

Datasheets

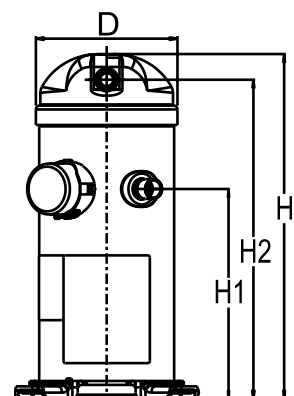
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRH036U4LP6
Code number for Singlepack*		120U1201
Code number for Industrial pack**		120U1198
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		34.74 cm ³ /rev
Displacement @ Nominal speed		6.0 m ³ /h @ 2900 rpm - 7.3 m ³ /h @ 3500 rpm
Net weight		30.84 kg
Oil charge		1.06 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		3.63 kg
Approved refrigerants		R410A

Dimensions

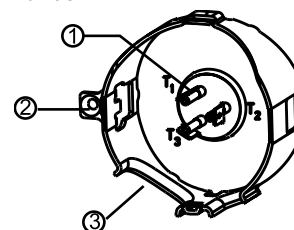


D=164.5 mm
H=413 mm
H1=250 mm
H2=379 mm
H3=- mm

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	4.660 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	3.420 Ω
Rated Load Amps (RLA)	6.4 A
Maximum Continuous Current (MCC)	10 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.

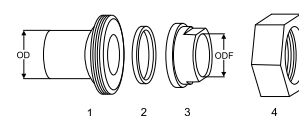
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

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.

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

R410A

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

Cooling capacity in W

30	2 575	3 369	4 337	5 494	6 854	8 431	10 242	12 300	-
35	2 314	3 083	4 013	5 121	6 420	7 925	9 650	11 611	-
40	-	2 794	3 686	4 744	5 980	7 411	9 050	10 911	-
45	-	-	3 348	4 354	5 527	6 881	8 432	10 192	-
50	-	-	-	3 945	5 052	6 328	7 788	9 445	-
55	-	-	-	-	4 546	5 741	7 106	8 656	-
60	-	-	-	-	-	5 105	6 369	7 805	-
65	-	-	-	-	-	-	5 547	6 855	-

Power input in W

30	1 737	1 712	1 695	1 681	1 668	1 653	1 634	1 607	-
35	2 015	1 979	1 951	1 928	1 907	1 884	1 858	1 824	-
40	-	2 286	2 248	2 216	2 187	2 157	2 124	2 084	-
45	-	-	2 589	2 549	2 511	2 475	2 435	2 390	-
50	-	-	-	2 928	2 884	2 841	2 796	2 746	-
55	-	-	-	-	3 308	3 259	3 208	3 154	-
60	-	-	-	-	-	3 732	3 677	3 619	-
65	-	-	-	-	-	-	4 205	4 143	-

Current consumption in A

30	4.08	4.08	4.08	4.07	4.06	4.02	3.97	3.90	-
35	4.39	4.39	4.38	4.37	4.36	4.33	4.28	4.22	-
40	-	4.74	4.73	4.71	4.69	4.66	4.62	4.57	-
45	-	-	5.12	5.10	5.08	5.05	5.01	4.96	-
50	-	-	-	5.56	5.52	5.49	5.45	5.40	-
55	-	-	-	-	6.05	6.00	5.96	5.91	-
60	-	-	-	-	-	6.61	6.56	6.51	-
65	-	-	-	-	-	-	7.25	7.20	-

Mass flow in kg/h

30	54	69	88	110	136	165	199	237	-
35	51	67	86	108	134	163	196	234	-
40	-	64	83	105	131	161	194	231	-
45	-	-	80	103	129	158	191	229	-
50	-	-	-	99	125	155	188	226	-
55	-	-	-	-	121	151	185	222	-
60	-	-	-	-	-	146	180	217	-
65	-	-	-	-	-	-	174	211	-

Coefficient of performance (C.O.P.)

30	1.48	1.97	2.56	3.27	4.11	5.10	6.27	7.66	-
35	1.15	1.56	2.06	2.66	3.37	4.21	5.19	6.36	-
40	-	1.22	1.64	2.14	2.73	3.44	4.26	5.23	-
45	-	-	1.29	1.71	2.20	2.78	3.46	4.26	-
50	-	-	-	1.35	1.75	2.23	2.79	3.44	-
55	-	-	-	-	1.37	1.76	2.21	2.74	-
60	-	-	-	-	-	1.37	1.73	2.16	-
65	-	-	-	-	-	-	1.32	1.65	-

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

Cooling capacity	7 788	W
Power input	2 796	W
Current consumption	5.45	A
Mass flow	188	kg/h
C.O.P.	2.79	

