ENGINEERING



Datasheets

Danfoss scroll compressors **H series**





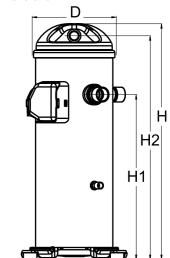
Datasheet, technical data

Danfoss scroll compressor, HLP081T4

General Characteristics

Model number (on compressor nameplate)		HLP081T4LC6	
Code number for Singlepack*		120U1781	
Code number for Industrial pack**		120U1778	
Drawing number		0XR6089B-2	
Suction and discharge connections		Brazed	
Suction connection		7/8 " ODF	
Discharge connection		3/4 " ODF	
Oil sight glass		None	
Oil equalisation connection		None	
Oil drain connection		None	
LP gauge port		None	
IPR valve		Yes	
Swept volume	110,94 cm3/rev		
Displacement @ Nominal speed	19.3 m3/h @ 2900 rpm	- 23.3 m3/h @ 3500 rpm	
Net weight	37,2	2 kg	
Oil charge	1,57 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	5,44	4 kg	
Approved refrigerants	R40)7C	

Dimensions



Electrical Characteristics

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	2.116 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.090 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.070 Ω
Rated Load Amps (RLA)	11 A
Maximum Continuous Current (MCC)	17 A
Locked Rotor Amps (LRA)	87 A
Motor protection	Internal overload protector

D=183,5 mm H=455 mm H1=280 mm H2=422 mm H3=- mm

Terminal box



Recommended Installation torques

Oil sight glass	52,5 Nm
Power connections / Earth connection	3 Nm / 2 Nm

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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

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

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

IP22

1: Screw connectors 10-32 UNF x 9.5

2: Earth connection

3: Power cable passage



Datasheet, accessories and spare parts

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

Danfoss scroll compressor, HLP081T4

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, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008	
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006	Solder sleeve adapter set
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029	•
Gasket, 1-1/4"	8156131	
Details also accessives note	Cadana	
Rotolock accessories, sets	Code no.	
Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1-1/4" Rotolock, 3/4" ODF)	120Z0128	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, 65 W, 230 V, CE mark, UL	120Z0059	
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060	
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040	
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040	
Miscellaneous accessories	Code no.	
Acoustic hood	120Z5044	
Discharge thermostat kit	7750009	
Spare parts	Code no.	
Spare parts Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	Code no. 120Z5005	

120Z5031



Danfoss scroll compressor. HLP081T4

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
Saalina aanaaitu	: \W								
30 Sooling capacity		5 581	7 148	9 064	11 361	14 070	17 223	20 851	24 986
35	_	5 311	6 797	8 624	10 825	13 429	16 469	19 977	23 983
40	<u>-</u>	5 050	6 453	8 189	10 323	12 787	15 711	19 095	22 968
45		3 030	6 092	7 734	9 733	12 119	14 924	18 180	21 917
50	-	-	0 092	7 236	9 129	11 401	14 924	17 207	20 803
55		-	-	-	8 454	10 608	13 163	16 151	19 602
60	-	-	-			9 717	12 141	14 987	18 287
65		-	-	-	-	9717	10 991	13 689	16 830
00	<u> </u>				<u> </u>		10 991	13 009	10 030
Power input in W		_		T	1	T		1	
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
45		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
					10.01	10.02			10.04
50 55	-	-	-	10.02			10.03	10.04 10.87	10.04
60		-		-	10.87	10.86	10.86	1	
65	-	-		-	-	11.85	11.84 12.99	11.84 12.98	11.84 12.97
05					-		12.99	12.90	12.91
Mass flow in kg/h		1		1		1			
30	-	134	169	210	259	315	380	454	537
35	-	133	167	209	257	314	378	452	535
40	-	132	166	207	255	312	376	450	533
45	-	-	164	205	253	309	374	447	530
50	-	-	-	201	249	305	370	444	527
55	-	-	-	-	244	300	365	439	523
60	-	-	-	-	-	293	358	432	516
65	-	-	-	-	-	-	349	423	508
Coefficient of per	formance (C.0	O.P.)							
30	-	1.50	1.92	2.45	3.09	3.86	4.80	5.94	7.35
35	-	1.28	1.64	2.09	2.64	3.30	4.10	5.06	6.23
40	-	1.09	1.40	1.78	2.25	2.82	3.50	4.32	5.31
45	-	-	1.19	1.52	1.92	2.41	2.99	3.69	4.53
50	-	-	-	1.28	1.62	2.04	2.54	3.14	3.85
55	-	-	-	-	1.35	1.71	2.14	2.65	3.26
60	-	-	-	-	-	1.41	1.77	2.21	2.73
65	-	-	_	-	-	-	1.44	1.81	2.25

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

Cooling capacity	17 207	W	
Power input	5 480	W	
Current consumption	10.04	Α	
Mass flow	444	kg/h	
C.O.P.	3.14		

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. HLP081T4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Saalina aanaaitu	: \W								
30		5 993	7 666	9 710	12 157	15 040	18 391	22 244	26 630
35	_	5 732	7 325	9 283	11 637	14 420	17 664	21 403	25 668
40		5 482	6 994	8 863	11 121	13 801	16 936	20 559	24 701
45	-	5 462	6 646	8 424		13 159	16 182	19 686	23 702
	-	-	0 040	7 940	10 584	1			
50	-		-	- 1 940	10 000	12 468	15 376	18 758	22 646
55	-	-	-		9 343	11 700	14 492	17 750	21 507
60	-	-	-	-	-	10 832	13 504	16 635	20 259
65	-	-	-	-	-	-	12 386	15 388	18 876
Power input in W		1		1		1	1	1	
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
45	-				10.01	10.02	10.03		10.04
50 55	-	-	-	10.02				10.04 10.87	
-					10.87	10.86	10.86	1	10.87
60	-	-	-	-	-	11.85	11.84	11.84	11.84
65	-	-	-	-	-	-	12.99	12.98	12.97
Mass flow in kg/h		1		1		1	1	1	
30	-	133	168	209	258	314	378	451	534
35	-	132	167	208	256	312	376	449	532
40	-	131	165	206	254	310	374	447	530
45	-	-	163	204	252	307	372	445	527
50	-	-	-	200	248	304	368	441	524
55	-	-	-	-	243	299	363	437	520
60	-	-	-	-	-	291	356	430	513
65	-	-	-	-	-	-	347	421	505
Coefficient of per	formance (C.0	O.P.)							
30	-	1.61	2.06	2.62	3.30	4.13	5.13	6.34	7.84
35	-	1.38	1.77	2.25	2.83	3.54	4.39	5.42	6.67
40	-	1.18	1.52	1.93	2.44	3.05	3.78	4.66	5.71
45	-	-	1.30	1.65	2.09	2.61	3.25	4.00	4.90
50	-	-	-	1.40	1.78	2.23	2.77	3.42	4.20
55	-	-	-	-	1.49	1.88	2.35	2.91	3.57
60	-	-	-	-	-	1.57	1.97	2.45	3.02
65	-	-	-	-	-	-	1.62	2.04	2.53

