

ENGINEERING
TOMORROW



Datasheets

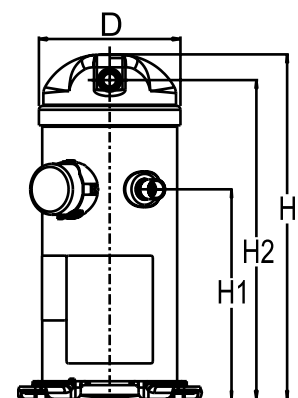
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HRM042U2LP6A
Code number for single pack without wiring harness		120U3209
Code number for single pack with wiring harness		120U3314
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	3.49 in3/rev	
Displacement @ Nominal speed	351 cfh @ 2900 rpm - 424 cfh @ 3500 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

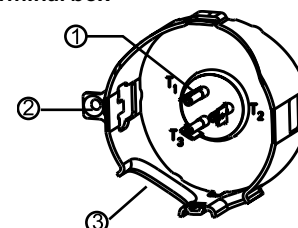


D=6.5 inch, H=16.3 inch,
H1=9.8 inch, H2=14.9 inch, H3=- inch

Electrical Characteristics

Nominal voltage	208-230V/3/60Hz
Voltage range	188-253 V
Winding resistance between phases 1-2 +/- 7% at 77°F	1.182 Ω
Winding resistance between phases 1-3 +/- 7% at 77°F	0.870 Ω
Winding resistance between phases 2-3 +/- 7% at 77°F	1.180 Ω
Rated Load Amps (RLA)	14.1 A
Maximum Continuous Current (MCC)	22 A
Locked Rotor Amps (LRA)	95 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), -

*Singlepack: Compressor in cardboard box

**Industrial pack: 12 or 16 Unboxed compressors on pallet

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.

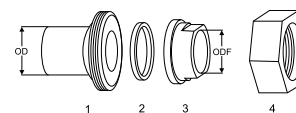
Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055
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Miscellaneous accessories
Code no.

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	13 697	16 622	20 776	26 066	32 400	39 687	43 658	47 833	52 200
100	-	15 578	19 622	24 711	30 753	37 656	41 401	45 327	49 422
110	-	-	18 292	23 256	29 081	35 676	39 233	42 949	46 810
120	-	-	-	21 606	27 291	33 655	37 062	40 604	44 270
130	-	-	-	-	25 289	31 497	34 792	38 199	41 707
140	-	-	-	-	22 980	29 108	32 329	35 640	39 028
150	-	-	-	-	-	26 395	29 580	32 832	36 139

Power input in W

90	1 963	1 943	1 931	1 917	1 888	1 835	1 795	1 745	1 683
100	-	2 231	2 197	2 176	2 155	2 124	2 102	2 072	2 034
110	-	-	2 518	2 476	2 449	2 427	2 414	2 398	2 378
120	-	-	-	2 836	2 789	2 762	2 752	2 743	2 733
130	-	-	-	-	3 194	3 148	3 134	3 125	3 119
140	-	-	-	-	3 681	3 603	3 578	3 562	3 552
150	-	-	-	-	-	4 145	4 103	4 073	4 053

Current consumption in A

90	10.14	9.62	9.55	9.68	9.77	9.55	9.25	8.78	8.11
100	-	10.56	10.26	10.27	10.34	10.21	10.00	9.65	9.12
110	-	-	11.18	11.02	11.03	10.95	10.81	10.55	10.14
120	-	-	-	11.99	11.89	11.83	11.72	11.53	11.22
130	-	-	-	-	12.98	12.87	12.79	12.65	12.42
140	-	-	-	-	14.33	14.15	14.07	13.96	13.78
150	-	-	-	-	-	15.70	15.60	15.50	15.36

Mass flow in lbs/h

90	182	219	270	334	410	496	543	591	642
100	-	214	265	329	404	489	534	582	631
110	-	-	258	323	398	482	527	574	622
120	-	-	-	314	390	475	520	566	614
130	-	-	-	-	379	466	511	558	606
140	-	-	-	-	363	452	499	547	595
150	-	-	-	-	-	434	483	532	582

Energy Efficiency Ratio (E.E.R.)

