



Datasheets

Danfoss scroll compressors **H series**



Datasheet, technical data

Danfoss scroll compressor, HRH051U4

380-415V/3/50Hz - 460V/3/60Hz 342-457 V @ 50Hz - 414-506 V @ 60Hz

2.316 Ω

2.330 Ω

2.360 Ω

8.3 A

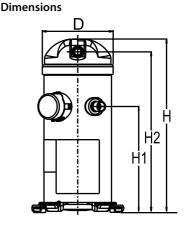
13 A

70 A

Internal overload protector

General Characteristics

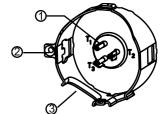
Model number (on compressor nameplate)		HRH051U4LP6			
Code number for Singlepack*		120U1371			
Code number for Industrial pack**		120U1368			
Drawing number		0XR6002B-2			
Suction and discharge connections		Brazed			
Suction connection		7/8 " ODF			
Discharge connection		1/2 " ODF			
Oil sight glass		None			
Oil equalisation connection		None			
Oil drain connection		None			
LP gauge port		None			
IPR valve		Yes			
Swept volume	49.32 c	m3/rev			
Displacement @ Nominal speed	8.6 m3/h @ 2900 rpm -	10.4 m3/h @ 3500 rpm			
Net weight	37.1	9 kg			
Oil charge	1.57 litr	e, PVE			
Maximum system test pressure Low Side / High side	- bar(g)	/ - bar(g)			
Maximum differential test pressure	- bar				
Maximum number of starts per hour	-				
Refrigerant charge limit	5.4	4 kg			
Approved refrigerants	R4	10A			



Dantoss

D=183.5 mm H=455 mm H1=280 mm H2=422 mm H3=- mm

Terminal box



Recommended Installation torques

Winding resistance between phases 1-2 +/- 7% at 25°C

Winding resistance between phases 1-3 +/- 7% at 25°C

Winding resistance between phases 2-3 +/- 7% at 25°C

	52.5 Nm	Oil sight glass
Power connections / Earth connection 0 Nm / 0 Nm	0 Nm / 0 Nm	Power connections / Earth connection

Parts shipped with compressor

Electrical Characteristics

Maximum Continuous Current (MCC)

Nominal voltage

Rated Load Amps (RLA)

Locked Rotor Amps (LRA)

Motor protection

Voltage range

Mounting kit with grommets and sleeves	
Initial oil charge	
Installation instructions	

Approvals : CE certified, UL certified (file SA11565), - *Singlepack: Compressor in cardboard box

**Industrial pack: 12 or 16 Unboxed compressors on pallet

IP22 1 1:

2:

3:

Spade connectors 1/4"

Earth connection

Power cable passage



Datasheet, accessories and spare parts

Danfoss scroll compressor, HRH051U4

Rotolock accessories, suction side	Code no.	
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030	
Gasket, 1-1/4"	8156131	
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007	
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007	Solder sleeve adapter se
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	_
Gasket, 1"	8156130	
Rotolock accessories, sets	Code no.	
Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127	1 2 3
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009	
Oil / lubricants	Code no.	1: Rotolock adapter (Suc & Dis)
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034	2: Gasket (Suc & Dis)
		3: Solder sleeve (Suc & Dis)
Crankcase heaters	Code no.	4: Rotolock nut (Suc & Dis)
Belt type crankcase heater, 50 W, 230 V, CE mark, UL	120Z0057	
Belt type crankcase heater, 50 W, 400 V, CE mark, UL	120Z0058	
Miscellaneous accessories	Code no.	
Acoustic hood	120Z5044	
Discharge thermostat kit	7750009	
IP54 upgrade kit	118U0056	
Spare parts	Code no.	
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005	
Mounting kit, including 1 bolt, 1 sleeve, 1 washer	120Z5031	
	120Z5015	

Danfoss scroll compressor. HRH051U4

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R410A

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in	in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W							T	
30	4 513	5 686	7 001	8 528	10 339	12 507	15 101	18 196	-
35	4 030	5 268	6 586	8 055	9 746	11 730	14 079	16 863	-
40	-	4 713	6 081	7 539	9 158	11 008	13 160	15 684	-
45	-	-	5 438	6 931	8 524	10 287	12 289	14 601	-
50	-	-	-	6 181	7 792	9 512	11 411	13 557	-
55	-	-	-	-	6 910	8 629	10 467	12 490	-
60	-	-	-	-	-	7 580	9 392	11 330	-
65	-	-	-	-	-	-	8 106	9 982	-
			•				•	•	
Power input in W	1								
30	2 297	2 325	2 344	2 350	2 340	2 311	2 258	2 178	-
35	2 563	2 596	2 622	2 637	2 638	2 621	2 583	2 520	-
40	-	2 916	2 946	2 967	2 976	2 969	2 943	2 894	-
45	-	-	3 322	3 346	3 361	3 361	3 344	3 306	-

