

Datasheets

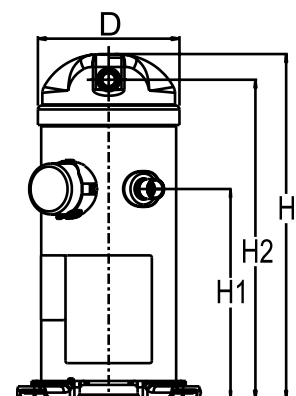
# Danfoss scroll compressors **H series**



### General Characteristics

Model number (on compressor nameplate)		<b>HRM025T4LP6</b>
Code number for Singlepack*		120U2784
Code number for Industrial pack**		120U2781
Drawing number		0XC6301B-2
Suction and discharge connections		Brazed
Suction connection		3/4 " ODF
Discharge connection		1/2 " ODF
Oil sight glass		None
Oil equalisation connection		None
Oil drain connection		None
LP gauge port		None
IPR valve		Yes
Swept volume		33.77 cm <sup>3</sup> /rev
Displacement @ Nominal speed		5.9 m <sup>3</sup> /h @ 2900 rpm - 7.1 m <sup>3</sup> /h @ 3500 rpm
Net weight		30.84 kg
Oil charge		1.06 litre, Alkylbenzene - -
Maximum system test pressure Low Side / High side		- bar(g) / - bar(g)
Maximum differential test pressure		- bar
Maximum number of starts per hour		-
Refrigerant charge limit		3.63 kg
Approved refrigerants		R22

### Dimensions



D=164.5 mm

H=413 mm

H1=250 mm

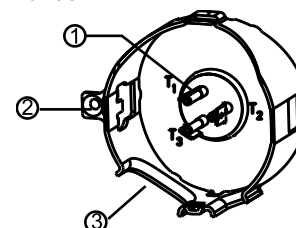
H2=379 mm

H3=- mm

### 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 25°C	6.72 Ω
Winding resistance between phases 1-3 +/- 7% at 25°C	4.95 Ω
Winding resistance between phases 2-3 +/- 7% at 25°C	6.72 Ω
Rated Load Amps (RLA)	4.5 A
Maximum Continuous Current (MCC)	7 A
Locked Rotor Amps (LRA)	30 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	52.5 Nm
Power connections / Earth connection	0 Nm / 0 Nm

### 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

**Solder sleeve adapter set**


- 1: Rotolock adapter (Suc & Dis)
- 2: Gasket (Suc & Dis)
- 3: Solder sleeve (Suc & Dis)
- 4: Rotolock nut (Suc & Dis)

**Rotolock accessories, sets**
**Code no.**

Solder sleeve adapter set (1-1/4" Rotolock, 3/4" ODF), (1" Rotolock, 1/2" ODF)	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
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, including 1 bolt, 1 sleeve, 1 washer	120Z5031
No translation for 120Z5015	120Z5015

**Performance data at 50 Hz, EN 12900 rating conditions**
**R22**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15

**Cooling capacity in W**

30	2 174	2 541	3 078	3 777	4 626	5 616	6 735	7 974	-
35	2 032	2 394	2 916	3 587	4 397	5 336	6 394	7 559	-
40	-	2 215	2 730	3 383	4 163	5 061	6 066	7 167	-
45	-	-	2 512	3 155	3 914	4 779	5 740	6 785	-
50	-	-	-	2 892	3 639	4 480	5 405	6 404	-
55	-	-	-	-	3 328	4 154	5 052	6 013	-
60	-	-	-	-	-	3 790	4 669	5 600	-
65	-	-	-	-	-	-	4 248	5 157	-

**Power input in W**

30	1 195	1 189	1 185	1 179	1 167	1 143	1 104	1 045	-
35	1 352	1 330	1 316	1 306	1 296	1 281	1 257	1 219	-
40	-	1 494	1 465	1 446	1 432	1 419	1 404	1 381	-
45	-	-	1 639	1 604	1 581	1 566	1 553	1 540	-
50	-	-	-	1 790	1 752	1 727	1 712	1 702	-
55	-	-	-	-	1 952	1 913	1 889	1 876	-
60	-	-	-	-	-	2 129	2 091	2 069	-
65	-	-	-	-	-	-	2 326	2 290	-

