ENGINEERING



Datasheets

Danfoss scroll compressors **H series**





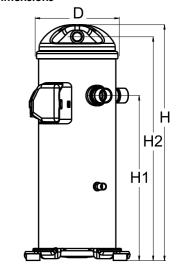
Datasheet, technical data

Danfoss scroll compressor, HRH056U4

General Characteristics

Model number (on compressor nameplate)		HRH056U4LC6	
Code number for Singlepack*		120U1386	
Code number for Industrial pack**		120U1383	
Drawing number		0XR6089B-1	
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	54.11 cm3/rev		
Displacement @ Nominal speed	9.4 m3/h @ 2900 rpm - 11.4 m3/h @ 3500 rpm		
Net weight	37.19 kg		
Oil charge	1.57 litre, 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	5.44 kg		
Approved refrigerants	R41	10A	

Dimensions



Electrical Characteristics

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)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	70 A
Motor protection	Internal overload protector

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

Terminal box



Recommended Installation torques

Oil sight glass	52.5 Nm
Power connections / Earth connection	3 Nm / 2 Nm

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

IP22

1: Screw connectors 10-32 UNF x 9.5

2: Earth connection

3: Power cable passage



Datasheet, accessories and spare parts

Gasket, 1"

Danfoss scroll compressor, HRH056U4

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.		
Rotolock accessories, discharge side Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	Code no. 8153007		
. 3			

Rotolock accessories, setsCode no.Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)120Z0127Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white8156009

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
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	118U0057

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 120Z5018	120Z5018

Solder sleeve adapter set



- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)

8156130

- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)



Danfoss scroll compressor. HRH056U4

Performance data at 50 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Caaling assasit	n. in M								
Cooling capacit	4 886	6 157	7 581	9 235	11 196	13 543	16 354	19 708	_
		1	7 124		10 543	12 689			-
35	4 357	5 698		8 714			15 230	18 244 16 944	
40 4F	-	5 090	6 569	8 145 7 476	9 894 9 194	11 892	14 216 13 255	15 749	-
45	-	-	5 864			11 095			-
50 55	-	-	_	6 655	8 390 7 428	10 243 9 276	12 287 11 251	14 597 13 425	-
60		+				+	10 079		
65	-	-	-	-	-	8 135	8 686	12 158 10 693	-
05	-	-	-	-	_	_	8 080	10 093	-
ower input in \	w								
30	2 514	2 544	2 565	2 572	2 561	2 529	2 471	2 385	-
35	2 801	2 837	2 865	2 882	2 883	2 865	2 824	2 755	-
40	-	3 181	3 214	3 238	3 248	3 240	3 212	3 158	-
45	-	-	3 618	3 645	3 661	3 661	3 642	3 601	-
50	-	-	-	4 110	4 129	4 134	4 122	4 089	-
55	-	-	-	-	4 658	4 665	4 656	4 629	-
60	-	-	-	-	-	5 260	5 252	5 228	-
65	-	-	-	-	-	-	5 916	5 891	-
urrent consun 30	5.18	5.20	5.25	5.31	5.31	5.21	4.98	4.55	_
35	5.45	5.50	5.60	5.71	5.77	5.75	5.59	5.24	_
40	-	5.88	6.00	6.14	6.24	6.25	6.14	5.86	_
45		-	6.50	6.64	6.75	6.79	6.70	6.45	_
50	-	_	-	7.28	7.37	7.40	7.31	7.07	-
55	-	-	-	-	8.14	8.13	8.02	7.76	-
60	-	-	-	-	-	9.05	8.88	8.57	-
65	-	-	-	-	-	9.05	9.94	9.56	-
lass flow in kg							0.01	0.00	
30	102	127	154	185	222	266	319	382	-
35	96	123	152	184	219	261	310	369	-
40	-	116	148	181	217	258	305	359	_
45	-	-	140	176	214	255	301	353	-
50	-	-	-	167	208	251	297	349	-
55	-	-	_	-	198	244	292	344	-
60	-	-	_	-	-	233	285	338	-
65	-	-	-	-	-	-	273	330	-
		II.				ı			
-	erformance (C.C		0.00	0.50	4.0=	F 00	1 0.00	0.00	I
30	1.94	2.42	2.96	3.59	4.37	5.36	6.62	8.26	-
35	1.56	2.01	2.49	3.02	3.66	4.43	5.39	6.62	-
40	-	1.60	2.04	2.52	3.05	3.67	4.43	5.36	-
45	-	-	1.62	2.05	2.51	3.03	3.64	4.37	-
50	-	-	-	1.62	2.03	2.48	2.98	3.57	-
55	-	-	-	-	1.59	1.99	2.42	2.90	-
		-	-	-	-	1.55	1.92	2.33	-
60 65	-	-	_		1	-	1.47	1.82	

Cooling capacity	12 287	W
Power input	4 122	W
Current consumption	7.31	Α
Mass flow	297	kg/h
C.O.P.	2.98	

