ENGINEERING



Datasheets

# Danfoss scroll compressors **H series**





## Datasheet, technical data

# Danfoss scroll compressor, HRP048T4

# **General Characteristics**

Model number (on compressor nameplate) HRP048T4L0				
Code number for Singlepack*		120U1661		
Code number for Industrial pack**		120U1658		
Drawing number		0XR6049B-2		
Suction and discharge connections		Brazed		
Suction connection		7/8 " ODF		
Discharge connection		1/2 " ODF		
Oil sight glass		None		
Oil equalisation connection		1/2"		
Oil drain connection		None		
LP gauge port		None		
IPR valve		Yes		
Swept volume	64.4 cm3/rev			
Displacement @ Nominal speed	11.2 m3/h @ 2900 rpm - 13.5 m3/h @ 3500 rpm			
Net weight	37.1	9 kg		
Oil charge	1.57 litre	e, PVE		
Maximum system test pressure Low Side / High side	- bar(g) /	′ - bar(g)		
Maximum differential test pressure	- b	ar		
Maximum number of starts per hour		•		
Refrigerant charge limit	5.44	ł kg		
Approved refrigerants	R40	)7C		

## **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℃	2.600 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.610 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.650 Ω
Rated Load Amps (RLA)	7.7 A
Maximum Continuous Current (MCC)	12 A
Locked Rotor Amps (LRA)	55.2 A
Motor protection	Internal overload protector

## **Recommended Installation torques**

Oil sight glass	52.5 Nm
Power connections / Earth connection	3 Nm / 2 Nm

## Parts shipped with compressor

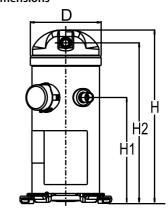
1 arts shipped with compressor	
Mounting kit with grommets and sleeves	
Initial oil charge	
Installation instructions	

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

\*Singlepack: Compressor in cardboard box

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

## **Dimensions**



D=183.5 mm H=455 mm H1=280 mm H2=422 mm H3=- mm

## **Terminal box**



IP22

3:

1: Screw connectors 10-32 UNF x 9.5 2:

Earth connection

Power cable passage



## Datasheet, accessories and spare parts

# Danfoss scroll compressor, HRP048T4

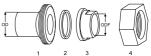
Rotolock accessories, suction side	Code no.	
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030	
Gasket, 1-1/4"	8156131	
Rotolock accessories, discharge side	Code no.	
Solder sleeve, P06 (1" Rotolock, 1/2" ODF)	8153007	
Angle adapter, C06 (1" Rotolock, 1/2" ODF)	8168007	So
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	
Gasket, 1"	8156130	
Rotolock accessories, sets	Code no.	op
·		
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.	1:
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034	2:
Crankcase heaters	Code no.	3: 4:
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	118U0057	
Spare parts	Code no.	

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers

Mounting kit, including 1 bolt, 1 sleeve, 1 washer

No translation for 120Z5018

# Solder sleeve adapter set



I: Rotolock adapter (Suc & Dis)

2: Gasket (Suc & Dis)

120Z5005

120Z5031

120Z5018

- 3: Solder sleeve (Suc & Dis)
- : Rotolock nut (Suc & Dis)



