ENGINEERING



Datasheets

Danfoss scroll compressors **H series**





Datasheet, technical data

Danfoss scroll compressor, HRP040T4

General Characteristics

Model number (on compressor nameplate)		HRP040T4LP6			
Code number for Singlepack*		120U1016			
Code number for Industrial pack**		120U1013			
Drawing number		0XC6301B-2			
Suction and discharge connections		Brazed			
Suction connection		3/4 " 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	54.4 cm3/rev				
Displacement @ Nominal speed	9.5 m3/h @ 2900 rpm -	11.4 m3/h @ 3500 rpm			
Net weight	30.8	4 kg			
Oil charge	1.06 litre	1.06 litre, PVE			
Maximum system test pressure Low Side / High side	- bar(g) ,	/ - bar(g)			
Maximum differential test pressure	- b	oar			
Maximum number of starts per hour		-			
Refrigerant charge limit	3.63	3.63 kg			
Approved refrigerants	R407C				

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	4.664 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	4.660 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	3.420 Ω
Rated Load Amps (RLA)	7.4 A
Maximum Continuous Current (MCC)	11.5 A
Locked Rotor Amps (LRA)	45 A
Motor protection	Internal overload protector

Recommended Installation torques

Oil sight glass	52.5 Nm
Power connections / Earth connection	0 Nm / 0 Nm

Parts shipped with compressor

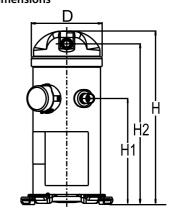
Tarts shipped with compressor
Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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

*Singlepack: Compressor in cardboard box

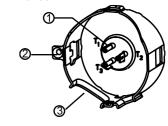
**Industrial pack: 12 or 16 Unboxed compressors on pallet

Dimensions



D=164.5 mm H=413 mm H1=250 mm H2=379 mm H3=- mm

Terminal box



IP22

3:

Spade connectors 1/4" 1: 2:

Earth connection

Power cable passage



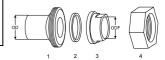
Datasheet, accessories and spare parts

Danfoss scroll compressor, HRP040T4

Rotolock accessories, suction side	Code no.
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
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



Rotolock accessories, sets	Code no.
Solder sleeve adapter set (1-1/4" Rotolock, 3/4" ODF), (1" Rotolock, 1/2" ODF)	120Z0126
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

1: Rotolock adapter (Suc & Dis)

2: Gasket (Suc & Dis)

3: Solder sleeve (Suc & Dis)

4: Rotolock nut (Suc & Dis)

Crankcase heaters	Code no.
Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055
Belt type crankcase heater, 40 W, 400 V, CF mark, UI	12070056

Miscellaneous accessories	Code no.
Acoustic hood	120Z5043
Discharge thermostat kit	7750009
ID54 upgrade kit	118110056

