



Compressors - SM, SZ & SY

Danfoss Compressors - Scroll Compressors



Constant innovation, constant progress

Throughout the last 50 years Danfoss Compressors has built a strong position as a global leader in the refrigeration and air conditioning industry. By constantly listening to the needs of our customers and the daily users of our products, we continue to develop innovative solutions that are energy-efficient and environmentally responsible.

With the most complete range of products for virtually any refrigeration or air-conditioning application, we are proud to offer solutions that are famous and trusted by customers all over the world for their reliability, efficiency and high quality.

Extensive product and application range

Our product range covers all common HC, HFC and HCFC refrigerants. Customers can choose from small, direct current hermetic compressors for mobile applications to large scroll compressors for commercial air conditioning or industrial applications.

Pushing technology further

We were the first to market with R134a. We can also cater for needs with energy optimised, including models with variable speed and monitoring as well as models developed for the solar energy industry. Proof of our constant focus on providing value through maximum efficiency, environmental safety and low noise levels.

SM-SZ-SY Scroll Compressor Quick Guide R22, 2407C & R134a

Model Number	Ordering Code		Refrig	Connection	Nom HP	Max Amps	Nom Cooling Watts	Swept Volume cm3/rev	Displacement m3/h @ 2900	Oil charge Litres	Oil Sight Glass	Oil Type	Braze Disc/Suct	Rotolock (Thread)		Rotolock (Pipe/Type)	Net weight kg	Comments
	Code 4	Single Pack												Suction	Discharge			
SM084	SM084-4VI		R22	Brazed	7.0	17.0	20 400	114.5	19.92	3.3	Yes	160P		-	-	-	64	
SM090	SM090-4VI		R22	Brazed	7.5	17.0	21 800	120.5	20.97	3.3	Yes	160P		-	-	-	65	
SM100	SM100-4VI		R22	Brazed	8.0	18.0	23 100	127.2	22.13	3.3	Yes	160P		-	-	-	66	
SM110	SM110-4VI		R22	Brazed	9.0	20.0	25 900	144.2	25.09	3.3	Yes	160P		-	-	-	73	
SM115	SM115-4RI		R22	Roblock	9.5	22.0	28 000	155.0	26.97	3.8	Yes	160P		13/4"	11/4"	11/8"	78	
SM115	SM115-4VI		R22	Brazed	9.5	22.0	28 000	155.0	26.97	3.8	Yes	160P		-	-	-	78	Use SM115-4RI
SM120	SM120-4VI		R22	Brazed	10.0	24.0	30 100	166.6	28.99	3.3	Yes	160P		-	-	-	73	
SM125	SM125-4RI		R22	Roblock	10.0	24.0	30 100	166.6	28.99	3.3	Yes	160P		13/4"	11/4"	11/8"	78	
SM148	SM148-4VAI		R22	Brazed	12	29.0	36 100	199.0	34.60	3.6	Yes	160P		-	-	-	88	
SM160	SM160-4RAI		R22	Roblock	13.0	29.0	39 100	216.6	37.69	4.0	Yes	160P		21/4"	13/4"	13/8"	90	
