

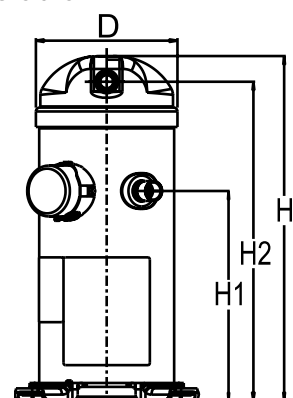
Datasheets

Danfoss scroll compressors **H series**



General Characteristics

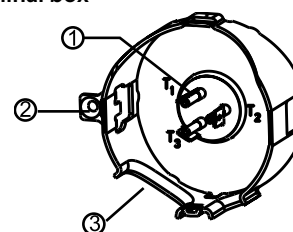
Model number (on compressor nameplate)		HRM054T4LP6
Code number for Singlepack*		120U2752
Code number for Industrial pack**		120U2749
Drawing number		0XR6002B-2
Suction and discharge connections		Brazed
Suction connection		7/8 " ODF
Discharge connection		1/2 " ODF
Oil sight glass		None
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		Yes
Swept volume		72.84 cm ³ /rev
Displacement @ Nominal speed		12.7 m ³ /h @ 2900 rpm - 15.3 m ³ /h @ 3500 rpm
Net weight		37.19 kg
Oil charge		1.57 litre, Alkylbenzene - -
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		R22

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	2.316 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	2.332 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	2.364 Ω
Rated Load Amps (RLA)	8 A
Maximum Continuous Current (MCC)	12.5 A
Locked Rotor Amps (LRA)	62 A
Motor protection	Internal overload protector

Terminal box


IP22

- 1: Spade connectors 1/4"
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

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

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

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.

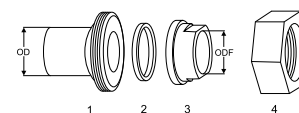
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set



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

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.

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
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

Performance data at 50 Hz, EN 12900 rating conditions
R22

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

Cooling capacity in W

30	4 779	5 575	6 758	8 302	10 180	12 364	14 829	17 546	-
35	4 474	5 267	6 420	7 908	9 704	11 781	14 112	16 670	-
40	-	4 885	6 030	7 483	9 218	11 209	13 428	15 848	-
45	-	-	5 562	7 001	8 697	10 622	12 750	15 054	-
50	-	-	-	6 437	8 114	9 994	12 052	14 261	-
55	-	-	-	-	7 445	9 301	11 309	13 443	-
60	-	-	-	-	-	8 517	10 495	12 574	-
65	-	-	-	-	-	-	9 585	11 628	-

Power input in W

30	2 134	2 061	2 058	2 110	2 199	2 308	2 423	2 525	-
35	2 485	2 394	2 367	2 388	2 440	2 508	2 574	2 622	-
40	-	2 721	2 690	2 700	2 735	2 779	2 816	2 829	-
45	-	-	3 005	3 023	3 061	3 101	3 128	3 125	-
50	-	-	-	3 337	3 396	3 452	3 488	3 488	-
55	-	-	-	-	3 719	3 810	3 874	3 897	-
60	-	-	-	-	-	4 152	4 265	4 329	-
65	-	-	-	-	-	-	4 638	4 763	-

Current consumption in A

30	4.60	4.62	4.66	4.70	4.73	4.76	4.78	4.78	-
35	4.87	4.87	4.89	4.93	4.96	5.01	5.04	5.08	-
40	-	5.18	5.18	5.20	5.23	5.28	5.33	5.38	-
45	-	-	5.53	5.53	5.55	5.60	5.66	5.73	-
50	-	-	-	5.95	5.96	5.99	6.05	6.13	-
55	-	-	-	-	6.46	6.48	6.53	6.60	-
60	-	-	-	-	-	7.08	7.11	7.18	-
65	-	-	-	-	-	-	7.83	7.88	-

Mass flow in kg/h

30	104	120	143	174	211	253	300	351	-
35	102	118	142	172	209	250	296	346	-
40	-	114	139	170	206	248	293	342	-
45	-	-	134	166	203	245	290	339	-
50	-	-	-	160	198	241	287	335	-
55	-	-	-	-	191	235	282	331	-
60	-	-	-	-	-	227	275	326	-
65	-	-	-	-	-	-	267	319	-

Coefficient of performance (C.O.P.)

