



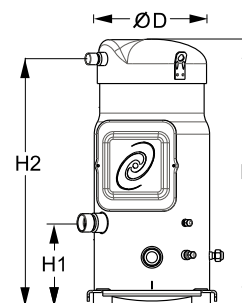
Datasheets

Performer[®] scroll compressors **SM / SY / SZ / SH**

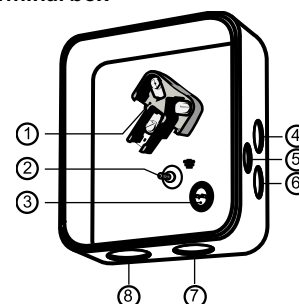


General Characteristics

Model number (on compressor nameplate)	SZ125S4RC	SZ125S4CC
Code number for Singlepack*	SZ125-4RI	SZ125-4CAI
Code number for Industrial pack**	SZ125-4RM	SZ125-4CAM
Drawing number	8551121b	8551112b
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 equalization 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	10.17 in3/rev	
Displacement @ Nominal speed	1024 cfh @ 2900 rpm - 1236 cfh @ 3500 rpm	
Net weight	172 lbs	
Oil charge	128 oz, POE - 160SZ	
Maximum system test pressure Low Side / High side	363 psi / 464 psi	
Maximum differential test pressure	348 psi	
Maximum number of starts per hour	12	
Refrigerant charge limit	24 lbs	
Approved refrigerants	R407C, R134a, R404A, R507A	

Dimensions


D=10 inch, H=22.8 inch,
H1=7.1 inch, H2=21.1 inch

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 77°F	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	81 ft.lbs
Discharge Rotolock nut or valve	66 ft.lbs
Oil sight glass	37 ft.lbs
Power connections / Earth connection	2 ft.lbs / 1 ft.lbs
Terminal box cover screws	2 ft.lbs
Mounting bolts	15 ft.lbs

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, 1-3/8" ODF & 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.

POE lubricant, 160SZ, 1 liter can	7754023
POE lubricant, 160SZ, 2 liter can	7754024

Crankcase heaters
Code no.

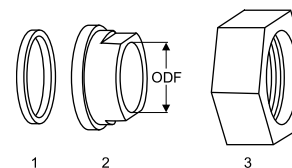
Surface sump heater + bottom insulation, 48 W, 24 V, CE mark, UL	120Z0363
Surface sump heater + bottom insulation, 48 W, 230 V, CE mark, UL	120Z0384
Surface sump heater + bottom insulation, 48 W, 400 V, CE mark, UL	120Z0385
Surface sump heater + bottom insulation, 48 W, 460 V, CE mark	120Z0386
Belt type 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.

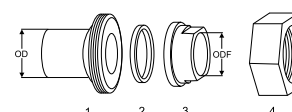
Electronic soft start kit, MCI 25 C	7705007
Soft start kit with static resistors, prewired box, SCR03	7705001
Acoustic hood for scroll compressor S115-S125	7755009
Discharge thermostat kit	7750009

Spare parts
Code no.

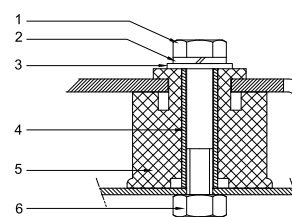
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156138
Mounting kit for 1 scroll compressor including 4 grommets, 4 sleeves, 4 bolts, 4 washers	8156146
Oil sight glass with gaskets (black & white)	8156019
Gasket for oil sight glass (white teflon)	8156129
Terminal box 7.3" x 7.8" incl cover	8156139
T block connector 2.4" x 3"	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 60 Hz, ARI rating conditions
R407C

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	0	10	20	30	35	40	45	50	55

Cooling capacity in Btu/h

90	53 131	69 161	88 488	111 473	124 451	138 480	153 606	169 873	187 327
100	49 690	65 142	83 710	105 756	118 198	131 645	146 143	161 738	178 475
110	-	60 797	78 484	99 469	111 313	124 117	137 927	152 788	168 747
120	-	56 118	72 802	92 604	103 788	115 888	128 949	143 016	158 135
130	-	-	66 656	85 153	95 617	106 952	119 202	132 414	146 633
140	-	-	-	77 108	86 791	97 299	108 678	120 973	134 230
150	-	-	-	-	-	86 921	97 368	108 686	120 920

Power input in W

90	6 548	6 637	6 698	6 723	6 719	6 702	6 671	6 626	6 564
100	7 347	7 439	7 505	7 535	7 534	7 521	7 494	7 452	7 395
110	-	8 383	8 454	8 490	8 493	8 483	8 460	8 423	8 370
120	-	9 487	9 564	9 607	9 614	9 608	9 589	9 557	9 509
130	-	-	10 855	10 906	10 916	10 915	10 901	10 874	10 831
140	-	-	-	12 406	12 421	12 424	12 416	12 393	12 356
150	-	-	-	-	-	14 155	14 152	14 135	14 104