to: Evaporating temperature at dew point

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

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. HRH056U4

Performance data at 50 Hz, ARI rating conditions

R410A

Cond. temp. in	d. temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	ı in W			•					
30	5 277	6 643	8 170	9 943	12 044	14 556	17 563	21 148	_
35	-	6 186	7 726	9 439	11 409	13 719	16 451	19 690	
	<u>-</u>	-			10 784	12 948			-
40			7 177	8 888			15 463	18 413	
45	-	-	6 466	8 232	10 111	12 186	14 541	17 259	-
50	-	-	-	7 412	9 331	11 375	13 626	16 169	-
55	-	-	-	-	8 387	10 456	12 661	15 086	-
60	-	-	-	-	-	9 371	11 587	13 951	-
65	-	-	-	-	-	-	10 346	12 706	-
Power input in V	v								
30	2 514	2 544	2 565	2 572	2 561	2 529	2 471	2 385	-
35	-	2 837	2 865	2 882	2 883	2 865	2 824	2 755	-
40	-	-	3 214	3 238	3 248	3 240	3 212	3 158	-
45	-	-	3 618	3 645	3 661	3 661	3 642	3 601	-
50	_	-	-	4 110	4 129	4 134	4 122	4 089	-
55	_	-	_	-	4 658	4 665	4 656	4 629	-
60	_	-	-	_	-	5 260	5 252	5 228	-
65	_	-	-	_	-	-	5 916	5 891	_
00		1	1				3 910	3 09 1	
urrent consum	ption in A								
30	5.18	5.20	5.25	5.31	5.31	5.21	4.98	4.55	-
35	-	5.50	5.60	5.71	5.77	5.75	5.59	5.24	-
40	-	-	6.00	6.14	6.24	6.25	6.14	5.86	-
45	-	-	6.50	6.64	6.75	6.79	6.70	6.45	-
50	_	-	-	7.28	7.37	7.40	7.31	7.07	
55	-	_	_	_	8.14	8.13	8.02	7.76	-
60	_	_	_	-	_	9.05	8.88	8.57	-
65	_	_	_	_	-	-	9.94	9.56	-
lass flow in kg/	h	1	1	1	1	1	1	1	
30	102	126	153	184	220	264	317	379	-
35	-	123	151	182	218	259	308	366	-
40	-	-	147	180	216	256	303	357	-
45	-	-	139	175	213	253	299	351	-
50	_	-	-	166	207	249	295	346	_
55	_	-	-	-	197	243	290	342	_
60	-	-	-	-	-	232	283	336	-
65	-	-	-		-	- 232	203	327	-
•					-	-	211	321	
coefficient of pe	•		2.40	2.07	4.70	F 70	7 4 4	0.07	
30	2.10	2.61	3.19	3.87	4.70	5.76	7.11	8.87	-
35	-	2.18	2.70	3.28	3.96	4.79	5.83	7.15	-
40	-	-	2.23	2.75	3.32	4.00	4.81	5.83	-
45	-	-	1.79	2.26	2.76	3.33	3.99	4.79	-
50	-	-	-	1.80	2.26	2.75	3.31	3.95	-
55	-	-	-	-	1.80	2.24	2.72	3.26	-
60	-	-	-	-	-	1.78	2.21	2.67	
65	_	-	_	_	-	-	1.75	2.16	-

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

	,			
Cooling capacity		13 821	W	
Power input		4 580	W	
Current consumption		7.83	Α	
Mass flow		313	kg/h	
C.O.P.		3.02		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRH056U4

Performance data at 60 Hz, EN 12900 rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
I'	. ! \								
ooling capacity	4 860	6 358	8 185	10 368	12 934	15 912	19 328	23 211	
30			1	1					-
35	4 369	5 819	7 576	9 667	12 119	14 960	18 217	21 917	-
40	-	5 276	6 961	8 957	11 293	13 994	17 088	20 603	-
45	-	-	6 326	8 225	10 440	12 999	15 927	19 253	-
50	-	-	-	7 455	9 547	11 958	14 716	17 848	-
55	-	-	-	-	8 594	10 852	13 433	16 363	-
60	-	-	-	-	-	9 653	12 046	14 761	-
65	-	-	-	-	-	-	10 493	12 968	-
Power input in V	V								
30	3 247	3 206	3 173	3 145	3 119	3 091	3 057	3 013	-
35	3 705	3 649	3 601	3 559	3 519	3 477	3 429	3 372	-
40	-	4 136	4 075	4 020	3 967	3 912	3 852	3 783	-
45	-	-	4 600	4 533	4 468	4 403	4 332	4 253	-
50	-	-	-	5 102	5 028	4 953	4 872	4 784	-
55	-	-	-	-	5 651	5 567	5 479	5 383	-
60	-	-	-	-	-	6 251	6 156	6 055	-
65	-	-	-	-	-	-	6 910	6 803	-
Current consum			T = 0.4	T 500	5.00			I 500 I	
30	5.31	5.31	5.31	5.30	5.28	5.24	5.17	5.08	-
35	5.72	5.71	5.71	5.69	5.67	5.63	5.58	5.50	-
40	-	6.17	6.15	6.13	6.11	6.07	6.02	5.95	-
45	-	-	6.67	6.64	6.61	6.57	6.52	6.45	-
50	-	-	-	7.23	7.19	7.15	7.09	7.03	-
55	-	-	-	-	7.87	7.82	7.76	7.70	-
60	-	-	-	-	-	8.60	8.54	8.47	-
65	-	-	-	-	-	-	9.44	9.37	-
Mass flow in kg/	h								
30	102	131	166	208	256	312	375	446	-
35	96	126	162	204	252	308	371	442	-
40	-	121	157	199	248	303	366	437	-
45	-	-	151	194	243	299	362	432	-
50	-	-	-	188	237	293	356	426	-
55	-	-	-	-	229	286	349	419	-
60	-	-	-	-	-	277	340	411	-
65	-	-	-	-	-	-	329	400	-
	_								
Coefficient of pe	•	1	2 50	2 20	A 15	5 1E	6 22	7.70	
30	1.50	1.98	2.58	3.30	4.15	5.15	6.32	7.70	-
35	1.18	1.59	2.10	2.72	3.44	4.30	5.31	6.50	-
40	-	1.28	1.71	2.23	2.85	3.58	4.44	5.45	-
45	-	-	1.38	1.81	2.34	2.95	3.68	4.53	-
50	-	-	-	1.46	1.90	2.41	3.02	3.73	-
55	-	-	-	-	1.52	1.95	2.45	3.04	-
60	-	-	-	-	-	1.54	1.96	2.44	-
65	-	-	-	-	-	-	1.52	1.91	-

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

-,		
Cooling capacity	14 716	W
Power input	4 872	W
Current consumption	7.09	Α
Mass flow	356	kg/h
C.O.P.	3.02	

