

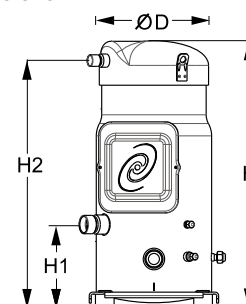
Datasheets

# Danfoss scroll compressors **SM / SY / SZ / SH / WSH**



**General Characteristics**

Model number (on compressor nameplate)	SM125S4RC	SM125S4CC
Code number for Singlepack*	SM125-4RI	SM125-4CAI
Code number for Industrial pack**	SM125-4RM	SM125-4CAM
Drawing number	8551121b	8551121b
Suction and discharge connections	Rotolock	Brazed
Suction connection	1-3/4" Rotolock	1-3/8" ODF
Discharge connection	1-1/4" Rotolock	7/8" ODF
Suction connection with supplied sleeve	1-1/8" ODF	
Discharge connection with supplied sleeve	3/4" ODF	
Oil sight glass	Threaded	Threaded
Oil equalisation connection	3/8" flare SAE	3/8" flare SAE
Oil drain connection	1/4" flare	1/4" flare
LP gauge port	Schrader	Schrader
IPR valve	None	None
Swept volume	166,6 cm <sup>3</sup> /rev	
Displacement @ Nominal speed	29.0 m <sup>3</sup> /h @ 2900 rpm - 35.0 m <sup>3</sup> /h @ 3500 rpm	
Net weight	78 kg	
Oil charge	3,8 litre, Mineral - 160P	
Maximum system test pressure Low Side / High side	25 bar(g) / 32 bar(g)	
Maximum differential test pressure	24 bar	
Maximum number of starts per hour	12	
Refrigerant charge limit	11 kg	
Approved refrigerants	R22, R417A-160SZ	

**Dimensions**


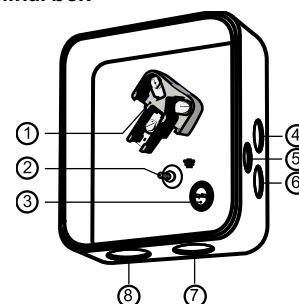
D=253 mm

H=579 mm

H1=180 mm

H2=536 mm

H3=- mm

**Terminal box**


IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M5
- 3: Thermostat connector
- 4: Knock-out Ø 22 mm (7/8") for 1/2" conduit
- 5: Knock-out Ø 16.5 mm (0.65")
- 6: Knock-out Ø 20.5 mm (0.81")
- 7: Double knock-out Ø 32.1 mm (1.26") & Ø 25.4 mm (1")
- 8: Double knock-out Ø 44 mm (1-3/4") for 1-1/4" conduit & Ø 34 mm (1-3/8") for 1" conduit

**Electrical Characteristics**

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	1.16 Ω
Maximum Must Trip current (MMT)	25 A
Locked Rotor Amps (LRA)	120 A
Motor protection	Internal thermostat, ext. overload protector needed

**Recommended Installation torques**

Suction Rotolock nut or valve	110 Nm
Discharge Rotolock nut or valve	90 Nm
Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Terminal box cover screws	2,3 Nm
Mounting bolts	21 Nm

**Parts shipped with compressor**

Mounting kit with grommets, bolts, nuts, sleeves and washers
Initial oil charge
Installation instructions

**Approvals** : CE certified, UL certified (file SA6873), -

\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

**Rotolock accessories, suction side**
**Code no.**

Solder sleeve, P02 (1-3/4" Rotolock, 1-1/8" ODF)	8153004
Solder sleeve, P10 (1-3/4" Rotolock, 1-3/8" ODF)	8153003
Angle adapter, C02 (1-3/4" Rotolock, 1-1/8" ODF)	8168005
Rotolock valve, V02 (1-3/4" Rotolock, 1-1/8" ODF)	8168028
Rotolock valve, V10 (1-3/4" Rotolock, 1-3/8" ODF)	8168022
Gasket, 1-3/4"	8156132

**Rotolock accessories, discharge 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
Rotolock valve, V05 (1-1/4" Rotolock, 7/8" ODF)	8168030
Gasket, 1-1/4"	8156131

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

Solder sleeve adapter set (1-3/4" Rotolock, 1-3/8" ODF), (1-1/4" Rotolock, 7/8" ODF)	7765006
Angle adapter set, C02 (1-3/4"~1-1/8"), C04 (1-1/4"~3/4")	7703014
Valve set, V02 (1-3/4"~1-1/8"), V04 (1-1/4"~3/4")	7703009
Gasket set, 1-1/4", 1-3/4", 2-1/4", OSG gaskets black & white	8156013

**Oil / lubricants**
**Code no.**

Mineral oil, 160P, 2 litre can	7754001
Mineral oil, 160P, 5 litre can	7754002

**Crankcase heaters**
**Code no.**

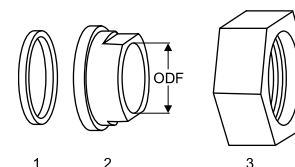
Surface sump heater + bottom insulation, 48 W, 24 V, CE mark, UL	120Z0363
Surface sump heater + bottom insulation, 48 W, 230 V, CE mark, UL	120Z0384
Surface sump heater + bottom insulation, 48 W, 400 V, CE mark, UL	120Z0385
Surface sump heater + bottom insulation, 48 W, 460 V, CE mark, UL	120Z0386
Belt type crankcase heater, 65 W, 460 V, CE mark, UL	120Z0466
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	7773107
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	7773117
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0039

**Miscellaneous accessories**
**Code no.**

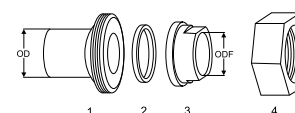
Electronic soft start kit, MCI 25 C	7705007
Soft start kit with statoric resistors, prewired box, SCR03	7705001
Acoustic hood for scroll compressor S115-S125	7755009
Bottom insulation for scroll compressor	120Z0357
Discharge thermostat kit	7750009

