

ENGINEERING
TOMORROW

Danfoss

Datasheets

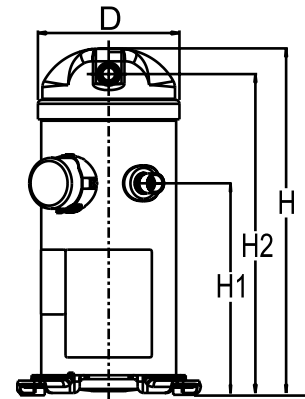
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRM038U5LP6A
Code number for Singlepack		120U3200
Code number for Industrial pack		
Drawing number		0XC6301B-2
Suction and discharge connections		Brazed
Suction connection		3/4 " ODF
Discharge connection		1/2 " ODF
Oil sight glass		None
Oil equalization connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		Yes
Swept volume		3.15 in3/rev
Displacement @ Nominal speed		317 cfh @ 2900 rpm
Net weight		68 lbs
Oil charge		36 oz, PVE --
Maximum system test pressure Low Side / High side		- psi / - psi
Maximum differential test pressure		- psi
Maximum number of starts per hour		-
Refrigerant charge limit		8 lbs
Approved refrigerants		R22

Dimensions

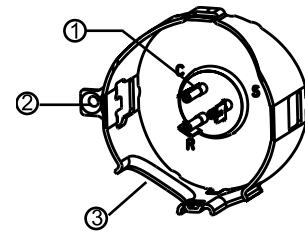


D=6.5 inch, H=16.3 inch,
H1=9.8 inch, H2=14.9 inch, H3=- inch

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 uF + - uF
Start capacitor B	145-175 uF
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	39 ft.lbs
Power connections / Earth connection	0 ft.lbs / 0 ft.lbs

Parts shipped with compressor

Mounting kit with grommets and sleeves
Initial oil charge
Installation instructions

Approvals : CE certified, UL certified (file SA11565), -

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

Rotolock accessories, sets
Code no.

Solder sleeve adapter set (1-1/4"~3/4"), (1"~1/2")	120Z0126
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants
Code no.
Crankcase heaters
Code no.

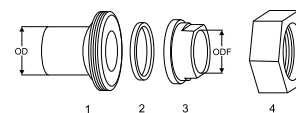
Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055
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Miscellaneous accessories
Code no.

Acoustic hood	120Z5083
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	120Z5064
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	120Z5031
No translation for 120Z5015	120Z5015

Solder sleeve adapter set


- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

Performance data at 50 Hz, ARI rating conditions
R22

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	-10	0	10	20	30	40	45	50	55

Cooling capacity in Btu/h

90	12 543	15 223	19 027	23 871	29 672	36 345	39 983	43 808	47 809
100	-	14 261	17 963	22 621	28 152	34 471	37 900	41 495	45 245
110	-	-	16 737	21 279	26 609	32 643	35 898	39 298	42 832
120	-	-	-	19 759	24 958	30 778	33 893	37 133	40 485
130	-	-	-	-	23 115	28 789	31 800	34 914	38 120
140	-	-	-	-	20 994	26 592	29 534	32 557	35 652
150	-	-	-	-	-	24 102	27 010	29 977	32 995

Power input in W

90	1 844	1 825	1 814	1 800	1 774	1 724	1 686	1 639	1 581
100	-	2 096	2 064	2 044	2 024	1 995	1 974	1 946	1 911
110	-	-	2 366	2 326	2 301	2 280	2 268	2 253	2 234
120	-	-	-	2 664	2 620	2 595	2 586	2 577	2 568
130	-	-	-	-	3 000	2 957	2 944	2 936	2 930
140	-	-	-	-	3 458	3 385	3 362	3 346	3 337
150	-	-	-	-	-	3 894	3 855	3 827	3 808

Current consumption in A

90	8.46	8.59	8.67	8.70	8.71	8.69	8.68	8.66	8.64
100	-	9.36	9.40	9.41	9.41	9.40	9.40	9.40	9.40
110	-	-	10.42	10.41	10.39	10.39	10.39	10.40	10.42
120	-	-	-	11.69	11.66	11.66	11.67	11.69	11.72
130	-	-	-	-	13.23	13.22	13.24	13.26	13.31
140	-	-	-	-	15.12	15.10	15.11	15.14	15.19
150	-	-	-	-	-	17.29	17.30	17.34	17.39

Mass flow in lbs/h

90	167	200	247	306	375	454	497	542	588
100	-	196	243	301	370	448	489	532	577
110	-	-	236	296	364	441	482	525	569
120	-	-	-	287	357	434	475	518	561
130	-	-	-	-	347	426	467	510	553
140	-	-	-	-	332	413	456	499	544
150	-	-	-	-	-	396	441	486	531

Energy Efficiency Ratio (E.E.R.)

