ENGINEERING



Datasheets

# Danfoss scroll compressors **H series**





#### Datasheet, technical data

#### Danfoss scroll compressor, HRP034T4

#### **General Characteristics**

Model number (on compressor nameplate)		HRP034T4LP6			
Code number for Singlepack*		120U2024			
Code number for Industrial pack**		120U2021			
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	46.21 cm3/rev				
Displacement @ Nominal speed	8.0 m3/h @ 2900 rpm -	- 9.7 m3/h @ 3500 rpm			
Net weight	30.84 kg				
Oil charge	1.06 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	3.63 kg				
Approved refrigerants	R407C				

## Electrical Characteristics

Licetifear 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	3.422 Ω
Rated Load Amps (RLA)	6.1 A
Maximum Continuous Current (MCC)	9.5 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

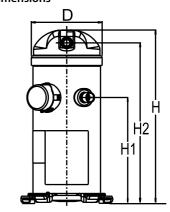
	raits shipped with compressor						
	Mounting kit with grommets and sleeves						
Į	Initial oil charge						
ļ	Installation instructions						

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

\*Singlepack: Compressor in cardboard box

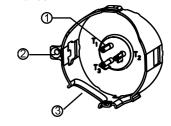
\*\*Industrial pack: 12 or 16 Unboxed compressors on pallet

#### **Dimensions**



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

#### **Terminal box**



IP22

Spade connectors 1/4"
 Earth connection

3: Power cable passage



#### Datasheet, accessories and spare parts

#### Danfoss scroll compressor, HRP034T4

Code no.		
8153008		
8168006		
8168029		
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 8156130 Gasket, 1"

Solder sleeve adapter set

op Opp	
1 2 3	4

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. 120Z5034

PVE lubricant, 320HV (FVC68D), 1 litre can

Code no. **Crankcase heaters** Belt type crankcase heater, 40 W, 230 V, CE mark, UL 120Z0055

Miscellaneous accessories	Code no.
Belt type crankcase heater, 40 W, 400 V, CE mark, UL	120Z0056

misecianicous accessories	eoue no.
Acoustic hood	120Z5043
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 12075015	12075015

1: Rotolock adapter (Suc & Dis)

2: Gasket (Suc & Dis)

3: Solder sleeve (Suc & Dis)

4: Rotolock nut (Suc & Dis)



## Danfoss scroll compressor. HRP034T4

## 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
li	: 14/								
30	<u>-</u>	2 456	3 155	4 002	5 015	6 212	7 610	9 228	11 082
		+	1	+				ł	<b>†</b>
35	-	2 299	2 963	3 766	4 725	5 859	7 184	8 720	10 482
40	-	2 129	2 758	3 517	4 424	5 495	6 749	8 202	9 873
45	-	-	2 539	3 255	4 109	5 118	6 300	7 673	9 254
50	-	-	-	2 976	3 778	4 726	5 837	7 129	8 619
55	-	-	-	-	3 429	4 316	5 356	6 568	7 968
60	-	-	-	-	-	3 885	4 855	5 986	7 295
65	-	-	-	-	-	-	4 329	5 379	6 598
Power input in W									
30	-	1 519	1 509	1 504	1 498	1 489	1 471	1 441	1 395
35	-	1 726	1 710	1 701	1 693	1 682	1 665	1 637	1 594
40	-	1 957	1 936	1 923	1 914	1 903	1 886	1 860	1 821
45		-	2 191	2 175	2 164	2 153	2 138	2 115	2 080
50	-	-	-	2 459	2 447	2 437	2 424	2 404	2 374
55	-	-	-	-	2 768	2 758	2 748	2 732	2 707
60	-	-	-	-	-	3 121	3 114	3 103	3 084
65	-	-	-	-	-	-	3 526	3 520	3 507
				•		•	1	•	•
Current consump		2.40	2.45	2.40	2.40	2.40	2.40	2.40	2.47
30	-	3.40	3.45	3.48	3.49	3.49	3.49	3.48	3.47
35	-	3.55	3.60	3.63	3.65	3.66	3.66	3.67	3.68
40	-	3.76	3.80	3.82	3.83	3.84	3.86	3.87	3.90
45	-	-	4.05	4.06	4.06	4.07	4.08	4.10	4.14
50	-	-	-	4.37	4.36	4.35	4.35	4.37	4.41
55	-	-	-	-	4.72	4.70	4.69	4.69	4.72
60	-	-	-	-	-	5.12	5.09	5.08	5.10
65	-	-	-	-	-	-	5.58	5.54	5.54
Mass flow in kg/h									
30	-	55	69	87	107	130	157	187	222
35	-	54	69	85	105	128	155	185	219
40	-	53	67	84	104	127	153	183	216
45	-	-	66	82	102	124	150	180	213
50	-	-	-	80	99	122	147	177	210
55	-	-	-	-	96	118	144	173	206
60	-	-	-	-	-	115	140	169	202
65	-	-	-	-	-	-	135	164	196
Soefficient of per	formance (C.(	D.P.)							
30	-	1.62	2.09	2.66	3.35	4.17	5.17	6.40	7.95
35	-	1.33	1.73	2.21	2.79	3.48	4.31	5.33	6.58
40	-	1.09	1.42	1.83	2.31	2.89	3.58	4.41	5.42
45	-	-	1.16	1.50	1.90	2.38	2.95	3.63	4.45
50	-	-	-	1.21	1.54	1.94	2.41	2.97	3.63
55	-	-	-	-	1.24	1.56	1.95	2.40	2.94
60	-	-	-	-	-	1.24	1.56	1.93	2.37
65	-	-	-	-	-	-	1.23	1.53	1.88

