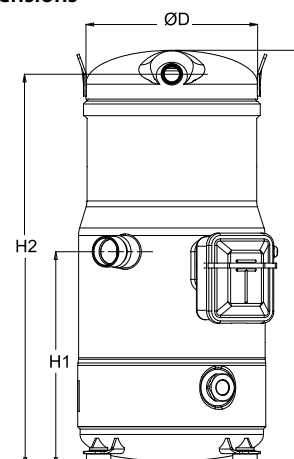


General Characteristics

Model number (on compressor nameplate)		DSH090A4ALC
Code number for Singlepack*		120H1182
Code number for Industrial pack**		120H1183
Drawing number		8560004f
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 cm ³ /rev
Displacement @ Nominal speed		15.4 m ³ /h @ 2900 rpm - 18.6 m ³ /h @ 3500 rpm
Net weight		58 kg
Oil charge		3 litre, POE - 160SZ
Maximum system test pressure Low Side / High side		33.3 bar(g) / 48.7 bar(g)
Maximum differential test pressure		37 bar
Maximum number of starts per hour		12
Refrigerant charge limit		8 kg
Approved refrigerants		R410A, R452B, R454B

Dimensions


D=243 mm

H=482 mm

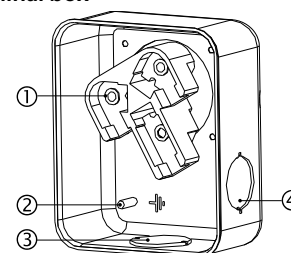
H1=235 mm

H2=451 mm

H3= mm

Electrical Characteristics

Nominal voltage	380-415V/3/50Hz - 460V/3/60Hz
Voltage range	342-457 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	1.47 Ω
Rated Load Amps (RLA)	14.3 A
Maximum Continuous Current (MCC)	22 A
Locked Rotor Amps (LRA)	98 A
Motor protection	Internal overload protector

Terminal box


IP54 (with cable gland)

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

2: Earth M4-12

3: Knock-out Ø 29 mm (1.14")

4: Knock-out Ø 25.5 mm (1.00")

Recommended Installation torques

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Mounting bolts	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 (file SA6873), -

*Singlepack: Compressor in cardboard box

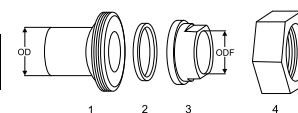
**Industrial pack: 8 Unboxed compressors on pallet (order per multiples of 8)

Rotolock accessories, suction side
Code no.

Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge side
Code no.

Rotolock adapter (1-1/4" Rotolock, 7/8" ODF)	120Z0367
Gasket, 1-1/4"	8156131

Solder sleeve adapter set


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

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")	7703008

Oil / lubricants
Code no.

POE lubricant, 160SZ, 1 litre can	7754023
-----------------------------------	---------

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

Miscellaneous accessories
Code no.

Acoustic hood for scroll compressor SH090	120Z0034
Gasket, 1-3/4"	8156132
Discharge thermostat kit	7750009

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
Service kit for terminal box 96 x 115 mm, including 1 cover, 1 clamp	8156135
T block connector 52 x 57 mm	8173230

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K
R410A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-20	-15	-10	-5	0	5	10	20

Cooling capacity in W

10	7 172	11 351	14 074	17 281	21 021	25 340	30 286	-	-
20	6 378	10 467	13 077	16 129	19 668	23 743	28 400	33 687	-
30	5 589	9 454	11 886	14 715	17 988	21 752	26 054	30 942	42 661
40	-	8 329	10 517	13 057	15 997	19 384	23 265	27 686	38 342
50	-	-	8 986	11 171	13 712	16 655	20 048	23 937	33 396
60	-	-	-	-	11 147	13 580	16 419	19 710	27 840
65	-	-	-	-	-	-	14 456	17 423	24 838
68	-	-	-	-	-	-	-	15 996	-

Power input in W

10	2 703	2 771	2 705	2 528	2 210	1 717	1 018	-	-
20	3 269	3 387	3 418	3 387	3 262	3 011	2 601	2 000	-
30	4 111	4 128	4 180	4 219	4 212	4 126	3 930	3 592	2 356
40	-	5 171	5 169	5 202	5 237	5 242	5 185	5 032	4 314
50	-	-	6 564	6 515	6 517	6 537	6 542	6 500	6 148
60	-	-	-	-	8 229	8 188	8 180	8 174	8 037
65	-	-	-	-	-	-	9 161	9 144	9 057
68	-	-	-	-	-	-	-	9 781	-

Current consumption in A

10	9.67	9.59	9.47	9.27	8.97	8.55	8.00	-	-
20	9.14	9.21	9.19	9.12	8.97	8.72	8.37	7.89	-
30	9.50	9.63	9.68	9.69	9.64	9.53	9.33	9.03	8.04
40	-	10.75	10.82	10.87	10.89	10.86	10.77	10.60	9.93
50	-	-	12.50	12.55	12.59	12.60	12.57	12.49	12.06
60	-	-	-	-	14.63	14.64	14.63	14.59	14.32
65	-	-	-	-	-	-	15.72	15.68	15.45
68	-	-	-	-	-	-	-	16.35	-

Mass flow in kg/h

10	126	198	242	294	353	422	500	-	-
20	123	197	243	296	357	426	505	595	-
30	119	195	241	294	355	425	504	594	810
40	-	190	236	289	350	419	498	588	802
50	-	-	229	281	341	410	487	576	788
60	-	-	-	-	329	396	472	559	767
65	-	-	-	-	-	-	463	549	754
68	-	-	-	-	-	-	-	542	-

Coefficient of performance (C.O.P.)