# Danfoss scroll compressor. HRP048T4

# 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	in W								
30	-	3 418	4 389	5 567	6 977	8 642	10 586	12 835	15 412
35	_	3 203	4 125	5 242	6 578	8 157	10 002	12 139	14 591
40	_	2 971	3 845	4 902	6 165	7 658	9 405	11 431	13 759
45		2 97 1	3 546	4 542	5 733	7 141	8 791	10 706	12 911
50		_		4 160	5 278	6 602	8 154	9 959	12 041
55	_	-	-	-	4 797	6 037	7 492	9 187	11 145
60	_	-	_	_	-	5 440	6 799	8 383	10 218
65	_	_	_	_	_	-	6 069	7 543	9 253
00		1					0 000	7 0 10	0 200
ower input in W		_	·	1	T	•	1	1	1
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368
60	-	-	-	-	-	3 770	3 763	3 748	3 720
65	-	-	-	-	-	-	4 137	4 128	4 108
·	41 ! A								
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00
35		4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47
40		5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77
45	_	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03
50	<u>-</u>	-	-	5.41	5.36	5.37	5.41	5.42	5.36
55		-	-	-	5.79	5.81	5.86	5.89	5.86
60		_	_	_	-	6.49	6.57	6.64	6.66
65	<u>-</u>	-		-	_	-	7.65	7.78	7.86
00	<u> </u>	1			-		1.00	1.10	7.00
Mass flow in kg/h		_	1	1	1	1	1	1	1
30	-	77	97	120	148	181	218	260	308
35	-	76	95	119	147	179	216	258	305
40	-	74	94	117	145	176	213	255	302
45	-	-	92	115	142	174	210	251	298
50	-	-	-	112	139	170	206	247	293
55	-	-	-	-	135	166	202	242	288
60	-	-	-	-	-	160	196	237	283
65	-	-	-	-	-	-	189	230	276
Coefficient of per	formance (C.0	O.P.)							
30	-	1.58	2.04	2.60	3.27	4.09	5.07	6.27	7.74
35	-	1.34	1.73	2.21	2.78	3.48	4.31	5.31	6.55
40	-	1.13	1.46	1.87	2.37	2.96	3.66	4.51	5.54
45	-	-	1.23	1.58	2.00	2.51	3.11	3.82	4.69
50	-	-	-	1.32	1.68	2.11	2.62	3.23	3.95
55	-	-	-	-	1.39	1.76	2.19	2.70	3.31
60	-	-	-	-	-	1.44	1.81	2.24	2.75
65	-	-	-	-	-	-	1.47	1.83	2.25

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

rionina poriorinarios arto o o, to	•••	
Cooling capacity	9 959	W
Power input	3 088	W
Current consumption	5.42	Α
Mass flow	247	kg/h
C.O.P.	3.23	

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	69	dB(A)
With accoustic hood	64	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



# Danfoss scroll compressor. HRP048T4

# 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
li	: <b>\A</b> /								
cooling capacity		3 670	4 708	5 964	7 466	9 238	11 305	13 692	16 426
30	-				ł				
35	-	3 456	4 446	5 643	7 072	8 758	10 728	13 005	15 617
40	-	3 225	4 168	5 305	6 663	8 265	10 138	12 307	14 797
45	-	-	3 868	4 947	6 234	7 754	9 532	11 593	13 962
50	-	-	-	4 565	5 782	7 220	8 903	10 857	13 108
55	-	-	-	-	5 301	6 658	8 248	10 096	12 229
60	-	-	-	-	-	6 064	7 562	9 305	11 320
65	-	-	-	-	-	-	6 839	8 479	10 378
ower input in W									
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368
60	-	-	-	-	-	3 770	3 763	3 748	3 720
65	-	-	-	-	-	-	4 137	4 128	4 108
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00
35	-	4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47
40	-	5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77
45	-	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03
50	-	_	-	5.41	5.36	5.37	5.41	5.42	5.36
55	_	_	-	-	5.79	5.81	5.86	5.89	5.86
60	_	-	_	_	-	6.49	6.57	6.64	6.66
65	-	_	_	-	-	-	7.65	7.78	7.86
			1	I	1	1			
lass flow in kg/h	ı			Т	1				
30	-	76	96	120	148	180	217	259	306
35	-	75	95	118	146	178	214	256	303
40	-	74	93	117	144	175	212	253	300
45	-	-	91	114	141	173	209	250	296
50	-	-	-	111	138	169	205	246	292
55	-	-	-	-	134	165	200	241	287
60	-	-	-	-	-	160	195	235	281
65	-	-	-	-	-	-	188	229	274
oefficient of per	formance (C.0	O.P.)							
30	-	1.70	2.19	2.79	3.50	4.37	5.41	6.68	8.25
35	-	1.44	1.87	2.38	2.99	3.73	4.62	5.69	7.01
40	-	1.22	1.59	2.03	2.56	3.19	3.95	4.86	5.96
45	-	-	1.34	1.72	2.18	2.72	3.37	4.14	5.07
50	-	-	-	1.45	1.84	2.31	2.86	3.52	4.30
55	-	-	-	-	1.54	1.94	2.41	2.97	3.63
60	-	-	-	-	-	1.61	2.01	2.48	3.04
65	-	-	-	-	-	-	1.65	2.05	2.53
			1	1					
	ance at to = 7.	2 °C, tc = 54.4 °C		<u></u>	=	Pressure switch			
Saalina aanaaib.	·	44.00	7 \\/	1		Massinas IID assis		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