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

	•••	
Cooling capacity	7 129	W
Power input	2 404	W
Current consumption	4.37	Α
Mass flow	177	kg/h
C.O.P.	2.97	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 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	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



## Danfoss scroll compressor. HRP034T4

## 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	in W								
30	-	2 638	3 384	4 287	5 367	6 640	8 127	9 844	11 811
35	_	2 481	3 193	4 053	5 080	6 291	7 706	9 342	11 219
40		2 311	2 990	3 807	4 781	5 931	7 275	8 831	10 618
45		2 311	2 770	3 545	4 468	5 558	6 832	8 309	10 018
50		-	2110	3 266	4 139	5 168	6 373	7 772	9 383
55		-	-	-	3 789	4 760	5 897	7 218	8 742
60		-	-	-	-	+	5 399	6 644	8 082
65		-		-	-	4 330	4 878	6 047	7 400
03					<u>-</u>		4070	0 047	7 400
Power input in W		_		_	1		_	1	
30	-	1 519	1 509	1 504	1 498	1 489	1 471	1 441	1 395
35	-	1 726	1 710	1 701	1 693	1 682	1 665	1 637	1 594
40	-	1 957	1 936	1 923	1 914	1 903	1 886	1 860	1 821
45	-	-	2 191	2 175	2 164	2 153	2 138	2 115	2 080
50	-	-	-	2 459	2 447	2 437	2 424	2 404	2 374
55	-	-	-	-	2 768	2 758	2 748	2 732	2 707
60	-	-	-	-	-	3 121	3 114	3 103	3 084
65	-	-	-	-	-	-	3 526	3 520	3 507
Current consump		0.40	0.45	0.40	0.40	0.40	0.40	0.40	0.47
30	-	3.40	3.45	3.48	3.49	3.49	3.49	3.48	3.47
35	-	3.55	3.60	3.63	3.65	3.66	3.66	3.67	3.68
40	-	3.76	3.80	3.82	3.83	3.84	3.86	3.87	3.90
45	-	-	4.05	4.06	4.06	4.07	4.08	4.10	4.14
50	-	-	-	4.37	4.36	4.35	4.35	4.37	4.41
55	-	-	-	-	4.72	4.70	4.69	4.69	4.72
60	-	-	-	-	-	5.12	5.09	5.08	5.10
65	-	-	-	-	-	-	5.58	5.54	5.54
Mass flow in kg/h									
30	-	55	69	86	106	129	156	186	220
35	-	54	68	85	105	128	154	184	218
40	-	53	67	84	103	126	152	182	215
45	-	-	65	82	101	124	150	179	212
50	-	-	-	79	99	121	147	176	209
55	-	-	-	-	96	118	143	172	205
60	-	-	-	-	-	114	139	168	201
65	-	-	-	-	-	-	134	163	195
Coefficient of per	formance (C.C	D.P.)							
30	-	1.74	2.24	2.85	3.58	4.46	5.52	6.83	8.47
35	-	1.44	1.87	2.38	3.00	3.74	4.63	5.71	7.04
40	-	1.18	1.54	1.98	2.50	3.12	3.86	4.75	5.83
45	-	-	1.26	1.63	2.07	2.58	3.20	3.93	4.81
50	-	-	-	1.33	1.69	2.12	2.63	3.23	3.95
55	_	-	_	-	1.37	1.73	2.15	2.64	3.23
60		-	_	-	-	1.39	1.73	2.14	2.62
65	_	-	_	-	-	-	1.38	1.72	2.11

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

recinitial perioritianee at to	0,	U-1		
Cooling capacity		7 934	W	
Power input		2 681	W	
Current consumption		4.66	Α	
Mass flow		187	kg/h	
C.O.P.		2.96		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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. HRP034T4

