

ENGINEERING
TOMORROW

Danfoss

Datasheets

Danfoss scroll compressors **H series**



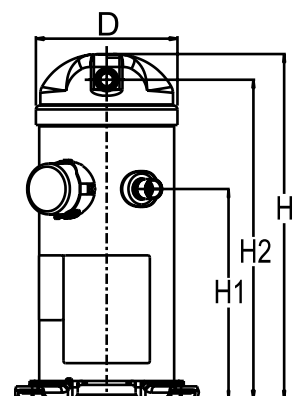
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www.danfoss.com/odsg

General Characteristics

Model number (on compressor nameplate)		HLP072T5LP6
Code number for Singlepack*		120U1631
Code number for Industrial pack**		120U1628
Drawing number		0XR6002B-2
Suction and discharge connections		Brazed
Suction connection		7/8 " 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		98,65 cm ³ /rev
Displacement @ Nominal speed		17.2 m ³ /h @ 2900 rpm
Net weight		37,2 kg
Oil charge		1,57 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		5,44 kg
Approved refrigerants		R407C

Dimensions

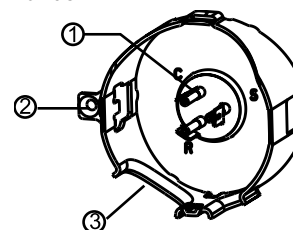


D=183,5 mm
H=455 mm
H1=280 mm
H2=422 mm
H3=- mm

Electrical Characteristics

Nominal voltage	230V/1/50Hz
Voltage range	207-253 V
Winding resistance (main / start) at 25°C	0,39 Ω / 1,019 Ω
Run capacitors A + C	55 μF + - μF
Start capacitor B	88-108 μF
Start relay	3ARR3*25AS*
Rated Load Amps (RLA)	25.6 A
Maximum Continuous Current (MCC)	40 A
Locked Rotor Amps (LRA)	130 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.

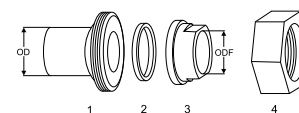
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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, 7/8" ODF), (1" Rotolock, 1/2" ODF)	120Z0127
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, 50 W, 230 V, CE mark, UL	120Z0057
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Miscellaneous accessories

Code no.

Acoustic hood	120Z5044
Discharge thermostat kit	7750009

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

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

Cooling capacity in W

30	-	4 966	6 569	8 423	10 587	13 119	16 080	19 528	23 524
35	-	4 570	6 117	7 894	9 962	12 378	15 202	18 494	22 312
40	-	4 159	5 641	7 335	9 298	11 591	14 271	17 398	21 031
45	-	-	5 146	6 748	8 600	10 761	13 289	16 244	19 683
50	-	-	-	6 138	7 871	9 892	12 261	15 035	18 272
55	-	-	-	-	7 113	8 987	11 188	13 773	16 800
60	-	-	-	-	-	8 049	10 074	12 462	15 270
65	-	-	-	-	-	-	8 921	11 102	13 682

Power input in W

30	-	3 343	3 277	3 235	3 205	3 173	3 124	3 044	2 920
35	-	3 751	3 679	3 636	3 608	3 581	3 541	3 475	3 367
40	-	4 215	4 131	4 080	4 048	4 020	3 983	3 923	3 825
45	-	-	4 660	4 595	4 552	4 517	4 477	4 417	4 324
50	-	-	-	5 208	5 148	5 101	5 051	4 985	4 890
55	-	-	-	-	5 865	5 799	5 733	5 655	5 551
60	-	-	-	-	-	6 639	6 552	6 456	6 337
65	-	-	-	-	-	-	7 534	7 414	7 274