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	66	dB(A)
With acoustic hood	61	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
R410A

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

Cooling capacity in W

30	2 781	3 634	4 674	5 915	7 372	9 062	10 999	13 199	-
35	-	3 347	4 352	5 548	6 948	8 568	10 424	12 531	-
40	-	-	4 027	5 176	6 519	8 069	9 843	11 857	-
45	-	-	3 692	4 794	6 078	7 558	9 250	11 170	-
50	-	-	-	4 394	5 618	7 027	8 637	10 462	-
55	-	-	-	-	5 133	6 471	7 997	9 727	-
60	-	-	-	-	-	5 880	7 322	8 957	-
65	-	-	-	-	-	-	6 607	8 145	-

Power input in W

30	1 737	1 712	1 695	1 681	1 668	1 653	1 634	1 607	-
35	-	1 979	1 951	1 928	1 907	1 884	1 858	1 824	-
40	-	-	2 248	2 216	2 187	2 157	2 124	2 084	-
45	-	-	2 589	2 549	2 511	2 475	2 435	2 390	-
50	-	-	-	2 928	2 884	2 841	2 796	2 746	-
55	-	-	-	-	3 308	3 259	3 208	3 154	-
60	-	-	-	-	-	3 732	3 677	3 619	-
65	-	-	-	-	-	-	4 205	4 143	-

Current consumption in A

30	4.08	4.08	4.08	4.07	4.06	4.02	3.97	3.90	-
35	-	4.39	4.38	4.37	4.36	4.33	4.28	4.22	-
40	-	-	4.73	4.71	4.69	4.66	4.62	4.57	-
45	-	-	5.12	5.10	5.08	5.05	5.01	4.96	-
50	-	-	-	5.56	5.52	5.49	5.45	5.40	-
55	-	-	-	-	6.05	6.00	5.96	5.91	-
60	-	-	-	-	-	6.61	6.56	6.51	-
65	-	-	-	-	-	-	7.25	7.20	-

Mass flow in kg/h

30	54	69	87	109	135	164	197	235	-
35	-	66	85	107	133	162	195	232	-
40	-	-	83	105	130	160	193	230	-
45	-	-	80	102	128	157	190	227	-
50	-	-	-	99	125	154	187	224	-
55	-	-	-	-	121	150	183	220	-
60	-	-	-	-	-	145	179	216	-
65	-	-	-	-	-	-	173	210	-

Coefficient of performance (C.O.P.)

30	1.60	2.12	2.76	3.52	4.42	5.48	6.73	8.22	-
35	-	1.69	2.23	2.88	3.64	4.55	5.61	6.87	-
40	-	-	1.79	2.34	2.98	3.74	4.63	5.69	-
45	-	-	1.43	1.88	2.42	3.05	3.80	4.67	-
50	-	-	-	1.50	1.95	2.47	3.09	3.81	-
55	-	-	-	-	1.55	1.99	2.49	3.08	-
60	-	-	-	-	-	1.58	1.99	2.48	-
65	-	-	-	-	-	-	1.57	1.97	-

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

Cooling capacity	8 815	W
Power input	3 133	W
Current consumption	5.88	A
Mass flow	200	kg/h
C.O.P.	2.81	

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	66	dB(A)
With acoustic hood	61	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

R410A

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

Cooling capacity in W

30	3 028	3 962	5 100	6 460	8 060	9 915	12 044	14 464	-
35	2 721	3 625	4 720	6 022	7 550	9 320	11 349	13 654	-
40	-	3 286	4 335	5 579	7 033	8 715	10 642	12 831	-
45	-	-	3 938	5 121	6 500	8 093	9 916	11 986	-
50	-	-	-	4 639	5 941	7 442	9 159	11 108	-
55	-	-	-	-	5 346	6 751	8 357	10 180	-
60	-	-	-	-	-	6 004	7 491	9 180	-
65	-	-	-	-	-	-	6 524	8 062	-

Power input in W

30	2 068	2 042	2 021	2 003	1 987	1 969	1 947	1 918	-
35	2 367	2 330	2 299	2 272	2 246	2 220	2 189	2 152	-
40	-	2 649	2 609	2 574	2 540	2 505	2 466	2 422	-
45	-	-	2 955	2 912	2 870	2 828	2 782	2 731	-
50	-	-	-	3 289	3 241	3 192	3 141	3 084	-
55	-	-	-	-	3 655	3 601	3 544	3 482	-
60	-	-	-	-	-	4 057	3 996	3 930	-
65	-	-	-	-	-	-	4 500	4 431	-