45	-	-	3 322	3 346	3 361	3 361	3 344	3 306	-
50	-	-	-	3 781	3 797	3 802	3 791	3 761	-
55	-	-	-	-	4 292	4 298	4 290	4 265	-
60	-	-	-	-	-	4 854	4 847	4 825	-
65	-	-	-	-	-	-	5 469	5 446	-

Current consumption in A

30	4.03	4.04	4.09	4.13	4.13	4.06	3.87	3.54	-
35	4.24	4.28	4.36	4.44	4.49	4.47	4.35	4.08	-
40	-	4.57	4.67	4.77	4.85	4.87	4.78	4.56	-
45	-	-	5.06	5.17	5.25	5.28	5.21	5.02	-
50	-	-	-	5.66	5.73	5.75	5.69	5.50	-
55	-	-	-	-	6.33	6.33	6.24	6.03	-
60	-	-	-	-	-	7.04	6.91	6.67	-
65	-	-	-	-	-	-	7.74	7.44	-

Mass flow in kg/h

30	94	117	142	171	205	245	294	353	-
35	89	114	141	170	203	241	287	341	-
40	-	108	137	168	201	239	282	333	-
45	-	-	130	163	198	236	279	327	-
50	-	-	-	155	193	233	276	324	-
55	-	-	-	-	184	227	272	320	-
60	-	-	-	-	-	217	265	315	-
65	-	-	-	-	-	-	255	308	-

Coefficient of performance (C.O.P.)

30	1.96	2.45	2.99	3.63	4.42	5.41	6.69	8.35	-
35	1.57	2.03	2.51	3.05	3.69	4.47	5.45	6.69	-
40	-	1.62	2.06	2.54	3.08	3.71	4.47	5.42	-
45	-	-	1.64	2.07	2.54	3.06	3.68	4.42	-
50	-	-	-	1.63	2.05	2.50	3.01	3.60	-
55	-	-	-	-	1.61	2.01	2.44	2.93	-
60	-	-	-	-	-	1.56	1.94	2.35	-
65	-	-	-	-	-	-	1.48	1.83	-

Nominal performance at to =	Nominal performance at to = 5 °C, tc = 50 °C							
Cooling capacity	11 411	W						
Power input	3 791	W						
Current consumption	5.69	A						
Mass flow	276	kg/h						
C.O.P.	3.01							

Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

R410A

Datasheet, performance data

Danfoss scroll compressor. HRH051U4

Performance data at 50 Hz, ARI rating conditions

Cond. temp. in		Evaporating temperature in °C (to)								
°C (tc)	-25	-25 -20 -15 -10 -5 0 5 10 15								
Cooling capacity	v in W									

Cooling capaci									
30	4 874	6 134	7 545	9 182	11 122	13 442	16 218	19 526	-
35	-	5 719	7 142	8 725	10 547	12 682	15 208	18 200	-
40	-	-	6 644	8 227	9 982	11 986	14 314	17 043	-
45	-	-	5 997	7 632	9 374	11 298	13 482	16 001	-
50	-	-	-	6 884	8 665	10 563	12 655	15 017	-
55	-	-	-	-	7 802	9 726	11 779	14 036	-
60	-	-	-	-	-	8 731	10 797	13 002	-
65	-	-	-	-	-	-	9 656	11 861	-

Power input in W

30	2 297	2 325	2 344	2 350	2 340	2 311	2 258	2 178	-
35	-	2 596	2 622	2 637	2 638	2 621	2 583	2 520	-
40	-	-	2 946	2 967	2 976	2 969	2 943	2 894	-
45	-	-	3 322	3 346	3 361	3 361	3 344	3 306	-
50	-	-	-	3 781	3 797	3 802	3 791	3 761	-
55	-	-	-	-	4 292	4 298	4 290	4 265	-
60	-	-	-	-	-	4 854	4 847	4 825	-
65	-	-	-	-	-	-	5 469	5 446	-

Current consumption in A

30	4.03	4.04	4.09	4.13	4.13	4.06	3.87	3.54	-
35	-	4.28	4.36	4.44	4.49	4.47	4.35	4.08	-
40	-	-	4.67	4.77	4.85	4.87	4.78	4.56	-
45	-	-	5.06	5.17	5.25	5.28	5.21	5.02	-
50	-	-	-	5.66	5.73	5.75	5.69	5.50	-
55	-	-	-	-	6.33	6.33	6.24	6.03	-
60	-	-	-	-	-	7.04	6.91	6.67	-
65	-	-	-	-	-	-	7.74	7.44	-