## 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
li	: 14/								
30	<u>-</u>	2 456	3 155	4 002	5 015	6 212	7 610	9 228	11 082
		+	1	+				ł	<b>†</b>
35	-	2 299	2 963	3 766	4 725	5 859	7 184	8 720	10 482
40	-	2 129	2 758	3 517	4 424	5 495	6 749	8 202	9 873
45	-	-	2 539	3 255	4 109	5 118	6 300	7 673	9 254
50	-	-	-	2 976	3 778	4 726	5 837	7 129	8 619
55	-	-	-	-	3 429	4 316	5 356	6 568	7 968
60	-	-	-	-	-	3 885	4 855	5 986	7 295
65	-	-	-	-	-	-	4 329	5 379	6 598
Power input in W									
30	-	1 519	1 509	1 504	1 498	1 489	1 471	1 441	1 395
35	-	1 726	1 710	1 701	1 693	1 682	1 665	1 637	1 594
40	-	1 957	1 936	1 923	1 914	1 903	1 886	1 860	1 821
45		-	2 191	2 175	2 164	2 153	2 138	2 115	2 080
50	-	-	-	2 459	2 447	2 437	2 424	2 404	2 374
55	-	-	-	-	2 768	2 758	2 748	2 732	2 707
60	-	-	-	-	-	3 121	3 114	3 103	3 084
65	-	-	-	-	-	-	3 526	3 520	3 507
				•		•	1	•	•
Current consump		2.40	2.45	2.40	2.40	2.40	2.40	2.40	2.47
30	-	3.40	3.45	3.48	3.49	3.49	3.49	3.48	3.47
35	-	3.55	3.60	3.63	3.65	3.66	3.66	3.67	3.68
40	-	3.76	3.80	3.82	3.83	3.84	3.86	3.87	3.90
45	-	-	4.05	4.06	4.06	4.07	4.08	4.10	4.14
50	-	-	-	4.37	4.36	4.35	4.35	4.37	4.41
55	-	-	-	-	4.72	4.70	4.69	4.69	4.72
60	-	-	-	-	-	5.12	5.09	5.08	5.10
65	-	-	-	-	-	-	5.58	5.54	5.54
Mass flow in kg/h									
30	-	55	69	87	107	130	157	187	222
35	-	54	69	85	105	128	155	185	219
40	-	53	67	84	104	127	153	183	216
45	-	-	66	82	102	124	150	180	213
50	-	-	-	80	99	122	147	177	210
55	-	-	-	-	96	118	144	173	206
60	-	-	-	-	-	115	140	169	202
65	-	-	-	-	-	-	135	164	196
Soefficient of per	formance (C.(	D.P.)							
30	-	1.62	2.09	2.66	3.35	4.17	5.17	6.40	7.95
35	-	1.33	1.73	2.21	2.79	3.48	4.31	5.33	6.58
40	-	1.09	1.42	1.83	2.31	2.89	3.58	4.41	5.42
45	-	-	1.16	1.50	1.90	2.38	2.95	3.63	4.45
50	-	-	-	1.21	1.54	1.94	2.41	2.97	3.63
55	-	-	-	-	1.24	1.56	1.95	2.40	2.94
60	-	-	-	-	-	1.24	1.56	1.93	2.37
65	-	-	-	-	-	-	1.23	1.53	1.88

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

	•••	
Cooling capacity	7 129	W
Power input	2 404	W
Current consumption	4.37	Α
Mass flow	177	kg/h
C.O.P.	2.97	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 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	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



## Danfoss scroll compressor. HRP034T4

## 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	in W								
30	-	2 638	3 384	4 287	5 367	6 640	8 127	9 844	11 811
35	_	2 481	3 193	4 053	5 080	6 291	7 706	9 342	11 219
40		2 311	2 990	3 807	4 781	5 931	7 275	8 831	10 618
45		2 311	2 770	3 545	4 468	5 558	6 832	8 309	10 018
50		-	2110	3 266	4 139	5 168	6 373	7 772	9 383
55		-	-	-	3 789	4 760	5 897	7 218	8 742
60		-	-	-	-	+	5 399	6 644	8 082
65		-		-	-	4 330	4 878	6 047	7 400
03					<u>-</u>		4070	0 047	7 400
Power input in W		_		_	1		_	1	
30	-	1 519	1 509	1 504	1 498	1 489	1 471	1 441	1 395
35	-	1 726	1 710	1 701	1 693	1 682	1 665	1 637	1 594
40	-	1 957	1 936	1 923	1 914	1 903	1 886	1 860	1 821
45	-	-	2 191	2 175	2 164	2 153	2 138	2 115	2 080
50	-	-	-	2 459	2 447	2 437	2 424	2 404	2 374
55	-	-	-	-	2 768	2 758	2 748	2 732	2 707
60	-	-	-	-	-	3 121	3 114	3 103	3 084
65	-	-	-	-	-	-	3 526	3 520	3 507
Current consump		0.40	0.45	0.40	0.40	0.40	0.40	0.40	0.47
30	-	3.40	3.45	3.48	3.49	3.49	3.49	3.48	3.47
35	-	3.55	3.60	3.63	3.65	3.66	3.66	3.67	3.68
40	-	3.76	3.80	3.82	3.83	3.84	3.86	3.87	3.90
45	-	-	4.05	4.06	4.06	4.07	4.08	4.10	4.14
50	-	-	-	4.37	4.36	4.35	4.35	4.37	4.41
55	-	-	-	-	4.72	4.70	4.69	4.69	4.72
60	-	-	-	-	-	5.12	5.09	5.08	5.10
65	-	-	-	-	-	-	5.58	5.54	5.54
Mass flow in kg/h									
30	-	55	69	86	106	129	156	186	220
35	-	54	68	85	105	128	154	184	218
40	-	53	67	84	103	126	152	182	215
45	-	-	65	82	101	124	150	179	212
50	-	-	-	79	99	121	147	176	209
55	-	-	-	-	96	118	143	172	205
60	-	-	-	-	-	114	139	168	201
65	-	-	-	-	-	-	134	163	195
Coefficient of per	formance (C.C	D.P.)							
30	-	1.74	2.24	2.85	3.58	4.46	5.52	6.83	8.47
35	-	1.44	1.87	2.38	3.00	3.74	4.63	5.71	7.04
40	-	1.18	1.54	1.98	2.50	3.12	3.86	4.75	5.83
45	-	-	1.26	1.63	2.07	2.58	3.20	3.93	4.81
50	-	-	-	1.33	1.69	2.12	2.63	3.23	3.95
55	_	-	_	-	1.37	1.73	2.15	2.64	3.23
60		-	_	-	-	1.39	1.73	2.14	2.62
65	_	-	_	-	-	-	1.38	1.72	2.11