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



Danfoss scroll compressor. HRP040T4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	r in W								
30	-	2 823	3 626	4 599	5 764	7 139	8 746	10 605	12 737
35		2 641	3 404	4 327	5 429	6 732	8 255	10 019	12 044
40		2 445	3 168	4 040	5 082	6 312	7 752	9 422	11 342
45	_	-	2 915	3 738	4 719	5 878	7 235	8 811	10 626
50	_	-	-	3 416	4 337	5 425	6 701	8 184	9 895
55		-	_	-	3 935	4 953	6 147	7 537	9 143
60	_	-	_	_	-	4 456	5 569	6 867	8 369
65		-	-	_	_	-	4 965	6 169	7 567
00							4 303	0 100	7 507
Power input in W	<i>I</i>								
30	-	1 784	1 772	1 765	1 759	1 747	1 727	1 692	1 637
35	-	2 025	2 007	1 996	1 987	1 974	1 954	1 921	1 870
40	-	2 294	2 271	2 256	2 244	2 231	2 212	2 182	2 136
45	-	-	2 568	2 549	2 536	2 523	2 506	2 479	2 438
50	-	-	-	2 881	2 867	2 854	2 839	2 816	2 781
55	-	-	-	-	3 240	3 229	3 217	3 199	3 170
60	-	-	-	-	-	3 652	3 644	3 630	3 608
65	=	-	-	-	-	-	4 123	4 116	4 101
Current consum	ption in A			·					
30	-	3.61	3.65	3.68	3.69	3.69	3.69	3.68	3.67
35	-	3.85	3.89	3.91	3.93	3.94	3.95	3.96	3.97
40	-	4.13	4.16	4.18	4.19	4.21	4.22	4.24	4.26
45	-	-	4.49	4.49	4.50	4.51	4.52	4.54	4.58
50	-	-	-	4.88	4.87	4.86	4.87	4.89	4.93
55	-	-	-	-	5.32	5.30	5.29	5.30	5.33
60	-	-	-	-	-	5.84	5.81	5.80	5.82
65	-	-	-	-	-	-	6.44	6.41	6.41
Mass flow in kg/l	h								
30	-	63	80	99	123	149	180	215	255
35	-	62	79	98	121	147	178	213	252
40	-	61	77	97	119	145	175	210	249
45	-	-	75	94	117	143	173	207	245
50	-	-	-	92	114	140	169	203	241
55	-	-	-	-	110	136	165	199	237
60	-	-	-	-	-	131	161	194	231
65	-	-	-	-	-	-	155	188	225
Coefficient of pe	rformance (C.0	O.P.)							
30	-	1.58	2.05	2.61	3.28	4.09	5.07	6.27	7.78
35	-	1.30	1.70	2.17	2.73	3.41	4.22	5.22	6.44
40	-	1.07	1.40	1.79	2.26	2.83	3.50	4.32	5.31
45	-	-	1.14	1.47	1.86	2.33	2.89	3.55	4.36
50	-	-	-	1.19	1.51	1.90	2.36	2.91	3.56
55	-	-	-	-	1.21	1.53	1.91	2.36	2.88
60	-	-	-	-	-	1.22	1.53	1.89	2.32
65	_	-	_	_	-	-	1.20	1.50	1.85

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

Cooling capacity	8 184	W	
Power input	2 816	W	
Current consumption	4.89	Α	
Mass flow	203	kg/h	
C.O.P.	2.91		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch	n setting	30	bar(g)
Minimum LP switch	setting	0.5	bar(g)
LP pump down setti	ng	1	bar(g)

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP040T4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity		2.024	2.000	4.007	0.400	7.024	0.220	44.242	10.574
30	-	3 031	3 889	4 927	6 168	7 631	9 339	11 313	13 574
35	-	2 851	3 669	4 657	5 836	7 228	8 853	10 734	12 890
40	-	2 654	3 434	4 373	5 492	6 813	8 356	10 144	12 197
45	-	-	3 180	4 071	5 131	6 382	7 845	9 541	11 492
50	-	-	-	3 749	4 751	5 933	7 316	8 922	10 771
55	-	-	-	-	4 348	5 463	6 767	8 283	10 032
60	-	-	-	-	-	4 968	6 195	7 622	9 271
65	-	-	-	-	-	-	5 595	6 935	8 486
ower input in W									
30	-	1 784	1 772	1 765	1 759	1 747	1 727	1 692	1 637
35	-	2 025	2 007	1 996	1 987	1 974	1 954	1 921	1 870
40	-	2 294	2 271	2 256	2 244	2 231	2 212	2 182	2 136
45	_	-	2 568	2 549	2 536	2 523	2 506	2 479	2 438
50	-	-	-	2 881	2 867	2 854	2 839	2 816	2 781
55	-	-	_	_	3 240	3 229	3 217	3 199	3 170
60	-	_	_	_	-	3 652	3 644	3 630	3 608
65	-	-	-	-	-	-	4 123	4 116	4 101
<u> </u>		1	1	•	JI.	•	•	1	
urrent consump	otion in A	1			1	1	1		
30	-	3.61	3.65	3.68	3.69	3.69	3.69	3.68	3.67
35	-	3.85	3.89	3.91	3.93	3.94	3.95	3.96	3.97
40	-	4.13	4.16	4.18	4.19	4.21	4.22	4.24	4.26
45	-	-	4.49	4.49	4.50	4.51	4.52	4.54	4.58
50	-	-	-	4.88	4.87	4.86	4.87	4.89	4.93
55	-	-	-	-	5.32	5.30	5.29	5.30	5.33
60	-	-	-	-	-	5.84	5.81	5.80	5.82
65	-	-	-	-	-	-	6.44	6.41	6.41
lass flow in kg/h	•								
30	-	63	79	99	122	149	179	214	253
35		62	78	98	120	147	177	211	250
40	-	61	77	96	119	145	174	209	247
45		-	75	94	116	142	172	205	244
50		-	-	91	113	139	168	202	240
	-			-	1				
55 60	-	-	-	-	110	135 131	164 160	198 193	235 230
65		<u> </u>		-	_	-	154	187	224
05		-		-			154	107	224
oefficient of per	formance (C.C				T	1	T	1	1
30	-	1.70	2.19	2.79	3.51	4.37	5.41	6.69	8.29
35	-	1.41	1.83	2.33	2.94	3.66	4.53	5.59	6.89
40	-	1.16	1.51	1.94	2.45	3.05	3.78	4.65	5.71
45	-	-	1.24	1.60	2.02	2.53	3.13	3.85	4.71
50	-	-	-	1.30	1.66	2.08	2.58	3.17	3.87
55	-	-	-	-	1.34	1.69	2.10	2.59	3.17
60	-	-	-	-	-	1.36	1.70	2.10	2.57
65	-	-	-	-	-	-	1.36	1.68	2.07
ominal perform	ance at to = 7.	2 °C, tc = 54.4 °C	10/		-	Pressure switch		20	h = =/=\

