nm		
Terminal box cover screws	2.3 Nm		
Mounting bolts	21 Nm		

Parts shipped with compressor

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

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

Terminal box



IP54 (with cable gland)

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

^{*}Singlepack: Compressor in cardboard box

^{**}Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)



Datasheet, accessories and spare parts

Danfoss scroll compressor, SZ185-4

Rotolock accessories, suction side	Code no.
Solder sleeve, P08 (2-1/4" Rotolock, 1-3/8" ODF)	8153005
Solder sleeve, P03 (2-1/4" Rotolock, 1-5/8" ODF)	8153006
Rotolock valve, V08 (2-1/4" Rotolock, 1-3/8" ODF)	8168025
Rotolock valve, V03 (2-1/4" Rotolock, 1-5/8" ODF)	8168026
Gasket, 2-1/4"	8156133

Rotolock accessories, discharge side Code no. Solder sleeve, P07 (1-3/4" Rotolock, 7/8" ODF) 8153013 Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF) 8153004 Rotolock valve, V07 (1-3/4" Rotolock, 7/8" ODF) 8168032 Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF) 8168028

Rotolock accessories, sets	Code no.
Solder sleeve adapter set, (2-1/4" Rotolock, 1-5/8" ODF), (1-3/4" Rotolock, 1"1/8 ODF)	7765028
Valve set, V08 (2-1/4"~1-3/8"), V07 (1-3/4"~7/8")	7703010
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

Crankcase heaters	Code no.
Surface sump heater + bottom insulation, 56 W, 24 V, CE mark, UL	120Z0360
Surface sump heater + bottom insulation, 56 W, 230 V, CE mark, UL	120Z0376
Surface sump heater + bottom insulation, 56 W, 400 V, CE mark, UL	120Z0377
Surface sump heater + bottom insulation, 56 W, 460 V, CE mark, UL	120Z0378
Belt type crankcase heater, 75 W, 230 V, CE mark, UL	7773108
Belt type crankcase heater, 75 W, 400 V, CE mark, UL	7773118
Belt type crankcase heater, 75 W, 460 V, CE mark, UL	120Z0464

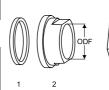
Miscellaneous accessories

Gasket, 1-3/4"

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

Spare parts	Code no.
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers,	8156147
2 rotolock nuts, 2 solder sleeves, 2 gaskets	
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 186 x 198 mm, incl cover	8156139
T block connector 60 x 75 mm	8173021

Gaskets, sleeves and nuts



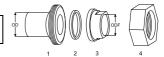
1: Gasket 2: Solder sleeve

8156132

Code no.

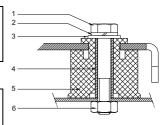
3: Rotolock nut

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)



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-20	-15	-10	-5	0	5	10	15	
Caeling conseits	r in W								
Cooling capacity	16 496	21 007	26 387	32 726	40 115	48 644	58 403	69 483	
35	15 417	19 792	24 990	31 102	38 217	46 425	55 816	66 481	
								1	
40	14 305	18 513	23 500	29 353	36 163	44 020	53 012	63 231	-
45	-	17 169	21 913	27 478	33 953	41 427	49 989	59 730	-
50	-	-	20 228	25 474	31 583	38 643	46 744	55 975	-
55	-	-	-	23 340	29 052	35 667	43 275	51 963	-
60	-	-	-	-	26 357	32 495	39 576	47 689	-
65	-	-	-	-	23 494	29 122	35 642	43 143	-
Power input in V	V								
30	7 675	7 756	7 828	7 887	7 928	7 947	7 941	7 904	-
35	8 560	8 643	8 717	8 779	8 823	8 847	8 845	8 814	-
40	9 561	9 646	9 724	9 789	9 837	9 866	9 869	9 844	-
45	-	10 783	10 864	10 933	10 986	11 019	11 028	11 010	-
50	-	-	12 153	12 226	12 284	12 323	12 338	12 326	-
55	-	-	-	13 685	13 748	13 793	13 815	13 810	-
60	-	-	-	-	15 393	15 444	15 473	15 476	-
65	-	-	-	-	17 235	17 293	17 329	17 340	-
•			•			•			
Current consum	ption in A								
30	16.77	16.89	17.00	17.09	17.14	17.16	17.14	17.07	-
35	17.72	17.85	17.97	18.06	18.12	18.15	18.14	18.08	-
40	18.87	19.00	19.12	19.22	19.30	19.33	19.33	19.28	-
45	-	20.38	20.50	20.61	20.69	20.74	20.75	20.71	-
50	-	-	22.13	22.24	22.33	22.39	22.42	22.40	-
55	-	-	-	24.15	24.26	24.33	24.37	24.36	-
60	-	-	-	-	26.49	26.57	26.62	26.63	-
65	-	-	-	-	29.05	29.15	29.22	29.25	-
		•	•	1	•	•	•		
Mass flow in kg/		1		1		1			
30	344	430	530	646	778	929	1 100	1 292	-
35	337	425	526	643	776	928	1 099	1 292	-
40	330	418	520	638	772	924	1 096	1 288	-
45	-	411	513	631	765	918	1 089	1 282	-
50	-	-	504	622	756	908	1 079	1 271	-
55	-	-	-	610	744	895	1 065	1 256	-
60	-	-	-	-	728	878	1 047	1 237	-
65	-	-	-	-	708	857	1 024	1 212	-
Coefficient of pe	erformance (C.C	D.P.)	1	1			T	, , , , , , , , , , , , , , , , , , , 	
30	2.15	2.71	3.37	4.15	5.06	6.12	7.35	8.79	-
35	1.80	2.29	2.87	3.54	4.33	5.25	6.31	7.54	-
40	1.50	1.92	2.42	3.00	3.68	4.46	5.37	6.42	-
45	-	1.59	2.02	2.51	3.09	3.76	4.53	5.43	-
50	-	-	1.66	2.08	2.57	3.14	3.79	4.54	-
55	-	-	-	1.71	2.11	2.59	3.13	3.76	-
60	-	-	-	-	1.71	2.10	2.56	3.08	-
65	-	-	-	-	1.36	1.68	2.06	2.49	-
Nominal perform	nance at to = 5	°C, tc = 50 °C				Pressure switch	settings		

Cooling capacity	38 643	W
Power input	12 323	W
Current consumption	22.39	Α
Mass flow	908	kg/h
C.O.P.	3.14	

to: Evaporating temperature at dew point

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

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	85	dB(A)
With accoustic hood	73	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-20	-15	-10	-5	0	5	10	15	
ooling capacity		00.504	00.007	04.000	40.007	F4 000	00.045	70.005	
30	17 693	22 504	28 237	34 983	42 837	51 893	62 245	73 985	-
35	16 616	21 303	26 866	33 396	40 989	49 739	59 738	71 081	-
40	15 504	20 036	25 397	31 682	38 983	47 395	57 011	67 925	-
45	-	18 700	23 829	29 837	36 815	44 858	54 061	64 516	-
50	-	-	22 159	27 858	34 483	42 127	50 885	60 849	-
55	-	-	-	25 744	31 984	39 198	47 480	56 924	-
60	-	-	-	-	29 315	36 069	43 845	52 736	-
65	-	-	-	-	26 475	32 737	39 975	48 284	-
ower input in V	v								
30	7 675	7 756	7 828	7 887	7 928	7 947	7 941	7 904	-
35	8 560	8 643	8 717	8 779	8 823	8 847	8 845	8 814	_
40	9 561	9 646	9 724	9 789	9 837	9 866	9 869	9 844	-
45	-	10 783	10 864	10 933	10 986	11 019	11 028	11 010	-
50	-	-	12 153	12 226	12 284	12 323	12 338	12 326	-
55	-	-	-	13 685	13 748	13 793	13 815	13 810	-
60	-	-	-	-	15 393	15 444	15 473	15 476	-
65	-	-	-	_	17 235	17 293	17 329	17 340	_
				II.		1			
urrent consum	ption in A								
30	16.77	16.89	17.00	17.09	17.14	17.16	17.14	17.07	-
35	17.72	17.85	17.97	18.06	18.12	18.15	18.14	18.08	_
40	18.87	19.00	19.12	19.22	19.30	19.33	19.33	19.28	_
45	-	20.38	20.50	20.61	20.69	20.74	20.75	20.71	_
50	_	-	22.13	22.24	22.33	22.39	22.42	22.40	_
55	-	-	_	24.15	24.26	24.33	24.37	24.36	_
60	_	-	_	_	26.49	26.57	26.62	26.63	-
65	-	-	_	-	29.05	29.15	29.22	29.25	_
		l	1	II.		1	· · · · · · · · · · · · · · · · · · ·		
lass flow in kg/	'h								
30	342	428	527	642	774	924	1 093	1 284	_
35	335	422	523	639	772	922	1 093	1 284	_
40	328	416	518	634	768	919	1 089	1 281	_
45	-	408	511	628	761	912	1 083	1 274	_
50	_	-	501	619	752	903	1 073	1 263	_
55	-	_	-	607	739	890	1 059	1 248	_
60	<u>-</u>	-	-	-	724	873	1 041	1 229	_
65	<u>-</u>	_	-	_	704	852	1 018	1 205	
••		1	ı	1		1 302		. 200	
	erformance (C.C		1		1		ı		
30	2.31	2.90	3.61	4.44	5.40	6.53	7.84	9.36	-
35	1.94	2.46	3.08	3.80	4.65	5.62	6.75	8.06	-
40	1.62	2.08	2.61	3.24	3.96	4.80	5.78	6.90	-
45	-	1.73	2.19	2.73	3.35	4.07	4.90	5.86	-
50	-	-	1.82	2.28	2.81	3.42	4.12	4.94	-
55	-	-	-	1.88	2.33	2.84	3.44	4.12	-
60	-	-	-	-	1.90	2.34	2.83	3.41	-
	-	-	-	-	1.54	1.89	2.31	2.78	_