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRH056U4

Performance data at 60 Hz, ARI rating conditions

R410A

Cond. temp. in	nd. temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	ı in W								
30	5 248	6 859	8 821	11 163	13 913	17 102	20 757	24 907	_
35	-	6 318	8 216	10 472	13 115	16 174	19 677	23 654	_
40	_	-	7 605	9 775	12 309	15 237	18 587	22 389	_
45	<u>-</u>	-	6 975	9 056	11 481	14 277	17 473	21 099	-
50	_	-	-	8 303	10 617	13 280	16 321	19 770	_
55		-	-	-	9 703	12 232	15 117	18 388	
60			-	-		11 120	13 117	16 939	-
65	<u>-</u>	-	-	-	-	-	12 499	15 409	-
65	-	-	-	-	-		12 499	15 409	-
Power input in W	ı								
30	3 247	3 206	3 173	3 145	3 119	3 091	3 057	3 013	1
35	-	3 649	3 601	3 559	3 519	3 477	3 429	3 372	-
40	-	-	4 075	4 020	3 967	3 912	3 852	3 783	-
45	-	-	4 600	4 533	4 468	4 403	4 332	4 253	-
50	-	-	-	5 102	5 028	4 953	4 872	4 784	-
55	-	-	-	-	5 651	5 567	5 479	5 383	-
60	-	-	-	-	-	6 251	6 156	6 055	-
65	-	-	-	-	-	-	6 910	6 803	-
urrent consum	ntion in A	1	1	1	1	1	•	•	
30	5.31	5.31	5.31	5.30	5.28	5.24	5.17	5.08	_
	-	5.71	5.71	5.69	5.67	5.63	5.58	5.50	
35 40	-	1	6.15				6.02		-
		-		6.13	6.11	6.07		5.95	
45	-	-	6.67	6.64	6.61	6.57	6.52	6.45	-
50	-	-	-	7.23	7.19	7.15	7.09	7.03	-
55	-	-	-	-	7.87	7.82	7.76	7.70	-
60	-	-	-	-	-	8.60	8.54	8.47	-
65	-	-	-	-	-	-	9.44	9.37	-
Mass flow in kg/l	h								
30	101	130	165	206	255	310	373	443	-
35	-	125	161	202	251	306	368	439	-
40	-	-	156	198	246	301	364	434	-
45	-	-	150	193	241	297	359	429	-
50	-	-	-	186	235	291	353	423	-
55	-	-	-	-	228	284	346	416	-
60	-	-	-	-	-	275	338	408	-
65	-	-	-	-	-	-	327	397	-
Coefficient of pe	rformance (C.0	D.P.)							
30	1.62	2.14	2.78	3.55	4.46	5.53	6.79	8.27	-
35	-	1.73	2.28	2.94	3.73	4.65	5.74	7.02	-
40	-	-	1.87	2.43	3.10	3.89	4.83	5.92	-
45	-	-	1.52	2.00	2.57	3.24	4.03	4.96	-
50	-	-	-	1.63	2.11	2.68	3.35	4.13	-
55		-	-	-	1.72	2.20	2.76	3.42	
60						1.78	2.76	2.80	
	-	-	-	-	-	1			-
65	-	-	-	-	-	-	1.81	2.27	-

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

Cooling capacity	16 664	W	
Power input	5 362	W	
Current consumption	7.65	Α	
Mass flow	377	kg/h	
C.O.P.	3.11		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

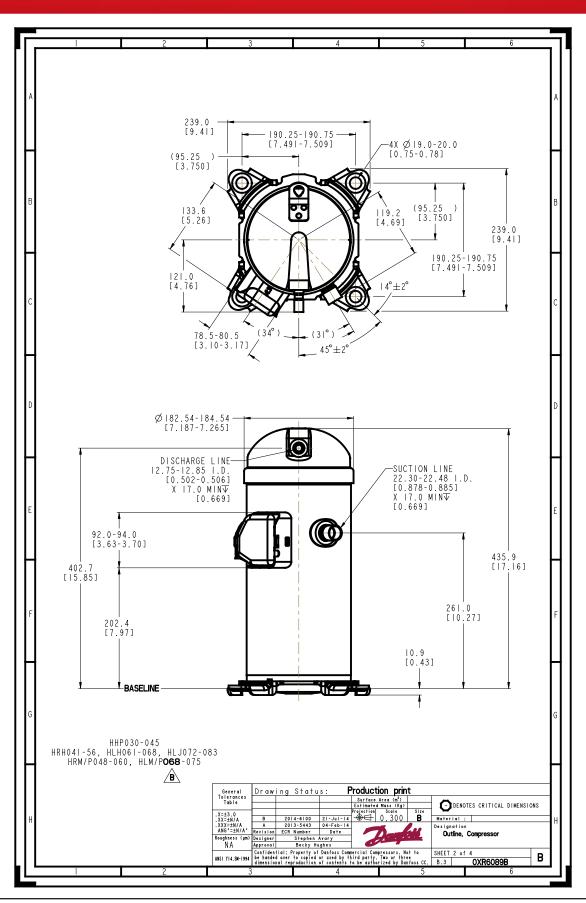
Sound power data

Г	Sound power level	70	dB(A)
	With accoustic hood	65	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point





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FRCC.PD.0XR6089Bb page drawings



Datasheet, technical data

Danfoss scroll compressor, HRH056U4

General Characteristics

Model number (on compressor nameplate)	HRH056U4LP6		
Code number for Singlepack*	120U1381		
Code number for Industrial pack**	120U1378		
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	54.11 cm3/rev		
Displacement @ Nominal speed	9.4 m3/h @ 2900 rpm - 11.4 m3/h @ 3500 rpm		
Net weight	37.19 kg		
Oil charge	1.57 litre, 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	5.44 kg		
Approved refrigerants	R410A		

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℃	2.316 Ω		
Winding resistance between phases 1-3 +/- 7% at 25℃	2.330 Ω		
Winding resistance between phases 2-3 +/- 7% at 25℃	2.360 Ω		
Rated Load Amps (RLA)	9.6 A		
Maximum Continuous Current (MCC)	15 A		
Locked Rotor Amps (LRA)	70 A		
Motor protection	Internal overload protector		

Recommended Installation torques

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

Parts shipped with compressor

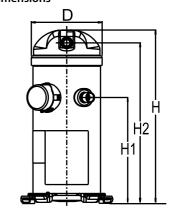
1 arts shipped with compressor
Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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

*Singlepack: Compressor in cardboard box

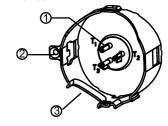
**Industrial pack: 12 or 16 Unboxed compressors on pallet

Dimensions



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

Terminal box



IP22

3:

Spade connectors 1/4" 1: 2:

Earth connection

Power cable passage

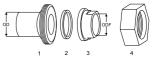


Datasheet, accessories and spare parts

Danfoss scroll compressor, HRH056U4

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	S
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	
Gasket, 1"	8156130	_f
Rotolock accessories, sets	Code no.	oi
Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127	
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009	
Oil / lubricants	Code no.	1
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034	2
	•	

solder sleeve adapter set



- : Rotolock adapter (Suc & Dis)
- Gasket (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

Micco	IIanaaiic	accessories
MIISCE	naneous	accessories

Belt type crankcase heater, 50 W, 230 V, CE mark, UL

Belt type crankcase heater, 50 W, 400 V, CE mark, UL

Crankcase heaters

Miscellaneous accessories	Code no.
Acoustic hood	120Z5044
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

Spare parts

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 12075015	12075015

Code no.

