

ENGINEERING
TOMORROW

Danfoss

Datasheets

Danfoss scroll compressors **H series**



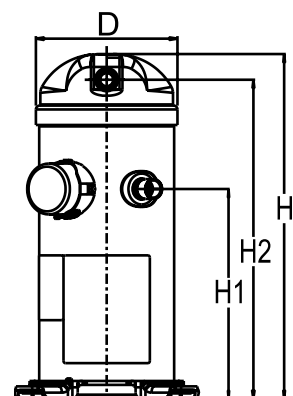
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www.danfoss.com/odsg

General Characteristics

Model number (on compressor nameplate)		HRP034T5LP6
Code number for Singlepack*		120U2019
Code number for Industrial pack**		120U2016
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
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		R407C

Dimensions

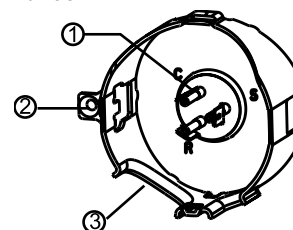


D=164.5 mm
H=413 mm
H1=250 mm
H2=379 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.689 Ω / 1.509 Ω
Run capacitors A + C	70 μF + - μF
Start capacitor B	145-175 μF
Start relay	3ARR3*3AL*
Rated Load Amps (RLA)	16 A
Maximum Continuous Current (MCC)	25 A
Locked Rotor Amps (LRA)	97 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.

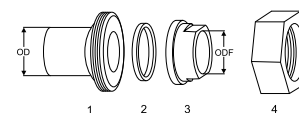
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

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
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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

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	-	2 340	3 092	3 964	4 982	6 173	7 563	9 178	11 044
35	-	2 170	2 895	3 733	4 712	5 856	7 193	8 748	10 547
40	-	2 002	2 695	3 496	4 430	5 523	6 801	8 291	10 019
45	-	-	2 490	3 248	4 132	5 170	6 385	7 806	9 457
50	-	-	-	2 987	3 818	4 795	5 943	7 289	8 858
55	-	-	-	-	3 484	4 396	5 471	6 738	8 220
60	-	-	-	-	-	3 970	4 969	6 150	7 540
65	-	-	-	-	-	-	4 432	5 523	6 815

Power input in W

30	-	1 658	1 625	1 604	1 589	1 573	1 549	1 509	1 448
35	-	1 858	1 823	1 802	1 788	1 774	1 754	1 721	1 668
40	-	2 085	2 044	2 019	2 003	1 990	1 971	1 942	1 894
45	-	-	2 303	2 272	2 251	2 234	2 214	2 184	2 138
50	-	-	-	2 572	2 543	2 519	2 495	2 462	2 415
55	-	-	-	-	2 893	2 861	2 828	2 790	2 738
60	-	-	-	-	-	3 271	3 228	3 181	3 122
65	-	-	-	-	-	-	3 709	3 649	3 580

Current consumption in A

30	-	7.73	7.78	7.79	7.75	7.65	7.49	7.26	6.96
35	-	8.65	8.68	8.67	8.63	8.54	8.41	8.23	8.00
40	-	9.70	9.68	9.64	9.58	9.50	9.39	9.24	9.06
45	-	-	10.85	10.77	10.69	10.59	10.49	10.36	10.21
50	-	-	-	12.12	12.00	11.88	11.76	11.64	11.51
55	-	-	-	-	13.58	13.42	13.28	13.16	13.04
60	-	-	-	-	-	15.29	15.11	14.97	14.84
65	-	-	-	-	-	-	17.32	17.14	17.00

Mass flow in kg/h

30	-	52	68	86	106	129	156	186	221
35	-	51	67	85	105	128	155	186	220
40	-	50	66	84	104	127	154	185	220
45	-	-	64	82	102	126	152	183	218
50	-	-	-	80	100	123	150	181	216
55	-	-	-	-	98	121	147	178	213
60	-	-	-	-	-	117	143	174	208
65	-	-	-	-	-	-	138	168	203

Coefficient of performance (C.O.P.)