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

reciminal portermance at to 7:2 0, to	04.4	
Cooling capacity	19 473	W
Power input	5 986	W
Current consumption	10.76	Α
Mass flow	473	kg/h
C.O.P.	3.25	

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

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HLP081T4

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
Saalina aanaaitu	: \W								
30 Sooling capacity		5 581	7 148	9 064	11 361	14 070	17 223	20 851	24 986
35	_	5 311	6 797	8 624	10 825	13 429	16 469	19 977	23 983
40	<u>-</u>	5 050	6 453	8 189	10 323	12 787	15 711	19 095	22 968
45		3 030	6 092	7 734	9 733	12 119	14 924	18 180	21 917
50	-	-	0 092	7 236	9 129	11 401	14 924	17 207	20 803
55		-	-	-	8 454	10 608	13 163	16 151	19 602
60	-	-	-			9 717	12 141	14 987	18 287
65		-	-	-	-	9717	10 991	13 689	16 830
00	<u> </u>				<u> </u>		10 991	13 009	10 030
Power input in W		_		T	1	T		1	
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
45		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
					10.01	10.02			10.04
50 55	-	-	-	10.02			10.03	10.04 10.87	10.04
60		-		-	10.87	10.86	10.86	1	
65	-	-		-	-	11.85	11.84 12.99	11.84 12.98	11.84 12.97
05					-		12.99	12.90	12.91
Mass flow in kg/h		1		1		1			
30	-	134	169	210	259	315	380	454	537
35	-	133	167	209	257	314	378	452	535
40	-	132	166	207	255	312	376	450	533
45	-	-	164	205	253	309	374	447	530
50	-	-	-	201	249	305	370	444	527
55	-	-	-	-	244	300	365	439	523
60	-	-	-	-	-	293	358	432	516
65	-	-	-	-	-	-	349	423	508
Coefficient of per	formance (C.0	O.P.)							
30	-	1.50	1.92	2.45	3.09	3.86	4.80	5.94	7.35
35	-	1.28	1.64	2.09	2.64	3.30	4.10	5.06	6.23
40	-	1.09	1.40	1.78	2.25	2.82	3.50	4.32	5.31
45	-	-	1.19	1.52	1.92	2.41	2.99	3.69	4.53
50	-	-	-	1.28	1.62	2.04	2.54	3.14	3.85
55	-	-	-	-	1.35	1.71	2.14	2.65	3.26
60	-	-	-	-	-	1.41	1.77	2.21	2.73
65	-	-	_	-	-	-	1.44	1.81	2.25

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

Cooling capacity	17 207	W	
Power input	5 480	W	
Current consumption	10.04	Α	
Mass flow	444	kg/h	
C.O.P.	3.14		

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. HLP081T4

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
Saalina aanaaitu	: \W								
30		5 993	7 666	9 710	12 157	15 040	18 391	22 244	26 630
35	_	5 732	7 325	9 283	11 637	14 420	17 664	21 403	25 668
40		5 482	6 994	8 863	11 121	13 801	16 936	20 559	24 701
45	-	5 462	6 646	8 424		13 159	16 182	19 686	23 702
	-	-	0 040	7 940	10 584	1			
50	-		-	- 1 940	10 000	12 468	15 376	18 758	22 646
55	-	-	-		9 343	11 700	14 492	17 750	21 507
60	-	-	-	-	-	10 832	13 504	16 635	20 259
65	-	-	-	-	-	-	12 386	15 388	18 876
Power input in W		1		1		1	1	1	
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
45	-				10.01	10.02	10.03		10.04
50 55	-	-	-	10.02				10.04 10.87	
-					10.87	10.86	10.86	1	10.87
60	-	-	-	-	-	11.85	11.84	11.84	11.84
65	-	-	-	-	-	-	12.99	12.98	12.97
Mass flow in kg/h		1		1		1	1	1	
30	-	133	168	209	258	314	378	451	534
35	-	132	167	208	256	312	376	449	532
40	-	131	165	206	254	310	374	447	530
45	-	-	163	204	252	307	372	445	527
50	-	-	-	200	248	304	368	441	524
55	-	-	-	-	243	299	363	437	520
60	-	-	-	-	-	291	356	430	513
65	-	-	-	-	-	-	347	421	505
Coefficient of per	formance (C.0	O.P.)							
30	-	1.61	2.06	2.62	3.30	4.13	5.13	6.34	7.84
35	-	1.38	1.77	2.25	2.83	3.54	4.39	5.42	6.67
40	-	1.18	1.52	1.93	2.44	3.05	3.78	4.66	5.71
45	-	-	1.30	1.65	2.09	2.61	3.25	4.00	4.90
50	-	-	-	1.40	1.78	2.23	2.77	3.42	4.20
55	-	-	-	-	1.49	1.88	2.35	2.91	3.57
60	-	-	-	-	-	1.57	1.97	2.45	3.02
65	-	-	-	-	-	-	1.62	2.04	2.53

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

reciminal portermance at to 7:2 0, to	04.4	
Cooling capacity	19 473	W
Power input	5 986	W
Current consumption	10.76	Α
Mass flow	473	kg/h
C.O.P.	3.25	