**Current consumption in A**

30	2.95	2.79	2.75	2.78	2.83	2.83	2.74	2.51	-
35	3.29	3.05	2.95	2.94	2.97	2.98	2.92	2.74	-
40	-	3.36	3.19	3.13	3.14	3.15	3.11	2.97	-
45	-	-	3.49	3.38	3.35	3.35	3.32	3.22	-
50	-	-	-	3.68	3.61	3.59	3.57	3.49	-
55	-	-	-	-	3.93	3.88	3.85	3.79	-
60	-	-	-	-	-	4.24	4.20	4.15	-
65	-	-	-	-	-	-	4.61	4.55	-

**Mass flow in kg/h**

30	47	55	65	79	96	115	136	160	-
35	46	54	64	78	95	113	134	157	-
40	-	52	63	77	93	112	132	155	-
45	-	-	60	75	91	110	131	153	-
50	-	-	-	72	89	108	129	151	-
55	-	-	-	-	85	105	126	148	-
60	-	-	-	-	-	101	123	145	-
65	-	-	-	-	-	-	118	141	-

**Coefficient of performance (C.O.P.)**

30	1.82	2.14	2.60	3.20	3.97	4.91	6.10	7.63	-
35	1.50	1.80	2.22	2.75	3.39	4.17	5.09	6.20	-
40	-	1.48	1.86	2.34	2.91	3.57	4.32	5.19	-
45	-	-	1.53	1.97	2.48	3.05	3.70	4.41	-
50	-	-	-	1.62	2.08	2.59	3.16	3.76	-
55	-	-	-	-	1.70	2.17	2.67	3.21	-
60	-	-	-	-	-	1.78	2.23	2.71	-
65	-	-	-	-	-	-	1.83	2.25	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	5 405	W
Power input	1 712	W
Current consumption	3.57	A
Mass flow	129	kg/h
C.O.P.	3.16	

**Pressure switch settings**

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

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**Performance data at 50 Hz, ARI rating conditions**
**R22**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15

**Cooling capacity in W**

30	2 309	2 696	3 264	4 002	4 898	5 942	7 121	8 425	-
35	-	2 549	3 102	3 813	4 671	5 664	6 782	8 012	-
40	-	-	2 916	3 610	4 439	5 392	6 457	7 623	-
45	-	-	2 695	3 381	4 191	5 112	6 134	7 246	-
50	-	-	-	3 115	3 915	4 815	5 804	6 870	-
55	-	-	-	-	3 601	4 489	5 454	6 484	-
60	-	-	-	-	-	4 123	5 074	6 078	-
65	-	-	-	-	-	-	4 651	5 639	-

**Power input in W**

30	1 195	1 189	1 185	1 179	1 167	1 143	1 104	1 045	-
35	-	1 330	1 316	1 306	1 296	1 281	1 257	1 219	-
40	-	-	1 465	1 446	1 432	1 419	1 404	1 381	-
45	-	-	1 639	1 604	1 581	1 566	1 553	1 540	-
50	-	-	-	1 790	1 752	1 727	1 712	1 702	-
55	-	-	-	-	1 952	1 913	1 889	1 876	-
60	-	-	-	-	-	2 129	2 091	2 069	-
65	-	-	-	-	-	-	2 326	2 290	-

**Current consumption in A**

30	2.95	2.79	2.75	2.78	2.83	2.83	2.74	2.51	-
35	-	3.05	2.95	2.94	2.97	2.98	2.92	2.74	-
40	-	-	3.19	3.13	3.14	3.15	3.11	2.97	-
45	-	-	3.49	3.38	3.35	3.35	3.32	3.22	-
50	-	-	-	3.68	3.61	3.59	3.57	3.49	-
55	-	-	-	-	3.93	3.88	3.85	3.79	-
60	-	-	-	-	-	4.24	4.20	4.15	-
65	-	-	-	-	-	-	4.61	4.55	-