30	-	1.41	1.90	2.47	3.13	3.92	4.88	6.08	7.63
35	-	1.17	1.59	2.07	2.64	3.30	4.10	5.08	6.32
40	-	0.96	1.32	1.73	2.21	2.78	3.45	4.27	5.29
45	-	-	1.08	1.43	1.84	2.31	2.88	3.57	4.42
50	-	-	-	1.16	1.50	1.90	2.38	2.96	3.67
55	-	-	-	-	1.20	1.54	1.93	2.41	3.00
60	-	-	-	-	-	1.21	1.54	1.93	2.41
65	-	-	-	-	-	-	1.19	1.51	1.90

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

Cooling capacity	7 289	W
Power input	2 462	W
Current consumption	11.64	A
Mass flow	181	kg/h
C.O.P.	2.96	

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	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
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	-	2 513	3 316	4 246	5 331	6 598	8 076	9 791	11 771
35	-	2 342	3 120	4 019	5 065	6 288	7 715	9 372	11 289
40	-	2 173	2 921	3 783	4 787	5 961	7 332	8 927	10 775
45	-	-	2 716	3 537	4 494	5 613	6 924	8 452	10 227
50	-	-	-	3 278	4 182	5 243	6 489	7 946	9 643
55	-	-	-	-	3 851	4 848	6 024	7 405	9 019
60	-	-	-	-	-	4 425	5 526	6 826	8 353
65	-	-	-	-	-	-	4 994	6 208	7 643

Power input in W

30	-	1 658	1 625	1 604	1 589	1 573	1 549	1 509	1 448
35	-	1 858	1 823	1 802	1 788	1 774	1 754	1 721	1 668
40	-	2 085	2 044	2 019	2 003	1 990	1 971	1 942	1 894
45	-	-	2 303	2 272	2 251	2 234	2 214	2 184	2 138
50	-	-	-	2 572	2 543	2 519	2 495	2 462	2 415
55	-	-	-	-	2 893	2 861	2 828	2 790	2 738
60	-	-	-	-	-	3 271	3 228	3 181	3 122
65	-	-	-	-	-	-	3 709	3 649	3 580

Current consumption in A

30	-	7.73	7.78	7.79	7.75	7.65	7.49	7.26	6.96
35	-	8.65	8.68	8.67	8.63	8.54	8.41	8.23	8.00
40	-	9.70	9.68	9.64	9.58	9.50	9.39	9.24	9.06
45	-	-	10.85	10.77	10.69	10.59	10.49	10.36	10.21
50	-	-	-	12.12	12.00	11.88	11.76	11.64	11.51
55	-	-	-	-	13.58	13.42	13.28	13.16	13.04
60	-	-	-	-	-	15.29	15.11	14.97	14.84
65	-	-	-	-	-	-	17.32	17.14	17.00

Mass flow in kg/h

30	-	52	68	85	105	128	155	185	219
35	-	51	67	84	104	128	154	184	219
40	-	50	65	83	103	126	153	184	218
45	-	-	64	82	102	125	152	182	217
50	-	-	-	80	100	123	149	180	215
55	-	-	-	-	97	120	146	177	211
60	-	-	-	-	-	116	142	173	207
65	-	-	-	-	-	-	138	167	202

Coefficient of performance (C.O.P.)

30	-	1.52	2.04	2.65	3.35	4.19	5.21	6.49	8.13
35	-	1.26	1.71	2.23	2.83	3.54	4.40	5.44	6.77
40	-	1.04	1.43	1.87	2.39	3.00	3.72	4.60	5.69
45	-	-	1.18	1.56	2.00	2.51	3.13	3.87	4.78
50	-	-	-	1.27	1.64	2.08	2.60	3.23	3.99
55	-	-	-	-	1.33	1.69	2.13	2.65	3.29
60	-	-	-	-	-	1.35	1.71	2.15	2.68
65	-	-	-	-	-	-	1.35	1.70	2.13

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

Cooling capacity	8 156	W
Power input	2 727	W
Current consumption	12.91	A
Mass flow	192	kg/h
C.O.P.	2.99	

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	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 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	10

Cooling capacity in W

30	-	2 340	3 092	3 964	4 982	6 173	7 563	9 178	11 044
35	-	2 170	2 895	3 733	4 712	5 856	7 193	8 748	10 547
40	-	2 002	2 695	3 496	4 430	5 523	6 801	8 291	10 019
45	-	-	2 490	3 248	4 132	5 170	6 385	7 806	9 457
50	-	-	-	2 987	3 818	4 795	5 943	7 289	8 858
55	-	-	-	-	3 484	4 396	5 471	6 738	8 220
60	-	-	-	-	-	3 970	4 969	6 150	7 540
65	-	-	-	-	-	-	4 432	5 523	6 815

Power input in W

30	-	1 658	1 625	1 604	1 589	1 573	1 549	1 509	1 448
35	-	1 858	1 823	1 802	1 788	1 774	1 754	1 721	1 668
40	-	2 085	2 044	2 019	2 003	1 990	1 971	1 942	1 894
45	-	-	2 303	2 272	2 251	2 234	2 214	2 184	2 138
50	-	-	-	2 572	2 543	2 519	2 495	2 462	2 415
55	-	-	-	-	2 893	2 861	2 828	2 790	2 738
60	-	-	-	-	-	3 271	3 228	3 181	3 122
65	-	-	-	-	-	-	3 709	3 649	3 580