10	2.65	4.10	5.20	6.83	9.51	14.76	29.76	-	-
20	1.95	3.09	3.83	4.76	6.03	7.89	10.92	16.84	-
30	1.36	2.29	2.84	3.49	4.27	5.27	6.63	8.62	18.11
40	-	1.61	2.03	2.51	3.05	3.70	4.49	5.50	8.89
50	-	-	1.37	1.71	2.10	2.55	3.06	3.68	5.43
60	-	-	-	-	1.35	1.66	2.01	2.41	3.46
65	-	-	-	-	-	-	1.58	1.91	2.74
68	-	-	-	-	-	-	-	1.64	-

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

Cooling capacity	20 048	W
Power input	6 542	W
Current consumption	12.57	A
Mass flow	487	kg/h
C.O.P.	3.06	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With acoustic hood	67	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Performance data at 50 Hz, ARI rating conditions SH=11.1K SC=8.3K
R410A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-20	-15	-10	-5	0	5	10	20

Cooling capacity in W

10	7 613	12 032	14 907	18 292	22 236	26 789	31 998	-	-
20	6 824	11 179	13 956	17 198	20 957	25 280	30 218	35 819	-
30	6 043	10 199	12 810	15 844	19 350	23 379	27 980	33 203	45 713
40	-	9 112	11 490	14 249	17 437	21 106	25 306	30 087	41 595
50	-	-	10 025	12 443	15 249	18 495	22 234	26 515	36 913
60	-	-	-	-	12 869	15 644	18 876	22 618	31 848
65	-	-	-	-	-	-	17 219	20 702	29 391
68	-	-	-	-	-	-	-	19 692	-

Power input in W

10	2 703	2 771	2 705	2 528	2 210	1 717	1 018	-	-
20	3 269	3 387	3 418	3 387	3 262	3 011	2 601	2 000	-
30	4 111	4 128	4 180	4 219	4 212	4 126	3 930	3 592	2 356
40	-	5 171	5 169	5 202	5 237	5 242	5 185	5 032	4 314
50	-	-	6 564	6 515	6 517	6 537	6 542	6 500	6 148
60	-	-	-	-	8 229	8 188	8 180	8 174	8 037
65	-	-	-	-	-	-	9 161	9 144	9 057
68	-	-	-	-	-	-	-	9 781	-

Current consumption in A

10	9.67	9.59	9.47	9.27	8.97	8.55	8.00	-	-
20	9.14	9.21	9.19	9.12	8.97	8.72	8.37	7.89	-
30	9.50	9.63	9.68	9.69	9.64	9.53	9.33	9.03	8.04
40	-	10.75	10.82	10.87	10.89	10.86	10.77	10.60	9.93
50	-	-	12.50	12.55	12.59	12.60	12.57	12.49	12.06
60	-	-	-	-	14.63	14.64	14.63	14.59	14.32
65	-	-	-	-	-	-	15.72	15.68	15.45
68	-	-	-	-	-	-	-	16.35	-

Mass flow in kg/h

10	125	197	241	292	351	419	496	-	-
20	122	196	242	294	354	423	502	590	-
30	118	194	240	293	353	422	501	590	803
40	-	189	235	287	348	417	495	584	796
50	-	-	228	280	339	407	484	572	781
60	-	-	-	-	327	393	469	555	761
65	-	-	-	-	-	-	460	545	748
68	-	-	-	-	-	-	-	538	-

Coefficient of performance (C.O.P.)

10	2.82	4.34	5.51	7.23	10.06	15.60	31.44	-	-
20	2.09	3.30	4.08	5.08	6.42	8.40	11.62	17.91	-
30	1.47	2.47	3.06	3.76	4.59	5.67	7.12	9.24	19.40
40	-	1.76	2.22	2.74	3.33	4.03	4.88	5.98	9.64
50	-	-	1.53	1.91	2.34	2.83	3.40	4.08	6.00
60	-	-	-	-	1.56	1.91	2.31	2.77	3.96
65	-	-	-	-	-	-	1.88	2.26	3.25
68	-	-	-	-	-	-	-	2.01	-

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

Cooling capacity	22 490	W
Power input	7 215	W
Current consumption	13.44	A
Mass flow	515	kg/h
C.O.P.	3.12	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

R410A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-20	-15	-10	-5	0	5	10	20

Cooling capacity in W

10	9 256	14 351	17 623	21 458	25 918	31 063	36 954	-	-
20	8 284	13 159	16 254	19 869	24 064	28 899	34 434	40 731	-
30	7 267	11 811	14 674	18 013	21 885	26 352	31 472	37 308	51 361
40	-	10 356	12 931	15 935	19 427	23 466	28 112	33 424	46 282
50	-	-	11 060	13 670	16 720	20 269	24 374	29 094	40 612
60	-	-	-	-	13 735	16 714	20 194	24 232	34 204
65	-	-	-	-	-	-	17 817	21 453	30 509
68	-	-	-	-	-	-	-	19 554	-

