

Datasheets

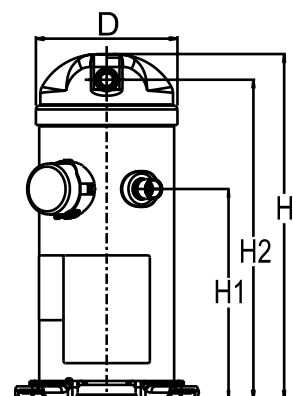
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRP038T5LP6
Code number for Singlepack*		120U0961
Code number for Industrial pack**		120U0958
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		51.62 cm ³ /rev
Displacement @ Nominal speed		9.0 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

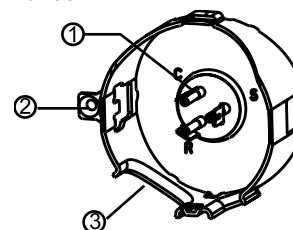


D=164.5 mm
H=413 mm
H1=250 mm
H2=379 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0.69 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.

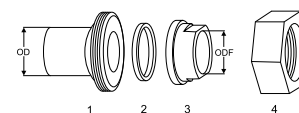
Solder sleeve, P04 (1-1/4" Rotolock, 3/4" ODF)	8153008
Angle adapter, C04 (1-1/4" Rotolock, 3/4" ODF)	8168006
Rotolock valve, V04 (1-1/4" Rotolock, 3/4" ODF)	8168029
Gasket, 1-1/4"	8156131

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	-	2 605	3 442	4 413	5 547	6 873	8 421	10 221	12 302
35	-	2 414	3 221	4 154	5 243	6 516	8 003	9 733	11 737
40	-	2 222	2 995	3 885	4 924	6 139	7 560	9 216	11 137
45	-	-	2 762	3 605	4 588	5 740	7 089	8 666	10 500
50	-	-	-	3 311	4 233	5 317	6 590	8 082	9 823
55	-	-	-	-	3 858	4 868	6 060	7 462	9 104
60	-	-	-	-	-	4 392	5 497	6 803	8 340
65	-	-	-	-	-	-	4 898	6 103	7 529

Power input in W

30	-	1 808	1 771	1 748	1 732	1 715	1 689	1 646	1 578
35	-	2 032	1 992	1 969	1 953	1 939	1 918	1 881	1 823
40	-	2 289	2 242	2 214	2 196	2 181	2 161	2 128	2 075
45	-	-	2 536	2 499	2 476	2 457	2 435	2 402	2 351
50	-	-	-	2 841	2 807	2 781	2 754	2 718	2 666
55	-	-	-	-	3 207	3 170	3 134	3 092	3 035
60	-	-	-	-	-	3 639	3 591	3 538	3 474
65	-	-	-	-	-	-	4 139	4 073	3 997

Current consumption in A

30	-	8.35	8.41	8.42	8.37	8.26	8.09	7.84	7.52
35	-	9.35	9.37	9.37	9.32	9.23	9.09	8.89	8.64
40	-	10.48	10.46	10.42	10.36	10.27	10.15	9.99	9.79
45	-	-	11.72	11.64	11.55	11.45	11.33	11.19	11.03
50	-	-	-	13.09	12.96	12.83	12.71	12.58	12.44
55	-	-	-	-	14.67	14.50	14.35	14.21	14.09
60	-	-	-	-	-	16.52	16.33	16.17	16.04
65	-	-	-	-	-	-	18.71	18.52	18.36

Mass flow in kg/h

30	-	58	76	95	118	144	173	207	246
35	-	57	74	94	117	143	172	206	245
40	-	56	73	93	115	141	171	205	244
45	-	-	71	91	114	139	169	203	242
50	-	-	-	89	111	137	167	201	239
55	-	-	-	-	108	134	163	197	236
60	-	-	-	-	-	129	158	192	230
65	-	-	-	-	-	-	153	186	224

Coefficient of performance (C.O.P.)

30	-	1.44	1.94	2.52	3.20	4.01	4.99	6.21	7.80
35	-	1.19	1.62	2.11	2.68	3.36	4.17	5.17	6.44
40	-	0.97	1.34	1.76	2.24	2.81	3.50	4.33	5.37
45	-	-	1.09	1.44	1.85	2.34	2.91	3.61	4.47
50	-	-	-	1.17	1.51	1.91	2.39	2.97	3.68
55	-	-	-	-	1.20	1.54	1.93	2.41	3.00
60	-	-	-	-	-	1.21	1.53	1.92	2.40
65	-	-	-	-	-	-	1.18	1.50	1.88