Current consumption in A

90	10.50	10.61	10.67	10.70	10.69	10.66	10.61	10.55	10.46
100	11.43	11.54	11.62	11.65	11.64	11.62	11.58	11.52	11.45
110	-	12.67	12.76	12.80	12.80	12.78	12.75	12.70	12.63
120	-	14.02	14.12	14.18	14.18	14.17	14.15	14.11	14.04
130	-	-	15.74	15.81	15.82	15.82	15.81	15.77	15.72
140	-	-	-	17.73	17.75	17.76	17.75	17.73	17.68
150	-	-	-	-	-	20.02	20.02	20.00	19.97

Mass flow in lbs/h

90	671	856	1 074	1 329	1 471	1 623	1 786	1 961	2 147
100	659	846	1 066	1 322	1 465	1 618	1 782	1 956	2 143
110	-	834	1 054	1 311	1 454	1 606	1 770	1 945	2 131
120	-	817	1 037	1 293	1 435	1 587	1 750	1 924	2 110
130	-	-	1 014	1 268	1 409	1 560	1 722	1 894	2 078
140	-	-	-	1 234	1 374	1 523	1 683	1 854	2 036
150	-	-	-	-	-	1 476	1 634	1 802	1 982

Energy Efficiency Ratio (E.E.R.)

90	8.11	10.42	13.21	16.58	18.52	20.66	23.03	25.64	28.54
100	6.76	8.76	11.15	14.03	15.69	17.50	19.50	21.70	24.13
110	-	7.25	9.28	11.72	13.11	14.63	16.30	18.14	20.16
120	-	5.92	7.61	9.64	10.80	12.06	13.45	14.97	16.63
130	-	-	6.14	7.81	8.76	9.80	10.93	12.18	13.54
140	-	-	-	6.22	6.99	7.83	8.75	9.76	10.86
150	-	-	-	-	-	6.14	6.88	7.69	8.57

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

Cooling capacity	119 202	Btu/h	Current consumption	15.81	A
Power input	10 901	W	Mass flow	1 722	lbs/h
E.E.R.	10.93				

Pressure switch settings

Maximum HP switch setting	428	psi(g)
Minimum LP switch setting	7	psi(g)
LP pump down setting	15	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	81	dB(A)
With acoustic hood	73	dB(A)

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Performance data at 60 Hz, ARI rating conditions
R134a

Cond. temp. in °F (tc)	Evaporating temperature in °F (to)								
	5	15	25	30	35	40	45	50	55

Cooling capacity in Btu/h

90	40 630	52 637	67 101	75 342	84 303	94 017	104 521	115 850	128 037
100	38 172	49 805	63 791	71 754	80 410	89 794	99 942	110 887	122 666
110	35 615	46 809	60 251	67 903	76 222	85 243	95 001	105 532	116 869
120	32 974	43 663	56 496	63 804	71 753	80 378	89 714	99 796	110 660
130	-	40 379	52 538	59 469	67 016	75 212	84 094	93 695	104 051
140	-	-	48 390	54 913	62 024	69 759	78 153	87 241	97 057
150	-	-	-	50 148	56 791	64 032	71 905	80 447	89 691

Power input in W

90	4 559	4 635	4 693	4 714	4 728	4 735	4 734	4 724	4 704
100	5 075	5 153	5 215	5 238	5 254	5 263	5 265	5 257	5 240
110	5 666	5 748	5 813	5 839	5 857	5 869	5 873	5 869	5 855
120	6 342	6 427	6 497	6 525	6 546	6 561	6 568	6 567	6 556
130	-	7 199	7 274	7 304	7 328	7 346	7 356	7 358	7 352
140	-	-	8 150	8 184	8 211	8 232	8 246	8 252	8 249
150	-	-	-	9 172	9 202	9 227	9 245	9 254	9 255

Current consumption in A

90	8.62	8.70	8.76	8.78	8.79	8.78	8.77	8.75	8.71
100	9.18	9.26	9.33	9.35	9.36	9.36	9.36	9.34	9.30
110	9.84	9.93	10.01	10.03	10.05	10.05	10.05	10.04	10.01
120	10.63	10.73	10.81	10.84	10.86	10.87	10.87	10.87	10.85
130	-	11.66	11.75	11.78	11.81	11.83	11.84	11.84	11.82
140	-	-	12.84	12.88	12.91	12.94	12.95	12.96	12.95
150	-	-	-	14.14	14.18	14.21	14.23	14.25	14.25

Mass flow in lbs/h

90	571	724	902	1 003	1 110	1 226	1 350	1 483	1 624
100	562	717	898	999	1 108	1 225	1 350	1 483	1 626
110	553	709	892	994	1 103	1 221	1 346	1 481	1 624
120	541	699	883	985	1 095	1 213	1 339	1 474	1 617
130	-	687	871	974	1 084	1 202	1 328	1 463	1 606
140	-	-	857	960	1 070	1 188	1 314	1 448	1 591
150	-	-	-	942	1 052	1 169	1 295	1 429	1 571

Energy Efficiency Ratio (E.E.R.)