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

recinitial perioritianee at to	0,	U-1		
Cooling capacity		7 934	W	
Power input		2 681	W	
Current consumption		4.66	Α	
Mass flow		187	kg/h	
C.O.P.		2.96		

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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. HRP034T4

## Performance data at 60 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30	-	2 930	3 763	4 774	5 982	7 410	9 077	11 006	13 217
35		2 744	3 535	4 493	5 638	6 991	8 572	10 404	12 506
40		2 543	3 293	4 199	5 281	6 559	8 056	9 791	11 786
45	-	-	3 034	3 888	4 907		7 525	9 164	11 052
			-			6 113	+		
50	-	-		3 557	4 515	5 648	6 975	8 519	10 300
55	-	-	-	-	4 100	5 160	6 404	7 853	9 527
60	-	-	-	-	-	4 647	5 807	7 161	8 728
65	-	-	-	-	-	-	5 181	6 439	7 898
Power input in W									
30	-	1 924	1 913	1 906	1 898	1 885	1 862	1 825	1 769
35	-	2 165	2 149	2 139	2 129	2 116	2 094	2 059	2 006
40	-	2 429	2 409	2 395	2 384	2 371	2 350	2 318	2 270
45	-	-	2 695	2 679	2 667	2 654	2 636	2 607	2 564
50	-	-	-	2 995	2 983	2 972	2 956	2 932	2 894
55	-	-	-	-	3 336	3 327	3 314	3 295	3 264
60	-	-	-	-	-	3 724	3 716	3 702	3 677
65	_	-	_	_	-	-	4 164	4 156	4 140
		1	L	1	l	L		1 .00	
Current consump	otion in A								
30	-	2.58	2.54	2.59	2.69	2.82	2.93	3.00	2.98
35	-	3.25	3.15	3.13	3.18	3.26	3.33	3.37	3.33
40	-	3.72	3.56	3.50	3.51	3.55	3.60	3.61	3.55
45	-	-	3.86	3.77	3.75	3.77	3.80	3.80	3.75
50	-	-	-	4.03	3.99	4.00	4.03	4.03	3.99
55	-	-	-	-	4.32	4.33	4.36	4.39	4.36
60	-	-	-	-	-	4.84	4.89	4.95	4.96
65	-	-	-	-	-	-	5.70	5.79	5.85
			•		•	-1	•	•	•
Mass flow in kg/h	l	_		_					
30	-	66	83	103	127	155	187	223	264
35	-	65	82	102	126	153	185	221	261
40	-	63	80	100	124	151	182	218	258
45	-	-	78	98	122	149	180	215	255
50	-	-	-	95	119	145	176	211	251
55	-	-	-	-	115	142	172	207	247
60	-	-	-	-	-	137	167	202	241
65	-	-	-	-	-	-	162	196	235
30	formance (C.C	1.52	1.97	2.50	3.15	3.93	4.87	6.03	7.47
35		1.27	1.64	2.10	2.65	3.30	4.09	5.05	6.23
40	-	1.05	1.37	1.75	2.03	2.77	3.43	4.22	5.19
45			1	1.75		1	2.85		4.31
-	-	-	1.13	1.45	1.84	2.30		3.51	
50	-	-			1.51	1.90	2.36	2.91	3.56
55	-	-	-	-	1.23	1.55	1.93	2.38	2.92
60	-	-	-	-	-	1.25	1.56	1.93	2.37
65	-	-	-	-	-	-	1.24	1.55	1.91

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

	•• •		
Cooling capacity	8 519	W	
Power input	2 932	W	
Current consumption	4.03	Α	
Mass flow	211	kg/h	
C.O.P.	2.91		

