ENGINEERING



**Datasheets** 

# Danfoss scroll compressors **H series**





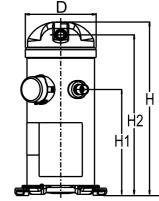
#### Datasheet, technical data

#### Danfoss scroll compressor, HRP047T4

#### **General Characteristics**

Model number (on compressor nameplate)	HRP047T4LP6		
Code number for Singlepack*	120U1046		
Code number for Industrial pack**		120U1043	
Drawing number		0XC6301B-3	
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	64.07 c	m3/rev	
Displacement @ Nominal speed	11.2 m3/h @ 2900 rpm	- 13.4 m3/h @ 3500 rpm	
Net weight	30.8	4 kg	
Oil charge	1.33 litre	e, 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	3 kg	
Approved refrigerants	R40	)7C	

## Dimensions

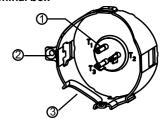


D=164.5 mm H=439 mm H1=275 mm H2=405 mm H3=- mm

#### **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℃	3.873 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.850 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	3.870 Ω
Rated Load Amps (RLA)	7.7 A
Maximum Continuous Current (MCC)	12 A
Locked Rotor Amps (LRA)	50 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:

3:

Spade connectors 1/4"
 Earth connection

Power cable passage

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

\*Singlepack: Compressor in cardboard box

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



#### Datasheet, accessories and spare parts

No translation for 120Z5015

#### Danfoss scroll compressor, HRP047T4

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	
		op ( (((())) (( ))) (( ( ))opf
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)
· · · · · · · · · · · · · · · · · · ·		3: Solder sleeve (Suc & Dis)
Crankcase heaters	Code no.	4: Rotolock nut (Suc & Dis)
Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055	
Belt type crankcase heater, 40 W, 400 V, CE mark, UL	120Z0056	
Miscellaneous accessories	Code 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	

120Z5015



#### Danfoss scroll compressor. HRP047T4

#### 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	:m 10/								
30		3 388	4 349	5 516	6 913	8 562	10 488	12 712	15 260
							1		
35	-	3 182	4 095	5 202	6 528	8 095	9 927	12 047	14 478
40	-	2 964	3 828	4 876	6 132	7 617	9 356	11 371	13 686
45	-	-	3 543	4 533	5 718	7 122	8 768	10 678	12 877
50	-	-	-	4 165	5 280	6 603	8 156	9 962	12 044
55	-	-	-	-	4 814	6 055	7 514	9 215	11 181
60	-	-	-	-	-	5 472	6 837	8 433	10 280
65	-	-	-	-	-	-	6 118	7 607	9 335
ower input in W									
30	-	2 010	1 995	1 987	1 980	1 969	1 946	1 905	1 842
35	-	2 301	2 277	2 263	2 252	2 238	2 216	2 178	2 119
40	-	2 631	2 600	2 580	2 566	2 551	2 529	2 495	2 441
45	-	-	2 968	2 943	2 926	2 911	2 891	2 860	2 813
50	-	-	-	3 359	3 340	3 325	3 307	3 281	3 240
55	-	_	_	_	3 811	3 797	3 782	3 761	3 728
60	-	-	-	-	-	4 333	4 322	4 307	4 282
65	-	-	_	_	_	-	4 932	4 923	4 907
00			1	-1	I	l	. 552	. 020	
urrent consump	tion in A								
30	-	4.29	4.35	4.40	4.43	4.44	4.43	4.40	4.34
35	-	4.63	4.70	4.75	4.79	4.80	4.80	4.77	4.72
40	-	5.04	5.12	5.17	5.21	5.23	5.23	5.21	5.16
45	-	-	5.62	5.68	5.73	5.75	5.75	5.73	5.69
50	-	-	-	6.29	6.34	6.36	6.37	6.35	6.31
55	-	-	-	-	7.07	7.09	7.10	7.08	7.04
60	-	-	-	-	-	7.95	7.96	7.94	7.90
65	-	-	-	-	-	-	8.96	8.94	8.90
•		-	•	•	•	•	•		•
lass flow in kg/h						_			11
30	-	76	96	119	147	179	216	258	305
35	-	75	95	118	146	177	214	256	303
40	-	74	93	117	144	175	212	253	300
45	-	-	91	115	142	173	209	250	297
50	-	-	-	112	139	170	206	247	294
55	-	-	-	-	135	166	202	243	289
60	-	-	-	-	-	161	197	238	284
65	-	-	-	-	-	-	191	232	278
coefficient of per	formanco (C (	<b>1</b> P 1							
30	-	1.69	2.18	2.78	3.49	4.35	5.39	6.67	8.29
35	-	1.38	1.80	2.30	2.90	3.62	4.48	5.53	6.83
40	-	1.13	1.47	1.89	2.39	2.99	3.70	4.56	5.61
45	-	-	1.19	1.54	1.95	2.45	3.03	3.73	4.58
50	-	-	-	1.24	1.58	1.99	2.47	3.04	3.72
55	_	-	_	-	1.26	1.59	1.99	2.45	3.00
00		-	-	-	-	1.26	1.58	1.96	2.40
60	-								. Z.TU