Power input in W

10	3 341	3 369	3 289	3 101	2 772	2 270	1 561	-	-
20	4 044	4 146	4 170	4 132	3 997	3 735	3 310	2 691	-
30	4 977	5 017	5 077	5 120	5 112	5 020	4 811	4 452	3 153
40	-	6 162	6 190	6 245	6 295	6 306	6 244	6 078	5 298
50	-	-	7 688	7 688	7 727	7 772	7 790	7 748	7 351
60	-	-	-	-	9 589	9 600	9 629	9 643	9 492
65	-	-	-	-	-	-	10 714	10 730	10 652
68	-	-	-	-	-	-	-	11 441	-

Current consumption in A

10	7.04	7.33	7.34	7.24	7.01	6.65	6.14	-	-
20	7.95	8.25	8.30	8.26	8.13	7.89	7.53	7.02	-
30	8.97	9.23	9.31	9.32	9.27	9.13	8.89	8.54	7.47
40	-	10.43	10.51	10.56	10.57	10.51	10.39	10.18	9.45
50	-	-	12.07	12.13	12.18	12.19	12.16	12.08	11.67
60	-	-	-	-	14.26	14.32	14.37	14.39	14.27
65	-	-	-	-	-	-	15.68	15.74	15.75
68	-	-	-	-	-	-	-	16.63	-

Mass flow in kg/h

10	163	250	303	365	436	517	610	-	-
20	159	248	302	364	436	518	612	719	-
30	154	243	298	361	433	516	610	717	975
40	-	237	291	354	426	509	604	711	969
50	-	-	283	345	417	499	593	700	957
60	-	-	-	-	404	485	578	684	940
65	-	-	-	-	-	-	570	675	929
68	-	-	-	-	-	-	-	669	-

Coefficient of performance (C.O.P.)

10	2.77	4.26	5.36	6.92	9.35	13.68	23.67	-	-
20	2.05	3.17	3.90	4.81	6.02	7.74	10.40	15.14	-
30	1.46	2.35	2.89	3.52	4.28	5.25	6.54	8.38	16.29
40	-	1.68	2.09	2.55	3.09	3.72	4.50	5.50	8.74
50	-	-	1.44	1.78	2.16	2.61	3.13	3.75	5.52
60	-	-	-	-	1.43	1.74	2.10	2.51	3.60
65	-	-	-	-	-	-	1.66	2.00	2.86
68	-	-	-	-	-	-	-	1.71	-

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

Cooling capacity	24 374	W
Power input	7 790	W
Current consumption	12.16	A
Mass flow	593	kg/h
C.O.P.	3.13	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	76	dB(A)
With acoustic hood	70	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 60 Hz, ARI rating conditions SH=11.1K SC=8.3K

R410A

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-20	-15	-10	-5	0	5	10	20

Cooling capacity in W

10	9 826	15 211	18 666	22 713	27 416	32 838	39 043	-	-
20	8 863	14 054	17 346	21 187	25 641	30 770	36 639	43 310	-
30	7 857	12 741	15 815	19 394	23 542	28 322	33 799	40 034	55 035
40	-	11 329	14 128	17 389	21 175	25 550	30 578	36 321	50 209
50	-	-	12 339	15 226	18 595	22 509	27 032	32 227	44 888
60	-	-	-	-	15 856	19 253	23 216	27 807	39 129
65	-	-	-	-	-	-	21 223	25 491	36 102
68	-	-	-	-	-	-	-	24 072	-

Power input in W

10	3 341	3 369	3 289	3 101	2 772	2 270	1 561	-	-
20	4 044	4 146	4 170	4 132	3 997	3 735	3 310	2 691	-
30	4 977	5 017	5 077	5 120	5 112	5 020	4 811	4 452	3 153
40	-	6 162	6 190	6 245	6 295	6 306	6 244	6 078	5 298
50	-	-	7 688	7 688	7 727	7 772	7 790	7 748	7 351
60	-	-	-	-	9 589	9 600	9 629	9 643	9 492
65	-	-	-	-	-	-	10 714	10 730	10 652
68	-	-	-	-	-	-	-	11 441	-

Current consumption in A

10	7.04	7.33	7.34	7.24	7.01	6.65	6.14	-	-
20	7.95	8.25	8.30	8.26	8.13	7.89	7.53	7.02	-
30	8.97	9.23	9.31	9.32	9.27	9.13	8.89	8.54	7.47
40	-	10.43	10.51	10.56	10.57	10.51	10.39	10.18	9.45
50	-	-	12.07	12.13	12.18	12.19	12.16	12.08	11.67
60	-	-	-	-	14.26	14.32	14.37	14.39	14.27
65	-	-	-	-	-	-	15.68	15.74	15.75
68	-	-	-	-	-	-	-	16.63	-

Mass flow in kg/h

10	162	248	301	362	433	513	606	-	-
20	158	246	300	362	433	515	608	714	-
30	153	242	296	358	430	512	606	712	967
40	-	235	289	352	424	506	600	706	961
50	-	-	281	343	414	496	589	695	949
60	-	-	-	-	401	482	574	679	932
65	-	-	-	-	-	-	566	670	922
68	-	-	-	-	-	-	-	664	-

Coefficient of performance (C.O.P.)