30	2.24	2.71	3.28	3.94	4.63	5.36	6.12	6.95	-
35	1.80	2.20	2.71	3.31	3.98	4.70	5.48	6.36	-
40	-	1.80	2.24	2.77	3.37	4.03	4.77	5.60	-
45	-	-	1.85	2.32	2.84	3.43	4.08	4.82	-
50	-	-	-	1.93	2.39	2.90	3.46	4.09	-
55	-	-	-	-	2.00	2.44	2.92	3.45	-
60	-	-	-	-	-	2.05	2.46	2.90	-
65	-	-	-	-	-	-	2.07	2.44	-

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

Cooling capacity	12 052	W
Power input	3 488	W
Current consumption	6.05	A
Mass flow	287	kg/h
C.O.P.	3.46	

Pressure switch settings

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		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%

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Performance data at 50 Hz, ARI rating conditions

R22

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

Cooling capacity in W

30	5 075	5 916	7 166	8 797	10 778	13 082	15 679	18 540	-
35	-	5 609	6 831	8 408	10 309	12 505	14 968	17 669	-
40	-	-	6 441	7 986	9 829	11 941	14 293	16 857	-
45	-	-	5 967	7 503	9 312	11 362	13 627	16 076	-
50	-	-	-	6 933	8 730	10 742	12 941	15 299	-
55	-	-	-	-	8 055	10 052	12 209	14 498	-
60	-	-	-	-	-	9 265	11 403	13 646	-
65	-	-	-	-	-	-	10 496	12 716	-

Power input in W

30	2 134	2 061	2 058	2 110	2 199	2 308	2 423	2 525	-
35	-	2 394	2 367	2 388	2 440	2 508	2 574	2 622	-
40	-	-	2 690	2 700	2 735	2 779	2 816	2 829	-
45	-	-	3 005	3 023	3 061	3 101	3 128	3 125	-
50	-	-	-	3 337	3 396	3 452	3 488	3 488	-
55	-	-	-	-	3 719	3 810	3 874	3 897	-
60	-	-	-	-	-	4 152	4 265	4 329	-
65	-	-	-	-	-	-	4 638	4 763	-

Current consumption in A

30	4.60	4.62	4.66	4.70	4.73	4.76	4.78	4.78	-
35	-	4.87	4.89	4.93	4.96	5.01	5.04	5.08	-
40	-	-	5.18	5.20	5.23	5.28	5.33	5.38	-
45	-	-	5.53	5.53	5.55	5.60	5.66	5.73	-
50	-	-	-	5.95	5.96	5.99	6.05	6.13	-
55	-	-	-	-	6.46	6.48	6.53	6.60	-
60	-	-	-	-	-	7.08	7.11	7.18	-
65	-	-	-	-	-	-	7.83	7.88	-

Mass flow in kg/h

30	104	119	143	173	210	252	299	349	-
35	-	117	141	171	208	249	295	344	-
40	-	-	138	169	205	246	292	340	-
45	-	-	133	165	202	243	289	337	-
50	-	-	-	159	197	239	285	333	-
55	-	-	-	-	190	234	280	329	-
60	-	-	-	-	-	226	274	324	-
65	-	-	-	-	-	-	265	317	-

Coefficient of performance (C.O.P.)

30	2.38	2.87	3.48	4.17	4.90	5.67	6.47	7.34	-
35	-	2.34	2.89	3.52	4.22	4.99	5.82	6.74	-
40	-	-	2.39	2.96	3.59	4.30	5.08	5.96	-
45	-	-	1.99	2.48	3.04	3.66	4.36	5.14	-
50	-	-	-	2.08	2.57	3.11	3.71	4.39	-
55	-	-	-	-	2.17	2.64	3.15	3.72	-
60	-	-	-	-	-	2.23	2.67	3.15	-
65	-	-	-	-	-	-	2.26	2.67	-

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

Cooling capacity	13 296	W
Power input	3 842	W
Current consumption	6.50	A
Mass flow	302	kg/h
C.O.P.	3.46	

Pressure switch settings

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		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%

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Performance data at 60 Hz, EN 12900 rating conditions
R22

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

Cooling capacity in W

30	5 674	6 618	8 024	9 859	12 090	14 686	17 613	20 839	-
35	5 314	6 254	7 625	9 394	11 528	13 996	16 765	19 802	-
40	-	5 802	7 163	8 892	10 955	13 320	15 956	18 830	-
45	-	-	6 608	8 321	10 338	12 627	15 156	17 891	-
50	-	-	-	7 653	9 648	11 885	14 331	16 955	-
55	-	-	-	-	8 855	11 064	13 453	15 988	-
60	-	-	-	-	-	10 135	12 489	14 961	-
65	-	-	-	-	-	-	11 411	13 841	-

Power input in W

30	2 544	2 462	2 459	2 517	2 619	2 746	2 882	3 007	-
35	2 959	2 853	2 820	2 842	2 900	2 978	3 058	3 121	-
40	-	3 240	3 199	3 206	3 244	3 295	3 340	3 363	-
45	-	-	3 570	3 585	3 624	3 669	3 703	3 707	-
50	-	-	-	3 951	4 014	4 076	4 121	4 129	-
55	-	-	-	-	4 388	4 490	4 567	4 601	-
60	-	-	-	-	-	4 883	5 015	5 098	-
65	-	-	-	-	-	-	5 440	5 593	-