Current consumption in A

30	-	16.16	16.28	16.30	16.21	16.00	15.66	15.18	14.56
35	-	18.10	18.15	18.14	18.04	17.87	17.60	17.22	16.73
40	-	20.29	20.24	20.17	20.05	19.88	19.65	19.34	18.95
45	-	-	22.69	22.53	22.35	22.16	21.94	21.67	21.36
50	-	-	-	25.35	25.09	24.85	24.60	24.35	24.09
55	-	-	-	-	28.40	28.08	27.79	27.52	27.27
60	-	-	-	-	-	31.98	31.62	31.31	31.05
65	-	-	-	-	-	-	36.23	35.85	35.56

Mass flow in kg/h

30	-	111	145	182	225	274	331	396	470
35	-	108	141	179	222	271	328	392	466
40	-	104	138	175	218	267	323	387	461
45	-	-	133	171	213	261	317	381	454
50	-	-	-	165	207	255	310	373	445
55	-	-	-	-	199	247	301	363	435
60	-	-	-	-	-	237	290	352	422
65	-	-	-	-	-	-	278	338	407

Coefficient of performance (C.O.P.)

30	-	1.49	2.00	2.60	3.30	4.13	5.15	6.41	8.06
35	-	1.22	1.66	2.17	2.76	3.46	4.29	5.32	6.63
40	-	0.99	1.37	1.80	2.30	2.88	3.58	4.44	5.50
45	-	-	1.10	1.47	1.89	2.38	2.97	3.68	4.55
50	-	-	-	1.18	1.53	1.94	2.43	3.02	3.74
55	-	-	-	-	1.21	1.55	1.95	2.44	3.03
60	-	-	-	-	-	1.21	1.54	1.93	2.41
65	-	-	-	-	-	-	1.18	1.50	1.88

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

Cooling capacity	15 035	W
Power input	4 985	W
Current consumption	24.35	A
Mass flow	373	kg/h
C.O.P.	3.02	

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	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 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	-	5 333	7 046	9 024	11 329	14 024	17 171	20 833	25 072
35	-	4 932	6 592	8 497	10 709	13 291	16 305	19 814	23 880
40	-	4 515	6 114	7 938	10 049	12 510	15 384	18 732	22 617
45	-	-	5 614	7 350	9 353	11 685	14 410	17 589	21 286
50	-	-	-	6 736	8 622	10 818	13 387	16 390	19 891
55	-	-	-	-	7 861	9 913	12 317	15 136	18 433
60	-	-	-	-	-	8 972	11 205	13 832	16 917
65	-	-	-	-	-	-	10 052	12 480	15 345

Power input in W

30	-	3 343	3 277	3 235	3 205	3 173	3 124	3 044	2 920
35	-	3 751	3 679	3 636	3 608	3 581	3 541	3 475	3 367
40	-	4 215	4 131	4 080	4 048	4 020	3 983	3 923	3 825
45	-	-	4 660	4 595	4 552	4 517	4 477	4 417	4 324
50	-	-	-	5 208	5 148	5 101	5 051	4 985	4 890
55	-	-	-	-	5 865	5 799	5 733	5 655	5 551
60	-	-	-	-	-	6 639	6 552	6 456	6 337
65	-	-	-	-	-	-	7 534	7 414	7 274

Current consumption in A

30	-	16.16	16.28	16.30	16.21	16.00	15.66	15.18	14.56
35	-	18.10	18.15	18.14	18.04	17.87	17.60	17.22	16.73
40	-	20.29	20.24	20.17	20.05	19.88	19.65	19.34	18.95
45	-	-	22.69	22.53	22.35	22.16	21.94	21.67	21.36
50	-	-	-	25.35	25.09	24.85	24.60	24.35	24.09
55	-	-	-	-	28.40	28.08	27.79	27.52	27.27
60	-	-	-	-	-	31.98	31.62	31.31	31.05
65	-	-	-	-	-	-	36.23	35.85	35.56

Mass flow in kg/h

30	-	111	144	181	224	273	329	394	467
35	-	107	141	178	221	270	326	390	464
40	-	104	137	174	217	265	321	385	458
45	-	-	133	170	212	260	315	379	451
50	-	-	-	164	206	253	308	371	443
55	-	-	-	-	198	245	299	361	432
60	-	-	-	-	-	236	289	350	420
65	-	-	-	-	-	-	277	336	405

Coefficient of performance (C.O.P.)