Mass flow in kg/h

30	94	116	141	170	203	244	292	350	-
35	-	113	140	169	201	240	285	338	-
40	-	-	136	167	200	237	280	330	-
45	-	-	129	162	197	235	277	325	-
50	-	-	-	154	192	231	274	321	-
55	-	-	-	-	183	226	270	318	-
60	-	-	-	-	-	216	263	313	-
65	-	-	-	-	-	-	253	306	-

Coefficient of performance (C.O.P.)

30	2.12	2.64	3.22	3.91	4.75	5.82	7.18	8.96	-
35	-	2.20	2.72	3.31	4.00	4.84	5.89	7.22	-
40	-	-	2.26	2.77	3.35	4.04	4.86	5.89	-
45	-	-	1.81	2.28	2.79	3.36	4.03	4.84	-
50	-	-	-	1.82	2.28	2.78	3.34	3.99	-
55	-	-	-	-	1.82	2.26	2.75	3.29	-
60	-	-	-	-	-	1.80	2.23	2.69	-
65	-	-	-	-	-	-	1.77	2.18	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C							
Cooling capacity	12 855	W					
Power input	4 219	W					
Current consumption	6.10	Α					
Mass flow	291	kg/h					
C.O.P.	3.05						

Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

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

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

All performance data +/- 5%

Danfoss scroll compressor. HRH051U4

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Performance data at 60 Hz, EN 12900 rating conditions

Performanc	e data at 6	0 Hz, EN 129	00 rating co	nditions					R410A
Cond. temp. in				Evapor	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	/ in W								
30	5 371	6 768	8 334	10 151	12 307	14 887	17 978	21 664	-
35	4 788	6 262	7 830	9 576	11 586	13 945	16 737	20 050	-
40	-	5 591	7 217	8 949	10 870	13 065	15 618	18 615	-
45	-	-	6 440	8 211	10 098	12 185	14 557	17 296	-
50	-	-	-	7 306	9 211	11 245	13 488	16 025	-
55	-	-	-	-	8 151	10 180	12 347	14 733	-
60	-	-	-	-	-	8 924	11 057	13 336	-
65	-	-	-	-	-	-	9 525	11 726	-
Power input in V		0.705	0.040	0.000	0.010	0.770	0.745	0.000	
30	2 760	2 795	2 819	2 826	2 813	2 778	2 715	2 623	-
35	3 053	3 096	3 129	3 147	3 148	3 128	3 083	3 010	-
40	-	3 443	3 481	3 508	3 519	3 511	3 480	3 423	-
45	-	-	3 884	3 915	3 932	3 933	3 912	3 868	-
50	-	-	-	4 375	4 396	4 401	4 388	4 353	-
55	-	-	-	-	4 916	4 923	4 914	4 884	-
60	-	-	-	-	-	5 506	5 496	5 469	-
65	-	-	-	-	-	-	6 143	6 114	-
urrent consum	ption in A	1	1	1	1	1		1	
30	4.19	4.22	4.25	4.28	4.32	4.37	4.44	4.52	-
35	4.41	4.45	4.49	4.52	4.56	4.60	4.65	4.71	-
40	-	4.70	4.75	4.79	4.83	4.86	4.91	4.96	-
45	-	-	5.04	5.10	5.14	5.18	5.22	5.27	-
50	-	-	-	5.45	5.50	5.55	5.60	5.64	-
55	-	-	-	-	5.92	5.98	6.03	6.08	-
60	-	-	-	-	-	6.47	6.53	6.59	-
65	-	-	-	-	-	-	7.11	7.18	-
/lass flow in kg/	h								
30	112	139	169	203	244	292	350	420	-
		1	1	1	1	1	1	1	1

30	112	139	169	203	244	292	350	420	-
35	105	136	167	202	241	287	341	405	-
40	-	128	163	199	239	283	335	395	-
45	-	-	154	194	235	280	330	388	-
50	-	-	-	184	228	275	326	383	-
55	-	-	-	-	218	268	321	378	-
60	-	-	-	-	-	256	312	371	-
65	-	-	-	-	-	-	299	362	-

Coefficient of performance (C.O.P.)