Current consumption in A

30	-	7.73	7.78	7.79	7.75	7.65	7.49	7.26	6.96
35	-	8.65	8.68	8.67	8.63	8.54	8.41	8.23	8.00
40	-	9.70	9.68	9.64	9.58	9.50	9.39	9.24	9.06
45	-	-	10.85	10.77	10.69	10.59	10.49	10.36	10.21
50	-	-	-	12.12	12.00	11.88	11.76	11.64	11.51
55	-	-	-	-	13.58	13.42	13.28	13.16	13.04
60	-	-	-	-	-	15.29	15.11	14.97	14.84
65	-	-	-	-	-	-	17.32	17.14	17.00

Mass flow in kg/h

30	-	52	68	86	106	129	156	186	221
35	-	51	67	85	105	128	155	186	220
40	-	50	66	84	104	127	154	185	220
45	-	-	64	82	102	126	152	183	218
50	-	-	-	80	100	123	150	181	216
55	-	-	-	-	98	121	147	178	213
60	-	-	-	-	-	117	143	174	208
65	-	-	-	-	-	-	138	168	203

Coefficient of performance (C.O.P.)

30	-	1.41	1.90	2.47	3.13	3.92	4.88	6.08	7.63
35	-	1.17	1.59	2.07	2.64	3.30	4.10	5.08	6.32
40	-	0.96	1.32	1.73	2.21	2.78	3.45	4.27	5.29
45	-	-	1.08	1.43	1.84	2.31	2.88	3.57	4.42
50	-	-	-	1.16	1.50	1.90	2.38	2.96	3.67
55	-	-	-	-	1.20	1.54	1.93	2.41	3.00
60	-	-	-	-	-	1.21	1.54	1.93	2.41
65	-	-	-	-	-	-	1.19	1.51	1.90

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

Cooling capacity	7 289	W
Power input	2 462	W
Current consumption	11.64	A
Mass flow	181	kg/h
C.O.P.	2.96	

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	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
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	-	2 513	3 316	4 246	5 331	6 598	8 076	9 791	11 771
35	-	2 342	3 120	4 019	5 065	6 288	7 715	9 372	11 289
40	-	2 173	2 921	3 783	4 787	5 961	7 332	8 927	10 775
45	-	-	2 716	3 537	4 494	5 613	6 924	8 452	10 227
50	-	-	-	3 278	4 182	5 243	6 489	7 946	9 643
55	-	-	-	-	3 851	4 848	6 024	7 405	9 019
60	-	-	-	-	-	4 425	5 526	6 826	8 353
65	-	-	-	-	-	-	4 994	6 208	7 643

Power input in W

30	-	1 658	1 625	1 604	1 589	1 573	1 549	1 509	1 448
35	-	1 858	1 823	1 802	1 788	1 774	1 754	1 721	1 668
40	-	2 085	2 044	2 019	2 003	1 990	1 971	1 942	1 894
45	-	-	2 303	2 272	2 251	2 234	2 214	2 184	2 138
50	-	-	-	2 572	2 543	2 519	2 495	2 462	2 415
55	-	-	-	-	2 893	2 861	2 828	2 790	2 738
60	-	-	-	-	-	3 271	3 228	3 181	3 122
65	-	-	-	-	-	-	3 709	3 649	3 580

Current consumption in A

30	-	7.73	7.78	7.79	7.75	7.65	7.49	7.26	6.96
35	-	8.65	8.68	8.67	8.63	8.54	8.41	8.23	8.00
40	-	9.70	9.68	9.64	9.58	9.50	9.39	9.24	9.06
45	-	-	10.85	10.77	10.69	10.59	10.49	10.36	10.21
50	-	-	-	12.12	12.00	11.88	11.76	11.64	11.51
55	-	-	-	-	13.58	13.42	13.28	13.16	13.04
60	-	-	-	-	-	15.29	15.11	14.97	14.84
65	-	-	-	-	-	-	17.32	17.14	17.00

Mass flow in kg/h

30	-	52	68	85	105	128	155	185	219
35	-	51	67	84	104	128	154	184	219
40	-	50	65	83	103	126	153	184	218
45	-	-	64	82	102	125	152	182	217
50	-	-	-	80	100	123	149	180	215
55	-	-	-	-	97	120	146	177	211
60	-	-	-	-	-	116	142	173	207
65	-	-	-	-	-	-	138	167	202

Coefficient of performance (C.O.P.)

