

ENGINEERING
TOMORROW

Danfoss

Datasheets

Danfoss scroll compressors **H series**



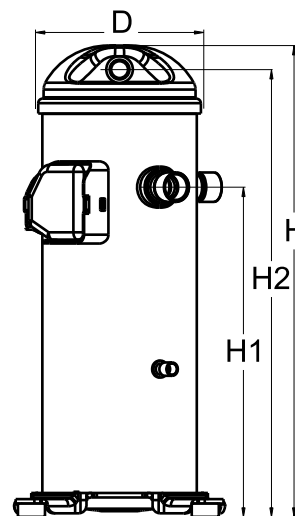
FRCC.UD.180315.142228

www.danfoss.com/odsg

General Characteristics

Model number (on compressor nameplate)		HLP068T4LC6
Code number for Singlepack*		120U2014
Code number for Industrial pack**		120U2011
Drawing number		0XR6089B-1
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		93,08 cm ³ /rev
Displacement @ Nominal speed		16.2 m ³ /h @ 2900 rpm - 19.6 m ³ /h @ 3500 rpm
Net weight		37,2 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

Dimensions

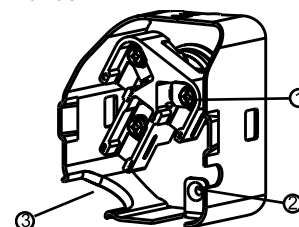


D=183,5 mm
H=455 mm
H1=280 mm
H2=422 mm
H3=- mm

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°C	1.852 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	1.827 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	1.867 Ω
Rated Load Amps (RLA)	9.6 A
Maximum Continuous Current (MCC)	15 A
Locked Rotor Amps (LRA)	82 A
Motor protection	Internal overload protector

Terminal box



IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage

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), -

*Singlepack: Compressor in cardboard box

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

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
Rotolock valve, V06 (1" Rotolock, 1/2" ODF)	8168031
Gasket, 1"	8156130

Rotolock accessories, sets

Code no.

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.

PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034
--	----------

Crankcase heaters

Code no.

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.

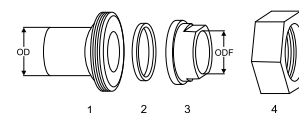
Acoustic hood	120Z5044
Discharge thermostat kit	7750009

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

Solder sleeve adapter set



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

Performance data at 50 Hz, EN 12900 rating conditions
R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-30	-25	-20	-15	-10	-5	0	5

Cooling capacity in W

30	-	5 394	6 895	8 694	10 840	13 377	16 355	19 819	23 816
35	-	4 927	6 335	8 022	10 035	12 422	15 227	18 500	22 286
40	-	4 515	5 814	7 373	9 239	11 458	14 076	17 141	20 699
45	-	-	5 345	6 760	8 463	10 498	12 913	15 755	19 069
50	-	-	-	6 196	7 720	9 557	11 753	14 355	17 409
55	-	-	-	-	7 022	8 646	10 608	12 955	15 733
60	-	-	-	-	-	7 776	9 490	11 567	14 054
65	-	-	-	-	-	-	8 410	10 202	12 382

Power input in W

30	-	2 812	2 920	3 015	3 104	3 193	3 288	3 396	3 525
35	-	3 369	3 420	3 462	3 502	3 546	3 600	3 673	3 769
40	-	3 948	3 943	3 933	3 925	3 926	3 942	3 980	4 046
45	-	-	4 497	4 437	4 383	4 342	4 321	4 325	4 362
50	-	-	-	4 981	4 883	4 802	4 744	4 717	4 727
55	-	-	-	-	5 432	5 312	5 220	5 163	5 147
60	-	-	-	-	-	5 881	5 756	5 671	5 630
65	-	-	-	-	-	-	6 360	6 247	6 184