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. HRP034T4

## 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
Caaling canacity	:m 10/								
30		3 147	4 036	5 114	6 402	7 921	9 693	11 741	14 086
35		2 961	3 810	4 836	6 061	7 506	9 194	11 147	13 385
					1				
40	-	2 760	3 569	4 544	5 707	7 080	8 684	10 542	12 675
45			3 309	4 235	5 337	6 638	8 159	9 923	11 952
50	-	-		3 904	4 946	6 176	7 616 7 050	9 287	11 212 10 452
55 60			-	-	4 531	5 691		8 630	
65	-	-	-	-	-	5 180	6 459 5 839	7 948 7 238	9 669 8 858
05	-	-	-		-		5 639	7 236	0 000
Power input in W									
30	-	1 924	1 913	1 906	1 898	1 885	1 862	1 825	1 769
35	-	2 165	2 149	2 139	2 129	2 116	2 094	2 059	2 006
40	-	2 429	2 409	2 395	2 384	2 371	2 350	2 318	2 270
45	-	-	2 695	2 679	2 667	2 654	2 636	2 607	2 564
50	-	-	-	2 995	2 983	2 972	2 956	2 932	2 894
55	-	-	-	-	3 336	3 327	3 314	3 295	3 264
60	-	-	-	-	-	3 724	3 716	3 702	3 677
65	-	-	-	-	-	-	4 164	4 156	4 140
current consump	tion in A	0.50	0.54	1 0.50	1 000	1	1 000	1 000	0.00
30	-	2.58	2.54	2.59	2.69	2.82	2.93	3.00	2.98
35	-	3.25	3.15	3.13	3.18	3.26	3.33	3.37	3.33
40	-	3.72	3.56	3.50	3.51	3.55	3.60	3.61	3.55
45	-	-	3.86	3.77	3.75	3.77	3.80	3.80	3.75
50	-	-	-	4.03	3.99	4.00	4.03	4.03	3.99
55	-	-	-	-	4.32	4.33	4.36	4.39	4.36
60	-	-	-	-	-	4.84	4.89	4.95	4.96
65	-	-	-	-	-	-	5.70	5.79	5.85
Mass flow in kg/h									
30	-	65	82	103	127	154	186	222	263
35	-	64	81	101	125	152	184	219	260
40	-	63	80	100	123	150	181	217	257
45	-	-	78	98	121	148	179	214	253
50	_	-	_	95	118	145	175	210	250
55	-	_	_	-	114	141	171	206	245
60	-	-	-	-	-	136	167	201	240
65	-	-	_	-	_	-	161	195	234
		1		1	•	1			
Coefficient of per				1		1	1	1	l
30	-	1.64	2.11	2.68	3.37	4.20	5.20	6.43	7.96
35	-	1.37	1.77	2.26	2.85	3.55	4.39	5.41	6.67
40	-	1.14	1.48	1.90	2.39	2.99	3.70	4.55	5.58
45	-	-	1.23	1.58	2.00	2.50	3.10	3.81	4.66
50	-	-	-	1.30	1.66	2.08	2.58	3.17	3.87
55	-	-	-	-	1.36	1.71	2.13	2.62	3.20
60	-	-	-	-	-	1.39	1.74	2.15	2.63
65	-	-	-	-	-	-	1.40	1.74	2.14
lamaimal or code o	4 + <b>-</b>	000 4 54 400				Duna a	<b>44</b> :		
lominal performa	ance at to = 7.	2 °C, tc = 54.4 °C	14/		Г	Pressure switch		20	h = =/=)

C.O.P.

Cooling capacity

Current consumption

Power input

Mass flow

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

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

9 486

3 237

4.33

223

2.93

W

W

kg/h

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%



## Danfoss scroll compressor. HRP034T4

## Performance data at 60 Hz, EN 12900 rating conditions

**R407C** 

Cond. temp. in				Evapora	iting temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30	-	2 930	3 763	4 774	5 982	7 410	9 077	11 006	13 217
35		2 744	3 535	4 493	5 638	6 991	8 572	10 404	12 506
40		2 543	3 293	4 199	5 281	6 559	8 056	9 791	11 786
45	-	-	3 034	3 888	4 907		7 525	9 164	11 052
			-			6 113	+		
50	-	-		3 557	4 515	5 648	6 975	8 519	10 300
55	-	-	-	-	4 100	5 160	6 404	7 853	9 527
60	-	-	-	-	-	4 647	5 807	7 161	8 728
65	-	-	-	-	-	-	5 181	6 439	7 898
Power input in W									
30	-	1 924	1 913	1 906	1 898	1 885	1 862	1 825	1 769
35	-	2 165	2 149	2 139	2 129	2 116	2 094	2 059	2 006
40	-	2 429	2 409	2 395	2 384	2 371	2 350	2 318	2 270
45	-	-	2 695	2 679	2 667	2 654	2 636	2 607	2 564
50	-	-	-	2 995	2 983	2 972	2 956	2 932	2 894
55	-	-	-	-	3 336	3 327	3 314	3 295	3 264
60	-	-	-	-	-	3 724	3 716	3 702	3 677
65	_	-	_	_	-	-	4 164	4 156	4 140
		1	L	1	l	L		1 .00	
Current consump	otion in A								
30	-	2.58	2.54	2.59	2.69	2.82	2.93	3.00	2.98
35	-	3.25	3.15	3.13	3.18	3.26	3.33	3.37	3.33
40	-	3.72	3.56	3.50	3.51	3.55	3.60	3.61	3.55
45	-	-	3.86	3.77	3.75	3.77	3.80	3.80	3.75
50	-	-	-	4.03	3.99	4.00	4.03	4.03	3.99
55	-	-	-	-	4.32	4.33	4.36	4.39	4.36
60	-	-	-	-	-	4.84	4.89	4.95	4.96
65	-	-	-	-	-	-	5.70	5.79	5.85
			•		•	-1	•	•	•
Mass flow in kg/h	l	_		_					
30	-	66	83	103	127	155	187	223	264
35	-	65	82	102	126	153	185	221	261
40	-	63	80	100	124	151	182	218	258
45	-	-	78	98	122	149	180	215	255
50	-	-	-	95	119	145	176	211	251
55	-	-	-	-	115	142	172	207	247
60	-	-	-	-	-	137	167	202	241
65	-	-	-	-	-	-	162	196	235
30	formance (C.C	1.52	1.97	2.50	3.15	3.93	4.87	6.03	7.47
35		1.27	1.64	2.10	2.65	3.30	4.09	5.05	6.23
40	-	1.05	1.37	1.75	2.03	2.77	3.43	4.22	5.19
45			1	1.75		1	2.85		4.31
-	-	-	1.13	1.45	1.84	2.30		3.51	
50	-	-			1.51	1.90	2.36	2.91	3.56
55	-	-	-	-	1.23	1.55	1.93	2.38	2.92
60	-	-	-	-	-	1.25	1.56	1.93	2.37
65	-	-	-	-	-	-	1.24	1.55	1.91