30	-	1.52	2.04	2.65	3.35	4.19	5.21	6.49	8.13
35	-	1.26	1.71	2.23	2.83	3.54	4.40	5.44	6.77
40	-	1.04	1.43	1.87	2.39	3.00	3.72	4.60	5.69
45	-	-	1.18	1.56	2.00	2.51	3.13	3.87	4.78
50	-	-	-	1.27	1.64	2.08	2.60	3.23	3.99
55	-	-	-	-	1.33	1.69	2.13	2.65	3.29
60	-	-	-	-	-	1.35	1.71	2.15	2.68
65	-	-	-	-	-	-	1.35	1.70	2.13

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

Cooling capacity	8 156	W
Power input	2 727	W
Current consumption	12.91	A
Mass flow	192	kg/h
C.O.P.	2.99	

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	67	dB(A)
With acoustic hood	62	dB(A)

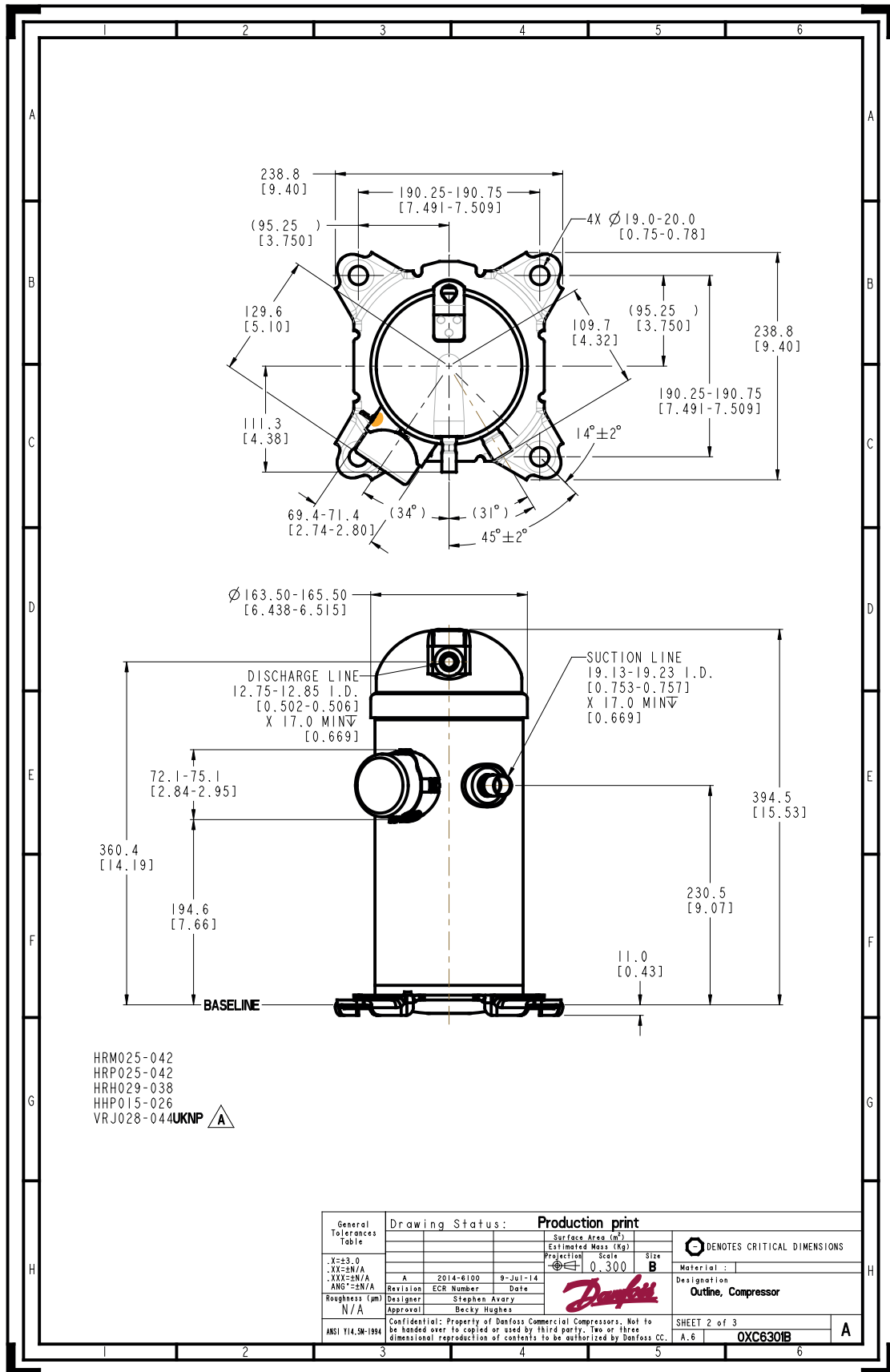
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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