

ENGINEERING  
TOMORROW

*Danfoss*

Datasheets

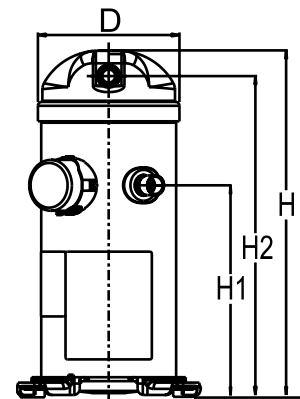
# Danfoss scroll compressors **H series**



**General Characteristics**

Model number (on compressor nameplate)		<b>HRM054U1LP6A</b>
Code number for single pack without wiring harness		<b>120U3212</b>
Code number for single pack with wiring harness		<b>120U3312</b>
Drawing number		0XR6002B-2
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**

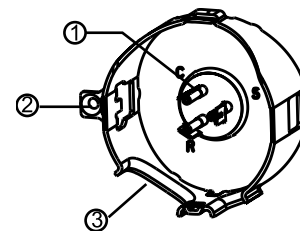


D=7.2 inch, H=17.9 inch,  
H1=11 inch, H2=16.6 inch, H3=- inch

**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	3ARR3*3L*
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: 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), -

<b>Rotolock accessories, suction side</b>	<b>Code no.</b>
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

<b>Rotolock accessories, discharge side</b>	<b>Code no.</b>
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

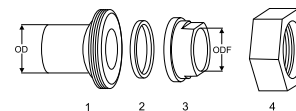
<b>Rotolock accessories, sets</b>	<b>Code no.</b>
Solder sleeve adapter set (1-1/4"~7/8"), (1"~1/2")	120Z0127
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

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

<b>Miscellaneous accessories</b>	<b>Code no.</b>
Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	118U0056

<b>Spare parts</b>	<b>Code no.</b>
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 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

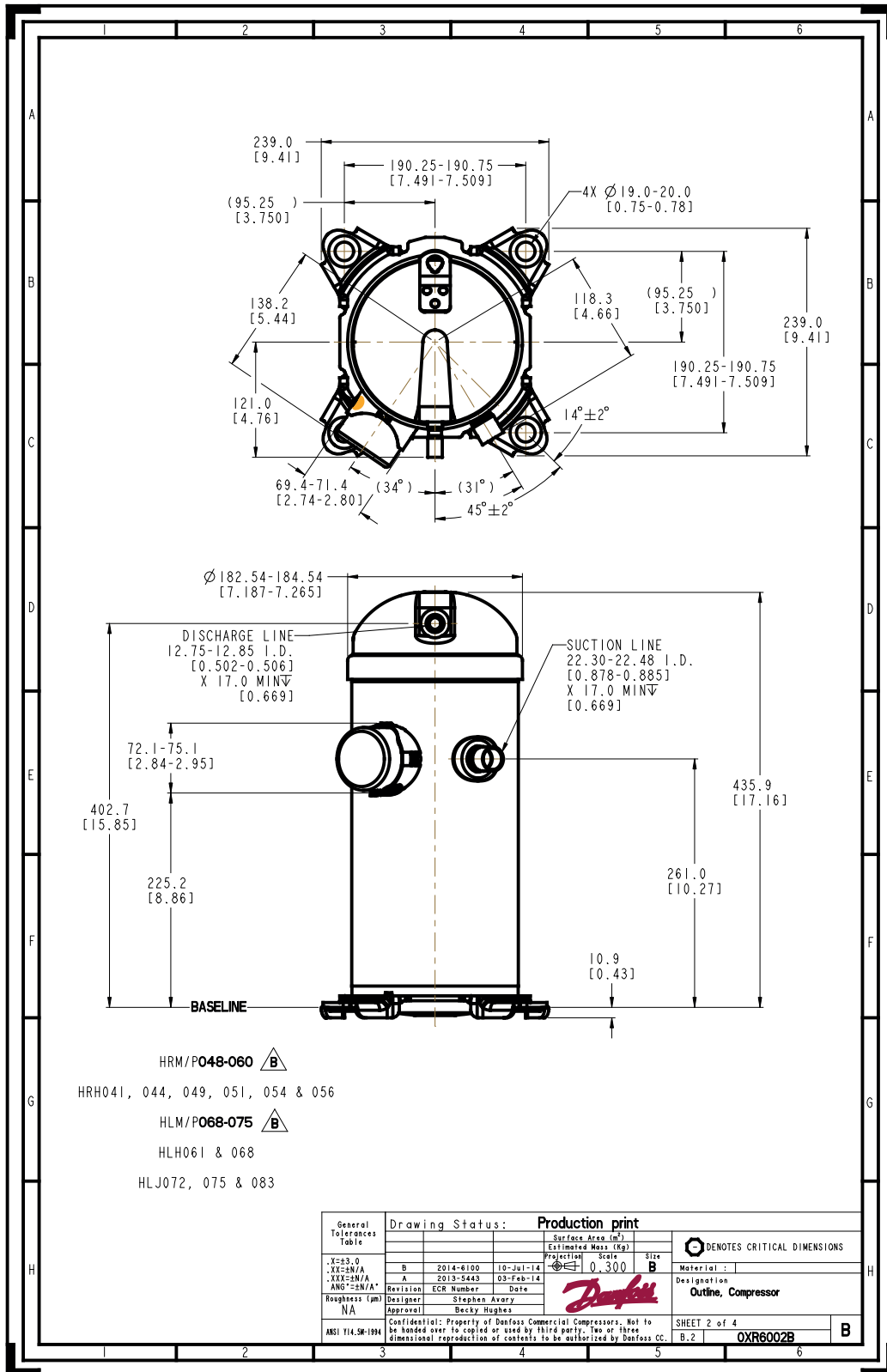
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

**Sound power data**

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

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