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

Cooling capacity	8 082	W
Power input	2 718	W
Current consumption	12.58	A
Mass flow	201	kg/h
C.O.P.	2.97	

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

Cooling capacity in W

30	-	2 797	3 692	4 728	5 936	7 347	8 993	10 904	13 111
35	-	2 605	3 471	4 471	5 636	6 997	8 584	10 428	12 562
40	-	2 412	3 246	4 205	5 321	6 626	8 149	9 923	11 977
45	-	-	3 013	3 926	4 989	6 232	7 687	9 384	11 355
50	-	-	-	3 633	4 637	5 814	7 195	8 811	10 693
55	-	-	-	-	4 264	5 370	6 672	8 201	9 988
60	-	-	-	-	-	4 896	6 114	7 551	9 240
65	-	-	-	-	-	-	5 519	6 861	8 445

Power input in W

30	-	1 808	1 771	1 748	1 732	1 715	1 689	1 646	1 578
35	-	2 032	1 992	1 969	1 953	1 939	1 918	1 881	1 823
40	-	2 289	2 242	2 214	2 196	2 181	2 161	2 128	2 075
45	-	-	2 536	2 499	2 476	2 457	2 435	2 402	2 351
50	-	-	-	2 841	2 807	2 781	2 754	2 718	2 666
55	-	-	-	-	3 207	3 170	3 134	3 092	3 035
60	-	-	-	-	-	3 639	3 591	3 538	3 474
65	-	-	-	-	-	-	4 139	4 073	3 997

Current consumption in A

30	-	8.35	8.41	8.42	8.37	8.26	8.09	7.84	7.52
35	-	9.35	9.37	9.37	9.32	9.23	9.09	8.89	8.64
40	-	10.48	10.46	10.42	10.36	10.27	10.15	9.99	9.79
45	-	-	11.72	11.64	11.55	11.45	11.33	11.19	11.03
50	-	-	-	13.09	12.96	12.83	12.71	12.58	12.44
55	-	-	-	-	14.67	14.50	14.35	14.21	14.09
60	-	-	-	-	-	16.52	16.33	16.17	16.04
65	-	-	-	-	-	-	18.71	18.52	18.36

Mass flow in kg/h

30	-	58	75	95	117	143	172	206	244
35	-	57	74	94	116	142	171	205	244
40	-	55	73	92	115	141	170	204	243
45	-	-	71	91	113	139	168	202	241
50	-	-	-	88	111	136	166	199	238
55	-	-	-	-	108	133	162	196	234
60	-	-	-	-	-	129	158	191	229
65	-	-	-	-	-	-	152	185	223

Coefficient of performance (C.O.P.)

30	-	1.55	2.08	2.70	3.43	4.28	5.32	6.63	8.31
35	-	1.28	1.74	2.27	2.89	3.61	4.48	5.54	6.89
40	-	1.05	1.45	1.90	2.42	3.04	3.77	4.66	5.77
45	-	-	1.19	1.57	2.02	2.54	3.16	3.91	4.83
50	-	-	-	1.28	1.65	2.09	2.61	3.24	4.01
55	-	-	-	-	1.33	1.69	2.13	2.65	3.29
60	-	-	-	-	-	1.35	1.70	2.13	2.66
65	-	-	-	-	-	-	1.33	1.68	2.11

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

Cooling capacity	9 034	W
Power input	3 021	W
Current consumption	13.95	A
Mass flow	212	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	-	2 605	3 442	4 413	5 547	6 873	8 421	10 221	12 302
35	-	2 414	3 221	4 154	5 243	6 516	8 003	9 733	11 737
40	-	2 222	2 995	3 885	4 924	6 139	7 560	9 216	11 137
45	-	-	2 762	3 605	4 588	5 740	7 089	8 666	10 500
50	-	-	-	3 311	4 233	5 317	6 590	8 082	9 823
55	-	-	-	-	3 858	4 868	6 060	7 462	9 104
60	-	-	-	-	-	4 392	5 497	6 803	8 340
65	-	-	-	-	-	-	4 898	6 103	7 529

Power input in W

30	-	1 808	1 771	1 748	1 732	1 715	1 689	1 646	1 578
35	-	2 032	1 992	1 969	1 953	1 939	1 918	1 881	1 823
40	-	2 289	2 242	2 214	2 196	2 181	2 161	2 128	2 075
45	-	-	2 536	2 499	2 476	2 457	2 435	2 402	2 351
50	-	-	-	2 841	2 807	2 781	2 754	2 718	2 666
55	-	-	-	-	3 207	3 170	3 134	3 092	3 035
60	-	-	-	-	-	3 639	3 591	3 538	3 474
65	-	-	-	-	-	-	4 139	4 073	3 997