Current consumption in A

30	-	4.86	4.79	4.88	5.08	5.31	5.52	5.65	5.62
35	-	6.13	5.93	5.91	6.00	6.15	6.29	6.35	6.27
40	-	7.02	6.71	6.60	6.62	6.70	6.78	6.80	6.70
45	-	-	7.29	7.11	7.07	7.11	7.16	7.17	7.06
50	-	-	-	7.59	7.52	7.55	7.59	7.61	7.52
55	-	-	-	-	8.14	8.16	8.23	8.27	8.23
60	-	-	-	-	-	9.12	9.23	9.32	9.35
65	-	-	-	-	-	-	10.75	10.92	11.03

Mass flow in kg/h

30	-	122	154	190	232	280	337	402	476
35	-	118	149	184	225	272	328	392	466
40	-	114	143	177	217	264	318	381	455
45	-	-	138	170	209	254	307	369	441
50	-	-	-	164	200	243	295	355	425
55	-	-	-	-	191	232	282	340	408
60	-	-	-	-	-	221	268	324	390
65	-	-	-	-	-	-	253	306	370

Coefficient of performance (C.O.P.)

30	-	1.92	2.36	2.88	3.49	4.19	4.97	5.84	6.76
35	-	1.46	1.85	2.32	2.87	3.50	4.23	5.04	5.91
40	-	1.14	1.47	1.87	2.35	2.92	3.57	4.31	5.12
45	-	-	1.19	1.52	1.93	2.42	2.99	3.64	4.37
50	-	-	-	1.24	1.58	1.99	2.48	3.04	3.68
55	-	-	-	-	1.29	1.63	2.03	2.51	3.06
60	-	-	-	-	-	1.32	1.65	2.04	2.50
65	-	-	-	-	-	-	1.32	1.63	2.00

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

Cooling capacity	14 355	W
Power input	4 717	W
Current consumption	7.61	A
Mass flow	355	kg/h
C.O.P.	3.04	

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 acoustic hood	66	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, ARI rating conditions
R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

30	-	5 792	7 395	9 314	11 599	14 300	17 464	21 142	25 383
35	-	5 317	6 827	8 635	10 788	13 338	16 332	19 820	23 852
40	-	4 901	6 301	7 979	9 985	12 366	15 173	18 455	22 260
45	-	-	5 831	7 363	9 203	11 399	14 002	17 060	20 622
50	-	-	-	6 799	8 457	10 451	12 833	15 649	18 951
55	-	-	-	-	7 760	9 536	11 679	14 238	17 262
60	-	-	-	-	-	8 668	10 556	12 840	15 570
65	-	-	-	-	-	-	9 477	11 469	13 888

Power input in W

30	-	2 812	2 920	3 015	3 104	3 193	3 288	3 396	3 525
35	-	3 369	3 420	3 462	3 502	3 546	3 600	3 673	3 769
40	-	3 948	3 943	3 933	3 925	3 926	3 942	3 980	4 046
45	-	-	4 497	4 437	4 383	4 342	4 321	4 325	4 362
50	-	-	-	4 981	4 883	4 802	4 744	4 717	4 727
55	-	-	-	-	5 432	5 312	5 220	5 163	5 147
60	-	-	-	-	-	5 881	5 756	5 671	5 630
65	-	-	-	-	-	-	6 360	6 247	6 184

Current consumption in A

30	-	4.86	4.79	4.88	5.08	5.31	5.52	5.65	5.62
35	-	6.13	5.93	5.91	6.00	6.15	6.29	6.35	6.27
40	-	7.02	6.71	6.60	6.62	6.70	6.78	6.80	6.70
45	-	-	7.29	7.11	7.07	7.11	7.16	7.17	7.06
50	-	-	-	7.59	7.52	7.55	7.59	7.61	7.52
55	-	-	-	-	8.14	8.16	8.23	8.27	8.23
60	-	-	-	-	-	9.12	9.23	9.32	9.35
65	-	-	-	-	-	-	10.75	10.92	11.03

Mass flow in kg/h

30	-	122	153	189	230	279	335	399	474
35	-	118	148	183	224	271	326	390	464
40	-	114	143	176	216	262	316	379	452
45	-	-	137	170	208	253	305	367	438
50	-	-	-	163	199	242	293	353	423
55	-	-	-	-	190	231	280	338	406
60	-	-	-	-	-	219	266	322	388
65	-	-	-	-	-	-	252	305	368

Coefficient of performance (C.O.P.)