Current consumption Mass flow

Cooling capacity

Power input

C.O.P.

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

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

9 106

3 139

5.26

214

2.90

W

W

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

ı	Sound power level	67	dB(A)
ı	With accoustic hood	62	dB(A)

All performance data +/- 5%



Danfoss scroll compressor. HRP040T4

Performance data at 50 Hz, EN 12900 rating conditions

R407C

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	r in W								
30	-	2 823	3 626	4 599	5 764	7 139	8 746	10 605	12 737
35		2 641	3 404	4 327	5 429	6 732	8 255	10 019	12 044
40		2 445	3 168	4 040	5 082	6 312	7 752	9 422	11 342
45	_	-	2 915	3 738	4 719	5 878	7 235	8 811	10 626
50	_	-	-	3 416	4 337	5 425	6 701	8 184	9 895
55		-	_	-	3 935	4 953	6 147	7 537	9 143
60	_	-	_	_	-	4 456	5 569	6 867	8 369
65		-	-	_	_	-	4 965	6 169	7 567
00							4 303	0 103	7 507
Power input in W	<i>I</i>								
30	-	1 784	1 772	1 765	1 759	1 747	1 727	1 692	1 637
35	-	2 025	2 007	1 996	1 987	1 974	1 954	1 921	1 870
40	-	2 294	2 271	2 256	2 244	2 231	2 212	2 182	2 136
45	-	-	2 568	2 549	2 536	2 523	2 506	2 479	2 438
50	-	-	-	2 881	2 867	2 854	2 839	2 816	2 781
55	-	-	-	-	3 240	3 229	3 217	3 199	3 170
60	-	-	-	-	-	3 652	3 644	3 630	3 608
65	=	-	-	-	-	-	4 123	4 116	4 101
Current consum	ption in A			·					
30	-	3.61	3.65	3.68	3.69	3.69	3.69	3.68	3.67
35	-	3.85	3.89	3.91	3.93	3.94	3.95	3.96	3.97
40	-	4.13	4.16	4.18	4.19	4.21	4.22	4.24	4.26
45	-	-	4.49	4.49	4.50	4.51	4.52	4.54	4.58
50	-	-	-	4.88	4.87	4.86	4.87	4.89	4.93
55	-	-	-	-	5.32	5.30	5.29	5.30	5.33
60	-	-	-	-	-	5.84	5.81	5.80	5.82
65	-	-	-	-	-	-	6.44	6.41	6.41
Mass flow in kg/l	h								
30	-	63	80	99	123	149	180	215	255
35	-	62	79	98	121	147	178	213	252
40	-	61	77	97	119	145	175	210	249
45	-	-	75	94	117	143	173	207	245
50	-	-	-	92	114	140	169	203	241
55	-	-	-	-	110	136	165	199	237
60	-	-	-	-	-	131	161	194	231
65	-	-	-	-	-	-	155	188	225
Coefficient of pe	rformance (C.0	O.P.)							
30	-	1.58	2.05	2.61	3.28	4.09	5.07	6.27	7.78
35	-	1.30	1.70	2.17	2.73	3.41	4.22	5.22	6.44
40	-	1.07	1.40	1.79	2.26	2.83	3.50	4.32	5.31
45	-	-	1.14	1.47	1.86	2.33	2.89	3.55	4.36
50	-	-	-	1.19	1.51	1.90	2.36	2.91	3.56
55	-	-	-	-	1.21	1.53	1.91	2.36	2.88
60	-	-	-	-	-	1.22	1.53	1.89	2.32
65	_	-	_	_	-	-	1.20	1.50	1.85