Current consumption in A

30	-	8.35	8.41	8.42	8.37	8.26	8.09	7.84	7.52
35	-	9.35	9.37	9.37	9.32	9.23	9.09	8.89	8.64
40	-	10.48	10.46	10.42	10.36	10.27	10.15	9.99	9.79
45	-	-	11.72	11.64	11.55	11.45	11.33	11.19	11.03
50	-	-	-	13.09	12.96	12.83	12.71	12.58	12.44
55	-	-	-	-	14.67	14.50	14.35	14.21	14.09
60	-	-	-	-	-	16.52	16.33	16.17	16.04
65	-	-	-	-	-	-	18.71	18.52	18.36

Mass flow in kg/h

30	-	58	76	95	118	144	173	207	246
35	-	57	74	94	117	143	172	206	245
40	-	56	73	93	115	141	171	205	244
45	-	-	71	91	114	139	169	203	242
50	-	-	-	89	111	137	167	201	239
55	-	-	-	-	108	134	163	197	236
60	-	-	-	-	-	129	158	192	230
65	-	-	-	-	-	-	153	186	224

Coefficient of performance (C.O.P.)

30	-	1.44	1.94	2.52	3.20	4.01	4.99	6.21	7.80
35	-	1.19	1.62	2.11	2.68	3.36	4.17	5.17	6.44
40	-	0.97	1.34	1.76	2.24	2.81	3.50	4.33	5.37
45	-	-	1.09	1.44	1.85	2.34	2.91	3.61	4.47
50	-	-	-	1.17	1.51	1.91	2.39	2.97	3.68
55	-	-	-	-	1.20	1.54	1.93	2.41	3.00
60	-	-	-	-	-	1.21	1.53	1.92	2.40
65	-	-	-	-	-	-	1.18	1.50	1.88

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

Cooling capacity	8 082	W
Power input	2 718	W
Current consumption	12.58	A
Mass flow	201	kg/h
C.O.P.	2.97	

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

Cooling capacity in W

30	-	2 797	3 692	4 728	5 936	7 347	8 993	10 904	13 111
35	-	2 605	3 471	4 471	5 636	6 997	8 584	10 428	12 562
40	-	2 412	3 246	4 205	5 321	6 626	8 149	9 923	11 977
45	-	-	3 013	3 926	4 989	6 232	7 687	9 384	11 355
50	-	-	-	3 633	4 637	5 814	7 195	8 811	10 693
55	-	-	-	-	4 264	5 370	6 672	8 201	9 988
60	-	-	-	-	-	4 896	6 114	7 551	9 240
65	-	-	-	-	-	-	5 519	6 861	8 445

Power input in W

30	-	1 808	1 771	1 748	1 732	1 715	1 689	1 646	1 578
35	-	2 032	1 992	1 969	1 953	1 939	1 918	1 881	1 823
40	-	2 289	2 242	2 214	2 196	2 181	2 161	2 128	2 075
45	-	-	2 536	2 499	2 476	2 457	2 435	2 402	2 351
50	-	-	-	2 841	2 807	2 781	2 754	2 718	2 666
55	-	-	-	-	3 207	3 170	3 134	3 092	3 035
60	-	-	-	-	-	3 639	3 591	3 538	3 474
65	-	-	-	-	-	-	4 139	4 073	3 997

Current consumption in A

30	-	8.35	8.41	8.42	8.37	8.26	8.09	7.84	7.52
35	-	9.35	9.37	9.37	9.32	9.23	9.09	8.89	8.64
40	-	10.48	10.46	10.42	10.36	10.27	10.15	9.99	9.79
45	-	-	11.72	11.64	11.55	11.45	11.33	11.19	11.03
50	-	-	-	13.09	12.96	12.83	12.71	12.58	12.44
55	-	-	-	-	14.67	14.50	14.35	14.21	14.09
60	-	-	-	-	-	16.52	16.33	16.17	16.04
65	-	-	-	-	-	-	18.71	18.52	18.36

Mass flow in kg/h

30	-	58	75	95	117	143	172	206	244
35	-	57	74	94	116	142	171	205	244
40	-	55	73	92	115	141	170	204	243
45	-	-	71	91	113	139	168	202	241
50	-	-	-	88	111	136	166	199	238
55	-	-	-	-	108	133	162	196	234
60	-	-	-	-	-	129	158	191	229
65	-	-	-	-	-	-	152	185	223

Coefficient of performance (C.O.P.)

