



Datasheets

Danfoss scroll compressors **H series**



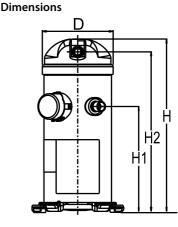
Datasheet, technical data

Danfoss scroll compressor, HLP075T5

Danfoss

General Characteristics

Model number (on compressor nameplate)		HLP075T5LP6
Code number for Singlepack*		120U1641
Code number for Industrial pack**		120U1638
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	102,75 0	cm3/rev
Displacement @ Nominal speed	17.9 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	- b	bar
Maximum number of starts per hour		-
Refrigerant charge limit	5,44	4 kg
Approved refrigerants	R40)7C



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)	28.8 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	
Power connections / Earth connection	0 Nm / 0 Nm	
		IP2

Parts shipped with compressor

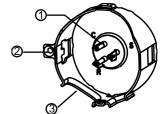
Mounting kit with grommets and sleeves Initial oil charge Installation instructions

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



Datasheet, accessories and spare parts

Danfoss scroll compressor, HLP075T5

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	1 2 3 4
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)
	12020001	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	

Danfoss scroll compressor. HLP075T5

Danfoss

R407C

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in				Evapora	ating temperature ir	n °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
30	in W	5 307	7 023	9 005	11 317	14 025	17 191	20 881	25 159
35	-	4 877	6 532	8 431	10 639	13 219	16 235	19 751	23 832
40	_	4 427	6 013	7 822	9 917	12 362	15 220	18 554	23 032
45	-	-	5 473	7 183	9 158	11 459	13 220	17 296	22 450
50	-	_	-	6 520	8 366	10 516	13 034	15 982	19 424
55	-	_			7 546	9 537	11 873	14 615	17 827
60	-	_	-	-	-	8 528	10 673	13 201	16 174
65	-	_	-	-	_	-	9 437	11 742	14 468
							0 101		11100
ower input in W		1	1	1	1		1	1	1
30	-	3 481	3 409	3 366	3 335	3 302	3 252	3 168	3 037
35	-	3 920	3 841	3 795	3 766	3 738	3 697	3 627	3 513
40	-	4 424	4 331	4 275	4 240	4 211	4 173	4 110	4 007
45	-	-	4 909	4 836	4 789	4 753	4 710	4 648	4 549
50	-	-	-	5 508	5 443	5 391	5 339	5 270	5 169
55	-	-	-	-	6 230	6 158	6 088	6 006	5 897
60	-	-	-	-	-	7 082	6 989	6 887	6 763
65	-	-	-	-	-	-	8 070	7 943	7 796
30 35	-	16.96 19.00	17.08 19.05	17.10 19.03	17.01 18.94	16.79 18.75	16.43 18.47	15.93 18.07	15.28 17.55
40	-	21.29	21.24	21.17	21.04	20.86	20.62	20.30	19.89
45	-	-	23.82	23.64	23.46	23.26	23.02	22.74	22.42
50	-	-	-	26.61	26.33	26.08	25.82	25.56	25.28
55	-	-	-	-	29.81	29.47	29.16	28.89	28.63
60	-	-	-	-	-	33.56	33.18	32.86	32.59
65	-	-	-	-	-	-	38.02	37.63	37.32
I				1					
lass flow in kg/h 30	-	119	155	195	241	293	354	423	503
35	-	115	155	195	237	290	350	419	498
40	-	115	147	191	237	290	345	419	498
40	-	-	147	187	233	265	345	413	492
45 50	-	-	-	175	227	278	329	396	403
55	-		-	-	220	262	329	396	473
55 60	-	-	-	-	212	262	319	385	461
60 65	-	-	-	-	-	-	294	373	447
00	-			-	-	-	294	308	431
oefficient of per	formance (C.C		T	T	1			T	1
30	-	1.52	2.06	2.68	3.39	4.25	5.29	6.59	8.29
35	-	1.24	1.70	2.22	2.83	3.54	4.39	5.45	6.78
40	-	1.00	1.39	1.83	2.34	2.94	3.65	4.51	5.60
45	-	-	1.11	1.49	1.91	2.41	3.00	3.72	4.61
50	-	-	-	1.18	1.54	1.95	2.44	3.03	3.76