**Spare parts**
**Code no.**

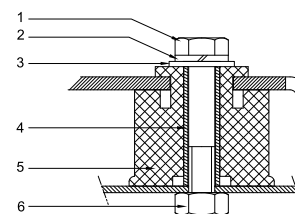
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers, 2 rotolock nuts, 2 solder sleeves, 2 gaskets	8156146
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 186 x 198 mm, incl cover	8156139
T block connector 60 x 75 mm	8173021

**Gaskets, sleeves and nuts**


- 1: Gasket
- 2: Solder sleeve
- 3: Rotolock nut

**Solder sleeve adapter set**


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

**Mounting kit**


- 1: Bolt (4x)
- 2: Lock washer (4x)
- 3: Flat washer (4x)
- 4: Sleeve (4x)
- 5: Grommet (4x)
- 6: Nut (4x)

Performance data at 50 Hz, EN 12900 rating conditions

R22

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

Cooling capacity in W

30	12 017	14 811	18 082	21 881	26 262	31 277	36 979	43 421	-
35	11 280	14 057	17 306	21 079	25 430	30 410	36 074	42 472	-
40	10 421	13 177	16 401	20 145	24 462	29 405	35 025	41 377	-
45	-	12 157	15 352	19 064	23 344	28 244	33 818	40 118	-
50	-	-	14 146	17 821	22 060	26 914	32 436	38 679	-
55	-	-	-	16 403	20 596	25 398	30 864	37 044	-
60	-	-	-	-	18 938	23 683	29 084	35 195	-
65	-	-	-	-	17 072	21 752	27 082	33 114	-

Power input in W

30	5 198	5 219	5 239	5 257	5 272	5 281	5 282	5 274	-
35	5 828	5 842	5 853	5 860	5 861	5 854	5 837	5 808	-
40	6 552	6 557	6 558	6 552	6 537	6 512	6 476	6 425	-
45	-	7 373	7 362	7 341	7 310	7 267	7 209	7 135	-
50	-	-	8 275	8 239	8 189	8 125	8 045	7 946	-
55	-	-	-	9 253	9 184	9 099	8 994	8 869	-
60	-	-	-	-	10 305	10 195	10 065	9 912	-
65	-	-	-	-	11 559	11 425	11 268	11 085	-

Current consumption in A

30	11.52	11.54	11.56	11.58	11.59	11.60	11.60	11.59	-
35	12.10	12.12	12.13	12.13	12.13	12.12	12.10	12.07	-
40	12.83	12.84	12.84	12.83	12.81	12.78	12.74	12.69	-
45	-	13.73	13.71	13.69	13.65	13.61	13.55	13.47	-
50	-	-	14.77	14.73	14.68	14.61	14.52	14.43	-
55	-	-	-	15.97	15.89	15.80	15.70	15.57	-
60	-	-	-	-	17.32	17.21	17.08	16.92	-
65	-	-	-	-	18.98	18.84	18.68	18.50	-

Mass flow in kg/h

30	258	315	380	454	538	633	741	862	-
35	252	310	377	453	540	638	748	872	-
40	244	303	372	451	540	641	755	883	-
45	-	293	364	445	538	642	760	892	-
50	-	-	351	436	532	641	763	899	-
55	-	-	-	421	522	635	761	902	-
60	-	-	-	-	505	623	755	902	-
65	-	-	-	-	483	606	743	896	-

Coefficient of performance (C.O.P.)

30	2.31	2.84	3.45	4.16	4.98	5.92	7.00	8.23	-
35	1.94	2.41	2.96	3.60	4.34	5.20	6.18	7.31	-
40	1.59	2.01	2.50	3.07	3.74	4.52	5.41	6.44	-
45	-	1.65	2.09	2.60	3.19	3.89	4.69	5.62	-
50	-	-	1.71	2.16	2.69	3.31	4.03	4.87	-
55	-	-	-	1.77	2.24	2.79	3.43	4.18	-
60	-	-	-	-	1.84	2.32	2.89	3.55	-
65	-	-	-	-	1.48	1.90	2.40	2.99	-

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

Cooling capacity	26 914	W
Power input	8 125	W
Current consumption	14.61	A
Mass flow	641	kg/h
C.O.P.	3.31	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	76	dB(A)
With acoustic hood	68	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)							
	-20	-15	-10	-5	0	5	10	15

**Cooling capacity in W**

30	12 752	15 705	19 159	23 167	27 786	33 070	39 073	45 851	-
35	12 012	14 957	18 398	22 392	26 993	32 256	38 236	44 987	-
40	11 141	14 074	17 502	21 479	26 060	31 300	37 255	43 978	-
45	-	13 042	16 453	20 412	24 971	30 187	36 114	42 806	-
50	-	-	15 236	19 174	23 710	28 899	34 796	41 456	-
55	-	-	-	17 748	22 259	27 419	33 285	39 911	-
60	-	-	-	-	20 601	25 732	31 564	38 154	-
65	-	-	-	-	18 721	23 819	29 617	36 168	-

**Power input in W**

30	5 198	5 219	5 239	5 257	5 272	5 281	5 282	5 274	-
35	5 828	5 842	5 853	5 860	5 861	5 854	5 837	5 808	-
40	6 552	6 557	6 558	6 552	6 537	6 512	6 476	6 425	-
45	-	7 373	7 362	7 341	7 310	7 267	7 209	7 135	-
50	-	-	8 275	8 239	8 189	8 125	8 045	7 946	-
55	-	-	-	9 253	9 184	9 099	8 994	8 869	-
60	-	-	-	-	10 305	10 195	10 065	9 912	-
65	-	-	-	-	11 559	11 425	11 268	11 085	-