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

Cooling capacity	9 962	W
Power input	3 281	W
Current consumption	6.35	Α
Mass flow	247	kg/h
C.O.P.	3.04	

to: Evaporating temperature at dew point

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

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. HRP047T4

#### Performance data at 50 Hz, ARI 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	-	3 638	4 664	5 909	7 397	9 153	11 199	13 561	16 264
35		3 434	4 413	5 600	7 018	8 693	10 648	12 907	15 496
40		3 217	4 149	5 278	6 627	8 222	10 046	12 243	14 718
45	-	-	3 865	4 937	6 218	7 733	9 507	11 563	13 925
50		-	-	4 571	5 784	7 733	8 904	10 860	13 110
55		<del>-</del>	-	-	5 320	6 678	8 273	10 128	12 267
60		<del>-</del>	_	-	-	6 099	7 605	9 360	11 389
65		<del>                                     </del>			-	- 0 099	6 895	8 551	10 470
03	<u> </u>	_			<u> </u>	_	0 090	0 331	10 470
Power input in W									
30	-	2 010	1 995	1 987	1 980	1 969	1 946	1 905	1 842
35	-	2 301	2 277	2 263	2 252	2 238	2 216	2 178	2 119
40	-	2 631	2 600	2 580	2 566	2 551	2 529	2 495	2 441
45	-	-	2 968	2 943	2 926	2 911	2 891	2 860	2 813
50	-	-	-	3 359	3 340	3 325	3 307	3 281	3 240
55	-	-	-	-	3 811	3 797	3 782	3 761	3 728
60	-	-	-	-	-	4 333	4 322	4 307	4 282
65	-	-	-	-	-	-	4 932	4 923	4 907
Current consump	tion in A	4.29	4.25	1.40	4.42	4.44	4.42	1.40	4.24
30			4.35	4.40	4.43	4.44	4.43	4.40	4.34
35		4.63	4.70	4.75	4.79	4.80	4.80	4.77	4.72
40	-	5.04	5.12	5.17	5.21	5.23	5.23	5.21	5.16
45		-	5.62	5.68	5.73	5.75	5.75	5.73	5.69
50	-	-	-	6.29	6.34	6.36	6.37	6.35	6.31
55	-	-	-	-	7.07	7.09	7.10	7.08	7.04
60	-	-	-	-	-	7.95	7.96	7.94	7.90
65	-	-	-	-	-	-	8.96	8.94	8.90
Mass flow in kg/h									
30	-	75	95	119	146	178	215	256	303
35	-	75	94	117	145	176	213	254	301
40	-	74	93	116	143	174	211	252	298
45	-	-	91	114	141	172	208	249	295
50	-	-	-	111	138	169	205	246	292
55	-	-	-	_	134	165	201	242	288
60	-	-	-	-	-	160	196	237	283
65	-	-	-	-	-	-	190	230	276
Coefficient of per			0.04	0.07	1 07:	4.05	5.50	7.10	
30	-	1.81	2.34	2.97	3.74	4.65	5.76	7.12	8.83
35	-	1.49	1.94	2.47	3.12	3.88	4.81	5.93	7.31
40	-	1.22	1.60	2.05	2.58	3.22	3.99	4.91	6.03
45	-	-	1.30	1.68	2.12	2.66	3.29	4.04	4.95
50	-	-	-	1.36	1.73	2.17	2.69	3.31	4.05
55	-	-	-	-	1.40	1.76	2.19	2.69	3.29
60	-	-	-	-	-	1.41	1.76	2.17	2.66
65	-	-	-	-	-	-	1.40	1.74	2.13
laminal or sufer	4 + <b>-</b>	000 4 54 400				Dunganus			
Nominal performa	ance at to = 7.	2 °C, tc = 54.4 °C	2 14/		Г	Pressure switch		20	h = =/=\