SM161	SM161-4VAI		R22	Brazed	13.0	31.0	39 000	216.6	37.69	3.6	Yes	160P		-	-	-	88	
SM175	SM175-4RI		R22	Roblock	14.0	34.0	42 000	233.0	40.54	6.2	Yes	160P		21/4"	13/4"	13/8"	100	Use SM165-4RI
SM185	SM185-4CAI		R22	Brazed	15.0	35.0	45 500	249.9	43.48	6.2	Yes	160P		21/4"	13/4"	13/8"	100	
SM185	SM185-4RI		R22	Roblock	15.0	35.0	45 500	249.9	43.48	6.2	Yes	160P		21/4"	13/4"	13/8"	150	
SY240	SY240A4PBI		R22	Roblock	20.0	47.0	61 200	347.8	60.50	8.0	Yes	320SZ		21/4"	13/4"	13/8"	157	
SY300	SY300A4MBI		R22	Roblock	25.0	58.0	78 200	437.5	76.10	8.0	Yes	320SZ		21/4"	13/4"	13/8"	157	
SY300	SY300A4BBI		R22	Brazed	25.0	69.0	78 200	437.5	76.10	8.0	Yes	320SZ						
SZ084	SZ084-4VI		R407C/R134a	Brazed	7.0	17.0	19 300	114.5	19.92	3.3	Yes	160SZ		-	-	-	64	
SZ090	SZ090-4VI		R407C/R134a	Brazed	7.5	17.0	20 400	120.5	20.97	3.3	Yes	160SZ		-	-	-	65	
SZ100	SZ100-4VI		R407C/R134a	Brazed	8.0	18.0	21 600	127.2	22.13	3.3	Yes	160SZ		-	-	-	66	
SZ110	SZ110-4VI		R407C/R134a	Brazed	9.0	20.0	24 600	144.2	25.09	3.3	Yes	160SZ		-	-	-	73	
SZ115	SZ115-4RI		R407C/R134a	Roblock	9.5	22.0	26 900	155.0	26.97	3.8	Yes	160SZ		13/4"	11/4"	11/8"	78	
SZ120	SZ120-4VI		R407C/R134a	Brazed	10.0	24.0	28 600	166.6	28.99	3.3	Yes	160SZ		-	-	-	73	
SZ125	SZ125-4RI		R407C/R134a	Roblock	10.0	24.0	28 600	166.6	28.99	3.8	Yes	160SZ		13/4"	11/4"	11/8"	78	
SZ148	SZ148-4VAI		R407C/R134a	Brazed	12.0	29.0	35 100	199.0	34.60	3.6	Yes	160SZ		-	-	-	88	
SZ160	SZ160-4RAI		R407C/R134a	Roblock	13.0	29.0	37 600	216.6	37.69	4.0	Yes	160SZ		21/4"	13/4"	13/8"	90	
SZ161	SZ161-4VAI		R407C/R134a	Brazed	13.0	31.0	37 900	216.6	37.69	3.6	Yes	160SZ		-	-	-	88	
SZ175	SZ175-4RI		R407C/R134a	Roblock	14.0	34.0	40 100	233.0	40.54	6.2	Yes	160SZ		21/4"	13/4"	13/8"	100	Use SZ185-4RI
SZ185	SZ185-4RI		R407C/R134a	Roblock	15.0	35.0	43 100	249.9	43.48	6.2	Yes	160SZ		21/4"	13/4"	13/8"	100	
SZ185	SZ185-4CAI		R407C/R134a	Brazed	15.0	35.0	43 100	249.9	43.48	6.2	Yes	160SZ					100	
SZ240	SZ240A4PBI		R407C/R134a	Roblock	20.0	47.0	59 100	347.8	60.50	8.0	Yes	160SZ		21/4"	13/4"	13/8"	150	Replaces SZ240A4MBI
SZ300	SZ300A4PBI		R407C/R134a	Roblock	25.0	58.0	72 800	437.5	76.10	8.0	Yes	160SZ		21/4"	13/4"	13/8"	157	Replaces SZ300A4MBI
SZ380	SZ380A4CAI		R407C/R134a	Brazed	30.0	69.0	89 600	531.2	92.40	8.4	Yes	160SZ					158	

Crankcase Heater		
Models	Watt/Voltage	Code
SM/Z084-161	65W 230V	7773107
SM/Z084-161	65W 400V	7773117
SM/Z175-185	75W 230V	7773108
SM/Z175-185	75W 400V	7773118
SY/SZ240-380	130W 230V	7773122
SY/SZ240-380	130W 400V	7773123
Discharge Thermostat		
All models	Kit	7750009