120Z0057 120Z0058 3: Solder sleeve (Suc & Dis)



Danfoss scroll compressor. HRH056U4

Performance data at 50 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Caaling assasit	n. in M								
Cooling capacit	4 886	6 157	7 581	9 235	11 196	13 543	16 354	19 708	_
		1	7 124		10 543	12 689			-
35	4 357	5 698		8 714			15 230	18 244 16 944	
40 4F	-	5 090	6 569	8 145 7 476	9 894 9 194	11 892	14 216 13 255	15 749	-
45	-	-	5 864			11 095			-
50 55	-	-	_	6 655	8 390 7 428	10 243 9 276	12 287 11 251	14 597 13 425	-
60		+				+	10 079		
65	-	-	-	-	-	8 135	8 686	12 158 10 693	-
05	-	-	-	-	_	_	8 080	10 093	-
ower input in \	w								
30	2 514	2 544	2 565	2 572	2 561	2 529	2 471	2 385	-
35	2 801	2 837	2 865	2 882	2 883	2 865	2 824	2 755	-
40	-	3 181	3 214	3 238	3 248	3 240	3 212	3 158	-
45	-	-	3 618	3 645	3 661	3 661	3 642	3 601	-
50	-	-	-	4 110	4 129	4 134	4 122	4 089	-
55	-	-	-	-	4 658	4 665	4 656	4 629	-
60	-	-	-	-	-	5 260	5 252	5 228	-
65	-	-	-	-	-	-	5 916	5 891	-
urrent consun 30	5.18	5.20	5.25	5.31	5.31	5.21	4.98	4.55	_
35	5.45	5.50	5.60	5.71	5.77	5.75	5.59	5.24	_
40	-	5.88	6.00	6.14	6.24	6.25	6.14	5.86	_
45		-	6.50	6.64	6.75	6.79	6.70	6.45	_
50	-	_	-	7.28	7.37	7.40	7.31	7.07	-
55	-	-	-	-	8.14	8.13	8.02	7.76	-
60	-	-	-	-	-	9.05	8.88	8.57	-
65	-	-	-	-	-	9.05	9.94	9.56	-
lass flow in kg							0.01	0.00	
30	102	127	154	185	222	266	319	382	-
35	96	123	152	184	219	261	310	369	-
40	-	116	148	181	217	258	305	359	_
45	-	-	140	176	214	255	301	353	-
50	-	-	-	167	208	251	297	349	-
55	-	-	_	-	198	244	292	344	-
60	-	-	_	-	-	233	285	338	-
65	-	-	-	-	-	-	273	330	-
		II.				ı			
-	erformance (C.C		0.00	0.50	4.0=	F 00	1 0.00	0.00	I
30	1.94	2.42	2.96	3.59	4.37	5.36	6.62	8.26	-
35	1.56	2.01	2.49	3.02	3.66	4.43	5.39	6.62	-
40	-	1.60	2.04	2.52	3.05	3.67	4.43	5.36	-
45	-	-	1.62	2.05	2.51	3.03	3.64	4.37	-
50	-	-	-	1.62	2.03	2.48	2.98	3.57	-
55	-	-	-	-	1.59	1.99	2.42	2.90	-
		-	-	-	-	1.55	1.92	2.33	-
60 65	-	-	_		1	-	1.47	1.82	

Cooling capacity	12 287	W
Power input	4 122	W
Current consumption	7.31	Α
Mass flow	297	kg/h
C.O.P.	2.98	

to: Evaporating temperature at dew point

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

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. HRH056U4

Performance data at 50 Hz, ARI rating conditions

R410A

Cond. temp. in	d. temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	ı in W			•					
30	5 277	6 643	8 170	9 943	12 044	14 556	17 563	21 148	_
35	-	6 186	7 726	9 439	11 409	13 719	16 451	19 690	
	<u>-</u>	-			10 784	12 948			-
40			7 177	8 888			15 463	18 413	
45	-	-	6 466	8 232	10 111	12 186	14 541	17 259	-
50	-	-	-	7 412	9 331	11 375	13 626	16 169	-
55	-	-	-	-	8 387	10 456	12 661	15 086	-
60	-	-	-	-	-	9 371	11 587	13 951	-
65	-	-	-	-	-	-	10 346	12 706	-
Power input in V	v								
30	2 514	2 544	2 565	2 572	2 561	2 529	2 471	2 385	-
35	-	2 837	2 865	2 882	2 883	2 865	2 824	2 755	-
40	-	-	3 214	3 238	3 248	3 240	3 212	3 158	-
45	-	-	3 618	3 645	3 661	3 661	3 642	3 601	-
50	_	-	-	4 110	4 129	4 134	4 122	4 089	-
55	_	-	_	-	4 658	4 665	4 656	4 629	-
60	_	-	-	_	-	5 260	5 252	5 228	-
65	_	-	-	_	-	-	5 916	5 891	_
00		1	1				3 910	3 09 1	
urrent consum	ption in A								
30	5.18	5.20	5.25	5.31	5.31	5.21	4.98	4.55	-
35	-	5.50	5.60	5.71	5.77	5.75	5.59	5.24	-
40	-	-	6.00	6.14	6.24	6.25	6.14	5.86	-
45	-	-	6.50	6.64	6.75	6.79	6.70	6.45	-
50	_	-	-	7.28	7.37	7.40	7.31	7.07	
55	-	_	_	_	8.14	8.13	8.02	7.76	-
60	_	_	_	-	_	9.05	8.88	8.57	-
65	_	_	_	_	-	-	9.94	9.56	-
lass flow in kg/	h	1	1	1	1	1	1	1	
30	102	126	153	184	220	264	317	379	-
35	-	123	151	182	218	259	308	366	-
40	-	-	147	180	216	256	303	357	-
45	-	-	139	175	213	253	299	351	-
50	_	-	-	166	207	249	295	346	_
55	_	-	-	-	197	243	290	342	_
60	-	-	-	-	-	232	283	336	-
65	-	-	-		-	- 232	203	327	-
•					-	-	211	321	
coefficient of pe	•		2.40	2.07	4.70	F 70	7 4 4	0.07	
30	2.10	2.61	3.19	3.87	4.70	5.76	7.11	8.87	-
35	-	2.18	2.70	3.28	3.96	4.79	5.83	7.15	-
40	-	-	2.23	2.75	3.32	4.00	4.81	5.83	-
45	-	-	1.79	2.26	2.76	3.33	3.99	4.79	-
50	-	-	-	1.80	2.26	2.75	3.31	3.95	-
55	-	-	-	-	1.80	2.24	2.72	3.26	-
60	-	-	-	-	-	1.78	2.21	2.67	
65	_	-	_	_	-	-	1.75	2.16	-

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

	,			
Cooling capacity		13 821	W	
Power input		4 580	W	
Current consumption		7.83	Α	
Mass flow		313	kg/h	
C.O.P.		3.02		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRH056U4