30	-	1.59	2.15	2.79	3.53	4.42	5.50	6.84	8.59
35	-	1.31	1.79	2.34	2.97	3.71	4.60	5.70	7.09
40	-	1.07	1.48	1.95	2.48	3.11	3.86	4.78	5.91
45	-	-	1.20	1.60	2.05	2.59	3.22	3.98	4.92
50	-	-	-	1.29	1.67	2.12	2.65	3.29	4.07
55	-	-	-	-	1.34	1.71	2.15	2.68	3.32
60	-	-	-	-	-	1.35	1.71	2.14	2.67
65	-	-	-	-	-	-	1.33	1.68	2.11

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

Cooling capacity	16 688	W
Power input	5 528	W
Current consumption	27.00	A
Mass flow	393	kg/h
C.O.P.	3.02	

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	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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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

Cooling capacity in W

30	-	4 966	6 569	8 423	10 587	13 119	16 080	19 528	23 524
35	-	4 570	6 117	7 894	9 962	12 378	15 202	18 494	22 312
40	-	4 159	5 641	7 335	9 298	11 591	14 271	17 398	21 031
45	-	-	5 146	6 748	8 600	10 761	13 289	16 244	19 683
50	-	-	-	6 138	7 871	9 892	12 261	15 035	18 272
55	-	-	-	-	7 113	8 987	11 188	13 773	16 800
60	-	-	-	-	-	8 049	10 074	12 462	15 270
65	-	-	-	-	-	-	8 921	11 102	13 682

Power input in W

30	-	3 343	3 277	3 235	3 205	3 173	3 124	3 044	2 920
35	-	3 751	3 679	3 636	3 608	3 581	3 541	3 475	3 367
40	-	4 215	4 131	4 080	4 048	4 020	3 983	3 923	3 825
45	-	-	4 660	4 595	4 552	4 517	4 477	4 417	4 324
50	-	-	-	5 208	5 148	5 101	5 051	4 985	4 890
55	-	-	-	-	5 865	5 799	5 733	5 655	5 551
60	-	-	-	-	-	6 639	6 552	6 456	6 337
65	-	-	-	-	-	-	7 534	7 414	7 274

Current consumption in A

30	-	16.16	16.28	16.30	16.21	16.00	15.66	15.18	14.56
35	-	18.10	18.15	18.14	18.04	17.87	17.60	17.22	16.73
40	-	20.29	20.24	20.17	20.05	19.88	19.65	19.34	18.95
45	-	-	22.69	22.53	22.35	22.16	21.94	21.67	21.36
50	-	-	-	25.35	25.09	24.85	24.60	24.35	24.09
55	-	-	-	-	28.40	28.08	27.79	27.52	27.27
60	-	-	-	-	-	31.98	31.62	31.31	31.05
65	-	-	-	-	-	-	36.23	35.85	35.56

Mass flow in kg/h

30	-	111	145	182	225	274	331	396	470
35	-	108	141	179	222	271	328	392	466
40	-	104	138	175	218	267	323	387	461
45	-	-	133	171	213	261	317	381	454
50	-	-	-	165	207	255	310	373	445
55	-	-	-	-	199	247	301	363	435
60	-	-	-	-	-	237	290	352	422
65	-	-	-	-	-	-	278	338	407

Coefficient of performance (C.O.P.)

