

Datasheets

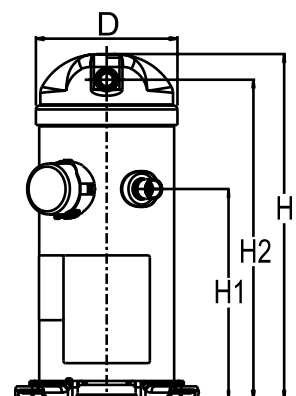
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HLP068T5LP6
Code number for Singlepack*		120U1621
Code number for Industrial pack**		120U1618
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	93,08 cm ³ /rev	
Displacement @ Nominal speed	16.2 m ³ /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	R407C	

Dimensions



D=183,5 mm

H=455 mm

H1=280 mm

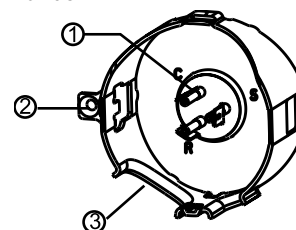
H2=422 mm

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)	25.6 A
Maximum Continuous Current (MCC)	40 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

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, 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, 50 W, 230 V, CE mark, UL	120Z0057
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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

Performance data at 50 Hz, EN 12900 rating conditions
R407C

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

Cooling capacity in W

30	-	4 747	6 274	8 044	10 110	12 527	15 350	18 633	22 430
35	-	4 392	5 864	7 565	9 546	11 864	14 572	17 723	21 374
40	-	4 034	5 443	7 065	8 954	11 163	13 747	16 758	20 253
45	-	-	5 008	6 544	8 331	10 422	12 873	15 736	19 065
50	-	-	-	5 998	7 674	9 639	11 948	14 652	17 807
55	-	-	-	-	6 982	8 812	10 969	13 506	16 477
60	-	-	-	-	-	7 938	9 935	12 295	15 071
65	-	-	-	-	-	-	8 841	11 014	13 585

Power input in W

30	-	3 163	3 101	3 062	3 033	3 002	2 955	2 881	2 766
35	-	3 534	3 469	3 430	3 404	3 378	3 340	3 277	3 177
40	-	3 951	3 877	3 832	3 802	3 776	3 741	3 685	3 594
45	-	-	4 351	4 294	4 255	4 224	4 186	4 130	4 043
50	-	-	-	4 841	4 788	4 745	4 699	4 637	4 548
55	-	-	-	-	5 426	5 366	5 305	5 233	5 135
60	-	-	-	-	-	6 112	6 032	5 942	5 831
65	-	-	-	-	-	-	6 903	6 791	6 660

Current consumption in A

30	-	15.37	15.47	15.49	15.40	15.21	14.88	14.43	13.84
35	-	17.21	17.25	17.24	17.15	16.99	16.73	16.37	15.90
40	-	19.28	19.24	19.17	19.06	18.90	18.67	18.38	18.01
45	-	-	21.57	21.41	21.25	21.06	20.85	20.60	20.30
50	-	-	-	24.10	23.85	23.62	23.39	23.15	22.90
55	-	-	-	-	27.00	26.69	26.41	26.16	25.92
60	-	-	-	-	-	30.40	30.06	29.76	29.52
65	-	-	-	-	-	-	34.44	34.08	33.80

Mass flow in kg/h

30	-	106	138	174	215	262	316	378	448
35	-	104	136	172	213	260	314	376	447
40	-	101	133	169	210	257	311	373	444
45	-	-	130	165	206	253	307	369	440
50	-	-	-	161	202	248	302	364	434
55	-	-	-	-	196	242	295	356	426
60	-	-	-	-	-	234	286	347	416
65	-	-	-	-	-	-	276	336	404

Coefficient of performance (C.O.P.)

30	-	1.50	2.02	2.63	3.33	4.17	5.19	6.47	8.11
35	-	1.24	1.69	2.21	2.80	3.51	4.36	5.41	6.73
40	-	1.02	1.40	1.84	2.35	2.96	3.67	4.55	5.63
45	-	-	1.15	1.52	1.96	2.47	3.08	3.81	4.72
50	-	-	-	1.24	1.60	2.03	2.54	3.16	3.92
55	-	-	-	-	1.29	1.64	2.07	2.58	3.21
60	-	-	-	-	-	1.30	1.65	2.07	2.58
65	-	-	-	-	-	-	1.28	1.62	2.04

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

Cooling capacity	14 652	W
Power input	4 637	W
Current consumption	23.15	A
Mass flow	364	kg/h
C.O.P.	3.16	

Pressure switch settings

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 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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Datasheet, performance data

Danfoss scroll compressor. HLP068T5

Performance data at 50 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	-	5 097	6 729	8 617	10 819	13 391	16 391	19 877	23 905
35	-	4 739	6 320	8 142	10 263	12 739	15 629	18 988	22 875
40	-	4 378	5 899	7 646	9 677	12 049	14 818	18 043	21 781
45	-	-	5 464	7 127	9 059	11 317	13 958	17 039	20 618
50	-	-	-	6 582	8 406	10 541	13 045	15 973	19 385
55	-	-	-	-	7 716	9 719	12 076	14 844	18 078
60	-	-	-	-	-	8 848	11 050	13 647	16 696
65	-	-	-	-	-	-	9 963	12 381	15 236