30	1.95	2.42	2.96	3.59	4.38	5.36	6.62	8.26	-
35	1.57	2.02	2.50	3.04	3.68	4.46	5.43	6.66	-
40	-	1.62	2.07	2.55	3.09	3.72	4.49	5.44	-
45	-	-	1.66	2.10	2.57	3.10	3.72	4.47	-
50	-	-	-	1.67	2.10	2.55	3.07	3.68	-
55	-	-	-	-	1.66	2.07	2.51	3.02	-
60	-	-	-	-	-	1.62	2.01	2.44	-
65	-	-	-	-	-	-	1.55	1.92	-

Nominal performance at to = 5 °C, tc = 50 °C							
Cooling capacity	13 488	W					
Power input	4 388	W					
Current consumption	5.60	Α					
Mass flow	326	kg/h					
C.O.P.	3.07						

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

R410A

Datasheet, performance data

Danfoss scroll compressor. HRH051U4

Performance data at 60 Hz, ARI rating conditions

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

Cooling capacity in W

	7								
30	5 800	7 302	8 981	10 930	13 239	16 001	19 306	23 247	-
35	-	6 798	8 491	10 373	12 538	15 076	18 079	21 639	-
40	-	-	7 885	9 765	11 848	14 225	16 988	20 229	-
45	-	-	7 101	9 041	11 104	13 383	15 970	18 954	-
50	-	-	-	8 137	10 244	12 488	14 959	17 751	-
55	-	-	-	-	9 204	11 474	13 894	16 555	-
60	-	-	-	-	-	10 280	12 711	15 304	-
65	-	-	-	-	-	-	11 346	13 933	-

Power input in W

30	2 760	2 795	2 819	2 826	2 813	2 778	2 715	2 623	-
35	-	3 096	3 129	3 147	3 148	3 128	3 083	3 010	-
40	-	-	3 481	3 508	3 519	3 511	3 480	3 423	-
45	-	-	3 884	3 915	3 932	3 933	3 912	3 868	-
50	-	-	-	4 375	4 396	4 401	4 388	4 353	-
55	-	-	-	-	4 916	4 923	4 914	4 884	-
60	-	-	-	-	-	5 506	5 496	5 469	-
65	-	-	-	-	-	-	6 143	6 114	-

Current consumption in A

30	4.19	4.22	4.25	4.28	4.32	4.37	4.44	4.52	-
35	-	4.45	4.49	4.52	4.56	4.60	4.65	4.71	-
40	-	-	4.75	4.79	4.83	4.86	4.91	4.96	-
45	-	-	5.04	5.10	5.14	5.18	5.22	5.27	-
50	-	-	-	5.45	5.50	5.55	5.60	5.64	-
55	-	-	-	-	5.92	5.98	6.03	6.08	-
60	-	-	-	-	-	6.47	6.53	6.59	-
65	-	-	-	-	-	-	7.11	7.18	-

Mass flow in kg/h

30	112	138	168	202	242	290	348	417	-
35	-	135	166	200	239	285	339	402	-
40	-	-	162	198	237	281	332	392	-
45	-	-	153	192	233	278	328	385	-
50	-	-	-	183	227	274	324	380	-
55	-	-	-	-	216	266	318	375	-
60	-	-	-	-	-	254	310	368	-
65	-	-	-	-	-	-	297	359	-

Coefficient of performance (C.O.P.)

30	2.10	2.61	3.19	3.87	4.71	5.76	7.11	8.86	-
35	-	2.20	2.71	3.30	3.98	4.82	5.86	7.19	-
40	-	-	2.26	2.78	3.37	4.05	4.88	5.91	-
45	-	-	1.83	2.31	2.82	3.40	4.08	4.90	-
50	-	-	-	1.86	2.33	2.84	3.41	4.08	-
55	-	-	-	-	1.87	2.33	2.83	3.39	-
60	-	-	-	-	-	1.87	2.31	2.80	-
65	-	-	-	-	-	-	1.85	2.28	-

Nom	Nominal performance at to = 7.2 °C, tc = 54.4 °C						
Cool	ing capacity	15 167	W				
Pow	er input	4 837	W				
Curr	ent consumption	6.00	A				
Mas	s flow	343	kg/h				
CO	D	3 1/					

