

Datasheets

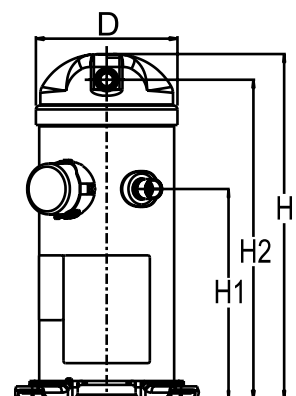
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRP054T4LP6
Code number for Singlepack*		120U1691
Code number for Industrial pack**		120U1688
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		72.76 cm ³ /rev
Displacement @ Nominal speed		12.7 m ³ /h @ 2900 rpm - 15.3 m ³ /h @ 3500 rpm
Net weight		37.19 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

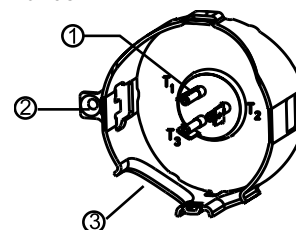
H2=422 mm

H3=-- mm

Electrical Characteristics

Nominal voltage	380-415V/3/50Hz - 460V/3/60Hz
Voltage range	342-457 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance between phases 1-2 +/- 7% at 25°C	2.300 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.300 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.300 Ω
Rated Load Amps (RLA)	8 A
Maximum Continuous Current (MCC)	12.5 A
Locked Rotor Amps (LRA)	62 A
Motor protection	Internal overload protector

Terminal box



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

IP22

- 1: Spade connectors 1/4"
- 2: Earth connection
- 3: Power cable passage

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

*Singlepack: Compressor in cardboard box

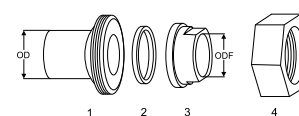
**Industrial pack: 12 or 16 Unboxed compressors on pallet

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
Belt type crankcase heater, 50 W, 400 V, CE mark, UL	120Z0058

Miscellaneous accessories
Code no.

Acoustic hood	120Z5044
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
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	-	3 909	4 978	6 286	7 859	9 723	11 904	14 428	17 321
35	-	3 631	4 652	5 899	7 397	9 173	11 251	13 659	16 423
40	-	3 362	4 333	5 515	6 935	8 619	10 592	12 880	15 510
45	-	-	4 013	5 127	6 466	8 054	9 918	12 083	14 575
50	-	-	-	4 729	5 982	7 471	9 222	11 261	13 612
55	-	-	-	-	5 478	6 864	8 499	10 406	12 612
60	-	-	-	-	-	6 226	7 740	9 512	11 568
65	-	-	-	-	-	-	6 938	8 570	10 472

Power input in W

30	-	2 001	2 068	2 136	2 204	2 274	2 348	2 426	2 510
35	-	2 435	2 464	2 495	2 529	2 566	2 609	2 658	2 715
40	-	2 883	2 878	2 876	2 879	2 888	2 904	2 927	2 960
45	-	-	3 316	3 286	3 262	3 246	3 238	3 241	3 254
50	-	-	-	3 731	3 684	3 647	3 620	3 605	3 602
55	-	-	-	-	4 152	4 098	4 056	4 027	4 013
60	-	-	-	-	-	4 606	4 553	4 514	4 492
65	-	-	-	-	-	-	5 117	5 073	5 047

Current consumption in A

30	-	3.17	3.12	3.18	3.31	3.46	3.60	3.68	3.66
35	-	4.00	3.86	3.85	3.91	4.01	4.10	4.14	4.09
40	-	4.57	4.37	4.30	4.31	4.36	4.42	4.43	4.37
45	-	-	4.75	4.63	4.61	4.63	4.67	4.67	4.60
50	-	-	-	4.95	4.90	4.92	4.95	4.96	4.90
55	-	-	-	-	5.30	5.32	5.36	5.39	5.36
60	-	-	-	-	-	5.94	6.01	6.08	6.09
65	-	-	-	-	-	-	7.00	7.12	7.19

Mass flow in kg/h

30	-	89	111	137	168	204	245	292	346
35	-	87	109	135	166	201	242	290	344
40	-	85	107	133	163	198	239	287	341
45	-	-	104	129	159	195	236	283	337
50	-	-	-	125	155	190	231	279	333
55	-	-	-	-	149	184	225	273	328
60	-	-	-	-	-	177	218	266	321
65	-	-	-	-	-	-	210	258	313

Coefficient of performance (C.O.P.)

