

Datasheets

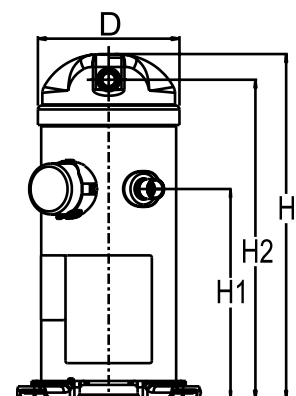
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRH040U5LP6
Code number for Singlepack*		120U1186
Code number for Industrial pack**		120U1183
Drawing number		0XC6301B-3
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		39.64 cm ³ /rev
Displacement @ Nominal speed		6.9 m ³ /h @ 2900 rpm
Net weight		32.2 kg
Oil charge		1.33 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		3.63 kg
Approved refrigerants		R410A

Dimensions

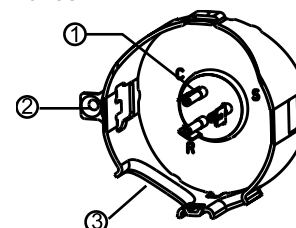


D=164.5 mm
H=439 mm
H1=275 mm
H2=405 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.66 Ω / 1.61 Ω
Run capacitors A + C	60 μF + - μF
Start capacitor B	145-175 μF
Start relay	3ARR3*3AL*
Rated Load Amps (RLA)	21.2 A
Maximum Continuous Current (MCC)	33 A
Locked Rotor Amps (LRA)	102.5 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
--	----------

Crankcase heaters
Code no.

Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055
--	----------

Miscellaneous accessories
Code no.

Acoustic hood	120Z5043
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	3 000	4 166	5 388	6 713	8 190	9 867	11 792	14 014	-
35	2 613	3 767	4 964	6 251	7 676	9 288	11 134	13 262	-
40	-	3 373	4 541	5 786	7 157	8 699	10 462	12 493	-
45	-	-	4 102	5 301	6 612	8 082	9 758	11 688	-
50	-	-	-	4 776	6 024	7 416	9 001	10 824	-
55	-	-	-	-	5 372	6 682	8 168	9 879	-
60	-	-	-	-	-	5 853	7 233	8 821	-
65	-	-	-	-	-	-	6 156	7 604	-

Power input in W

30	2 024	2 057	2 064	2 047	2 011	1 956	1 887	1 805	-
35	2 244	2 283	2 298	2 291	2 266	2 224	2 170	2 104	-
40	-	2 576	2 593	2 590	2 570	2 536	2 491	2 437	-
45	-	-	2 954	2 950	2 931	2 899	2 857	2 809	-
50	-	-	-	3 378	3 353	3 318	3 275	3 227	-
55	-	-	-	-	3 845	3 801	3 751	3 697	-
60	-	-	-	-	-	4 354	4 292	4 227	-
65	-	-	-	-	-	-	4 903	4 823	-

Current consumption in A

30	10.91	10.87	10.80	10.69	10.55	10.37	10.13	9.83	-
35	12.24	12.15	12.06	11.94	11.80	11.63	11.41	11.16	-
40	-	13.62	13.48	13.34	13.19	13.02	12.82	12.60	-
45	-	-	15.13	14.95	14.77	14.59	14.40	14.20	-
50	-	-	-	16.81	16.60	16.40	16.21	16.01	-
55	-	-	-	-	18.73	18.50	18.29	18.08	-
60	-	-	-	-	-	20.93	20.69	20.47	-
65	-	-	-	-	-	-	23.47	23.23	-

Mass flow in kg/h

30	63	86	109	134	162	193	229	270	-
35	58	82	106	132	160	191	226	267	-
40	-	77	102	129	157	189	224	265	-
45	-	-	98	125	154	186	222	262	-
50	-	-	-	120	150	182	218	258	-
55	-	-	-	-	143	176	212	253	-
60	-	-	-	-	-	168	204	245	-
65	-	-	-	-	-	-	193	234	-

Coefficient of performance (C.O.P.)