Oil 160P (Mineral)		
SM Models	Code	
2 Litre	7754001	
5 Litre	7754002	
Oil 320SZ (POE)		
SY (R22) Models	Code	
2 Litre	7754122	
Oil 160SZ (POE)		
SZ Models	Code	
2 Litre	7754024	
Oil Sight Glass		
SM/SZ, SZ, SH	Code	
Oil Sight Glass Incl. Gkt	8156019	
Gasket Oil Sight Glass	8156129	

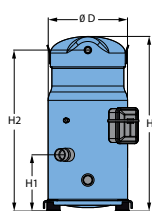
Rubber Mounting Kits		
Models	Code	
SM/SZ 084-185	8156138	
SY/SZ 240-300	8156144	
Terminal Box Cover		
Models	Code	
SM/SZ084-110	8156135	
SM/SZ 115-185	8156139	
SY/SZ 240-300	8156142	

Rotolock Adaptor Kit:		Rotolock Service Valve:		Rotolock Spare Gasket:	
Comp	Code	Code	Code	Code	Code
084-090-100	7765005	V02	7703009	11/4"	8156131
110-161	7765006	V10	7703392	13/4"	8156132
160-175-185	7765028	V03	7703383	21/4"	8156133
SY/SZ 240-300	7765028	V03	7703383	-	-
Acoustic Hoods/Compressor Sound Covers					
Model/Application					
SM/SZ084,090,100					
SM/SZ110 & 120					
SM/SZ115 & 125					
SM/SZ148 & 161					
SM/SZ160					
SM/SZ175 & 185					
SY/SZ240 & 300					

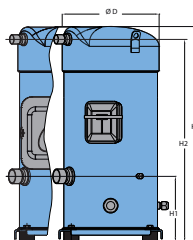
Note: R410A refer to SH Scroll compressor range

* Not currently stocked

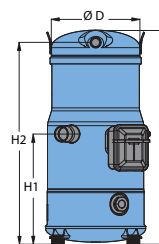
Product range single compressors – Air Conditioning Performer® scroll compressors S series



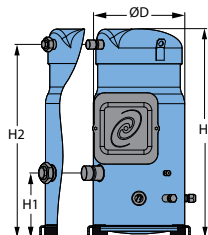
	D	H	H1	H2
S084-090-100	254	508	142	465
S110-120	254	558	178	515



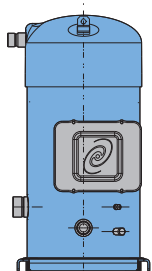
	D	H	H1	H2
S148-161	266	591	180	556



	D	H	H1	H2
S112	243	535	278	504
S124-147	243	540	278	509



	D	H	H1	H2
S115-125	254	581	180	537
S160	266	631	180	596
S175-185	316	678	180	641



	D	H	H1	H2
S240	344	727	196	654
S300	344	738	196	665
S380	344	762	196	689

All dimensions in mm

Model	Motor voltage code		
	400 V/3/50Hz - 460V/3/60Hz	230/3/50	500/3/50 - 575/3/60
SM/SZ084-090-100-110-120	●	●	●
SM/SZ148-161	●	●	●
SM112-124-147	●	●	●
SM/SZ115-125-160-175-185	○	○	○
SY185	○	●	○
SY/SZ240-300	○	○	○
SY/SZ380 *	●	○	○

○ Rotolock version ● Brazed version * SY380 only available for 400/3/50Hz

Family, lubricant & refrigerant	Nominal capacity	Voltage	Version	Evolution index
SZ SY	185 300	- 4 7	R CA	C A

Single compressors

Single compressors

Family, lubricant & refrigerant

SM: Scroll, Mineral oil, R22/R417A**
SY: Scroll, POE lubricant, R22/R417A (and R407C for SY185-240-300)
SZ: Scroll, POE lubricant, R407C - R134a (and R404A, R507A for SZ084 to SZ185)