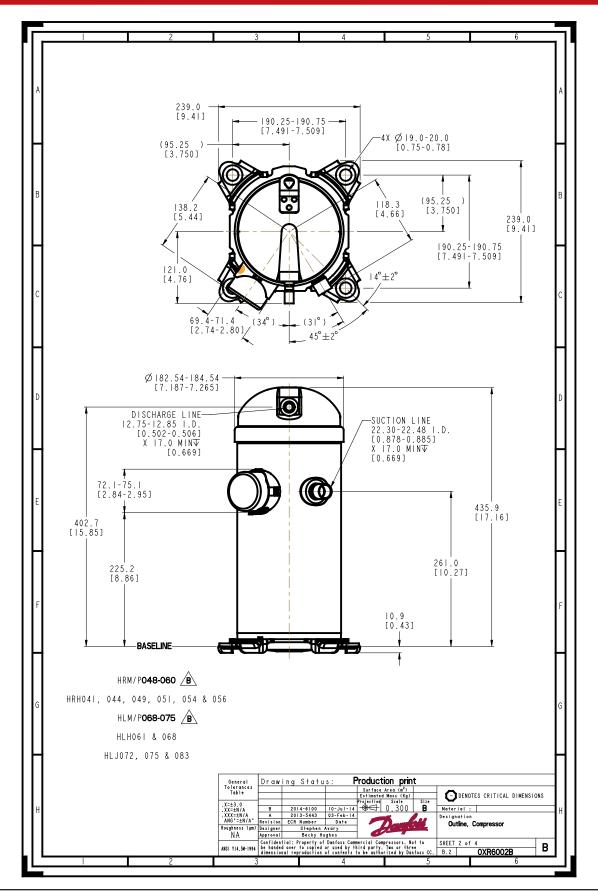
Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

All performance data +/- 5%

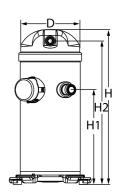




Datasheet, technical data

General Characteristics

Model number (on compressor nameplate)		HRH051U4LT6]		
Code number for Singlepack*		121U3117			
Code number for Industrial pack**		121U3116	Dimensions		
Drawing number		0XR6002B-4			
Suction and discharge connections		Rotolock			
Suction connection		3/4 " Rotolock			
Discharge connection		1/2 " Rotolock			
Oil sight glass		None			
Oil equalisation connection		None			
Oil drain connection		None			
LP gauge port		None			
IPR valve		Yes			
Swept volume	49.32 c	:m3/rev			
Displacement @ Nominal speed	8.6 m3/h @ 2900 rpm -	10.4 m3/h @ 3500 rpm	_		
Net weight	37.1	9 kg			
Oil charge	1.57 litr	e, PVE	_		
Maximum system test pressure Low Side / High side	- bar(g)	/ - bar(g)	D=183.5 mm		
Maximum differential test pressure	- k	bar	H=455 mm		
Maximum number of starts per hour		-			
Refrigerant charge limit	5.4	5.44 kg			
Approved refrigerants	R4	R410A			



Danfoss scroll compressor, HRH051U4

Janfoss

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 1-2 +/- 7% at 25°C	2.316 Ω		
Winding resistance between phases 1-3 +/- 7% at 25°C	2.330 Ω		
Winding resistance between phases 2-3 +/- 7% at 25°C	2.360 Ω		
Rated Load Amps (RLA)	8.3 A		
Maximum Continuous Current (MCC)	13 A		
Locked Rotor Amps (LRA)	70 A		
Motor protection	Internal overload protector		

Recommended Installation torques

Oil sight glass	52.5 Nm	102
Power connections / Earth connection	0 Nm / 0 Nm	IP22
		- 1:

Parts shipped with compressor

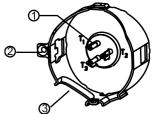
Mounting kit with grommets and sleeves Initial oil charge Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 or 16 Unboxed compressors on pallet

Terminal box



IP22

2:

3:

Spade connectors 1/4"

Earth connection Power cable passage

Danfoss

Datasheet, accessories and spare parts

Danfoss scroll compressor, HRH051U4

Rotolock accessories, suction side	Code no.	_
Rotolock accessories, discharge side	Code no.	—
Rotolock accessories, sets	Code no.	Gaskets, sleeves and nuts
Oil / lubricants	Code no.	
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034	
Crankcase heaters	Code no.	
Belt type crankcase heater, 50 W, 230 V, CE mark, UL	120Z0057	1 2 3
Belt type crankcase heater, 50 W, 400 V, CE mark, UL	120Z0058	
		1: Gasket
Miscellaneous accessories	Code no.	2: Solder sleeve
Acoustic hood	120Z5044	3: Rotolock nut
Discharge thermostat kit	7750009	
IP54 upgrade kit	118U0056	
Spare parts	Code no.	
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005	
Mounting kit, including 1 bolt, 1 sleeve, 1 washer	120Z5031	
No translation for 120Z5015	120Z5015	

