

ENGINEERING
TOMORROW

Danfoss

Datasheets

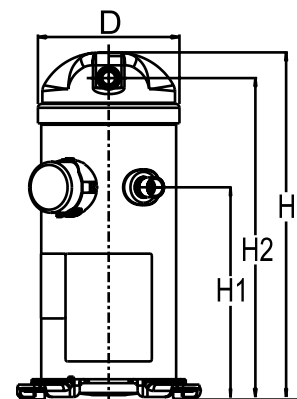
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRM048U1LP6A
Code number for Singlepack		120U3210
Code number for Industrial pack		
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		3.93 in3/rev
Displacement @ Nominal speed		478 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

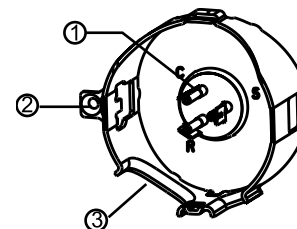


D=7.2 inch, H=17.9 inch,
H1=11 inch, H2=16.6 inch, H3=- inch

Electrical Characteristics

Nominal voltage	208-230V/1/60Hz
Voltage range	187-253 V
Winding resistance (main / start) at 25°C	0.32 Ω / 0.82 Ω
Run capacitors A + C	60 uF + - uF
Start capacitor B	161-193 uF
Start relay	3ARR3*3L*
Rated Load Amps (RLA)	26.6 A
Maximum Continuous Current (MCC)	41.5 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), -

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

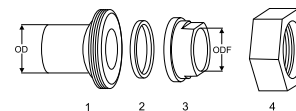
Oil / lubricants	Code no.
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Crankcase heaters	Code no.
Belt type crankcase heater, 50 W, 230 V, CE mark, UL	120Z0057

Miscellaneous accessories	Code no.
Acoustic hood	120Z5084
Discharge thermostat kit	7750009
IP54 upgrade kit	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 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	18 595	22 558	28 195	35 377	43 974	53 858	59 242	64 900	70 815
100	-	21 187	26 684	33 606	41 825	51 212	56 303	61 638	67 200
110	-	-	24 940	31 706	39 650	48 643	53 493	58 556	63 818
120	-	-	-	29 540	37 312	46 014	50 673	55 517	60 529
130	-	-	-	-	34 670	43 185	47 706	52 381	57 195
140	-	-	-	-	31 589	40 019	44 453	49 011	53 679
150	-	-	-	-	-	36 377	40 776	45 269	49 842

Power input in W

90	2 617	2 628	2 633	2 623	2 594	2 537	2 497	2 448	2 388
100	-	2 973	2 964	2 953	2 933	2 898	2 872	2 840	2 801
110	-	-	3 344	3 322	3 303	3 280	3 264	3 246	3 222
120	-	-	-	3 751	3 724	3 704	3 694	3 684	3 673
130	-	-	-	-	4 218	4 192	4 184	4 178	4 173
140	-	-	-	-	4 807	4 766	4 754	4 748	4 746
150	-	-	-	-	-	5 446	5 427	5 416	5 412

Current consumption in A

90	12.59	12.79	12.91	12.96	12.97	12.94	12.92	12.90	12.87
100	-	13.93	14.00	14.02	14.02	14.01	14.00	14.00	14.00
110	-	-	15.51	15.50	15.48	15.47	15.48	15.49	15.52
120	-	-	-	17.41	17.37	17.36	17.38	17.41	17.45
130	-	-	-	-	19.71	19.70	19.71	19.76	19.82
140	-	-	-	-	22.51	22.49	22.51	22.55	22.63
150	-	-	-	-	-	25.75	25.77	25.82	25.91

Mass flow in lbs/h

90	248	297	366	453	556	673	736	802	871
100	-	291	361	448	550	665	727	791	857
110	-	-	352	440	543	658	719	782	848
120	-	-	-	429	534	649	711	774	839
130	-	-	-	-	520	638	701	765	830
140	-	-	-	-	499	622	686	752	819
150	-	-	-	-	-	598	665	733	802

Energy Efficiency Ratio (E.E.R.)