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

	• •	
Cooling capacity	43 092	W
Power input	13 619	W
Current consumption	24.10	Α
Mass flow	964	kg/h
C.O.P.	3.16	

to: Evaporating temperature at dew point

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

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	85	dB(A)
With accoustic hood	73	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	ı in W								
35	12 952	16 610	20 911	25 918	31 698	38 315	45 836	_	_
40	12 108	15 640	19 786	24 611	30 179	36 558	43 810	-	_
45	11 243	14 632	18 606	23 232	28 572	34 693	41 660	-	
50	10 361	13 590	17 376	21 784	26 879	32 725	39 388		
55	10 301	12 517	16 097	20 271	25 102	30 657	36 998	-	
60		-	14 774	18 696	23 246	28 490	34 492	-	_
65	-	-	-	17 061	21 312	26 227	31 870	-	-
70	-	-	-	15 369	19 303	23 869	29 132	-	-
70	<u> </u>			15 309	19 303	23 809	29 132		
Power input in V	v								
35	6 066	6 139	6 198	6 240	6 260	6 253	6 215	1	-
40	6 679	6 755	6 819	6 866	6 892	6 893	6 863	-	-
45	7 371	7 452	7 521	7 574	7 607	7 615	7 593	-	-
50	8 150	8 235	8 310	8 369	8 409	8 426	8 413	-	-
55	-	9 112	9 193	9 259	9 307	9 332	9 329	-	-
60	-	-	10 176	10 250	10 307	10 341	10 348	-	-
65	-	-	-	11 349	11 414	11 458	11 476	-	-
70	-	-	-	12 562	12 637	12 691	12 720	-	-
Current consum	ption in A	1	1	1		1	1		
35	15.02	15.10	15.17	15.21	15.22	15.19	15.11	-	-
40	15.60	15.70	15.77	15.82	15.84	15.82	15.75	-	-
45	16.31	16.41	16.50	16.56	16.59	16.58	16.53	-	-
50	17.15	17.26	17.36	17.43	17.47	17.48	17.44	-	-
55	-	18.26	18.37	18.45	18.50	18.53	18.51	-	-
60	-	-	19.54	19.64	19.71	19.74	19.74	-	-
65	-	-	-	21.00	21.09	21.14	21.16	-	-
70	-	-	-	22.56	22.66	22.73	22.77	-	-
Mana flannin kur	L								
Mass flow in kg/		204	405	500	707	020	000		
35 40	314 309	394 390	485 482	589	707 705	839 838	986	-	-
			ł	587		+	986		-
45 50	302 296	384 378	477 472	583 578	702 697	835 830	983 979	-	-
	290	378	1	1		+		-	-
55 60		3/1	465	571	691	824	973		
60 65	<u>-</u>	-	457	564 554	683 673	816 806	964 954	-	<u>-</u>
70				544	662	794	954		-
10	-	-	-	J 44	002	134	3 1 1	-	-
Coefficient of pe	erformance (C.C	D.P.)	1	1		T	1		
35	2.14	2.71	3.37	4.15	5.06	6.13	7.37	-	-
40	1.81	2.32	2.90	3.58	4.38	5.30	6.38	-	-
45	1.53	1.96	2.47	3.07	3.76	4.56	5.49	-	-
50	1.27	1.65	2.09	2.60	3.20	3.88	4.68	-	-
55	-	1.37	1.75	2.19	2.70	3.29	3.97	-	-
60	-	-	1.45	1.82	2.26	2.76	3.33	-	-
65	-	-	-	1.50	1.87	2.29	2.78	-	-
70	-	-	-	1.22	1.53	1.88	2.29	-	-
Nominal perform	nance at to = 5	℃, tc = 50 °C				Pressure switch	settings		

rionina poriorinarios arto o o, to	•• •	
Cooling capacity	26 879	W
Power input	8 409	W
Current consumption	17.47	Α
Mass flow	697	kg/h
C.O.P.	3.20	

to: Evaporating temperature at dew point

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

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 accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, ARI rating conditions

R134a

40	Cond. temp. in				Evapora	ating temperature	in °C (to)			
35	°C (tc)	-15	-10	-5	0	5	10	15		
35	Cooling canacity	ı in W								
40			17 960	22 573	27 935	34 114	41 177	49 192	_	_
45			1		1					
So										
55										-
60		11435	1		1					-
Power Input in W Power Input		-	1							-
Power input in W					1					-
Power input in W 35										-
35	70	-	-	-	17 539	21 944	27 040	32 893	-	-
40	Power input in V	v								
45	35	6 066	6 139	6 198	6 240	6 260	6 253	6 215	-	-
So	40	6 679	6 755	6 819	6 866	6 892	6 893	6 863	-	-
S5	45	7 371	7 452	7 521	7 574	7 607	7 615	7 593	-	-
S5	50	8 150	8 235	8 310	8 369	8 409	8 426	8 413	-	-
65	55	-		9 193		•	9 332		-	-
65	60	-	-	10 176	10 250	10 307	10 341	10 348	-	-
Current consumption in A 35 15.02 15.10 15.17 15.21 15.22 15.19 15.11 - 40 15.60 15.70 15.77 15.82 15.84 15.82 15.75 - 45 16.31 16.41 16.50 16.56 16.59 16.58 16.53 - 50 17.15 17.26 17.36 17.43 17.47 17.48 17.44 - 55 - 18.26 18.37 18.45 18.50 18.53 18.51 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 70 - - - 22.56 22.66 22.73 22.77 - Mass flow in kg/h <		-	-	1			11 458	11 476	-	-
35	70	-	-	-	12 562	12 637	12 691		-	-
35	•				•		•	•		
40	Current consum	ption in A								
45	35	15.02	15.10	15.17	15.21	15.22	15.19	15.11	-	-
50 17.15 17.26 17.36 17.43 17.47 17.48 17.44 - 55 - 18.26 18.37 18.45 18.50 18.53 18.51 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 65 - - - 21.00 21.09 21.14 21.16 - 70 - - - 22.56 22.66 22.73 22.77 - Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 <	40	15.60	15.70	15.77	15.82	15.84	15.82	15.75	-	-
18.26	45	16.31	16.41	16.50	16.56	16.59	16.58	16.53	-	-
60	50	17.15	17.26	17.36	17.43	17.47	17.48	17.44	-	-
65 - - - 21.00 21.09 21.14 21.16 - 70 - - - 22.56 22.66 22.73 22.77 - Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 7	55	-	18.26	18.37	18.45	18.50	18.53	18.51	-	-
Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 <	60	-	-	19.54	19.64	19.71	19.74	19.74	-	-
Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 <	65	-	-	-	21.00	21.09	21.14	21.16	-	-
35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 <	70	-	-	-	22.56	22.66	22.73	22.77	-	-
35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 <						-	•			
40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - <td>Mass flow in kg/</td> <td>h</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td>	Mass flow in kg/	h					•			
45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 </td <td>35</td> <td>312</td> <td>392</td> <td>483</td> <td>586</td> <td>703</td> <td>834</td> <td>981</td> <td>-</td> <td>-</td>	35	312	392	483	586	703	834	981	-	-
50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2	40	307	388	479	584	701	833	980	-	-
55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62	45	301	382	475	580	698	830	978	-	-
60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	50	294	376	470	575	693	826	974	-	-
65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	55	-	369	463	568	687	820	967	-	-
70 - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	60	-	-	455	561	679	812	959	-	-
Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	65	-	-	-	552	670	802	948	-	-
35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	70	-	-	-	541	658	790	936	-	-
35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	Coefficient of ne	erformance (C.C).P.)							
40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	-	•	1	3.64	4.48	5.45	6.59	7.91	-	_
45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -					1					-
50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -						•				-
55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -					1					-
60 1.62 2.03 2.51 3.05 3.68 -						•				-
			1		1					-
						•				_
70 - - 1.40 1.74 2.13 2.59 -			†	 	1					-
			1	L						1
Nominal performance at to = 7.2 °C, tc = 54.4 °C Pressure switch settings	Nominal perforn	nance at to = 7.	2 °C, tc = 54.4 °C		<u></u>		Pressure switch	settings		