**Current consumption in A**

30	11.52	11.54	11.56	11.58	11.59	11.60	11.60	11.59	-
35	12.10	12.12	12.13	12.13	12.13	12.12	12.10	12.07	-
40	12.83	12.84	12.84	12.83	12.81	12.78	12.74	12.69	-
45	-	13.73	13.71	13.69	13.65	13.61	13.55	13.47	-
50	-	-	14.77	14.73	14.68	14.61	14.52	14.43	-
55	-	-	-	15.97	15.89	15.80	15.70	15.57	-
60	-	-	-	-	17.32	17.21	17.08	16.92	-
65	-	-	-	-	18.98	18.84	18.68	18.50	-

**Mass flow in kg/h**

30	257	313	378	451	535	630	737	857	-
35	251	309	375	451	537	634	744	867	-
40	242	302	370	448	537	638	751	877	-
45	-	291	362	443	535	639	756	887	-
50	-	-	349	433	529	637	758	894	-
55	-	-	-	419	519	631	757	897	-
60	-	-	-	-	503	620	751	896	-
65	-	-	-	-	480	602	739	890	-

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

30	2.45	3.01	3.66	4.41	5.27	6.26	7.40	8.69	-
35	2.06	2.56	3.14	3.82	4.61	5.51	6.55	7.75	-
40	1.70	2.15	2.67	3.28	3.99	4.81	5.75	6.84	-
45	-	1.77	2.24	2.78	3.42	4.15	5.01	6.00	-
50	-	-	1.84	2.33	2.90	3.56	4.33	5.22	-
55	-	-	-	1.92	2.42	3.01	3.70	4.50	-
60	-	-	-	-	2.00	2.52	3.14	3.85	-
65	-	-	-	-	1.62	2.08	2.63	3.26	-

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

Cooling capacity	30 100	W
Power input	8 933	W
Current consumption	15.61	A
Mass flow	685	kg/h
C.O.P.	3.37	

**Pressure switch settings**

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	76	dB(A)
With acoustic hood	68	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)							
	-20	-15	-10	-5	0	5	10	15

Cooling capacity in W

30	15 517	19 402	23 739	28 546	33 837	39 628	45 935	52 773	-
35	14 596	18 426	22 695	27 417	32 608	38 285	44 463	51 157	-
40	13 613	17 377	21 565	26 193	31 275	36 827	42 865	49 404	-
45	-	16 250	20 348	24 870	29 831	35 248	41 135	47 509	-
50	-	-	19 037	23 443	28 273	33 544	39 270	45 467	-
55	-	-	-	21 908	26 596	31 708	37 261	43 270	-
60	-	-	-	-	24 794	29 737	35 104	40 912	-
65	-	-	-	-	22 862	27 622	32 791	38 385	-

Power input in W

30	6 301	6 357	6 418	6 482	6 549	6 617	6 686	6 753	-
35	7 048	7 098	7 151	7 206	7 262	7 317	7 371	7 422	-
40	7 893	7 936	7 981	8 026	8 069	8 110	8 148	8 181	-
45	-	8 881	8 916	8 949	8 979	9 004	9 025	9 039	-
50	-	-	9 965	9 985	10 000	10 010	10 012	10 006	-
55	-	-	-	11 145	11 144	11 135	11 118	11 090	-
60	-	-	-	-	12 418	12 390	12 352	12 301	-
65	-	-	-	-	13 832	13 784	13 723	13 649	-

Current consumption in A

30	10.90	10.95	11.02	11.11	11.21	11.34	11.47	11.63	-
35	11.59	11.64	11.70	11.77	11.86	11.96	12.08	12.21	-
40	12.45	12.49	12.53	12.59	12.65	12.73	12.82	12.93	-
45	-	13.50	13.53	13.57	13.62	13.67	13.73	13.81	-
50	-	-	14.72	14.74	14.76	14.79	14.83	14.87	-
55	-	-	-	16.11	16.11	16.11	16.11	16.13	-
60	-	-	-	-	17.67	17.65	17.62	17.59	-
65	-	-	-	-	19.48	19.42	19.36	19.29	-

Mass flow in kg/h

30	334	412	498	591	692	802	920	1 046	-
35	327	407	494	589	693	804	923	1 051	-
40	318	400	489	586	691	804	925	1 054	-
45	-	391	482	581	688	802	925	1 056	-
50	-	-	472	573	682	798	923	1 056	-
55	-	-	-	563	673	792	918	1 053	-
60	-	-	-	-	662	782	910	1 047	-
65	-	-	-	-	646	769	899	1 038	-

Coefficient of performance (C.O.P.)

30	2.46	3.05	3.70	4.40	5.17	5.99	6.87	7.81	-
35	2.07	2.60	3.17	3.80	4.49	5.23	6.03	6.89	-
40	1.72	2.19	2.70	3.26	3.88	4.54	5.26	6.04	-
45	-	1.83	2.28	2.78	3.32	3.91	4.56	5.26	-
50	-	-	1.91	2.35	2.83	3.35	3.92	4.54	-
55	-	-	-	1.97	2.39	2.85	3.35	3.90	-
60	-	-	-	-	2.00	2.40	2.84	3.33	-
65	-	-	-	-	1.65	2.00	2.39	2.81	-

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

Cooling capacity	33 544	W
Power input	10 010	W
Current consumption	14.79	A
Mass flow	798	kg/h
C.O.P.	3.35	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	79	dB(A)
With acoustic hood	71	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)							
	-20	-15	-10	-5	0	5	10	15

Cooling capacity in W

30	16 466	20 573	25 154	30 224	35 801	41 900	48 536	55 726	-
35	15 544	19 606	24 127	29 124	34 613	40 609	47 128	54 186	-
40	14 554	18 561	23 013	27 927	33 318	39 201	45 593	52 510	-
45	-	17 433	21 807	26 628	31 911	37 672	43 927	50 693	-
50	-	-	20 504	25 222	30 388	36 017	42 126	48 731	-
55	-	-	-	23 704	28 743	34 231	40 185	46 619	-
60	-	-	-	-	26 972	32 309	38 097	44 352	-
65	-	-	-	-	25 070	30 247	35 860	41 924	-

