



Datasheets

# Danfoss scroll compressors **H series**



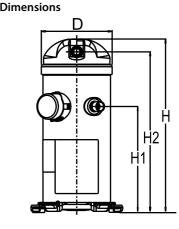
## Datasheet, technical data

# Danfoss scroll compressor, HLJ072T5

Dantoss

#### **General Characteristics**

Model number (on compressor nameplate)		HLJ072T5LP6
Code number for Singlepack*		120U1346
Code number for Industrial pack**		120U1343
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	67,97 c	m3/rev
Displacement @ Nominal speed	11.8 m3/h (	@ 2900 rpm
Net weight	37,2	2 kg
Oil charge	1,57 litre	e, PVE
Maximum system test pressure Low Side / High side	- bar(g)	/ - bar(g)
Maximum differential test pressure	- k	bar
Maximum number of starts per hour		-
Refrigerant charge limit	5,44	4 kg
Approved refrigerants	R41	10A



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)	29 A
Maximum Continuous Current (MCC)	45 A
Locked Rotor Amps (LRA)	130 A
Motor protection	Internal overload protector

#### **Recommended Installation torques**

Oil sight glass	52,5 Nm	I
Power connections / Earth connection	0 Nm / 0 Nm	
		IP2

# Parts shipped with compressor

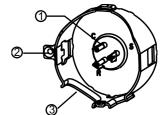
Mounting kit with grommets and sleeves Initial oil charge Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

\*Singlepack: Compressor in cardboard box

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

**Terminal box** 



IP22 1:

2:

3:

Spade connectors 1/4"

Earth connection

Power cable passage

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## Datasheet, accessories and spare parts

Danfoss scroll compressor, HLJ072T5

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	Solder sleeve adapter set
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.	1: Rotolock adapter (Suc & Dis)
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034	2: Gasket (Suc & Dis)
		3: Solder sleeve (Suc & Dis)
Crankcase heaters	Code no.	4: Rotolock nut (Suc & Dis)
Belt type crankcase heater, 50 W, 230 V, CE mark, UL	120Z0057	
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	

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## Datasheet, performance data

