

Datasheets

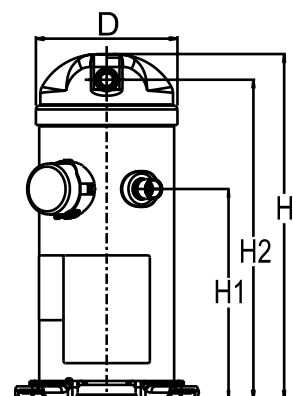
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRH032U4LP6
Code number for Singlepack*		120U1196
Code number for Industrial pack**		120U1193
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		30.64 cm ³ /rev
Displacement @ Nominal speed		5.3 m ³ /h @ 2900 rpm - 6.4 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

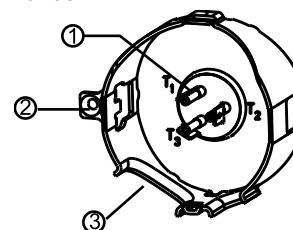


D=164.5 mm
H=413 mm
H1=250 mm
H2=379 mm
H3=- mm

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.

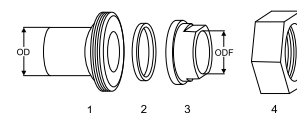
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

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	2 238	2 927	3 769	4 774	5 956	7 327	8 900	10 687	-
35	2 012	2 679	3 488	4 451	5 580	6 888	8 388	10 092	-
40	-	2 429	3 205	4 124	5 200	6 444	7 868	9 487	-
45	-	-	2 913	3 787	4 807	5 985	7 334	8 865	-
50	-	-	-	3 433	4 396	5 506	6 776	8 218	-
55	-	-	-	-	3 957	4 997	6 185	7 535	-
60	-	-	-	-	-	4 445	5 546	6 797	-
65	-	-	-	-	-	-	4 832	5 971	-

Power input in W

30	1 494	1 472	1 456	1 445	1 434	1 422	1 405	1 380	-
35	1 741	1 708	1 684	1 663	1 645	1 626	1 603	1 573	-
40	-	1 983	1 949	1 921	1 895	1 870	1 841	1 806	-
45	-	-	2 256	2 220	2 188	2 156	2 122	2 082	-
50	-	-	-	2 565	2 525	2 487	2 448	2 405	-
55	-	-	-	-	2 911	2 868	2 824	2 776	-
60	-	-	-	-	-	3 300	3 252	3 201	-
65	-	-	-	-	-	-	3 735	3 681	-

Current consumption in A

30	3.58	3.58	3.58	3.57	3.56	3.53	3.49	3.43	-
35	3.86	3.85	3.85	3.84	3.82	3.80	3.76	3.70	-
40	-	4.16	4.15	4.13	4.12	4.09	4.06	4.01	-
45	-	-	4.50	4.48	4.45	4.43	4.39	4.35	-
50	-	-	-	4.87	4.85	4.82	4.78	4.74	-
55	-	-	-	-	5.31	5.27	5.23	5.19	-
60	-	-	-	-	-	5.80	5.76	5.71	-
65	-	-	-	-	-	-	6.37	6.32	-

Mass flow in kg/h

30	47	60	76	96	118	144	173	206	-
35	44	58	74	94	116	142	171	203	-
40	-	56	72	92	114	140	169	201	-
45	-	-	70	89	112	138	166	199	-
50	-	-	-	86	109	135	164	196	-
55	-	-	-	-	106	132	161	193	-
60	-	-	-	-	-	127	157	189	-
65	-	-	-	-	-	-	152	184	-

Coefficient of performance (C.O.P.)

30	1.50	1.99	2.59	3.30	4.15	5.15	6.34	7.74	-
35	1.16	1.57	2.07	2.68	3.39	4.24	5.23	6.41	-
40	-	1.23	1.64	2.15	2.74	3.45	4.27	5.25	-
45	-	-	1.29	1.71	2.20	2.78	3.46	4.26	-
50	-	-	-	1.34	1.74	2.21	2.77	3.42	-
55	-	-	-	-	1.36	1.74	2.19	2.71	-
60	-	-	-	-	-	1.35	1.71	2.12	-
65	-	-	-	-	-	-	1.29	1.62	-

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

Cooling capacity	6 776	W
Power input	2 448	W
Current consumption	4.78	A
Mass flow	164	kg/h
C.O.P.	2.77	

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	65	dB(A)
With acoustic hood	60	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	15