90	7.10	8.58	10.71	13.49	16.95	21.23	23.72	26.52	29.65
100	-	7.13	9.00	11.38	14.26	17.67	19.60	21.70	23.99
110	-	-	7.46	9.54	12.01	14.83	16.39	18.04	19.80
120	-	-	-	7.87	10.02	12.42	13.72	15.07	16.48
130	-	-	-	-	8.22	10.30	11.40	12.54	13.70
140	-	-	-	-	6.57	8.40	9.35	10.32	11.31
150	-	-	-	-	-	6.68	7.51	8.36	9.21

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

Cooling capacity	47 706	Btu/h	Current consumption	19.71	A
Power input	4 184	W	Mass flow	701	lbs/h
E.E.R.	11.40				

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

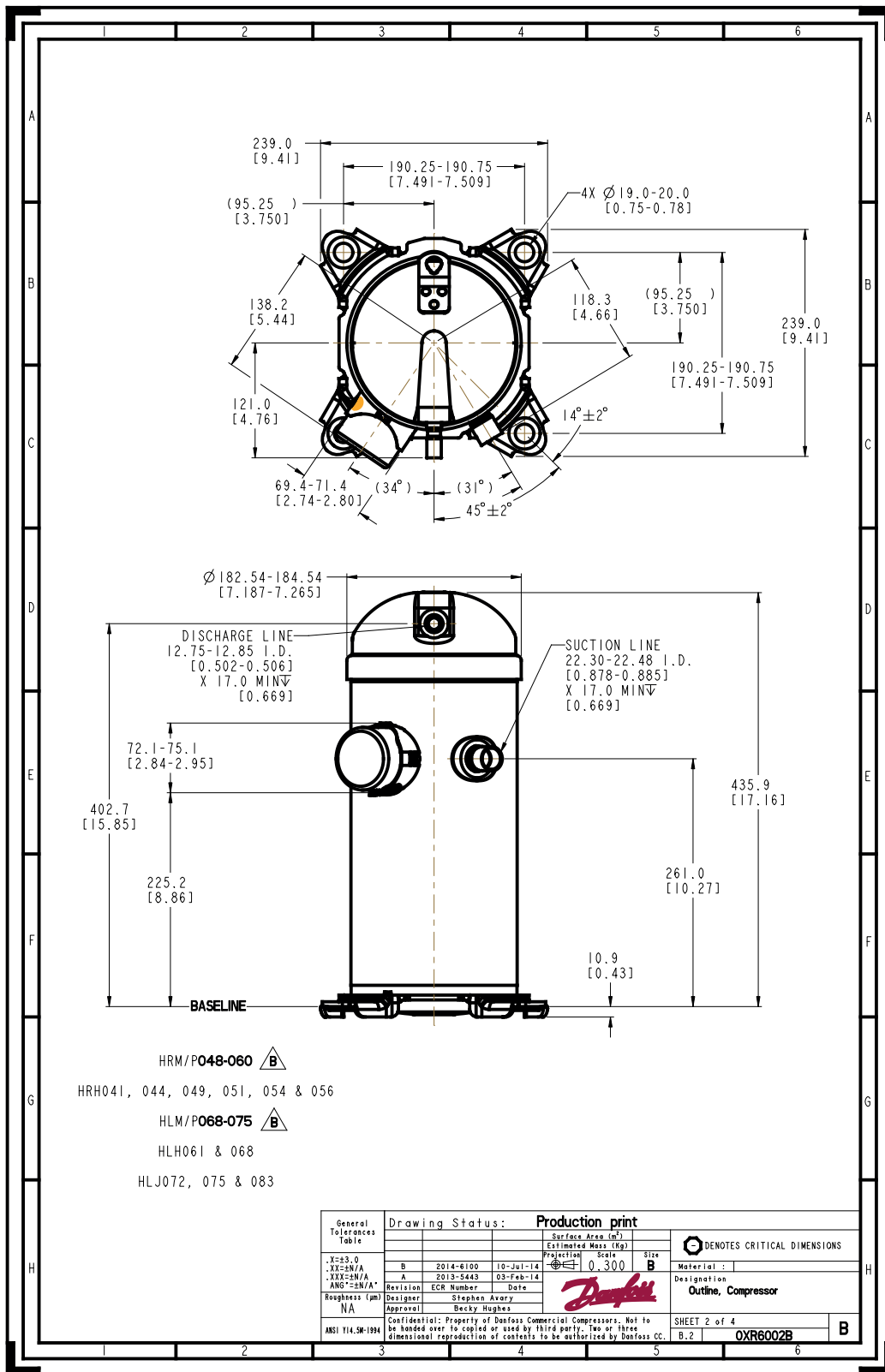
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

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

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