# Danfoss scroll compressor. HLJ072T5

Danfoss

**R410A** 

# Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in					ting temperatur			1 1	
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
Cooling capacity		7 070	0.500	44.070	44.404	47.400	00.000	04.054	
30	5 300	7 370	9 533	11 878	14 494	17 468	20 892	24 854	-
35	4 579	6 624	8 734	10 997	13 501	16 334	19 585	23 344	-
40	3 855	5 870	7 922	10 098	12 487	15 174	18 250	21 801	-
45	-	5 087	7 077	9 162	11 430	13 968	16 862	20 201	-
50	-	-	6 178	8 166	10 309	12 691	15 399	18 520	-
55	-	-	-	7 090	9 099	11 318	13 831	16 725	-
60	-	-	-	-	7 774	9 818	12 125	14 779	-
65	-	-	-	-	-	8 145	10 223	12 611	-
ower input in V	V						1		
30	3 659	3 724	3 737	3 706	3 638	3 540	3 418	3 280	-
35	3 994	4 074	4 104	4 093	4 046	3 971	3 875	3 765	-
40	4 424	4 510	4 549	4 547	4 513	4 453	4 373	4 281	-
45	-	5 043	5 080	5 080	5 049	4 994	4 921	4 839	-
50	-	-	5 710	5 702	5 665	5 605	5 531	5 449	-
55	-	-	-	6 423	6 370	6 298	6 213	6 122	-
60	-	-	-	-	7 177	7 082	6 977	6 868	-
65	-	-	-	-	-	7 969	7 834	7 697	-
								1	
urrent consum	ption in A								
30	18.93	18.85	18.72	18.55	18.30	17.98	17.56	17.04	-
35	21.23	21.08	20.91	20.71	20.46	20.16	19.80	19.35	-
40	23.87	23.62	23.38	23.13	22.87	22.58	22.24	21.85	-
45		26.56	26.23	25.92	25.62	25.31	24.98	24.62	
50		-	29.55	29.15	28.79	28.45	24.30	27.76	
55	-	-	-	32.92	32.48	32.08	31.71	31.36	-
						36.30			
60	-	-	-	-	36.77		35.88	35.51	-
65	-	-	-	-	-	41.19	40.71	40.29	-
/lass flow in kg/	h								
30	111	152	194	238	287	342	405	478	-
35	101	143		238			398		
			186		281	336		470	
40	91	134	179	224	274	329	391	463	-
45		124	169	216	266	321	383	453	-
50	-	-	158	206	256	311	372	442	-
55	-	-	-	192	243	298	359	428	-
60	-	-	-	-	226	281	342	411	-
65	-	-	-	-	-	260	321	389	-
Coefficient of pe	rformance (C.C	,	1		1	1	1		
30	1.45	1.98	2.55	3.21	3.98	4.94	6.11	7.58	-
35	1.15	1.63	2.13	2.69	3.34	4.11	5.05	6.20	-
40	0.87	1.30	1.74	2.22	2.77	3.41	4.17	5.09	-
45	-	1.01	1.39	1.80	2.26	2.80	3.43	4.17	-
50	-	-	1.08	1.43	1.82	2.26	2.78	3.40	-
55	-	-	-	1.10	1.43	1.80	2.23	2.73	-
60	-	-	-	-	1.08	1.39	1.74	2.15	-
65	-	-	-	-	-	1.02	1.30	1.64	-
I						•	-	·	
	nance at to = 5	°C, tc = 50 °C				Pressure switch	settings		
Iominal perform		15 399				Maximum HP swit	•	45	bar(g)
Cooling capacity		5 531	W			Minimum LP swite	•	1.5	bar(g)
cooling capacity				1		LP pump down se	ttina	2.3	bar(g)
Cooling capacity Power input Current consump	tion	28.11	A			Er pump down 30	lang	2.0	bui(g)
Cooling capacity Power input Current consump Mass flow	tion	372	A kg/h			· · ·		2.5	bai(g)
Cooling capacity Power input Current consump	tion					Sound power date	a	71	dB(A)

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

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#### FRCC.ED.HLJ072T5.A8.02 / page performance R410A 50 Hz

All performance data +/- 5%

## Datasheet, performance data

# Danfoss scroll compressor. HLJ072T5

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**R410A** 

# Performance data at 50 Hz, ARI rating conditions

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-25	-20	-15	-10	-5	0	5	10	15
ooling capacity	/ in W		-	-					
30	5 724	7 951	10 274	12 789	15 591	18 775	22 436	26 670	-
35	4 977	7 191	9 471	11 912	14 610	17 659	21 156	25 195	-
40	4 223	6 421	8 655	11 020	13 610	16 522	19 851	23 691	-
45	-	5 618	7 803	10 088	12 569	15 341	18 499	22 139	-
50	-	-	6 893	9 096	11 464	14 093	17 078	20 514	-
55	-	-	-	8 020	10 274	12 757	15 566	18 795	-
60	-	-	-	-	8 975	11 309	13 939	16 959	-
65	-	-	-	-	-	9 728	12 177	14 984	-

30	3 659	3 724	3 737	3 706	3 638	3 540	3 418	3 280	-
35	3 994	4 074	4 104	4 093	4 046	3 971	3 875	3 765	-
40	4 424	4 510	4 549	4 547	4 513	4 453	4 373	4 281	-
45	-	5 043	5 080	5 080	5 049	4 994	4 921	4 839	-
50	-	-	5 710	5 702	5 665	5 605	5 531	5 449	-
55	-	-	-	6 423	6 370	6 298	6 213	6 122	-
60	-	-	-	-	7 177	7 082	6 977	6 868	-
65	-	-	-	-	-	7 969	7 834	7 697	-

