

ENGINEERING
TOMORROW

Danfoss

Datasheets

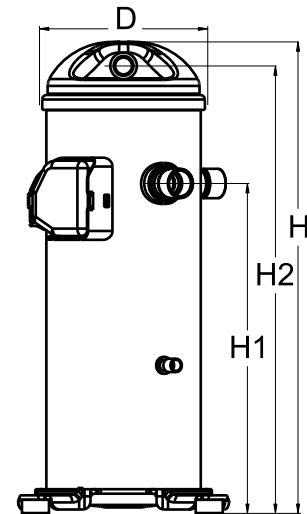
Danfoss scroll compressors **H series**



General Characteristics

Model number (on compressor nameplate)		HCM094T9LC6A
Code number for Singlepack		120U3191
Code number for Industrial pack		
Drawing number		0SR4103B-3
Suction and discharge connections		Brazed
Suction connection		1-1/8" ODF
Discharge connection		7/8" ODF
Oil sight glass		None
Oil equalization connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		None
Swept volume		7.69 in ³ /rev
Displacement @ Nominal speed		935 cfh @ 3500 rpm
Net weight		97 lbs
Oil charge		90 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		16 lbs
Approved refrigerants		R22

Dimensions

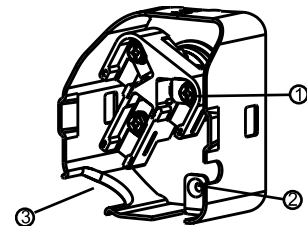


D=7.2 inch, H=21.1 inch,
H1=14.5 inch, H2=20 inch, H3=- inch

Electrical Characteristics

Nominal voltage		380V/3/60Hz
Voltage range		342-418 V
Winding resistance between phases 1-2 +/- 7% at 77°F		0.930 Ω
Winding resistance between phases 1-3 +/- 7% at 77°F		0.910 Ω
Winding resistance between phases 2-3 +/- 7% at 77°F		0.930 Ω
Rated Load Amps (RLA)		16 A
Maximum Continuous Current (MCC)		25 A
Locked Rotor Amps (LRA)		135 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.
Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Gasket, 1-3/4"	8156132

Rotolock accessories, discharge side	Code no.
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-3/4"	8156132

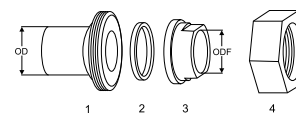
Rotolock accessories, sets	Code no.
Solder sleeve adapter set, 1-1/8" ODF & 7/8" ODF	120Z0125
Valve set, V02(1"3/4~1"1/8), V05(1"1/4~7/8")	120Z0403
Gasket set, 1", 1-1/4", 1-3/4", OSG gaskets black & white	8156009

Oil / lubricants	Code no.
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Crankcase heaters	Code no.
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0060
Belt type crankcase heater, 70 W, 240 V, CE mark, UL	120Z5040

Miscellaneous accessories	Code no.
Acoustic hood	120Z5085
Discharge thermostat kit	7750009

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

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

Cooling capacity in Btu/h

90	36 625	44 422	55 522	69 666	86 597	106 055	116 650	127 781	139 415
100	34 017	41 776	52 610	66 260	82 468	100 975	111 010	121 523	132 481
110	30 555	38 479	49 249	62 607	78 295	96 055	105 630	115 626	126 011
120	-	34 246	45 156	58 425	73 796	91 010	100 227	109 808	119 721
130	-	-	40 045	53 429	68 685	85 557	94 517	103 784	113 326
140	-	-	-	47 334	62 679	79 410	88 215	97 270	106 542
150	-	-	-	-	55 492	72 286	81 037	89 981	99 085