Nominal capacity
 in thousand Btu/h at 60 Hz, R22, ARI conditions

Motor voltage code
 3: 200-230V/3~/60 Hz
 4: 380-400V/3~/50 - 460V/3~/60 Hz
 6: 230V/3~/50 Hz
 7: 500V/3~/50 Hz - 575V/3~/60 Hz
 9: 380V/3~/60 Hz

Motor protection type	Connection	Module voltage	Applies to
Internal overload protector	V : brazed		S 084-090-100-110-120-148-161
	A : brazed		S 112-124-147
Internal thermostat	C : brazed		S 115-125-160-175-185
	R : rotolock		
Electronic protection module	P : brazed 24 V AC		S 240 - 300
	X : brazed 230 V		
	S : rotolock 24 V AC		
	Y : rotolock 230 V		S 380 *
	CA : C: brazed	A: 24V AC	
	CB : P: rotolock	B: 115/230V A: 24V AC B: 115/230V	
	PA : C: brazed	A: 24V AC	S 380 *
	PB : C: brazed	B: 115/230V	

* SY380 only available for 400V/3~/50 Hz, SZ380 available for both 400V/3~/50 Hz and 460V/3~/60 Hz

** When SM compressors are used with R417A, the factory charged mineral oil 160P must be replaced by polyolester oil 160SZ