90	8.91	11.36	14.30	15.98	17.83	19.85	22.08	24.52	27.22
100	7.52	9.67	12.23	13.70	15.30	17.06	18.98	21.09	23.41
110	6.29	8.14	10.36	11.63	13.01	14.52	16.18	17.98	19.96
120	5.20	6.79	8.70	9.78	10.96	12.25	13.66	15.20	16.88
130	-	5.61	7.22	8.14	9.14	10.24	11.43	12.73	14.15
140	-	-	5.94	6.71	7.55	8.47	9.48	10.57	11.77
150	-	-	-	5.47	6.17	6.94	7.78	8.69	9.69

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

Cooling capacity	84 094	Btu/h	Current consumption	11.84	A
Power input	7 356	W	Mass flow	1 328	lbs/h
E.E.R.	11.43				

Pressure switch settings

Maximum HP switch setting	297	psi(g)
Minimum LP switch setting	7	psi(g)
LP pump down setting	7	psi(g)

T 0 : Evaporating temperature at dew point

T C : Condensing temperature at dew point

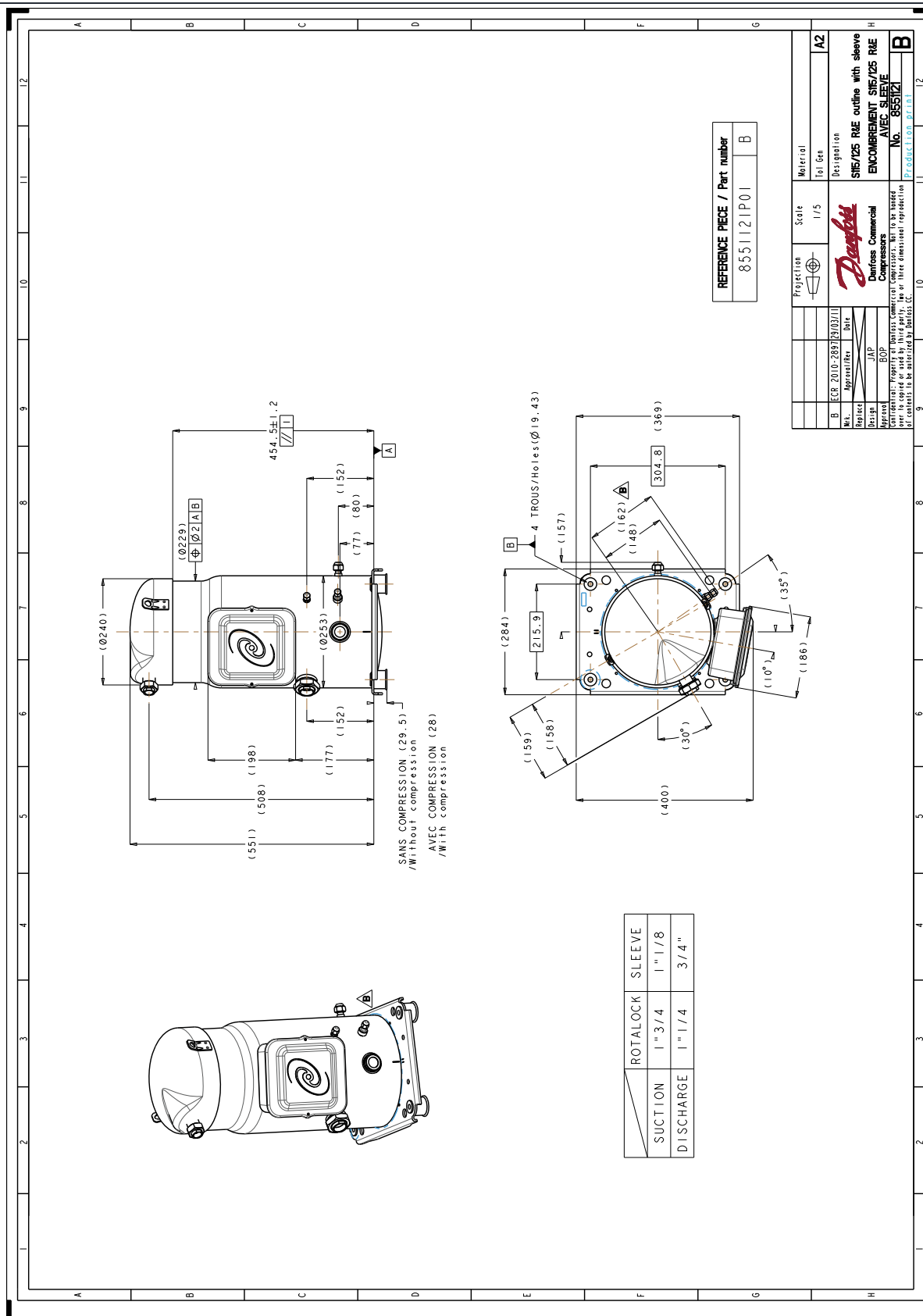
Rating conditions : Superheat = 20 °F , Subcooling = 15 °F