11 097

3 349

5.82

261

3.31

W

W

kg/h

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	69	dB(A)	
With accoustic hood	64	dB(A)	

All performance data +/- 5%



# Danfoss scroll compressor. HRP048T4

# 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	in W								
30	-	3 418	4 389	5 567	6 977	8 642	10 586	12 835	15 412
35	_	3 203	4 125	5 242	6 578	8 157	10 002	12 139	14 591
40	_	2 971	3 845	4 902	6 165	7 658	9 405	11 431	13 759
45		2 97 1	3 546	4 542	5 733	7 141	8 791	10 706	12 911
50		_		4 160	5 278	6 602	8 154	9 959	12 041
55	_	-	-	-	4 797	6 037	7 492	9 187	11 145
60	_	-	_	_	-	5 440	6 799	8 383	10 218
65	_	_	_	_	_	-	6 069	7 543	9 253
00		1					0 000	7 0 10	0 200
ower input in W		_	·	1	T	•	1	1	1
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368
60	-	-	-	-	-	3 770	3 763	3 748	3 720
65	-	-	-	-	-	-	4 137	4 128	4 108
·	41 ! A								
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00
35		4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47
40		5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77
45	_	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03
50	<u>-</u>	-	-	5.41	5.36	5.37	5.41	5.42	5.36
55		-	-	-	5.79	5.81	5.86	5.89	5.86
60		_	_	_	-	6.49	6.57	6.64	6.66
65	<u>-</u>	-		-	_	-	7.65	7.78	7.86
00	<u> </u>	1			-		1.00	1.10	7.00
Mass flow in kg/h		_	1	1	1	1	1	1	1
30	-	77	97	120	148	181	218	260	308
35	-	76	95	119	147	179	216	258	305
40	-	74	94	117	145	176	213	255	302
45	-	-	92	115	142	174	210	251	298
50	-	-	-	112	139	170	206	247	293
55	-	-	-	-	135	166	202	242	288
60	-	-	-	-	-	160	196	237	283
65	-	-	-	-	-	-	189	230	276
Coefficient of per	formance (C.0	O.P.)							
30	-	1.58	2.04	2.60	3.27	4.09	5.07	6.27	7.74
35	-	1.34	1.73	2.21	2.78	3.48	4.31	5.31	6.55
40	-	1.13	1.46	1.87	2.37	2.96	3.66	4.51	5.54
45	-	-	1.23	1.58	2.00	2.51	3.11	3.82	4.69
50	-	-	-	1.32	1.68	2.11	2.62	3.23	3.95
55	-	-	-	-	1.39	1.76	2.19	2.70	3.31
60	-	-	-	-	-	1.44	1.81	2.24	2.75
65	-	-	-	-	-	-	1.47	1.83	2.25

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

rionina poriorinarios arto o o, to	•••	
Cooling capacity	9 959	W
Power input	3 088	W
Current consumption	5.42	Α
Mass flow	247	kg/h
C.O.P.	3.23	

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	69	dB(A)
With accoustic hood	64	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