Scroll compressors SM / SY R22

Model	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SM084	35	7 700	4.0	9 900	4.0	12 500	4.0	15 500	4.0	18 900	4.0	22 800	4.0	27 200	3.9	32 100	3.9
	55	-	-	-	-	-	-	12 000	6.4	15 000	6.3	18 500	6.2	22 500	6.2	26 900	6.1
SM090	35	8 600	4.3	10 900	4.4	13 600	4.4	16 700	4.4	20 200	4.4	24 300	4.4	28 900	4.4	34 100	4.4
	55	-	-	-	-	-	-	13 300	6.7	16 400	6.7	19 900	6.6	23 900	6.6	28 400	6.5
SM100	35	9 000	4.6	11 500	4.6	14 400	4.7	17 700	4.7	21 500	4.7	25 800	4.7	30 700	4.7	36 200	4.7
	55	-	-	-	-	-	-	14 200	7.1	17 400	7.1	21 200	7.1	25 400	7.0	30 200	7.0
SM110	35	10 200	5.2	13 000	5.2	16 200	5.2	20 000	5.2	24 200	5.2	29 000	5.2	34 400	5.2	40 400	5.2
	55	-	-	-	-	-	-	15 900	8.0	19 600	8.0	23 800	7.9	28 400	7.9	33 700	7.8
SM112	35	11 300	5.1	14 100	5.1	17 400	5.2	21 200	5.3	25 500	5.4	30 500	5.5	36 100	5.6	42 500	5.7
	55	-	-	-	-	-	-	17 500	7.8	21 200	7.9	25 400	8.0	30 200	8.1	35 700	8.2
SM115	35	11 200	5.4	13 900	5.4	17 100	5.4	20 800	5.5	25 100	5.5	30 000	5.4	35 600	5.4	41 800	5.4
	55	-	-	-	-	-	-	16 500	8.6	20 700	8.5	25 500	8.5	31 000	8.4	37 100	8.3
SM120	35	11 800	6.0	15 200	6.0	19 000	6.0	23 300	5.9	28 200	5.9	33 700	5.9	39 900	5.9	46 700	5.9
	55	-	-	-	-	-	-	18 600	9.2	22 800	9.2	27 600	9.1	33 000	9.0	38 900	9.0
SM124	35	13 100	5.4	16 200	5.5	19 800	5.7	23 900	5.8	28 700	6.0	34 100	6.1	40 300	6.2	47 200	6.4
	55	-	-	-	-	-	-	19 800	8.4	24 000	8.6	28 700	8.8	34 100	9.0	40 200	9.2
SM125	35	12 000	5.8	15 000	5.8	18 400	5.9	22 400	5.9	27 000	5.9	32 300	5.9	38 200	5.8	45 000	5.8
	55	-	-	-	-	-	-	17 700	9.3	22 300	9.2	27 400	9.1	33 300	9.0	39 900	8.9
SM147	35	14 900	6.3	18 600	6.4	22 900	6.5	27 800	6.7	33 500	6.9	40 000	7.1	47 300	7.2	55 600	7.4
	55	-	-	-	-	-	-	22 700	9.8	27 500	9.9	33 100	10.1	39 400	10.3	46 600	10.5
SM148	35	14 800	7.0	18 500	7.0	22 900	7.1	27 800	7.1	33 600	7.2	40 100	7.2	47 500	7.3	55 900	7.3
	55	-	-	-	-	-	-	22 600	10.9	27 500	10.9	33 100	10.9	39 500	11.0	46 800	11.0
SM160	35	15 500	7.6	19 600	7.7	24 300	7.8	29 700	7.9	35 900	8.0	43 000	8.1	50 900	8.1	59 800	8.2
	55	-	-	-	-	-	-	24 100	11.6	29 600	11.6	35 800	11.7	42 900	11.8	50 800	11.8
SM161	35	16 000	7.5	20 100	7.6	24 700	7.6	30 100	7.6	36 300	7.7	43 400	7.7	51 400	7.8	60 500	7.8
	55	-	-	-	-	-	-	24 400	11.7	29 700	11.7	35 800	11.7	42 800	11.8	50 600	11.8
SM175	35	17 000	8.1	21 300	8.1	26 400	8.2	32 300	8.3	39 000	8.4	46 600	8.4	55 200	8.5	64 800	8.5
	55	-	-	-	-	-	-	26 200	12.4	32 000	12.5	38 500	12.6	46 000	12.6	54 400	12.7
SM185	35	18 400	8.8	23 100	8.9	28 600	9.0	35 000	9.1	42 200	9.1	50 500	9.2	59 800	9.3	70 200	9.3
	55	-	-	-	-	-	-	35 200	13.5	42 400	13.6	50 800	13.8	59 800	13.8	70 200	13.9
SY185	35	17 600	8.7	22 500	8.7	28 100	8.7	34 500	8.8	42 000	8.9	50 400	9.0	60 000	9.1	70 900	9.2
	55	-	-	-	-	-	-	33 300	13.3	40 800	13.3	49 900	13.4	59 800	13.5	58 600	13.7