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

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HLP081T4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in Evaporat					rating temperature in °C (to)				
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30	-	6 697	8 577	10 877	13 633	16 884	20 667	25 021	29 983
35									
		6 373	8 156	10 349	12 989	16 115	19 763	23 972	28 779
40	-	6 061	7 744	9 827	12 348	15 344	18 854	22 914	27 562
45	-	-	7 311	9 281	11 679	14 543	17 909	21 816	26 300
50	-	-	-	8 683	10 954	13 681	16 900	20 648	24 964
55	-	-	-	-	10 145	12 730	15 796	19 381	23 523
60	-	-	-	-	-	11 661	14 569	17 984	21 944
65	-	-	-	-	-	-	13 189	16 427	20 196
Power input in W									
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	_	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	_	-	_	-	7 343	7 330	7 306	7 263	7 193
60	_	-	-	_	-	8 114	8 103	8 075	8 021
65	-	-	_	_	_	-	8 985	8 974	8 938
		1	ı	1	I	I.	0 000	00/1	0 000
Current consump	tion in A								
30	-	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	=	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40	=	7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	-	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50	_	-	-	8.65	8.88	9.03	9.08	9.03	8.90
55	-	-	-	-	9.61	9.83	9.92	9.89	9.74
60	-	-	-	-	-	10.90	11.07	11.08	10.95
65	-	-	-	-	-	_	12.63	12.72	12.63
			I	1	I	1		I	
Mass flow in kg/h	ı								
30	-	153	192	240	295	360	434	517	611
35	-	153	192	239	295	360	434	518	613
40	-	154	192	239	295	360	435	520	616
45	-	-	192	239	295	360	436	521	618
50	-	-	-	237	293	359	435	522	620
55	-	-	-	-	290	356	433	521	620
60	-	-	-	-	-	351	428	517	618
65	-	-	-	-	-	-	420	510	613
30	formance (C.C	D.P.) 1.51	1.94	2.47	3.12	3.89	4.82	5.94	7.33
	-		1.94		1	3.33	4.02	5.94	6.25
35		1.29		2.11	2.66				
40 4F	-	1.10	1.42	1.81	2.28	2.85	3.53	4.35	5.34
45	-	-	1.21	1.54	1.95	2.43	3.02	3.72	4.56
50	-	-	-	1.30	1.65	2.07	2.57	3.16	3.87
55	-	-	-	-	1.38	1.74	2.16	2.67	3.27
60	-	-	-	-	-	1.44	1.80	2.23	2.74
65	-	-	-	-	-	-	1.47	1.83	2.26

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

	•• •	
Cooling capacity	20 648	W
Power input	6 530	W
Current consumption	9.03	Α
Mass flow	522	kg/h
C.O.P.	3.16	

to: Evaporating temperature at dew point

tc: Condensing 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	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%



Danfoss scroll compressor. HLP081T4

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
	. : \A/								
30 30	r in vv	7 192	9 199	11 652	14 588	18 048	22 070	26 693	31 956
35		6 878	8 790	11 139	13 964	17 304	21 197	25 683	30 801
40	<u>-</u>		8 393	10 635	13 345		20 324	24 670	29 641
45	<u> </u>	6 579	7 976	10 109	12 701	16 562 15 791	19 419	23 623	28 442
50	<u>-</u>	-	-	9 528	12 000	14 961	18 451	22 510	27 175
55		-	-	-	11 211	14 040	17 390	21 300	25 808
60			-		11211	12 998	16 204	19 962	24 311
65	-	_	-	-	_	-	14 863	18 466	22 652
03					_		14 003	10 400	22 032
ower input in W	ı								
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	-	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	-	-	-	-	7 343	7 330	7 306	7 263	7 193
60	-	-	-	-	-	8 114	8 103	8 075	8 021
65	-	-	-	-	-	-	8 985	8 974	8 938
urrent consump 30	ption in A	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	_	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40		7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	_	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50		_	-	8.65	8.88	9.03	9.08	9.03	8.90
55	<u> </u>	-	-	-	9.61	9.83	9.92	9.89	9.74
60		-	-	-	-	10.90	11.07	11.08	10.95
65	<u> </u>	-	-	-	-	-	12.63	12.72	12.63
00		<u> </u>		<u> </u>	<u> </u>	<u> </u>	12.00	12.72	12.00
lass flow in kg/h	h								
30	-	152	191	238	294	358	431	514	607
35	-	152	191	238	294	358	432	515	609
40	-	153	191	238	294	358	433	517	612
45	-	-	191	238	293	358	433	518	615
50	-	-	-	236	292	357	433	519	616
55	-	-	-	-	288	354	431	518	617
60	-	-	-	-	-	349	426	514	614
65	-	-	-	-	-	-	418	507	609
oefficient of per	rformance (C.C).P.)							
30	-	1.62	2.08	2.65	3.33	4.15	5.14	6.34	7.81
	-	1.39	1.79	2.27	2.86	3.57	4.42	5.45	6.69
35	-	1.20	1.54	1.95	2.46	3.07	3.81	4.69	5.75
35 40			1.32	1.68	2.12	2.64	3.27	4.03	4.93
40	-	-							
40 45				1.43	1.81	2.26	2.80	3.45	4.22
40 45 50	-	-	-	1.43	1.81 1.53	2.26 1.92	2.80	3.45 2.93	4.22 3.59
40 45 50 55	-		-	1.43	1.53	1.92	2.38	2.93	3.59
40 45 50	-	-	-	-				1	1

Cooling capacity	23 367	W
Power input	7 143	W
Current consumption	9.72	Α
Mass flow	560	kg/h
C.O.P.	3.27	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HLP081T4

Performance data at 60 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	-	6 697	8 577	10 877	13 633	16 884	20 667	25 021	29 983
35									
		6 373	8 156	10 349	12 989	16 115	19 763	23 972	28 779
40	-	6 061	7 744	9 827	12 348	15 344	18 854	22 914	27 562
45	-	-	7 311	9 281	11 679	14 543	17 909	21 816	26 300
50	-	-	-	8 683	10 954	13 681	16 900	20 648	24 964
55	-	-	-	-	10 145	12 730	15 796	19 381	23 523
60	-	-	-	-	-	11 661	14 569	17 984	21 944
65	-	-	-	-	-	-	13 189	16 427	20 196
Power input in W									
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	_	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	_	-	_	-	7 343	7 330	7 306	7 263	7 193
60	_	-	-	_	-	8 114	8 103	8 075	8 021
65	-	-	_	_	_	-	8 985	8 974	8 938
		1	ı	1	I	I.	0 000	00/1	0 000
Current consump	tion in A								
30	-	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	=	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40	=	7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	-	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50	_	-	-	8.65	8.88	9.03	9.08	9.03	8.90
55	-	-	-	-	9.61	9.83	9.92	9.89	9.74
60	-	-	-	-	-	10.90	11.07	11.08	10.95
65	-	-	-	-	-	_	12.63	12.72	12.63
			I	1	I	1		I	
Mass flow in kg/h	ı								
30	-	153	192	240	295	360	434	517	611
35	-	153	192	239	295	360	434	518	613
40	-	154	192	239	295	360	435	520	616
45	-	-	192	239	295	360	436	521	618
50	-	-	-	237	293	359	435	522	620
55	-	-	-	-	290	356	433	521	620
60	-	-	-	-	-	351	428	517	618
65	-	-	-	-	-	-	420	510	613
30	formance (C.C	D.P.) 1.51	1.94	2.47	3.12	3.89	4.82	5.94	7.33
	-		1.94		1	3.33	4.02	5.94	6.25
35		1.29		2.11	2.66				
40 4F	-	1.10	1.42	1.81	2.28	2.85	3.53	4.35	5.34
45	-	-	1.21	1.54	1.95	2.43	3.02	3.72	4.56
50	-	-	-	1.30	1.65	2.07	2.57	3.16	3.87
55	-	-	-	-	1.38	1.74	2.16	2.67	3.27
60	-	-	-	-	-	1.44	1.80	2.23	2.74
65	-	-	-	-	-	-	1.47	1.83	2.26