10	2.94	4.51	5.68	7.33	9.89	14.47	25.01	-	-
20	2.19	3.39	4.16	5.13	6.41	8.24	11.07	16.10	-
30	1.58	2.54	3.11	3.79	4.61	5.64	7.03	8.99	17.46
40	-	1.84	2.28	2.78	3.36	4.05	4.90	5.98	9.48
50	-	-	1.60	1.98	2.41	2.90	3.47	4.16	6.11
60	-	-	-	-	1.65	2.01	2.41	2.88	4.12
65	-	-	-	-	-	-	1.98	2.38	3.39
68	-	-	-	-	-	-	-	2.10	-

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

Cooling capacity	27 471	W
Power input	8 555	W
Current consumption	13.06	A
Mass flow	628	kg/h
C.O.P.	3.21	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

R452B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-28	-20	-15	-10	-5	0	10	20

Cooling capacity in W

10	7 415	10 841	13 533	16 707	20 409	24 687	-	-	-
20	6 612	9 894	12 434	15 407	18 859	22 839	32 570	-	-
30	-	8 891	11 254	14 002	17 181	20 839	29 782	41 208	47 971
40	-	-	9 952	12 451	15 333	18 646	26 752	37 148	43 323
50	-	-	-	10 712	13 273	16 217	23 439	32 757	38 321
55	-	-	-	-	12 151	14 901	21 663	30 425	35 674
60	-	-	-	-	-	13 511	19 802	27 995	-
65	-	-	-	-	-	-	17 848	-	-

Power input in W

10	2 699	2 636	2 521	2 348	2 118	1 829	-	-	-
20	3 324	3 382	3 340	3 237	3 073	2 848	2 214	-	-
30	-	4 174	4 211	4 184	4 093	3 938	3 436	2 676	2 198
40	-	-	5 173	5 229	5 218	5 140	4 783	4 156	3 741
50	-	-	-	6 412	6 487	6 493	6 293	5 813	5 467
55	-	-	-	-	7 189	7 238	7 123	6 721	6 411
60	-	-	-	-	-	8 037	8 009	7 688	-
65	-	-	-	-	-	-	8 956	-	-

Current consumption in A

10	8.41	8.40	8.33	8.22	8.07	7.90	-	-	-
20	8.86	8.97	8.94	8.86	8.72	8.54	8.06	-	-
30	-	9.67	9.73	9.71	9.62	9.47	8.99	8.35	7.98
40	-	-	10.73	10.81	10.81	10.72	10.32	9.68	9.29
50	-	-	-	12.20	12.31	12.32	12.08	11.52	11.14
55	-	-	-	-	13.19	13.27	13.13	12.64	12.28
60	-	-	-	-	-	14.32	14.30	13.89	-
65	-	-	-	-	-	-	15.60	-	-

Mass flow in kg/h

10	111	161	199	243	294	353	-	-	-
20	107	158	196	240	291	349	491	-	-
30	-	153	191	236	286	344	484	663	768
40	-	-	185	229	279	336	475	651	755
50	-	-	-	219	269	326	463	636	738
55	-	-	-	-	263	319	455	627	728
60	-	-	-	-	-	312	447	617	-
65	-	-	-	-	-	-	438	-	-

Coefficient of performance (C.O.P.)

10	2.75	4.11	5.37	7.11	9.64	13.50	-	-	-
20	1.99	2.93	3.72	4.76	6.14	8.02	14.71	-	-
30	-	2.13	2.67	3.35	4.20	5.29	8.67	15.40	21.82
40	-	-	1.92	2.38	2.94	3.63	5.59	8.94	11.58
50	-	-	-	1.67	2.05	2.50	3.72	5.64	7.01
55	-	-	-	-	1.69	2.06	3.04	4.53	5.56
60	-	-	-	-	-	1.68	2.47	3.64	-
65	-	-	-	-	-	-	1.99	-	-

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

Cooling capacity	19 590	W
Power input	6 428	W
Current consumption	12.24	A
Mass flow	390	kg/h
C.O.P.	3.05	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 50 Hz, ARI rating conditions SH=11.1K SC=8.3K

R452B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-28	-20	-15	-10	-5	0	10	20

Cooling capacity in W

10	7 822	11 426	14 256	17 590	21 477	25 966	-	-	-
20	7 017	10 490	13 175	16 315	19 959	24 158	34 415	-	-
30	-	9 497	12 014	14 936	18 315	22 200	31 688	43 798	50 959
40	-	-	10 730	13 413	16 504	20 054	28 732	39 847	46 444
50	-	-	-	11 711	14 497	17 694	25 528	35 623	41 645
55	-	-	-	-	13 417	16 434	23 843	33 428	39 165
60	-	-	-	-	-	15 134	22 125	31 215	-
65	-	-	-	-	-	-	20 428	-	-

Power input in W

10	2 699	2 636	2 521	2 348	2 118	1 829	-	-	-
20	3 324	3 382	3 340	3 237	3 073	2 848	2 214	-	-
30	-	4 174	4 211	4 184	4 093	3 938	3 436	2 676	2 198
40	-	-	5 173	5 229	5 218	5 140	4 783	4 156	3 741
50	-	-	-	6 412	6 487	6 493	6 293	5 813	5 467
55	-	-	-	-	7 189	7 238	7 123	6 721	6 411
60	-	-	-	-	-	8 037	8 009	7 688	-
65	-	-	-	-	-	-	8 956	-	-

Current consumption in A

10	8.41	8.40	8.33	8.22	8.07	7.90	-	-	-
20	8.86	8.97	8.94	8.86	8.72	8.54	8.06	-	-
30	-	9.67	9.73	9.71	9.62	9.47	8.99	8.35	7.98
40	-	-	10.73	10.81	10.81	10.72	10.32	9.68	9.29
50	-	-	-	12.20	12.31	12.32	12.08	11.52	11.14
55	-	-	-	-	13.19	13.27	13.13	12.64	12.28
60	-	-	-	-	-	14.32	14.30	13.89	-
65	-	-	-	-	-	-	15.60	-	-

Mass flow in kg/h

10	110	160	198	242	292	351	-	-	-
20	107	157	195	239	289	347	488	-	-
30	-	152	190	234	284	342	481	658	762
40	-	-	184	227	277	334	472	646	749
50	-	-	-	218	267	324	459	631	732
55	-	-	-	-	261	317	452	622	723
60	-	-	-	-	-	310	444	613	-
65	-	-	-	-	-	-	434	-	-

Coefficient of performance (C.O.P.)