Performance data at 60 Hz, EN 12900 rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
I'	. ! \								
ooling capacity	4 860	6 358	8 185	10 368	12 934	15 912	19 328	23 211	
30			1	1					-
35	4 369	5 819	7 576	9 667	12 119	14 960	18 217	21 917	-
40	-	5 276	6 961	8 957	11 293	13 994	17 088	20 603	-
45	-	-	6 326	8 225	10 440	12 999	15 927	19 253	-
50	-	-	-	7 455	9 547	11 958	14 716	17 848	-
55	-	-	-	-	8 594	10 852	13 433	16 363	-
60	-	-	-	-	-	9 653	12 046	14 761	-
65	-	-	-	-	-	-	10 493	12 968	-
Power input in V	V								
30	3 247	3 206	3 173	3 145	3 119	3 091	3 057	3 013	-
35	3 705	3 649	3 601	3 559	3 519	3 477	3 429	3 372	-
40	-	4 136	4 075	4 020	3 967	3 912	3 852	3 783	-
45	-	-	4 600	4 533	4 468	4 403	4 332	4 253	-
50	-	-	-	5 102	5 028	4 953	4 872	4 784	-
55	-	-	-	-	5 651	5 567	5 479	5 383	-
60	-	-	-	-	-	6 251	6 156	6 055	-
65	-	-	-	-	-	-	6 910	6 803	-
Current consum			T = 0.4	T 500	5.00			I 500 I	
30	5.31	5.31	5.31	5.30	5.28	5.24	5.17	5.08	-
35	5.72	5.71	5.71	5.69	5.67	5.63	5.58	5.50	-
40	-	6.17	6.15	6.13	6.11	6.07	6.02	5.95	-
45	-	-	6.67	6.64	6.61	6.57	6.52	6.45	-
50	-	-	-	7.23	7.19	7.15	7.09	7.03	-
55	-	-	-	-	7.87	7.82	7.76	7.70	-
60	-	-	-	-	-	8.60	8.54	8.47	-
65	-	-	-	-	-	-	9.44	9.37	-
Mass flow in kg/	h								
30	102	131	166	208	256	312	375	446	-
35	96	126	162	204	252	308	371	442	-
40	-	121	157	199	248	303	366	437	-
45	-	-	151	194	243	299	362	432	-
50	-	-	-	188	237	293	356	426	-
55	-	-	-	-	229	286	349	419	-
60	-	-	-	-	-	277	340	411	-
65	-	-	-	-	-	-	329	400	-
	_								
Coefficient of pe	•	1	2 50	2 20	A 15	5 1E	6 22	7.70	
30	1.50	1.98	2.58	3.30	4.15	5.15	6.32	7.70	-
35	1.18	1.59	2.10	2.72	3.44	4.30	5.31	6.50	-
40	-	1.28	1.71	2.23	2.85	3.58	4.44	5.45	-
45	-	-	1.38	1.81	2.34	2.95	3.68	4.53	-
50	-	-	-	1.46	1.90	2.41	3.02	3.73	-
55	-	-	-	-	1.52	1.95	2.45	3.04	-
60	-	-	-	-	-	1.54	1.96	2.44	-
65	-	-	-	-	-	-	1.52	1.91	-

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

-,		
Cooling capacity	14 716	W
Power input	4 872	W
Current consumption	7.09	Α
Mass flow	356	kg/h
C.O.P.	3.02	

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRH056U4

Performance data at 60 Hz, ARI rating conditions

R410A

Cond. temp. in	nd. temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	ı in W								
30	5 248	6 859	8 821	11 163	13 913	17 102	20 757	24 907	_
35	-	6 318	8 216	10 472	13 115	16 174	19 677	23 654	_
40	_	-	7 605	9 775	12 309	15 237	18 587	22 389	_
45	<u>-</u>	-	6 975	9 056	11 481	14 277	17 473	21 099	-
50	_	-	-	8 303	10 617	13 280	16 321	19 770	_
55		-	-	-	9 703	12 232	15 117	18 388	
60			-	-		11 120	13 117	16 939	-
65	<u>-</u>	-	-	-	-	-	12 499	15 409	-
65	-	-	-	-	-		12 499	15 409	-
Power input in W	ı								
30	3 247	3 206	3 173	3 145	3 119	3 091	3 057	3 013	1
35	-	3 649	3 601	3 559	3 519	3 477	3 429	3 372	-
40	-	-	4 075	4 020	3 967	3 912	3 852	3 783	-
45	-	-	4 600	4 533	4 468	4 403	4 332	4 253	-
50	-	-	-	5 102	5 028	4 953	4 872	4 784	-
55	-	-	-	-	5 651	5 567	5 479	5 383	-
60	-	-	-	-	-	6 251	6 156	6 055	-
65	-	-	-	-	-	-	6 910	6 803	-
urrent consum	ntion in A	1	1	1	1	1	•	•	
30	5.31	5.31	5.31	5.30	5.28	5.24	5.17	5.08	_
	-	5.71	5.71	5.69	5.67	5.63	5.58	5.50	
35 40	-	1	6.15				6.02		-
		-		6.13	6.11	6.07		5.95	
45	-	-	6.67	6.64	6.61	6.57	6.52	6.45	-
50	-	-	-	7.23	7.19	7.15	7.09	7.03	-
55	-	-	-	-	7.87	7.82	7.76	7.70	-
60	-	-	-	-	-	8.60	8.54	8.47	-
65	-	-	-	-	-	-	9.44	9.37	-
Mass flow in kg/l	h								
30	101	130	165	206	255	310	373	443	-
35	-	125	161	202	251	306	368	439	-
40	-	-	156	198	246	301	364	434	-
45	-	-	150	193	241	297	359	429	-
50	-	-	-	186	235	291	353	423	-
55	-	-	-	-	228	284	346	416	-
60	-	-	-	-	-	275	338	408	-
65	-	-	-	-	-	-	327	397	-
Coefficient of pe	rformance (C.0	D.P.)							
30	1.62	2.14	2.78	3.55	4.46	5.53	6.79	8.27	-
35	-	1.73	2.28	2.94	3.73	4.65	5.74	7.02	-
40	-	-	1.87	2.43	3.10	3.89	4.83	5.92	-
45	-	-	1.52	2.00	2.57	3.24	4.03	4.96	-
50	-	-	-	1.63	2.11	2.68	3.35	4.13	-
55		-	-	-	1.72	2.20	2.76	3.42	
60						1.78	2.76	2.80	
	-	-	-	-	-	1			-
65	-	-	-	-	-	-	1.81	2.27	-