Current consumption in A

30	3.49	3.49	3.49	3.48	3.47	3.44	3.40	3.34	-
35	3.76	3.75	3.75	3.74	3.73	3.70	3.66	3.61	-
40	-	4.06	4.04	4.03	4.01	3.99	3.95	3.91	-
45	-	-	4.38	4.36	4.34	4.32	4.28	4.24	-
50	-	-	-	4.75	4.72	4.70	4.66	4.62	-
55	-	-	-	-	5.17	5.14	5.10	5.06	-
60	-	-	-	-	-	5.65	5.61	5.57	-
65	-	-	-	-	-	-	6.21	6.16	-

Mass flow in kg/h

30	63	82	103	129	160	194	234	278	-
35	60	79	101	127	157	192	231	275	-
40	-	75	98	124	154	189	228	272	-
45	-	-	94	121	151	186	225	269	-
50	-	-	-	117	147	182	221	265	-
55	-	-	-	-	143	178	217	261	-
60	-	-	-	-	-	172	212	255	-
65	-	-	-	-	-	-	205	249	-

Coefficient of performance (C.O.P.)

30	1.46	1.94	2.52	3.22	4.06	5.04	6.19	7.54	-
35	1.15	1.56	2.05	2.65	3.36	4.20	5.18	6.34	-
40	-	1.24	1.66	2.17	2.77	3.48	4.32	5.30	-
45	-	-	1.33	1.76	2.26	2.86	3.56	4.39	-
50	-	-	-	1.41	1.83	2.33	2.92	3.60	-
55	-	-	-	-	1.46	1.88	2.36	2.92	-
60	-	-	-	-	-	1.48	1.87	2.34	-
65	-	-	-	-	-	-	1.45	1.82	-

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

Cooling capacity	9 159	W
Power input	3 141	W
Current consumption	4.66	A
Mass flow	221	kg/h
C.O.P.	2.92	

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

Sound power level	69	dB(A)
With acoustic hood	64	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
R410A

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

Cooling capacity in W

30	3 270	4 274	5 496	6 956	8 670	10 657	12 935	15 521	-
35	-	3 936	5 118	6 524	8 170	10 076	12 259	14 736	-
40	-	-	4 736	6 088	7 666	9 489	11 576	13 944	-
45	-	-	4 342	5 638	7 148	8 888	10 878	13 136	-
50	-	-	-	5 167	6 607	8 265	10 157	12 304	-
55	-	-	-	-	6 037	7 610	9 405	11 439	-
60	-	-	-	-	-	6 916	8 612	10 534	-
65	-	-	-	-	-	-	7 771	9 579	-

Power input in W

30	2 068	2 042	2 021	2 003	1 987	1 969	1 947	1 918	-
35	-	2 330	2 299	2 272	2 246	2 220	2 189	2 152	-
40	-	-	2 609	2 574	2 540	2 505	2 466	2 422	-
45	-	-	2 955	2 912	2 870	2 828	2 782	2 731	-
50	-	-	-	3 289	3 241	3 192	3 141	3 084	-
55	-	-	-	-	3 655	3 601	3 544	3 482	-
60	-	-	-	-	-	4 057	3 996	3 930	-
65	-	-	-	-	-	-	4 500	4 431	-

Current consumption in A

30	3.49	3.49	3.49	3.48	3.47	3.44	3.40	3.34	-
35	-	3.75	3.75	3.74	3.73	3.70	3.66	3.61	-
40	-	-	4.04	4.03	4.01	3.99	3.95	3.91	-
45	-	-	4.38	4.36	4.34	4.32	4.28	4.24	-
50	-	-	-	4.75	4.72	4.70	4.66	4.62	-
55	-	-	-	-	5.17	5.14	5.10	5.06	-
60	-	-	-	-	-	5.65	5.61	5.57	-
65	-	-	-	-	-	-	6.21	6.16	-

Mass flow in kg/h

30	63	81	103	129	159	193	232	276	-
35	-	78	100	126	156	190	229	273	-
40	-	-	97	123	153	188	227	270	-
45	-	-	94	120	150	185	224	267	-
50	-	-	-	116	147	181	220	263	-
55	-	-	-	-	142	177	216	259	-
60	-	-	-	-	-	171	210	254	-
65	-	-	-	-	-	-	203	247	-

Coefficient of performance (C.O.P.)

