

ENGINEERING
TOMORROW

Danfoss

Datasheets

Danfoss scroll compressors **H series**



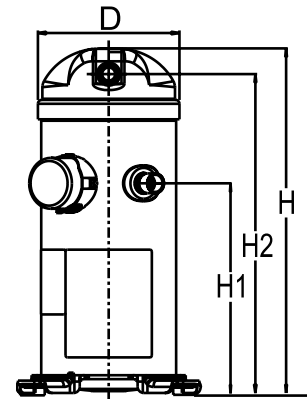
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www.danfoss.com/odsg

General Characteristics

Model number (on compressor nameplate)		HRH032U4LP6
Code number for Singlepack*		120U1196
Code number for Industrial pack**		120U1193
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		1.87 in ³ /rev
Displacement @ Nominal speed		188 cfh @ 2900 rpm - 227 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		R410A

Dimensions

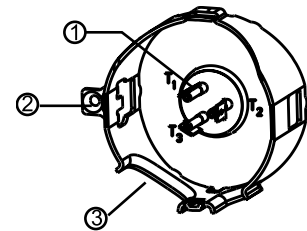


D=6.5 inch, H=16.3 inch,
H1=9.8 inch, H2=14.9 inch, H3=- inch

Electrical Characteristics

Nominal voltage	380-415V/3/50Hz - 460V/3/60Hz
Voltage range	342-457 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance between phases 1-2 +/- 7% at 77°F	4.664 Ω
Winding resistance between phases 1-3 +/- 7% at 77°F	4.660 Ω
Winding resistance between phases 2-3 +/- 7% at 77°F	3.420 Ω
Rated Load Amps (RLA)	6.4 A
Maximum Continuous Current (MCC)	10 A
Locked Rotor Amps (LRA)	45 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

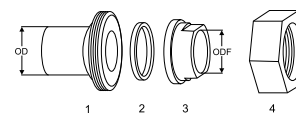
Rotolock accessories, sets	Code no.
Solder sleeve adapter set (1-1/4"~3/4"), (1"~1/2")	120Z0126
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants	Code no.
PVE lubricant, 320HV (FVC68D), 1 litre can	120Z5034

Crankcase heaters	Code no.
Belt type crankcase heater, 40 W, 230 V, CE mark, UL	120Z0055
Belt type crankcase heater, 40 W, 400 V, CE mark, UL	120Z0056

Miscellaneous accessories	Code no.
Acoustic hood	120Z5043
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	120Z5005
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

R410A

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	8 678	11 685	15 380	19 825	25 081	31 211	34 623	38 277	42 180
100	-	10 694	14 243	18 494	23 510	29 352	32 602	36 082	39 800
110	-	-	13 078	17 134	21 906	27 458	30 545	33 850	37 381
120	-	-	-	15 714	20 240	25 499	28 422	31 551	34 894
130	-	-	-	-	18 483	23 446	26 204	29 155	32 309
140	-	-	-	-	16 604	21 269	23 860	26 633	29 597
150	-	-	-	-	-	18 938	21 361	23 955	26 726

Power input in W

90	1 589	1 563	1 544	1 528	1 511	1 490	1 477	1 461	1 442
100	-	1 842	1 812	1 787	1 762	1 733	1 717	1 698	1 676
110	-	-	2 130	2 095	2 062	2 027	2 007	1 985	1 961
120	-	-	-	2 459	2 418	2 376	2 353	2 329	2 303
130	-	-	-	-	2 833	2 785	2 759	2 733	2 704
140	-	-	-	-	3 311	3 257	3 230	3 201	3 170
150	-	-	-	-	-	3 798	3 768	3 738	3 706

Current consumption in A

90	3.70	3.70	3.69	3.68	3.65	3.61	3.58	3.55	3.51
100	-	4.01	4.00	3.99	3.96	3.92	3.90	3.87	3.83
110	-	-	4.36	4.34	4.32	4.28	4.26	4.23	4.20
120	-	-	-	4.76	4.73	4.69	4.67	4.65	4.62
130	-	-	-	-	5.22	5.18	5.16	5.14	5.11
140	-	-	-	-	5.81	5.76	5.74	5.71	5.68
150	-	-	-	-	-	6.44	6.42	6.39	6.36

Mass flow in lbs/h

90	110	145	188	239	299	369	407	448	491
100	-	140	183	235	295	364	402	443	486
110	-	-	178	230	290	359	397	437	480
120	-	-	-	223	284	353	391	431	474
130	-	-	-	-	276	345	383	423	466
140	-	-	-	-	266	336	374	414	456
150	-	-	-	-	-	323	361	402	444

Energy Efficiency Ratio (E.E.R.)