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

Cooling capacity	8 184	W	
Power input	2 816	W	
Current consumption	4.89	Α	
Mass flow	203	kg/h	
C.O.P.	2.91		

to: Evaporating temperature at dew point

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

Pressure switch settings

Maximum HP switch	n setting	30	bar(g)
Minimum LP switch	setting	0.5	bar(g)
LP pump down setti	ng	1	bar(g)

Sound power data

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP040T4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
cooling capacity		2.024	2.000	4.007	0.400	7.024	0.220	44.242	10.574
30	-	3 031	3 889	4 927	6 168	7 631	9 339	11 313	13 574
35	-	2 851	3 669	4 657	5 836	7 228	8 853	10 734	12 890
40	-	2 654	3 434	4 373	5 492	6 813	8 356	10 144	12 197
45	-	-	3 180	4 071	5 131	6 382	7 845	9 541	11 492
50	-	-	-	3 749	4 751	5 933	7 316	8 922	10 771
55	-	-	-	-	4 348	5 463	6 767	8 283	10 032
60	-	-	-	-	-	4 968	6 195	7 622	9 271
65	-	-	-	-	-	-	5 595	6 935	8 486
ower input in W									
30	-	1 784	1 772	1 765	1 759	1 747	1 727	1 692	1 637
35	-	2 025	2 007	1 996	1 987	1 974	1 954	1 921	1 870
40	-	2 294	2 271	2 256	2 244	2 231	2 212	2 182	2 136
45	_	-	2 568	2 549	2 536	2 523	2 506	2 479	2 438
50	-	-	-	2 881	2 867	2 854	2 839	2 816	2 781
55	-	-	_	_	3 240	3 229	3 217	3 199	3 170
60	-	_	_	_	-	3 652	3 644	3 630	3 608
65	-	-	-	-	-	-	4 123	4 116	4 101
<u> </u>		1	1	•	JI.	•	•	1	
urrent consump	otion in A	1			1	1	1		
30	-	3.61	3.65	3.68	3.69	3.69	3.69	3.68	3.67
35	-	3.85	3.89	3.91	3.93	3.94	3.95	3.96	3.97
40	-	4.13	4.16	4.18	4.19	4.21	4.22	4.24	4.26
45	-	-	4.49	4.49	4.50	4.51	4.52	4.54	4.58
50	-	-	-	4.88	4.87	4.86	4.87	4.89	4.93
55	-	-	-	-	5.32	5.30	5.29	5.30	5.33
60	-	-	-	-	-	5.84	5.81	5.80	5.82
65	-	-	-	-	-	-	6.44	6.41	6.41
lass flow in kg/h	•								
30	-	63	79	99	122	149	179	214	253
35		62	78	98	120	147	177	211	250
40	-	61	77	96	119	145	174	209	247
45		-	75	94	116	142	172	205	244
50		-	-	91	113	139	168	202	240
	-			-	1				
55 60	-	-	-	-	110	135 131	164 160	198 193	235 230
65		<u> </u>		-		-	154	187	224
05		-		-			154	107	224
oefficient of per	formance (C.C				T	1	T	1	1
30	-	1.70	2.19	2.79	3.51	4.37	5.41	6.69	8.29
35	-	1.41	1.83	2.33	2.94	3.66	4.53	5.59	6.89
40	-	1.16	1.51	1.94	2.45	3.05	3.78	4.65	5.71
45	-	-	1.24	1.60	2.02	2.53	3.13	3.85	4.71
50	-	-	-	1.30	1.66	2.08	2.58	3.17	3.87
55	-	-	-	-	1.34	1.69	2.10	2.59	3.17
60	-	-	-	-	-	1.36	1.70	2.10	2.57
65	-	-	-	-	-	-	1.36	1.68	2.07
ominal perform	ance at to = 7.	2 °C, tc = 54.4 °C	10/		-	Pressure switch		20	h = =/=\