Cooling capacity in W

30	2 417	3 158	4 062	5 140	6 406	7 875	9 557	11 468	-
35	-	2 909	3 783	4 822	6 039	7 447	9 060	10 891	-
40	-	-	3 502	4 501	5 668	7 016	8 559	10 309	-
45	-	-	3 212	4 170	5 286	6 574	8 046	9 715	-
50	-	-	-	3 823	4 889	6 115	7 515	9 103	-
55	-	-	-	-	4 468	5 632	6 961	8 467	-
60	-	-	-	-	-	5 120	6 376	7 800	-
65	-	-	-	-	-	-	5 755	7 095	-

Power input in W

30	1 494	1 472	1 456	1 445	1 434	1 422	1 405	1 380	-
35	-	1 708	1 684	1 663	1 645	1 626	1 603	1 573	-
40	-	-	1 949	1 921	1 895	1 870	1 841	1 806	-
45	-	-	2 256	2 220	2 188	2 156	2 122	2 082	-
50	-	-	-	2 565	2 525	2 487	2 448	2 405	-
55	-	-	-	-	2 911	2 868	2 824	2 776	-
60	-	-	-	-	-	3 300	3 252	3 201	-
65	-	-	-	-	-	-	3 735	3 681	-

Current consumption in A

30	3.58	3.58	3.58	3.57	3.56	3.53	3.49	3.43	-
35	-	3.85	3.85	3.84	3.82	3.80	3.76	3.70	-
40	-	-	4.15	4.13	4.12	4.09	4.06	4.01	-
45	-	-	4.50	4.48	4.45	4.43	4.39	4.35	-
50	-	-	-	4.87	4.85	4.82	4.78	4.74	-
55	-	-	-	-	5.31	5.27	5.23	5.19	-
60	-	-	-	-	-	5.80	5.76	5.71	-
65	-	-	-	-	-	-	6.37	6.32	-

Mass flow in kg/h

30	47	60	76	95	117	143	172	204	-
35	-	58	74	93	115	141	170	202	-
40	-	-	72	91	113	139	168	200	-
45	-	-	69	89	111	137	165	197	-
50	-	-	-	86	108	134	163	195	-
55	-	-	-	-	105	131	160	192	-
60	-	-	-	-	-	127	156	188	-
65	-	-	-	-	-	-	151	183	-

Coefficient of performance (C.O.P.)

30	1.62	2.15	2.79	3.56	4.47	5.54	6.80	8.31	-
35	-	1.70	2.25	2.90	3.67	4.58	5.65	6.92	-
40	-	-	1.80	2.34	2.99	3.75	4.65	5.71	-
45	-	-	1.42	1.88	2.42	3.05	3.79	4.67	-
50	-	-	-	1.49	1.94	2.46	3.07	3.79	-
55	-	-	-	-	1.53	1.96	2.47	3.05	-
60	-	-	-	-	-	1.55	1.96	2.44	-
65	-	-	-	-	-	-	1.54	1.93	-

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

Cooling capacity	7 673	W
Power input	2 756	W
Current consumption	5.16	A
Mass flow	174	kg/h
C.O.P.	2.78	

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	65	dB(A)
With acoustic hood	60	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	2 706	3 538	4 555	5 769	7 197	8 854	10 752	12 908	-
35	2 437	3 244	4 222	5 388	6 755	8 338	10 152	12 212	-
40	-	2 949	3 888	5 002	6 307	7 816	9 544	11 506	-
45	-	-	3 543	4 604	5 844	7 277	8 916	10 778	-
50	-	-	-	4 184	5 357	6 710	8 259	10 016	-
55	-	-	-	-	4 834	6 105	7 557	9 206	-
60	-	-	-	-	-	5 443	6 793	8 326	-
65	-	-	-	-	-	-	5 930	7 331	-

Power input in W

30	1 866	1 842	1 823	1 807	1 792	1 776	1 756	1 731	-
35	2 132	2 099	2 072	2 047	2 024	2 000	1 972	1 939	-
40	-	2 383	2 348	2 316	2 285	2 254	2 219	2 179	-
45	-	-	2 654	2 615	2 578	2 540	2 499	2 453	-
50	-	-	-	2 949	2 906	2 862	2 816	2 765	-
55	-	-	-	-	3 271	3 223	3 172	3 116	-
60	-	-	-	-	-	3 625	3 570	3 511	-
65	-	-	-	-	-	-	4 013	3 952	-