90	5.46	7.48	9.96	12.97	16.59	20.94	23.44	26.19	29.25
100	-	5.81	7.86	10.35	13.35	16.94	18.99	21.25	23.75
110	-	-	6.14	8.18	10.62	13.55	15.22	17.05	19.06
120	-	-	-	6.39	8.37	10.73	12.08	13.55	15.15
130	-	-	-	-	6.53	8.42	9.50	10.67	11.95
140	-	-	-	-	5.01	6.53	7.39	8.32	9.34
150	-	-	-	-	-	4.99	5.67	6.41	7.21

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

Cooling capacity	26 204	Btu/h	Current consumption	5.16	A
Power input	2 759	W	Mass flow	383	lbs/h
E.E.R.	9.50				

Pressure switch settings

Maximum HP switch setting	653	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	33	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	65	dB(A)
With acoustic hood	60	dB(A)

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Datasheet, performance data

Danfoss scroll compressor. HRH032U4

Performance data at 60 Hz, ARI rating conditions

R410A

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	10 497	14 130	18 598	23 974	30 330	37 738	41 859	46 270	50 980
100	-	12 959	17 257	22 410	28 489	35 568	39 504	43 717	48 217
110	-	-	15 887	20 812	26 611	33 356	37 106	41 119	45 405
120	-	-	-	19 140	24 653	31 060	34 621	38 432	42 502
130	-	-	-	-	22 574	28 638	32 007	35 614	39 467
140	-	-	-	-	20 330	26 047	29 223	32 623	36 256
150	-	-	-	-	-	23 245	26 226	29 417	32 828

Power input in W

90	1 971	1 942	1 919	1 898	1 877	1 852	1 837	1 820	1 801
100	-	2 239	2 205	2 174	2 143	2 109	2 090	2 069	2 045
110	-	-	2 528	2 488	2 449	2 406	2 383	2 358	2 331
120	-	-	-	2 844	2 797	2 747	2 721	2 692	2 662
130	-	-	-	-	3 191	3 136	3 107	3 075	3 042
140	-	-	-	-	3 636	3 576	3 544	3 511	3 476
150	-	-	-	-	-	4 072	4 038	4 003	3 966

Current consumption in A

90	3.22	3.22	3.22	3.21	3.19	3.15	3.12	3.09	3.06
100	-	3.50	3.49	3.48	3.46	3.42	3.40	3.38	3.34
110	-	-	3.81	3.79	3.76	3.73	3.71	3.69	3.66
120	-	-	-	4.15	4.13	4.09	4.08	4.05	4.03
130	-	-	-	-	4.56	4.52	4.50	4.48	4.45
140	-	-	-	-	5.07	5.02	5.00	4.98	4.96
150	-	-	-	-	-	5.62	5.60	5.57	5.55

Mass flow in lbs/h

90	132	175	228	290	362	446	492	541	594
100	-	169	222	285	357	441	487	536	588
110	-	-	216	279	352	436	482	531	583
120	-	-	-	272	345	430	476	525	577
130	-	-	-	-	337	422	468	517	569
140	-	-	-	-	326	411	457	507	559
150	-	-	-	-	-	397	444	493	546

Energy Efficiency Ratio (E.E.R.)

90	5.33	7.27	9.69	12.63	16.16	20.38	22.79	25.42	28.31
100	-	5.79	7.83	10.31	13.29	16.86	18.90	21.13	23.58
110	-	-	6.29	8.36	10.87	13.86	15.57	17.44	19.48
120	-	-	-	6.73	8.81	11.31	12.72	14.27	15.97
130	-	-	-	-	7.07	9.13	10.30	11.58	12.97
140	-	-	-	-	5.59	7.28	8.24	9.29	10.43
150	-	-	-	-	-	5.71	6.49	7.35	8.28

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

Cooling capacity	32 007	Btu/h	Current consumption	4.50	A
Power input	3 107	W	Mass flow	468	lbs/h
E.E.R.	10.30				