10	2.90	4.34	5.65	7.49	10.14	14.20	-	-	-
20	2.11	3.10	3.94	5.04	6.49	8.48	15.54	-	-
30	-	2.28	2.85	3.57	4.47	5.64	9.22	16.37	23.18
40	-	-	2.07	2.57	3.16	3.90	6.01	9.59	12.42
50	-	-	-	1.83	2.23	2.73	4.06	6.13	7.62
55	-	-	-	-	1.87	2.27	3.35	4.97	6.11
60	-	-	-	-	-	1.88	2.76	4.06	-
65	-	-	-	-	-	-	2.28	-	-

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

Cooling capacity	21 756	W
Power input	7 084	W
Current consumption	13.08	A
Mass flow	412	kg/h
C.O.P.	3.07	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

R452B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-28	-20	-15	-10	-5	0	10	20

Cooling capacity in W

10	9 297	13 397	16 592	20 345	24 714	29 758	-	-	-
20	8 410	12 322	15 337	18 861	22 952	27 669	39 209	-	-
30	-	11 142	13 941	17 201	20 978	25 330	35 993	49 653	57 752
40	-	-	12 415	15 373	18 799	22 750	32 457	44 954	52 391
50	-	-	-	13 377	16 412	19 920	28 584	39 822	46 548
55	-	-	-	-	15 129	18 397	26 499	37 061	43 403
60	-	-	-	-	-	16 781	24 281	34 120	-
65	-	-	-	-	-	-	21 870	-	-

Power input in W

10	3 174	3 089	2 953	2 762	2 525	2 249	-	-	-
20	3 944	4 017	3 959	3 831	3 641	3 395	2 772	-	-
30	-	4 966	5 016	4 980	4 866	4 681	4 132	3 395	2 976
40	-	-	6 122	6 207	6 199	6 105	5 689	5 022	4 614
50	-	-	-	7 509	7 636	7 662	7 439	6 901	6 534
55	-	-	-	-	8 393	8 490	8 385	7 935	7 600
60	-	-	-	-	-	9 351	9 379	9 031	-
65	-	-	-	-	-	-	10 420	-	-

Current consumption in A

10	7.50	7.60	7.58	7.48	7.32	7.09	-	-	-
20	8.10	8.27	8.28	8.22	8.09	7.89	7.28	-	-
30	-	9.13	9.20	9.20	9.12	8.97	8.45	7.63	7.11
40	-	-	10.37	10.43	10.42	10.34	9.95	9.25	8.79
50	-	-	-	11.96	12.04	12.04	11.81	11.28	10.89
55	-	-	-	-	12.97	13.02	12.89	12.45	12.11
60	-	-	-	-	-	14.09	14.07	13.73	-
65	-	-	-	-	-	-	15.35	-	-

Mass flow in kg/h

10	140	199	244	296	356	425	-	-	-
20	136	196	242	294	354	423	592	-	-
30	-	192	237	290	350	418	586	799	925
40	-	-	231	283	342	411	577	788	912
50	-	-	-	274	333	400	564	772	895
55	-	-	-	-	327	393	556	762	885
60	-	-	-	-	-	386	547	752	-
65	-	-	-	-	-	-	537	-	-

Coefficient of performance (C.O.P.)

10	2.93	4.34	5.62	7.37	9.79	13.23	-	-	-
20	2.13	3.07	3.87	4.92	6.30	8.15	14.14	-	-
30	-	2.24	2.78	3.45	4.31	5.41	8.71	14.62	19.41
40	-	-	2.03	2.48	3.03	3.73	5.71	8.95	11.36
50	-	-	-	1.78	2.15	2.60	3.84	5.77	7.12
55	-	-	-	-	1.80	2.17	3.16	4.67	5.71
60	-	-	-	-	-	1.79	2.59	3.78	-
65	-	-	-	-	-	-	2.10	-	-

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

Cooling capacity	23 959	W
Power input	7 593	W
Current consumption	11.97	A
Mass flow	477	kg/h
C.O.P.	3.16	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 60 Hz, ARI rating conditions SH=11.1K SC=8.3K

R452B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-28	-20	-15	-10	-5	0	10	20

Cooling capacity in W

10	9 808	14 120	17 478	21 421	26 007	31 299	-	-	-
20	8 926	13 064	16 251	19 973	24 291	29 266	41 430	-	-
30	-	11 902	14 882	18 348	22 362	26 985	38 297	52 773	61 349
40	-	-	13 386	16 561	20 235	24 469	34 860	48 220	56 166
50	-	-	-	14 626	17 924	21 735	31 133	43 306	50 585
55	-	-	-	-	16 705	20 290	29 165	40 718	47 651
60	-	-	-	-	-	18 797	27 131	38 046	-
65	-	-	-	-	-	-	25 031	-	-