Current consumption in A

30	5.09	5.12	5.16	5.20	5.24	5.27	5.29	5.29	-
35	5.39	5.40	5.42	5.46	5.50	5.55	5.59	5.62	-
40	-	5.74	5.73	5.76	5.79	5.85	5.90	5.96	-
45	-	-	6.13	6.13	6.15	6.20	6.27	6.35	-
50	-	-	-	6.59	6.60	6.64	6.70	6.79	-
55	-	-	-	-	7.16	7.17	7.23	7.32	-
60	-	-	-	-	-	7.84	7.88	7.96	-
65	-	-	-	-	-	-	8.67	8.73	-

Mass flow in kg/h

30	124	143	170	207	250	301	357	417	-
35	121	140	168	205	248	297	352	411	-
40	-	136	165	202	245	295	349	406	-
45	-	-	159	197	241	291	345	402	-
50	-	-	-	190	236	286	341	398	-
55	-	-	-	-	227	280	335	394	-
60	-	-	-	-	-	270	328	388	-
65	-	-	-	-	-	-	317	379	-

Coefficient of performance (C.O.P.)

30	2.23	2.69	3.26	3.92	4.62	5.35	6.11	6.93	-
35	1.80	2.19	2.70	3.31	3.97	4.70	5.48	6.35	-
40	-	1.79	2.24	2.77	3.38	4.04	4.78	5.60	-
45	-	-	1.85	2.32	2.85	3.44	4.09	4.83	-
50	-	-	-	1.94	2.40	2.92	3.48	4.11	-
55	-	-	-	-	2.02	2.46	2.95	3.47	-
60	-	-	-	-	-	2.08	2.49	2.93	-
65	-	-	-	-	-	-	2.10	2.47	-

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

Cooling capacity	14 331	W
Power input	4 121	W
Current consumption	6.70	A
Mass flow	341	kg/h
C.O.P.	3.48	

Pressure switch settings

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		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%

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Performance data at 60 Hz, ARI rating conditions

R22

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

Cooling capacity in W

30	6 026	7 023	8 508	10 446	12 801	15 538	18 623	22 019	-
35	-	6 660	8 113	9 987	12 246	14 857	17 782	20 988	-
40	-	-	7 651	9 489	11 680	14 191	16 985	20 028	-
45	-	-	7 089	8 918	11 069	13 507	16 198	19 106	-
50	-	-	-	8 242	10 380	12 774	15 388	18 188	-
55	-	-	-	-	9 581	11 958	14 523	17 243	-
60	-	-	-	-	-	11 025	13 570	16 236	-
65	-	-	-	-	-	-	12 495	15 136	-

Power input in W

30	2 544	2 462	2 459	2 517	2 619	2 746	2 882	3 007	-
35	-	2 853	2 820	2 842	2 900	2 978	3 058	3 121	-
40	-	-	3 199	3 206	3 244	3 295	3 340	3 363	-
45	-	-	3 570	3 585	3 624	3 669	3 703	3 707	-
50	-	-	-	3 951	4 014	4 076	4 121	4 129	-
55	-	-	-	-	4 388	4 490	4 567	4 601	-
60	-	-	-	-	-	4 883	5 015	5 098	-
65	-	-	-	-	-	-	5 440	5 593	-

Current consumption in A

30	5.09	5.12	5.16	5.20	5.24	5.27	5.29	5.29	-
35	-	5.40	5.42	5.46	5.50	5.55	5.59	5.62	-
40	-	-	5.73	5.76	5.79	5.85	5.90	5.96	-
45	-	-	6.13	6.13	6.15	6.20	6.27	6.35	-
50	-	-	-	6.59	6.60	6.64	6.70	6.79	-
55	-	-	-	-	7.16	7.17	7.23	7.32	-
60	-	-	-	-	-	7.84	7.88	7.96	-
65	-	-	-	-	-	-	8.67	8.73	-

Mass flow in kg/h

30	123	142	169	206	249	299	355	415	-
35	-	139	168	204	247	296	350	409	-
40	-	-	164	201	244	293	347	404	-
45	-	-	158	196	240	289	343	400	-
50	-	-	-	189	234	285	339	396	-
55	-	-	-	-	226	278	334	392	-
60	-	-	-	-	-	269	326	385	-
65	-	-	-	-	-	-	316	377	-

Coefficient of performance (C.O.P.)