Nominal performance at to = 5	°C, tc = 50 °C		Pressure switch settings
Cooling capacity	15 982	W	Maximum HP switch setting
Power input	5 270	W	Minimum LP switch setting
Current consumption	25.56	А	LP pump down setting
Mass flow	396	kg/h	
C.O.P.	3.03		Sound power data
			Sound power level

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to:	Evaporating	temperature	at	dew	point
-----	-------------	-------------	----	-----	-------

55

60

65

tc: Condensing temperature at dew point

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

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_

All performance data +/- 5%

With accoustic hood

1.55

1.20

-

1.21

_

-

1.95

1.53

1.17

2.43

1.92

1.48

30

0.5

1

71

66

3.02

2.39

1.86

bar(g)

bar(g)

bar(g)

dB(A)

dB(A)

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Danfoss scroll compressor. HLP075T5

Danfoss

R407C

Performance data at 50 Hz, ARI rating conditions

	Cond. temp. in	Evaporating temperature in °C (to)									
^{°C} (tc) -30 -25 -20 -15 -10 -5 0 5 1	°C (tc)		-20	-15	-10	-5	0	5	10		

Cooling capacity in W

30	-	5 699	7 532	9 647	12 111	14 992	18 357	22 276	26 814
35	-	5 263	7 040	9 075	11 437	14 194	17 412	21 161	25 506
40	-	4 806	6 517	8 466	10 718	13 342	16 406	19 977	24 122
45	-	-	5 970	7 824	9 959	12 443	15 344	18 729	22 666
50	-	-	-	7 155	9 164	11 500	14 231	17 423	21 144
55	-	-	-	-	8 339	10 520	13 071	16 062	19 560
60	-	-	-	-	-	9 506	11 871	14 653	17 919
65	-	-	-	-	-	-	10 635	13 200	16 226

Power input in W

30	-	3 481	3 409	3 366	3 335	3 302	3 252	3 168	3 037
35	-	3 920	3 841	3 795	3 766	3 738	3 697	3 627	3 513
40	-	4 424	4 331	4 275	4 240	4 211	4 173	4 110	4 007
45	-	-	4 909	4 836	4 789	4 753	4 710	4 648	4 549
50	-	-	-	5 508	5 443	5 391	5 339	5 270	5 169
55	-	-	-	-	6 230	6 158	6 088	6 006	5 897
60	-	-	-	-	-	7 082	6 989	6 887	6 763
65	-	-	-	-	-	-	8 070	7 943	7 796

Current consumption in A

30	-	16.96	17.08	17.10	17.01	16.79	16.43	15.93	15.28
35	-	19.00	19.05	19.03	18.94	18.75	18.47	18.07	17.55
40	-	21.29	21.24	21.17	21.04	20.86	20.62	20.30	19.89
45	-	-	23.82	23.64	23.46	23.26	23.02	22.74	22.42
50	-	-	-	26.61	26.33	26.08	25.82	25.56	25.28
55	-	-	-	-	29.81	29.47	29.16	28.89	28.63
60	-	-	-	-	-	33.56	33.18	32.86	32.59
65	-	-	-	-	-	-	38.02	37.63	37.32

Mass flow in kg/h

30	-	118	154	194	239	292	352	421	500
35	-	115	150	190	236	288	348	417	495
40	-	111	146	186	231	283	343	411	489
45	-	-	141	181	226	277	336	403	481
50	-	-	-	174	219	269	328	394	471
55	-	-	-	-	210	260	318	383	459
60	-	-	-	-	-	250	306	370	444
65	-	-	-	-	-	-	293	356	428

Coefficient of performance (C.O.P.)