Power input in W

10	3 174	3 089	2 953	2 762	2 525	2 249	-	-	-
20	3 944	4 017	3 959	3 831	3 641	3 395	2 772	-	-
30	-	4 966	5 016	4 980	4 866	4 681	4 132	3 395	2 976
40	-	-	6 122	6 207	6 199	6 105	5 689	5 022	4 614
50	-	-	-	7 509	7 636	7 662	7 439	6 901	6 534
55	-	-	-	-	8 393	8 490	8 385	7 935	7 600
60	-	-	-	-	-	9 351	9 379	9 031	-
65	-	-	-	-	-	-	10 420	-	-

Current consumption in A

10	7.50	7.60	7.58	7.48	7.32	7.09	-	-	-
20	8.10	8.27	8.28	8.22	8.09	7.89	7.28	-	-
30	-	9.13	9.20	9.20	9.12	8.97	8.45	7.63	7.11
40	-	-	10.37	10.43	10.42	10.34	9.95	9.25	8.79
50	-	-	-	11.96	12.04	12.04	11.81	11.28	10.89
55	-	-	-	-	12.97	13.02	12.89	12.45	12.11
60	-	-	-	-	-	14.09	14.07	13.73	-
65	-	-	-	-	-	-	15.35	-	-

Mass flow in kg/h

10	139	198	242	294	354	423	-	-	-
20	135	195	240	292	352	421	588	-	-
30	-	191	236	288	347	416	582	793	918
40	-	-	230	281	340	408	572	782	905
50	-	-	-	272	331	397	560	766	888
55	-	-	-	-	325	391	552	757	878
60	-	-	-	-	-	384	543	746	-
65	-	-	-	-	-	-	533	-	-

Coefficient of performance (C.O.P.)

10	3.09	4.57	5.92	7.75	10.30	13.92	-	-	-
20	2.26	3.25	4.10	5.21	6.67	8.62	14.94	-	-
30	-	2.40	2.97	3.68	4.60	5.76	9.27	15.54	20.62
40	-	-	2.19	2.67	3.26	4.01	6.13	9.60	12.17
50	-	-	-	1.95	2.35	2.84	4.19	6.28	7.74
55	-	-	-	-	1.99	2.39	3.48	5.13	6.27
60	-	-	-	-	-	2.01	2.89	4.21	-
65	-	-	-	-	-	-	2.40	-	-

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

Cooling capacity	26 652	W
Power input	8 340	W
Current consumption	12.83	A
Mass flow	504	kg/h
C.O.P.	3.20	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 50 Hz, EN 12900 rating conditions, Superheat = 10 K

R454B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-28	-20	-15	-10	-5	0	10	20	25

Cooling capacity in W

10	7 454	10 812	13 445	16 546	20 164	24 347	-	-	-
20	6 648	9 872	12 354	15 253	18 617	22 494	31 983	-	-
30	-	8 876	11 194	13 877	16 974	20 533	29 229	40 352	46 944
40	-	-	9 910	12 364	15 180	18 406	26 283	36 381	42 383
50	-	-	-	10 657	13 178	16 059	23 089	32 134	37 532
55	-	-	-	-	12 082	14 785	21 381	29 890	34 981
60	-	-	-	-	-	13 434	19 591	27 555	-
65	-	-	-	-	-	-	17 710	-	-

Power input in W

10	2 674	2 612	2 490	2 311	2 083	1 814	-	-	-
20	3 288	3 372	3 323	3 206	3 026	2 792	2 185	-	-
30	-	4 167	4 213	4 177	4 065	3 886	3 350	2 626	2 210
40	-	-	5 163	5 228	5 204	5 100	4 676	4 011	3 606
50	-	-	-	6 364	6 448	6 439	6 166	5 601	5 226
55	-	-	-	-	7 111	7 157	6 975	6 474	6 122
60	-	-	-	-	-	7 908	7 826	7 400	-
65	-	-	-	-	-	-	8 721	-	-

Current consumption in A

10	8.46	8.41	8.29	8.13	7.94	7.71	-	-	-
20	8.79	8.87	8.81	8.69	8.51	8.29	7.73	-	-
30	-	9.55	9.58	9.52	9.40	9.20	8.66	7.96	7.59
40	-	-	10.60	10.65	10.59	10.46	9.98	9.28	8.87
50	-	-	-	12.06	12.12	12.07	11.71	11.06	10.65
55	-	-	-	-	13.00	13.01	12.74	12.13	11.73
60	-	-	-	-	-	14.04	13.86	13.32	-
65	-	-	-	-	-	-	15.10	-	-

Mass flow in kg/h

10	109	158	194	237	286	342	-	-	-
20	106	155	191	234	283	338	474	-	-
30	-	150	187	229	278	333	467	638	738
40	-	-	181	223	271	326	458	625	724
50	-	-	-	213	261	315	445	610	707
55	-	-	-	-	255	309	438	601	698
60	-	-	-	-	-	301	430	592	-
65	-	-	-	-	-	-	421	-	-

Coefficient of performance (C.O.P.)