30	2.37	2.85	3.46	4.15	4.89	5.66	6.46	7.32	-
35	-	2.33	2.88	3.51	4.22	4.99	5.82	6.73	-
40	-	-	2.39	2.96	3.60	4.31	5.09	5.96	-
45	-	-	1.99	2.49	3.05	3.68	4.37	5.15	-
50	-	-	-	2.09	2.59	3.13	3.73	4.41	-
55	-	-	-	-	2.18	2.66	3.18	3.75	-
60	-	-	-	-	-	2.26	2.71	3.18	-
65	-	-	-	-	-	-	2.30	2.71	-

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

Cooling capacity	15 814	W
Power input	4 532	W
Current consumption	7.19	A
Mass flow	359	kg/h
C.O.P.	3.49	

Pressure switch settings

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level		dB(A)
With acoustic hood		dB(A)

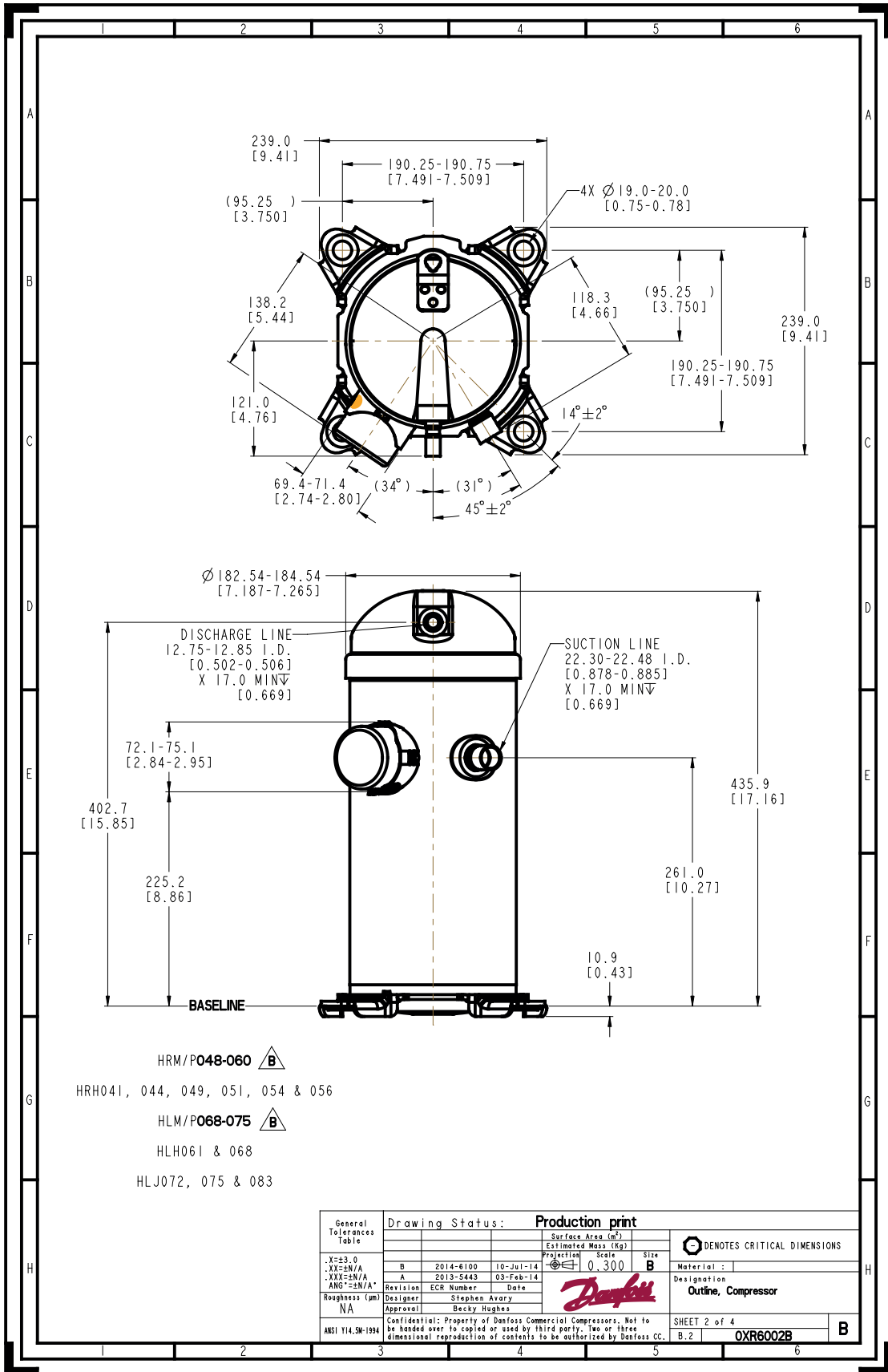
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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