

Datasheets

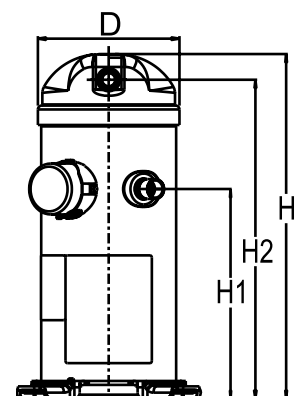
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRH054U5LP6
Code number for Singlepack*		120U1331
Code number for Industrial pack**		120U1328
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	52.11 cm ³ /rev	
Displacement @ Nominal speed	9.1 m ³ /h @ 2900 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	

Dimensions



D=183.5 mm

H=455 mm

H1=280 mm

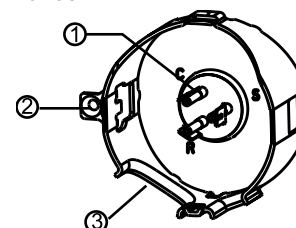
H2=422 mm

H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.39 Ω / 1.019 Ω
Run capacitors A + C	55 µF + - µF
Start capacitor B	88-108 µF
Start relay	3ARR3*25AS*
Rated Load Amps (RLA)	25.6 A
Maximum Continuous Current (MCC)	40 A
Locked Rotor Amps (LRA)	130 A
Motor protection	Internal overload protector

Terminal box



IP22

1: Spade connectors 1/4"

2: Earth connection

3: Power cable passage

Recommended Installation torques

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

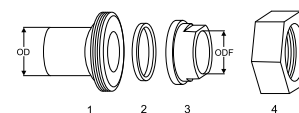
**Industrial pack: 12 or 16 Unboxed compressors on pallet

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
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

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 (1-1/4" 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.

PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034
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Crankcase heaters
Code no.

Belt type crankcase heater, 50 W, 230 V, CE mark, UL	120Z0057
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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
No translation for 120Z5015	120Z5015

Performance data at 50 Hz, EN 12900 rating conditions
R410A

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

Cooling capacity in W

30	4 001	5 558	7 188	8 956	10 926	13 164	15 735	18 703	-
35	3 480	5 020	6 616	8 331	10 230	12 377	14 838	17 676	-
40	-	4 488	6 044	7 701	9 525	11 577	13 923	16 628	-
45	-	-	5 449	7 044	8 786	10 739	12 966	15 531	-
50	-	-	-	6 336	7 991	9 839	11 940	14 359	-
55	-	-	-	-	7 115	8 849	10 818	13 083	-
60	-	-	-	-	-	7 739	9 564	11 662	-
65	-	-	-	-	-	-	8 127	10 037	-

Power input in W

30	2 794	2 844	2 854	2 830	2 778	2 703	2 610	2 506	-
35	3 039	3 102	3 126	3 117	3 081	3 024	2 951	2 868	-
40	-	3 421	3 452	3 451	3 425	3 379	3 319	3 249	-
45	-	-	3 839	3 840	3 817	3 775	3 720	3 658	-
50	-	-	-	4 292	4 264	4 220	4 164	4 102	-
55	-	-	-	-	4 775	4 721	4 657	4 588	-
60	-	-	-	-	-	5 287	5 208	5 126	-
65	-	-	-	-	-	-	5 824	5 721	-

Current consumption in A

30	15.63	15.56	15.46	15.32	15.12	14.85	14.51	14.08	-
35	17.54	17.41	17.27	17.10	16.90	16.65	16.35	15.98	-
40	-	19.51	19.31	19.11	18.89	18.65	18.37	18.04	-
45	-	-	21.66	21.41	21.16	20.90	20.63	20.33	-
50	-	-	-	24.08	23.78	23.49	23.21	22.93	-
55	-	-	-	-	26.82	26.49	26.19	25.90	-
60	-	-	-	-	-	29.98	29.63	29.33	-
65	-	-	-	-	-	-	33.62	33.27	-

Mass flow in kg/h

30	84	114	146	179	216	258	305	360	-
35	77	109	141	175	213	254	302	356	-
40	-	103	136	171	209	251	299	353	-
45	-	-	130	166	205	247	294	349	-
50	-	-	-	159	198	241	289	343	-
55	-	-	-	-	190	233	281	335	-
60	-	-	-	-	-	222	270	324	-
65	-	-	-	-	-	-	255	309	-

Coefficient of performance (C.O.P.)