Pressure switch settings

Maximum HP switch setting	653	psi(g)
Minimum LP switch setting	22	psi(g)
LP pump down setting	33	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

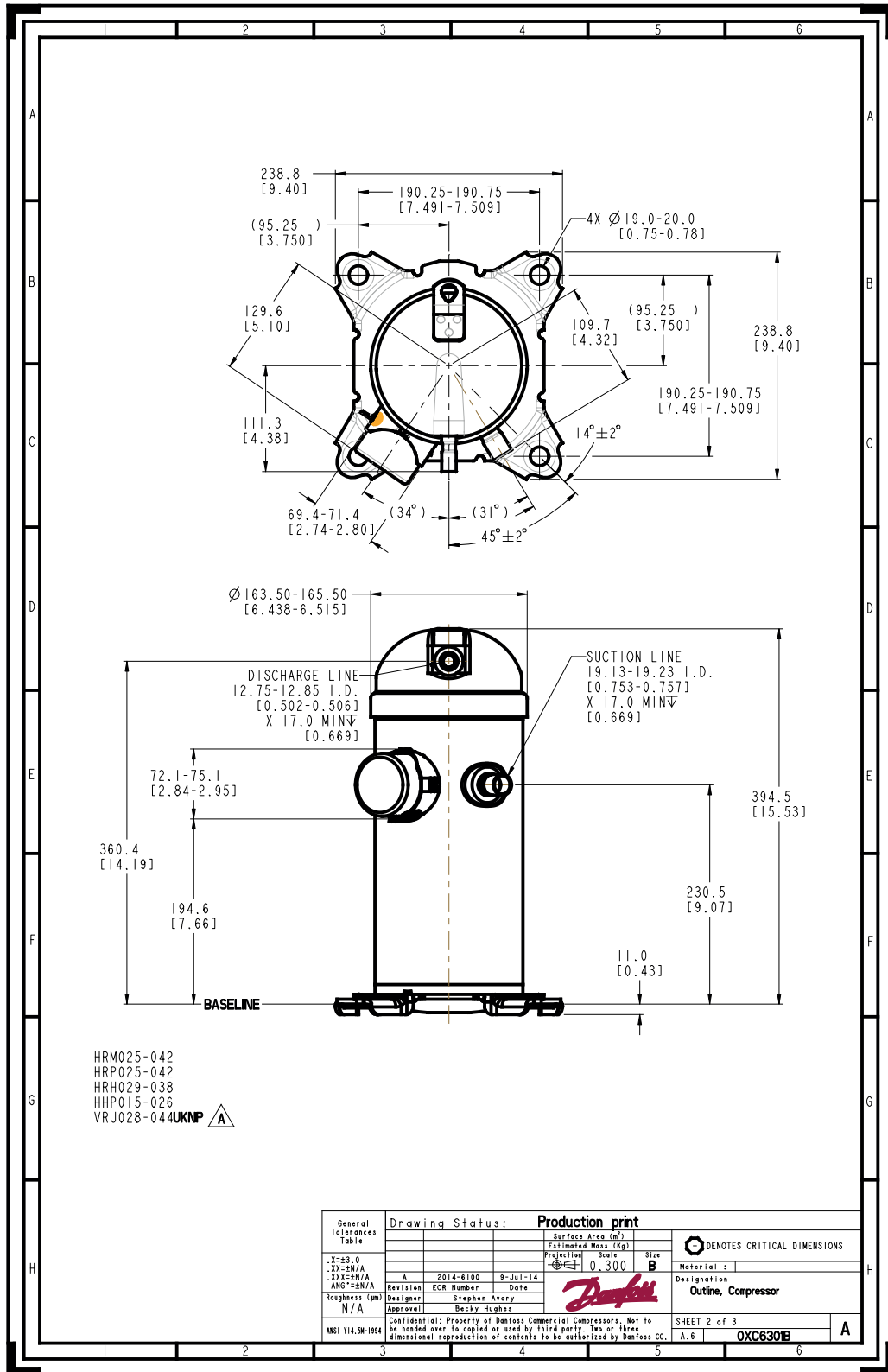
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

Sound power data

Sound power level	68	dB(A)
With acoustic hood	63	dB(A)

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