SY240	35	25 100	11.7	31 400	11.8	38 800	12.0	47 300	12.1	57 100	12.4	68 300	12.6	81 000	13.0	95 300	13.3
	55	-	-	-	-	-	-	38 400	17.8	46 600	18.0	56 100	18.3	67 000	18.6	79 300	18.9
SY300	35	31 900	14.2	39 900	14.5	49 300	14.8	60 300	15.1	73 100	15.6	87 900	16.1	104 800	16.7	124 100	17.4
	55	-	-	-	-	-	-	48 600	22.0	59 200	22.4	71 600	22.8	85 900	23.4	102 300	24.1
SY380	35	40 100	17.3	49 500	17.6	60 500	18.0	73 300	18.4	88 100	18.8	104 900	19.2	124 100	19.8	145 800	20.4
	55	-	-	-	-	-	-	59 700	26.8	72 300	27.1	86 800	27.5	103 400	27.9	122 300	28.4
SM170	35	15 200	8.0	19 500	8.0	24 600	8.0	30 500	8.0	37 200	8.0	44 900	7.9	53 500	7.9	63 200	7.8
	55	-	-	-	-	-	-	23 600	12.7	29 600	12.6	36 500	12.5	44 300	12.3	53 100	12.1
SM180	35	16 900	8.6	21 400	8.7	26 700	8.8	32 800	8.8	39 900	8.8	47 900	8.8	56 900	8.8	67 100	8.7
	55	-	-	-	-	-	-	26 200	13.4	32 300	13.3	39 300	13.3	47 100	13.2	56 000	13.1
SM200	35	17 700	9.2	22 600	9.3	28 300	9.3	34 800	9.3	42 300	9.4	50 900	9.4	60 500	9.4	71 300	9.4
	55	-	-	-	-	-	-	27 900	14.3	34 400	14.2	41 700	14.1	50 000	14.0	59 400	13.9
SM220	35	20 000	10.4	25 500	10.4	32 000	10.4	39 300	10.4	47 700	10.5	57 100	10.5	67 700	10.4	79 500	10.4
	55	-	-	-	-	-	-	31 400	16.0	38 600	16.0	46 800	15.9	56 000	15.8	66 300	15.6
SM230	35	22 000	10.8	27 400	10.9	33 700	10.9	41 000	10.9	49 500	10.9	59 100	10.9	70 100	10.9	82 400	10.8
	55	-	-	-	-	-	-	32 500	17.2	40 800	17.1	50 200	16.9	61 000	16.7	73 100	16.5
SM242	35	23 300	12.0	29 900	11.9	37 400	11.9	45 900	11.9	55 600	11.9	66 400	11.9	78 500	11.8	92 000	11.8
	55	-	-	-	-	-	-	36 600	18.4	45 000	18.3	54 400	18.2	64 900	18.1	76 600	17.9
SM248	35	26 300	10.9	32 500	11.1	39 600	11.3	47 900	11.6	57 400	11.9	68 200	12.2	80 500	12.5	94 400	12.7
	55	-	-	-	-	-	-	39 700	16.9	47 900	17.2	57 400	17.5	68 100	17.9	80 300	18.4
SM250	35	23 700	11.6	29 500	11.7	36 200	11.7	44 100	11.7	53 200	11.7	63 500	11.7	75 300	11.7	88 600	11.6
	55	-	-	-	-	-	-	35 000	18.5	43 800	18.4	54 000	18.2	65 600	18.0	78 600	17.7
SM268	35	26 600	13.0	33 700	13.0	41 800	13.0	51 100	13.1	61 700	13.1	73 700	13.2	87 300	13.2	102 400	13.2
	55	-	-	-	-	-	-	40 700	20.1	49 800	20.1	60 100	20.0	71 700	20.0	84 800	20.0
SM271	35	25 800	12.7	32 500	12.8	40 300	12.8	49 300	12.9	59 600	12.9	71 300	13.0	84 500	13.0	99 300	13.0
	55	-	-	-	-	-	-	39 700	19.7	48 600	19.7	58 700	19.7	70 100	19.6	83 000	19.6
SM272	35	28 000	11.7	34 800	11.9	42 600	12.2	51 700	12.5	62 100	12.8	73 900	13.2	87 400	13.5	102 600	13.8
	55	-	-	-	-	-	-	41 700	18.3	50 500	18.5	60 600	18.9	72 100	19.3	85 200	19.7
SM281	35	27 500	13.5	34 700	13.5	43 000	13.6	52 600	13.6	63 600	13.6	75 900	13.7	89 900	13.7	105 500	13.7
	55	-	-	-	-	-	-	42 300	20.9	51 800	20.9	62 500	20.8	74 600	20.8	88 200	20.8
SM285	35	27 100	13.4	34 000	13.5	42 100	13.6	51 400	13.7	62 000	13.8	74 100	13.9	87 800	14.0	103 200	14.1
	55	-	-	-	-	-	-	41 200	20.8	51 100	20.8	62 300					