recinitial perioritianee at to	0,	04.4 0	
Cooling capacity		30 442	W
Power input		9 208	W
Current consumption		18.39	Α
Mass flow		744	kg/h
C.O.P.		3.31	

to: Evaporating temperature at dew point

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

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 accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, EN 12900 rating conditions

R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
Cooling capacity	ı in W								
35	12 952	16 610	20 911	25 918	31 698	38 315	45 836	_	_
40	12 108	15 640	19 786	24 611	30 179	36 558	43 810	-	_
45	11 243	14 632	18 606	23 232	28 572	34 693	41 660	-	
50	10 361	13 590	17 376	21 784	26 879	32 725	39 388		
55	10 301	12 517	16 097	20 271	25 102	30 657	36 998	-	
60		-	14 774	18 696	23 246	28 490	34 492	-	_
65	-	-	-	17 061	21 312	26 227	31 870	-	-
70	-	-	-	15 369	19 303	23 869	29 132	-	-
70	<u> </u>			15 309	19 303	23 809	29 132		
Power input in V	v								
35	6 066	6 139	6 198	6 240	6 260	6 253	6 215	1	-
40	6 679	6 755	6 819	6 866	6 892	6 893	6 863	-	-
45	7 371	7 452	7 521	7 574	7 607	7 615	7 593	-	-
50	8 150	8 235	8 310	8 369	8 409	8 426	8 413	-	-
55	-	9 112	9 193	9 259	9 307	9 332	9 329	-	-
60	-	-	10 176	10 250	10 307	10 341	10 348	-	-
65	-	-	-	11 349	11 414	11 458	11 476	-	-
70	-	-	-	12 562	12 637	12 691	12 720	-	-
Current consum	ption in A	1	1	1		1	1		
35	15.02	15.10	15.17	15.21	15.22	15.19	15.11	-	-
40	15.60	15.70	15.77	15.82	15.84	15.82	15.75	-	-
45	16.31	16.41	16.50	16.56	16.59	16.58	16.53	-	-
50	17.15	17.26	17.36	17.43	17.47	17.48	17.44	-	-
55	-	18.26	18.37	18.45	18.50	18.53	18.51	-	-
60	-	-	19.54	19.64	19.71	19.74	19.74	-	-
65	-	-	-	21.00	21.09	21.14	21.16	-	-
70	-	-	-	22.56	22.66	22.73	22.77	-	-
Mana flannin kur	L								
Mass flow in kg/		204	405	500	707	020	000		
35 40	314 309	394 390	485 482	589	707 705	839 838	986	-	-
			ł	587		+	986		-
45 50	302 296	384 378	477 472	583 578	702 697	835 830	983 979	-	-
	290	378	1	1		+		-	-
55 60		3/1	465	571	691	824	973		
60 65	<u>-</u>	-	457	564 554	683 673	816 806	964 954	-	<u>-</u>
70				544	662	794	954		-
10	-	-	-	J 44	002	134	3 1 1	-	-
Coefficient of pe	erformance (C.C	D.P.)	1	1		T	1		
35	2.14	2.71	3.37	4.15	5.06	6.13	7.37	-	-
40	1.81	2.32	2.90	3.58	4.38	5.30	6.38	-	-
45	1.53	1.96	2.47	3.07	3.76	4.56	5.49	-	-
50	1.27	1.65	2.09	2.60	3.20	3.88	4.68	-	-
55	-	1.37	1.75	2.19	2.70	3.29	3.97	-	-
60	-	-	1.45	1.82	2.26	2.76	3.33	-	-
65	-	-	-	1.50	1.87	2.29	2.78	-	-
70	-	-	-	1.22	1.53	1.88	2.29	-	-
Nominal perform	nance at to = 5	℃, tc = 50 °C				Pressure switch	settings		

rionina poriorinarios arto o o, to	•• •	
Cooling capacity	26 879	W
Power input	8 409	W
Current consumption	17.47	Α
Mass flow	697	kg/h
C.O.P.	3.20	

to: Evaporating temperature at dew point

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

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 accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, ARI rating conditions