Cooling capacity	11 128	W
Power input	3 687	W
Current consumption	6.97	Α
Mass flow	262	kg/h
C.O.P.	3.02	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



#### Danfoss scroll compressor. HRP047T4

#### 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	:m 10/								
30		3 388	4 349	5 516	6 913	8 562	10 488	12 712	15 260
							1		
35	-	3 182	4 095	5 202	6 528	8 095	9 927	12 047	14 478
40	-	2 964	3 828	4 876	6 132	7 617	9 356	11 371	13 686
45	-	-	3 543	4 533	5 718	7 122	8 768	10 678	12 877
50	-	-	-	4 165	5 280	6 603	8 156	9 962	12 044
55	-	-	-	-	4 814	6 055	7 514	9 215	11 181
60	-	-	-	-	-	5 472	6 837	8 433	10 280
65	-	-	-	-	-	-	6 118	7 607	9 335
ower input in W									
30	-	2 010	1 995	1 987	1 980	1 969	1 946	1 905	1 842
35	-	2 301	2 277	2 263	2 252	2 238	2 216	2 178	2 119
40	-	2 631	2 600	2 580	2 566	2 551	2 529	2 495	2 441
45	-	-	2 968	2 943	2 926	2 911	2 891	2 860	2 813
50	-	-	-	3 359	3 340	3 325	3 307	3 281	3 240
55	-	_	_	_	3 811	3 797	3 782	3 761	3 728
60	-	-	-	-	-	4 333	4 322	4 307	4 282
65	-	-	_	_	_	-	4 932	4 923	4 907
00			1	-1	I	l	. 552	. 020	
urrent consump	tion in A								
30	-	4.29	4.35	4.40	4.43	4.44	4.43	4.40	4.34
35	-	4.63	4.70	4.75	4.79	4.80	4.80	4.77	4.72
40	-	5.04	5.12	5.17	5.21	5.23	5.23	5.21	5.16
45	-	-	5.62	5.68	5.73	5.75	5.75	5.73	5.69
50	-	-	-	6.29	6.34	6.36	6.37	6.35	6.31
55	-	-	-	-	7.07	7.09	7.10	7.08	7.04
60	-	-	-	-	-	7.95	7.96	7.94	7.90
65	-	-	-	-	-	-	8.96	8.94	8.90
•		-	•	•	•	•	-		•
lass flow in kg/h						_			11
30	-	76	96	119	147	179	216	258	305
35	-	75	95	118	146	177	214	256	303
40	-	74	93	117	144	175	212	253	300
45	-	-	91	115	142	173	209	250	297
50	-	-	-	112	139	170	206	247	294
55	-	-	-	-	135	166	202	243	289
60	-	-	-	-	-	161	197	238	284
65	-	-	-	-	-	-	191	232	278
coefficient of per	formanco (C (	<b>1</b> P 1							
30	-	1.69	2.18	2.78	3.49	4.35	5.39	6.67	8.29
35	-	1.38	1.80	2.30	2.90	3.62	4.48	5.53	6.83
40	-	1.13	1.47	1.89	2.39	2.99	3.70	4.56	5.61
45	-	-	1.19	1.54	1.95	2.45	3.03	3.73	4.58
50	-	-	-	1.24	1.58	1.99	2.47	3.04	3.72
55	_	-	_	-	1.26	1.59	1.99	2.45	3.00
00		-	-	-	-	1.26	1.58	1.96	2.40
60	-								. Z.TU