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

	•• •	
Cooling capacity	20 648	W
Power input	6 530	W
Current consumption	9.03	Α
Mass flow	522	kg/h
C.O.P.	3.16	

to: Evaporating temperature at dew point

tc: Condensing 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	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%



Danfoss scroll compressor. HLP081T4

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
	. : \A/								
30 30	r in vv	7 192	9 199	11 652	14 588	18 048	22 070	26 693	31 956
35		6 878	8 790	11 139	13 964	17 304	21 197	25 683	30 801
40	<u>-</u>		8 393	10 635	13 345		20 324	24 670	29 641
45	<u>-</u>	6 579	7 976	10 109	12 701	16 562 15 791	19 419	23 623	28 442
50	<u>-</u>	-	-	9 528	12 000	14 961	18 451	22 510	27 175
55		-	-	-	11 211	14 040	17 390	21 300	25 808
60			-		11211	12 998	16 204	19 962	24 311
65	-	_	-	-	_	-	14 863	18 466	22 652
03					_		14 003	10 400	22 032
ower input in W	ı								
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	-	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	-	-	-	-	7 343	7 330	7 306	7 263	7 193
60	-	-	-	-	-	8 114	8 103	8 075	8 021
65	-	-	-	-	-	-	8 985	8 974	8 938
urrent consump 30	ption in A	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	_	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40		7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	_	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50		_	-	8.65	8.88	9.03	9.08	9.03	8.90
55	<u> </u>	-	-	-	9.61	9.83	9.92	9.89	9.74
60		-	-	-	-	10.90	11.07	11.08	10.95
65	<u> </u>	-	-	-	-	-	12.63	12.72	12.63
00		<u> </u>		<u> </u>	<u> </u>	<u> </u>	12.00	12.72	12.00
lass flow in kg/h	h								
30	-	152	191	238	294	358	431	514	607
35	-	152	191	238	294	358	432	515	609
40	-	153	191	238	294	358	433	517	612
45	-	-	191	238	293	358	433	518	615
50	-	-	-	236	292	357	433	519	616
55	-	-	-	-	288	354	431	518	617
60	-	-	-	-	-	349	426	514	614
65	-	-	-	-	-	-	418	507	609
oefficient of per	rformance (C.C).P.)							
30	-	1.62	2.08	2.65	3.33	4.15	5.14	6.34	7.81
	-	1.39	1.79	2.27	2.86	3.57	4.42	5.45	6.69
35	-	1.20	1.54	1.95	2.46	3.07	3.81	4.69	5.75
35 40			1.32	1.68	2.12	2.64	3.27	4.03	4.93
40	-	-							
40 45				1.43	1.81	2.26	2.80	3.45	4.22
40 45 50	-	-	-	1.43	1.81 1.53	2.26 1.92	2.80	3.45 2.93	4.22 3.59
40 45 50 55	-		-	1.43	1.53	1.92	2.38	2.93	3.59
40 45 50	-	-	-	-				1	1

Cooling capacity	23 367	W
Power input	7 143	W
Current consumption	9.72	Α
Mass flow	560	kg/h
C.O.P.	3.27	

to: Evaporating temperature at dew point

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

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

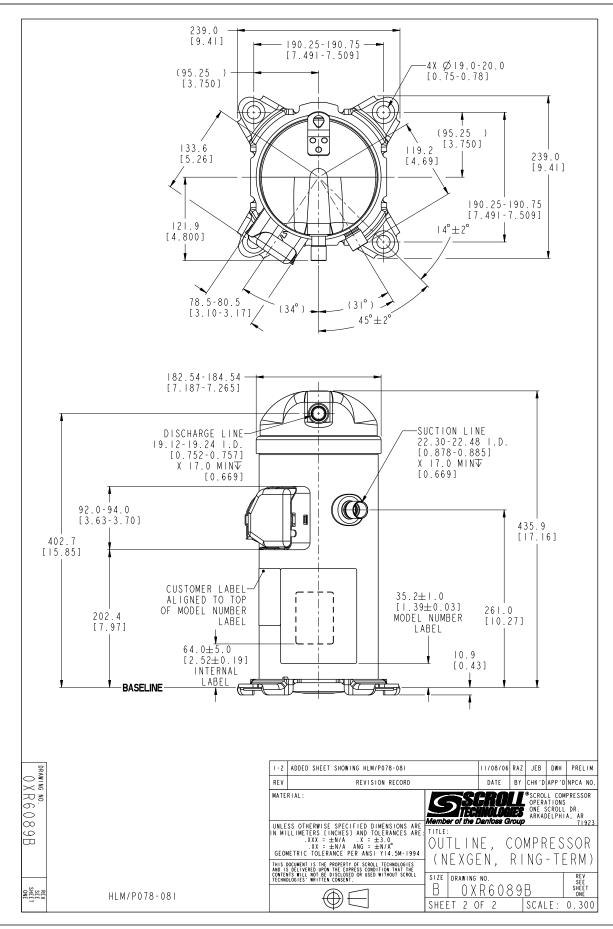
Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point









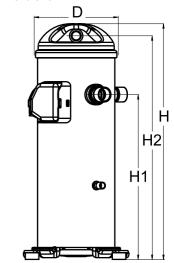
Datasheet, technical data

Danfoss scroll compressor, HLP081T4

General Characteristics

Model number (on compressor nameplate)		HLP081T4LC8		
Code number for Singlepack*		120U1786		
Code number for Industrial pack**		120U1783		
Drawing number		0XR6089B-2		
Suction and discharge connections		Brazed		
Suction connection		7/8 " ODF		
Discharge connection		3/4 " ODF		
Oil sight glass		None		
Oil equalisation connection		None		
Oil drain connection		None		
LP gauge port		None		
IPR valve		Yes		
Swept volume	110,94	cm3/rev		
Displacement @ Nominal speed	19.3 m3/h @ 2900 rpm	- 23.3 m3/h @ 3500 rpm		
Net weight	37,2	2 kg		
Oil charge	1,57 litro	e, PVE		
Maximum system test pressure Low Side / High side	- bar(g)	/ - bar(g)		
Maximum differential test pressure	- k	- bar		
Maximum number of starts per hour				
Refrigerant charge limit	5,44	4 kg		
Approved refrigerants	R40	R407C		