# Danfoss scroll compressor. HRP048T4

# 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
li	: <b>\A</b> /								
cooling capacity		3 670	4 708	5 964	7 466	9 238	11 305	13 692	16 426
30	-				ł				
35	-	3 456	4 446	5 643	7 072	8 758	10 728	13 005	15 617
40	-	3 225	4 168	5 305	6 663	8 265	10 138	12 307	14 797
45	-	-	3 868	4 947	6 234	7 754	9 532	11 593	13 962
50	-	-	-	4 565	5 782	7 220	8 903	10 857	13 108
55	-	-	-	-	5 301	6 658	8 248	10 096	12 229
60	-	-	-	-	-	6 064	7 562	9 305	11 320
65	-	-	-	-	-	-	6 839	8 479	10 378
ower input in W									
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368
60	-	-	-	-	-	3 770	3 763	3 748	3 720
65	-	-	-	-	-	-	4 137	4 128	4 108
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00
35	-	4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47
40	-	5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77
45	-	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03
50	-	_	-	5.41	5.36	5.37	5.41	5.42	5.36
55	_	_	-	-	5.79	5.81	5.86	5.89	5.86
60	_	-	_	_	-	6.49	6.57	6.64	6.66
65	-	_	_	-	-	-	7.65	7.78	7.86
			1	I	1	1			
lass flow in kg/h	ı			Т	1				
30	-	76	96	120	148	180	217	259	306
35	-	75	95	118	146	178	214	256	303
40	-	74	93	117	144	175	212	253	300
45	-	-	91	114	141	173	209	250	296
50	-	-	-	111	138	169	205	246	292
55	-	-	-	-	134	165	200	241	287
60	-	-	-	-	-	160	195	235	281
65	-	-	-	-	-	-	188	229	274
oefficient of per	formance (C.0	O.P.)							
30	-	1.70	2.19	2.79	3.50	4.37	5.41	6.68	8.25
35	-	1.44	1.87	2.38	2.99	3.73	4.62	5.69	7.01
40	-	1.22	1.59	2.03	2.56	3.19	3.95	4.86	5.96
45	-	-	1.34	1.72	2.18	2.72	3.37	4.14	5.07
50	-	-	-	1.45	1.84	2.31	2.86	3.52	4.30
55	-	-	-	-	1.54	1.94	2.41	2.97	3.63
60	-	-	-	-	-	1.61	2.01	2.48	3.04
65	-	-	-	-	-	-	1.65	2.05	2.53
			1	1					
	ance at to = 7.	2 °C, tc = 54.4 °C		<u></u>	=	Pressure switch			
Saalina aanaaib.	·	44.00	7 \\/	1		Massinas IID assis		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

11 097

3 349

5.82

261

3.31

W

W

kg/h

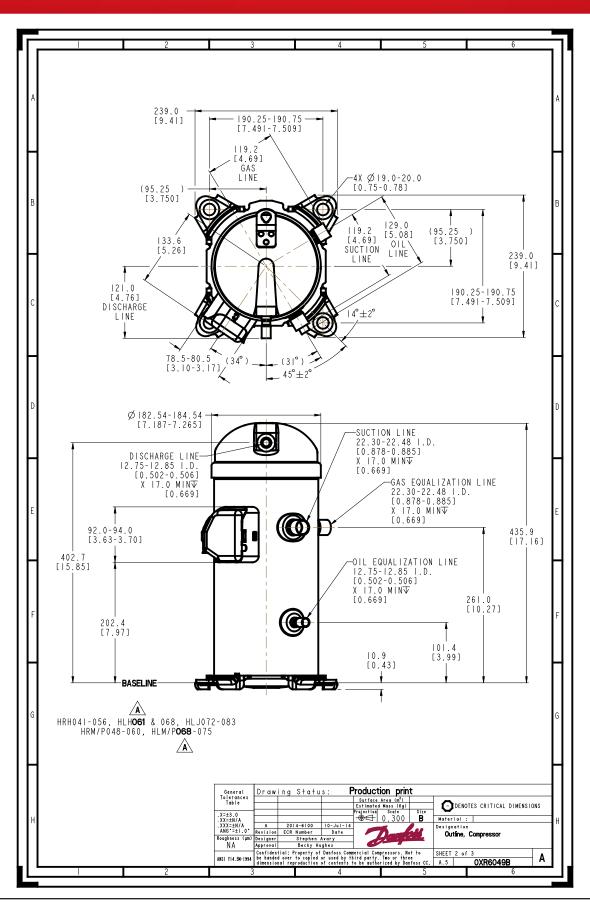
Maximum HP switch	n setting	30	bar(g)
Minimum LP switch	setting	0.5	bar(g)
LP pump down setti	ng	1	bar(g)

## Sound power data

Sound power level	69	dB(A)	
With accoustic hood	64	dB(A)	

All performance data +/- 5%





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FRCC.PD.0XR6049Ba page drawings