Power input in W

30	6 301	6 357	6 418	6 482	6 549	6 617	6 686	6 753	-
35	7 048	7 098	7 151	7 206	7 262	7 317	7 371	7 422	-
40	7 893	7 936	7 981	8 026	8 069	8 110	8 148	8 181	-
45	-	8 881	8 916	8 949	8 979	9 004	9 025	9 039	-
50	-	-	9 965	9 985	10 000	10 010	10 012	10 006	-
55	-	-	-	11 145	11 144	11 135	11 118	11 090	-
60	-	-	-	-	12 418	12 390	12 352	12 301	-
65	-	-	-	-	13 832	13 784	13 723	13 649	-

Current consumption in A

30	10.90	10.95	11.02	11.11	11.21	11.34	11.47	11.63	-
35	11.59	11.64	11.70	11.77	11.86	11.96	12.08	12.21	-
40	12.45	12.49	12.53	12.59	12.65	12.73	12.82	12.93	-
45	-	13.50	13.53	13.57	13.62	13.67	13.73	13.81	-
50	-	-	14.72	14.74	14.76	14.79	14.83	14.87	-
55	-	-	-	16.11	16.11	16.11	16.11	16.13	-
60	-	-	-	-	17.67	17.65	17.62	17.59	-
65	-	-	-	-	19.48	19.42	19.36	19.29	-

Mass flow in kg/h

30	332	410	495	588	689	798	915	1 040	-
35	325	405	492	586	689	799	918	1 045	-
40	316	398	487	583	687	799	920	1 048	-
45	-	389	480	578	684	798	920	1 050	-
50	-	-	470	570	678	794	918	1 050	-
55	-	-	-	560	670	787	913	1 047	-
60	-	-	-	-	658	778	905	1 041	-
65	-	-	-	-	643	765	894	1 032	-

Coefficient of performance (C.O.P.)

30	2.61	3.24	3.92	4.66	5.47	6.33	7.26	8.25	-
35	2.21	2.76	3.37	4.04	4.77	5.55	6.39	7.30	-
40	1.84	2.34	2.88	3.48	4.13	4.83	5.60	6.42	-
45	-	1.96	2.45	2.98	3.55	4.18	4.87	5.61	-
50	-	-	2.06	2.53	3.04	3.60	4.21	4.87	-
55	-	-	-	2.13	2.58	3.07	3.61	4.20	-
60	-	-	-	-	2.17	2.61	3.08	3.61	-
65	-	-	-	-	1.81	2.19	2.61	3.07	-

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

Cooling capacity	37 022	W
Power input	10 988	W
Current consumption	15.94	A
Mass flow	843	kg/h
C.O.P.	3.37	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	79	dB(A)
With acoustic hood	71	dB(A)

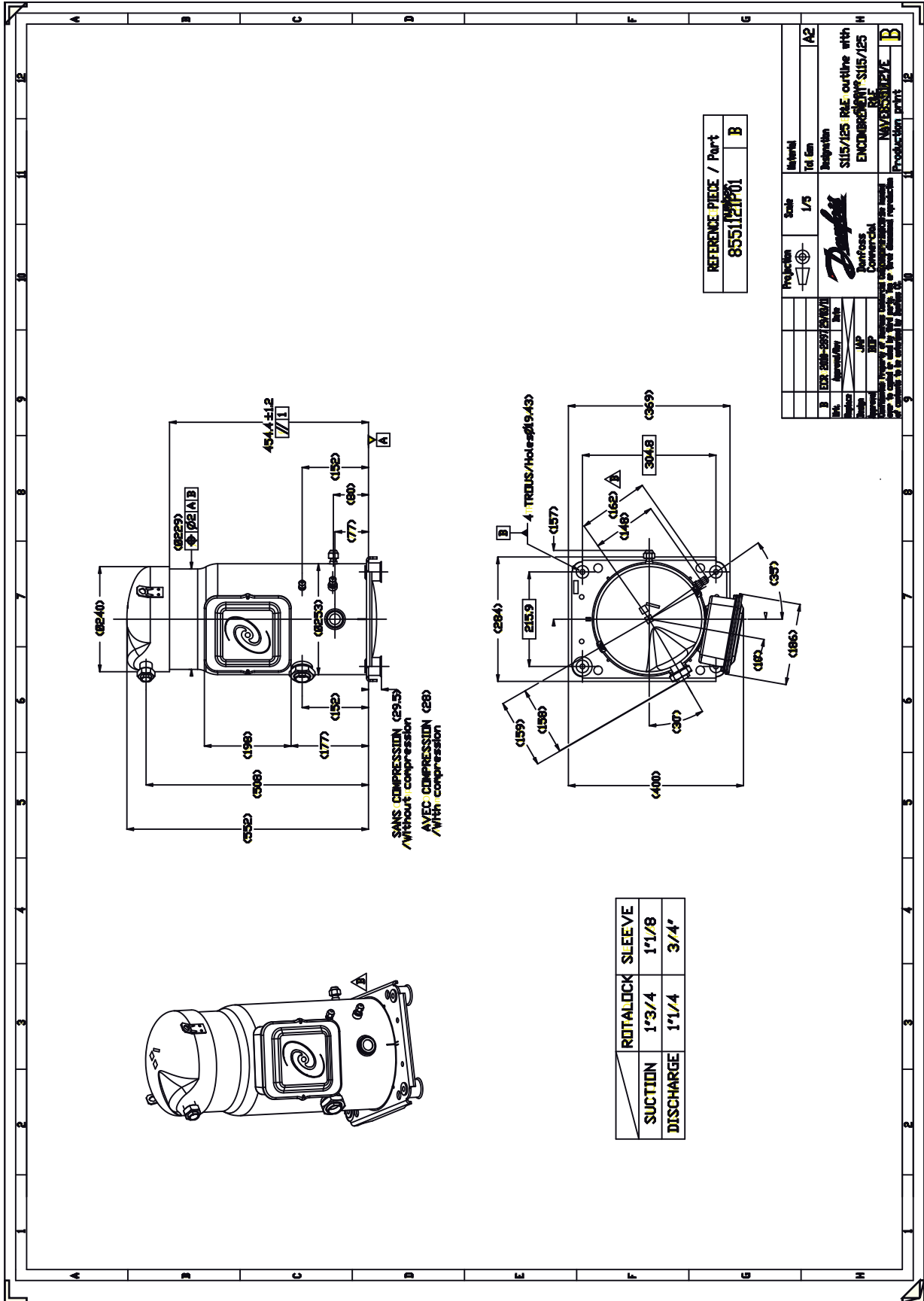
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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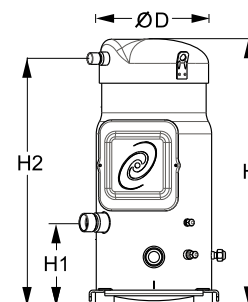