Dimensions



Electrical Characteristics

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	2.116 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.090 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.070 Ω
Rated Load Amps (RLA)	11 A
Maximum Continuous Current (MCC)	17 A
Locked Rotor Amps (LRA)	87 A
Motor protection	Internal overload protector

D=183,5 mm H=455 mm H1=280 mm H2=422 mm H3=- mm

Terminal box



Recommended Installation torques

Oil sight glass	52,5 Nm
Power connections / Earth connection	3 Nm / 2 Nm

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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

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

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

IP22

1: Screw connectors 10-32 UNF x 9.5

2: Earth connection

3: Power cable passage



Datasheet, accessories and spare parts

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

Danfoss scroll compressor, HLP081T4

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, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008	
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006	Solder sleeve adapter set
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029	•
Gasket, 1-1/4"	8156131	
Details also accessives note	Cadana	
Rotolock accessories, sets	Code no.	
Solder sleeve adapter set (1-1/4" Rotolock, 7/8" ODF), (1-1/4" Rotolock, 3/4" ODF)	120Z0128	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, 65 W, 230 V, CE mark, UL	120Z0059	
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060	
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040	
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040	
Miscellaneous accessories	Code no.	
Acoustic hood	120Z5044	
Discharge thermostat kit	7750009	
Spare parts	Code no.	
Spare parts Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	Code no. 120Z5005	

120Z5031



Danfoss scroll compressor. HLP081T4

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
Saalina aanaaitu	: \W								
30 Sooling capacity		5 581	7 148	9 064	11 361	14 070	17 223	20 851	24 986
35	_	5 311	6 797	8 624	10 825	13 429	16 469	19 977	23 983
40	<u>-</u>	5 050	6 453	8 189	10 323	12 787	15 711	19 095	22 968
45		3 030	6 092	7 734	9 733	12 119	14 924	18 180	21 917
50	-	-	0 092	7 236	9 129	11 401	14 924	17 207	20 803
55		-	-	-	8 454	10 608	13 163	16 151	19 602
60	-	-	-			9 717	12 141	14 987	18 287
65		-	-	-	-	9717	10 991	13 689	16 830
00	<u> </u>				<u> </u>		10 991	13 009	10 030
Power input in W		_		T	1	T		1	
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
45		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
					10.01	10.02			10.04
50 55	-	-	-	10.02			10.03	10.04 10.87	10.04
60		-		-	10.87	10.86	10.86	1	
65	-	-		-	-	11.85	11.84 12.99	11.84 12.98	11.84 12.97
05					-		12.99	12.90	12.91
Mass flow in kg/h		1		1		1			
30	-	134	169	210	259	315	380	454	537
35	-	133	167	209	257	314	378	452	535
40	-	132	166	207	255	312	376	450	533
45	-	-	164	205	253	309	374	447	530
50	-	-	-	201	249	305	370	444	527
55	-	-	-	-	244	300	365	439	523
60	-	-	-	-	-	293	358	432	516
65	-	-	-	-	-	-	349	423	508
Coefficient of per	formance (C.0	O.P.)							
30	-	1.50	1.92	2.45	3.09	3.86	4.80	5.94	7.35
35	-	1.28	1.64	2.09	2.64	3.30	4.10	5.06	6.23
40	-	1.09	1.40	1.78	2.25	2.82	3.50	4.32	5.31
45	-	-	1.19	1.52	1.92	2.41	2.99	3.69	4.53
50	-	-	-	1.28	1.62	2.04	2.54	3.14	3.85
55	-	-	-	-	1.35	1.71	2.14	2.65	3.26
60	-	-	-	-	-	1.41	1.77	2.21	2.73
65	-	-	_	-	-	-	1.44	1.81	2.25

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

Cooling capacity	17 207	W	
Power input	5 480	W	
Current consumption	10.04	Α	
Mass flow	444	kg/h	
C.O.P.	3.14		

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. HLP081T4

Performance data at 50 Hz, ARI rating conditions

R407C

Cond. temp. in				Evapora	ating temperature	in °C (to)			
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Saalina aanaaitu	: \W								
30		5 993	7 666	9 710	12 157	15 040	18 391	22 244	26 630
35	_	5 732	7 325	9 283	11 637	14 420	17 664	21 403	25 668
40		5 482	6 994	8 863	11 121	13 801	16 936	20 559	24 701
45	-	5 462	6 646	8 424		13 159	16 182	19 686	23 702
	-	-	0 040	7 940	10 584	+			
50	-		-	- 1 940	10 000	12 468	15 376	18 758	22 646
55	-	-	-		9 343	11 700	14 492	17 750	21 507
60	-	-	-	-	-	10 832	13 504	16 635	20 259
65	-	-	-	-	-	-	12 386	15 388	18 876
Power input in W		1		1		1	1	1	1
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
45	-				10.01	10.02	10.03		10.04
50 55	-	-	-	10.02				10.04 10.87	
-					10.87	10.86	10.86	1	10.87
60	-	-	-	-	-	11.85	11.84	11.84	11.84
65	-	-	-	-	-	-	12.99	12.98	12.97
Mass flow in kg/h		1		1		1	1	1	1
30	-	133	168	209	258	314	378	451	534
35	-	132	167	208	256	312	376	449	532
40	-	131	165	206	254	310	374	447	530
45	-	-	163	204	252	307	372	445	527
50	-	-	-	200	248	304	368	441	524
55	-	-	-	-	243	299	363	437	520
60	-	-	-	-	-	291	356	430	513
65	-	-	-	-	-	-	347	421	505
Coefficient of per	formance (C.0	O.P.)							
30	-	1.61	2.06	2.62	3.30	4.13	5.13	6.34	7.84
35	-	1.38	1.77	2.25	2.83	3.54	4.39	5.42	6.67
40	-	1.18	1.52	1.93	2.44	3.05	3.78	4.66	5.71
45	-	-	1.30	1.65	2.09	2.61	3.25	4.00	4.90
50	-	-	-	1.40	1.78	2.23	2.77	3.42	4.20
55	-	-	-	-	1.49	1.88	2.35	2.91	3.57
60	-	-	-	-	-	1.57	1.97	2.45	3.02
65	-	-	-	-	-	-	1.62	2.04	2.53

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

reciminal portermance at to 7:2 0, to	04.4	
Cooling capacity	19 473	W
Power input	5 986	W
Current consumption	10.76	Α
Mass flow	473	kg/h
C.O.P.	3.25	

