

Datasheets

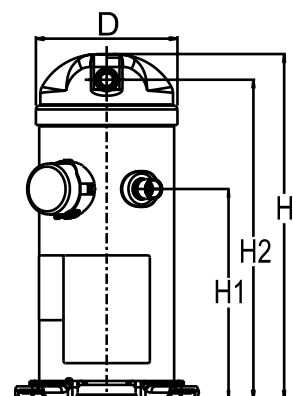
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRM034U4LP6
Code number for Singlepack*		120U1001
Code number for Industrial pack**		120U0998
Drawing number		0XC6301B-2
Suction and discharge connections		Brazed
Suction connection		3/4 " 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		46.21 cm ³ /rev
Displacement @ Nominal speed		8.0 m ³ /h @ 2900 rpm - 9.7 m ³ /h @ 3500 rpm
Net weight		30.84 kg
Oil charge		1.06 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		3.63 kg
Approved refrigerants		R22

Dimensions

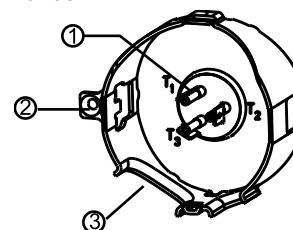


D=164.5 mm
H=413 mm
H1=250 mm
H2=379 mm
H3=- mm

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	4.664 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	4.664 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	3.422 Ω
Rated Load Amps (RLA)	6.1 A
Maximum Continuous Current (MCC)	9.5 A
Locked Rotor Amps (LRA)	45 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.

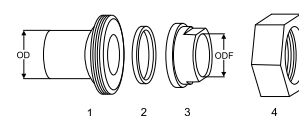
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

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, 3/4" ODF), (1" Rotolock, 1/2" ODF)	120Z0126
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, 40 W, 230 V, CE mark, UL	120Z0055
Belt type crankcase heater, 40 W, 400 V, CE mark, UL	120Z0056

Miscellaneous accessories

Code no.

Acoustic hood	120Z5043
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

Spare parts

Code no.

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5005
Mounting kit, including 1 bolt, 1 sleeve, 1 washer	120Z5031
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	3 006	3 510	4 252	5 217	6 391	7 757	9 301	11 008	-
35	2 816	3 315	4 037	4 966	6 089	7 390	8 853	10 464	-
40	-	3 079	3 792	4 699	5 783	7 030	8 426	9 954	-
45	-	-	3 503	4 398	5 456	6 662	8 001	9 458	-
50	-	-	-	4 048	5 092	6 268	7 564	8 962	-
55	-	-	-	-	4 675	5 834	7 096	8 447	-
60	-	-	-	-	-	5 342	6 583	7 899	-
65	-	-	-	-	-	-	6 009	7 299	-

Power input in W

30	1 553	1 543	1 538	1 531	1 516	1 484	1 430	1 345	-
35	1 790	1 754	1 733	1 720	1 707	1 688	1 654	1 600	-
40	-	2 012	1 967	1 938	1 920	1 904	1 883	1 851	-
45	-	-	2 250	2 198	2 165	2 144	2 128	2 109	-
50	-	-	-	2 510	2 455	2 420	2 399	2 385	-
55	-	-	-	-	2 800	2 743	2 709	2 692	-
60	-	-	-	-	-	3 125	3 069	3 040	-
65	-	-	-	-	-	-	3 491	3 441	-

Current consumption in A

30	4.17	3.94	3.89	3.94	4.00	4.01	3.88	3.54	-
35	4.66	4.31	4.17	4.16	4.20	4.21	4.13	3.87	-
40	-	4.76	4.51	4.43	4.44	4.45	4.40	4.20	-
45	-	-	4.94	4.78	4.73	4.73	4.70	4.55	-
50	-	-	-	5.21	5.10	5.07	5.04	4.93	-
55	-	-	-	-	5.56	5.49	5.45	5.37	-
60	-	-	-	-	-	6.00	5.94	5.86	-
65	-	-	-	-	-	-	6.51	6.44	-

Mass flow in kg/h

30	65	76	90	109	132	159	188	221	-
35	64	74	89	108	131	157	186	217	-
40	-	72	87	107	129	155	184	215	-
45	-	-	84	104	127	154	182	213	-
50	-	-	-	100	124	151	180	211	-
55	-	-	-	-	120	147	177	208	-
60	-	-	-	-	-	142	173	205	-
65	-	-	-	-	-	-	167	200	-

Coefficient of performance (C.O.P.)