## Datasheet, technical data

# Danfoss scroll compressor, HRP048T4

# **General Characteristics**

Model number (on compressor nameplate)	HRP048T4LP6
Code number for Singlepack*	120U1656
Code number for Industrial pack**	120U1653
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	64.4 cm3/rev
Displacement @ Nominal speed	11.2 m3/h @ 2900 rpm - 13.5 m3/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

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	2.600 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.610 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.650 Ω
Rated Load Amps (RLA)	7.7 A
Maximum Continuous Current (MCC)	12 A
Locked Rotor Amps (LRA)	55.2 A
Motor protection	Internal overload protector

# **Recommended Installation torques**

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

## Parts shipped with compressor

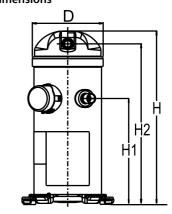
1 arts shipped with compressor	
Mounting kit with grommets and sleeves	l
Initial oil charge	l
Installation instructions	l

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

 $\hbox{*Singlepack: Compressor in cardboard box}\\$ 

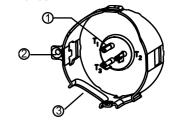
\*\*Industrial pack: 12 or 16 Unboxed compressors on pallet

## Dimensions



D=183.5 mm H=455 mm H1=280 mm H2=422 mm H3=- mm

## **Terminal box**



IP22

3:

Spade connectors 1/4"
Earth connection

Power cable passage

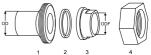


## Datasheet, accessories and spare parts

# Danfoss scroll compressor, HRP048T4

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	Solo
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031	
Gasket, 1"	8156130	<b>」</b> ┌─
Rotolock accessories, sets	Code no.	OB (
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.	1: Ro
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034	2: Ga
		3: So
Crankcase heaters	Code no.	4: Ro
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	1

Solder sleeve adapter set



1: Rotolock adapter (Suc & Dis)

- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- : Rotolock nut (Suc & Dis)



# Danfoss scroll compressor. HRP048T4

# 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	in W									
30	-	3 418	4 389	5 567	6 977	8 642	10 586	12 835	15 412	
35	_	3 203	4 125	5 242	6 578	8 157	10 002	12 139	14 591	
40	_	2 971	3 845	4 902	6 165	7 658	9 405	11 431	13 759	
45		2 97 1	3 546	4 542	5 733	7 141	8 791	10 706	12 911	
50		_		4 160	5 278	6 602	8 154	9 959	12 041	
55	_	-	-	-	4 797	6 037	7 492	9 187	11 145	
60	_	-	_	_	-	5 440	6 799	8 383	10 218	
65	_	_	_	_	_	-	6 069	7 543	9 253	
00		1					0 000	7 0 10	0 200	
ower input in W		_	·	1	T	•	1	1	1	
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990	
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229	
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482	
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753	
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047	
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368	
60	-	-	-	-	-	3 770	3 763	3 748	3 720	
65	-	-	-	-	-	-	4 137	4 128	4 108	
·	41 ! A									
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00	
35		4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47	
40		5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77	
45	_	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03	
50	<u>-</u>	-	-	5.41	5.36	5.37	5.41	5.42	5.36	
55		-	-	-	5.79	5.81	5.86	5.89	5.86	
60		_	_	_	-	6.49	6.57	6.64	6.66	
65	<u>-</u>	-		-	_	-	7.65	7.78	7.86	
00	<u> </u>	1			-		1.00	1.10	7.00	
Mass flow in kg/h		_	·	1	1	1	1	1	1	
30	-	77	97	120	148	181	218	260	308	
35	-	76	95	119	147	179	216	258	305	
40	-	74	94	117	145	176	213	255	302	
45	-	-	92	115	142	174	210	251	298	
50	-	-	-	112	139	170	206	247	293	
55	-	-	-	-	135	166	202	242	288	
60	-	-	-	-	-	160	196	237	283	
65	-	-	-	-	-	-	189	230	276	
Coefficient of per	formance (C.0	O.P.)								
30	-	1.58	2.04	2.60	3.27	4.09	5.07	6.27	7.74	
35	-	1.34	1.73	2.21	2.78	3.48	4.31	5.31	6.55	
40	-	1.13	1.46	1.87	2.37	2.96	3.66	4.51	5.54	
45	-	-	1.23	1.58	2.00	2.51	3.11	3.82	4.69	
50	-	-	-	1.32	1.68	2.11	2.62	3.23	3.95	
55	-	-	-	-	1.39	1.76	2.19	2.70	3.31	
60	-	-	-	-	-	1.44	1.81	2.24	2.75	
65	-	-	-	-	-	-	1.47	1.83	2.25	