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

	•• •		
Cooling capacity	8 519	W	
Power input	2 932	W	
Current consumption	4.03	Α	
Mass flow	211	kg/h	
C.O.P.	2.91		

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. HRP034T4

## Performance data at 60 Hz, ARI rating conditions

# **R407C**

°C (tc)         -30           Cooling capacity in W           30         -           35         -           40         -           45         -           50         -           55         -           60         -           65         -           Power input in W           30         -           35         -           40         -           45         -           50         -           65         -           Current consumption in A           30         -           35         -           40         -           45         -           50         -           55         -           60         -           65         -           Mass flow in kg/h           30         -           35         -           40         -           45         -           50         -           55         -           60         -           55         -	-25  3 147 2 961 2 760 1 924 2 165 2 429 2.58 3.25 3.72	-20  4 036 3 810 3 569 3 309 1 913 2 149 2 409 2 695	-15  5 114  4 836  4 544  4 235  3 904   1 906  2 139  2 395  2 679  2 995	-10  6 402 6 061 5 707 5 337 4 946 4 531 1 898 2 129 2 384 2 667 2 983 3 336 -	-5  7 921  7 506  7 080  6 638  6 176  5 691  5 180  -  1 885  2 116  2 371  2 654  2 972	0 9 693 9 194 8 684 8 159 7 616 7 050 6 459 5 839 1 862 2 094 2 350 2 636	5 11 741 11 147 10 542 9 923 9 287 8 630 7 948 7 238 1 825 2 059 2 318	10  14 086  13 385  12 675  11 952  11 212  10 452  9 669  8 858  1 769  2 006
30	2 961 2 760	3 810 3 569 3 309 - - - - - - 1 913 2 149 2 409 2 695 - - - -	4 836 4 544 4 235 3 904 - - - - 1 906 2 139 2 395 2 679 2 995 -	6 061 5 707 5 337 4 946 4 531 - - 1 898 2 129 2 384 2 667 2 983 3 336	7 506 7 080 6 638 6 176 5 691 5 180 - 1 885 2 116 2 371 2 654	9 194 8 684 8 159 7 616 7 050 6 459 5 839 1 862 2 094 2 350	11 147 10 542 9 923 9 287 8 630 7 948 7 238 1 825 2 059	13 385 12 675 11 952 11 212 10 452 9 669 8 858
30	2 961 2 760	3 810 3 569 3 309 - - - - - - 1 913 2 149 2 409 2 695 - - - -	4 836 4 544 4 235 3 904 - - - - 1 906 2 139 2 395 2 679 2 995 -	6 061 5 707 5 337 4 946 4 531 - - 1 898 2 129 2 384 2 667 2 983 3 336	7 506 7 080 6 638 6 176 5 691 5 180 - 1 885 2 116 2 371 2 654	9 194 8 684 8 159 7 616 7 050 6 459 5 839 1 862 2 094 2 350	11 147 10 542 9 923 9 287 8 630 7 948 7 238 1 825 2 059	13 385 12 675 11 952 11 212 10 452 9 669 8 858
35	2 961 2 760	3 810 3 569 3 309 - - - - - - 1 913 2 149 2 409 2 695 - - - -	4 836 4 544 4 235 3 904 - - - - 1 906 2 139 2 395 2 679 2 995 -	6 061 5 707 5 337 4 946 4 531 - - 1 898 2 129 2 384 2 667 2 983 3 336	7 506 7 080 6 638 6 176 5 691 5 180 - 1 885 2 116 2 371 2 654	9 194 8 684 8 159 7 616 7 050 6 459 5 839 1 862 2 094 2 350	11 147 10 542 9 923 9 287 8 630 7 948 7 238 1 825 2 059	13 385 12 675 11 952 11 212 10 452 9 669 8 858
40	2 760	3 569 3 309 - - - - - - - 1 913 2 149 2 409 2 695 - - -	4 544 4 235 3 904 - - - - - 1 906 2 139 2 395 2 679 2 995 - -	5 707 5 337 4 946 4 531 - - 1 898 2 129 2 384 2 667 2 983 3 336	7 080 6 638 6 176 5 691 5 180 - 1 885 2 116 2 371 2 654	8 684 8 159 7 616 7 050 6 459 5 839 1 862 2 094 2 350	10 542 9 923 9 287 8 630 7 948 7 238	12 675 11 952 11 212 10 452 9 669 8 858
45		3 309	4 235 3 904 - - - - 1 906 2 139 2 395 2 679 2 995 - -	5 337 4 946 4 531 - - 1 898 2 129 2 384 2 667 2 983 3 336	6 638 6 176 5 691 5 180 - 1 885 2 116 2 371 2 654	8 159 7 616 7 050 6 459 5 839 1 862 2 094 2 350	9 923 9 287 8 630 7 948 7 238 1 825 2 059	11 952 11 212 10 452 9 669 8 858
50		1 913 2 149 2 409 2 695 -	3 904  1 906 2 139 2 395 2 679 2 995	4 946 4 531 - - - 1 898 2 129 2 384 2 667 2 983 3 336	6 176 5 691 5 180 - 1 885 2 116 2 371 2 654	7 616 7 050 6 459 5 839 1 862 2 094 2 350	9 287 8 630 7 948 7 238 1 825 2 059	11 212 10 452 9 669 8 858