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

Cooling capacity	9 962	W
Power input	3 281	W
Current consumption	6.35	Α
Mass flow	247	kg/h
C.O.P.	3.04	

to: Evaporating temperature at dew point

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

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. HRP047T4

#### Performance data at 50 Hz, ARI 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	-	3 638	4 664	5 909	7 397	9 153	11 199	13 561	16 264
35		3 434	4 413	5 600	7 018	8 693	10 648	12 907	15 496
40		3 217	4 149	5 278	6 627	8 222	10 046	12 243	14 718
45	-	-	3 865	4 937	6 218	7 733	9 507	11 563	13 925
50		-	-	4 571	5 784	7 733	8 904	10 860	13 110
55		<del>-</del>	-	-	5 320	6 678	8 273	10 128	12 267
60		<del>-</del>	_	-	-	6 099	7 605	9 360	11 389
65		<del>                                     </del>			-	- 0 099	6 895	8 551	10 470
03	<u> </u>	_			<u> </u>	_	0 090	0 331	10 470
Power input in W									
30	-	2 010	1 995	1 987	1 980	1 969	1 946	1 905	1 842
35	-	2 301	2 277	2 263	2 252	2 238	2 216	2 178	2 119
40	-	2 631	2 600	2 580	2 566	2 551	2 529	2 495	2 441
45	-	-	2 968	2 943	2 926	2 911	2 891	2 860	2 813
50	-	-	-	3 359	3 340	3 325	3 307	3 281	3 240
55	-	-	-	-	3 811	3 797	3 782	3 761	3 728
60	-	-	-	-	-	4 333	4 322	4 307	4 282
65	-	-	-	-	-	-	4 932	4 923	4 907
Current consump	tion in A	4.29	4.25	1.40	4.42	4.44	4.42	1.40	4.24
30			4.35	4.40	4.43	4.44	4.43	4.40	4.34
35		4.63	4.70	4.75	4.79	4.80	4.80	4.77	4.72
40	-	5.04	5.12	5.17	5.21	5.23	5.23	5.21	5.16
45		-	5.62	5.68	5.73	5.75	5.75	5.73	5.69
50	-	-	-	6.29	6.34	6.36	6.37	6.35	6.31
55	-	-	-	-	7.07	7.09	7.10	7.08	7.04
60	-	-	-	-	-	7.95	7.96	7.94	7.90
65	-	-	-	-	-	-	8.96	8.94	8.90
Mass flow in kg/h									
30	-	75	95	119	146	178	215	256	303
35	-	75	94	117	145	176	213	254	301
40	-	74	93	116	143	174	211	252	298
45	-	-	91	114	141	172	208	249	295
50	-	-	-	111	138	169	205	246	292
55	-	-	_	_	134	165	201	242	288
60	-	-	-	-	-	160	196	237	283
65	-	-	-	-	-	-	190	230	276
Coefficient of per			0.04	0.07	1 07:	4.05	5.50	7.10	
30	-	1.81	2.34	2.97	3.74	4.65	5.76	7.12	8.83
35	-	1.49	1.94	2.47	3.12	3.88	4.81	5.93	7.31
40	-	1.22	1.60	2.05	2.58	3.22	3.99	4.91	6.03
45	-	-	1.30	1.68	2.12	2.66	3.29	4.04	4.95
50	-	-	-	1.36	1.73	2.17	2.69	3.31	4.05
55	-	-	-	-	1.40	1.76	2.19	2.69	3.29
60	-	-	-	-	-	1.41	1.76	2.17	2.66
65	-	-	-	-	-	-	1.40	1.74	2.13
laminal or sufer	4 + <b>-</b>	000 4 54 400				Dunganus audi i			
Nominal performa	ance at to = 7.	2 °C, tc = 54.4 °C	2 14/		Г	Pressure switch		20	h = =/=\