#### Current consumption in A

30	18.93	18.85	18.72	18.55	18.30	17.98	17.56	17.04	-
35	21.23	21.08	20.91	20.71	20.46	20.16	19.80	19.35	-
40	23.87	23.62	23.38	23.13	22.87	22.58	22.24	21.85	-
45	-	26.56	26.23	25.92	25.62	25.31	24.98	24.62	-
50	-	-	29.55	29.15	28.79	28.45	28.11	27.76	-
55	-	-	-	32.92	32.48	32.08	31.71	31.36	-
60	-	-	-	-	36.77	36.30	35.88	35.51	-
65	-	-	-	-	-	41.19	40.71	40.29	-

#### Mass flow in kg/h

30	110	151	192	236	285	340	402	475	-
35	100	143	185	230	279	334	396	467	-
40	90	134	177	223	272	327	389	459	-
45	-	123	168	215	264	319	380	450	-
50	-	-	157	204	254	309	370	439	-
55	-	-	-	191	241	296	357	425	-
60	-	-	-	-	225	280	340	408	-
65	-	-	-	-	-	259	319	386	-

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

30	1.56	2.14	2.75	3.45	4.29	5.30	6.56	8.13	-
35	1.25	1.77	2.31	2.91	3.61	4.45	5.46	6.69	-
40	0.95	1.42	1.90	2.42	3.02	3.71	4.54	5.53	-
45	-	1.11	1.54	1.99	2.49	3.07	3.76	4.58	-
50	-	-	1.21	1.60	2.02	2.51	3.09	3.76	-
55	-	-	-	1.25	1.61	2.03	2.51	3.07	-
60	-	-	-	-	1.25	1.60	2.00	2.47	-
65	-	-	-	-	-	1.22	1.55	1.95	-

Nominal performance at to = 7.2 °C,	tc = 54.4 °C	
Cooling capacity	17 127	W
Power input	6 088	W
Current consumption	31.10	А
Mass flow	388	kg/h
COP	2 81	

Pressure switch settings Maximum HP switch setting	45	bar(q
Minimum LP switch setting	1.5	bar(g
LP pump down setting	2.3	bar(g
Sound power data		
Sound power data Sound power level	71	dB(A)

to: Evaporating temperature at dew point

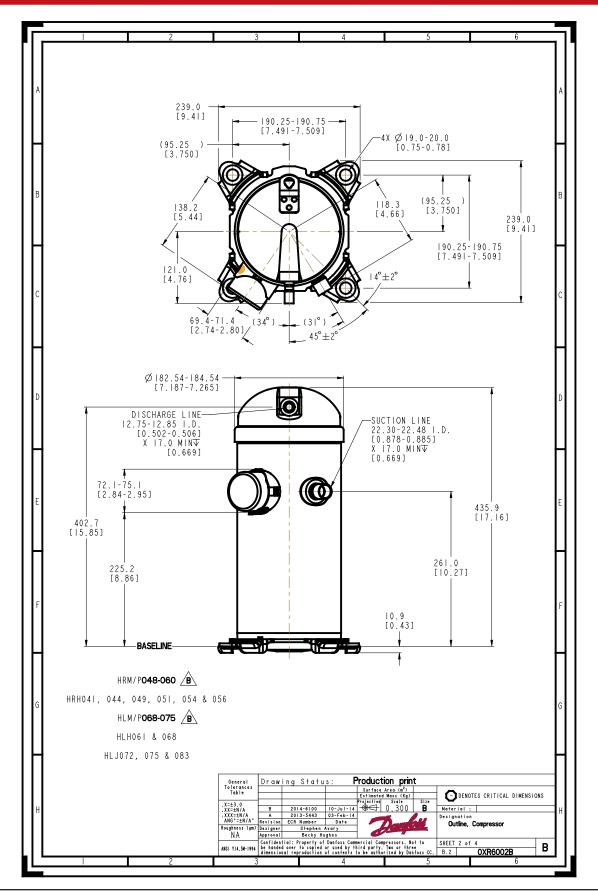
tc: Condensing temperature at dew point

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

All performance data +/- 5%

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