

ENGINEERING  
TOMORROW

*Danfoss*

Datasheets

# Danfoss scroll compressors **H series**



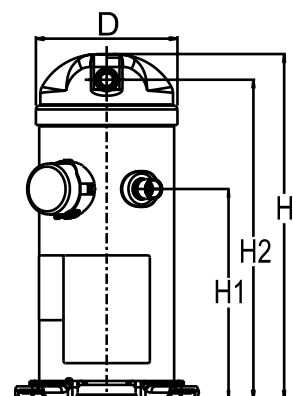
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[www.danfoss.com/odsg](http://www.danfoss.com/odsg)

**General Characteristics**

Model number (on compressor nameplate)		<b>HLJ083T5LP6</b>
Code number for Singlepack*		120U1351
Code number for Industrial pack**		120U1348
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		78,08 cm <sup>3</sup> /rev
Displacement @ Nominal speed		13.6 m <sup>3</sup> /h @ 2900 rpm
Net weight		37,2 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**

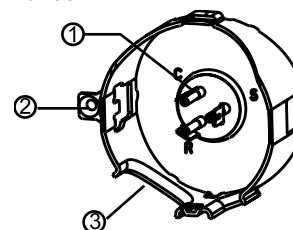


D=183,5 mm  
H=455 mm  
H1=280 mm  
H2=422 mm  
H3=- mm

**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)	32 A
Maximum Continuous Current (MCC)	50 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

**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, 65 W, 230 V, CE mark, UL	120Z0059
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040

**Miscellaneous accessories**

**Code no.**

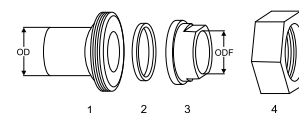
Acoustic hood	120Z5044
Discharge thermostat kit	7750009

**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

**Solder sleeve adapter set**



- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

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

Cooling capacity in W

30	6 104	8 495	10 990	13 693	16 710	20 147	24 108	28 702	-
35	5 241	7 601	10 027	12 624	15 495	18 747	22 483	26 810	-
40	4 359	6 683	9 037	11 524	14 247	17 311	20 819	24 878	-
45	-	5 729	8 006	10 379	12 950	15 823	19 100	22 887	-
50	-	-	6 920	9 175	11 590	14 267	17 309	20 818	-
55	-	-	-	7 896	10 148	12 623	15 422	18 647	-
60	-	-	-	-	8 603	10 866	13 411	16 339	-
65	-	-	-	-	-	8 952	11 221	13 828	-

Power input in W

30	4 239	4 314	4 329	4 293	4 214	4 100	3 960	3 800	-
35	4 622	4 715	4 751	4 738	4 684	4 597	4 486	4 358	-
40	5 114	5 214	5 259	5 258	5 219	5 149	5 057	4 951	-
45	-	5 822	5 867	5 867	5 831	5 768	5 684	5 589	-
50	-	-	6 586	6 577	6 534	6 466	6 380	6 286	-
55	-	-	-	7 399	7 339	7 256	7 158	7 053	-
60	-	-	-	-	8 258	8 149	8 028	7 902	-
65	-	-	-	-	-	9 159	9 003	8 846	-

Current consumption in A

30	21.56	21.47	21.33	21.13	20.85	20.49	20.01	19.42	-
35	24.19	24.02	23.82	23.59	23.31	22.97	22.56	22.05	-
40	27.20	26.92	26.64	26.36	26.06	25.72	25.34	24.89	-
45	-	30.26	29.89	29.53	29.19	28.84	28.46	28.05	-
50	-	-	33.67	33.22	32.80	32.41	32.03	31.63	-
55	-	-	-	37.51	37.01	36.55	36.13	35.74	-
60	-	-	-	-	41.90	41.36	40.88	40.46	-
65	-	-	-	-	-	46.94	46.38	45.90	-

Mass flow in kg/h

30	128	175	223	274	331	394	467	552	-
35	116	165	214	266	322	385	457	540	-
40	103	153	204	256	313	375	446	528	-
45	-	140	192	245	301	364	434	514	-
50	-	-	177	231	288	350	419	497	-
55	-	-	-	214	271	332	401	477	-
60	-	-	-	-	250	311	379	454	-
65	-	-	-	-	-	286	352	426	-

Coefficient of performance (C.O.P.)