Cooling capacity	11 128	W
Power input	3 687	W
Current consumption	6.97	Α
Mass flow	262	kg/h
C.O.P.	3.02	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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	67	dB(A)
With accoustic hood	62	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



#### Danfoss scroll compressor. HRP047T4

#### 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
Cooling capacity	in W								
30	-	4 127	5 264	6 643	8 295	10 251	12 542	15 200	18 256
35	_	3 804	4 882	6 187	7 749	9 601	11 774	14 299	17 206
40		3 506	4 517	5 740	7 206	8 947	10 993	13 377	16 128
45	-	-	4 169	5 303	6 666	8 288	10 993	12 435	15 023
50	-	<del>                                     </del>	-	4 877	6 129	7 625	9 396	11 475	13 890
55		-	-	-	5 596	6 958	8 581	10 495	12 732
60		-	_	-	-	6 288	7 755	9 498	11 546
65		-	_	-	-	0 200	6 918	8 480	10 333
00							0.010	0 400	10 000
ower input in W			1		1	1		1	1
30	-	1 918	1 970	2 033	2 105	2 182	2 260	2 337	2 408
35	-	2 381	2 400	2 431	2 470	2 514	2 560	2 604	2 643
40	-	2 855	2 848	2 854	2 868	2 886	2 907	2 926	2 940
45	-	-	3 324	3 311	3 307	3 308	3 310	3 311	3 307
50	-	-	-	3 810	3 796	3 786	3 778	3 769	3 754
55	-	-	-	-	4 343	4 330	4 319	4 307	4 289
60	-	-	-	-	-	4 948	4 941	4 933	4 919
65	-	-	-	-	-	-	5 652	5 656	5 654
urrent consump	tion in A	4.34	4.28	4.36	4.53	4.74	4.93	5.04	5.02
35	_	5.48	5.30	5.28	5.36	5.49	5.61	5.67	5.60
40		6.27	5.99	5.89	5.91	5.98	6.06	6.08	5.98
45	_	-	6.51	6.35	6.31	6.35	6.40	6.40	6.31
50	_	_	-	6.78	6.72	6.74	6.78	6.79	6.72
55	_	-	-	-	7.27	7.29	7.35	7.39	7.35
60	_	-	_	-	-	8.14	8.24	8.33	8.35
65	-	-	-	_	-	-	9.60	9.75	9.85
00							0.00	0.70	0.00
lass flow in kg/h									
30	-	94	117	145	177	215	258	308	365
35	-	91	115	142	174	211	254	303	360
40	-	89	111	138	169	206	248	298	354
45	-	-	108	134	164	200	242	291	347
50	-	-	-	129	159	194	236	284	340
55	-	-	-	-	152	187	228	275	331
60	-	-	-	-	-	179	219	266	320
65	-	-	-	-	-	-	209	255	309
oefficient of per	formance (C.0	O.P.)							
30	-	2.15	2.67	3.27	3.94	4.70	5.55	6.50	7.58
35	-	1.60	2.03	2.55	3.14	3.82	4.60	5.49	6.51
40	-	1.23	1.59	2.01	2.51	3.10	3.78	4.57	5.49
45	-	-	1.25	1.60	2.02	2.51	3.08	3.76	4.54
50	-	-	-	1.28	1.61	2.01	2.49	3.04	3.70
55	-	-	-	-	1.29	1.61	1.99	2.44	2.97
60	-	-	-	-	-	1.27	1.57	1.93	2.35
65	-	_	_	_	_	_	1.22	1.50	1.83

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

Cooling capacity	11 475	W
Power input	3 769	W
Current consumption	6.79	Α
Mass flow	284	kg/h
C.O.P.	3.04	

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	71	dB(A)
With accoustic hood	66	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