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

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HLP081T4

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
Saalina aanaaitu	: \W								
30 Sooling capacity		5 581	7 148	9 064	11 361	14 070	17 223	20 851	24 986
35	_	5 311	6 797	8 624	10 825	13 429	16 469	19 977	23 983
40	<u>-</u>	5 050	6 453	8 189	10 323	12 787	15 711	19 095	22 968
45		3 030	6 092	7 734	9 733	12 119	14 924	18 180	21 917
50	-	-	0 092	7 236	9 129	11 401	14 924	17 207	20 803
55		-	-	-	8 454	10 608	13 163	16 151	19 602
60	-	-	-			9 717	12 141	14 987	18 287
65		-	-	-	-	9717	10 991	13 689	16 830
00	<u> </u>				<u> </u>		10 991	13 009	10 030
Power input in W		_		T	1	T		1	
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
45		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
					10.01	10.02			10.04
50 55	-	-	-	10.02			10.03	10.04 10.87	10.04
60		-		-	10.87	10.86	10.86	1	
65	-	-		-	-	11.85	11.84 12.99	11.84 12.98	11.84 12.97
05					-		12.99	12.90	12.91
Mass flow in kg/h		1		1		1			
30	-	134	169	210	259	315	380	454	537
35	-	133	167	209	257	314	378	452	535
40	-	132	166	207	255	312	376	450	533
45	-	-	164	205	253	309	374	447	530
50	-	-	-	201	249	305	370	444	527
55	-	-	-	-	244	300	365	439	523
60	-	-	-	-	-	293	358	432	516
65	-	-	-	-	-	-	349	423	508
Coefficient of per	formance (C.0	O.P.)							
30	-	1.50	1.92	2.45	3.09	3.86	4.80	5.94	7.35
35	-	1.28	1.64	2.09	2.64	3.30	4.10	5.06	6.23
40	-	1.09	1.40	1.78	2.25	2.82	3.50	4.32	5.31
45	-	-	1.19	1.52	1.92	2.41	2.99	3.69	4.53
50	-	-	-	1.28	1.62	2.04	2.54	3.14	3.85
55	-	-	-	-	1.35	1.71	2.14	2.65	3.26
60	-	-	-	-	-	1.41	1.77	2.21	2.73
65	-	-	_	-	-	-	1.44	1.81	2.25

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

Cooling capacity	17 207	W	
Power input	5 480	W	
Current consumption	10.04	Α	
Mass flow	444	kg/h	
C.O.P.	3.14		

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. HLP081T4

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
Saalina aanaaitu	: \W								
30		5 993	7 666	9 710	12 157	15 040	18 391	22 244	26 630
35	_	5 732	7 325	9 283	11 637	14 420	17 664	21 403	25 668
40		5 482	6 994	8 863	11 121	13 801	16 936	20 559	24 701
45	-	5 462	6 646	8 424		13 159	16 182	19 686	23 702
	-	-	0 040	7 940	10 584	+			
50	-		-	- 1 940	10 000	12 468	15 376	18 758	22 646
55	-	-	-		9 343	11 700	14 492	17 750	21 507
60	-	-	-	-	-	10 832	13 504	16 635	20 259
65	-	-	-	-	-	-	12 386	15 388	18 876
Power input in W		1		1		1	1	1	1
30	-	3 728	3 718	3 704	3 682	3 645	3 588	3 508	3 397
35	-	4 160	4 145	4 129	4 106	4 072	4 020	3 947	3 848
40	-	4 634	4 612	4 590	4 565	4 531	4 483	4 416	4 324
45	-	-	5 128	5 100	5 070	5 034	4 987	4 923	4 837
50	-	-	-	5 667	5 631	5 591	5 542	5 480	5 398
55	-	-	-	-	6 259	6 213	6 161	6 097	6 017
60	-	-	-	-	-	6 911	6 853	6 786	6 705
65	-	-	-	-	-	-	7 629	7 557	7 473
30	tion in A	7.88	7.86	7.87	7.87	7.89	7.89	7.90	7.88
35		8.26	8.24	8.24	8.25	8.26	8.28	8.28	8.28
40		8.74	8.72	8.72	8.72	8.73	8.75	8.76	8.76
		-	9.32	9.30	9.30	9.31	9.33	9.34	9.34
45	-				10.01	10.02	10.03		10.04
50 55	-	-	-	10.02				10.04 10.87	
-					10.87	10.86	10.86	1	10.87
60	-	-	-	-	-	11.85	11.84	11.84	11.84
65	-	-	-	-	-	-	12.99	12.98	12.97
Mass flow in kg/h		1		1		1	1	1	1
30	-	133	168	209	258	314	378	451	534
35	-	132	167	208	256	312	376	449	532
40	-	131	165	206	254	310	374	447	530
45	-	-	163	204	252	307	372	445	527
50	-	-	-	200	248	304	368	441	524
55	-	-	-	-	243	299	363	437	520
60	-	-	-	-	-	291	356	430	513
65	-	-	-	-	-	-	347	421	505
Coefficient of per	formance (C.0	O.P.)							
30	-	1.61	2.06	2.62	3.30	4.13	5.13	6.34	7.84
35	-	1.38	1.77	2.25	2.83	3.54	4.39	5.42	6.67
40	-	1.18	1.52	1.93	2.44	3.05	3.78	4.66	5.71
45	-	-	1.30	1.65	2.09	2.61	3.25	4.00	4.90
50	-	-	-	1.40	1.78	2.23	2.77	3.42	4.20
55	-	-	-	-	1.49	1.88	2.35	2.91	3.57
60	-	-	-	-	-	1.57	1.97	2.45	3.02
65	-	-	-	-	-	-	1.62	2.04	2.53

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

reciminal portermance at to 7:2 0, to	04.4	
Cooling capacity	19 473	W
Power input	5 986	W
Current consumption	10.76	Α
Mass flow	473	kg/h
C.O.P.	3.25	

