

ENGINEERING
TOMORROW

Danfoss

Datasheets

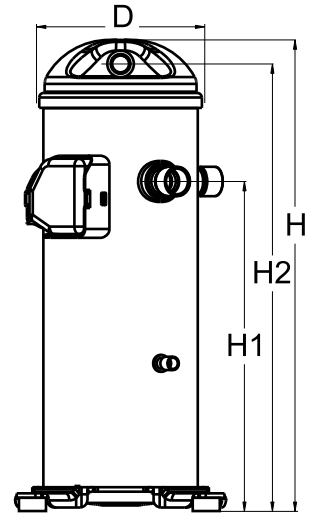
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRM054U1LC6A
Code number for Singlepack		120U3213
Code number for Industrial pack		
Drawing number		0XR6089B-1
Suction and discharge connections		Brazed
Suction connection		7/8" 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		4.45 in3/rev
Displacement @ Nominal speed		541 cfh @ 3500 rpm
Net weight		82 lbs
Oil charge		53 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		12 lbs
Approved refrigerants		R22

Dimensions

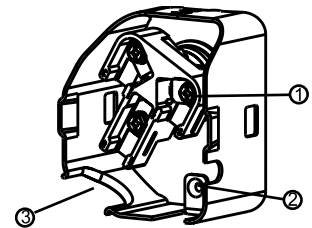


D=7.2 inch, H=17.9 inch,
H1=11 inch, H2=16.6 inch, H3=- inch

Electrical Characteristics

Nominal voltage	208-230V/1/60Hz
Voltage range	187-253 V
Winding resistance (main / start) at 25°C	0.32 Ω / 0.821 Ω
Run capacitors A + C	70 uF + - uF
Start capacitor B	161-193 uF
Start relay	RVA3EKL
Rated Load Amps (RLA)	25 A
Maximum Continuous Current (MCC)	39 A
Locked Rotor Amps (LRA)	150 A
Motor protection	Internal overload protector

Terminal box



IP22

- 1: Screw connectors 10-32 UNF x 9.5
- 2: Earth connection
- 3: Power cable passage

Recommended Installation torques

Oil sight glass	39 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 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.
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

Rotolock accessories, sets	Code no.
Solder sleeve adapter set (1-1/4"~7/8"), (1"~1/2")	120Z0127
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

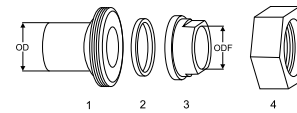
Oil / lubricants	Code no.
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Crankcase heaters	Code no.
Belt type crankcase heater, 50 W, 230 V, CE mark, UL	120Z0057

Miscellaneous accessories	Code no.
Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0057

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 120Z5018	120Z5018

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 60 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	20 982	25 456	31 817	39 920	49 621	60 776	66 853	73 239	79 917
100	-	23 896	30 097	37 904	47 174	57 761	63 504	69 522	75 798
110	-	-	28 113	35 741	44 695	54 832	60 298	66 007	71 938
120	-	-	-	33 277	42 032	51 835	57 083	62 540	68 185
130	-	-	-	-	39 032	48 616	53 705	58 968	64 386
140	-	-	-	-	35 541	45 024	50 011	55 138	60 387
150	-	-	-	-	-	40 904	45 848	50 898	56 035

Power input in W

90	2 893	2 905	2 909	2 899	2 866	2 804	2 760	2 705	2 639
100	-	3 286	3 276	3 264	3 242	3 203	3 175	3 140	3 096
110	-	-	3 697	3 673	3 652	3 626	3 609	3 589	3 563
120	-	-	-	4 149	4 119	4 097	4 086	4 075	4 062
130	-	-	-	-	4 667	4 638	4 629	4 623	4 617
140	-	-	-	-	5 320	5 274	5 262	5 255	5 253
150	-	-	-	-	-	6 029	6 008	5 996	5 991

Current consumption in A

90	13.67	13.89	14.01	14.08	14.08	14.05	14.03	14.00	13.97
100	-	15.13	15.20	15.22	15.22	15.21	15.20	15.20	15.20
110	-	-	16.84	16.83	16.81	16.80	16.81	16.82	16.85
120	-	-	-	18.90	18.86	18.85	18.87	18.90	18.95
130	-	-	-	-	21.40	21.38	21.40	21.45	21.52
140	-	-	-	-	24.44	24.41	24.44	24.49	24.57
150	-	-	-	-	-	27.96	27.98	28.04	28.13

Mass flow in lbs/h

90	279	335	413	511	628	760	831	905	983
100	-	328	407	505	620	750	820	892	967
110	-	-	397	497	612	741	810	882	955
120	-	-	-	483	601	732	801	872	946
130	-	-	-	-	585	719	789	861	935
140	-	-	-	-	561	700	772	846	921
150	-	-	-	-	-	673	748	824	902

Energy Efficiency Ratio (E.E.R.)