30	1.94	2.27	2.76	3.41	4.22	5.23	6.51	8.19	-
35	1.57	1.89	2.33	2.89	3.57	4.38	5.35	6.54	-
40	-	1.53	1.93	2.42	3.01	3.69	4.47	5.38	-
45	-	-	1.56	2.00	2.52	3.11	3.76	4.48	-
50	-	-	-	1.61	2.07	2.59	3.15	3.76	-
55	-	-	-	-	1.67	2.13	2.62	3.14	-
60	-	-	-	-	-	1.71	2.14	2.60	-
65	-	-	-	-	-	-	1.72	2.12	-

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

Cooling capacity	7 564	W
Power input	2 399	W
Current consumption	5.04	A
Mass flow	180	kg/h
C.O.P.	3.15	

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	67	dB(A)
With acoustic hood	62	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	15

Cooling capacity in W

30	3 192	3 725	4 509	5 528	6 766	8 207	9 834	11 631	-
35	-	3 530	4 295	5 280	6 468	7 844	9 391	11 092	-
40	-	-	4 051	5 014	6 166	7 490	8 969	10 587	-
45	-	-	3 758	4 713	5 842	7 127	8 552	10 100	-
50	-	-	-	4 360	5 478	6 737	8 121	9 614	-
55	-	-	-	-	5 058	6 305	7 661	9 110	-
60	-	-	-	-	-	5 811	7 153	8 572	-
65	-	-	-	-	-	-	6 580	7 982	-

Power input in W

30	1 553	1 543	1 538	1 531	1 516	1 484	1 430	1 345	-
35	-	1 754	1 733	1 720	1 707	1 688	1 654	1 600	-
40	-	-	1 967	1 938	1 920	1 904	1 883	1 851	-
45	-	-	2 250	2 198	2 165	2 144	2 128	2 109	-
50	-	-	-	2 510	2 455	2 420	2 399	2 385	-
55	-	-	-	-	2 800	2 743	2 709	2 692	-
60	-	-	-	-	-	3 125	3 069	3 040	-
65	-	-	-	-	-	-	3 491	3 441	-

Current consumption in A

30	4.17	3.94	3.89	3.94	4.00	4.01	3.88	3.54	-
35	-	4.31	4.17	4.16	4.20	4.21	4.13	3.87	-
40	-	-	4.51	4.43	4.44	4.45	4.40	4.20	-
45	-	-	4.94	4.78	4.73	4.73	4.70	4.55	-
50	-	-	-	5.21	5.10	5.07	5.04	4.93	-
55	-	-	-	-	5.56	5.49	5.45	5.37	-
60	-	-	-	-	-	6.00	5.94	5.86	-
65	-	-	-	-	-	-	6.51	6.44	-

Mass flow in kg/h

30	65	75	90	109	132	158	187	220	-
35	-	74	89	108	130	156	185	216	-
40	-	-	87	106	129	155	183	214	-
45	-	-	84	104	127	153	181	212	-
50	-	-	-	100	124	150	179	209	-
55	-	-	-	-	119	147	176	207	-
60	-	-	-	-	-	142	172	204	-
65	-	-	-	-	-	-	166	199	-

Coefficient of performance (C.O.P.)

30	2.06	2.41	2.93	3.61	4.46	5.53	6.88	8.65	-
35	-	2.01	2.48	3.07	3.79	4.65	5.68	6.93	-
40	-	-	2.06	2.59	3.21	3.93	4.76	5.72	-
45	-	-	1.67	2.14	2.70	3.32	4.02	4.79	-
50	-	-	-	1.74	2.23	2.78	3.38	4.03	-
55	-	-	-	-	1.81	2.30	2.83	3.38	-
60	-	-	-	-	-	1.86	2.33	2.82	-
65	-	-	-	-	-	-	1.88	2.32	-

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

Cooling capacity	8 347	W
Power input	2 661	W
Current consumption	5.37	A
Mass flow	190	kg/h
C.O.P.	3.14	

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	67	dB(A)
With acoustic hood	62	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	15

Cooling capacity in W

30	3 577	4 179	5 063	6 212	7 609	9 236	11 077	13 113	-
35	3 344	3 939	4 798	5 902	7 236	8 782	10 522	12 439	-
40	-	3 648	4 496	5 570	6 856	8 334	9 988	11 800	-
45	-	-	4 139	5 199	6 450	7 875	9 458	11 181	-
50	-	-	-	4 770	6 001	7 388	8 914	10 561	-
55	-	-	-	-	5 493	6 855	8 338	9 924	-
60	-	-	-	-	-	6 259	7 712	9 251	-
65	-	-	-	-	-	-	7 021	8 524	-