Power input in W

90	5 485	5 520	5 529	5 506	5 441	5 328	5 250	5 158	5 049
100	6 133	6 129	6 121	6 099	6 055	5 983	5 933	5 873	5 802
110	6 863	6 805	6 761	6 723	6 683	6 634	6 604	6 568	6 526
120	-	7 587	7 490	7 418	7 366	7 323	7 303	7 283	7 261
130	-	-	8 348	8 227	8 143	8 090	8 072	8 058	8 048
140	-	-	-	9 188	9 056	8 975	8 950	8 935	8 928
150	-	-	-	-	10 146	10 019	9 978	9 953	9 941

Current consumption in A

90	10.43	10.60	10.70	10.74	10.75	10.72	10.71	10.68	10.66
100	11.45	11.55	11.60	11.62	11.62	11.61	11.60	11.60	11.60
110	12.83	12.85	12.85	12.84	12.83	12.82	12.83	12.84	12.86
120	-	14.54	14.48	14.43	14.39	14.39	14.40	14.42	14.46
130	-	-	16.49	16.39	16.33	16.32	16.34	16.37	16.42
140	-	-	-	18.75	18.66	18.63	18.65	18.69	18.75
150	-	-	-	-	21.38	21.34	21.35	21.40	21.47

Mass flow in lbs/h

90	488	585	721	893	1 095	1 326	1 450	1 580	1 714
100	472	573	711	883	1 084	1 311	1 433	1 559	1 690
110	442	551	695	870	1 072	1 299	1 419	1 545	1 674
120	-	514	667	848	1 056	1 285	1 406	1 531	1 660
130	-	-	623	815	1 030	1 265	1 388	1 515	1 645
140	-	-	-	764	990	1 234	1 362	1 492	1 625
150	-	-	-	-	933	1 189	1 322	1 457	1 595

Energy Efficiency Ratio (E.E.R.)

90	6.68	8.05	10.04	12.65	15.91	19.91	22.22	24.77	27.61
100	5.55	6.82	8.60	10.86	13.62	16.88	18.71	20.69	22.83
110	4.45	5.65	7.28	9.31	11.72	14.48	16.00	17.60	19.31
120	-	4.51	6.03	7.88	10.02	12.43	13.72	15.08	16.49
130	-	-	4.80	6.49	8.43	10.58	11.71	12.88	14.08
140	-	-	-	5.15	6.92	8.85	9.86	10.89	11.93
150	-	-	-	-	5.47	7.22	8.12	9.04	9.97

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

Cooling capacity	94 517	Btu/h	Current consumption	16.34	A
Power input	8 072	W	Mass flow	1 388	lbs/h
E.E.R.	11.71				