**General Characteristics**

Model number (on compressor nameplate)		<b>SM125S4QC</b>
Code number for Singlepack*		SM125-4QAI
Drawing number		8551111b
Suction and discharge connections		Brazed
Suction connection		1-3/8" ODF
Discharge connection		7/8" ODF
Oil sight glass		Threaded
Oil equalisation connection		3/8" ODF
Oil drain connection		1/4" flare
LP gauge port		Schrader
IPR valve		None
Swept volume		166,6 cm <sup>3</sup> /rev
Displacement @ Nominal speed		29.0 m <sup>3</sup> /h @ 2900 rpm - 35.0 m <sup>3</sup> /h @ 3500 rpm
Net weight		78 kg
Oil charge		3,8 litre, Mineral - 160P
Maximum system test pressure Low Side / High side		25 bar(g) / 32 bar(g)
Maximum differential test pressure		24 bar
Maximum number of starts per hour		12
Refrigerant charge limit		11 kg
Approved refrigerants		R22, R417A-160SZ

**Dimensions**

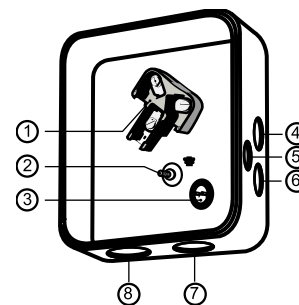


D=253 mm  
H=579 mm  
H1=180 mm  
H2=536 mm  
H3=- mm

**Electrical Characteristics**

Nominal voltage	380-400V/3/50Hz - 460V/3/60Hz
Voltage range	340-440 V @ 50Hz - 414-506 V @ 60Hz
Winding resistance (between phases) +/- 7% at 25°C	1.16 Ω
Maximum Must Trip current (MMT)	25 A
Locked Rotor Amps (LRA)	120 A
Motor protection	Internal thermostat, ext. overload protector needed

**Terminal box**



**Recommended Installation torques**

Oil sight glass	50 Nm
Power connections / Earth connection	3 Nm / 2 Nm
Terminal box cover screws	2,3 Nm
Mounting bolts	21 Nm

**Parts shipped with compressor**

Mounting kit with grommets, bolts, nuts, sleeves and washers
Initial oil charge
Installation instructions

IP54 (with cable gland)

- 1: Power connection, 3 x 4.8 mm (3/16")
- 2: Earth M5
- 3: Thermostat connector
- 4: Knock-out Ø 22 mm (7/8") for 1/2" conduit
- 5: Knock-out Ø 16.5 mm (0.65")
- 6: Knock-out Ø 20.5 mm (0.81")
- 7: Double knock-out Ø 32.1 mm (1.26") & Ø 25.4 mm (1")
- 8: Double knock-out Ø 44 mm (1-3/4") for 1-1/4" conduit & Ø 34 mm (1-3/8") for 1" conduit

**Approvals** : CE certified, UL certified (file SA6873), -

\*Singlepack: Compressor in cardboard box

\*\*Industrial pack: 6 Unboxed compressors on pallet (order per multiples of 6)

**Rotolock accessories, suction side** **Code no.**

**Rotolock accessories, discharge side** **Code no.**

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

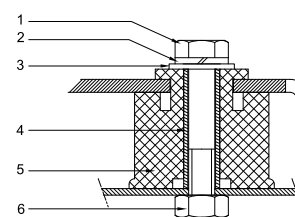
**Oil / lubricants** **Code no.**

Mineral oil, 160P, 2 litre can	7754001
Mineral oil, 160P, 5 litre can	7754002

**Crankcase heaters** **Code no.**

Surface sump heater + bottom insulation, 48 W, 24 V, CE mark, UL	120Z0363
Surface sump heater + bottom insulation, 48 W, 230 V, CE mark, UL	120Z0384
Surface sump heater + bottom insulation, 48 W, 400 V, CE mark, UL	120Z0385
Surface sump heater + bottom insulation, 48 W, 460 V, CE mark, UL	120Z0386
Belt type crankcase heater, 65 W, 460 V, CE mark, UL	120Z0466
Belt type crankcase heater, 65 W, 230 V, CE mark, UL	7773107
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	7773117
Belt type crankcase heater, 65 W, 400 V, CE mark, UL	120Z0039

**Mounting kit**



- 1: Bolt (4x)
- 2: Lock washer (4x)
- 3: Flat washer (4x)
- 4: Sleeve (4x)
- 5: Grommet (4x)
- 6: Nut (4x)

**Miscellaneous accessories** **Code no.**

Electronic soft start kit, MCI 25 C	7705007
Soft start kit with statoric resistors, prewired box, SCR03	7705001
Acoustic hood for scroll compressor S115-S125	7755009
Bottom insulation for scroll compressor	120Z0357
Discharge thermostat kit	7750009

**Spare parts** **Code no.**

Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers, 2 rotolock nuts, 2 solder sleeves, 2 gaskets	8156146
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 186 x 198 mm, incl cover	8156139
T block connector 60 x 75 mm	8173021