Current consumption in A

30	3.12	3.12	3.12	3.12	3.10	3.08	3.04	2.99	-
35	3.36	3.36	3.35	3.35	3.33	3.31	3.28	3.23	-
40	-	3.63	3.62	3.61	3.59	3.57	3.54	3.50	-
45	-	-	3.92	3.90	3.88	3.86	3.83	3.79	-
50	-	-	-	4.25	4.23	4.20	4.17	4.13	-
55	-	-	-	-	4.63	4.60	4.56	4.53	-
60	-	-	-	-	-	5.06	5.02	4.98	-
65	-	-	-	-	-	-	5.55	5.51	-

Mass flow in kg/h

30	57	73	92	116	143	174	209	248	-
35	54	70	90	113	141	172	207	246	-
40	-	68	88	111	138	169	205	244	-
45	-	-	85	109	136	167	202	242	-
50	-	-	-	105	133	164	200	239	-
55	-	-	-	-	129	161	196	236	-
60	-	-	-	-	-	156	192	232	-
65	-	-	-	-	-	-	186	226	-

Coefficient of performance (C.O.P.)

30	1.45	1.92	2.50	3.19	4.02	4.98	6.12	7.46	-
35	1.14	1.55	2.04	2.63	3.34	4.17	5.15	6.30	-
40	-	1.24	1.66	2.16	2.76	3.47	4.30	5.28	-
45	-	-	1.33	1.76	2.27	2.86	3.57	4.39	-
50	-	-	-	1.42	1.84	2.34	2.93	3.62	-
55	-	-	-	-	1.48	1.89	2.38	2.95	-
60	-	-	-	-	-	1.50	1.90	2.37	-
65	-	-	-	-	-	-	1.48	1.86	-

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

Cooling capacity	8 259	W
Power input	2 816	W
Current consumption	4.17	A
Mass flow	200	kg/h
C.O.P.	2.93	

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	68	dB(A)
With acoustic hood	63	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	2 922	3 817	4 908	6 212	7 742	9 516	11 547	13 852	-
35	-	3 521	4 579	5 836	7 310	9 015	10 967	13 180	-
40	-	-	4 247	5 458	6 874	8 510	10 381	12 503	-
45	-	-	3 906	5 070	6 426	7 992	9 782	11 811	-
50	-	-	-	4 661	5 958	7 452	9 159	11 095	-
55	-	-	-	-	5 459	6 881	8 505	10 345	-
60	-	-	-	-	-	6 270	7 809	9 554	-
65	-	-	-	-	-	-	7 063	8 711	-

Power input in W

30	1 866	1 842	1 823	1 807	1 792	1 776	1 756	1 731	-
35	-	2 099	2 072	2 047	2 024	2 000	1 972	1 939	-
40	-	-	2 348	2 316	2 285	2 254	2 219	2 179	-
45	-	-	2 654	2 615	2 578	2 540	2 499	2 453	-
50	-	-	-	2 949	2 906	2 862	2 816	2 765	-
55	-	-	-	-	3 271	3 223	3 172	3 116	-
60	-	-	-	-	-	3 625	3 570	3 511	-
65	-	-	-	-	-	-	4 013	3 952	-

Current consumption in A

30	3.12	3.12	3.12	3.12	3.10	3.08	3.04	2.99	-
35	-	3.36	3.35	3.35	3.33	3.31	3.28	3.23	-
40	-	-	3.62	3.61	3.59	3.57	3.54	3.50	-
45	-	-	3.92	3.90	3.88	3.86	3.83	3.79	-
50	-	-	-	4.25	4.23	4.20	4.17	4.13	-
55	-	-	-	-	4.63	4.60	4.56	4.53	-
60	-	-	-	-	-	5.06	5.02	4.98	-
65	-	-	-	-	-	-	5.55	5.51	-

Mass flow in kg/h

30	56	72	92	115	142	172	207	247	-
35	-	70	90	113	140	170	205	244	-
40	-	-	87	111	138	168	203	242	-
45	-	-	84	108	135	166	201	240	-
50	-	-	-	105	132	163	198	237	-
55	-	-	-	-	128	160	195	234	-
60	-	-	-	-	-	155	191	230	-
65	-	-	-	-	-	-	185	225	-

Coefficient of performance (C.O.P.)