Current consumption Mass flow

Cooling capacity

Power input

C.O.P.

to: Evaporating temperature at dew point tc: Condensing temperature at dew point

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

9 106

3 139

5.26

214

2.90

W

W

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

ı	Sound power level	67	dB(A)
ı	With accoustic hood	62	dB(A)

All performance data +/- 5%



Danfoss scroll compressor. HRP040T4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
2	: 14/								
Cooling capacity		3 490	4.440	F 616	7.017	9 677	10.610	12.970	15 155
30	-		4 449	5 616	7 017	8 677	10 619	12 870	15 455
35	-	3 230	4 142	5 251	6 581	8 157	10 005	12 148	14 611
40	-	2 985	3 846	4 891	6 146	7 634	9 381	11 412	13 750
45	-	-	3 556	4 534	5 709	7 105	8 747	10 659	12 867
50	-	-	-	4 176	5 266	6 565	8 097	9 887	11 960
55	-	-	-	-	4 815	6 013	7 430	9 093	11 025
60	-	-	-	-	-	5 444	6 742	8 273	10 059
65	-	-	-	-	-	-	6 030	7 422	9 058
Power input in W									
30	-	1 661	1 705	1 760	1 823	1 890	1 959	2 025	2 086
35	-	2 066	2 082	2 109	2 143	2 182	2 222	2 260	2 292
40	_	2 481	2 475	2 480	2 493	2 510	2 528	2 544	2 555
45	<u>-</u>	-	2 891	2 881	2 879	2 881	2 884	2 885	2 880
50	<u>-</u>	-	-	3 320	3 309	3 303	3 298	3 290	3 277
55		-	-	-	3 791	3 783	3 776	3 767	3 751
60	-	-	-	-	3 /91	4 329	4 327	4 322	4 311
65	<u> </u>	-	-	-	-	4 329	4 957	4 322	4 964
00	-	-	-	-	-	-	4 957	4 904	4 904
Current consump	tion in A								
30	-	3.27	3.22	3.28	3.42	3.57	3.72	3.80	3.78
35	-	4.13	3.99	3.98	4.04	4.14	4.23	4.27	4.22
40	-	4.72	4.52	4.44	4.45	4.51	4.56	4.58	4.51
45	-	-	4.90	4.78	4.76	4.78	4.82	4.82	4.75
50	-	_	-	5.11	5.06	5.08	5.11	5.12	5.06
55	-	_	_	-	5.47	5.49	5.54	5.57	5.54
60	-	-	-	-	-	6.14	6.21	6.27	6.29
65	-	-	-	-	_	-	7.23	7.35	7.42
				1					
Mass flow in kg/h									
30	-	79	99	123	150	182	218	261	309
35	-	78	97	120	147	179	215	258	306
40	-	76	95	118	144	176	212	254	302
45	-	-	92	114	141	172	208	250	298
50	-	-	-	110	136	167	203	245	292
55	-	-	-	-	131	161	197	239	286
60	-	-	-	-	-	155	190	231	279
65	-	-	-	-	-	-	182	223	271
30	formance (C.C	2.10	2.61	3.19	3.85	4.59	5.42	6.36	7.41
35	-	1.56	1.99	2.49	3.07	3.74	4.50	5.38	6.37
40	-	1.20	1.55	1.97	2.47	3.74	3.71	4.49	5.38
									1
45	-	-	1.23	1.57	1.98	2.47	3.03	3.69	4.47
50	-	-	-	1.26	1.59	1.99	2.46	3.01	3.65
55	-	-	-	-	1.27	1.59	1.97	2.41	2.94
60	-	-	-	-	-	1.26	1.56	1.91	2.33
65	-	-	-	-	-	-	1.22	1.50	1.82

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

	•••	
Cooling capacity	9 887	W
Power input	3 290	W
Current consumption	5.12	Α
Mass flow	245	kg/h
C.O.P.	3.01	

to: Evaporating temperature at dew point

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

Maximum HP switch	n setting	30	bar(g)
Minimum LP switch	setting	0.5	bar(g)
LP pump down setti	ng	1	bar(g)