#### Danfoss scroll compressor. HRP047T4

#### 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
Saalina aanaaitu	: \W								
30		4 431	5 646	7 117	8 877	10 958	13 393	16 215	19 457
35	-	4 105	5 261	6 659	8 331	10 330	12 628	15 319	18 415
40		3 806	4 895	6 212	7 788	9 657	11 850	14 402	
45	-	3 606	4 548	5 776	7 248	8 999	11 060	13 465	17 345 16 246
	-	-	4 540		6 714				
50	-		-	5 352	6 184	8 338	10 259 9 447	12 509	15 121
55		-	-			7 675	ł	11 534	13 969
60	-	-	-	-	-	7 009	8 626	10 542	12 791
65	-	-	-	-	-	-	7 795	9 533	11 589
Power input in W		1		Т	1	Т	T	T	1
30	-	1 918	1 970	2 033	2 105	2 182	2 260	2 337	2 408
35	-	2 381	2 400	2 431	2 470	2 514	2 560	2 604	2 643
40	-	2 855	2 848	2 854	2 868	2 886	2 907	2 926	2 940
45	-	-	3 324	3 311	3 307	3 308	3 310	3 311	3 307
50	-	-	-	3 810	3 796	3 786	3 778	3 769	3 754
55	-	-	-	-	4 343	4 330	4 319	4 307	4 289
60	-	-	-	-	-	4 948	4 941	4 933	4 919
65	-	-	-	-	-	-	5 652	5 656	5 654
30	tion in A	4.34	4.28	4.36	4.53	4.74	4.93	5.04	5.02
35		5.48	5.30	5.28	5.36	5.49	5.61	5.67	5.60
40		6.27	5.99	5.89	5.91	5.98	6.06	6.08	5.98
45	_	-	6.51	6.35	6.31	6.35	6.40	6.40	6.31
50	_	-	-	6.78	6.72	6.74	6.78	6.79	6.72
55		-		-	7.27	7.29	7.35	7.39	7.35
60		-	_	-	-	8.14	8.24	8.33	8.35
65	<u>-</u>	-		-	_	-	9.60	9.75	9.85
00							3.00	5.70	3.00
Mass flow in kg/h		1	_	1					
30	-	93	117	144	176	214	257	306	363
35	-	91	114	141	173	209	252	301	358
40	-	88	111	137	168	205	247	296	352
45	-	-	107	133	163	199	241	290	345
50	-	-	-	128	158	193	234	282	338
55	-	-	-	-	151	186	226	274	329
60	-	-	-	-	-	178	217	264	318
65	-	-	-	-	-	-	207	253	307
coefficient of per	formance (C.0	O.P.)							
30	-	2.31	2.87	3.50	4.22	5.02	5.93	6.94	8.08
35	-	1.72	2.19	2.74	3.37	4.10	4.93	5.88	6.97
40	-	1.33	1.72	2.18	2.72	3.35	4.08	4.92	5.90
45	-	-	1.37	1.74	2.19	2.72	3.34	4.07	4.91
50	-	-	-	1.40	1.77	2.20	2.72	3.32	4.03
55	-	-	-	-	1.42	1.77	2.19	2.68	3.26
60	-	-	-	-	-	1.42	1.75	2.14	2.60
65	-	-	_	-	-	-	1.38	1.69	2.05

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

monnia portormanos at to	0,	U-1T U	
Cooling capacity		12 688	W
Power input		4 231	W
Current consumption		7.29	Α
Mass flow		298	kg/h
C.O.P.		3.00	