90	6.98	8.56	10.76	13.60	17.16	21.63	24.32	27.41	31.02
100	-	6.98	8.93	11.36	14.27	17.73	19.70	21.88	24.30
110	-	-	7.26	9.39	11.87	14.70	16.25	17.91	19.68
120	-	-	-	7.62	9.78	12.18	13.46	14.80	16.20
130	-	-	-	-	7.92	10.01	11.10	12.22	13.37
140	-	-	-	-	6.24	8.08	9.03	10.01	10.99
150	-	-	-	-	-	6.37	7.21	8.06	8.92

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

Cooling capacity	34 792	Btu/h	Current consumption	12.79	A
Power input	3 134	W	Mass flow	511	lbs/h
E.E.R.	11.10				

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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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	16 424	19 927	24 907	31 250	38 844	47 577	52 334	57 334	62 562
100	-	18 703	23 556	29 667	36 922	45 209	49 704	54 415	59 327
110	-	-	21 999	27 968	34 975	42 907	47 185	51 652	56 294
120	-	-	-	26 034	32 884	40 553	44 659	48 927	53 344
130	-	-	-	-	30 529	38 026	42 006	46 122	50 360
140	-	-	-	-	27 793	35 208	39 107	43 116	47 220
150	-	-	-	-	-	31 979	35 844	39 791	43 807

Power input in W

90	2 388	2 364	2 350	2 332	2 298	2 233	2 186	2 126	2 052
100	-	2 705	2 664	2 638	2 613	2 576	2 549	2 513	2 468
110	-	-	3 041	2 990	2 958	2 931	2 916	2 896	2 872
120	-	-	-	3 409	3 353	3 320	3 309	3 297	3 286
130	-	-	-	-	3 821	3 766	3 750	3 738	3 731
140	-	-	-	-	4 384	4 290	4 261	4 241	4 230
150	-	-	-	-	-	4 915	4 864	4 828	4 804

Current consumption in A

90	10.14	9.62	9.55	9.68	9.77	9.55	9.25	8.78	8.11
100	-	10.56	10.26	10.27	10.34	10.21	10.00	9.65	9.12
110	-	-	11.18	11.02	11.03	10.95	10.81	10.55	10.14
120	-	-	-	11.99	11.89	11.83	11.72	11.53	11.22
130	-	-	-	-	12.98	12.87	12.79	12.65	12.42
140	-	-	-	-	14.33	14.15	14.07	13.96	13.78
150	-	-	-	-	-	15.70	15.60	15.50	15.36

Mass flow in lbs/h

90	219	262	323	400	491	595	651	709	769
100	-	257	319	395	485	587	641	698	757
110	-	-	310	389	479	580	634	690	748
120	-	-	-	378	470	572	626	682	740
130	-	-	-	-	458	562	617	673	731
140	-	-	-	-	439	547	604	661	720
150	-	-	-	-	-	526	585	644	705

Energy Efficiency Ratio (E.E.R.)

90	6.88	8.43	10.60	13.40	16.91	21.30	23.94	26.97	30.49
100	-	6.92	8.84	11.24	14.13	17.55	19.50	21.65	24.04
110	-	-	7.23	9.35	11.82	14.64	16.18	17.83	19.60
120	-	-	-	7.64	9.81	12.21	13.50	14.84	16.24
130	-	-	-	-	7.99	10.10	11.20	12.34	13.50
140	-	-	-	-	6.34	8.21	9.18	10.17	11.16
150	-	-	-	-	-	6.51	7.37	8.24	9.12

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

Cooling capacity	42 006	Btu/h	Current consumption	12.79	A
Power input	3 750	W	Mass flow	617	lbs/h
E.E.R.	11.20				

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

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