**Mass flow in kg/h**

30	47	54	65	79	95	114	136	159	-
35	-	53	64	78	94	113	134	156	-
40	-	-	63	76	93	111	132	154	-
45	-	-	60	74	91	110	130	152	-
50	-	-	-	71	88	107	128	150	-
55	-	-	-	-	85	104	125	147	-
60	-	-	-	-	-	100	122	144	-
65	-	-	-	-	-	-	118	141	-

**Coefficient of performance (C.O.P.)**

30	1.93	2.27	2.75	3.39	4.20	5.20	6.45	8.06	-
35	-	1.92	2.36	2.92	3.60	4.42	5.40	6.57	-
40	-	-	1.99	2.50	3.10	3.80	4.60	5.52	-
45	-	-	1.64	2.11	2.65	3.27	3.95	4.71	-
50	-	-	-	1.74	2.23	2.79	3.39	4.04	-
55	-	-	-	-	1.84	2.35	2.89	3.46	-
60	-	-	-	-	-	1.94	2.43	2.94	-
65	-	-	-	-	-	-	2.00	2.46	-

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

Cooling capacity	5 945	W
Power input	1 860	W
Current consumption	3.80	A
Mass flow	135	kg/h
C.O.P.	3.20	

**Pressure switch settings**

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	67	dB(A)
With accoustic hood	62	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K, Subcooling = 8.3 K

All performance data +/- 5%

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**Performance data at 60 Hz, EN 12900 rating conditions**
**R22**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15

**Cooling capacity in W**

30	2 585	3 019	3 658	4 488	5 498	6 674	8 004	9 475	-
35	2 416	2 846	3 466	4 265	5 228	6 345	7 602	8 987	-
40	-	2 636	3 248	4 025	4 953	6 021	7 216	8 526	-
45	-	-	2 991	3 756	4 660	5 690	6 833	8 078	-
50	-	-	-	3 446	4 335	5 337	6 440	7 630	-
55	-	-	-	-	3 968	4 952	6 023	7 169	-
60	-	-	-	-	-	4 521	5 571	6 682	-
65	-	-	-	-	-	-	5 071	6 157	-

**Power input in W**

30	1 430	1 423	1 419	1 412	1 396	1 368	1 321	1 251	-
35	1 617	1 591	1 575	1 563	1 551	1 533	1 503	1 458	-
40	-	1 786	1 751	1 728	1 712	1 697	1 678	1 651	-
45	-	-	1 958	1 916	1 888	1 870	1 855	1 839	-
50	-	-	-	2 136	2 091	2 061	2 043	2 031	-
55	-	-	-	-	2 327	2 280	2 251	2 236	-
60	-	-	-	-	-	2 536	2 489	2 464	-
65	-	-	-	-	-	-	2 767	2 724	-

**Current consumption in A**

30	2.72	2.57	2.54	2.56	2.61	2.61	2.53	2.31	-
35	3.03	2.81	2.71	2.71	2.73	2.75	2.69	2.52	-
40	-	3.10	2.94	2.89	2.89	2.90	2.86	2.73	-
45	-	-	3.22	3.11	3.08	3.08	3.06	2.96	-
50	-	-	-	3.39	3.32	3.30	3.28	3.21	-
55	-	-	-	-	3.62	3.58	3.55	3.49	-
60	-	-	-	-	-	3.91	3.87	3.82	-
65	-	-	-	-	-	-	4.24	4.19	-

**Mass flow in kg/h**

30	56	65	78	94	114	137	162	190	-
35	55	64	77	93	112	135	160	187	-
40	-	61	75	91	111	133	158	184	-
45	-	-	72	89	109	131	155	182	-
50	-	-	-	86	106	129	153	179	-
55	-	-	-	-	102	125	150	177	-
60	-	-	-	-	-	121	146	173	-
65	-	-	-	-	-	-	141	169	-

**Coefficient of performance (C.O.P.)**

30	1.81	2.12	2.58	3.18	3.94	4.88	6.06	7.57	-
35	1.49	1.79	2.20	2.73	3.37	4.14	5.06	6.16	-
40	-	1.48	1.85	2.33	2.89	3.55	4.30	5.16	-
45	-	-	1.53	1.96	2.47	3.04	3.68	4.39	-
50	-	-	-	1.61	2.07	2.59	3.15	3.76	-
55	-	-	-	-	1.70	2.17	2.68	3.21	-
60	-	-	-	-	-	1.78	2.24	2.71	-
65	-	-	-	-	-	-	1.83	2.26	-