Danfoss scroll compressor. HRH051U4

Danfoss

R410A

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	in W							T	
30	4 513	5 686	7 001	8 528	10 339	12 507	15 101	18 196	-
35	4 030	5 268	6 586	8 055	9 746	11 730	14 079	16 863	-
40	-	4 713	6 081	7 539	9 158	11 008	13 160	15 684	-
45	-	-	5 438	6 931	8 524	10 287	12 289	14 601	-
50	-	-	-	6 181	7 792	9 512	11 411	13 557	-
55	-	-	-	-	6 910	8 629	10 467	12 490	-
60	-	-	-	-	-	7 580	9 392	11 330	-
65	-	-	-	-	-	-	8 106	9 982	-
			•				•	•	
Power input in W	1								
30	2 297	2 325	2 344	2 350	2 340	2 311	2 258	2 178	-
35	2 563	2 596	2 622	2 637	2 638	2 621	2 583	2 520	-
40	-	2 916	2 946	2 967	2 976	2 969	2 943	2 894	-
45	-	-	3 322	3 346	3 361	3 361	3 344	3 306	-

45	-	-	3 322	3 346	3 361	3 361	3 344	3 306	-
50	-	-	-	3 781	3 797	3 802	3 791	3 761	-
55	-	-	-	-	4 292	4 298	4 290	4 265	-
60	-	-	-	-	-	4 854	4 847	4 825	-
65	-	-	-	-	-	-	5 469	5 446	-

Current consumption in A

30	4.03	4.04	4.09	4.13	4.13	4.06	3.87	3.54	-
35	4.24	4.28	4.36	4.44	4.49	4.47	4.35	4.08	-
40	-	4.57	4.67	4.77	4.85	4.87	4.78	4.56	-
45	-	-	5.06	5.17	5.25	5.28	5.21	5.02	-
50	-	-	-	5.66	5.73	5.75	5.69	5.50	-
55	-	-	-	-	6.33	6.33	6.24	6.03	-
60	-	-	-	-	-	7.04	6.91	6.67	-
65	-	-	-	-	-	-	7.74	7.44	-

Mass flow in kg/h

30	94	117	142	171	205	245	294	353	-
35	89	114	141	170	203	241	287	341	-
40	-	108	137	168	201	239	282	333	-
45	-	-	130	163	198	236	279	327	-
50	-	-	-	155	193	233	276	324	-
55	-	-	-	-	184	227	272	320	-
60	-	-	-	-	-	217	265	315	-
65	-	-	-	-	-	-	255	308	-

Coefficient of performance (C.O.P.)

30	1.96	2.45	2.99	3.63	4.42	5.41	6.69	8.35	-
35	1.57	2.03	2.51	3.05	3.69	4.47	5.45	6.69	-
40	-	1.62	2.06	2.54	3.08	3.71	4.47	5.42	-
45	-	-	1.64	2.07	2.54	3.06	3.68	4.42	-
50	-	-	-	1.63	2.05	2.50	3.01	3.60	-
55	-	-	-	-	1.61	2.01	2.44	2.93	-
60	-	-	-	-	-	1.56	1.94	2.35	-
65	-	-	-	-	-	-	1.48	1.83	-

Nominal performance at to =	5 °C, tc = 50 °C		
Cooling capacity	11 411	W	
Power input	3 791	W	
Current consumption	5.69	A	
Mass flow	276	kg/h	
C.O.P.	3.01		

Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

R410A

Datasheet, performance data

Danfoss scroll compressor. HRH051U4

Performance data at 50 Hz, ARI rating conditions

Cond. temp. in	p. in Evaporating temperature in °C (to)										
°C (tc)	-25	-25 -20 -15 -10 -5 0 5 10 15									
Cooling capacity in W											

Cooling capaci									
30	4 874	6 134	7 545	9 182	11 122	13 442	16 218	19 526	-
35	-	5 719	7 142	8 725	10 547	12 682	15 208	18 200	-
40	-	-	6 644	8 227	9 982	11 986	14 314	17 043	-
45	-	-	5 997	7 632	9 374	11 298	13 482	16 001	-
50	-	-	-	6 884	8 665	10 563	12 655	15 017	-
55	-	-	-	-	7 802	9 726	11 779	14 036	-
60	-	-	-	-	-	8 731	10 797	13 002	-
65	-	-	-	-	-	-	9 656	11 861	-

Power input in W

30	2 297	2 325	2 344	2 350	2 340	2 311	2 258	2 178	-
35	-	2 596	2 622	2 637	2 638	2 621	2 583	2 520	-
40	-	-	2 946	2 967	2 976	2 969	2 943	2 894	-
45	-	-	3 322	3 346	3 361	3 361	3 344	3 306	-
50	-	-	-	3 781	3 797	3 802	3 791	3 761	-
55	-	-	-	-	4 292	4 298	4 290	4 265	-
60	-	-	-	-	-	4 854	4 847	4 825	-
65	-	-	-	-	-	-	5 469	5 446	-