Sound power data

Sound power level	71	dB(A)
With accoustic hood	66	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP040T4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
	: 10/								
30		3 748	4 771	6 017	7 509	9 275	11 340	13 730	16 471
35		3 486	4 464	5 652	7 075	8 759	10 730	13 015	15 638
40	-	3 240	4 168	5 293		8 240	10 113	12 286	
45	-	3 240	3 880	4 938	6 642 6 208	7 714	9 484	11 542	14 787 13 915
-	-	-	3 000	4 583		7 179	8 841		
50	-		-	4 565	5 769 5 322	6 632	8 180	10 779 9 993	13 019 12 097
55		-	-			<u> </u>	ł		
60	-	-	-	-	-	6 068	7 499	9 183	11 144
65	-	-	-	-	-	-	6 795	8 344	10 159
Power input in W		T		T	T		T	Γ	1
30	-	1 661	1 705	1 760	1 823	1 890	1 959	2 025	2 086
35	-	2 066	2 082	2 109	2 143	2 182	2 222	2 260	2 292
40	-	2 481	2 475	2 480	2 493	2 510	2 528	2 544	2 555
45	-	-	2 891	2 881	2 879	2 881	2 884	2 885	2 880
50	-	-	-	3 320	3 309	3 303	3 298	3 290	3 277
55	-	-	-	-	3 791	3 783	3 776	3 767	3 751
60	-	-	-	-	-	4 329	4 327	4 322	4 311
65	-	-	-	-	-	-	4 957	4 964	4 964
30	tion in A	3.27	3.22	3.28	3.42	3.57	3.72	3.80	3.78
35		4.13	3.99	3.98	4.04	4.14	4.23	4.27	4.22
40	_	4.72	4.52	4.44	4.45	4.51	4.56	4.58	4.51
45	_	-	4.90	4.78	4.76	4.78	4.82	4.82	4.75
50	-	_	-	5.11	5.06	5.08	5.11	5.12	5.06
55		_	_	-	5.47	5.49	5.54	5.57	5.54
60	_	_	_	<u> </u>	-	6.14	6.21	6.27	6.29
65	-	-	_	_	_	-	7.23	7.35	7.42
00			<u> </u>		Į.	<u> </u>	7.20	7.00	7.12
Mass flow in kg/h		_		1	1	T		T	1
30	-	79	99	122	149	181	217	259	307
35	-	77	97	120	147	178	214	256	304
40	-	75	94	117	144	175	211	252	300
45	-	-	91	114	140	171	207	248	296
50	-	-	-	110	136	166	202	243	291
55	-	-	-	-	130	160	196	237	285
60	-	-	-	-	-	154	189	230	277
65	-	-	-	-	-	-	181	222	269
Coefficient of per	formance (C.0	O.P.)							
30	-	2.26	2.80	3.42	4.12	4.91	5.79	6.78	7.89
35	-	1.69	2.14	2.68	3.30	4.01	4.83	5.76	6.82
40	-	1.31	1.68	2.13	2.66	3.28	4.00	4.83	5.79
45	-	-	1.34	1.71	2.16	2.68	3.29	4.00	4.83
50	-	-	-	1.38	1.74	2.17	2.68	3.28	3.97
55	-	-	-	-	1.40	1.75	2.17	2.65	3.22
60	-	-	-	-	-	1.40	1.73	2.12	2.58
65	-	-	_	-	-	_	1.37	1.68	2.05

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

reciminal portormance at to 7.2 G, to	U-1T U	
Cooling capacity	10 984	W
Power input	3 700	W
Current consumption	5.50	Α
Mass flow	258	kg/h
C.O.P.	2.97	