**Nominal performance at to = 5 °C, tc = 50 °C**

Cooling capacity	6 440	W
Power input	2 043	W
Current consumption	3.28	A
Mass flow	153	kg/h
C.O.P.	3.15	

**Pressure switch settings**

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	71	dB(A)
With acoustic hood	66	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 10 K , Subcooling = 0 K

All performance data +/- 5%

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**Performance data at 60 Hz, ARI rating conditions**
**R22**

Cond. temp. in °C (tc)	Evaporating temperature in °C (to)								
	-25	-20	-15	-10	-5	0	5	10	15

**Cooling capacity in W**

30	2 745	3 204	3 879	4 756	5 821	7 061	8 462	10 011	-
35	-	3 031	3 688	4 534	5 554	6 735	8 063	9 526	-
40	-	-	3 469	4 295	5 281	6 414	7 681	9 068	-
45	-	-	3 208	4 025	4 989	6 086	7 303	8 626	-
50	-	-	-	3 712	4 664	5 737	6 914	8 185	-
55	-	-	-	-	4 293	5 352	6 502	7 731	-
60	-	-	-	-	-	4 919	6 053	7 252	-
65	-	-	-	-	-	-	5 553	6 734	-

**Power input in W**

30	1 430	1 423	1 419	1 412	1 396	1 368	1 321	1 251	-
35	-	1 591	1 575	1 563	1 551	1 533	1 503	1 458	-
40	-	-	1 751	1 728	1 712	1 697	1 678	1 651	-
45	-	-	1 958	1 916	1 888	1 870	1 855	1 839	-
50	-	-	-	2 136	2 091	2 061	2 043	2 031	-
55	-	-	-	-	2 327	2 280	2 251	2 236	-
60	-	-	-	-	-	2 536	2 489	2 464	-
65	-	-	-	-	-	-	2 767	2 724	-

**Current consumption in A**

30	2.72	2.57	2.54	2.56	2.61	2.61	2.53	2.31	-
35	-	2.81	2.71	2.71	2.73	2.75	2.69	2.52	-
40	-	-	2.94	2.89	2.89	2.90	2.86	2.73	-
45	-	-	3.22	3.11	3.08	3.08	3.06	2.96	-
50	-	-	-	3.39	3.32	3.30	3.28	3.21	-
55	-	-	-	-	3.62	3.58	3.55	3.49	-
60	-	-	-	-	-	3.91	3.87	3.82	-
65	-	-	-	-	-	-	4.24	4.19	-

**Mass flow in kg/h**

30	56	65	77	94	113	136	161	189	-
35	-	63	76	92	112	134	159	186	-
40	-	-	74	91	110	132	157	183	-
45	-	-	72	89	108	130	155	181	-
50	-	-	-	85	105	128	152	178	-
55	-	-	-	-	101	124	149	176	-
60	-	-	-	-	-	120	145	172	-
65	-	-	-	-	-	-	140	168	-

**Coefficient of performance (C.O.P.)**

30	1.92	2.25	2.73	3.37	4.17	5.16	6.40	8.00	-
35	-	1.91	2.34	2.90	3.58	4.39	5.36	6.53	-
40	-	-	1.98	2.49	3.09	3.78	4.58	5.49	-
45	-	-	1.64	2.10	2.64	3.25	3.94	4.69	-
50	-	-	-	1.74	2.23	2.78	3.38	4.03	-
55	-	-	-	-	1.84	2.35	2.89	3.46	-
60	-	-	-	-	-	1.94	2.43	2.94	-
65	-	-	-	-	-	-	2.01	2.47	-

**Nominal performance at to = 7.2 °C, tc = 54.4 °C**

Cooling capacity	7 087	W
Power input	2 217	W
Current consumption	3.50	A
Mass flow	161	kg/h
C.O.P.	3.20	

**Pressure switch settings**

Maximum HP switch setting	29	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	71	dB(A)
With acoustic hood	66	dB(A)

to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

Rating conditions : Superheat = 11.1 K, Subcooling = 8.3 K

All performance data +/- 5%

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