

Datasheets

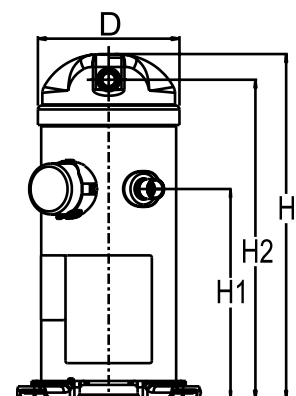
# Danfoss scroll compressors **H series**



### General Characteristics

Model number (on compressor nameplate)		<b>HRH034U5LP6</b>
Code number for Singlepack*		120U2650
Code number for Industrial pack**		120U2647
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	33.04 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	5.8 m <sup>3</sup> /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

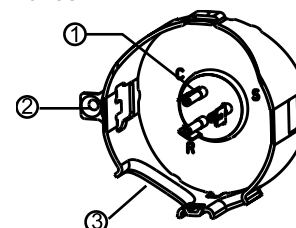


D=164.5 mm  
H=413 mm  
H1=250 mm  
H2=379 mm  
H3=- mm

### 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	RVA9CKL
Rated Load Amps (RLA)	17.3 A
Maximum Continuous Current (MCC)	27.0 A
Locked Rotor Amps (LRA)	97.0 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	2 490	3 257	4 192	5 311	6 625	8 150	9 899	11 886	-
35	2 240	2 983	3 883	4 954	6 211	7 667	9 336	11 232	-
40	-	2 707	3 570	4 594	5 792	7 178	8 765	10 567	-
45	-	-	3 248	4 222	5 359	6 673	8 176	9 884	-
50	-	-	-	3 831	4 905	6 144	7 562	9 171	-
55	-	-	-	-	4 420	5 581	6 909	8 416	-
60	-	-	-	-	-	4 969	6 200	7 599	-
65	-	-	-	-	-	-	5 406	6 682	-

**Power input in W**

30	1 726	1 703	1 685	1 671	1 658	1 643	1 624	1 600	-
35	1 978	1 947	1 921	1 898	1 877	1 854	1 829	1 798	-
40	-	2 219	2 185	2 155	2 126	2 097	2 065	2 027	-
45	-	-	2 480	2 443	2 408	2 373	2 335	2 292	-
50	-	-	-	2 767	2 726	2 685	2 642	2 594	-
55	-	-	-	-	3 082	3 036	2 989	2 937	-
60	-	-	-	-	-	3 430	3 378	3 323	-
65	-	-	-	-	-	-	3 813	3 755	-

**Current consumption in A**

30	9.01	9.02	9.02	9.01	8.97	8.90	8.79	8.63	-
35	9.71	9.70	9.69	9.67	9.63	9.57	9.47	9.33	-
40	-	10.48	10.45	10.42	10.37	10.31	10.22	10.10	-
45	-	-	11.33	11.28	11.22	11.15	11.07	10.96	-
50	-	-	-	12.28	12.21	12.13	12.05	11.94	-
55	-	-	-	-	13.37	13.28	13.18	13.07	-
60	-	-	-	-	-	14.61	14.50	14.39	-
65	-	-	-	-	-	-	16.04	15.91	-

**Mass flow in kg/h**

30	52	67	85	106	131	160	192	229	-
35	49	65	83	104	129	158	190	226	-
40	-	62	80	102	127	156	188	224	-
45	-	-	78	100	125	153	186	222	-
50	-	-	-	96	122	150	183	219	-
55	-	-	-	-	118	147	179	216	-
60	-	-	-	-	-	142	175	211	-
65	-	-	-	-	-	-	170	206	-

**Coefficient of performance (C.O.P.)**

30	1.44	1.91	2.49	3.18	4.00	4.96	6.10	7.43	-
35	1.13	1.53	2.02	2.61	3.31	4.13	5.11	6.25	-
40	-	1.22	1.63	2.13	2.72	3.42	4.24	5.21	-
45	-	-	1.31	1.73	2.23	2.81	3.50	4.31	-
50	-	-	-	1.38	1.80	2.29	2.86	3.53	-
55	-	-	-	-	1.43	1.84	2.31	2.87	-
60	-	-	-	-	-	1.45	1.84	2.29	-
65	-	-	-	-	-	-	1.42	1.78	-

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

Cooling capacity	7 562	W
Power input	2 642	W
Current consumption	12.05	A
Mass flow	183	kg/h
C.O.P.	2.86	

to: Evaporating temperature at dew point

tc: Condensing 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	66	dB(A)
With accoustic hood	61	dB(A)

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	2 689	3 513	4 518	5 718	7 127	8 760	10 631	12 755	-
35	-	3 238	4 211	5 367	6 722	8 290	10 085	12 122	-
40	-	-	3 901	5 013	6 313	7 815	9 534	11 483	-
45	-	-	3 581	4 649	5 894	7 329	8 970	10 831	-
50	-	-	-	4 267	5 455	6 823	8 386	10 158	-
55	-	-	-	-	4 990	6 291	7 775	9 457	-
60	-	-	-	-	-	5 724	7 128	8 720	-
65	-	-	-	-	-	-	6 439	7 939	-

**Power input in W**

30	1 726	1 703	1 685	1 671	1 658	1 643	1 624	1 600	-
35	-	1 947	1 921	1 898	1 877	1 854	1 829	1 798	-
40	-	-	2 185	2 155	2 126	2 097	2 065	2 027	-
45	-	-	2 480	2 443	2 408	2 373	2 335	2 292	-
50	-	-	-	2 767	2 726	2 685	2 642	2 594	-
55	-	-	-	-	3 082	3 036	2 989	2 937	-
60	-	-	-	-	-	3 430	3 378	3 323	-
65	-	-	-	-	-	-	3 813	3 755	-

**Current consumption in A**

30	9.01	9.02	9.02	9.01	8.97	8.90	8.79	8.63	-
35	-	9.70	9.69	9.67	9.63	9.57	9.47	9.33	-
40	-	-	10.45	10.42	10.37	10.31	10.22	10.10	-
45	-	-	11.33	11.28	11.22	11.15	11.07	10.96	-
50	-	-	-	12.28	12.21	12.13	12.05	11.94	-
55	-	-	-	-	13.37	13.28	13.18	13.07	-
60	-	-	-	-	-	14.61	14.50	14.39	-
65	-	-	-	-	-	-	16.04	15.91	-

**Mass flow in kg/h**

30	52	67	85	106	130	159	191	227	-
35	-	64	82	104	128	157	189	225	-
40	-	-	80	101	126	155	187	223	-
45	-	-	77	99	124	152	184	220	-
50	-	-	-	96	121	150	182	217	-
55	-	-	-	-	117	146	178	214	-
60	-	-	-	-	-	142	174	210	-
65	-	-	-	-	-	-	169	205	-

**Coefficient of performance (C.O.P.)**

30	1.56	2.06	2.68	3.42	4.30	5.33	6.55	7.97	-
35	-	1.66	2.19	2.83	3.58	4.47	5.51	6.74	-
40	-	-	1.79	2.33	2.97	3.73	4.62	5.66	-
45	-	-	1.44	1.90	2.45	3.09	3.84	4.73	-
50	-	-	-	1.54	2.00	2.54	3.17	3.92	-
55	-	-	-	-	1.62	2.07	2.60	3.22	-
60	-	-	-	-	-	1.67	2.11	2.62	-
65	-	-	-	-	-	-	1.69	2.11	-

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

Cooling capacity	8 569	W
Power input	2 923	W
Current consumption	12.99	A
Mass flow	194	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	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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