30	-	2.06	2.53	3.09	3.74	4.48	5.31	6.23	7.20
35	-	1.58	2.00	2.49	3.08	3.76	4.54	5.40	6.33
40	-	1.24	1.60	2.03	2.54	3.15	3.85	4.64	5.50
45	-	-	1.30	1.66	2.10	2.63	3.24	3.94	4.73
50	-	-	-	1.37	1.73	2.18	2.70	3.32	4.01
55	-	-	-	-	1.43	1.80	2.24	2.76	3.35
60	-	-	-	-	-	1.47	1.83	2.26	2.77
65	-	-	-	-	-	-	1.49	1.84	2.25

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

Cooling capacity	15 692	W
Power input	5 095	W
Current consumption	8.17	A
Mass flow	369	kg/h
C.O.P.	3.08	

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 acoustic hood	66	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, EN 12900 rating conditions
R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)							
	-30	-25	-20	-15	-10	-5	0	5

Cooling capacity in W

30	-	5 394	6 895	8 694	10 840	13 377	16 355	19 819	23 816
35	-	4 927	6 335	8 022	10 035	12 422	15 227	18 500	22 286
40	-	4 515	5 814	7 373	9 239	11 458	14 076	17 141	20 699
45	-	-	5 345	6 760	8 463	10 498	12 913	15 755	19 069
50	-	-	-	6 196	7 720	9 557	11 753	14 355	17 409
55	-	-	-	-	7 022	8 646	10 608	12 955	15 733
60	-	-	-	-	-	7 776	9 490	11 567	14 054
65	-	-	-	-	-	-	8 410	10 202	12 382

Power input in W

30	-	2 812	2 920	3 015	3 104	3 193	3 288	3 396	3 525
35	-	3 369	3 420	3 462	3 502	3 546	3 600	3 673	3 769
40	-	3 948	3 943	3 933	3 925	3 926	3 942	3 980	4 046
45	-	-	4 497	4 437	4 383	4 342	4 321	4 325	4 362
50	-	-	-	4 981	4 883	4 802	4 744	4 717	4 727
55	-	-	-	-	5 432	5 312	5 220	5 163	5 147
60	-	-	-	-	-	5 881	5 756	5 671	5 630
65	-	-	-	-	-	-	6 360	6 247	6 184

Current consumption in A

30	-	4.86	4.79	4.88	5.08	5.31	5.52	5.65	5.62
35	-	6.13	5.93	5.91	6.00	6.15	6.29	6.35	6.27
40	-	7.02	6.71	6.60	6.62	6.70	6.78	6.80	6.70
45	-	-	7.29	7.11	7.07	7.11	7.16	7.17	7.06
50	-	-	-	7.59	7.52	7.55	7.59	7.61	7.52
55	-	-	-	-	8.14	8.16	8.23	8.27	8.23
60	-	-	-	-	-	9.12	9.23	9.32	9.35
65	-	-	-	-	-	-	10.75	10.92	11.03

Mass flow in kg/h

30	-	122	154	190	232	280	337	402	476
35	-	118	149	184	225	272	328	392	466
40	-	114	143	177	217	264	318	381	455
45	-	-	138	170	209	254	307	369	441
50	-	-	-	164	200	243	295	355	425
55	-	-	-	-	191	232	282	340	408
60	-	-	-	-	-	221	268	324	390
65	-	-	-	-	-	-	253	306	370

Coefficient of performance (C.O.P.)