30	1.44	1.97	2.54	3.19	3.97	4.91	6.09	7.55	-
35	1.13	1.61	2.11	2.66	3.31	4.08	5.01	6.15	-
40	0.85	1.28	1.72	2.19	2.73	3.36	4.12	5.03	-
45	-	0.98	1.36	1.77	2.22	2.74	3.36	4.10	-
50	-	-	1.05	1.40	1.77	2.21	2.71	3.31	-
55	-	-	-	1.07	1.38	1.74	2.15	2.64	-
60	-	-	-	-	1.04	1.33	1.67	2.07	-
65	-	-	-	-	-	0.98	1.25	1.56	-

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

Cooling capacity	17 309	W
Power input	6 380	W
Current consumption	32.03	A
Mass flow	419	kg/h
C.O.P.	2.71	

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	71	dB(A)
With acoustic hood	66	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

**Cooling capacity in W**

30	6 592	9 165	11 844	14 743	17 975	21 653	25 890	30 799	-
35	5 697	8 252	10 874	13 675	16 769	20 268	24 286	28 935	-
40	4 775	7 311	9 873	12 575	15 529	18 848	22 646	27 035	-
45	-	6 326	8 828	11 428	14 241	17 379	20 954	25 081	-
50	-	-	7 721	10 219	12 889	15 844	19 196	23 060	-
55	-	-	-	8 932	11 458	14 228	17 356	20 954	-
60	-	-	-	-	9 932	12 516	15 418	18 750	-
65	-	-	-	-	-	10 693	13 366	16 430	-

**Power input in W**

30	4 239	4 314	4 329	4 293	4 214	4 100	3 960	3 800	-
35	4 622	4 715	4 751	4 738	4 684	4 597	4 486	4 358	-
40	5 114	5 214	5 259	5 258	5 219	5 149	5 057	4 951	-
45	-	5 822	5 867	5 867	5 831	5 768	5 684	5 589	-
50	-	-	6 586	6 577	6 534	6 466	6 380	6 286	-
55	-	-	-	7 399	7 339	7 256	7 158	7 053	-
60	-	-	-	-	8 258	8 149	8 028	7 902	-
65	-	-	-	-	-	9 159	9 003	8 846	-

**Current consumption in A**

30	21.56	21.47	21.33	21.13	20.85	20.49	20.01	19.42	-
35	24.19	24.02	23.82	23.59	23.31	22.97	22.56	22.05	-
40	27.20	26.92	26.64	26.36	26.06	25.72	25.34	24.89	-
45	-	30.26	29.89	29.53	29.19	28.84	28.46	28.05	-
50	-	-	33.67	33.22	32.80	32.41	32.03	31.63	-
55	-	-	-	37.51	37.01	36.55	36.13	35.74	-
60	-	-	-	-	41.90	41.36	40.88	40.46	-
65	-	-	-	-	-	46.94	46.38	45.90	-

**Mass flow in kg/h**

30	127	174	222	273	329	392	464	548	-
35	115	164	213	264	320	383	454	536	-
40	102	152	202	255	311	373	443	524	-
45	-	139	190	243	299	361	431	510	-
50	-	-	176	229	286	347	416	493	-
55	-	-	-	213	269	330	398	474	-
60	-	-	-	-	249	309	376	451	-
65	-	-	-	-	-	284	350	423	-

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

30	1.56	2.12	2.74	3.43	4.27	5.28	6.54	8.10	-
35	1.23	1.75	2.29	2.89	3.58	4.41	5.41	6.64	-
40	0.93	1.40	1.88	2.39	2.98	3.66	4.48	5.46	-
45	-	1.09	1.50	1.95	2.44	3.01	3.69	4.49	-
50	-	-	1.17	1.55	1.97	2.45	3.01	3.67	-
55	-	-	-	1.21	1.56	1.96	2.42	2.97	-
60	-	-	-	-	1.20	1.54	1.92	2.37	-
65	-	-	-	-	-	1.17	1.48	1.86	-