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

rionina poriorinarios arto o o, to	•••	
Cooling capacity	9 959	W
Power input	3 088	W
Current consumption	5.42	Α
Mass flow	247	kg/h
C.O.P.	3.23	

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	69	dB(A)
With accoustic hood	64	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



# Danfoss scroll compressor. HRP048T4

# Performance data at 50 Hz, ARI rating conditions

# **R407C**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
li	: <b>\A</b> /								
cooling capacity		3 670	4 708	5 964	7 466	9 238	11 305	13 692	16 426
30	-				ł				
35	-	3 456	4 446	5 643	7 072	8 758	10 728	13 005	15 617
40	-	3 225	4 168	5 305	6 663	8 265	10 138	12 307	14 797
45	-	-	3 868	4 947	6 234	7 754	9 532	11 593	13 962
50	-	-	-	4 565	5 782	7 220	8 903	10 857	13 108
55	-	-	-	-	5 301	6 658	8 248	10 096	12 229
60	-	-	-	-	-	6 064	7 562	9 305	11 320
65	-	-	-	-	-	-	6 839	8 479	10 378
ower input in W									
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368
60	-	-	-	-	-	3 770	3 763	3 748	3 720
65	-	-	-	-	-	-	4 137	4 128	4 108
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00
35	-	4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47
40	-	5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77
45	-	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03
50	-	_	-	5.41	5.36	5.37	5.41	5.42	5.36
55	_	_	-	-	5.79	5.81	5.86	5.89	5.86
60	_	-	_	-	-	6.49	6.57	6.64	6.66
65	-	_	_	-	-	-	7.65	7.78	7.86
			1	I	1	1			
lass flow in kg/h	ı			Т	1				
30	-	76	96	120	148	180	217	259	306
35	-	75	95	118	146	178	214	256	303
40	-	74	93	117	144	175	212	253	300
45	-	-	91	114	141	173	209	250	296
50	-	-	-	111	138	169	205	246	292
55	-	-	-	-	134	165	200	241	287
60	-	-	-	-	-	160	195	235	281
65	-	-	-	-	-	-	188	229	274
oefficient of per	formance (C.0	O.P.)							
30	-	1.70	2.19	2.79	3.50	4.37	5.41	6.68	8.25
35	-	1.44	1.87	2.38	2.99	3.73	4.62	5.69	7.01
40	-	1.22	1.59	2.03	2.56	3.19	3.95	4.86	5.96
45	-	-	1.34	1.72	2.18	2.72	3.37	4.14	5.07
50	-	-	-	1.45	1.84	2.31	2.86	3.52	4.30
55	-	-	-	-	1.54	1.94	2.41	2.97	3.63
60	-	-	-	-	-	1.61	2.01	2.48	3.04
65	-	-	-	-	-	-	1.65	2.05	2.53
			1	1					
	ance at to = 7.	2 °C, tc = 54.4 °C		<u></u>	=	Pressure switch			
Saalina aanaaib.	·	44.00	7 \\/	1		Massinas IID assis		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

11 097

3 349

5.82

261

3.31

W

W

kg/h

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	69	dB(A)	
With accoustic hood	64	dB(A)	