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

Cooling capacity	16 664	W	
Power input	5 362	W	
Current consumption	7.65	Α	
Mass flow	377	kg/h	
C.O.P.	3.11		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

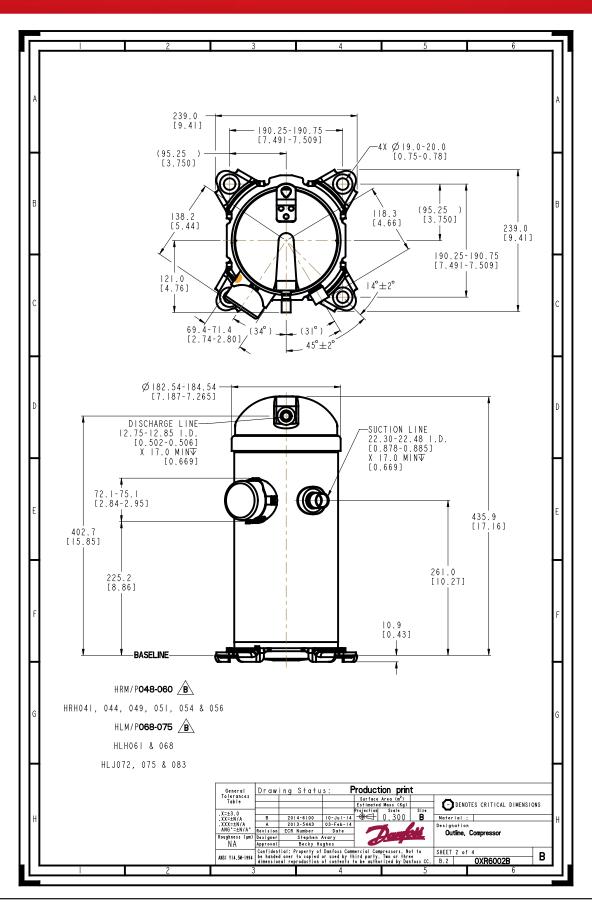
Sound power data

Г	Sound power level	70	dB(A)
	With accoustic hood	65	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point





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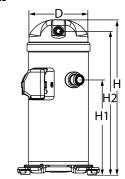
Datasheet, technical data

Danfoss scroll compressor, HRH056U4

General Characteristics

Model number (on compressor nameplate)		HRH056U4LQ6
Code number for Singlepack*		121U3121
Code number for Industrial pack**		121U3120
Drawing number		0XR6089B-3
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	54.11 c	m3/rev
Displacement @ Nominal speed	9.4 m3/h @ 2900 rpm -	11.4 m3/h @ 3500 rpm
Net weight	37.1	9 kg
Oil charge	1.57 litre	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		<u> </u>
Refrigerant charge limit	5.44	1 kg
Approved refrigerants	R41	IOA

Dimensions

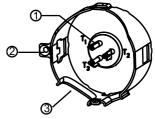


D=183.5 mm H=455 mm H1=280 mm H2=422 mm H3=- mm

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 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)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	70 A
Motor protection	Internal overload protector

Terminal box



Recommended Installation torques

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

IP22 1:

Spade connectors 1/4" Earth connection

2: Ea

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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

 $\hbox{*Singlepack: Compressor in cardboard box}\\$

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

Power cable passage



Danfoss scroll compressor, HRH056U4 Datasheet, accessories and spare parts Rotolock accessories, suction side Code no. Rotolock accessories, discharge side Code no. Gaskets, sleeves and nuts Rotolock accessories, sets Code no. 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 Belt type crankcase heater, 50 W, 400 V, CE mark, UL 120Z0058 1: Gasket 2: Solder sleeve Miscellaneous accessories Code no. 3: Rotolock nut 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

Mounting kit, including 1 bolt, 1 sleeve, 1 washer

No translation for 120Z5015

120Z5005

120Z5031

120Z5015



Danfoss scroll compressor. HRH056U4

Performance data at 50 Hz, EN 12900 rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Caaling assasit	n. in M								
Cooling capacit	4 886	6 157	7 581	9 235	11 196	13 543	16 354	19 708	_
		1	7 124		10 543	12 689			-
35	4 357	5 698		8 714			15 230	18 244 16 944	
40 4F	-	5 090	6 569	8 145 7 476	9 894 9 194	11 892	14 216 13 255	15 749	-
45	-	-	5 864			11 095			-
50 55	-	-	_	6 655	8 390 7 428	10 243 9 276	12 287 11 251	14 597 13 425	-
60		+				+	10 079		
65	-	-	-	-	-	8 135	8 686	12 158 10 693	-
05	-	-	-	-	_	_	8 080	10 093	-
ower input in \	w								
30	2 514	2 544	2 565	2 572	2 561	2 529	2 471	2 385	-
35	2 801	2 837	2 865	2 882	2 883	2 865	2 824	2 755	-
40	-	3 181	3 214	3 238	3 248	3 240	3 212	3 158	-
45	-	-	3 618	3 645	3 661	3 661	3 642	3 601	-
50	-	-	-	4 110	4 129	4 134	4 122	4 089	-
55	-	-	-	-	4 658	4 665	4 656	4 629	-
60	-	-	-	-	-	5 260	5 252	5 228	-
65	-	-	-	-	-	-	5 916	5 891	-
urrent consun 30	5.18	5.20	5.25	5.31	5.31	5.21	4.98	4.55	_
35	5.45	5.50	5.60	5.71	5.77	5.75	5.59	5.24	_
40	-	5.88	6.00	6.14	6.24	6.25	6.14	5.86	_
45		-	6.50	6.64	6.75	6.79	6.70	6.45	_
50	-	_	-	7.28	7.37	7.40	7.31	7.07	-
55	-	-	-	-	8.14	8.13	8.02	7.76	-
60	-	-	-	-	-	9.05	8.88	8.57	-
65	-	-	-	-	-	9.05	9.94	9.56	-
lass flow in kg							0.01	0.00	
30	102	127	154	185	222	266	319	382	-
35	96	123	152	184	219	261	310	369	-
40	-	116	148	181	217	258	305	359	_
45	-	-	140	176	214	255	301	353	-
50	-	-	-	167	208	251	297	349	-
55	-	-	_	-	198	244	292	344	-
60	-	-	_	-	-	233	285	338	-
65	-	-	-	-	-	-	273	330	-
		II.				ı			
-	erformance (C.C		0.00	0.50	4.0=	F 00	1 0.00	0.00	I
30	1.94	2.42	2.96	3.59	4.37	5.36	6.62	8.26	-
35	1.56	2.01	2.49	3.02	3.66	4.43	5.39	6.62	-
40	-	1.60	2.04	2.52	3.05	3.67	4.43	5.36	-
45	-	-	1.62	2.05	2.51	3.03	3.64	4.37	-
50	-	-	-	1.62	2.03	2.48	2.98	3.57	-
55	-	-	-	-	1.59	1.99	2.42	2.90	-
		-	-	-	-	1.55	1.92	2.33	-
60 65	-	-	_		1	-	1.47	1.82	