30	-	1.92	2.36	2.88	3.49	4.19	4.97	5.84	6.76
35	-	1.46	1.85	2.32	2.87	3.50	4.23	5.04	5.91
40	-	1.14	1.47	1.87	2.35	2.92	3.57	4.31	5.12
45	-	-	1.19	1.52	1.93	2.42	2.99	3.64	4.37
50	-	-	-	1.24	1.58	1.99	2.48	3.04	3.68
55	-	-	-	-	1.29	1.63	2.03	2.51	3.06
60	-	-	-	-	-	1.32	1.65	2.04	2.50
65	-	-	-	-	-	-	1.32	1.63	2.00

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

Cooling capacity	14 355	W
Power input	4 717	W
Current consumption	7.61	A
Mass flow	355	kg/h
C.O.P.	3.04	

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 acoustic hood	66	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.

Performance data at 50 Hz, ARI rating conditions
R407C

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-30	-25	-20	-15	-10	-5	0	5	10

Cooling capacity in W

30	-	5 792	7 395	9 314	11 599	14 300	17 464	21 142	25 383
35	-	5 317	6 827	8 635	10 788	13 338	16 332	19 820	23 852
40	-	4 901	6 301	7 979	9 985	12 366	15 173	18 455	22 260
45	-	-	5 831	7 363	9 203	11 399	14 002	17 060	20 622
50	-	-	-	6 799	8 457	10 451	12 833	15 649	18 951
55	-	-	-	-	7 760	9 536	11 679	14 238	17 262
60	-	-	-	-	-	8 668	10 556	12 840	15 570
65	-	-	-	-	-	-	9 477	11 469	13 888

Power input in W

30	-	2 812	2 920	3 015	3 104	3 193	3 288	3 396	3 525
35	-	3 369	3 420	3 462	3 502	3 546	3 600	3 673	3 769
40	-	3 948	3 943	3 933	3 925	3 926	3 942	3 980	4 046
45	-	-	4 497	4 437	4 383	4 342	4 321	4 325	4 362
50	-	-	-	4 981	4 883	4 802	4 744	4 717	4 727
55	-	-	-	-	5 432	5 312	5 220	5 163	5 147
60	-	-	-	-	-	5 881	5 756	5 671	5 630
65	-	-	-	-	-	-	6 360	6 247	6 184

Current consumption in A

30	-	4.86	4.79	4.88	5.08	5.31	5.52	5.65	5.62
35	-	6.13	5.93	5.91	6.00	6.15	6.29	6.35	6.27
40	-	7.02	6.71	6.60	6.62	6.70	6.78	6.80	6.70
45	-	-	7.29	7.11	7.07	7.11	7.16	7.17	7.06
50	-	-	-	7.59	7.52	7.55	7.59	7.61	7.52
55	-	-	-	-	8.14	8.16	8.23	8.27	8.23
60	-	-	-	-	-	9.12	9.23	9.32	9.35
65	-	-	-	-	-	-	10.75	10.92	11.03

Mass flow in kg/h

30	-	122	153	189	230	279	335	399	474
35	-	118	148	183	224	271	326	390	464
40	-	114	143	176	216	262	316	379	452
45	-	-	137	170	208	253	305	367	438
50	-	-	-	163	199	242	293	353	423
55	-	-	-	-	190	231	280	338	406
60	-	-	-	-	-	219	266	322	388
65	-	-	-	-	-	-	252	305	368

Coefficient of performance (C.O.P.)

30	-	2.06	2.53	3.09	3.74	4.48	5.31	6.23	7.20
35	-	1.58	2.00	2.49	3.08	3.76	4.54	5.40	6.33
40	-	1.24	1.60	2.03	2.54	3.15	3.85	4.64	5.50
45	-	-	1.30	1.66	2.10	2.63	3.24	3.94	4.73
50	-	-	-	1.37	1.73	2.18	2.70	3.32	4.01
55	-	-	-	-	1.43	1.80	2.24	2.76	3.35
60	-	-	-	-	-	1.47	1.83	2.26	2.77
65	-	-	-	-	-	-	1.49	1.84	2.25

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

Cooling capacity	15 692	W
Power input	5 095	W
Current consumption	8.17	A
Mass flow	369	kg/h
C.O.P.	3.08	

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 acoustic hood	66	dB(A)