to: Evaporating 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 accoustic hood	66	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP040T4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in				Evapora	ting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
2	: 14/								
Cooling capacity		3 490	4.440	F 616	7.017	9 677	10.610	12.970	15 155
30	-		4 449	5 616	7 017	8 677	10 619	12 870	15 455
35	-	3 230	4 142	5 251	6 581	8 157	10 005	12 148	14 611
40	-	2 985	3 846	4 891	6 146	7 634	9 381	11 412	13 750
45	-	-	3 556	4 534	5 709	7 105	8 747	10 659	12 867
50	-	-	-	4 176	5 266	6 565	8 097	9 887	11 960
55	-	-	-	-	4 815	6 013	7 430	9 093	11 025
60	-	-	-	-	-	5 444	6 742	8 273	10 059
65	-	-	-	-	-	-	6 030	7 422	9 058
Power input in W									
30	-	1 661	1 705	1 760	1 823	1 890	1 959	2 025	2 086
35	-	2 066	2 082	2 109	2 143	2 182	2 222	2 260	2 292
40	_	2 481	2 475	2 480	2 493	2 510	2 528	2 544	2 555
45		-	2 891	2 881	2 879	2 881	2 884	2 885	2 880
50	<u>-</u>	-	-	3 320	3 309	3 303	3 298	3 290	3 277
55		-	-	-	3 791	3 783	3 776	3 767	3 751
60	-	-	-	-	3 /91	4 329	4 327	4 322	4 311
65	<u> </u>	-	-	-	-	4 329	4 957	4 322	4 964
00	-	-	-	-	-	-	4 957	4 904	4 904
Current consump	tion in A								
30	-	3.27	3.22	3.28	3.42	3.57	3.72	3.80	3.78
35	-	4.13	3.99	3.98	4.04	4.14	4.23	4.27	4.22
40	-	4.72	4.52	4.44	4.45	4.51	4.56	4.58	4.51
45	-	-	4.90	4.78	4.76	4.78	4.82	4.82	4.75
50	-	_	-	5.11	5.06	5.08	5.11	5.12	5.06
55	-	_	_	-	5.47	5.49	5.54	5.57	5.54
60	-	-	-	-	-	6.14	6.21	6.27	6.29
65	-	-	-	-	_	-	7.23	7.35	7.42
				1					
Mass flow in kg/h									
30	-	79	99	123	150	182	218	261	309
35	-	78	97	120	147	179	215	258	306
40	-	76	95	118	144	176	212	254	302
45	-	-	92	114	141	172	208	250	298
50	-	-	-	110	136	167	203	245	292
55	-	-	-	-	131	161	197	239	286
60	-	-	-	-	-	155	190	231	279
65	-	-	-	-	-	-	182	223	271
30	formance (C.C	2.10	2.61	3.19	3.85	4.59	5.42	6.36	7.41
35	-	1.56	1.99	2.49	3.07	3.74	4.50	5.38	6.37
40	-	1.20	1.55	1.97	2.47	3.74	3.71	4.49	5.38
									1
45	-	-	1.23	1.57	1.98	2.47	3.03	3.69	4.47
50	-	-	-	1.26	1.59	1.99	2.46	3.01	3.65
55	-	-	-	-	1.27	1.59	1.97	2.41	2.94
60	-	-	-	-	-	1.26	1.56	1.91	2.33
65	-	-	-	-	-	-	1.22	1.50	1.82

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

	•••	
Cooling capacity	9 887	W
Power input	3 290	W
Current consumption	5.12	Α
Mass flow	245	kg/h
C.O.P.	3.01	

to: Evaporating temperature at dew point

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

Maximum HP switch	n setting	30	bar(g)
Minimum LP switch	setting	0.5	bar(g)
LP pump down setti	ng	1	bar(g)

Sound power data

Sound power level	71	dB(A)
With accoustic hood	66	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HRP040T4