30	1.58	2.09	2.72	3.47	4.36	5.41	6.64	8.09	-
35	-	1.69	2.23	2.87	3.64	4.54	5.60	6.85	-
40	-	-	1.82	2.37	3.02	3.79	4.69	5.76	-
45	-	-	1.47	1.94	2.49	3.14	3.91	4.81	-
50	-	-	-	1.57	2.04	2.59	3.23	3.99	-
55	-	-	-	-	1.65	2.11	2.65	3.28	-
60	-	-	-	-	-	1.70	2.16	2.68	-
65	-	-	-	-	-	-	1.73	2.16	-

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

Cooling capacity	10 367	W
Power input	3 467	W
Current consumption	5.03	A
Mass flow	235	kg/h
C.O.P.	2.99	

Pressure switch settings

Maximum HP switch setting	45	bar(g)
Minimum LP switch setting	1.5	bar(g)
LP pump down setting	2.3	bar(g)

Sound power data

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

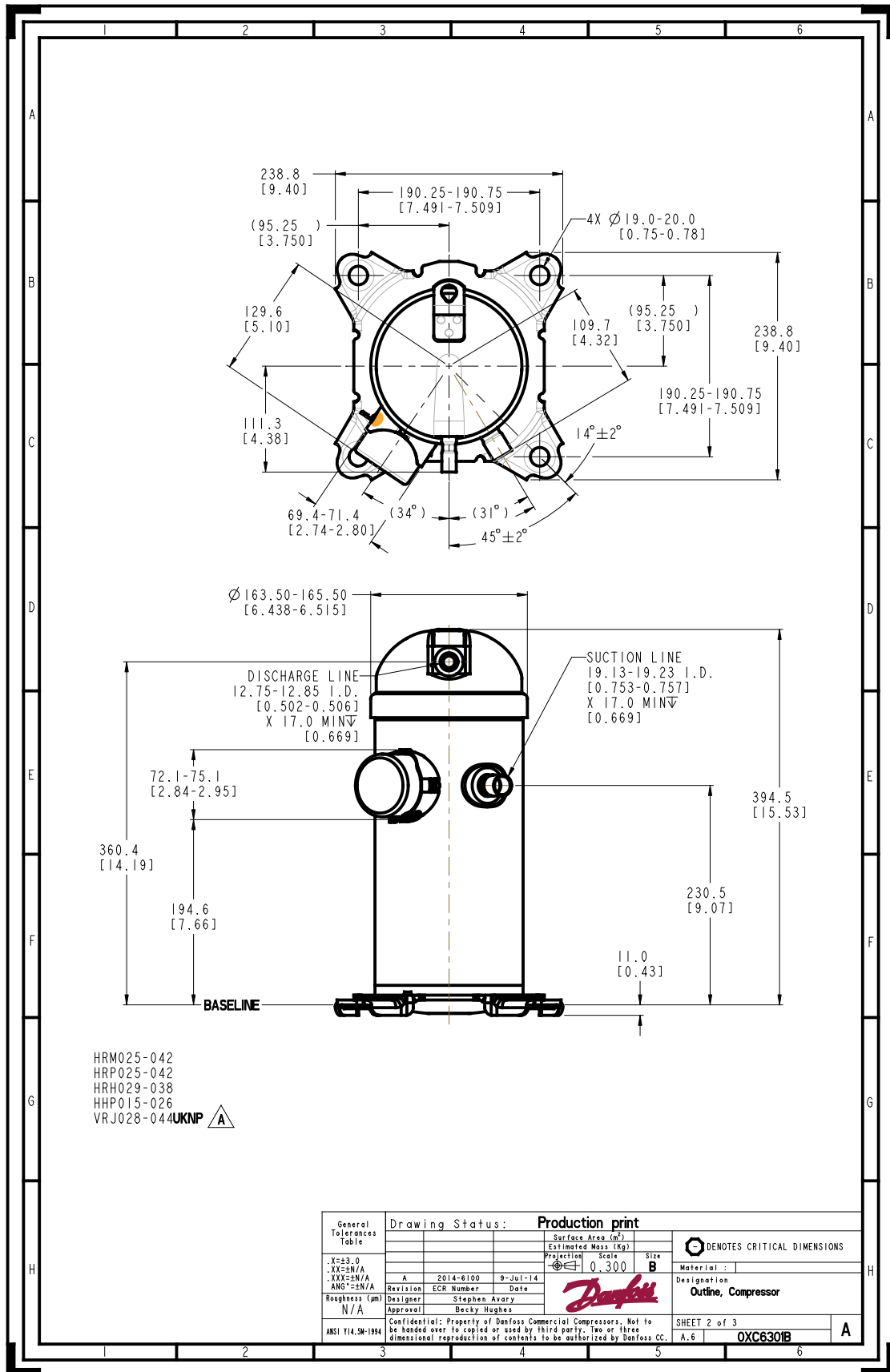
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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