Current consumption in A

30	4.03	4.04	4.09	4.13	4.13	4.06	3.87	3.54	-
35	-	4.28	4.36	4.44	4.49	4.47	4.35	4.08	-
40	-	-	4.67	4.77	4.85	4.87	4.78	4.56	-
45	-	-	5.06	5.17	5.25	5.28	5.21	5.02	-
50	-	-	-	5.66	5.73	5.75	5.69	5.50	-
55	-	-	-	-	6.33	6.33	6.24	6.03	-
60	-	-	-	-	-	7.04	6.91	6.67	-
65	-	-	-	-	-	-	7.74	7.44	-

Mass flow in kg/h

30	94	116	141	170	203	244	292	350	-
35	-	113	140	169	201	240	285	338	-
40	-	-	136	167	200	237	280	330	-
45	-	-	129	162	197	235	277	325	-
50	-	-	-	154	192	231	274	321	-
55	-	-	-	-	183	226	270	318	-
60	-	-	-	-	-	216	263	313	-
65	-	-	-	-	-	-	253	306	-

Coefficient of performance (C.O.P.)

30	2.12	2.64	3.22	3.91	4.75	5.82	7.18	8.96	-
35	-	2.20	2.72	3.31	4.00	4.84	5.89	7.22	-
40	-	-	2.26	2.77	3.35	4.04	4.86	5.89	-
45	-	-	1.81	2.28	2.79	3.36	4.03	4.84	-
50	-	-	-	1.82	2.28	2.78	3.34	3.99	-
55	-	-	-	-	1.82	2.26	2.75	3.29	-
60	-	-	-	-	-	1.80	2.23	2.69	-
65	-	-	-	-	-	-	1.77	2.18	-

Nominal performance at to = 7.2 °C	C, tc = 54.4 °C		
Cooling capacity	12 855	W	
Power input	4 219	W	
Current consumption	6.10	Α	
Mass flow	291	kg/h	
C.O.P.	3.05		

Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

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

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

All performance data +/- 5%

Danfoss scroll compressor. HRH051U4

Danfoss

Performance data at 60 Hz, EN 12900 rating conditions

Performance	e data at 60) Hz, EN 129	00 rating co	nditions					R410
Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
ooling capacity	in W								
30	5 371	6 768	8 334	10 151	12 307	14 887	17 978	21 664	-
35	4 788	6 262	7 830	9 576	11 586	13 945	16 737	20 050	-
40	-	5 591	7 217	8 949	10 870	13 065	15 618	18 615	-
45	-	-	6 440	8 211	10 098	12 185	14 557	17 296	-
50	-	-	-	7 306	9 211	11 245	13 488	16 025	-
55	-	-	-	-	8 151	10 180	12 347	14 733	-
60	-	-	-	-	-	8 924	11 057	13 336	-
65	-	-	-	-	-	-	9 525	11 726	-
ower input in W									
30	2 760	2 795	2 819	2 826	2 813	2 778	2 715	2 623	-
35	3 053	3 096	3 129	3 147	3 148	3 128	3 083	3 010	
40	-	3 443	3 481	3 508	3 519	3 511	3 480	3 423	-
45	-	-	3 884	3 915	3 932	3 933	3 912	3 868	-
50	-	-	-	4 375	4 396	4 401	4 388	4 353	_
55	_	-		-	4 916	4 923	4 914	4 884	
60	-	_	-	-	-	5 506	5 496	5 469	_
65	_	-	-	-	-	-	6 143	6 114	
urrent consump	otion in A 4.19	4.22	4.25	4.28	4.32	4.37	4.44	4.52	-
35	4.41	4.45	4.49	4.52	4.56	4.60	4.65	4.71	
40	-	4.70	4.75	4.79	4.83	4.86	4.91	4.96	-
45	-	-	5.04	5.10	5.14	5.18	5.22	5.27	_
50	_	_	-	5.45	5.50	5.55	5.60	5.64	
55	-	-	-	-	5.92	5.98	6.03	6.08	-
60	_	-	_	-	-	6.47	6.53	6.59	_
65	-	-	-	-	-	-	7.11	7.18	-
ass flow in kg/h	1						1		
30	112	139	169	203	244	292	350	420	-
35	105	136	167	202	241	287	341	405	-
40	-	128	163	199	239	283	335	395	-
45	-	-	154	194	235	280	330	388	-
50	-	-	-	184	228	275	326	383	-
55	-	-	-	-	218	268	321	378	-
60	-	-	-	-	-	256	312	371	-
65	-	_	_	-	-	-	299	362	-

Coefficient of performance (C.O.P.)