10	2.79	4.14	5.40	7.16	9.68	13.43	-	-	-
20	2.02	2.93	3.72	4.76	6.15	8.06	14.64	-	-
30	-	2.13	2.66	3.32	4.18	5.28	8.72	15.37	21.24
40	-	-	1.92	2.37	2.92	3.61	5.62	9.07	11.75
50	-	-	-	1.67	2.04	2.49	3.74	5.74	7.18
55	-	-	-	-	1.70	2.07	3.07	4.62	5.71
60	-	-	-	-	-	1.70	2.50	3.72	-
65	-	-	-	-	-	-	2.03	-	-

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

Cooling capacity	19 346	W
Power input	6 343	W
Current consumption	11.93	A
Mass flow	376	kg/h
C.O.P.	3.05	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 50 Hz, ARI rating conditions SH=11.1K SC=8.3K

R454B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-28	-20	-15	-10	-5	0	10	20	25

Cooling capacity in W

10	7 862	11 394	14 161	17 418	21 217	25 606	-	-	-
20	7 053	10 463	13 086	16 147	19 698	23 788	33 787	-	-
30	-	9 476	11 941	14 793	18 083	21 860	31 082	42 864	49 841
40	-	-	10 668	13 299	16 314	19 767	28 187	38 968	45 372
50	-	-	-	11 613	14 346	17 465	25 069	34 838	40 664
55	-	-	-	-	13 280	16 232	23 430	32 699	38 242
60	-	-	-	-	-	14 958	21 762	30 551	-
65	-	-	-	-	-	-	20 126	-	-

Power input in W

10	2 674	2 612	2 490	2 311	2 083	1 814	-	-	-
20	3 288	3 372	3 323	3 206	3 026	2 792	2 185	-	-
30	-	4 167	4 213	4 177	4 065	3 886	3 350	2 626	2 210
40	-	-	5 163	5 228	5 204	5 100	4 676	4 011	3 606
50	-	-	-	6 364	6 448	6 439	6 166	5 601	5 226
55	-	-	-	-	7 111	7 157	6 975	6 474	6 122
60	-	-	-	-	-	7 908	7 826	7 400	-
65	-	-	-	-	-	-	8 721	-	-

Current consumption in A

10	8.46	8.41	8.29	8.13	7.94	7.71	-	-	-
20	8.79	8.87	8.81	8.69	8.51	8.29	7.73	-	-
30	-	9.55	9.58	9.52	9.40	9.20	8.66	7.96	7.59
40	-	-	10.60	10.65	10.59	10.46	9.98	9.28	8.87
50	-	-	-	12.06	12.12	12.07	11.71	11.06	10.65
55	-	-	-	-	13.00	13.01	12.74	12.13	11.73
60	-	-	-	-	-	14.04	13.86	13.32	-
65	-	-	-	-	-	-	15.10	-	-

Mass flow in kg/h

10	109	157	193	235	284	340	-	-	-
20	105	154	190	232	281	336	471	-	-
30	-	149	186	228	276	331	464	633	733
40	-	-	180	221	269	323	454	620	718
50	-	-	-	212	259	313	442	606	702
55	-	-	-	-	253	307	435	597	692
60	-	-	-	-	-	299	427	587	-
65	-	-	-	-	-	-	418	-	-

Coefficient of performance (C.O.P.)

10	2.94	4.36	5.69	7.54	10.18	14.12	-	-	-
20	2.15	3.10	3.94	5.04	6.51	8.52	15.46	-	-
30	-	2.27	2.83	3.54	4.45	5.63	9.28	16.32	22.55
40	-	-	2.07	2.54	3.13	3.88	6.03	9.71	12.58
50	-	-	-	1.82	2.22	2.71	4.07	6.22	7.78
55	-	-	-	-	1.87	2.27	3.36	5.05	6.25
60	-	-	-	-	-	1.89	2.78	4.13	-
65	-	-	-	-	-	-	2.31	-	-

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

Cooling capacity	21 408	W
Power input	6 964	W
Current consumption	12.72	A
Mass flow	397	kg/h
C.O.P.	3.07	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	73	dB(A)
With accoustic hood	67	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 60 Hz, EN 12900 rating conditions, Superheat = 10 K

R454B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-28	-20	-15	-10	-5	0	10	20	25

Cooling capacity in W

10	9 363	13 402	16 520	20 165	24 396	29 272	-	-	-
20	8 434	12 307	15 260	18 695	22 668	27 239	38 410	-	-
30	-	11 106	13 862	17 051	20 732	24 964	35 312	48 562	56 421
40	-	-	12 348	15 257	18 612	22 469	31 922	44 079	51 317
50	-	-	-	13 327	16 316	19 759	28 236	39 214	45 783
55	-	-	-	-	15 094	18 313	26 263	36 607	42 818
60	-	-	-	-	-	16 782	24 167	33 832	-
65	-	-	-	-	-	-	21 876	-	-

Power input in W

10	3 163	3 035	2 880	2 683	2 458	2 218	-	-	-
20	3 928	3 968	3 883	3 731	3 525	3 280	2 723	-	-
30	-	4 917	4 950	4 888	4 747	4 541	3 984	3 330	3 000
40	-	-	6 041	6 116	6 086	5 963	5 499	4 832	4 457
50	-	-	-	7 377	7 502	7 510	7 228	6 640	6 266
55	-	-	-	-	8 228	8 318	8 161	7 647	7 291
60	-	-	-	-	-	9 143	9 134	8 717	-
65	-	-	-	-	-	-	10 142	-	-