Cooling capacity	12 287	W
Power input	4 122	W
Current consumption	7.31	Α
Mass flow	297	kg/h
C.O.P.	2.98	

to: Evaporating temperature at dew point

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

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point

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



Danfoss scroll compressor. HRH056U4

Performance data at 50 Hz, ARI rating conditions

R410A

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	ı in W			•					
30	5 277	6 643	8 170	9 943	12 044	14 556	17 563	21 148	_
35	-	6 186	7 726	9 439	11 409	13 719	16 451	19 690	
	<u>-</u>	-			10 784	12 948			-
40			7 177	8 888			15 463	18 413	
45	-	-	6 466	8 232	10 111	12 186	14 541	17 259	-
50	-	-	-	7 412	9 331	11 375	13 626	16 169	-
55	-	-	-	-	8 387	10 456	12 661	15 086	-
60	-	-	-	-	-	9 371	11 587	13 951	-
65	-	-	-	-	-	-	10 346	12 706	-
Power input in V	v								
30	2 514	2 544	2 565	2 572	2 561	2 529	2 471	2 385	-
35	-	2 837	2 865	2 882	2 883	2 865	2 824	2 755	-
40	-	-	3 214	3 238	3 248	3 240	3 212	3 158	-
45	-	-	3 618	3 645	3 661	3 661	3 642	3 601	-
50	_	-	-	4 110	4 129	4 134	4 122	4 089	-
55	_	-	_	-	4 658	4 665	4 656	4 629	-
60	_	-	-	_	-	5 260	5 252	5 228	-
65	_	-	-	_	-	-	5 916	5 891	_
00		1	1				3 910	3 09 1	
urrent consum	ption in A								
30	5.18	5.20	5.25	5.31	5.31	5.21	4.98	4.55	-
35	-	5.50	5.60	5.71	5.77	5.75	5.59	5.24	-
40	-	-	6.00	6.14	6.24	6.25	6.14	5.86	-
45	-	-	6.50	6.64	6.75	6.79	6.70	6.45	-
50	_	-	-	7.28	7.37	7.40	7.31	7.07	
55	-	_	_	_	8.14	8.13	8.02	7.76	-
60	_	_	_	-	_	9.05	8.88	8.57	-
65	_	_	_	_	-	-	9.94	9.56	-
lass flow in kg/	h	1	1	1	1	1	1	1	
30	102	126	153	184	220	264	317	379	-
35	-	123	151	182	218	259	308	366	-
40	-	-	147	180	216	256	303	357	-
45	-	-	139	175	213	253	299	351	-
50	_	-	-	166	207	249	295	346	_
55	_	-	-	-	197	243	290	342	_
60	-	-	-	-	-	232	283	336	-
65	-	-	-		-	- 232	203	327	-
•					-	-	211	321	
coefficient of pe	•		2.40	2.07	4.70	F 70	7 4 4	0.07	
30	2.10	2.61	3.19	3.87	4.70	5.76	7.11	8.87	-
35	-	2.18	2.70	3.28	3.96	4.79	5.83	7.15	-
40	-	-	2.23	2.75	3.32	4.00	4.81	5.83	-
45	-	-	1.79	2.26	2.76	3.33	3.99	4.79	-
50	-	-	-	1.80	2.26	2.75	3.31	3.95	-
55	-	-	-	-	1.80	2.24	2.72	3.26	-
60	-	-	-	-	-	1.78	2.21	2.67	
65	_	-	_	_	-	-	1.75	2.16	-

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

	,			
Cooling capacity		13 821	W	
Power input		4 580	W	
Current consumption		7.83	Α	
Mass flow		313	kg/h	
C.O.P.		3.02		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRH056U4

Performance data at 60 Hz, EN 12900 rating conditions

R410A

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
I'	. ! \								
ooling capacity	4 860	6 358	8 185	10 368	12 934	15 912	19 328	23 211	
30			1	1					-
35	4 369	5 819	7 576	9 667	12 119	14 960	18 217	21 917	-
40	-	5 276	6 961	8 957	11 293	13 994	17 088	20 603	-
45	-	-	6 326	8 225	10 440	12 999	15 927	19 253	-
50	-	-	-	7 455	9 547	11 958	14 716	17 848	-
55	-	-	-	-	8 594	10 852	13 433	16 363	-
60	-	-	-	-	-	9 653	12 046	14 761	-
65	-	-	-	-	-	-	10 493	12 968	-
Power input in V	V								
30	3 247	3 206	3 173	3 145	3 119	3 091	3 057	3 013	-
35	3 705	3 649	3 601	3 559	3 519	3 477	3 429	3 372	-
40	-	4 136	4 075	4 020	3 967	3 912	3 852	3 783	-
45	-	-	4 600	4 533	4 468	4 403	4 332	4 253	-
50	-	-	-	5 102	5 028	4 953	4 872	4 784	-
55	-	-	-	-	5 651	5 567	5 479	5 383	-
60	-	-	-	-	-	6 251	6 156	6 055	-
65	-	-	-	-	-	-	6 910	6 803	-
Current consum			T = 0.4	T 500	5.00			I 500 I	
30	5.31	5.31	5.31	5.30	5.28	5.24	5.17	5.08	-
35	5.72	5.71	5.71	5.69	5.67	5.63	5.58	5.50	-
40	-	6.17	6.15	6.13	6.11	6.07	6.02	5.95	-
45	-	-	6.67	6.64	6.61	6.57	6.52	6.45	-
50	-	-	-	7.23	7.19	7.15	7.09	7.03	-
55	-	-	-	-	7.87	7.82	7.76	7.70	-
60	-	-	-	-	-	8.60	8.54	8.47	-
65	-	-	-	-	-	-	9.44	9.37	-
Mass flow in kg/	h								
30	102	131	166	208	256	312	375	446	-
35	96	126	162	204	252	308	371	442	-
40	-	121	157	199	248	303	366	437	-
45	-	-	151	194	243	299	362	432	-
50	-	-	-	188	237	293	356	426	-
55	-	-	-	-	229	286	349	419	-
60	-	-	-	-	-	277	340	411	-
65	-	-	-	-	-	-	329	400	-
	_								
Coefficient of pe	•	1	2 50	2 20	A 15	5 1E	6 22	7.70	
30	1.50	1.98	2.58	3.30	4.15	5.15	6.32	7.70	-
35	1.18	1.59	2.10	2.72	3.44	4.30	5.31	6.50	-
40	-	1.28	1.71	2.23	2.85	3.58	4.44	5.45	-
45	-	-	1.38	1.81	2.34	2.95	3.68	4.53	-
50	-	-	-	1.46	1.90	2.41	3.02	3.73	-
55	-	-	-	-	1.52	1.95	2.45	3.04	-
60	-	-	-	-	-	1.54	1.96	2.44	-
65	-	-	-	-	-	-	1.52	1.91	-