30	-	1.49	2.00	2.60	3.30	4.13	5.15	6.41	8.06
35	-	1.22	1.66	2.17	2.76	3.46	4.29	5.32	6.63
40	-	0.99	1.37	1.80	2.30	2.88	3.58	4.44	5.50
45	-	-	1.10	1.47	1.89	2.38	2.97	3.68	4.55
50	-	-	-	1.18	1.53	1.94	2.43	3.02	3.74
55	-	-	-	-	1.21	1.55	1.95	2.44	3.03
60	-	-	-	-	-	1.21	1.54	1.93	2.41
65	-	-	-	-	-	-	1.18	1.50	1.88

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

Cooling capacity	15 035	W
Power input	4 985	W
Current consumption	24.35	A
Mass flow	373	kg/h
C.O.P.	3.02	

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	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 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	-	5 333	7 046	9 024	11 329	14 024	17 171	20 833	25 072
35	-	4 932	6 592	8 497	10 709	13 291	16 305	19 814	23 880
40	-	4 515	6 114	7 938	10 049	12 510	15 384	18 732	22 617
45	-	-	5 614	7 350	9 353	11 685	14 410	17 589	21 286
50	-	-	-	6 736	8 622	10 818	13 387	16 390	19 891
55	-	-	-	-	7 861	9 913	12 317	15 136	18 433
60	-	-	-	-	-	8 972	11 205	13 832	16 917
65	-	-	-	-	-	-	10 052	12 480	15 345

Power input in W

30	-	3 343	3 277	3 235	3 205	3 173	3 124	3 044	2 920
35	-	3 751	3 679	3 636	3 608	3 581	3 541	3 475	3 367
40	-	4 215	4 131	4 080	4 048	4 020	3 983	3 923	3 825
45	-	-	4 660	4 595	4 552	4 517	4 477	4 417	4 324
50	-	-	-	5 208	5 148	5 101	5 051	4 985	4 890
55	-	-	-	-	5 865	5 799	5 733	5 655	5 551
60	-	-	-	-	-	6 639	6 552	6 456	6 337
65	-	-	-	-	-	-	7 534	7 414	7 274

Current consumption in A

30	-	16.16	16.28	16.30	16.21	16.00	15.66	15.18	14.56
35	-	18.10	18.15	18.14	18.04	17.87	17.60	17.22	16.73
40	-	20.29	20.24	20.17	20.05	19.88	19.65	19.34	18.95
45	-	-	22.69	22.53	22.35	22.16	21.94	21.67	21.36
50	-	-	-	25.35	25.09	24.85	24.60	24.35	24.09
55	-	-	-	-	28.40	28.08	27.79	27.52	27.27
60	-	-	-	-	-	31.98	31.62	31.31	31.05
65	-	-	-	-	-	-	36.23	35.85	35.56

Mass flow in kg/h

30	-	111	144	181	224	273	329	394	467
35	-	107	141	178	221	270	326	390	464
40	-	104	137	174	217	265	321	385	458
45	-	-	133	170	212	260	315	379	451
50	-	-	-	164	206	253	308	371	443
55	-	-	-	-	198	245	299	361	432
60	-	-	-	-	-	236	289	350	420
65	-	-	-	-	-	-	277	336	405

Coefficient of performance (C.O.P.)

30	-	1.59	2.15	2.79	3.53	4.42	5.50	6.84	8.59
35	-	1.31	1.79	2.34	2.97	3.71	4.60	5.70	7.09
40	-	1.07	1.48	1.95	2.48	3.11	3.86	4.78	5.91
45	-	-	1.20	1.60	2.05	2.59	3.22	3.98	4.92
50	-	-	-	1.29	1.67	2.12	2.65	3.29	4.07
55	-	-	-	-	1.34	1.71	2.15	2.68	3.32
60	-	-	-	-	-	1.35	1.71	2.14	2.67
65	-	-	-	-	-	-	1.33	1.68	2.11

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

Cooling capacity	16 688	W
Power input	5 528	W
Current consumption	27.00	A
Mass flow	393	kg/h
C.O.P.	3.02	