30	-	1.95	2.41	2.94	3.57	4.28	5.07	5.95	6.90
35	-	1.49	1.89	2.36	2.93	3.57	4.31	5.14	6.05
40	-	1.17	1.51	1.92	2.41	2.98	3.65	4.40	5.24
45	-	-	1.21	1.56	1.98	2.48	3.06	3.73	4.48
50	-	-	-	1.27	1.62	2.05	2.55	3.12	3.78
55	-	-	-	-	1.32	1.67	2.10	2.58	3.14
60	-	-	-	-	-	1.35	1.70	2.11	2.58
65	-	-	-	-	-	-	1.36	1.69	2.08

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

Cooling capacity	11 261	W
Power input	3 605	W
Current consumption	4.96	A
Mass flow	279	kg/h
C.O.P.	3.12	

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	69	dB(A)
With accoustic hood	64	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
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	-	4 197	5 339	6 735	8 410	10 394	12 712	15 392	18 461
35	-	3 918	5 014	6 350	7 953	9 849	12 068	14 634	17 577
40	-	3 650	4 696	5 969	7 495	9 302	11 417	13 868	16 680
45	-	-	4 378	5 585	7 031	8 745	10 754	13 084	15 763
50	-	-	-	5 190	6 553	8 171	10 069	12 276	14 818
55	-	-	-	-	6 054	7 571	9 356	11 436	13 838
60	-	-	-	-	-	6 940	8 608	10 558	12 816
65	-	-	-	-	-	-	7 818	9 634	11 745

Power input in W

30	-	2 001	2 068	2 136	2 204	2 274	2 348	2 426	2 510
35	-	2 435	2 464	2 495	2 529	2 566	2 609	2 658	2 715
40	-	2 883	2 878	2 876	2 879	2 888	2 904	2 927	2 960
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55	-	-	-	-	4 152	4 098	4 056	4 027	4 013
60	-	-	-	-	-	4 606	4 553	4 514	4 492
65	-	-	-	-	-	-	5 117	5 073	5 047

Current consumption in A

30	-	3.17	3.12	3.18	3.31	3.46	3.60	3.68	3.66
35	-	4.00	3.86	3.85	3.91	4.01	4.10	4.14	4.09
40	-	4.57	4.37	4.30	4.31	4.36	4.42	4.43	4.37
45	-	-	4.75	4.63	4.61	4.63	4.67	4.67	4.60
50	-	-	-	4.95	4.90	4.92	4.95	4.96	4.90
55	-	-	-	-	5.30	5.32	5.36	5.39	5.36
60	-	-	-	-	-	5.94	6.01	6.08	6.09
65	-	-	-	-	-	-	7.00	7.12	7.19

Mass flow in kg/h

30	-	88	111	137	167	203	244	291	344
35	-	87	109	135	165	200	241	288	342
40	-	85	106	132	162	197	238	285	339
45	-	-	103	129	158	194	234	281	335
50	-	-	-	124	154	189	230	277	331
55	-	-	-	-	148	183	224	271	326
60	-	-	-	-	-	176	217	265	319
65	-	-	-	-	-	-	208	256	311

Coefficient of performance (C.O.P.)

30	-	2.10	2.58	3.15	3.82	4.57	5.41	6.34	7.35
35	-	1.61	2.03	2.54	3.14	3.84	4.63	5.51	6.47
40	-	1.27	1.63	2.08	2.60	3.22	3.93	4.74	5.63
45	-	-	1.32	1.70	2.16	2.69	3.32	4.04	4.84
50	-	-	-	1.39	1.78	2.24	2.78	3.41	4.11
55	-	-	-	-	1.46	1.85	2.31	2.84	3.45
60	-	-	-	-	-	1.51	1.89	2.34	2.85
65	-	-	-	-	-	-	1.53	1.90	2.33

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

Cooling capacity	12 562	W
Power input	3 966	W
Current consumption	5.32	A
Mass flow	295	kg/h
C.O.P.	3.17	

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	69	dB(A)
With accoustic hood	64	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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