Power input in W

30	1 822	1 811	1 805	1 797	1 778	1 742	1 678	1 580	-
35	2 093	2 052	2 029	2 013	1 998	1 975	1 937	1 874	-
40	-	2 346	2 294	2 261	2 240	2 221	2 197	2 160	-
45	-	-	2 614	2 555	2 517	2 492	2 473	2 451	-
50	-	-	-	2 906	2 842	2 802	2 778	2 762	-
55	-	-	-	-	3 229	3 164	3 125	3 104	-
60	-	-	-	-	-	3 590	3 526	3 492	-
65	-	-	-	-	-	-	3 997	3 938	-

Current consumption in A

30	4.17	3.94	3.89	3.94	4.00	4.01	3.88	3.54	-
35	4.66	4.31	4.17	4.16	4.20	4.21	4.13	3.87	-
40	-	4.76	4.51	4.43	4.44	4.45	4.40	4.20	-
45	-	-	4.94	4.78	4.73	4.73	4.70	4.55	-
50	-	-	-	5.21	5.10	5.07	5.04	4.93	-
55	-	-	-	-	5.56	5.49	5.45	5.37	-
60	-	-	-	-	-	6.00	5.94	5.86	-
65	-	-	-	-	-	-	6.51	6.44	-

Mass flow in kg/h

30	78	90	108	130	158	189	224	263	-
35	76	88	106	129	156	187	221	258	-
40	-	85	104	126	153	184	218	255	-
45	-	-	100	123	151	181	215	252	-
50	-	-	-	118	147	178	212	248	-
55	-	-	-	-	141	173	208	245	-
60	-	-	-	-	-	167	203	240	-
65	-	-	-	-	-	-	195	234	-

Coefficient of performance (C.O.P.)

30	1.96	2.31	2.81	3.46	4.28	5.30	6.60	8.30	-
35	1.60	1.92	2.37	2.93	3.62	4.45	5.43	6.64	-
40	-	1.56	1.96	2.46	3.06	3.75	4.55	5.46	-
45	-	-	1.58	2.03	2.56	3.16	3.82	4.56	-
50	-	-	-	1.64	2.11	2.64	3.21	3.82	-
55	-	-	-	-	1.70	2.17	2.67	3.20	-
60	-	-	-	-	-	1.74	2.19	2.65	-
65	-	-	-	-	-	-	1.76	2.16	-

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

Cooling capacity	8 914	W
Power input	2 778	W
Current consumption	5.04	A
Mass flow	212	kg/h
C.O.P.	3.21	

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	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%

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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	3 799	4 435	5 369	6 582	8 056	9 772	11 712	13 856	-
35	-	4 195	5 105	6 275	7 687	9 321	11 160	13 184	-
40	-	-	4 802	5 945	7 310	8 878	10 632	12 552	-
45	-	-	4 441	5 572	6 906	8 424	10 109	11 940	-
50	-	-	-	5 138	6 457	7 941	9 571	11 330	-
55	-	-	-	-	5 943	7 409	9 001	10 702	-
60	-	-	-	-	-	6 809	8 380	10 040	-
65	-	-	-	-	-	-	7 688	9 322	-

Power input in W

30	1 822	1 811	1 805	1 797	1 778	1 742	1 678	1 580	-
35	-	2 052	2 029	2 013	1 998	1 975	1 937	1 874	-
40	-	-	2 294	2 261	2 240	2 221	2 197	2 160	-
45	-	-	2 614	2 555	2 517	2 492	2 473	2 451	-
50	-	-	-	2 906	2 842	2 802	2 778	2 762	-
55	-	-	-	-	3 229	3 164	3 125	3 104	-
60	-	-	-	-	-	3 590	3 526	3 492	-
65	-	-	-	-	-	-	3 997	3 938	-

Current consumption in A

30	4.17	3.94	3.89	3.94	4.00	4.01	3.88	3.54	-
35	-	4.31	4.17	4.16	4.20	4.21	4.13	3.87	-
40	-	-	4.51	4.43	4.44	4.45	4.40	4.20	-
45	-	-	4.94	4.78	4.73	4.73	4.70	4.55	-
50	-	-	-	5.21	5.10	5.07	5.04	4.93	-
55	-	-	-	-	5.56	5.49	5.45	5.37	-
60	-	-	-	-	-	6.00	5.94	5.86	-
65	-	-	-	-	-	-	6.51	6.44	-

Mass flow in kg/h

30	77	89	107	130	157	188	223	262	-
35	-	88	105	128	155	186	220	257	-
40	-	-	103	126	153	183	217	253	-
45	-	-	99	123	150	180	214	250	-
50	-	-	-	118	146	177	211	247	-
55	-	-	-	-	140	172	207	243	-
60	-	-	-	-	-	166	201	239	-
65	-	-	-	-	-	-	194	233	-

Coefficient of performance (C.O.P.)