90	7.25	8.76	10.94	13.77	17.31	21.67	24.23	27.08	30.29
100	-	7.27	9.19	11.61	14.55	18.03	20.00	22.14	24.48
110	-	-	7.60	9.73	12.24	15.12	16.71	18.39	20.19
120	-	-	-	8.02	10.20	12.65	13.97	15.35	16.79
130	-	-	-	-	8.36	10.48	11.60	12.76	13.94
140	-	-	-	-	6.68	8.54	9.50	10.49	11.50
150	-	-	-	-	-	6.78	7.63	8.49	9.35

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

Cooling capacity	53 705	Btu/h	Current consumption	21.40	A
Power input	4 629	W	Mass flow	789	lbs/h
E.E.R.	11.60				

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

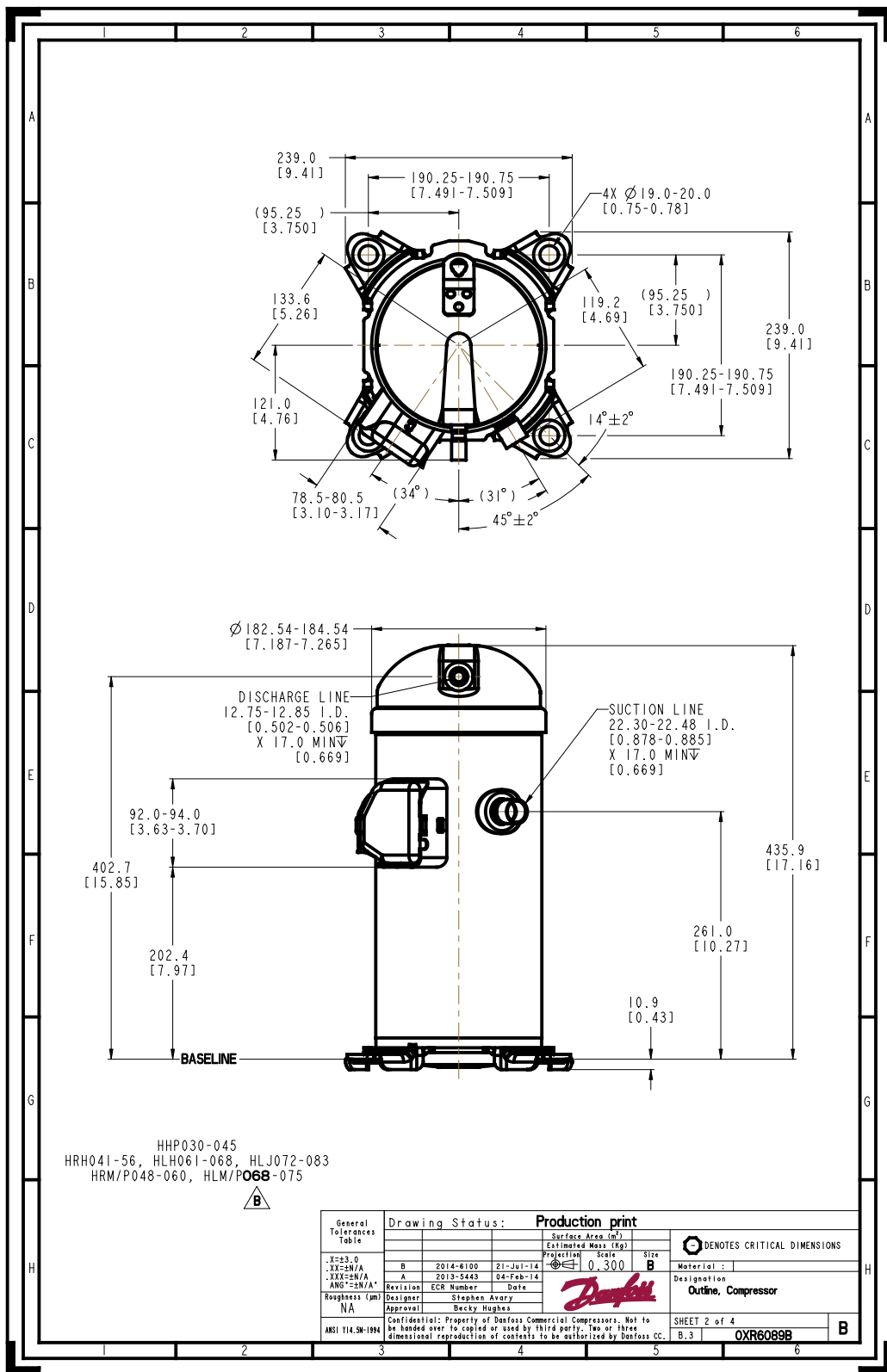
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

Sound power level	73	dB(A)
With acoustic hood	66	dB(A)

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General Tolerances Table	Drawing Status: Production print		Surface Area (m ²)	DENOTES CRITICAL DIMENSIONS
			Estimated Mass (kg)	
XX±3.0 XX±EN/A XX±EN/A ANG°±N/A*	B	2014-6-10	21-Jul-14	Projection Scale B
	A	2013-5-4-5	04-Feb-14	
Roughness (µm)	NA	Revision ECR Number	Date	Material:
		Designer	Stephen Avary	Designation
		Approval	Becky Hughes	Outline, Compressor
ANSI Y14.5M-1994	Confidential: Property of Danfoss Commercial Compressors. Not to be handed over, copied or used by third party. Two or three dimensional reproduction of contents to be authorized by Danfoss CC.			SHEET 2 of 4
				B.3
				0XR6089B