Power input in W

30	-	3 163	3 101	3 062	3 033	3 002	2 955	2 881	2 766
35	-	3 534	3 469	3 430	3 404	3 378	3 340	3 277	3 177
40	-	3 951	3 877	3 832	3 802	3 776	3 741	3 685	3 594
45	-	-	4 351	4 294	4 255	4 224	4 186	4 130	4 043
50	-	-	-	4 841	4 788	4 745	4 699	4 637	4 548
55	-	-	-	-	5 426	5 366	5 305	5 233	5 135
60	-	-	-	-	-	6 112	6 032	5 942	5 831
65	-	-	-	-	-	-	6 903	6 791	6 660

Current consumption in A

30	-	15.37	15.47	15.49	15.40	15.21	14.88	14.43	13.84
35	-	17.21	17.25	17.24	17.15	16.99	16.73	16.37	15.90
40	-	19.28	19.24	19.17	19.06	18.90	18.67	18.38	18.01
45	-	-	21.57	21.41	21.25	21.06	20.85	20.60	20.30
50	-	-	-	24.10	23.85	23.62	23.39	23.15	22.90
55	-	-	-	-	27.00	26.69	26.41	26.16	25.92
60	-	-	-	-	-	30.40	30.06	29.76	29.52
65	-	-	-	-	-	-	34.44	34.08	33.80

Mass flow in kg/h

30	-	106	137	173	214	261	314	375	446
35	-	103	135	171	212	258	312	374	444
40	-	101	132	168	209	256	309	371	441
45	-	-	129	165	205	252	306	367	437
50	-	-	-	160	201	247	300	361	431
55	-	-	-	-	195	241	293	354	424
60	-	-	-	-	-	233	285	345	414
65	-	-	-	-	-	-	274	334	402

Coefficient of performance (C.O.P.)

30	-	1.61	2.17	2.81	3.57	4.46	5.55	6.90	8.64
35	-	1.34	1.82	2.37	3.02	3.77	4.68	5.79	7.20
40	-	1.11	1.52	2.00	2.55	3.19	3.96	4.90	6.06
45	-	-	1.26	1.66	2.13	2.68	3.33	4.13	5.10
50	-	-	-	1.36	1.76	2.22	2.78	3.44	4.26
55	-	-	-	-	1.42	1.81	2.28	2.84	3.52
60	-	-	-	-	-	1.45	1.83	2.30	2.86
65	-	-	-	-	-	-	1.44	1.82	2.29

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

Cooling capacity	16 354	W
Power input	5 117	W
Current consumption	25.67	A
Mass flow	385	kg/h
C.O.P.	3.20	

Pressure switch settings

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 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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Performance data at 50 Hz, EN 12900 rating conditions
R407C

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

Cooling capacity in W

30	-	4 747	6 274	8 044	10 110	12 527	15 350	18 633	22 430
35	-	4 392	5 864	7 565	9 546	11 864	14 572	17 723	21 374
40	-	4 034	5 443	7 065	8 954	11 163	13 747	16 758	20 253
45	-	-	5 008	6 544	8 331	10 422	12 873	15 736	19 065
50	-	-	-	5 998	7 674	9 639	11 948	14 652	17 807
55	-	-	-	-	6 982	8 812	10 969	13 506	16 477
60	-	-	-	-	-	7 938	9 935	12 295	15 071
65	-	-	-	-	-	-	8 841	11 014	13 585

Power input in W

30	-	3 163	3 101	3 062	3 033	3 002	2 955	2 881	2 766
35	-	3 534	3 469	3 430	3 404	3 378	3 340	3 277	3 177
40	-	3 951	3 877	3 832	3 802	3 776	3 741	3 685	3 594
45	-	-	4 351	4 294	4 255	4 224	4 186	4 130	4 043
50	-	-	-	4 841	4 788	4 745	4 699	4 637	4 548
55	-	-	-	-	5 426	5 366	5 305	5 233	5 135
60	-	-	-	-	-	6 112	6 032	5 942	5 831
65	-	-	-	-	-	-	6 903	6 791	6 660

Current consumption in A

30	-	15.37	15.47	15.49	15.40	15.21	14.88	14.43	13.84
35	-	17.21	17.25	17.24	17.15	16.99	16.73	16.37	15.90
40	-	19.28	19.24	19.17	19.06	18.90	18.67	18.38	18.01
45	-	-	21.57	21.41	21.25	21.06	20.85	20.60	20.30
50	-	-	-	24.10	23.85	23.62	23.39	23.15	22.90
55	-	-	-	-	27.00	26.69	26.41	26.16	25.92
60	-	-	-	-	-	30.40	30.06	29.76	29.52
65	-	-	-	-	-	-	34.44	34.08	33.80

Mass flow in kg/h

30	-	106	138	174	215	262	316	378	448
35	-	104	136	172	213	260	314	376	447
40	-	101	133	169	210	257	311	373	444
45	-	-	130	165	206	253	307	369	440
50	-	-	-	161	202	248	302	364	434
55	-	-	-	-	196	242	295	356	426
60	-	-	-	-	-	234	286	347	416
65	-	-	-	-	-	-	276	336	404

Coefficient of performance (C.O.P.)