30	1.48	2.03	2.61	3.28	4.07	5.04	6.25	7.76	-
35	1.16	1.65	2.16	2.73	3.39	4.18	5.13	6.30	-
40	-	1.31	1.75	2.23	2.78	3.43	4.20	5.13	-
45	-	-	1.39	1.80	2.26	2.79	3.42	4.16	-
50	-	-	-	1.41	1.80	2.24	2.75	3.35	-
55	-	-	-	-	1.40	1.76	2.18	2.67	-
60	-	-	-	-	-	1.34	1.69	2.09	-
65	-	-	-	-	-	-	1.26	1.58	-

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

Cooling capacity	9 001	W
Power input	3 275	W
Current consumption	16.21	A
Mass flow	218	kg/h
C.O.P.	2.75	

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	66	dB(A)
With acoustic hood	61	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%

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 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
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	3 239	4 494	5 807	7 228	8 810	10 605	12 664	15 038	-
35	-	4 090	5 383	6 772	8 307	10 041	12 026	14 313	-
40	-	-	4 962	6 314	7 801	9 472	11 380	13 576	-
45	-	-	4 523	5 837	7 271	8 876	10 705	12 808	-
50	-	-	-	5 320	6 699	8 236	9 982	11 990	-
55	-	-	-	-	6 066	7 531	9 192	11 101	-
60	-	-	-	-	-	6 742	8 316	10 123	-
65	-	-	-	-	-	-	7 332	9 036	-

Power input in W

30	2 024	2 057	2 064	2 047	2 011	1 956	1 887	1 805	-
35	-	2 283	2 298	2 291	2 266	2 224	2 170	2 104	-
40	-	-	2 593	2 590	2 570	2 536	2 491	2 437	-
45	-	-	2 954	2 950	2 931	2 899	2 857	2 809	-
50	-	-	-	3 378	3 353	3 318	3 275	3 227	-
55	-	-	-	-	3 845	3 801	3 751	3 697	-
60	-	-	-	-	-	4 354	4 292	4 227	-
65	-	-	-	-	-	-	4 903	4 823	-

Current consumption in A

30	10.91	10.87	10.80	10.69	10.55	10.37	10.13	9.83	-
35	-	12.15	12.06	11.94	11.80	11.63	11.41	11.16	-
40	-	-	13.48	13.34	13.19	13.02	12.82	12.60	-
45	-	-	15.13	14.95	14.77	14.59	14.40	14.20	-
50	-	-	-	16.81	16.60	16.40	16.21	16.01	-
55	-	-	-	-	18.73	18.50	18.29	18.08	-
60	-	-	-	-	-	20.93	20.69	20.47	-
65	-	-	-	-	-	-	23.47	23.23	-

Mass flow in kg/h

30	62	85	109	134	161	192	227	268	-
35	-	81	105	131	159	190	225	265	-
40	-	-	102	128	156	187	223	263	-
45	-	-	98	124	153	185	220	260	-
50	-	-	-	119	149	181	216	257	-
55	-	-	-	-	142	175	211	251	-
60	-	-	-	-	-	167	203	243	-
65	-	-	-	-	-	-	192	233	-

Coefficient of performance (C.O.P.)

30	1.60	2.19	2.81	3.53	4.38	5.42	6.71	8.33	-
35	-	1.79	2.34	2.96	3.67	4.51	5.54	6.80	-
40	-	-	1.91	2.44	3.03	3.73	4.57	5.57	-
45	-	-	1.53	1.98	2.48	3.06	3.75	4.56	-
50	-	-	-	1.58	2.00	2.48	3.05	3.72	-
55	-	-	-	-	1.58	1.98	2.45	3.00	-
60	-	-	-	-	-	1.55	1.94	2.39	-
65	-	-	-	-	-	-	1.50	1.87	-

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

Cooling capacity	10 103	W
Power input	3 668	W
Current consumption	17.93	A
Mass flow	229	kg/h
C.O.P.	2.75	

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	66	dB(A)
With acoustic hood	61	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 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.