30	1.95	2.42	2.96	3.59	4.38	5.36	6.62	8.26	-
35	1.57	2.02	2.50	3.04	3.68	4.46	5.43	6.66	-
40	-	1.62	2.07	2.55	3.09	3.72	4.49	5.44	-
45	-	-	1.66	2.10	2.57	3.10	3.72	4.47	-
50	-	-	-	1.67	2.10	2.55	3.07	3.68	-
55	-	-	-	-	1.66	2.07	2.51	3.02	-
60	-	-	-	-	-	1.62	2.01	2.44	-
65	-	-	-	-	-	-	1.55	1.92	-

Nominal performance at to = 5 °C,	, tc = 50 °C		
Cooling capacity	13 488	W	
Power input	4 388	W	
Current consumption	5.60	A	
Mass flow	326	kg/h	
C.O.P.	3.07		

Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
Sound power data		
Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

All performance data +/- 5%

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

R410A

Datasheet, performance data

Danfoss scroll compressor. HRH051U4

Performance data at 60 Hz, ARI rating conditions

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

Cooling capacity in W

	7								
30	5 800	7 302	8 981	10 930	13 239	16 001	19 306	23 247	-
35	-	6 798	8 491	10 373	12 538	15 076	18 079	21 639	-
40	-	-	7 885	9 765	11 848	14 225	16 988	20 229	-
45	-	-	7 101	9 041	11 104	13 383	15 970	18 954	-
50	-	-	-	8 137	10 244	12 488	14 959	17 751	-
55	-	-	-	-	9 204	11 474	13 894	16 555	-
60	-	-	-	-	-	10 280	12 711	15 304	-
65	-	-	-	-	-	-	11 346	13 933	-

Power input in W

30	2 760	2 795	2 819	2 826	2 813	2 778	2 715	2 623	-
35	-	3 096	3 129	3 147	3 148	3 128	3 083	3 010	-
40	-	-	3 481	3 508	3 519	3 511	3 480	3 423	-
45	-	-	3 884	3 915	3 932	3 933	3 912	3 868	-
50	-	-	-	4 375	4 396	4 401	4 388	4 353	-
55	-	-	-	-	4 916	4 923	4 914	4 884	-
60	-	-	-	-	-	5 506	5 496	5 469	-
65	-	-	-	-	-	-	6 143	6 114	-

Current consumption in A

30	4.19	4.22	4.25	4.28	4.32	4.37	4.44	4.52	-
35	-	4.45	4.49	4.52	4.56	4.60	4.65	4.71	-
40	-	-	4.75	4.79	4.83	4.86	4.91	4.96	-
45	-	-	5.04	5.10	5.14	5.18	5.22	5.27	-
50	-	-	-	5.45	5.50	5.55	5.60	5.64	-
55	-	-	-	-	5.92	5.98	6.03	6.08	-
60	-	-	-	-	-	6.47	6.53	6.59	-
65	-	-	-	-	-	-	7.11	7.18	-

Mass flow in kg/h

30	112	138	168	202	242	290	348	417	-
35	-	135	166	200	239	285	339	402	-
40	-	-	162	198	237	281	332	392	-
45	-	-	153	192	233	278	328	385	-
50	-	-	-	183	227	274	324	380	-
55	-	-	-	-	216	266	318	375	-
60	-	-	-	-	-	254	310	368	-
65	-	-	-	-	-	-	297	359	-

Coefficient of performance (C.O.P.)

30	2.10	2.61	3.19	3.87	4.71	5.76	7.11	8.86	-
35	-	2.20	2.71	3.30	3.98	4.82	5.86	7.19	-
40	-	-	2.26	2.78	3.37	4.05	4.88	5.91	-
45	-	-	1.83	2.31	2.82	3.40	4.08	4.90	-
50	-	-	-	1.86	2.33	2.84	3.41	4.08	-
55	-	-	-	-	1.87	2.33	2.83	3.39	-
60	-	-	-	-	-	1.87	2.31	2.80	-
65	-	-	-	-	-	-	1.85	2.28	-

Nominal performance at to = 7.2 °C, tc = 54.4 °C						
Cool	ling capacity	15 167	W			
Pow	er input	4 837	W			
Curr	ent consumption	6.00	A			
Mas	s flow	343	kg/h			
CO	D	3 1/				

Pressure switch settings		
Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)
-		
Sound power data		
Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 K

All performance data +/- 5%