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

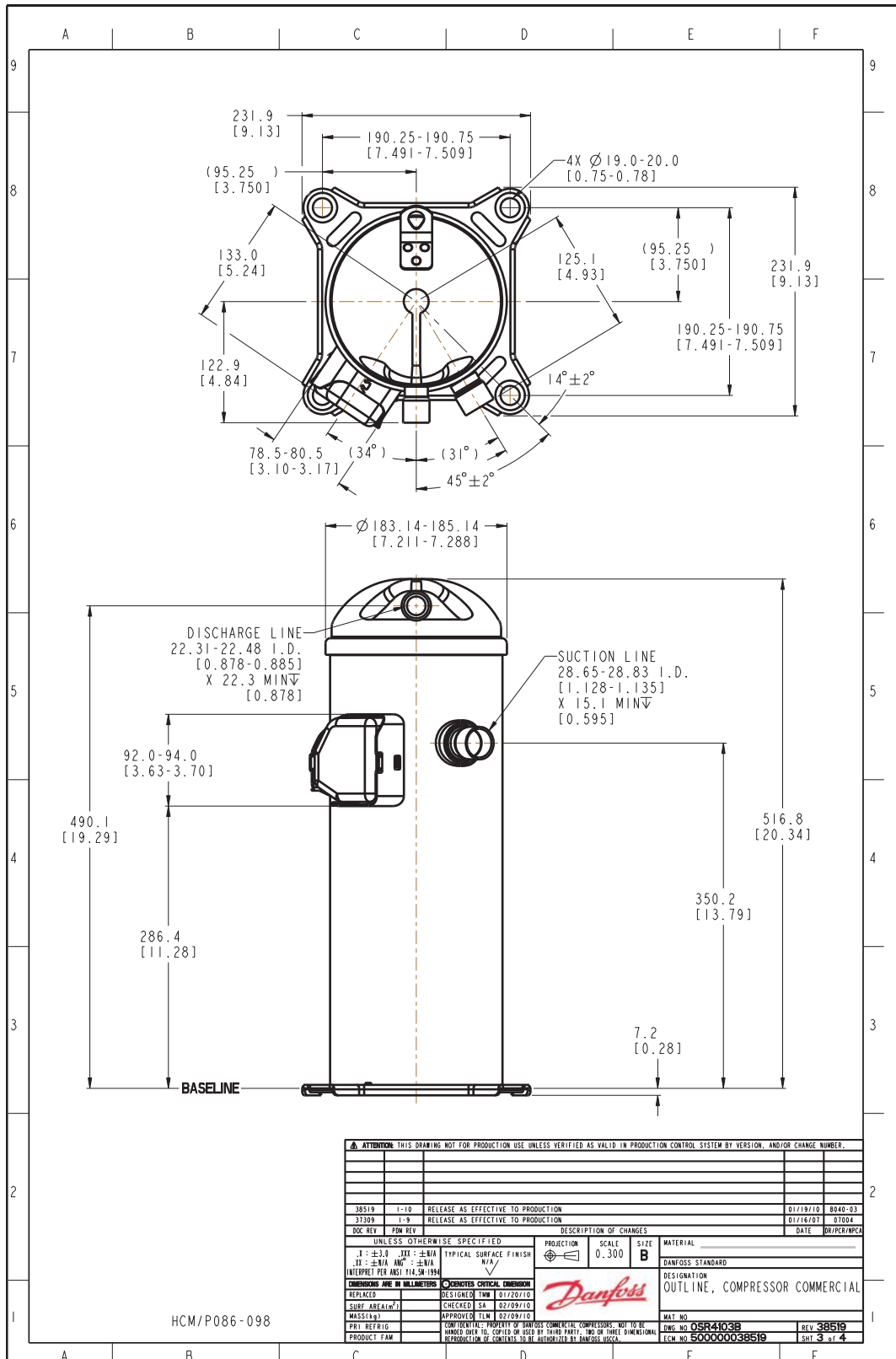
T C : Condensing temperature at dew point

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

All performance data +/- 5%

Sound power data

Sound power level	77	dB(A)
With acoustic hood	72	dB(A)



ATTENTION: THIS DRAWING NOT FOR PRODUCTION USE, UNLESS VERIFIED AS VALID IN PRODUCTION CONTROL SYSTEM BY VERSION, AND/OR CHANGE NUMBER.

38519	1-10	RELEASE AS EFFECTIVE TO PRODUCTION	01/19/10	8040-93
33309	1-5	RELEASE AS EFFECTIVE TO PRODUCTION	01/16/07	07004
DOC REV	PDW REV	DESCRIPTION OF CHANGES	DATE	DR/PR/PCA
UNLESS OTHERWISE SPECIFIED		PROJECTION	SCALE	SIZE
I : ±0.1 III : ±0.1 II : ±0.15 IV : ±0.1 INTERPRET PER ANSI Y14.2M-1994			0.300	B
DIMENSIONS ARE IN MILLIMETERS		MATERIAL		
REPLACED SURF. AREA (m²) MASS (kg) PRI. REFRIG. PRODUCT FAM.		DANFOSS STANDARD DESIGNATION OUTLINE, COMPRESSOR COMMERCIAL MAT. NO. ENG. NO. DSR4103B ECN. NO. 500000038519		
CHECKED SA 02/09/10 APPROVED TMM 02/09/10		REV 38519 SHT 3 of 4		

HCM/P086-098

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