R134a

40	Cond. temp. in Evaporating temperature in °C (to)									
35	°C (tc)	-15	-10	-5	0	5	10	15		
35	Cooling canacity	ı in W								
40			17 960	22 573	27 935	34 114	41 177	49 192	_	_
45			1		1					
So										
55										-
60		11435	1		1					-
Power Input in W Power Input		-	1							-
Power input in W					1					-
Power input in W 35										-
35	70	-	-	-	17 539	21 944	27 040	32 893	-	-
40	Power input in V	v								
45	35	6 066	6 139	6 198	6 240	6 260	6 253	6 215	-	-
So	40	6 679	6 755	6 819	6 866	6 892	6 893	6 863	-	-
S5	45	7 371	7 452	7 521	7 574	7 607	7 615	7 593	-	-
S5	50	8 150	8 235	8 310	8 369	8 409	8 426	8 413	-	-
65	55	-		9 193		•	9 332		-	-
65	60	-	-	10 176	10 250	10 307	10 341	10 348	-	-
Current consumption in A 35 15.02 15.10 15.17 15.21 15.22 15.19 15.11 - 40 15.60 15.70 15.77 15.82 15.84 15.82 15.75 - 45 16.31 16.41 16.50 16.56 16.59 16.58 16.53 - 50 17.15 17.26 17.36 17.43 17.47 17.48 17.44 - 55 - 18.26 18.37 18.45 18.50 18.53 18.51 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 70 - - - 22.56 22.66 22.73 22.77 - Mass flow in kg/h <		-	-	1			11 458	11 476	-	-
35	70	-	-	-	12 562	12 637	12 691		-	-
35	•				•		•	•		
40	Current consum	ption in A								
45	35	15.02	15.10	15.17	15.21	15.22	15.19	15.11	-	-
50 17.15 17.26 17.36 17.43 17.47 17.48 17.44 - 55 - 18.26 18.37 18.45 18.50 18.53 18.51 - 60 - - 19.54 19.64 19.71 19.74 19.74 - 65 - - - 21.00 21.09 21.14 21.16 - 70 - - - 22.56 22.66 22.73 22.77 - Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 <	40	15.60	15.70	15.77	15.82	15.84	15.82	15.75	-	-
18.26	45	16.31	16.41	16.50	16.56	16.59	16.58	16.53	-	-
60	50	17.15	17.26	17.36	17.43	17.47	17.48	17.44	-	-
65 - - - 21.00 21.09 21.14 21.16 - 70 - - - 22.56 22.66 22.73 22.77 - Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 7	55	-	18.26	18.37	18.45	18.50	18.53	18.51	-	-
Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 <	60	-	-	19.54	19.64	19.71	19.74	19.74	-	-
Mass flow in kg/h 35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 <	65	-	-	-	21.00	21.09	21.14	21.16	-	-
35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 <	70	-	-	-	22.56	22.66	22.73	22.77	-	-
35 312 392 483 586 703 834 981 - 40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 <						-	•			
40 307 388 479 584 701 833 980 - 45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - <td>Mass flow in kg/</td> <td>h</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td>	Mass flow in kg/	h					•			
45 301 382 475 580 698 830 978 - 50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 </td <td>35</td> <td>312</td> <td>392</td> <td>483</td> <td>586</td> <td>703</td> <td>834</td> <td>981</td> <td>-</td> <td>-</td>	35	312	392	483	586	703	834	981	-	-
50 294 376 470 575 693 826 974 - 55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2	40	307	388	479	584	701	833	980	-	-
55 - 369 463 568 687 820 967 - 60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62	45	301	382	475	580	698	830	978	-	-
60 - - 455 561 679 812 959 - 65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	50	294	376	470	575	693	826	974	-	-
65 - - - 552 670 802 948 - 70 - - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	55	-	369	463	568	687	820	967	-	-
70 - - 541 658 790 936 - Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	60	-	-	455	561	679	812	959	-	-
Coefficient of performance (C.O.P.) 35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	65	-	-	-	552	670	802	948	-	-
35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	70	-	-	-	541	658	790	936	-	-
35 2.31 2.93 3.64 4.48 5.45 6.59 7.91 - 40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	Coefficient of ne	erformance (C.C).P.)							
40 1.97 2.52 3.15 3.88 4.73 5.73 6.88 - 45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -	-	•	1	3.64	4.48	5.45	6.59	7.91	-	_
45 1.67 2.15 2.70 3.34 4.08 4.94 5.94 - 50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -					1					-
50 1.40 1.82 2.30 2.85 3.50 4.24 5.10 - 55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -						•				-
55 - 1.52 1.94 2.42 2.97 3.61 4.35 - 60 - - 1.62 2.03 2.51 3.05 3.68 -					1					-
60 1.62 2.03 2.51 3.05 3.68 -						•				-
			1		1					-
						•				_
70 - - 1.40 1.74 2.13 2.59 -			†	 	1					-
			1	L						1
Nominal performance at to = 7.2 °C, tc = 54.4 °C Pressure switch settings	Nominal perforn	nance at to = 7.	2 °C, tc = 54.4 °C		<u></u>		Pressure switch	settings		

recinitial perioritianee at to	0,	04.4 0	
Cooling capacity		30 442	W
Power input		9 208	W
Current consumption		18.39	Α
Mass flow		744	kg/h
C.O.P.		3.31	

to: Evaporating temperature at dew point

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

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 accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-20	-15	-10	-5	0	5	10	15	
Caeling conseits	r in W								
Cooling capacity	16 496	21 007	26 387	32 726	40 115	48 644	58 403	69 483	
35	15 417	19 792	24 990	31 102	38 217	46 425	55 816	66 481	
								1	
40	14 305	18 513	23 500	29 353	36 163	44 020	53 012	63 231	-
45	-	17 169	21 913	27 478	33 953	41 427	49 989	59 730	-
50	-	-	20 228	25 474	31 583	38 643	46 744	55 975	-
55	-	-	-	23 340	29 052	35 667	43 275	51 963	-
60	-	-	-	-	26 357	32 495	39 576	47 689	-
65	-	-	-	-	23 494	29 122	35 642	43 143	-
Power input in V	V								
30	7 675	7 756	7 828	7 887	7 928	7 947	7 941	7 904	-
35	8 560	8 643	8 717	8 779	8 823	8 847	8 845	8 814	-
40	9 561	9 646	9 724	9 789	9 837	9 866	9 869	9 844	-
45	-	10 783	10 864	10 933	10 986	11 019	11 028	11 010	-
50	-	-	12 153	12 226	12 284	12 323	12 338	12 326	-
55	-	-	-	13 685	13 748	13 793	13 815	13 810	-
60	-	-	-	-	15 393	15 444	15 473	15 476	-
65	-	-	-	-	17 235	17 293	17 329	17 340	-
•			•			•			
Current consum	ption in A								
30	16.77	16.89	17.00	17.09	17.14	17.16	17.14	17.07	-
35	17.72	17.85	17.97	18.06	18.12	18.15	18.14	18.08	-
40	18.87	19.00	19.12	19.22	19.30	19.33	19.33	19.28	-
45	-	20.38	20.50	20.61	20.69	20.74	20.75	20.71	-
50	-	-	22.13	22.24	22.33	22.39	22.42	22.40	-
55	-	-	-	24.15	24.26	24.33	24.37	24.36	-
60	-	-	-	-	26.49	26.57	26.62	26.63	-
65	-	-	-	-	29.05	29.15	29.22	29.25	-
		•	•	1	•	•	•		
Mass flow in kg/		1		1		1			
30	344	430	530	646	778	929	1 100	1 292	-
35	337	425	526	643	776	928	1 099	1 292	-
40	330	418	520	638	772	924	1 096	1 288	-
45	-	411	513	631	765	918	1 089	1 282	-
50	-	-	504	622	756	908	1 079	1 271	-
55	-	-	-	610	744	895	1 065	1 256	-
60	-	-	-	-	728	878	1 047	1 237	-
65	-	-	-	-	708	857	1 024	1 212	-
Coefficient of pe	erformance (C.C	D.P.)	1	1			T	, , , , , , , , , , , , , , , , , , , 	
30	2.15	2.71	3.37	4.15	5.06	6.12	7.35	8.79	-
35	1.80	2.29	2.87	3.54	4.33	5.25	6.31	7.54	-
40	1.50	1.92	2.42	3.00	3.68	4.46	5.37	6.42	-
45	-	1.59	2.02	2.51	3.09	3.76	4.53	5.43	-
50	-	-	1.66	2.08	2.57	3.14	3.79	4.54	-
55	-	-	-	1.71	2.11	2.59	3.13	3.76	-
60	-	-	-	-	1.71	2.10	2.56	3.08	-
65	-	-	-	-	1.36	1.68	2.06	2.49	-
Nominal perform	nance at to = 5	°C, tc = 50 °C				Pressure switch	settings		

Cooling capacity	38 643	W
Power input	12 323	W
Current consumption	22.39	Α
Mass flow	908	kg/h
C.O.P.	3.14	