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

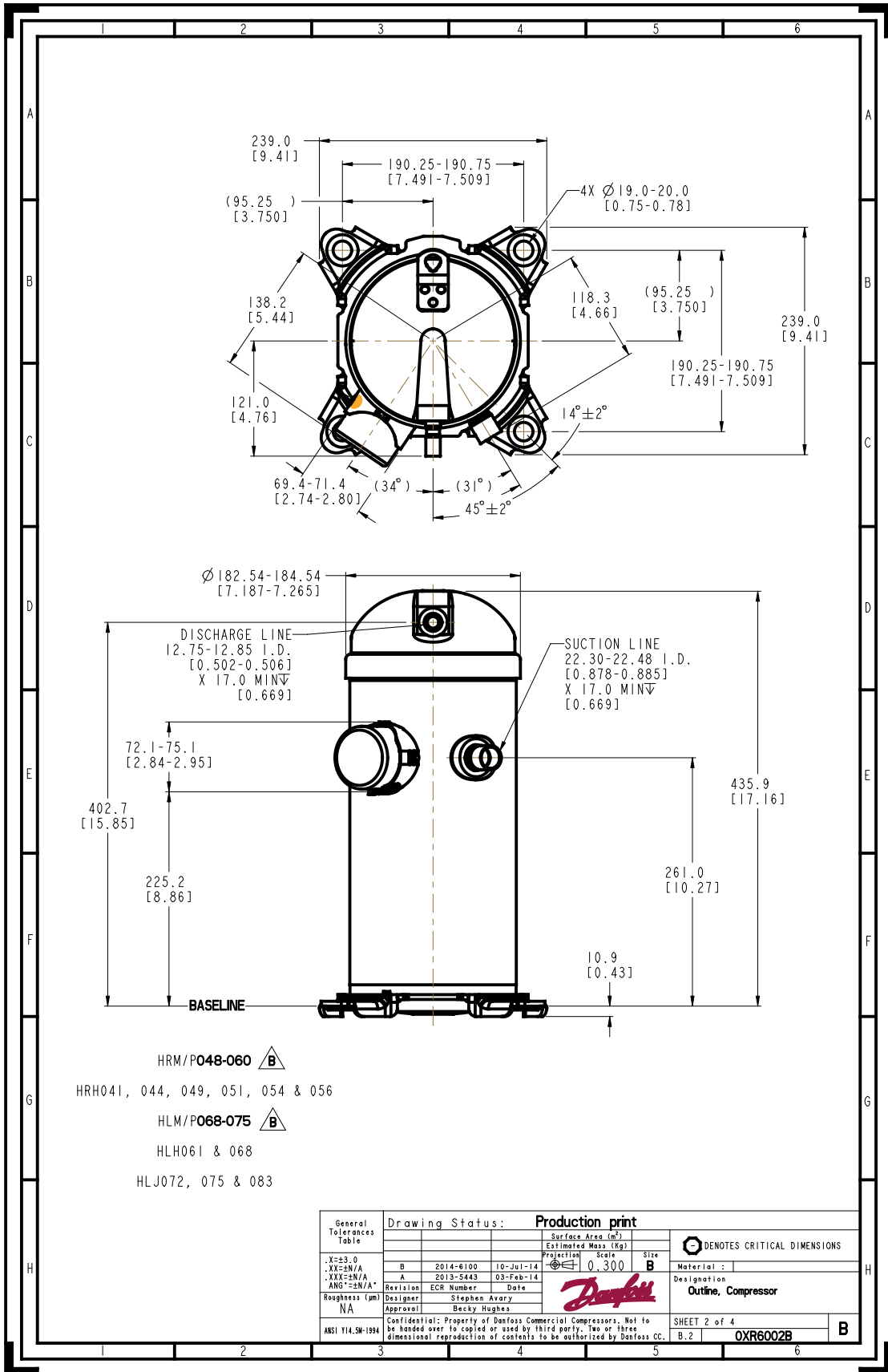
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tc: Condensing temperature at dew point

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

All performance data +/- 5%

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