Performance data at 60 Hz, ARI rating conditions

R407C

Cond. temp. in	Evaporating temperature in °C (to)								
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
	: 10/								
30		3 748	4 771	6 017	7 509	9 275	11 340	13 730	16 471
35		3 486	4 464	5 652	7 075	8 759	10 730	13 015	15 638
40	-	3 240	4 168	5 293		8 240	10 730	12 286	
45	-	3 240	3 880	4 938	6 642 6 208	7 714	9 484	11 542	14 787 13 915
-	-	-	3 000	4 583		7 179	8 841		†
50	-		-	4 565	5 769 5 322	6 632	8 180	10 779 9 993	13 019 12 097
55		-	-			†	1	1	
60	-	-	-	-	-	6 068	7 499	9 183	11 144
65	-	-	-	-	-	-	6 795	8 344	10 159
Power input in W		T		T	ı	T	_	T	
30	-	1 661	1 705	1 760	1 823	1 890	1 959	2 025	2 086
35	-	2 066	2 082	2 109	2 143	2 182	2 222	2 260	2 292
40	-	2 481	2 475	2 480	2 493	2 510	2 528	2 544	2 555
45	-	-	2 891	2 881	2 879	2 881	2 884	2 885	2 880
50	-	-	-	3 320	3 309	3 303	3 298	3 290	3 277
55	-	-	-	-	3 791	3 783	3 776	3 767	3 751
60	-	-	-	-	-	4 329	4 327	4 322	4 311
65	-	-	-	-	-	-	4 957	4 964	4 964
	41 1 4								
30	tion in A	3.27	3.22	3.28	3.42	3.57	3.72	3.80	3.78
35		4.13	3.99	3.98	4.04	4.14	4.23	4.27	4.22
40	_	4.72	4.52	4.44	4.45	4.51	4.56	4.58	4.51
45	_	-	4.90	4.78	4.76	4.78	4.82	4.82	4.75
50	-	_	-	5.11	5.06	5.08	5.11	5.12	5.06
55		_	_	-	5.47	5.49	5.54	5.57	5.54
60	_	_	_	<u> </u>	-	6.14	6.21	6.27	6.29
65	-	-	_	_	_	-	7.23	7.35	7.42
00			<u> </u>		Į.		7.20	7.00	7.12
Mass flow in kg/h		_		T	1	•	T	1	
30	-	79	99	122	149	181	217	259	307
35	-	77	97	120	147	178	214	256	304
40	-	75	94	117	144	175	211	252	300
45	-	-	91	114	140	171	207	248	296
50	-	-	-	110	136	166	202	243	291
55	-	-	-	-	130	160	196	237	285
60	-	-	-	-	-	154	189	230	277
65	-	-	-	-	-	-	181	222	269
Coefficient of per	formance (C.0	O.P.)							
30	-	2.26	2.80	3.42	4.12	4.91	5.79	6.78	7.89
35	-	1.69	2.14	2.68	3.30	4.01	4.83	5.76	6.82
40	-	1.31	1.68	2.13	2.66	3.28	4.00	4.83	5.79
45	-	-	1.34	1.71	2.16	2.68	3.29	4.00	4.83
50	-	-	-	1.38	1.74	2.17	2.68	3.28	3.97
55	-	-	-	-	1.40	1.75	2.17	2.65	3.22
60	-	-	-	-	-	1.40	1.73	2.12	2.58
65	-	-	_	-	-	-	1.37	1.68	2.05

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

reciminal portormance at to 7.2 G, to	U-1	
Cooling capacity	10 984	W
Power input	3 700	W
Current consumption	5.50	Α
Mass flow	258	kg/h
C.O.P.	2.97	

to: Evaporating 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)

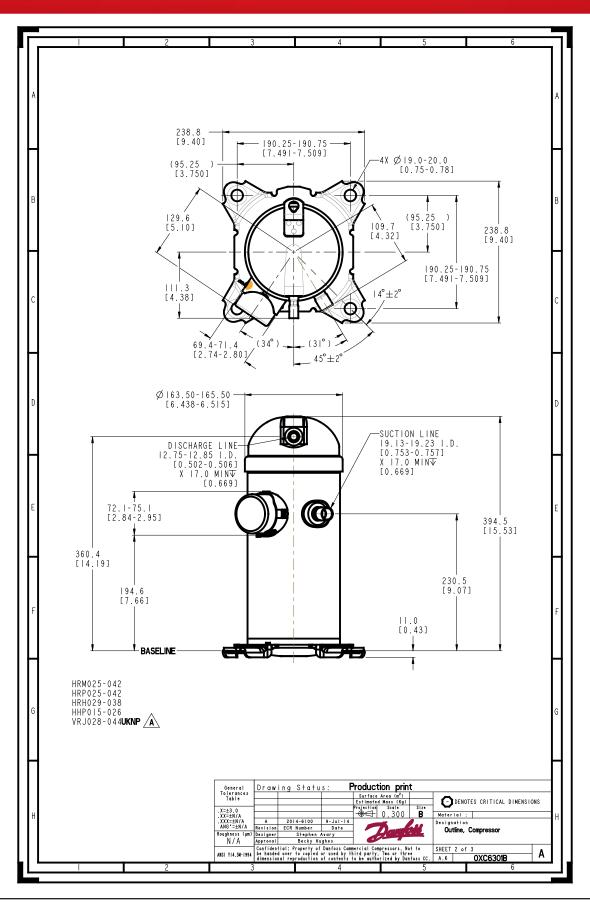
Sound power data

Sound power level	71	dB(A)
With accoustic hood	66	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point





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