30	-	1.50	2.02	2.63	3.33	4.17	5.19	6.47	8.11
35	-	1.24	1.69	2.21	2.80	3.51	4.36	5.41	6.73
40	-	1.02	1.40	1.84	2.35	2.96	3.67	4.55	5.63
45	-	-	1.15	1.52	1.96	2.47	3.08	3.81	4.72
50	-	-	-	1.24	1.60	2.03	2.54	3.16	3.92
55	-	-	-	-	1.29	1.64	2.07	2.58	3.21
60	-	-	-	-	-	1.30	1.65	2.07	2.58
65	-	-	-	-	-	-	1.28	1.62	2.04

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

Cooling capacity	14 652	W
Power input	4 637	W
Current consumption	23.15	A
Mass flow	364	kg/h
C.O.P.	3.16	

Pressure switch settings

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 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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Datasheet, performance data

Danfoss scroll compressor. HLP068T5

Performance data at 50 Hz, ARI rating conditions

R407C

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

Cooling capacity in W

30	-	5 097	6 729	8 617	10 819	13 391	16 391	19 877	23 905
35	-	4 739	6 320	8 142	10 263	12 739	15 629	18 988	22 875
40	-	4 378	5 899	7 646	9 677	12 049	14 818	18 043	21 781
45	-	-	5 464	7 127	9 059	11 317	13 958	17 039	20 618
50	-	-	-	6 582	8 406	10 541	13 045	15 973	19 385
55	-	-	-	-	7 716	9 719	12 076	14 844	18 078
60	-	-	-	-	-	8 848	11 050	13 647	16 696
65	-	-	-	-	-	-	9 963	12 381	15 236

Power input in W

30	-	3 163	3 101	3 062	3 033	3 002	2 955	2 881	2 766
35	-	3 534	3 469	3 430	3 404	3 378	3 340	3 277	3 177
40	-	3 951	3 877	3 832	3 802	3 776	3 741	3 685	3 594
45	-	-	4 351	4 294	4 255	4 224	4 186	4 130	4 043
50	-	-	-	4 841	4 788	4 745	4 699	4 637	4 548
55	-	-	-	-	5 426	5 366	5 305	5 233	5 135
60	-	-	-	-	-	6 112	6 032	5 942	5 831
65	-	-	-	-	-	-	6 903	6 791	6 660

Current consumption in A

30	-	15.37	15.47	15.49	15.40	15.21	14.88	14.43	13.84
35	-	17.21	17.25	17.24	17.15	16.99	16.73	16.37	15.90
40	-	19.28	19.24	19.17	19.06	18.90	18.67	18.38	18.01
45	-	-	21.57	21.41	21.25	21.06	20.85	20.60	20.30
50	-	-	-	24.10	23.85	23.62	23.39	23.15	22.90
55	-	-	-	-	27.00	26.69	26.41	26.16	25.92
60	-	-	-	-	-	30.40	30.06	29.76	29.52
65	-	-	-	-	-	-	34.44	34.08	33.80

Mass flow in kg/h

30	-	106	137	173	214	261	314	375	446
35	-	103	135	171	212	258	312	374	444
40	-	101	132	168	209	256	309	371	441
45	-	-	129	165	205	252	306	367	437
50	-	-	-	160	201	247	300	361	431
55	-	-	-	-	195	241	293	354	424
60	-	-	-	-	-	233	285	345	414
65	-	-	-	-	-	-	274	334	402

Coefficient of performance (C.O.P.)

30	-	1.61	2.17	2.81	3.57	4.46	5.55	6.90	8.64
35	-	1.34	1.82	2.37	3.02	3.77	4.68	5.79	7.20
40	-	1.11	1.52	2.00	2.55	3.19	3.96	4.90	6.06
45	-	-	1.26	1.66	2.13	2.68	3.33	4.13	5.10
50	-	-	-	1.36	1.76	2.22	2.78	3.44	4.26
55	-	-	-	-	1.42	1.81	2.28	2.84	3.52
60	-	-	-	-	-	1.45	1.83	2.30	2.86
65	-	-	-	-	-	-	1.44	1.82	2.29

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

Cooling capacity	16 354	W
Power input	5 117	W
Current consumption	25.67	A
Mass flow	385	kg/h
C.O.P.	3.20	

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

Pressure switch settings

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 acoustic hood	66	dB(A)

All performance data +/- 5%

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