55	- 1 924 2 165 2 429 	1 913 2 149 2 409 2 695 - -	1 906 2 139 2 395 2 679 2 995	4 531 - - 1 898 2 129 2 384 2 667 2 983 3 336	5 691 5 180 - - 1 885 2 116 2 371 2 654	7 050 6 459 5 839 1 862 2 094 2 350	8 630 7 948 7 238 1 825 2 059	10 452 9 669 8 858
60	- 1 924 2 165 2 429 	1 913 2 149 2 409 2 695 - -	1 906 2 139 2 395 2 679 2 995	- - 1 898 2 129 2 384 2 667 2 983 3 336	5 180 - 1 885 2 116 2 371 2 654	6 459 5 839 1 862 2 094 2 350	7 948 7 238 1 825 2 059	9 669 8 858 1 769
Power input in W	1 924 2 165 2 429 - - - - - - 2.58 3.25 3.72 - -	1 913 2 149 2 409 2 695 - - -	1 906 2 139 2 395 2 679 2 995	1 898 2 129 2 384 2 667 2 983 3 336	1 885 2 116 2 371 2 654	1 862 2 094 2 350	7 238 1 825 2 059	8 858 1 769
Power input in W  30	1 924 2 165 2 429 - - - - - - 2.58 3.25 3.72 - -	1 913 2 149 2 409 2 695 - - -	1 906 2 139 2 395 2 679 2 995	1 898 2 129 2 384 2 667 2 983 3 336	1 885 2 116 2 371 2 654	1 862 2 094 2 350	1 825 2 059	1 769
30	2 165 2 429 - - - - - - 2.58 3.25 3.72 - -	2 149 2 409 2 695 - - - -	2 139 2 395 2 679 2 995 -	2 129 2 384 2 667 2 983 3 336	2 116 2 371 2 654	2 094 2 350	2 059	
35	2 165 2 429 - - - - - - 2.58 3.25 3.72 - -	2 149 2 409 2 695 - - - -	2 139 2 395 2 679 2 995 -	2 129 2 384 2 667 2 983 3 336	2 116 2 371 2 654	2 094 2 350	2 059	
40	2 429 2.58 3.25 3.72	2 409 2 695 - - - -	2 395 2 679 2 995 - -	2 384 2 667 2 983 3 336	2 371 2 654	2 350		2 006
45	- - - - - 2.58 3.25 3.72 - -	2 695 - - - - -	2 679 2 995 - -	2 667 2 983 3 336	2 654		2 318	
50	- - - - 2.58 3.25 3.72 - -		2 995 - -	2 983 3 336		2 636		2 270
50	- - 2.58 3.25 3.72 - -	-	-	3 336			2 607	2 564
60	- 2.58 3.25 3.72 - -	-	-	3 336		2 956	2 932	2 894
60	2.58 3.25 3.72 - -	-		_	3 327	3 314	3 295	3 264
Current consumption in A	2.58 3.25 3.72 - -	1	-	1	3 724	3 716	3 702	3 677
30	3.25 3.72 - -	2 54		-	-	4 164	4 156	4 140
30	3.25 3.72 - -	2 54						
35	3.25 3.72 - -	7.54	1 0.50	0.00	T 0.00		1 000	0.00
40	3.72 - - -	†	2.59	2.69	2.82	2.93	3.00	2.98
45 -	- - -	3.15	3.13	3.18	3.26	3.33	3.37	3.33
50	-	3.56	3.50	3.51	3.55	3.60	3.61	3.55
55 - 60 - 35 - 40 - 45 - 55 - 60 - 60	-	3.86	3.77	3.75	3.77	3.80	3.80	3.75
60 - 65 - 7  Mass flow in kg/h  30 - 35 - 40 - 7  45 - 7  50 - 7  55 - 7  60 - 7  65 - 7  Coefficient of performance (C.O.P. 30 - 7  35 - 7  40 - 7  45 - 7  45 - 7  46 - 7  47 - 7  48 - 7  49 - 7  49 - 7  49 - 7		-	4.03	3.99	4.00	4.03	4.03	3.99
65 -  Mass flow in kg/h  30 - 35 - 40 - 45 - 50 - 55 - 60 - 65 -  Coefficient of performance (C.O.P. 30 - 31 - 40 - 45 - 40 - 45 -		-	-	4.32	4.33	4.36	4.39	4.36
Mass flow in kg/h  30	-	-	-	-	4.84	4.89	4.95	4.96
30 - 35 - 40 - 55 - 55 - 60 - 65 Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 - 45 - 60 - 65 - 60 - 65 - 60 - 65 - 60 - 65 - 60 - 65 - 60 - 65 - 60 - 60	-	-	-	-	-	5.70	5.79	5.85
30 - 35 - 40 - 55 - 60 - 65 - Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 - 45 - 45 - 60 - 60 - 60 - 60 - 60 - 60 - 60 - 6								
35 - 40 - 45 - 50 - 55 - 60 - 65 -  Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 -	65	82	103	127	154	186	222	263
40 - 45 - 50 - 55 - 60 - 65 Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 - 65 - 65 - 65 - 65 - 65 - 65 - 65	64	81	101	125	152	184	219	260
45 - 50 - 55 - 60 - 65 - Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 - 65 - 65 - 65 - 65 - 65 - 65 - 65	63	80	100	123	150	181	217	257
50 - 55 - 60 - 65 -  Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 -	-	78	98	121	148	179	214	253
55 - 60 - 65 - 65 - 65 - 65 - 65 - 65 -	_	-	95	118	145	175	210	250
60 - 65 -  Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 -	_	-	-	114	141	171	206	245
65 -  Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 -	-	-	-	-	136	167	200	245
Coefficient of performance (C.O.P. 30 - 35 - 40 - 45 - 45	-			_	-	161	195	234
30 - 35 - 40 - 45 -					<u>-</u>	101	133	204
35 - 40 - 45 -	•	1	1	ı	T	ı	1	T
40 - 45 -	1.64	2.11	2.68	3.37	4.20	5.20	6.43	7.96
45 -	1.37	1.77	2.26	2.85	3.55	4.39	5.41	6.67
	1.14	1.48	1.90	2.39	2.99	3.70	4.55	5.58
50	-	1.23	1.58	2.00	2.50	3.10	3.81	4.66
50 -	-	-	1.30	1.66	2.08	2.58	3.17	3.87
55 -	-	-	-	1.36	1.71	2.13	2.62	3.20
60 -	-	-	-	-	1.39	1.74	2.15	2.63
65 -	-	-	-	-	-	1.40	1.74	2.14