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. HRP047T4

#### 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
Cooling capacity	in W								
30	-	4 127	5 264	6 643	8 295	10 251	12 542	15 200	18 256
35	_	3 804	4 882	6 187	7 749	9 601	11 774	14 299	17 206
40		3 506	4 517	5 740	7 206	8 947	10 993	13 377	16 128
45	-	-	4 169	5 303	6 666	8 288	10 993	12 435	15 023
50	-	<del>                                     </del>	-	4 877	6 129	7 625	9 396	11 475	13 890
55		-	-	-	5 596	6 958	8 581	10 495	12 732
60		-	_	-	-	6 288	7 755	9 498	11 546
65		-	_	-	-	0 200	6 918	8 480	10 333
00							0.010	0 400	10 000
ower input in W			1		1	1		1	1
30	-	1 918	1 970	2 033	2 105	2 182	2 260	2 337	2 408
35	-	2 381	2 400	2 431	2 470	2 514	2 560	2 604	2 643
40	-	2 855	2 848	2 854	2 868	2 886	2 907	2 926	2 940
45	-	-	3 324	3 311	3 307	3 308	3 310	3 311	3 307
50	-	-	-	3 810	3 796	3 786	3 778	3 769	3 754
55	-	-	-	-	4 343	4 330	4 319	4 307	4 289
60	-	-	-	-	-	4 948	4 941	4 933	4 919
65	-	-	-	-	-	-	5 652	5 656	5 654
urrent consump	tion in A	4.34	4.28	4.36	4.53	4.74	4.93	5.04	5.02
35	_	5.48	5.30	5.28	5.36	5.49	5.61	5.67	5.60
40		6.27	5.99	5.89	5.91	5.98	6.06	6.08	5.98
45	_	-	6.51	6.35	6.31	6.35	6.40	6.40	6.31
50	_	_	-	6.78	6.72	6.74	6.78	6.79	6.72
55	_	-	-	-	7.27	7.29	7.35	7.39	7.35
60	_	-	_	-	-	8.14	8.24	8.33	8.35
65	-	-	-	_	-	-	9.60	9.75	9.85
00							0.00	0.70	0.00
lass flow in kg/h				_					
30	-	94	117	145	177	215	258	308	365
35	-	91	115	142	174	211	254	303	360
40	-	89	111	138	169	206	248	298	354
45	-	-	108	134	164	200	242	291	347
50	-	-	-	129	159	194	236	284	340
55	-	-	-	-	152	187	228	275	331
60	-	-	-	-	-	179	219	266	320
65	-	-	-	-	-	-	209	255	309
oefficient of per	formance (C.0	O.P.)							
30	-	2.15	2.67	3.27	3.94	4.70	5.55	6.50	7.58
35	-	1.60	2.03	2.55	3.14	3.82	4.60	5.49	6.51
40	-	1.23	1.59	2.01	2.51	3.10	3.78	4.57	5.49
45	-	-	1.25	1.60	2.02	2.51	3.08	3.76	4.54
50	-	-	-	1.28	1.61	2.01	2.49	3.04	3.70
55	-	-	-	-	1.29	1.61	1.99	2.44	2.97
60	-	-	-	-	-	1.27	1.57	1.93	2.35
65	-	_	_	_	_	_	1.22	1.50	1.83

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

Cooling capacity	11 475	W
Power input	3 769	W
Current consumption	6.79	Α
Mass flow	284	kg/h
C.O.P.	3.04	

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	71	dB(A)
With accoustic hood	66	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