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

Cooling capacity	19 114	W
Power input	7 015	W
Current consumption	35.43	A
Mass flow	433	kg/h
C.O.P.	2.72	

**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	71	dB(A)
With acoustic hood	66	dB(A)

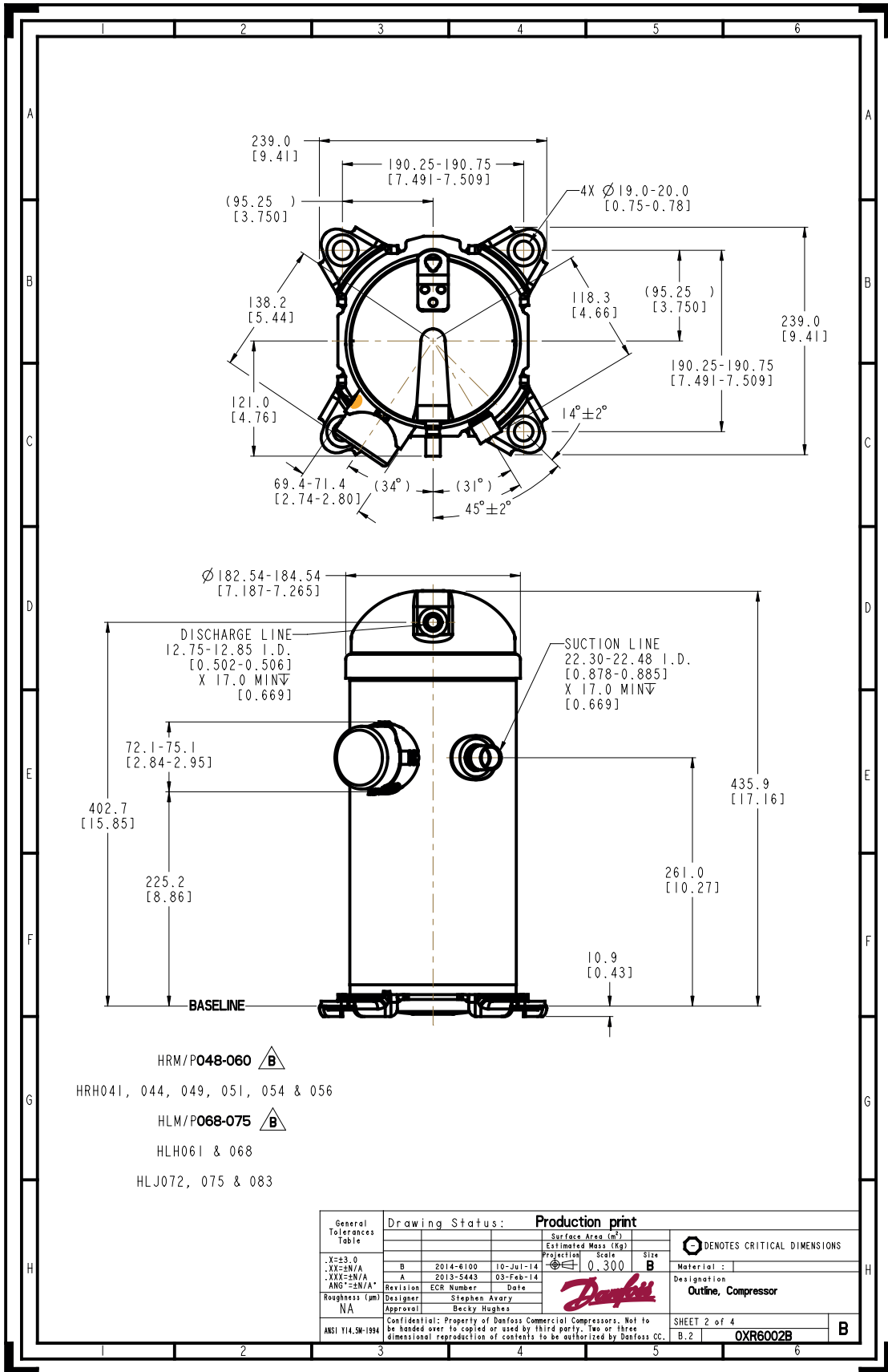
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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