All performance data +/- 5%

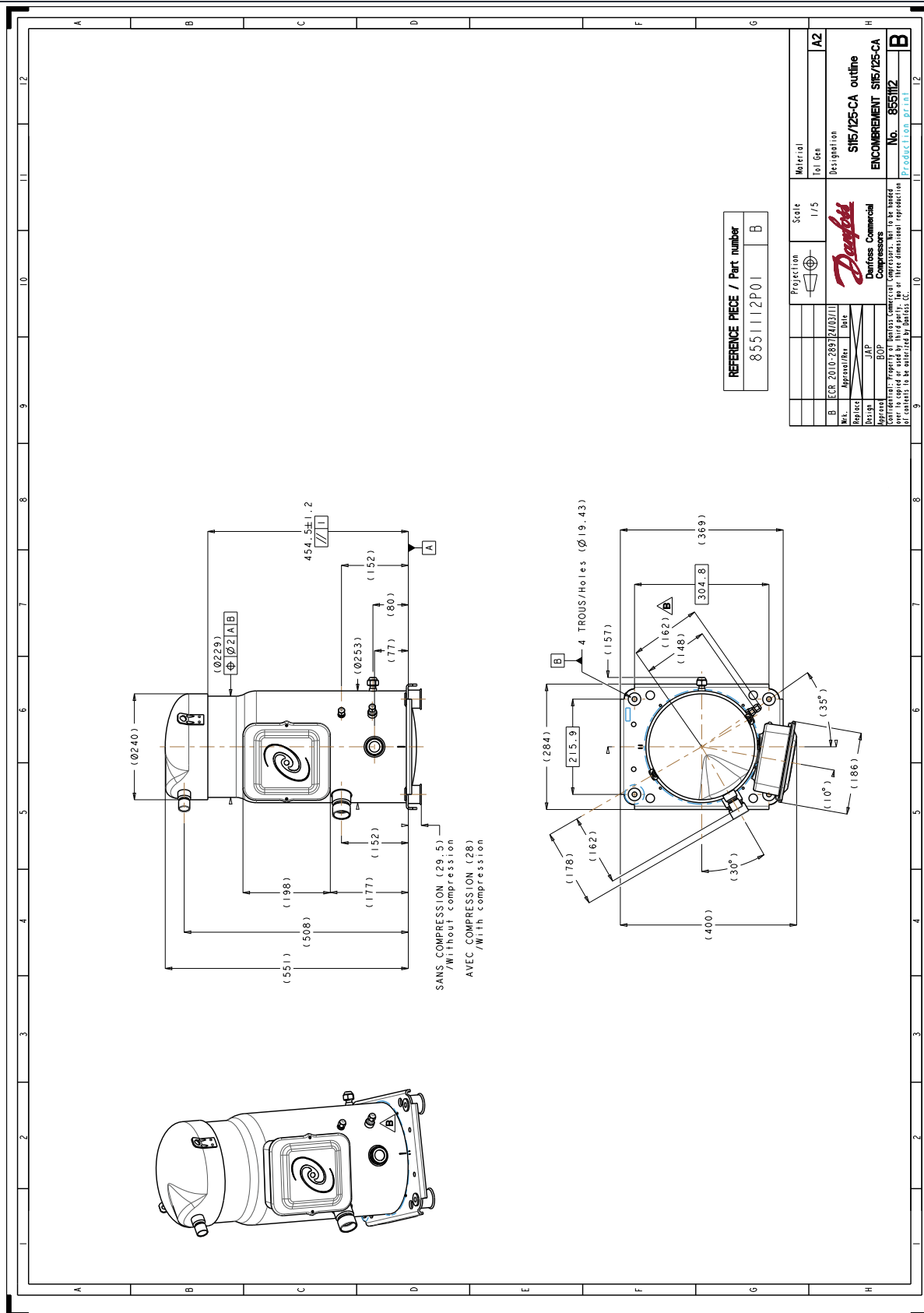
Sound power data

Sound power level	0	dB(A)
With acoustic hood	0	dB(A)

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