90	6.80	8.34	10.49	13.26	16.73	21.09	23.71	26.73	30.24
100	-	6.80	8.70	11.07	13.91	17.28	19.20	21.32	23.68
110	-	-	7.07	9.15	11.57	14.32	15.83	17.44	19.17
120	-	-	-	7.42	9.53	11.86	13.11	14.41	15.77
130	-	-	-	-	7.70	9.73	10.80	11.89	13.01
140	-	-	-	-	6.07	7.86	8.79	9.73	10.68
150	-	-	-	-	-	6.19	7.01	7.83	8.66

Nominal performance at to = 45 °F, tc = 130 °F

Cooling capacity	31 800	Btu/h	Current consumption	13.24	A
Power input	2 944	W	Mass flow	467	lbs/h
E.E.R.	10.80				

Pressure switch settings

Maximum HP switch setting	421	psi(g)
Minimum LP switch setting	7	psi(g)
LP pump down setting	19	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

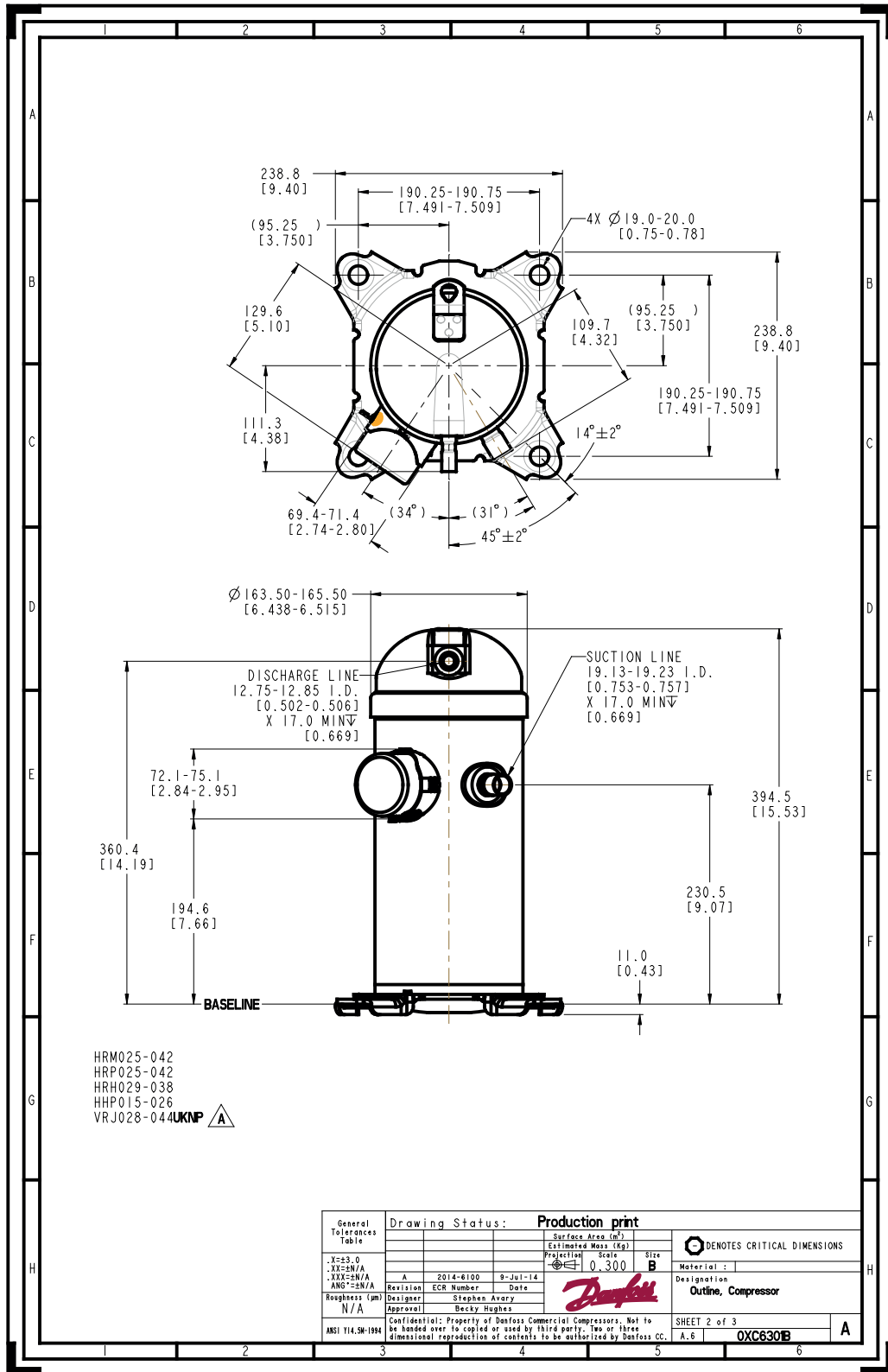
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

Sound power level	67	dB(A)
With acoustic hood	62	dB(A)

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