to: Evaporating temperature at dew point

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

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	85	dB(A)
With accoustic hood	73	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-20	-15	-10	-5	0	5	10	15	
ooling capacity		00.504	00.007	04.000	40.007	F4 000	00.045	70.005	
30	17 693	22 504	28 237	34 983	42 837	51 893	62 245	73 985	-
35	16 616	21 303	26 866	33 396	40 989	49 739	59 738	71 081	-
40	15 504	20 036	25 397	31 682	38 983	47 395	57 011	67 925	-
45	-	18 700	23 829	29 837	36 815	44 858	54 061	64 516	-
50	-	-	22 159	27 858	34 483	42 127	50 885	60 849	-
55	-	-	-	25 744	31 984	39 198	47 480	56 924	-
60	-	-	-	-	29 315	36 069	43 845	52 736	-
65	-	-	-	-	26 475	32 737	39 975	48 284	-
ower input in V	v								
30	7 675	7 756	7 828	7 887	7 928	7 947	7 941	7 904	-
35	8 560	8 643	8 717	8 779	8 823	8 847	8 845	8 814	_
40	9 561	9 646	9 724	9 789	9 837	9 866	9 869	9 844	-
45	-	10 783	10 864	10 933	10 986	11 019	11 028	11 010	-
50	-	-	12 153	12 226	12 284	12 323	12 338	12 326	-
55	-	-	-	13 685	13 748	13 793	13 815	13 810	-
60	-	-	-	-	15 393	15 444	15 473	15 476	-
65	-	-	-	_	17 235	17 293	17 329	17 340	_
				II.		1			
urrent consum	ption in A								
30	16.77	16.89	17.00	17.09	17.14	17.16	17.14	17.07	-
35	17.72	17.85	17.97	18.06	18.12	18.15	18.14	18.08	_
40	18.87	19.00	19.12	19.22	19.30	19.33	19.33	19.28	_
45	-	20.38	20.50	20.61	20.69	20.74	20.75	20.71	_
50	_	-	22.13	22.24	22.33	22.39	22.42	22.40	_
55	-	-	_	24.15	24.26	24.33	24.37	24.36	_
60	_	-	_	_	26.49	26.57	26.62	26.63	-
65	-	-	_	-	29.05	29.15	29.22	29.25	_
		l	1	II.		1	· · · · · · · · · · · · · · · · · · ·		
lass flow in kg/	'h								
30	342	428	527	642	774	924	1 093	1 284	_
35	335	422	523	639	772	922	1 093	1 284	_
40	328	416	518	634	768	919	1 089	1 281	_
45	-	408	511	628	761	912	1 083	1 274	_
50	_	-	501	619	752	903	1 073	1 263	_
55	_	_	-	607	739	890	1 059	1 248	_
60	<u>-</u>	-	-	-	724	873	1 041	1 229	_
65	<u>-</u>	_	_	_	704	852	1 018	1 205	
••		1	ı	1		1 302		. 200	
	erformance (C.C		1		1		ı		
30	2.31	2.90	3.61	4.44	5.40	6.53	7.84	9.36	-
35	1.94	2.46	3.08	3.80	4.65	5.62	6.75	8.06	-
40	1.62	2.08	2.61	3.24	3.96	4.80	5.78	6.90	-
45	-	1.73	2.19	2.73	3.35	4.07	4.90	5.86	-
50	-	-	1.82	2.28	2.81	3.42	4.12	4.94	-
55	-	-	-	1.88	2.33	2.84	3.44	4.12	-
60	-	-	-	-	1.90	2.34	2.83	3.41	-
	-	-	-	-	1.54	1.89	2.31	2.78	_

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

	• •	
Cooling capacity	43 092	W
Power input	13 619	W
Current consumption	24.10	Α
Mass flow	964	kg/h
C.O.P.	3.16	

to: Evaporating temperature at dew point

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

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	85	dB(A)
With accoustic hood	73	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in	Evaporating temperature in °C (to)									
°C (tc)	-20	-15	-10	-5	0	5	10	15		
Cooling capacity	in W									
30	20 450	25 793	32 178	39 714	48 510	58 674	70 316	83 546		
35	19 090	24 267	30 430	37 687	46 148	55 919	67 112	79 834		
40	17 715	22 689	28 593	35 535	43 622	52 964	63 668	75 844		
45	-	21 063	26 671	33 259	40 937	49 810	59 989	71 580		
50		21 003	24 667	30 865	38 095	46 463	56 077	67 045	-	
55	-	-	-	28 356	35 101	42 925	51 935	62 240		
60	-	-	-	-	31 955	39 196	47 564	57 165		
65	-	-	-	-	28 657	35 276	42 960	51 813		
03					20 037	33 210	42 900	31013		
ower input in W	1	_			1		1			
30	9 172	9 325	9 467	9 592	9 694	9 768	9 807	9 806	-	
35	10 194	10 352	10 500	10 634	10 746	10 832	10 885	10 899	-	
40	11 344	11 508	11 664	11 807	11 931	12 029	12 097	12 128	-	
45	-	12 809	12 974	13 128	13 264	13 377	13 461	13 510	-	
50	-	-	14 447	14 613	14 762	14 891	14 992	15 060	-	
55	-	-	-	16 276	16 441	16 586	16 706	16 794	-	
60	-	-	-	-	18 316	18 479	18 618	18 728	-	
65	-	-	-	-	20 404	20 586	20 746	20 878	-	
current consum				T	T		T	T		
30	15.98	16.16	16.32	16.46	16.56	16.62	16.63	16.58	-	
35	17.05	17.23	17.41	17.56	17.67	17.75	17.79	17.76	-	
40	18.30	18.50	18.68	18.85	18.99	19.09	19.14	19.15	-	
45	-	19.98	20.18	20.36	20.52	20.64	20.73	20.76	-	
50	-	-	21.92	22.12	22.30	22.45	22.56	22.63	-	
55	-	-	-	24.15	24.35	24.53	24.68	24.78	-	
60	-	-	-	-	26.72	26.92	27.10	27.24	-	
65	-	-	-	-	29.41	29.65	29.86	30.03	-	
Mass flow in kg/l	n									
30	426	528	646	783	941	1 120	1 323	1 552	_	
35	418	521	641	779	938	1 118	1 322	1 551	_	
40	408	513	633	773	932	1 112	1 317	1 546	_	
45	-	504	625	764	923	1 104	1 307	1 536	_	
50	_	-	615	753	912	1 092	1 295	1 522	_	
55		_	-	741	898	1 077	1 278	1 504	_	
60		-	-	-	882	1 059	1 258	1 482		
65		-	_	-	864	1 038	1 234	1 455		
		1	1	1	1 301	. 300	. 201	00		
Coefficient of pe	•	1		Т			1	1		
30	2.23	2.77	3.40	4.14	5.00	6.01	7.17	8.52	-	
35	1.87	2.34	2.90	3.54	4.29	5.16	6.17	7.32	-	
40	1.56	1.97	2.45	3.01	3.66	4.40	5.26	6.25	-	
45	-	1.64	2.06	2.53	3.09	3.72	4.46	5.30	-	
50	-	-	1.71	2.11	2.58	3.12	3.74	4.45	-	
55	-	-	-	1.74	2.13	2.59	3.11	3.71	-	
60	-	-	-	-	1.74	2.12	2.55	3.05	-	
65	-	-	-	-	1.40	1.71	2.07	2.48	-	

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

-,		
Cooling capacity	46 463	W
Power input	14 891	W
Current consumption	22.45	Α
Mass flow	1 092	kg/h
C.O.P.	3.12	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximi	ım HP switch setting	29.5	bar(g)
Minimu	m LP switch setting	0.5	bar(g)
LP pun	np down setting	1	bar(g)

Sound power data

Sound power level	88	dB(A)
With accoustic hood	76	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-20	-15	-10	-5	0	5	10	15	
								'	
Cooling capacit				T	1	1	1		
30	21 933	27 632	34 434	42 452	51 801	62 593	74 941	88 960	-
35	20 574	26 120	32 714	40 467	49 495	59 911	71 827	85 358	-
40	19 200	24 555	30 902	38 353	47 023	57 024	68 470	81 475	-
45	-	22 941	29 003	36 114	44 388	53 937	64 875	77 315	-
50	-	-	27 021	33 754	41 593	50 652	61 044	72 882	-
55	-	-	-	31 276	38 643	47 174	56 982	68 181	-
60	-	-	-	-	35 542	43 507	52 694	63 215	-
65	-	-	-	-	32 293	39 655	48 182	57 987	-
Power input in \	N								
30	9 172	9 325	9 467	9 592	9 694	9 768	9 807	9 806	_
35	10 194	10 352	10 500	10 634	10 746	10 832	10 885	10 899	
40	11 344	11 508	11 664	11 807	11 931	12 029	12 097	12 128	
	-							1	
45 50	-	12 809	12 974	13 128 14 613	13 264	13 377	13 461 14 992	13 510	-
50 55	-	-	14 447		14 762	14 891		15 060	-
55 60	-	-	-	16 276	16 441	16 586 18 479	16 706	16 794	-
60	-	-	-	-	18 316		18 618	18 728	-
65	-	-	-	_	20 404	20 586	20 746	20 878	-
Current consum	nption in A								
30	15.98	16.16	16.32	16.46	16.56	16.62	16.63	16.58	-
35	17.05	17.23	17.41	17.56	17.67	17.75	17.79	17.76	
40	18.30	18.50	18.68	18.85	18.99	19.09	19.14	19.15	
45	-	19.98	20.18	20.36	20.52	20.64	20.73	20.76	
50	-	-	21.92	22.12	22.30	22.45	22.56	22.63	
55	-	_	-	24.15	24.35	24.53	24.68	24.78	_
60		_	_	-	26.72	26.92	27.10	27.24	
65	-	-	-		29.41	29.65	29.86	30.03	
00					20.41	20.00	23.00	50.05	
Mass flow in kg	/h								
30	424	525	643	779	936	1 114	1 316	1 543	-
35	415	518	637	775	932	1 111	1 314	1 542	-
40	406	510	630	768	926	1 106	1 309	1 536	-
45	-	501	621	760	918	1 097	1 300	1 527	-
50	-	-	611	749	907	1 085	1 287	1 513	-
55	-	_	-	737	893	1 070	1 271	1 495	_
60	-	_	_	-	877	1 053	1 251	1 473	-
65	-	_	_	-	859	1 032	1 227	1 447	
				1					
	erformance (C.C	1		_	_	T -	_	T	
30	2.39	2.96	3.64	4.43	5.34	6.41	7.64	9.07	-
35	2.02	2.52	3.12	3.81	4.61	5.53	6.60	7.83	-
40	1.69	2.13	2.65	3.25	3.94	4.74	5.66	6.72	-
45	-	1.79	2.24	2.75	3.35	4.03	4.82	5.72	-
50	-	-	1.87	2.31	2.82	3.40	4.07	4.84	-
55	-	-	-	1.92	2.35	2.84	3.41	4.06	-
60	1	-	-	-	1.94	2.35	2.83	3.38	-
		-	-	-	1.58	1.93	2.32	2.78	-