30	-	1.64	2.21	2.87	3.63	4.54	5.65	7.03	8.83
35	-	1.34	1.83	2.39	3.04	3.80	4.71	5.83	7.26
40	-	1.09	1.50	1.98	2.53	3.17	3.93	4.86	6.02
45	-	-	1.22	1.62	2.08	2.62	3.26	4.03	4.98
50	-	-	-	1.30	1.68	2.13	2.67	3.31	4.09
55	-	-	-	-	1.34	1.71	2.15	2.67	3.32
60	-	-	-	-	-	1.34	1.70	2.13	2.65
65	-	-	-	-	-	-	1.32	1.66	2.08

Nominal performance at to = 7.2 °C,	tc = 54.4 °C	
Cooling capacity	17 712	W
Power input	5 868	W
Current consumption	28.34	A
Mass flow	417	kg/h
C.O.P.	3.02	

	Maximum HP switch setting	30	bar(g)
	Minimum LP switch setting	0.5	bar(g)
	LP pump down setting	1	bar(g)
-			
-	Sound power data		
	Sound power level	71	dB(A)
	With accoustic 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%

Pressure switch settings

Danfoss scroll compressor. HLP075T5

Danfoss

R407C

Performance data at 50 Hz, EN 12900 rating conditions

Cond. temp. in				Evapora	ating temperature ir	n °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
30	in W	5 307	7 023	9 005	11 317	14 025	17 191	20 881	25 159
35	-	4 877	6 532	8 431	10 639	13 219	16 235	19 751	23 832
40	_	4 427	6 013	7 822	9 917	12 362	15 220	18 554	23 032
45	-	-	5 473	7 183	9 158	11 459	13 220	17 296	22 450
50	-	_	-	6 520	8 366	10 516	13 034	15 982	19 424
55	-	_			7 546	9 537	11 873	14 615	17 827
60	-	_	-	-	-	8 528	10 673	13 201	16 174
65	-	_	-	-	_	-	9 437	11 742	14 468
							0 101		11100
ower input in W		1	1	1	1		1	1	1
30	-	3 481	3 409	3 366	3 335	3 302	3 252	3 168	3 037
35	-	3 920	3 841	3 795	3 766	3 738	3 697	3 627	3 513
40	-	4 424	4 331	4 275	4 240	4 211	4 173	4 110	4 007
45	-	-	4 909	4 836	4 789	4 753	4 710	4 648	4 549
50	-	-	-	5 508	5 443	5 391	5 339	5 270	5 169
55	-	-	-	-	6 230	6 158	6 088	6 006	5 897
60	-	-	-	-	-	7 082	6 989	6 887	6 763
65	-	-	-	-	-	-	8 070	7 943	7 796
30 35	-	16.96 19.00	17.08 19.05	17.10 19.03	17.01 18.94	16.79 18.75	16.43 18.47	15.93 18.07	15.28 17.55
40	-	21.29	21.24	21.17	21.04	20.86	20.62	20.30	19.89
45	-	-	23.82	23.64	23.46	23.26	23.02	22.74	22.42
50	-	-	-	26.61	26.33	26.08	25.82	25.56	25.28
55	-	-	-	-	29.81	29.47	29.16	28.89	28.63
60	-	-	-	-	-	33.56	33.18	32.86	32.59
65	-	-	-	-	-	-	38.02	37.63	37.32
I				1					
lass flow in kg/h 30	-	119	155	195	241	293	354	423	503
35	-	115	155	195	237	290	350	419	498
40	-	115	147	191	237	290	345	419	498
40	-	-	147	187	233	265	345	413	492
45 50	-	-	-	175	227	278	329	396	403
55	-		-	-	220	262	329	396	473
55 60	-	-	-	-	212	262	319	385	461
60 65	-	-	-	-	-	-	294	373	447
00	-			-	-	-	294	308	431
oefficient of per	formance (C.C		T	T	1			T	1
30	-	1.52	2.06	2.68	3.39	4.25	5.29	6.59	8.29
35	-	1.24	1.70	2.22	2.83	3.54	4.39	5.45	6.78
40	-	1.00	1.39	1.83	2.34	2.94	3.65	4.51	5.60
45	-	-	1.11	1.49	1.91	2.41	3.00	3.72	4.61
50	-	-	-	1.18	1.54	1.95	2.44	3.03	3.76

Nominal performance at to = 5	°C, tc = 50 °C		Pressure switch settings
Cooling capacity	15 982	W	Maximum HP switch setting
Power input	5 270	W	Minimum LP switch setting
Current consumption	25.56	А	LP pump down setting
Mass flow	396	kg/h	
C.O.P.	3.03		Sound power data
			Sound power level

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to:	Evaporating	temperature	at	dew	point
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55