Current consumption in A

10	7.49	7.57	7.52	7.40	7.20	6.93	-	-	-
20	8.01	8.14	8.13	8.05	7.89	7.66	6.99	-	-
30	-	9.00	9.03	9.00	8.89	8.71	8.14	7.31	6.79
40	-	-	10.23	10.25	10.20	10.09	9.64	8.92	8.47
50	-	-	-	11.81	11.83	11.78	11.48	10.91	10.52
55	-	-	-	-	12.76	12.75	12.53	12.04	11.69
60	-	-	-	-	-	13.80	13.67	13.26	-
65	-	-	-	-	-	-	14.89	-	-

Mass flow in kg/h

10	138	195	239	289	346	411	-	-	-
20	134	193	236	286	344	410	570	-	-
30	-	188	232	282	340	405	565	768	888
40	-	-	225	275	333	398	556	758	877
50	-	-	-	267	323	388	544	744	862
55	-	-	-	-	318	382	537	735	852
60	-	-	-	-	-	375	529	726	-
65	-	-	-	-	-	-	521	-	-

Coefficient of performance (C.O.P.)

10	2.96	4.42	5.74	7.52	9.93	13.20	-	-	-
20	2.15	3.10	3.93	5.01	6.43	8.31	14.10	-	-
30	-	2.26	2.80	3.49	4.37	5.50	8.86	14.58	18.81
40	-	-	2.04	2.49	3.06	3.77	5.81	9.12	11.51
50	-	-	-	1.81	2.17	2.63	3.91	5.91	7.31
55	-	-	-	-	1.83	2.20	3.22	4.79	5.87
60	-	-	-	-	-	1.84	2.65	3.88	-
65	-	-	-	-	-	-	2.16	-	-

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

Cooling capacity	23 713	W
Power input	7 414	W
Current consumption	11.67	A
Mass flow	461	kg/h
C.O.P.	3.20	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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

Datasheet, performance data

Danfoss scroll compressor. DSH090-4

Performance data at 60 Hz, ARI rating conditions SH=11.1K SC=8.3K

R454B

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-28	-20	-15	-10	-5	0	10	20	25

Cooling capacity in W

10	9 876	14 124	17 400	21 228	25 670	30 786	-	-	-
20	8 949	13 044	16 165	19 792	23 985	28 806	40 577	-	-
30	-	11 856	14 787	18 176	22 086	26 578	37 550	51 584	59 902
40	-	-	13 292	16 411	20 003	24 130	34 234	47 214	54 936
50	-	-	-	14 522	17 761	21 490	30 657	42 514	49 604
55	-	-	-	-	16 591	20 106	28 779	40 048	46 810
60	-	-	-	-	-	18 685	26 845	37 510	-
65	-	-	-	-	-	-	24 861	-	-

Power input in W

10	3 163	3 035	2 880	2 683	2 458	2 218	-	-	-
20	3 928	3 968	3 883	3 731	3 525	3 280	2 723	-	-
30	-	4 917	4 950	4 888	4 747	4 541	3 984	3 330	3 000
40	-	-	6 041	6 116	6 086	5 963	5 499	4 832	4 457
50	-	-	-	7 377	7 502	7 510	7 228	6 640	6 266
55	-	-	-	-	8 228	8 318	8 161	7 647	7 291
60	-	-	-	-	-	9 143	9 134	8 717	-
65	-	-	-	-	-	-	10 142	-	-

Current consumption in A

10	7.49	7.57	7.52	7.40	7.20	6.93	-	-	-
20	8.01	8.14	8.13	8.05	7.89	7.66	6.99	-	-
30	-	9.00	9.03	9.00	8.89	8.71	8.14	7.31	6.79
40	-	-	10.23	10.25	10.20	10.09	9.64	8.92	8.47
50	-	-	-	11.81	11.83	11.78	11.48	10.91	10.52
55	-	-	-	-	12.76	12.75	12.53	12.04	11.69
60	-	-	-	-	-	13.80	13.67	13.26	-
65	-	-	-	-	-	-	14.89	-	-

Mass flow in kg/h

10	137	194	237	287	344	409	-	-	-
20	133	191	235	285	342	407	566	-	-
30	-	187	230	280	337	403	561	762	881
40	-	-	224	274	331	395	552	752	870
50	-	-	-	265	321	385	541	738	855
55	-	-	-	-	316	379	533	730	846
60	-	-	-	-	-	373	526	720	-
65	-	-	-	-	-	-	517	-	-

Coefficient of performance (C.O.P.)

10	3.12	4.65	6.04	7.91	10.45	13.88	-	-	-
20	2.28	3.29	4.16	5.30	6.80	8.78	14.90	-	-
30	-	2.41	2.99	3.72	4.65	5.85	9.42	15.49	19.97
40	-	-	2.20	2.68	3.29	4.05	6.23	9.77	12.33
50	-	-	-	1.97	2.37	2.86	4.24	6.40	7.92
55	-	-	-	-	2.02	2.42	3.53	5.24	6.42
60	-	-	-	-	-	2.04	2.94	4.30	-
65	-	-	-	-	-	-	2.45	-	-

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

Cooling capacity	26 320	W
Power input	8 136	W
Current consumption	12.49	A
Mass flow	487	kg/h
C.O.P.	3.24	

Pressure switch settings

Maximum HP switch setting	46.1	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	1.7	bar(g)

Sound power data

Sound power level	76	dB(A)
With accoustic hood	70	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Tolerance according EN12900

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