

Datasheets

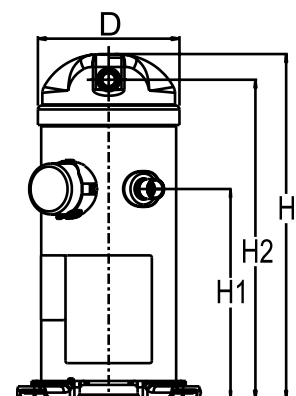
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRH036U5LP6
Code number for Singlepack*		120U1176
Code number for Industrial pack**		120U1173
Drawing number		0XC6301B-2
Suction and discharge connections		Brazed
Suction connection		3/4 " 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	34.74 cm ³ /rev	
Displacement @ Nominal speed	6.0 m ³ /h @ 2900 rpm	
Net weight	30.84 kg	
Oil charge	1.06 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=413 mm

H1=250 mm

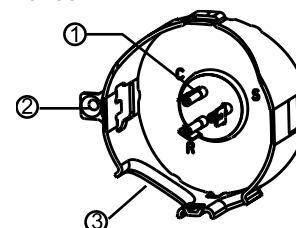
H2=379 mm

H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.69 Ω / 1.509 Ω
Run capacitors A + C	70 µF + - µF
Start capacitor B	145-175 µF
Start relay	3ARR3*3AL*
Rated Load Amps (RLA)	16.3 A
Maximum Continuous Current (MCC)	25.5 A
Locked Rotor Amps (LRA)	97 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.

Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
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, 3/4" ODF), (1" Rotolock, 1/2" ODF)	120Z0126
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, 40 W, 230 V, CE mark, UL	120Z0055
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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	2 634	3 657	4 730	5 894	7 190	8 661	10 350	12 298	-
35	2 298	3 311	4 362	5 493	6 746	8 162	9 783	11 652	-
40	-	2 970	3 996	5 092	6 297	7 655	9 206	10 993	-
45	-	-	3 616	4 672	5 827	7 123	8 600	10 300	-
50	-	-	-	4 217	5 318	6 547	7 946	9 555	-
55	-	-	-	-	4 750	5 908	7 223	8 736	-
60	-	-	-	-	-	5 183	6 406	7 814	-
65	-	-	-	-	-	-	5 460	6 746	-

Power input in W

30	1 789	1 819	1 825	1 810	1 778	1 730	1 669	1 598	-
35	1 976	2 012	2 025	2 019	1 997	1 960	1 912	1 855	-
40	-	2 258	2 274	2 273	2 255	2 226	2 186	2 139	-
45	-	-	2 579	2 576	2 560	2 532	2 495	2 453	-
50	-	-	-	2 935	2 915	2 884	2 847	2 805	-
55	-	-	-	-	3 327	3 289	3 245	3 199	-
60	-	-	-	-	-	3 751	3 697	3 641	-
65	-	-	-	-	-	-	4 206	4 136	-

Current consumption in A

30	9.45	9.41	9.35	9.26	9.14	8.98	8.77	8.51	-
35	10.61	10.53	10.44	10.34	10.22	10.07	9.89	9.67	-
40	-	11.80	11.68	11.56	11.42	11.28	11.11	10.91	-
45	-	-	13.10	12.95	12.80	12.64	12.48	12.30	-
50	-	-	-	14.56	14.38	14.21	14.04	13.87	-
55	-	-	-	-	16.22	16.02	15.84	15.67	-
60	-	-	-	-	-	18.13	17.92	17.74	-
65	-	-	-	-	-	-	20.33	20.12	-

Mass flow in kg/h

30	55	75	96	118	142	170	201	236	-
35	51	72	93	116	140	168	199	235	-
40	-	68	90	113	138	166	197	233	-
45	-	-	87	110	136	164	195	231	-
50	-	-	-	106	132	160	192	228	-
55	-	-	-	-	127	156	188	224	-
60	-	-	-	-	-	149	181	217	-
65	-	-	-	-	-	-	172	208	-

Coefficient of performance (C.O.P.)