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

reciminal portermance at to 7:2 0, to	U-1T U	
Cooling capacity	51 784	W
Power input	16 428	W
Current consumption	24.33	Α
Mass flow	1 158	kg/h
C.O.P.	3.15	

to: Evaporating temperature at dew point

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

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	88	dB(A)	
With accoustic hood	76	dB(A)	

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
0 - 11 16									
Cooling capacity	16 000	20 225	25 236	31 119	37 962	45 851	E4 972		_
35			1	1	1	+	54 872		
40	15 015	19 091	23 920	29 589	36 184	43 790	52 494	-	-
45	13 998	17 906	22 534	27 968	34 293	41 596	49 962	-	-
50	12 954	16 673	21 080	26 258	32 294	39 273	47 281	-	-
55	-	15 399	19 564	24 466	30 192	36 825	44 453	-	=
60	-	-	17 989	22 595	27 989	34 257	41 483	-	-
65	-	-	-	20 649	25 690	31 569	38 370	-	-
70	-	-	-	18 630	23 296	28 764	35 117	-	-
Power input in V	v								
35	7 215	7 320	7 415	7 496	7 558	7 598	7 611	-	-
40	7 940	8 052	8 155	8 245	8 319	8 371	8 397	-	-
45	8 756	8 875	8 987	9 088	9 173	9 238	9 280	-	-
50	9 669	9 796	9 918	10 030	10 128	10 207	10 265	-	-
55	-	10 821	10 953	11 078	11 189	11 285	11 359	-	-
60	-	-	12 100	12 238	12 364	12 476	12 568	-	-
65	-	-	-	13 517	13 659	13 788	13 899	-	-
70	-	_	-	14 921	15 080	15 227	15 357	_	-
		1	L	1	1 10 101	1			
Current consum	ption in A								
35	13.89	14.00	14.09	14.17	14.23	14.26	14.27	-	-
40	14.61	14.73	14.84	14.93	15.00	15.05	15.08	-	=
45	15.46	15.59	15.71	15.81	15.90	15.97	16.02	-	-
50	16.45	16.59	16.72	16.84	16.95	17.04	17.11	-	-
55	-	17.74	17.89	18.03	18.15	18.27	18.36	_	-
60	-	-	19.23	19.38	19.53	19.66	19.78	-	-
65	-	-	-	20.93	21.10	21.25	21.39	_	-
70	-	-	-	22.67	22.86	23.04	23.21	-	-
		•	•		•		•		
Mass flow in kg/	h'								
35	388	480	586	708	846	1 004	1 181	-	-
40	383	475	583	705	845	1 003	1 181	-	-
45	377	470	578	702	842	1 001	1 179	-	-
50	370	464	572	697	837	997	1 175	-	-
55	-	457	565	690	831	990	1 169	-	1
60	-	-	557	681	822	981	1 160	-	<u>-</u>
65	-	-	-	671	812	970	1 148	-	-
70	-	-	-	659	799	957	1 134	-	-
Coefficient of pe	rformance (C.C) D)							
35	2.22	2.76	3.40	4.15	5.02	6.03	7.21	-	_
40	1.89	2.76	2.93	3.59	4.35	5.23	6.25		-
40	1.60	2.02	2.93	3.59	3.74	4.50	5.38	-	
			1					-	-
50 55	1.34	1.70 1.42	2.13 1.79	2.62	3.19 2.70	3.85 3.26	4.61 3.91	-	-
	-	-	1		1			-	-
60 65			1.49	1.85 1.53	2.26	2.75 2.29	3.30 2.76		-
70	-	-	-	1.53	1.88 1.54	1.89	2.76	-	-
70		<u> </u>		1.20	1.04	1.03	2.23		
Nominal perforn	nance at to = 5	°C, tc = 50 °C				Pressure switch	settinas		
							J -		

Cooling capacity	32 294	W	
Power input	10 128	W	
Current consumption	16.95	Α	
Mass flow	837	kg/h	
C.O.P.	3.19		

to: Evaporating temperature at dew point

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

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 accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
0 - 11 16									
Cooling capacity		21 060	27 242	22 541	40 856	49 275	58 889	-	_
35	17 330	21 868	1	33 541	1		1		
40	16 351	20 750	25 953	32 048	39 126	47 275	56 587	-	-
45	15 338	19 578	24 589	30 460	37 280	45 139	54 128	-	-
50	14 297	18 357	23 155	28 781	35 323	42 872	51 516	-	-
55	-	17 092	21 657	27 016	33 260	40 477	48 758	-	-
60	-	-	20 098	25 171	31 096	37 962	45 858	-	-
65	-	-	-	23 251	28 836	35 329	42 820	-	-
70	-	-	-	21 260	26 485	32 585	39 651	-	-
Power input in V	v								
35	7 215	7 320	7 415	7 496	7 558	7 598	7 611	-	-
40	7 940	8 052	8 155	8 245	8 319	8 371	8 397	-	-
45	8 756	8 875	8 987	9 088	9 173	9 238	9 280	-	-
50	9 669	9 796	9 918	10 030	10 128	10 207	10 265	-	-
55	-	10 821	10 953	11 078	11 189	11 285	11 359	-	-
60	-	-	12 100	12 238	12 364	12 476	12 568	-	-
65	-	-	-	13 517	13 659	13 788	13 899	-	-
70	-	_	-	14 921	15 080	15 227	15 357	-	-
		1	L	1	1 10 101	1			
Current consum	ption in A								
35	13.89	14.00	14.09	14.17	14.23	14.26	14.27	-	-
40	14.61	14.73	14.84	14.93	15.00	15.05	15.08	-	-
45	15.46	15.59	15.71	15.81	15.90	15.97	16.02	-	-
50	16.45	16.59	16.72	16.84	16.95	17.04	17.11	-	-
55	_	17.74	17.89	18.03	18.15	18.27	18.36	-	-
60	-	-	19.23	19.38	19.53	19.66	19.78	-	-
65	-	-	-	20.93	21.10	21.25	21.39	-	-
70	-	-	-	22.67	22.86	23.04	23.21	-	-
		•	•		•		•		
Mass flow in kg/	h								
35	386	477	583	704	842	998	1 174	-	-
40	381	473	580	702	841	998	1 175	-	-
45	375	468	575	698	838	996	1 173	-	-
50	368	462	570	693	833	991	1 169	-	-
55	-	454	563	686	826	985	1 162	-	-
60	-	-	554	678	818	976	1 153	-	-
65	-	-	-	668	807	965	1 142	-	-
70	-	-	-	656	795	952	1 128	1	-
Coefficient of pe	•	1	T	1	T =	1	·		
35	2.40	2.99	3.67	4.47	5.41	6.49	7.74	-	-
40	2.06	2.58	3.18	3.89	4.70	5.65	6.74	-	-
45	1.75	2.21	2.74	3.35	4.06	4.89	5.83	-	-
50	1.48	1.87	2.33	2.87	3.49	4.20	5.02	-	-
55	-	1.58	1.98	2.44	2.97	3.59	4.29	-	-
60	-	-	1.66	2.06	2.51	3.04	3.65	-	-
65	-	-	-	1.72	2.11	2.56	3.08	-	-
70	-	-	-	1.42	1.76	2.14	2.58	-	-
						_			
Nominal perform	nance at to = 7.	2 °C, tc = 54.4 °C				Pressure switch	settings		

reciminal performance at to 7:2	0, 10 04.4 0	
Cooling capacity	36 581	W
Power input	11 099	W
Current consumption	18.05	Α
Mass flow	895	kg/h
C.O.P.	3.30	

to: Evaporating temperature at dew point

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

Maxi	mum HP switch setting	20.5	bar(g)
Minir	num LP switch setting	0.5	bar(g)
LP p	ump down setting	0.5	bar(g)

Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, EN 12900 rating conditions

R134a

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-15	-10	-5	0	5	10	15		
0 - 11 16									
Cooling capacity	16 000	20 225	25 236	31 119	37 962	45 851	E4 972		_
35			1	1	1	+	54 872		
40	15 015	19 091	23 920	29 589	36 184	43 790	52 494	-	-
45	13 998	17 906	22 534	27 968	34 293	41 596	49 962	-	-
50	12 954	16 673	21 080	26 258	32 294	39 273	47 281	-	-
55	-	15 399	19 564	24 466	30 192	36 825	44 453	-	=
60	-	-	17 989	22 595	27 989	34 257	41 483	-	-
65	-	-	-	20 649	25 690	31 569	38 370	-	-
70	-	-	-	18 630	23 296	28 764	35 117	-	-
Power input in V	v								
35	7 215	7 320	7 415	7 496	7 558	7 598	7 611	-	-
40	7 940	8 052	8 155	8 245	8 319	8 371	8 397	-	-
45	8 756	8 875	8 987	9 088	9 173	9 238	9 280	-	-
50	9 669	9 796	9 918	10 030	10 128	10 207	10 265	-	-
55	-	10 821	10 953	11 078	11 189	11 285	11 359	-	-
60	-	-	12 100	12 238	12 364	12 476	12 568	-	-
65	-	-	-	13 517	13 659	13 788	13 899	-	-
70	-	_	-	14 921	15 080	15 227	15 357	_	-
		1	L	1	1 10 101	1			
Current consum	ption in A								
35	13.89	14.00	14.09	14.17	14.23	14.26	14.27	-	-
40	14.61	14.73	14.84	14.93	15.00	15.05	15.08	-	=
45	15.46	15.59	15.71	15.81	15.90	15.97	16.02	-	-
50	16.45	16.59	16.72	16.84	16.95	17.04	17.11	-	-
55	-	17.74	17.89	18.03	18.15	18.27	18.36	_	-
60	-	-	19.23	19.38	19.53	19.66	19.78	-	-
65	-	-	-	20.93	21.10	21.25	21.39	_	-
70	-	-	-	22.67	22.86	23.04	23.21	-	-
		•	•		•		•		
Mass flow in kg/	h'								
35	388	480	586	708	846	1 004	1 181	-	-
40	383	475	583	705	845	1 003	1 181	-	-
45	377	470	578	702	842	1 001	1 179	-	-
50	370	464	572	697	837	997	1 175	-	-
55	-	457	565	690	831	990	1 169	-	1
60	-	-	557	681	822	981	1 160	-	<u>-</u>
65	-	-	-	671	812	970	1 148	-	-
70	-	-	-	659	799	957	1 134	-	-
Coefficient of pe	rformance (C.C) D)							
35	2.22	2.76	3.40	4.15	5.02	6.03	7.21	-	_
40	1.89	2.76	2.93	3.59	4.35	5.23	6.25		-
40	1.60	2.02	2.93	3.59	3.74	4.50	5.38	-	
			1					-	-
50 55	1.34	1.70 1.42	2.13 1.79	2.62	3.19 2.70	3.85 3.26	4.61 3.91	-	-
	-	-	1		1			-	-
60 65			1.49	1.85 1.53	2.26	2.75 2.29	3.30 2.76		-
70	-	-	-	1.53	1.88 1.54	1.89	2.76	-	-
70		<u> </u>		1.20	1.04	1.03	2.23		
Nominal perforn	nance at to = 5	°C, tc = 50 °C				Pressure switch	settinas		
							J -		

Cooling capacity	32 294	W	
Power input	10 128	W	
Current consumption	16.95	Α	
Mass flow	837	kg/h	
C.O.P.	3.19		

to: Evaporating temperature at dew point

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

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 accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, ARI rating conditions

R134a

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-15	-10	-5	0	5	10	15		
0 - 11 16									
Cooling capacity		21 060	27 242	22 541	40 856	49 275	58 889	-	_
35	17 330	21 868	1	33 541	1		1		
40	16 351	20 750	25 953	32 048	39 126	47 275	56 587	-	-
45	15 338	19 578	24 589	30 460	37 280	45 139	54 128	-	-
50	14 297	18 357	23 155	28 781	35 323	42 872	51 516	-	-
55	-	17 092	21 657	27 016	33 260	40 477	48 758	-	-
60	-	-	20 098	25 171	31 096	37 962	45 858	-	-
65	-	-	-	23 251	28 836	35 329	42 820	-	-
70	-	-	-	21 260	26 485	32 585	39 651	-	-
Power input in V	v								
35	7 215	7 320	7 415	7 496	7 558	7 598	7 611	-	-
40	7 940	8 052	8 155	8 245	8 319	8 371	8 397	-	-
45	8 756	8 875	8 987	9 088	9 173	9 238	9 280	-	-
50	9 669	9 796	9 918	10 030	10 128	10 207	10 265	-	-
55	-	10 821	10 953	11 078	11 189	11 285	11 359	-	-
60	-	-	12 100	12 238	12 364	12 476	12 568	-	-
65	-	-	-	13 517	13 659	13 788	13 899	-	-
70	-	_	-	14 921	15 080	15 227	15 357	-	-
		1	L	1	1 10 101	1			
Current consum	ption in A								
35	13.89	14.00	14.09	14.17	14.23	14.26	14.27	-	-
40	14.61	14.73	14.84	14.93	15.00	15.05	15.08	-	-
45	15.46	15.59	15.71	15.81	15.90	15.97	16.02	-	-
50	16.45	16.59	16.72	16.84	16.95	17.04	17.11	-	-
55	_	17.74	17.89	18.03	18.15	18.27	18.36	-	-
60	-	-	19.23	19.38	19.53	19.66	19.78	-	-
65	-	-	-	20.93	21.10	21.25	21.39	-	-
70	-	-	-	22.67	22.86	23.04	23.21	-	-
		•	•		•		•		
Mass flow in kg/	h								
35	386	477	583	704	842	998	1 174	-	-
40	381	473	580	702	841	998	1 175	-	-
45	375	468	575	698	838	996	1 173	-	-
50	368	462	570	693	833	991	1 169	-	-
55	-	454	563	686	826	985	1 162	-	-
60	-	-	554	678	818	976	1 153	-	-
65	-	-	-	668	807	965	1 142	-	-
70	-	-	-	656	795	952	1 128	1	-
Coefficient of pe	•	1	T	1	T =	1			
35	2.40	2.99	3.67	4.47	5.41	6.49	7.74	-	-
40	2.06	2.58	3.18	3.89	4.70	5.65	6.74	-	-
45	1.75	2.21	2.74	3.35	4.06	4.89	5.83	-	-
50	1.48	1.87	2.33	2.87	3.49	4.20	5.02	-	-
55	-	1.58	1.98	2.44	2.97	3.59	4.29	-	-
60	-	-	1.66	2.06	2.51	3.04	3.65	-	-
65	-	-	-	1.72	2.11	2.56	3.08	-	-
70	-	-	-	1.42	1.76	2.14	2.58	-	-
						_			
Nominal perform	nance at to = 7.	2 °C, tc = 54.4 °C				Pressure switch	settings		

reciminal performance at to 7:2	0, 10 04.4 0	
Cooling capacity	36 581	W
Power input	11 099	W
Current consumption	18.05	Α
Mass flow	895	kg/h
C.O.P.	3.30	

to: Evaporating temperature at dew point

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

Maxi	mum HP switch setting	20.5	bar(g)
Minir	num LP switch setting	0.5	bar(g)
LP p	ump down setting	0.5	bar(g)