30	1.43	1.95	2.52	3.16	3.93	4.87	6.03	7.46	-
35	1.15	1.62	2.12	2.67	3.32	4.09	5.03	6.16	-
40	-	1.31	1.75	2.23	2.78	3.43	4.20	5.12	-
45	-	-	1.42	1.83	2.30	2.84	3.49	4.25	-
50	-	-	-	1.48	1.87	2.33	2.87	3.50	-
55	-	-	-	-	1.49	1.87	2.32	2.85	-
60	-	-	-	-	-	1.46	1.84	2.28	-
65	-	-	-	-	-	-	1.40	1.75	-

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

Cooling capacity	11 940	W
Power input	4 164	W
Current consumption	23.21	A
Mass flow	289	kg/h
C.O.P.	2.87	

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 acoustic 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%

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Performance data at 50 Hz, ARI rating conditions
R410A

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

Cooling capacity in W

30	4 320	5 996	7 746	9 643	11 754	14 149	16 898	20 070	-
35	-	5 450	7 174	9 025	11 071	13 382	16 028	19 078	-
40	-	-	6 603	8 404	10 382	12 605	15 145	18 069	-
45	-	-	6 008	7 756	9 662	11 795	14 224	17 020	-
50	-	-	-	7 057	8 887	10 926	13 242	15 905	-
55	-	-	-	-	8 033	9 974	12 174	14 701	-
60	-	-	-	-	-	8 915	10 995	13 383	-
65	-	-	-	-	-	-	9 680	11 926	-

Power input in W

30	2 794	2 844	2 854	2 830	2 778	2 703	2 610	2 506	-
35	-	3 102	3 126	3 117	3 081	3 024	2 951	2 868	-
40	-	-	3 452	3 451	3 425	3 379	3 319	3 249	-
45	-	-	3 839	3 840	3 817	3 775	3 720	3 658	-
50	-	-	-	4 292	4 264	4 220	4 164	4 102	-
55	-	-	-	-	4 775	4 721	4 657	4 588	-
60	-	-	-	-	-	5 287	5 208	5 126	-
65	-	-	-	-	-	-	5 824	5 721	-

Current consumption in A

30	15.63	15.56	15.46	15.32	15.12	14.85	14.51	14.08	-
35	-	17.41	17.27	17.10	16.90	16.65	16.35	15.98	-
40	-	-	19.31	19.11	18.89	18.65	18.37	18.04	-
45	-	-	21.66	21.41	21.16	20.90	20.63	20.33	-
50	-	-	-	24.08	23.78	23.49	23.21	22.93	-
55	-	-	-	-	26.82	26.49	26.19	25.90	-
60	-	-	-	-	-	29.98	29.63	29.33	-
65	-	-	-	-	-	-	33.62	33.27	-

Mass flow in kg/h

30	83	114	145	178	215	256	303	357	-
35	-	108	140	174	211	253	300	354	-
40	-	-	135	170	208	249	296	350	-
45	-	-	130	165	203	245	292	346	-
50	-	-	-	158	197	240	287	340	-
55	-	-	-	-	189	231	279	332	-
60	-	-	-	-	-	220	268	322	-
65	-	-	-	-	-	-	253	307	-

Coefficient of performance (C.O.P.)

30	1.55	2.11	2.71	3.41	4.23	5.23	6.47	8.01	-
35	-	1.76	2.30	2.90	3.59	4.42	5.43	6.65	-
40	-	-	1.91	2.44	3.03	3.73	4.56	5.56	-
45	-	-	1.56	2.02	2.53	3.12	3.82	4.65	-
50	-	-	-	1.64	2.08	2.59	3.18	3.88	-
55	-	-	-	-	1.68	2.11	2.61	3.20	-
60	-	-	-	-	-	1.69	2.11	2.61	-
65	-	-	-	-	-	-	1.66	2.08	-

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

Cooling capacity	13 382	W
Power input	4 565	W
Current consumption	25.68	A
Mass flow	303	kg/h
C.O.P.	2.93	

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 acoustic 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%

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