Performance data at 50 Hz, EN 12900 rating conditions

R22

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

Cooling capacity in W

30	12 017	14 811	18 082	21 881	26 262	31 277	36 979	43 421	-
35	11 280	14 057	17 306	21 079	25 430	30 410	36 074	42 472	-
40	10 421	13 177	16 401	20 145	24 462	29 405	35 025	41 377	-
45	-	12 157	15 352	19 064	23 344	28 244	33 818	40 118	-
50	-	-	14 146	17 821	22 060	26 914	32 436	38 679	-
55	-	-	-	16 403	20 596	25 398	30 864	37 044	-
60	-	-	-	-	18 938	23 683	29 084	35 195	-
65	-	-	-	-	17 072	21 752	27 082	33 114	-

Power input in W

30	5 198	5 219	5 239	5 257	5 272	5 281	5 282	5 274	-
35	5 828	5 842	5 853	5 860	5 861	5 854	5 837	5 808	-
40	6 552	6 557	6 558	6 552	6 537	6 512	6 476	6 425	-
45	-	7 373	7 362	7 341	7 310	7 267	7 209	7 135	-
50	-	-	8 275	8 239	8 189	8 125	8 045	7 946	-
55	-	-	-	9 253	9 184	9 099	8 994	8 869	-
60	-	-	-	-	10 305	10 195	10 065	9 912	-
65	-	-	-	-	11 559	11 425	11 268	11 085	-

Current consumption in A

30	11.52	11.54	11.56	11.58	11.59	11.60	11.60	11.59	-
35	12.10	12.12	12.13	12.13	12.13	12.12	12.10	12.07	-
40	12.83	12.84	12.84	12.83	12.81	12.78	12.74	12.69	-
45	-	13.73	13.71	13.69	13.65	13.61	13.55	13.47	-
50	-	-	14.77	14.73	14.68	14.61	14.52	14.43	-
55	-	-	-	15.97	15.89	15.80	15.70	15.57	-
60	-	-	-	-	17.32	17.21	17.08	16.92	-
65	-	-	-	-	18.98	18.84	18.68	18.50	-

Mass flow in kg/h

30	258	315	380	454	538	633	741	862	-
35	252	310	377	453	540	638	748	872	-
40	244	303	372	451	540	641	755	883	-
45	-	293	364	445	538	642	760	892	-
50	-	-	351	436	532	641	763	899	-
55	-	-	-	421	522	635	761	902	-
60	-	-	-	-	505	623	755	902	-
65	-	-	-	-	483	606	743	896	-

Coefficient of performance (C.O.P.)

30	2.31	2.84	3.45	4.16	4.98	5.92	7.00	8.23	-
35	1.94	2.41	2.96	3.60	4.34	5.20	6.18	7.31	-
40	1.59	2.01	2.50	3.07	3.74	4.52	5.41	6.44	-
45	-	1.65	2.09	2.60	3.19	3.89	4.69	5.62	-
50	-	-	1.71	2.16	2.69	3.31	4.03	4.87	-
55	-	-	-	1.77	2.24	2.79	3.43	4.18	-
60	-	-	-	-	1.84	2.32	2.89	3.55	-
65	-	-	-	-	1.48	1.90	2.40	2.99	-

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

Cooling capacity	26 914	W
Power input	8 125	W
Current consumption	14.61	A
Mass flow	641	kg/h
C.O.P.	3.31	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	76	dB(A)
With acoustic hood	68	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)							
	-20	-15	-10	-5	0	5	10	15

**Cooling capacity in W**

30	12 752	15 705	19 159	23 167	27 786	33 070	39 073	45 851	-
35	12 012	14 957	18 398	22 392	26 993	32 256	38 236	44 987	-
40	11 141	14 074	17 502	21 479	26 060	31 300	37 255	43 978	-
45	-	13 042	16 453	20 412	24 971	30 187	36 114	42 806	-
50	-	-	15 236	19 174	23 710	28 899	34 796	41 456	-
55	-	-	-	17 748	22 259	27 419	33 285	39 911	-
60	-	-	-	-	20 601	25 732	31 564	38 154	-
65	-	-	-	-	18 721	23 819	29 617	36 168	-

**Power input in W**

30	5 198	5 219	5 239	5 257	5 272	5 281	5 282	5 274	-
35	5 828	5 842	5 853	5 860	5 861	5 854	5 837	5 808	-
40	6 552	6 557	6 558	6 552	6 537	6 512	6 476	6 425	-
45	-	7 373	7 362	7 341	7 310	7 267	7 209	7 135	-
50	-	-	8 275	8 239	8 189	8 125	8 045	7 946	-
55	-	-	-	9 253	9 184	9 099	8 994	8 869	-
60	-	-	-	-	10 305	10 195	10 065	9 912	-
65	-	-	-	-	11 559	11 425	11 268	11 085	-

**Current consumption in A**

30	11.52	11.54	11.56	11.58	11.59	11.60	11.60	11.59	-
35	12.10	12.12	12.13	12.13	12.13	12.12	12.10	12.07	-
40	12.83	12.84	12.84	12.83	12.81	12.78	12.74	12.69	-
45	-	13.73	13.71	13.69	13.65	13.61	13.55	13.47	-
50	-	-	14.77	14.73	14.68	14.61	14.52	14.43	-
55	-	-	-	15.97	15.89	15.80	15.70	15.57	-
60	-	-	-	-	17.32	17.21	17.08	16.92	-
65	-	-	-	-	18.98	18.84	18.68	18.50	-

**Mass flow in kg/h**

30	257	313	378	451	535	630	737	857	-
35	251	309	375	451	537	634	744	867	-
40	242	302	370	448	537	638	751	877	-
45	-	291	362	443	535	639	756	887	-
50	-	-	349	433	529	637	758	894	-
55	-	-	-	419	519	631	757	897	-
60	-	-	-	-	503	620	751	896	-
65	-	-	-	-	480	602	739	890	-