30	1.47	2.01	2.59	3.26	4.04	5.01	6.20	7.70	-
35	1.16	1.65	2.15	2.72	3.38	4.16	5.12	6.28	-
40	-	1.31	1.76	2.24	2.79	3.44	4.21	5.14	-
45	-	-	1.40	1.81	2.28	2.81	3.45	4.20	-
50	-	-	-	1.44	1.82	2.27	2.79	3.41	-
55	-	-	-	-	1.43	1.80	2.23	2.73	-
60	-	-	-	-	-	1.38	1.73	2.15	-
65	-	-	-	-	-	-	1.30	1.63	-

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

Cooling capacity	7 946	W
Power input	2 847	W
Current consumption	14.04	A
Mass flow	192	kg/h
C.O.P.	2.79	

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%

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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	2 844	3 946	5 098	6 346	7 734	9 309	11 115	13 197	-
35	-	3 594	4 730	5 950	7 300	8 824	10 568	12 576	-
40	-	-	4 366	5 556	6 864	8 335	10 014	11 946	-
45	-	-	3 987	5 144	6 408	7 823	9 435	11 288	-
50	-	-	-	4 697	5 914	7 270	8 812	10 584	-
55	-	-	-	-	5 363	6 659	8 128	9 817	-
60	-	-	-	-	-	5 971	7 365	8 967	-
65	-	-	-	-	-	-	6 504	8 016	-

Power input in W

30	1 789	1 819	1 825	1 810	1 778	1 730	1 669	1 598	-
35	-	2 012	2 025	2 019	1 997	1 960	1 912	1 855	-
40	-	-	2 274	2 273	2 255	2 226	2 186	2 139	-
45	-	-	2 579	2 576	2 560	2 532	2 495	2 453	-
50	-	-	-	2 935	2 915	2 884	2 847	2 805	-
55	-	-	-	-	3 327	3 289	3 245	3 199	-
60	-	-	-	-	-	3 751	3 697	3 641	-
65	-	-	-	-	-	-	4 206	4 136	-

Current consumption in A

30	9.45	9.41	9.35	9.26	9.14	8.98	8.77	8.51	-
35	-	10.53	10.44	10.34	10.22	10.07	9.89	9.67	-
40	-	-	11.68	11.56	11.42	11.28	11.11	10.91	-
45	-	-	13.10	12.95	12.80	12.64	12.48	12.30	-
50	-	-	-	14.56	14.38	14.21	14.04	13.87	-
55	-	-	-	-	16.22	16.02	15.84	15.67	-
60	-	-	-	-	-	18.13	17.92	17.74	-
65	-	-	-	-	-	-	20.33	20.12	-

Mass flow in kg/h

30	55	75	95	117	141	168	199	235	-
35	-	71	93	115	139	167	198	233	-
40	-	-	90	112	137	165	196	232	-
45	-	-	86	110	135	163	194	230	-
50	-	-	-	105	131	159	191	227	-
55	-	-	-	-	126	155	186	222	-
60	-	-	-	-	-	148	180	215	-
65	-	-	-	-	-	-	170	206	-

Coefficient of performance (C.O.P.)

30	1.59	2.17	2.79	3.51	4.35	5.38	6.66	8.26	-
35	-	1.79	2.34	2.95	3.66	4.50	5.53	6.78	-
40	-	-	1.92	2.44	3.04	3.75	4.58	5.59	-
45	-	-	1.55	2.00	2.50	3.09	3.78	4.60	-
50	-	-	-	1.60	2.03	2.52	3.10	3.77	-
55	-	-	-	-	1.61	2.02	2.50	3.07	-
60	-	-	-	-	-	1.59	1.99	2.46	-
65	-	-	-	-	-	-	1.55	1.94	-

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

Cooling capacity	8 932	W
Power input	3 175	W
Current consumption	15.53	A
Mass flow	202	kg/h
C.O.P.	2.81	

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%

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