30	1.57	2.07	2.69	3.44	4.32	5.36	6.57	8.00	-
35	-	1.68	2.21	2.85	3.61	4.51	5.56	6.80	-
40	-	-	1.81	2.36	3.01	3.78	4.68	5.74	-
45	-	-	1.47	1.94	2.49	3.15	3.91	4.81	-
50	-	-	-	1.58	2.05	2.60	3.25	4.01	-
55	-	-	-	-	1.67	2.14	2.68	3.32	-
60	-	-	-	-	-	1.73	2.19	2.72	-
65	-	-	-	-	-	-	1.76	2.20	-

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

Cooling capacity	9 372	W
Power input	3 103	W
Current consumption	4.50	A
Mass flow	212	kg/h
C.O.P.	3.02	

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	68	dB(A)
With acoustic hood	63	dB(A)

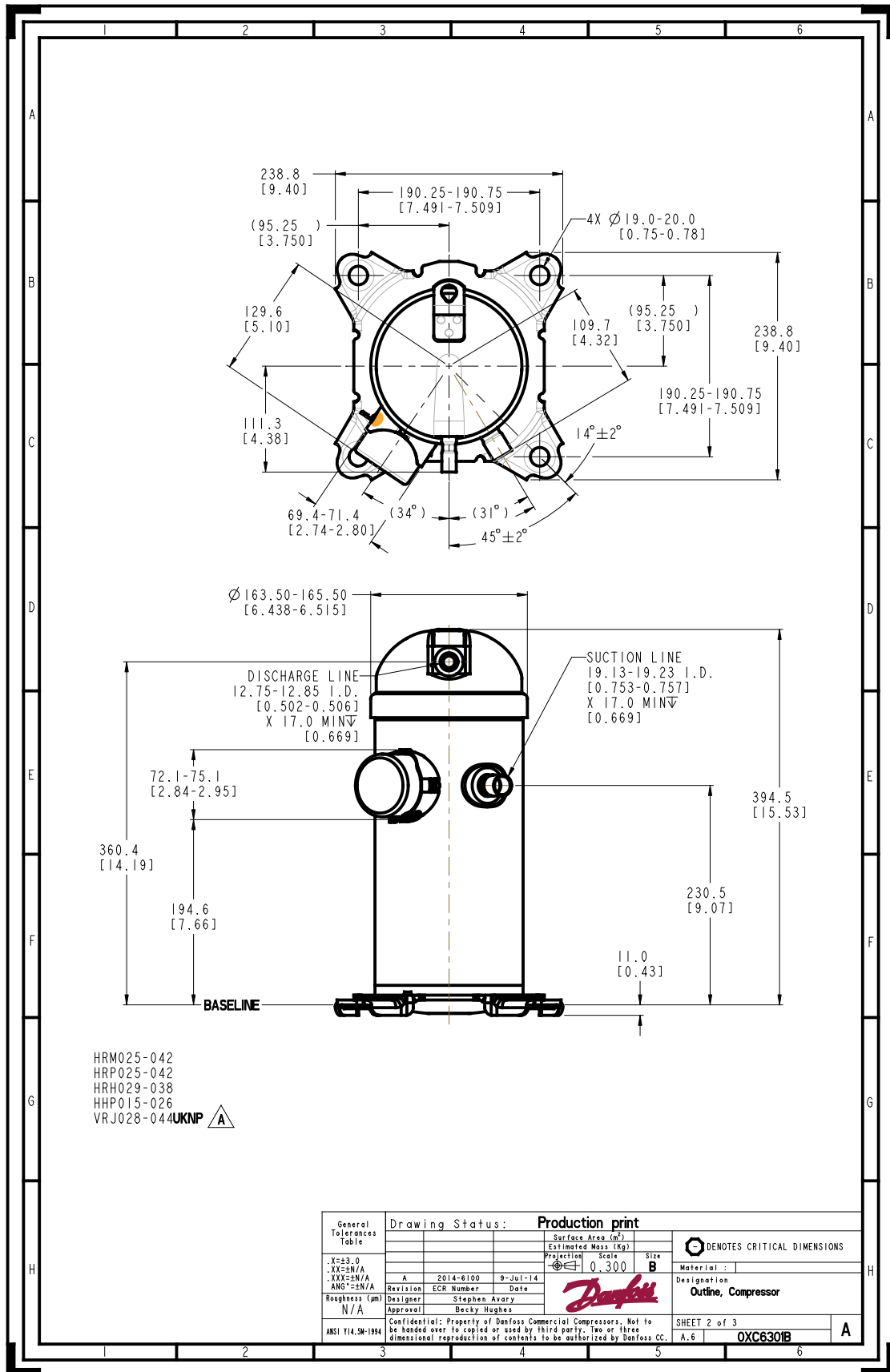
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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