30	-	1.55	2.08	2.70	3.43	4.28	5.32	6.63	8.31
35	-	1.28	1.74	2.27	2.89	3.61	4.48	5.54	6.89
40	-	1.05	1.45	1.90	2.42	3.04	3.77	4.66	5.77
45	-	-	1.19	1.57	2.02	2.54	3.16	3.91	4.83
50	-	-	-	1.28	1.65	2.09	2.61	3.24	4.01
55	-	-	-	-	1.33	1.69	2.13	2.65	3.29
60	-	-	-	-	-	1.35	1.70	2.13	2.66
65	-	-	-	-	-	-	1.33	1.68	2.11

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

Cooling capacity	9 034	W
Power input	3 021	W
Current consumption	13.95	A
Mass flow	212	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)

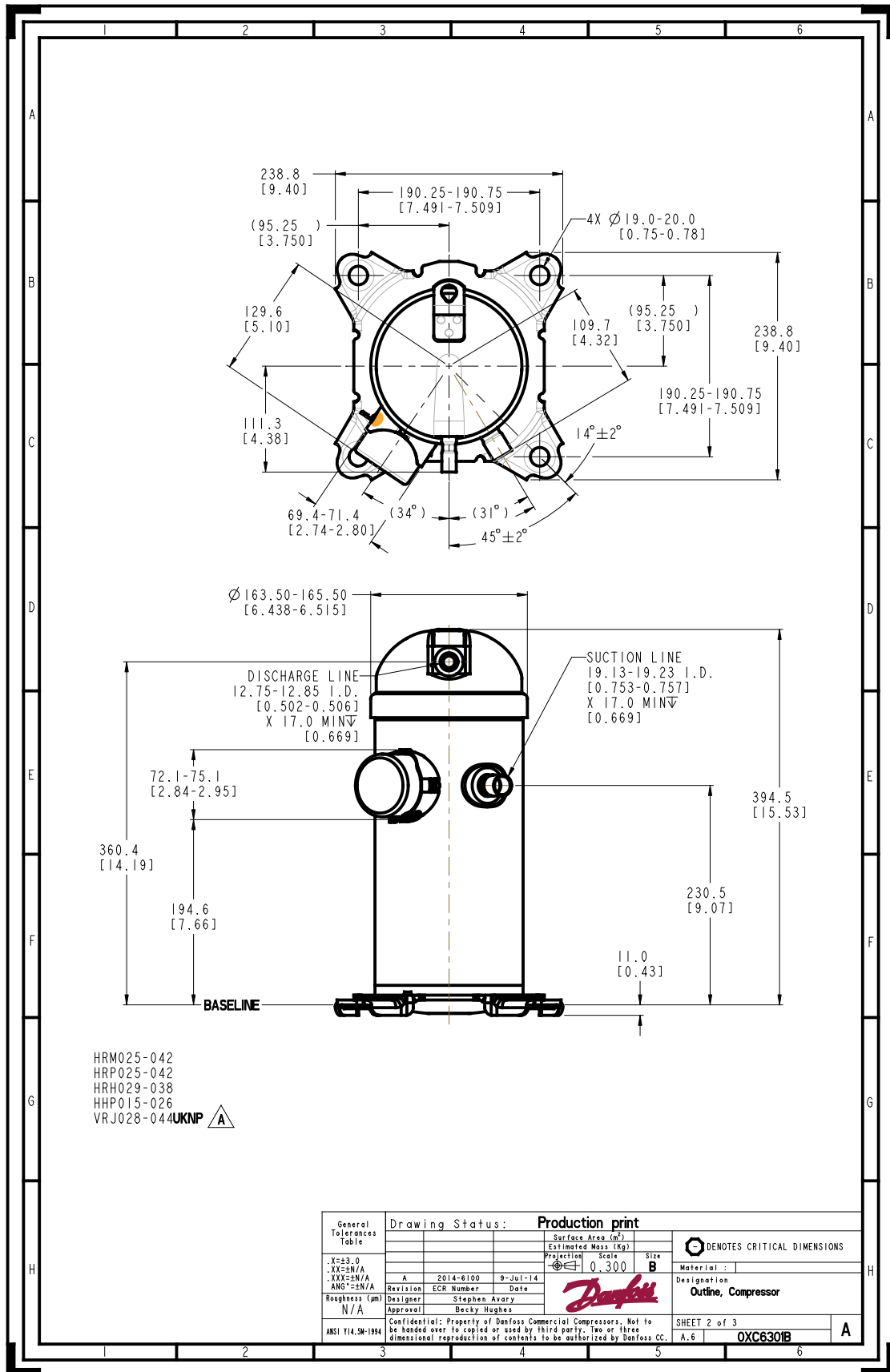
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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