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

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HLP081T4

Performance data at 60 Hz, EN 12900 rating conditions

R407C

Cond. temp. in Evaporat					rating temperature in °C (to)				
°C (tc)	-30	-25	-20	-15	-10	-5	0	5	10
Cooling capacity	in W								
30	-	6 697	8 577	10 877	13 633	16 884	20 667	25 021	29 983
35									
		6 373	8 156	10 349	12 989	16 115	19 763	23 972	28 779
40	-	6 061	7 744	9 827	12 348	15 344	18 854	22 914	27 562
45	-	-	7 311	9 281	11 679	14 543	17 909	21 816	26 300
50	-	-	-	8 683	10 954	13 681	16 900	20 648	24 964
55	-	-	-	-	10 145	12 730	15 796	19 381	23 523
60	-	-	-	-	-	11 661	14 569	17 984	21 944
65	-	-	-	-	-	-	13 189	16 427	20 196
Power input in W									
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	_	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	_	-	_	-	7 343	7 330	7 306	7 263	7 193
60	_	-	-	_	-	8 114	8 103	8 075	8 021
65	-	-	_	_	_	-	8 985	8 974	8 938
		1	ı	1	I	I.	0 000	00/1	0 000
Current consump	tion in A								
30	-	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	=	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40	=	7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	-	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50	_	-	-	8.65	8.88	9.03	9.08	9.03	8.90
55	-	-	-	-	9.61	9.83	9.92	9.89	9.74
60	-	-	-	-	-	10.90	11.07	11.08	10.95
65	-	-	-	-	-	_	12.63	12.72	12.63
			I	1	I	1		I	
Mass flow in kg/h	ı								
30	-	153	192	240	295	360	434	517	611
35	-	153	192	239	295	360	434	518	613
40	-	154	192	239	295	360	435	520	616
45	-	-	192	239	295	360	436	521	618
50	-	-	-	237	293	359	435	522	620
55	-	-	-	-	290	356	433	521	620
60	-	-	-	-	-	351	428	517	618
65	-	-	-	-	-	-	420	510	613
30	formance (C.C	D.P.) 1.51	1.94	2.47	3.12	3.89	4.82	5.94	7.33
	-		1.94		1	3.33	4.02	5.94	6.25
35		1.29		2.11	2.66				
40 4F	-	1.10	1.42	1.81	2.28	2.85	3.53	4.35	5.34
45	-	-	1.21	1.54	1.95	2.43	3.02	3.72	4.56
50	-	-	-	1.30	1.65	2.07	2.57	3.16	3.87
55	-	-	-	-	1.38	1.74	2.16	2.67	3.27
60	-	-	-	-	-	1.44	1.80	2.23	2.74
65	-	-	-	-	-	-	1.47	1.83	2.26

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

	•• •	
Cooling capacity	20 648	W
Power input	6 530	W
Current consumption	9.03	Α
Mass flow	522	kg/h
C.O.P.	3.16	

to: Evaporating temperature at dew point

tc: Condensing 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	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%



Danfoss scroll compressor. HLP081T4

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
	. : \A/								
30 30	r in vv	7 192	9 199	11 652	14 588	18 048	22 070	26 693	31 956
35		6 878	8 790	11 139	13 964	17 304	21 197	25 683	30 801
40	<u>-</u>		8 393	10 635	13 345		20 324	24 670	29 641
45	<u>-</u>	6 579	7 976	10 109	12 701	16 562 15 791	19 419	23 623	28 442
50	<u>-</u>	-	-	9 528	12 000	14 961	18 451	22 510	27 175
55		-	-	-	11 211	14 040	17 390	21 300	25 808
60			-		11211	12 998	16 204	19 962	24 311
65	-	_	-	-	_	-	14 863	18 466	22 652
03					_		14 003	10 400	22 032
ower input in W	ı								
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	-	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	-	-	-	-	7 343	7 330	7 306	7 263	7 193
60	-	-	-	-	-	8 114	8 103	8 075	8 021
65	-	-	-	-	-	-	8 985	8 974	8 938
urrent consump 30	ption in A	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	_	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40		7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	_	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50		_	-	8.65	8.88	9.03	9.08	9.03	8.90
55	<u> </u>	-	-	-	9.61	9.83	9.92	9.89	9.74
60		-	-	-	-	10.90	11.07	11.08	10.95
65	<u> </u>	-	-	-	-	-	12.63	12.72	12.63
00		<u> </u>		<u> </u>	<u> </u>	<u> </u>	12.00	12.72	12.00
lass flow in kg/h	h								
30	-	152	191	238	294	358	431	514	607
35	-	152	191	238	294	358	432	515	609
40	-	153	191	238	294	358	433	517	612
45	-	-	191	238	293	358	433	518	615
50	-	-	-	236	292	357	433	519	616
55	-	-	-	-	288	354	431	518	617
60	-	-	-	-	-	349	426	514	614
65	-	-	-	-	-	-	418	507	609
oefficient of per	rformance (C.C).P.)							
30	-	1.62	2.08	2.65	3.33	4.15	5.14	6.34	7.81
	-	1.39	1.79	2.27	2.86	3.57	4.42	5.45	6.69
35	-	1.20	1.54	1.95	2.46	3.07	3.81	4.69	5.75
35 40			1.32	1.68	2.12	2.64	3.27	4.03	4.93
40	-	-							
40 45				1.43	1.81	2.26	2.80	3.45	4.22
40 45 50	-	-	-	1.43	1.81 1.53	2.26 1.92	2.80	3.45 2.93	4.22 3.59
40 45 50 55	-		-	1.43	1.53	1.92	2.38	2.93	3.59
40 45 50	-	-	-	-				1	1

Cooling capacity	23 367	W
Power input	7 143	W
Current consumption	9.72	Α
Mass flow	560	kg/h
C.O.P.	3.27	

to: Evaporating temperature at dew point

Rating conditions : Superheat = 11.1 K , Subcooling = 8.3 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	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point



Danfoss scroll compressor. HLP081T4

Performance data at 60 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	-	6 697	8 577	10 877	13 633	16 884	20 667	25 021	29 983
35									
		6 373	8 156	10 349	12 989	16 115	19 763	23 972	28 779
40	-	6 061	7 744	9 827	12 348	15 344	18 854	22 914	27 562
45	-	-	7 311	9 281	11 679	14 543	17 909	21 816	26 300
50	-	-	-	8 683	10 954	13 681	16 900	20 648	24 964
55	-	-	-	-	10 145	12 730	15 796	19 381	23 523
60	-	-	-	-	-	11 661	14 569	17 984	21 944
65	-	-	-	-	-	-	13 189	16 427	20 196
Power input in W									
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	_	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	_	-	_	-	7 343	7 330	7 306	7 263	7 193
60	_	-	-	_	-	8 114	8 103	8 075	8 021
65	-	-	_	_	_	-	8 985	8 974	8 938
		1	ı	1	I	I.	0 000	00/1	0 000
Current consump	tion in A								
30	-	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	=	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40	=	7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	-	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50	_	-	-	8.65	8.88	9.03	9.08	9.03	8.90
55	-	-	-	-	9.61	9.83	9.92	9.89	9.74
60	-	-	-	-	-	10.90	11.07	11.08	10.95
65	-	-	-	-	-	_	12.63	12.72	12.63
			I	1	I	1		I	
Mass flow in kg/h	ı								
30	-	153	192	240	295	360	434	517	611
35	-	153	192	239	295	360	434	518	613
40	-	154	192	239	295	360	435	520	616
45	-	-	192	239	295	360	436	521	618
50	-	-	-	237	293	359	435	522	620
55	-	-	-	-	290	356	433	521	620
60	-	-	-	-	-	351	428	517	618
65	-	-	-	-	-	-	420	510	613
30	formance (C.C	D.P.) 1.51	1.94	2.47	3.12	3.89	4.82	5.94	7.33
	-		1.94		1	3.33	4.02	5.94	6.25
35		1.29		2.11	2.66				
40 4F	-	1.10	1.42	1.81	2.28	2.85	3.53	4.35	5.34
45	-	-	1.21	1.54	1.95	2.43	3.02	3.72	4.56
50	-	-	-	1.30	1.65	2.07	2.57	3.16	3.87
55	-	-	-	-	1.38	1.74	2.16	2.67	3.27
60	-	-	-	-	-	1.44	1.80	2.23	2.74
65	-	-	-	-	-	-	1.47	1.83	2.26