C.O.P.

Cooling capacity

Current consumption

Power input

Mass flow

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

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

9 486

3 237

4.33

223

2.93

W

W

kg/h

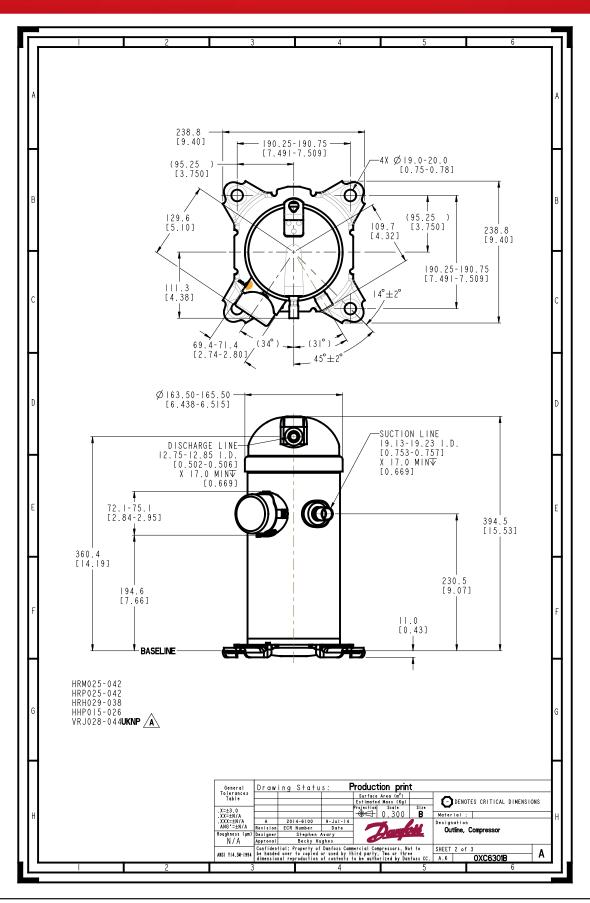
Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

Sound power data

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

All performance data +/- 5%





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