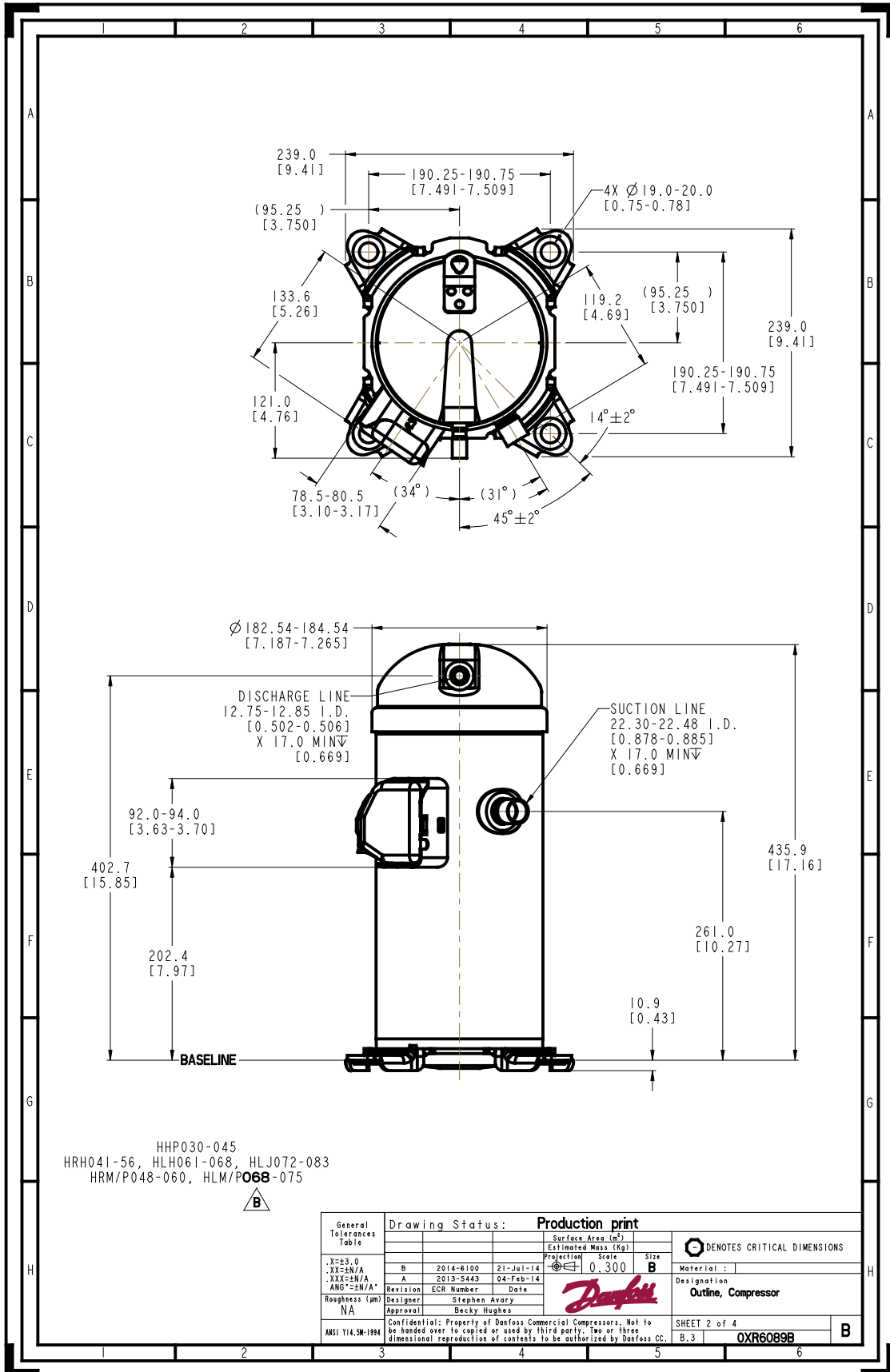
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.



Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alternations can be made without sequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss, the Danfoss logotype and Maneurop are trademarks of Danfoss A/S. All rights reserved.