Sound power data

Sound power level	0	dB(A)
With accoustic hood	0	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in		Evaporating temperature in °C (to)									
°C (tc)	-20	-15	-10	-5	0	5	10	15			
Cooling capacity	in W										
30	20 450	25 793	32 178	39 714	48 510	58 674	70 316	83 546			
35	19 090	24 267	30 430	37 687	46 148	55 919	67 112	79 834			
40	17 715	22 689	28 593	35 535	43 622	52 964	63 668	75 844			
45	-	21 063	26 671	33 259	40 937	49 810	59 989	71 580			
50		21 003	24 667	30 865	38 095	46 463	56 077	67 045	-		
55	-	-	-	28 356	35 101	42 925	51 935	62 240			
60	-	-	-	-	31 955	39 196	47 564	57 165			
65	-	-	-	-	28 657	35 276	42 960	51 813			
03					20 037	33 210	42 900	31013			
ower input in W	1	_			1		1				
30	9 172	9 325	9 467	9 592	9 694	9 768	9 807	9 806	-		
35	10 194	10 352	10 500	10 634	10 746	10 832	10 885	10 899	-		
40	11 344	11 508	11 664	11 807	11 931	12 029	12 097	12 128	-		
45	-	12 809	12 974	13 128	13 264	13 377	13 461	13 510	-		
50	-	-	14 447	14 613	14 762	14 891	14 992	15 060	-		
55	-	-	-	16 276	16 441	16 586	16 706	16 794	-		
60	-	-	-	-	18 316	18 479	18 618	18 728	-		
65	-	-	-	-	20 404	20 586	20 746	20 878	-		
current consum				T	T		T	T			
30	15.98	16.16	16.32	16.46	16.56	16.62	16.63	16.58	-		
35	17.05	17.23	17.41	17.56	17.67	17.75	17.79	17.76	-		
40	18.30	18.50	18.68	18.85	18.99	19.09	19.14	19.15	-		
45	-	19.98	20.18	20.36	20.52	20.64	20.73	20.76	-		
50	-	-	21.92	22.12	22.30	22.45	22.56	22.63	-		
55	-	-	-	24.15	24.35	24.53	24.68	24.78	-		
60	-	-	-	-	26.72	26.92	27.10	27.24	-		
65	-	-	-	-	29.41	29.65	29.86	30.03	-		
Mass flow in kg/l	n										
30	426	528	646	783	941	1 120	1 323	1 552	_		
35	418	521	641	779	938	1 118	1 322	1 551	_		
40	408	513	633	773	932	1 112	1 317	1 546	_		
45	-	504	625	764	923	1 104	1 307	1 536	_		
50	_	-	615	753	912	1 092	1 295	1 522	_		
55		_	-	741	898	1 077	1 278	1 504	_		
60		-	-	-	882	1 059	1 258	1 482			
65		-	_	-	864	1 038	1 234	1 455			
		1	1	1	1 301	. 300	. 201	00			
Coefficient of pe	•	1		Т			1	1			
30	2.23	2.77	3.40	4.14	5.00	6.01	7.17	8.52	-		
35	1.87	2.34	2.90	3.54	4.29	5.16	6.17	7.32	-		
40	1.56	1.97	2.45	3.01	3.66	4.40	5.26	6.25	-		
45	-	1.64	2.06	2.53	3.09	3.72	4.46	5.30	-		
50	-	-	1.71	2.11	2.58	3.12	3.74	4.45	-		
55	-	-	-	1.74	2.13	2.59	3.11	3.71	-		
60	-	-	-	-	1.74	2.12	2.55	3.05	-		
65	-	-	-	-	1.40	1.71	2.07	2.48	-		

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

-,		
Cooling capacity	46 463	W
Power input	14 891	W
Current consumption	22.45	Α
Mass flow	1 092	kg/h
C.O.P.	3.12	

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximi	ım HP switch setting	29.5	bar(g)
Minimu	m LP switch setting	0.5	bar(g)
LP pun	np down setting	1	bar(g)

Sound power data

Sound power level	88	dB(A)
With accoustic hood	76	dB(A)

Tolerance according EN12900

tc: Condensing temperature at dew point



Danfoss scroll compressor. SZ185-4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-20	-15	-10	-5	0	5	10	15	
								'	
Cooling capacit				T	1	1	1		
30	21 933	27 632	34 434	42 452	51 801	62 593	74 941	88 960	-
35	20 574	26 120	32 714	40 467	49 495	59 911	71 827	85 358	-
40	19 200	24 555	30 902	38 353	47 023	57 024	68 470	81 475	-
45	-	22 941	29 003	36 114	44 388	53 937	64 875	77 315	-
50	-	-	27 021	33 754	41 593	50 652	61 044	72 882	-
55	-	-	-	31 276	38 643	47 174	56 982	68 181	-
60	-	-	-	-	35 542	43 507	52 694	63 215	-
65	-	-	-	-	32 293	39 655	48 182	57 987	-
Power input in \	N								
30	9 172	9 325	9 467	9 592	9 694	9 768	9 807	9 806	_
35	10 194	10 352	10 500	10 634	10 746	10 832	10 885	10 899	
40	11 344	11 508	11 664	11 807	11 931	12 029	12 097	12 128	
	-							1	
45 50	-	12 809	12 974	13 128 14 613	13 264	13 377	13 461 14 992	13 510	-
50 55	-	-	14 447		14 762	14 891		15 060	-
55 60	-	-	-	16 276	16 441	16 586 18 479	16 706	16 794	-
60	-	-	-	-	18 316		18 618	18 728	-
65	-	-	-	_	20 404	20 586	20 746	20 878	-
Current consum	nption in A								
30	15.98	16.16	16.32	16.46	16.56	16.62	16.63	16.58	-
35	17.05	17.23	17.41	17.56	17.67	17.75	17.79	17.76	
40	18.30	18.50	18.68	18.85	18.99	19.09	19.14	19.15	
45	-	19.98	20.18	20.36	20.52	20.64	20.73	20.76	
50	-	-	21.92	22.12	22.30	22.45	22.56	22.63	
55	-	_	-	24.15	24.35	24.53	24.68	24.78	_
60		_	_	-	26.72	26.92	27.10	27.24	
65	-	-	-		29.41	29.65	29.86	30.03	
00					20.41	20.00	23.00	50.05	
Mass flow in kg	/h								
30	424	525	643	779	936	1 114	1 316	1 543	-
35	415	518	637	775	932	1 111	1 314	1 542	-
40	406	510	630	768	926	1 106	1 309	1 536	-
45	-	501	621	760	918	1 097	1 300	1 527	-
50	-	-	611	749	907	1 085	1 287	1 513	-
55	-	_	-	737	893	1 070	1 271	1 495	_
60	-	_	_	-	877	1 053	1 251	1 473	-
65	-	_	_	-	859	1 032	1 227	1 447	
				1					
	erformance (C.C	1		_	_	T -	_	T	
30	2.39	2.96	3.64	4.43	5.34	6.41	7.64	9.07	-
35	2.02	2.52	3.12	3.81	4.61	5.53	6.60	7.83	-
40	1.69	2.13	2.65	3.25	3.94	4.74	5.66	6.72	-
45	-	1.79	2.24	2.75	3.35	4.03	4.82	5.72	-
50	-	-	1.87	2.31	2.82	3.40	4.07	4.84	-
55	-	-	-	1.92	2.35	2.84	3.41	4.06	-
60	1	-	-	-	1.94	2.35	2.83	3.38	-
		-	-	-	1.58	1.93	2.32	2.78	-

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

reciminal portermance at to 7:2 0, to	U-1T U	
Cooling capacity	51 784	W
Power input	16 428	W
Current consumption	24.33	Α
Mass flow	1 158	kg/h
C.O.P.	3.15	

to: Evaporating temperature at dew point

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

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	88	dB(A)	
With accoustic hood	76	dB(A)	

Tolerance according EN12900

tc: Condensing temperature at dew point



Datasheet, drawing Scroll compressor