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

	•• •	
Cooling capacity	20 648	W
Power input	6 530	W
Current consumption	9.03	Α
Mass flow	522	kg/h
C.O.P.	3.16	

to: Evaporating temperature at dew point

tc: Condensing 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	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%



Danfoss scroll compressor. HLP081T4

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
	. : \A/								
30 30	r in vv	7 192	9 199	11 652	14 588	18 048	22 070	26 693	31 956
35		6 878	8 790	11 139	13 964	17 304	21 197	25 683	30 801
40	<u>-</u>		8 393	10 635	13 345		20 324	24 670	29 641
45	<u>-</u>	6 579	7 976	10 109	12 701	16 562 15 791	19 419	23 623	28 442
50	<u>-</u>	-	-	9 528	12 000	14 961	18 451	22 510	27 175
55		-	-	-	11 211	14 040	17 390	21 300	25 808
60			-		11211	12 998	16 204	19 962	24 311
65	-	_	-	-	_	-	14 863	18 466	22 652
03					_		14 003	10 400	22 032
ower input in W	ı								
30	-	4 434	4 412	4 396	4 376	4 345	4 292	4 210	4 090
35	-	4 950	4 922	4 901	4 878	4 846	4 795	4 716	4 601
40	-	5 497	5 464	5 440	5 417	5 386	5 338	5 265	5 158
45	-	-	6 048	6 023	6 002	5 974	5 933	5 867	5 770
50	-	-	-	6 659	6 641	6 619	6 585	6 530	6 445
55	-	-	-	-	7 343	7 330	7 306	7 263	7 193
60	-	-	-	-	-	8 114	8 103	8 075	8 021
65	-	-	-	-	-	-	8 985	8 974	8 938
urrent consump 30	ption in A	5.52	5.60	5.71	5.85	6.01	6.21	6.43	6.67
35	_	6.51	6.64	6.75	6.87	6.98	7.09	7.20	7.30
40		7.16	7.35	7.51	7.63	7.72	7.78	7.81	7.80
45	_	-	7.87	8.10	8.26	8.36	8.40	8.38	8.29
50		_	-	8.65	8.88	9.03	9.08	9.03	8.90
55	<u> </u>	-	-	-	9.61	9.83	9.92	9.89	9.74
60		-	-	-	-	10.90	11.07	11.08	10.95
65	<u> </u>	-	-	-	-	-	12.63	12.72	12.63
00		<u> </u>		<u> </u>	<u> </u>	<u> </u>	12.00	12.72	12.00
lass flow in kg/h	h								
30	-	152	191	238	294	358	431	514	607
35	-	152	191	238	294	358	432	515	609
40	-	153	191	238	294	358	433	517	612
45	-	-	191	238	293	358	433	518	615
50	-	-	-	236	292	357	433	519	616
55	-	-	-	-	288	354	431	518	617
60	-	-	-	-	-	349	426	514	614
65	-	-	-	-	-	-	418	507	609
oefficient of per	rformance (C.C).P.)							
30	-	1.62	2.08	2.65	3.33	4.15	5.14	6.34	7.81
	-	1.39	1.79	2.27	2.86	3.57	4.42	5.45	6.69
35	-	1.20	1.54	1.95	2.46	3.07	3.81	4.69	5.75
35 40			1.32	1.68	2.12	2.64	3.27	4.03	4.93
40	-	-							
40 45				1.43	1.81	2.26	2.80	3.45	4.22
40 45 50	-	-	-	1.43	1.81 1.53	2.26 1.92	2.80	3.45 2.93	4.22 3.59
40 45 50 55	-		-	1.43	1.53	1.92	2.38	2.93	3.59
40 45 50	-	-	-	-				1	1

Cooling capacity	23 367	W
Power input	7 143	W
Current consumption	9.72	Α
Mass flow	560	kg/h
C.O.P.	3.27	

to: Evaporating temperature at dew point

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

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

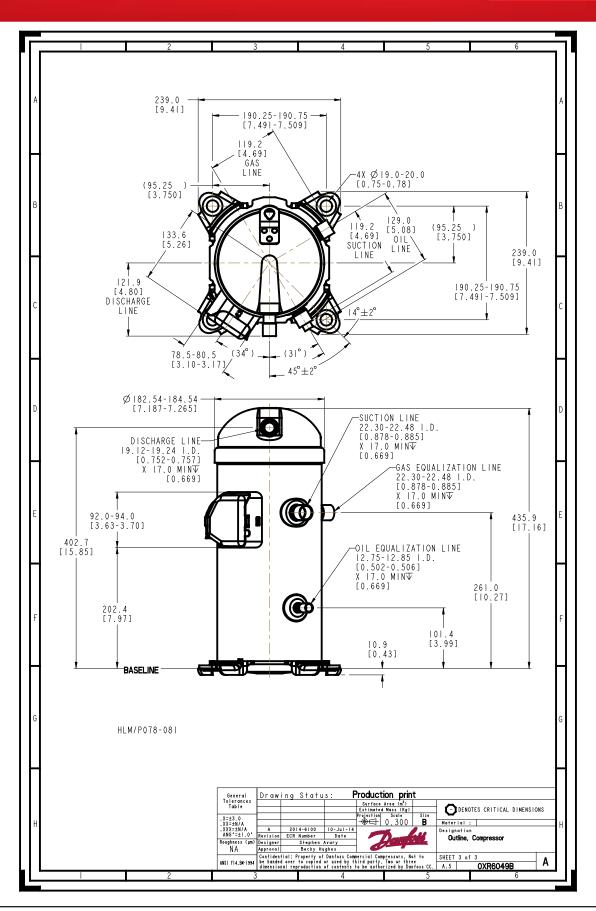
Sound power data

Sound power level	74	dB(A)
With accoustic hood	69	dB(A)

All performance data +/- 5%

tc: Condensing temperature at dew point





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