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

30	2.45	3.01	3.66	4.41	5.27	6.26	7.40	8.69	-
35	2.06	2.56	3.14	3.82	4.61	5.51	6.55	7.75	-
40	1.70	2.15	2.67	3.28	3.99	4.81	5.75	6.84	-
45	-	1.77	2.24	2.78	3.42	4.15	5.01	6.00	-
50	-	-	1.84	2.33	2.90	3.56	4.33	5.22	-
55	-	-	-	1.92	2.42	3.01	3.70	4.50	-
60	-	-	-	-	2.00	2.52	3.14	3.85	-
65	-	-	-	-	1.62	2.08	2.63	3.26	-

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

Cooling capacity	30 100	W
Power input	8 933	W
Current consumption	15.61	A
Mass flow	685	kg/h
C.O.P.	3.37	

**Pressure switch settings**

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

**Sound power data**

Sound power level	76	dB(A)
With acoustic hood	68	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)							
	-20	-15	-10	-5	0	5	10	15

Cooling capacity in W

30	15 517	19 402	23 739	28 546	33 837	39 628	45 935	52 773	-
35	14 596	18 426	22 695	27 417	32 608	38 285	44 463	51 157	-
40	13 613	17 377	21 565	26 193	31 275	36 827	42 865	49 404	-
45	-	16 250	20 348	24 870	29 831	35 248	41 135	47 509	-
50	-	-	19 037	23 443	28 273	33 544	39 270	45 467	-
55	-	-	-	21 908	26 596	31 708	37 261	43 270	-
60	-	-	-	-	24 794	29 737	35 104	40 912	-
65	-	-	-	-	22 862	27 622	32 791	38 385	-

Power input in W

30	6 301	6 357	6 418	6 482	6 549	6 617	6 686	6 753	-
35	7 048	7 098	7 151	7 206	7 262	7 317	7 371	7 422	-
40	7 893	7 936	7 981	8 026	8 069	8 110	8 148	8 181	-
45	-	8 881	8 916	8 949	8 979	9 004	9 025	9 039	-
50	-	-	9 965	9 985	10 000	10 010	10 012	10 006	-
55	-	-	-	11 145	11 144	11 135	11 118	11 090	-
60	-	-	-	-	12 418	12 390	12 352	12 301	-
65	-	-	-	-	13 832	13 784	13 723	13 649	-

Current consumption in A

30	10.90	10.95	11.02	11.11	11.21	11.34	11.47	11.63	-
35	11.59	11.64	11.70	11.77	11.86	11.96	12.08	12.21	-
40	12.45	12.49	12.53	12.59	12.65	12.73	12.82	12.93	-
45	-	13.50	13.53	13.57	13.62	13.67	13.73	13.81	-
50	-	-	14.72	14.74	14.76	14.79	14.83	14.87	-
55	-	-	-	16.11	16.11	16.11	16.11	16.13	-
60	-	-	-	-	17.67	17.65	17.62	17.59	-
65	-	-	-	-	19.48	19.42	19.36	19.29	-

Mass flow in kg/h

30	334	412	498	591	692	802	920	1 046	-
35	327	407	494	589	693	804	923	1 051	-
40	318	400	489	586	691	804	925	1 054	-
45	-	391	482	581	688	802	925	1 056	-
50	-	-	472	573	682	798	923	1 056	-
55	-	-	-	563	673	792	918	1 053	-
60	-	-	-	-	662	782	910	1 047	-
65	-	-	-	-	646	769	899	1 038	-

Coefficient of performance (C.O.P.)

30	2.46	3.05	3.70	4.40	5.17	5.99	6.87	7.81	-
35	2.07	2.60	3.17	3.80	4.49	5.23	6.03	6.89	-
40	1.72	2.19	2.70	3.26	3.88	4.54	5.26	6.04	-
45	-	1.83	2.28	2.78	3.32	3.91	4.56	5.26	-
50	-	-	1.91	2.35	2.83	3.35	3.92	4.54	-
55	-	-	-	1.97	2.39	2.85	3.35	3.90	-
60	-	-	-	-	2.00	2.40	2.84	3.33	-
65	-	-	-	-	1.65	2.00	2.39	2.81	-

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

Cooling capacity	33 544	W
Power input	10 010	W
Current consumption	14.79	A
Mass flow	798	kg/h
C.O.P.	3.35	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	79	dB(A)
With acoustic hood	71	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)							
	-20	-15	-10	-5	0	5	10	15

Cooling capacity in W

30	16 466	20 573	25 154	30 224	35 801	41 900	48 536	55 726	-
35	15 544	19 606	24 127	29 124	34 613	40 609	47 128	54 186	-
40	14 554	18 561	23 013	27 927	33 318	39 201	45 593	52 510	-
45	-	17 433	21 807	26 628	31 911	37 672	43 927	50 693	-
50	-	-	20 504	25 222	30 388	36 017	42 126	48 731	-
55	-	-	-	23 704	28 743	34 231	40 185	46 619	-
60	-	-	-	-	26 972	32 309	38 097	44 352	-
65	-	-	-	-	25 070	30 247	35 860	41 924	-

Power input in W

30	6 301	6 357	6 418	6 482	6 549	6 617	6 686	6 753	-
35	7 048	7 098	7 151	7 206	7 262	7 317	7 371	7 422	-
40	7 893	7 936	7 981	8 026	8 069	8 110	8 148	8 181	-
45	-	8 881	8 916	8 949	8 979	9 004	9 025	9 039	-
50	-	-	9 965	9 985	10 000	10 010	10 012	10 006	-
55	-	-	-	11 145	11 144	11 135	11 118	11 090	-
60	-	-	-	-	12 418	12 390	12 352	12 301	-
65	-	-	-	-	13 832	13 784	13 723	13 649	-

Current consumption in A

30	10.90	10.95	11.02	11.11	11.21	11.34	11.47	11.63	-
35	11.59	11.64	11.70	11.77	11.86	11.96	12.08	12.21	-
40	12.45	12.49	12.53	12.59	12.65	12.73	12.82	12.93	-
45	-	13.50	13.53	13.57	13.62	13.67	13.73	13.81	-
50	-	-	14.72	14.74	14.76	14.79	14.83	14.87	-
55	-	-	-	16.11	16.11	16.11	16.11	16.13	-
60	-	-	-	-	17.67	17.65	17.62	17.59	-
65	-	-	-	-	19.48	19.42	19.36	19.29	-

Mass flow in kg/h

30	332	410	495	588	689	798	915	1 040	-
35	325	405	492	586	689	799	918	1 045	-
40	316	398	487	583	687	799	920	1 048	-
45	-	389	480	578	684	798	920	1 050	-
50	-	-	470	570	678	794	918	1 050	-
55	-	-	-	560	670	787	913	1 047	-
60	-	-	-	-	658	778	905	1 041	-
65	-	-	-	-	643	765	894	1 032	-

Coefficient of performance (C.O.P.)