All performance data +/- 5%



# Danfoss scroll compressor. HRP048T4

# 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	in W									
30	-	3 418	4 389	5 567	6 977	8 642	10 586	12 835	15 412	
35	_	3 203	4 125	5 242	6 578	8 157	10 002	12 139	14 591	
40	_	2 971	3 845	4 902	6 165	7 658	9 405	11 431	13 759	
45		2 97 1	3 546	4 542	5 733	7 141	8 791	10 706	12 911	
50		_		4 160	5 278	6 602	8 154	9 959	12 041	
55	_	-	-	-	4 797	6 037	7 492	9 187	11 145	
60	_	-	_	_	-	5 440	6 799	8 383	10 218	
65	_	_	_	_	_	-	6 069	7 543	9 253	
00		1					0 000	7 0 10	0 200	
ower input in W		_	·	1	T	•	1	1	1	
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990	
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229	
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482	
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753	
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047	
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368	
60	-	-	-	-	-	3 770	3 763	3 748	3 720	
65	-	-	-	-	-	-	4 137	4 128	4 108	
·	41 ! A									
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00	
35		4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47	
40		5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77	
45	_	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03	
50	<u>-</u>	-	-	5.41	5.36	5.37	5.41	5.42	5.36	
55		-	-	-	5.79	5.81	5.86	5.89	5.86	
60		_	_	_	-	6.49	6.57	6.64	6.66	
65	<u>-</u>	-		-	_	-	7.65	7.78	7.86	
00	<u> </u>	1			-		1.00	1.10	7.00	
Mass flow in kg/h		_	·	1	1	1	1	1	1	
30	-	77	97	120	148	181	218	260	308	
35	-	76	95	119	147	179	216	258	305	
40	-	74	94	117	145	176	213	255	302	
45	-	-	92	115	142	174	210	251	298	
50	-	-	-	112	139	170	206	247	293	
55	-	-	-	-	135	166	202	242	288	
60	-	-	-	-	-	160	196	237	283	
65	-	-	-	-	-	-	189	230	276	
Coefficient of per	formance (C.0	O.P.)								
30	-	1.58	2.04	2.60	3.27	4.09	5.07	6.27	7.74	
35	-	1.34	1.73	2.21	2.78	3.48	4.31	5.31	6.55	
40	-	1.13	1.46	1.87	2.37	2.96	3.66	4.51	5.54	
45	-	-	1.23	1.58	2.00	2.51	3.11	3.82	4.69	
50	-	-	-	1.32	1.68	2.11	2.62	3.23	3.95	
55	-	-	-	-	1.39	1.76	2.19	2.70	3.31	
60	-	-	-	-	-	1.44	1.81	2.24	2.75	
65	-	-	-	-	-	-	1.47	1.83	2.25	

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

rionina poriorinarios arto o o, to	•••	
Cooling capacity	9 959	W
Power input	3 088	W
Current consumption	5.42	Α
Mass flow	247	kg/h
C.O.P.	3.23	

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	69	dB(A)
With accoustic hood	64	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