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

Cooling capacity	14 716	W
Power input	4 872	W
Current consumption	7.09	Α
Mass flow	356	kg/h
C.O.P.	3.02	

to: Evaporating temperature at dew point

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

Pressure switch settings

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

Sound power data

Sound power level	70	dB(A)
With accoustic hood	65	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRH056U4

Performance data at 60 Hz, ARI rating conditions

R410A

Cond. temp. in	temp. in Evaporating temperature in °C (to)								
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity	ı in W								
30	5 248	6 859	8 821	11 163	13 913	17 102	20 757	24 907	-
35	-	6 318	8 216	10 472	13 115	16 174	19 677	23 654	_
40	_	-	7 605	9 775	12 309	15 237	18 587	22 389	_
45	<u>-</u>	-	6 975	9 056	11 481	14 277	17 473	21 099	-
50	<u>-</u>	-	-	8 303	10 617				-
55	<u>-</u>	-	-	-	9 703	13 280 12 232	16 321 15 117	19 770 18 388	-
								†	
60	-	-	-	-	-	11 120	13 848	16 939	-
65	-	-	-	-	-	-	12 499	15 409	-
Power input in V	v								
30	3 247	3 206	3 173	3 145	3 119	3 091	3 057	3 013	ı
35	-	3 649	3 601	3 559	3 519	3 477	3 429	3 372	-
40	-	-	4 075	4 020	3 967	3 912	3 852	3 783	-
45	-	-	4 600	4 533	4 468	4 403	4 332	4 253	-
50	-	-	-	5 102	5 028	4 953	4 872	4 784	-
55	-	-	-	-	5 651	5 567	5 479	5 383	-
60	-	-	-	-	-	6 251	6 156	6 055	-
65	_	-	-	_	_	-	6 910	6 803	-
		L	L	- I	l	l	7 7 7 7		
urrent consum 30	ption in A 5.31	5.31	5.31	5.30	5.28	5.24	5.17	5.08	_
35	-	5.71	5.71	5.69	5.67	5.63	5.58	5.50	_
40	<u>-</u>	-	6.15	6.13		6.07	6.02	5.95	-
-					6.11				
45	-	-	6.67	6.64	6.61	6.57	6.52	6.45	-
50	-	-	-	7.23	7.19	7.15	7.09	7.03	-
55	-	-	-	-	7.87	7.82	7.76	7.70	-
60	-	-	-	-	-	8.60	8.54	8.47	-
65	-	-	-	-	-	-	9.44	9.37	-
lass flow in kg/	h	.	.	1			1	1	
30	101	130	165	206	255	310	373	443	-
35	-	125	161	202	251	306	368	439	-
40	-	-	156	198	246	301	364	434	-
45	-	-	150	193	241	297	359	429	-
50	-	-	-	186	235	291	353	423	-
55	-	-	-	-	228	284	346	416	-
60	-	-	-	-	-	275	338	408	-
65	-	-	-	-	-	-	327	397	-
coefficient of pe	erformance (C.C	D.P.)							
30	1.62	2.14	2.78	3.55	4.46	5.53	6.79	8.27	-
35	-	1.73	2.28	2.94	3.73	4.65	5.74	7.02	-
40	-	-	1.87	2.43	3.10	3.89	4.83	5.92	-
45	-	-	1.52	2.00	2.57	3.24	4.03	4.96	-
50	-	-	-	1.63	2.11	2.68	3.35	4.13	-
55	_	-	-	-	1.72	2.20	2.76	3.42	_
60	-	-	-	-	-	1.78	2.76	2.80	-
00		<u> </u>	 	<u> </u>	ļ <u> </u>	1.70	۵.۷۵	2.00	-

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

Cooling capacity	16 664	W	
Power input	5 362	W	
Current consumption	7.65	Α	
Mass flow	377	kg/h	
C.O.P.	3.11		

to: Evaporating temperature at dew point

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

Pressure switch settings

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

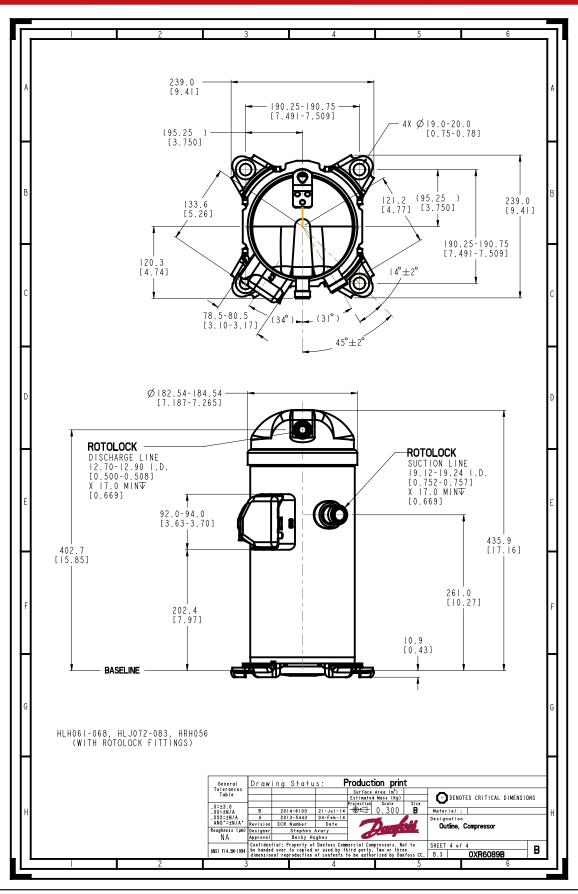
Sound power data

Г	Sound power level	70	dB(A)
	With accoustic hood	65	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point





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