30	2.61	3.24	3.92	4.66	5.47	6.33	7.26	8.25	-
35	2.21	2.76	3.37	4.04	4.77	5.55	6.39	7.30	-
40	1.84	2.34	2.88	3.48	4.13	4.83	5.60	6.42	-
45	-	1.96	2.45	2.98	3.55	4.18	4.87	5.61	-
50	-	-	2.06	2.53	3.04	3.60	4.21	4.87	-
55	-	-	-	2.13	2.58	3.07	3.61	4.20	-
60	-	-	-	-	2.17	2.61	3.08	3.61	-
65	-	-	-	-	1.81	2.19	2.61	3.07	-

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

Cooling capacity	37 022	W
Power input	10 988	W
Current consumption	15.94	A
Mass flow	843	kg/h
C.O.P.	3.37	

Pressure switch settings

Maximum HP switch setting	28	bar(g)
Minimum LP switch setting	0.5	bar(g)
LP pump down setting	1.3	bar(g)

Sound power data

Sound power level	79	dB(A)
With acoustic hood	71	dB(A)

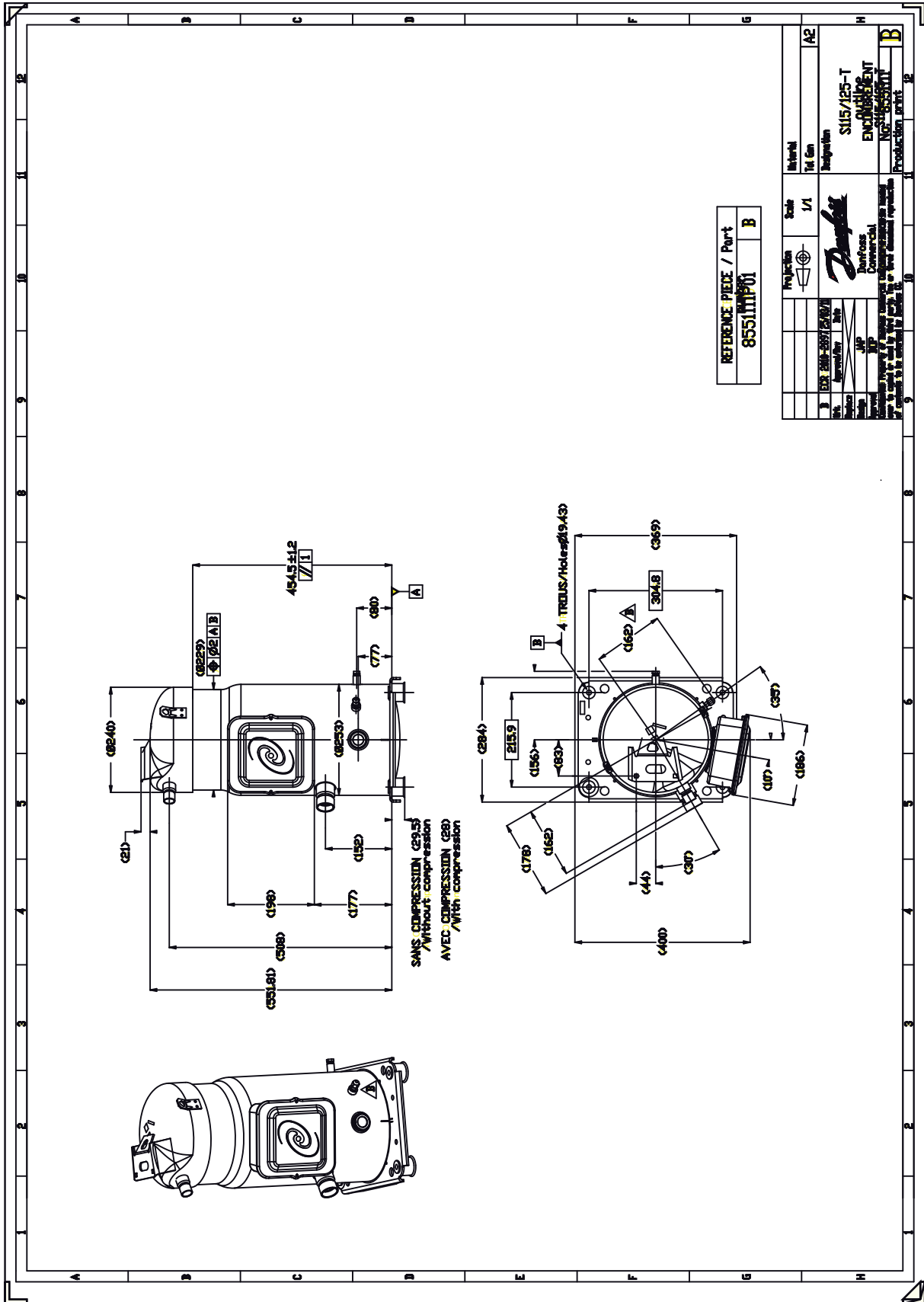
to: Evaporating temperature at dew point

tc: Condensing temperature at dew point

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

All performance data +/- 5%

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