30	2.08	2.45	2.97	3.66	4.53	5.61	6.98	8.77	-
35	-	2.04	2.52	3.12	3.85	4.72	5.76	7.04	-
40	-	-	2.09	2.63	3.26	4.00	4.84	5.81	-
45	-	-	1.70	2.18	2.74	3.38	4.09	4.87	-
50	-	-	-	1.77	2.27	2.83	3.45	4.10	-
55	-	-	-	-	1.84	2.34	2.88	3.45	-
60	-	-	-	-	-	1.90	2.38	2.87	-
65	-	-	-	-	-	-	1.92	2.37	-

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

Cooling capacity	9 811	W
Power input	3 070	W
Current consumption	5.37	A
Mass flow	223	kg/h
C.O.P.	3.20	

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

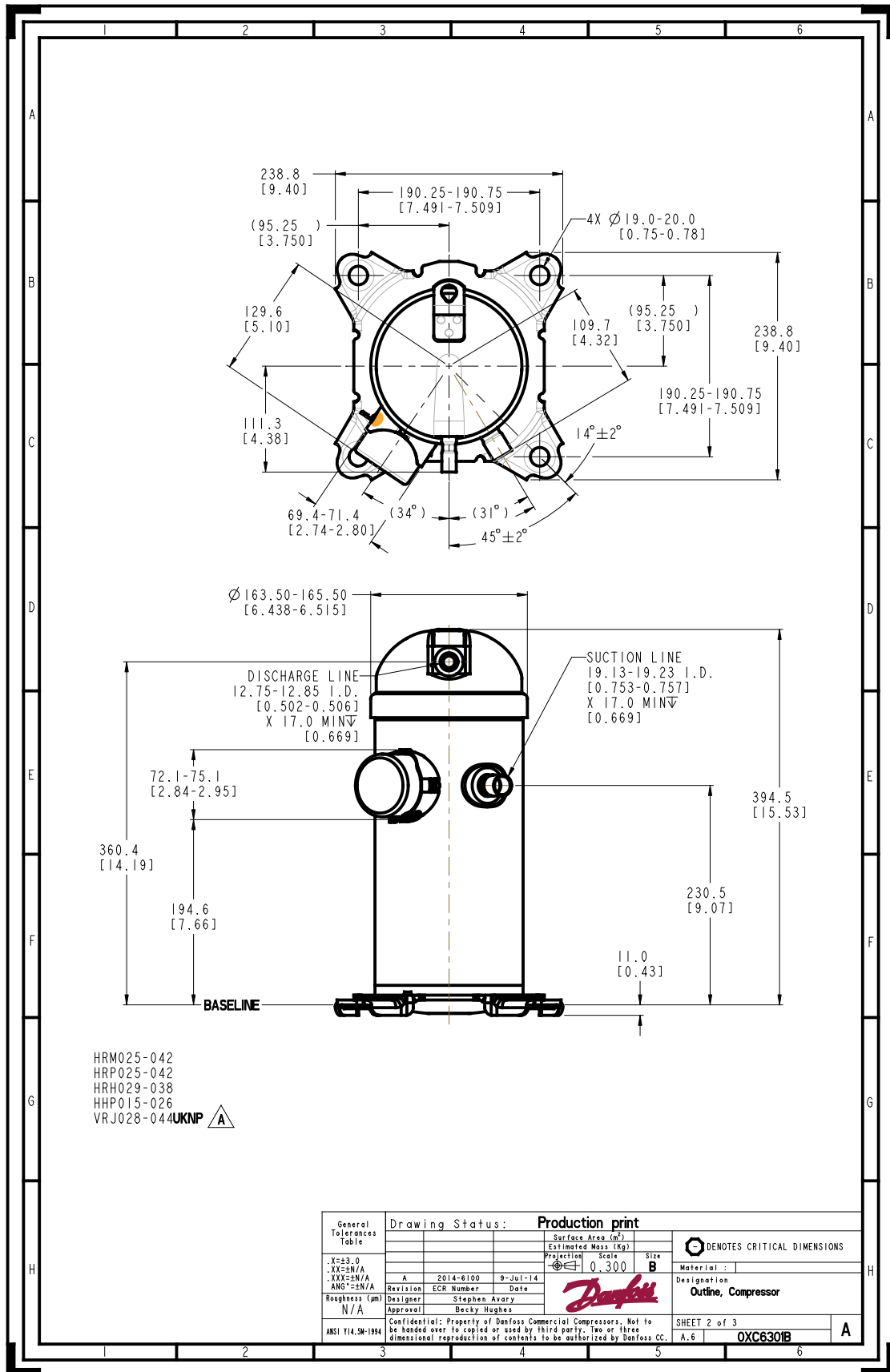
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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