# Danfoss scroll compressor. HRP048T4

# Performance data at 50 Hz, ARI rating conditions

# **R407C**

Cond. temp. in Evaporating temperature in °C (to)									
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
li	: <b>\A</b> /								
cooling capacity		3 670	4 708	5 964	7 466	9 238	11 305	13 692	16 426
30	-				ł				
35	-	3 456	4 446	5 643	7 072	8 758	10 728	13 005	15 617
40	-	3 225	4 168	5 305	6 663	8 265	10 138	12 307	14 797
45	-	-	3 868	4 947	6 234	7 754	9 532	11 593	13 962
50	-	-	-	4 565	5 782	7 220	8 903	10 857	13 108
55	-	-	-	-	5 301	6 658	8 248	10 096	12 229
60	-	-	-	-	-	6 064	7 562	9 305	11 320
65	-	-	-	-	-	-	6 839	8 479	10 378
ower input in W									
30	-	2 157	2 149	2 141	2 132	2 115	2 089	2 048	1 990
35	-	2 393	2 382	2 373	2 363	2 347	2 322	2 284	2 229
40	-	2 638	2 625	2 616	2 605	2 591	2 568	2 533	2 482
45	-	-	2 883	2 873	2 863	2 850	2 830	2 799	2 753
50	-	-	-	3 149	3 141	3 131	3 114	3 088	3 047
55	-	-	-	-	3 443	3 436	3 424	3 402	3 368
60	-	-	-	-	-	3 770	3 763	3 748	3 720
65	-	-	-	-	-	-	4 137	4 128	4 108
30	tion in A	3.46	3.41	3.48	3.62	3.78	3.93	4.02	4.00
35	-	4.37	4.22	4.21	4.28	4.38	4.48	4.52	4.47
40	-	5.00	4.78	4.70	4.71	4.77	4.83	4.84	4.77
45	-	-	5.19	5.06	5.03	5.06	5.10	5.11	5.03
50	-	_	-	5.41	5.36	5.37	5.41	5.42	5.36
55	_	_	-	-	5.79	5.81	5.86	5.89	5.86
60	_	-	_	_	-	6.49	6.57	6.64	6.66
65	-	_	_	-	-	-	7.65	7.78	7.86
			1	I	1	1			
lass flow in kg/h	ı			Т	1				
30	-	76	96	120	148	180	217	259	306
35	-	75	95	118	146	178	214	256	303
40	-	74	93	117	144	175	212	253	300
45	-	-	91	114	141	173	209	250	296
50	-	-	-	111	138	169	205	246	292
55	-	-	-	-	134	165	200	241	287
60	-	-	-	-	-	160	195	235	281
65	-	-	-	-	-	-	188	229	274
oefficient of per	formance (C.0	O.P.)							
30	-	1.70	2.19	2.79	3.50	4.37	5.41	6.68	8.25
35	-	1.44	1.87	2.38	2.99	3.73	4.62	5.69	7.01
40	-	1.22	1.59	2.03	2.56	3.19	3.95	4.86	5.96
45	-	-	1.34	1.72	2.18	2.72	3.37	4.14	5.07
50	-	-	-	1.45	1.84	2.31	2.86	3.52	4.30
55	-	-	-	-	1.54	1.94	2.41	2.97	3.63
60	-	-	-	-	-	1.61	2.01	2.48	3.04
65	-	-	-	-	-	-	1.65	2.05	2.53
			1	1					
	ance at to = 7.	2 °C, tc = 54.4 °C		<u></u>	=	Pressure switch			
Saalina aanaaib.	·	44.00	7 \\/	1		Massinas IID assis		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

11 097

3 349

5.82

261

3.31

W

W

kg/h

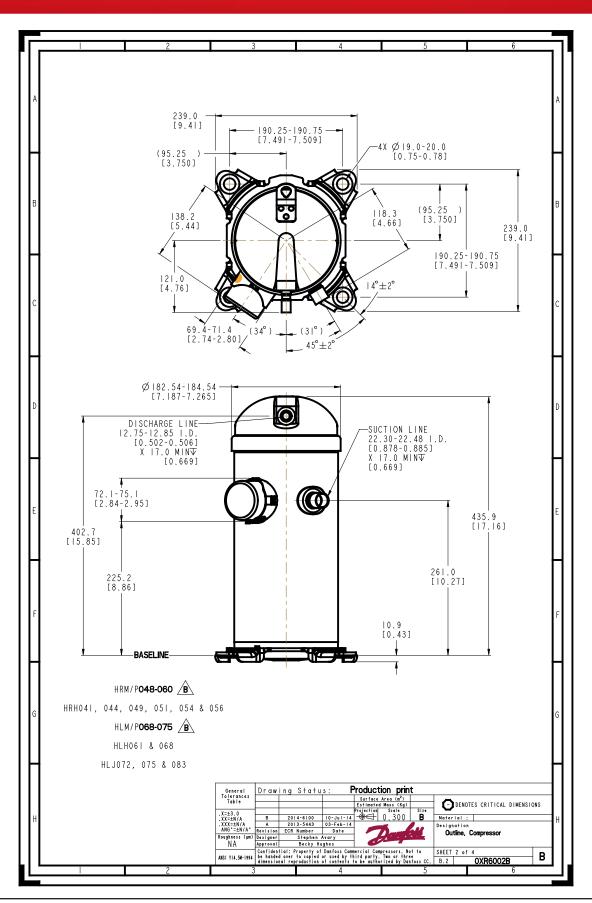
Maximum HP switch setting	30	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1	bar(g)

## Sound power data

Sound power leve	69	dB(A)
With accoustic ho	od 64	dB(A)

All performance data +/- 5%





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FRCC.PD.0XR6002Bb page drawings