60

65

tc: Condensing temperature at dew point

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

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_

All performance data +/- 5%

With accoustic hood

1.55

1.20

-

1.21

_

-

1.95

1.53

1.17

2.43

1.92

1.48

30

0.5

1

71

66

3.02

2.39

1.86

bar(g)

bar(g)

bar(g)

dB(A)

dB(A)

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Danfoss scroll compressor. HLP075T5

Danfoss

R407C

Performance data at 50 Hz, ARI rating conditions

	Cond. temp. in	n Evaporating temperature in °C (to)									
^{°C} (tc) -30 -25 -20 -15 -10 -5 0 5 1	°C (tc)			-20	-15	-10	-5	0	5	10	

Cooling capacity in W

30	-	5 699	7 532	9 647	12 111	14 992	18 357	22 276	26 814
35	-	5 263	7 040	9 075	11 437	14 194	17 412	21 161	25 506
40	-	4 806	6 517	8 466	10 718	13 342	16 406	19 977	24 122
45	-	-	5 970	7 824	9 959	12 443	15 344	18 729	22 666
50	-	-	-	7 155	9 164	11 500	14 231	17 423	21 144
55	-	-	-	-	8 339	10 520	13 071	16 062	19 560
60	-	-	-	-	-	9 506	11 871	14 653	17 919
65	-	-	-	-	-	-	10 635	13 200	16 226

Power input in W

30	-	3 481	3 409	3 366	3 335	3 302	3 252	3 168	3 037
35	-	3 920	3 841	3 795	3 766	3 738	3 697	3 627	3 513
40	-	4 424	4 331	4 275	4 240	4 211	4 173	4 110	4 007
45	-	-	4 909	4 836	4 789	4 753	4 710	4 648	4 549
50	-	-	-	5 508	5 443	5 391	5 339	5 270	5 169
55	-	-	-	-	6 230	6 158	6 088	6 006	5 897
60	-	-	-	-	-	7 082	6 989	6 887	6 763
65	-	-	-	-	-	-	8 070	7 943	7 796

Current consumption in A

30	-	16.96	17.08	17.10	17.01	16.79	16.43	15.93	15.28
35	-	19.00	19.05	19.03	18.94	18.75	18.47	18.07	17.55
40	-	21.29	21.24	21.17	21.04	20.86	20.62	20.30	19.89
45	-	-	23.82	23.64	23.46	23.26	23.02	22.74	22.42
50	-	-	-	26.61	26.33	26.08	25.82	25.56	25.28
55	-	-	-	-	29.81	29.47	29.16	28.89	28.63
60	-	-	-	-	-	33.56	33.18	32.86	32.59
65	-	-	-	-	-	-	38.02	37.63	37.32

Mass flow in kg/h

30	-	118	154	194	239	292	352	421	500
35	-	115	150	190	236	288	348	417	495
40	-	111	146	186	231	283	343	411	489
45	-	-	141	181	226	277	336	403	481
50	-	-	-	174	219	269	328	394	471
55	-	-	-	-	210	260	318	383	459
60	-	-	-	-	-	250	306	370	444
65	-	-	-	-	-	-	293	356	428

Coefficient of performance (C.O.P.)

30	-	1.64	2.21	2.87	3.63	4.54	5.65	7.03	8.83
35	-	1.34	1.83	2.39	3.04	3.80	4.71	5.83	7.26
40	-	1.09	1.50	1.98	2.53	3.17	3.93	4.86	6.02
45	-	-	1.22	1.62	2.08	2.62	3.26	4.03	4.98
50	-	-	-	1.30	1.68	2.13	2.67	3.31	4.09
55	-	-	-	-	1.34	1.71	2.15	2.67	3.32
60	-	-	-	-	-	1.34	1.70	2.13	2.65
65	-	-	-	-	-	-	1.32	1.66	2.08

Nominal performance at to = 7.2 °C, tc = 54.4 °C			
Cooling capacity	17 712	W	
Power input	5 868	W	
Current consumption	28.34	A	
Mass flow	417	kg/h	
C.O.P.	3.02		

Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)
Sound power data		
Sound power level	71	dB(A)
With accoustic 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%

Pressure switch settings