#### Danfoss scroll compressor. HRP047T4

#### 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
Saalina aanaaitu	: \W								
30		4 431	5 646	7 117	8 877	10 958	13 393	16 215	19 457
35	-	4 105	5 261	6 659	8 331	10 330	12 628	15 319	18 415
40		3 806	4 895	6 212	7 788	9 657	11 850	14 402	
45	-	3 606	4 548	5 776	7 248	8 999	11 060	13 465	17 345 16 246
	-	-	4 540		6 714				
50	-		-	5 352	6 184	8 338	10 259 9 447	12 509	15 121
55		-	-			7 675	ł	11 534	13 969
60	-	-	-	-	-	7 009	8 626	10 542	12 791
65	-	-	-	-	-	-	7 795	9 533	11 589
Power input in W		1		Т	1	Т	T	T	1
30	-	1 918	1 970	2 033	2 105	2 182	2 260	2 337	2 408
35	-	2 381	2 400	2 431	2 470	2 514	2 560	2 604	2 643
40	-	2 855	2 848	2 854	2 868	2 886	2 907	2 926	2 940
45	-	-	3 324	3 311	3 307	3 308	3 310	3 311	3 307
50	-	-	-	3 810	3 796	3 786	3 778	3 769	3 754
55	-	-	-	-	4 343	4 330	4 319	4 307	4 289
60	-	-	-	-	-	4 948	4 941	4 933	4 919
65	-	-	-	-	-	-	5 652	5 656	5 654
30	tion in A	4.34	4.28	4.36	4.53	4.74	4.93	5.04	5.02
35		5.48	5.30	5.28	5.36	5.49	5.61	5.67	5.60
40		6.27	5.99	5.89	5.91	5.98	6.06	6.08	5.98
45	_	-	6.51	6.35	6.31	6.35	6.40	6.40	6.31
50	_	-	-	6.78	6.72	6.74	6.78	6.79	6.72
55		-		-	7.27	7.29	7.35	7.39	7.35
60		-	_	-	-	8.14	8.24	8.33	8.35
65	<u>-</u>	-		-	_	-	9.60	9.75	9.85
00							3.00	5.70	3.00
Mass flow in kg/h		1	_	1					
30	-	93	117	144	176	214	257	306	363
35	-	91	114	141	173	209	252	301	358
40	-	88	111	137	168	205	247	296	352
45	-	-	107	133	163	199	241	290	345
50	-	-	-	128	158	193	234	282	338
55	-	-	-	-	151	186	226	274	329
60	-	-	-	-	-	178	217	264	318
65	-	-	-	-	-	-	207	253	307
coefficient of per	formance (C.0	O.P.)							
30	-	2.31	2.87	3.50	4.22	5.02	5.93	6.94	8.08
35	-	1.72	2.19	2.74	3.37	4.10	4.93	5.88	6.97
40	-	1.33	1.72	2.18	2.72	3.35	4.08	4.92	5.90
45	-	-	1.37	1.74	2.19	2.72	3.34	4.07	4.91
50	-	-	-	1.40	1.77	2.20	2.72	3.32	4.03
55	-	-	-	-	1.42	1.77	2.19	2.68	3.26
60	-	-	-	-	-	1.42	1.75	2.14	2.60
65	-	-	_	-	-	-	1.38	1.69	2.05

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

monnia portormanos at to	0,	U-1T U	
Cooling capacity		12 688	W
Power input		4 231	W
Current consumption		7.29	Α
Mass flow		298	kg/h
C.O.P.		3.00	

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)

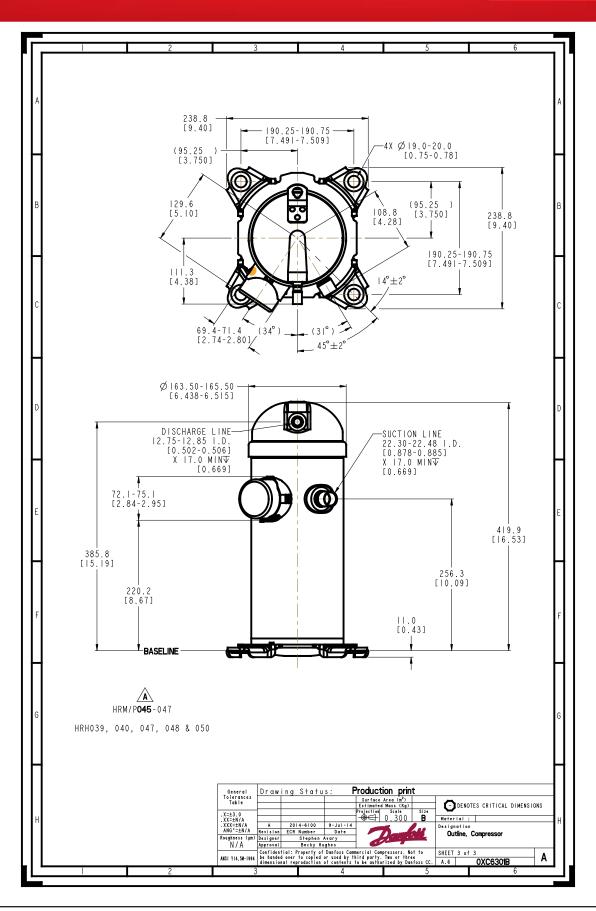
#### Sound power data

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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