Scroll compressors SZ R134a

Model	To	-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SZ084	35	6 200	2.8	8 000	2.8	10 100	2.8	12 600	2.8	15 400	2.7	18 700	2.7	22 400	2.6
	55	-	-	6 100	4.3	7 900	4.3	9 900	4.3	12 400	4.3	15 100	4.3	18 300	4.2
SZ090	35	6 700	2.9	8 600	2.9	10 900	3.0	13 400	2.9	16 400	2.9	19 800	2.9	23 600	2.8
	55	-	-	6 600	4.5	8 500	4.6	10 700	4.6	13 200	4.6	16 000	4.5	19 300	4.5
SZ100	35	7 300	3.1	9 400	3.1	11 700	3.1	14 400	3.1	17 500	3.1	21 000	3.1	25 000	3.1
	55	-	-	7 300	4.8	9 300	4.8	11 500	4.9	14 100	4.9	17 100	4.9	20 400	4.8
SZ110	35	8 200	3.5	10 500	3.5	13 200	3.5	16 200	3.5	19 800	3.5	23 800	3.5	28 400	3.5
	55	-	-	8 100	5.4	10 400	5.4	13 000	5.5	16 000	5.5	19 400	5.5	23 300	5.4
SZ115	35	9 000	3.8	11 600	3.8	14 500	3.8	17 900	3.8	21 800	3.8	26 300	3.7	31 200	3.7
	55	-	-	8 900	5.9	11 400	5.9	14 300	5.9	17 600	5.9	21 400	5.9	25 700	5.9
SZ120	35	9 400	4.0	12 000	4.0	15 100	4.1	18 700	4.1	22 800	4.1	27 500	4.1	32 900	4.0
	55	-	-	9 300	6.2	11 900	6.3	14 900	6.3	18 400	6.3	22 400	6.3	27 000	6.2
SZ125	35	9 600	4.1	12 300	4.1	15 500	4.1	19 100	4.1	23 300	4.0	28 000	4.0	33 300	3.9
	55	-	-	9 500	6.3	12 100	6.3	15 200	6.3	18 800	6.3	22 800	6.3	27 400	6.2
SZ148	35	11 200	5.0	14 400	5.0	18 100	5.0	22 600	5.0	27 900	5.0	34 000	5.0	41 100	5.0
	55	-	-	11 200	7.7	14 200	7.7	17 800	7.7	22 100	7.7	27 100	7.8	32 800	7.8
SZ160	35	12 400	5.3	15 900	5.3	20 000	5.4	24 700	5.4	30 200	5.4	36 400	5.4	43 500	5.4
	55	-	-	12 300	7.9	15 800	8.0	19 800	8.0	24 500	8.1	29 800	8.1	35 900	8.1
SZ161	35	12 000	5.2	15 300	5.2	19 200	5.3	23 800	5.3	29 200	5.4	35 500	5.4	42 700	5.4
	55	-	-	12 100	8.0	15 300	8.0	19 200	8.1	23 700	8.1	28 900	8.1	35 000	8.1
SZ175	35	13 200	5.7	16 900	5.8	21 200	5.8	26 200	5.9	32 100	5.9	38 700	5.9	46 200	5.8
	55	-	-	13 100	8.6	16 700	8.6	21 000	8.7	26 000	8.7	31 700	8.8	38 100	8.8
SZ185	35	14 000	6.1	18 000	6.1	22 600	6.2	27 900	6.2	34 100	6.3	41 200	6.3	49 200	6.2
	55	-	-	13 900	9.1	17 800	9.2	22 400	9.3	27 700	9.3	33 700	9.3	40 600	9.3
SZ240	35	18 900	8.4	23 900	8.5	29 900	8.6	37 100	8.7	45 700	8.7	56 000	8.8	68 200	8.9
	55	-	-	18 800	12.3	23 800	12.5	29 700	12.6	36 700	12.7	45 000	12.9	54 700	13.0
SZ300	35	23 700	10.2	30 000	10.4	37 500	10.5	46 300	10.6	56 700	10.7	68 900	10.8	82 800	11.0
	55	-	-	23 600	15.2	29 700	15.4	37 100	15.6	45 800	15.9	55 900	16.1	67 800	16.4
SZ380	35	30 200	12.3	38 000	12.5	47 300	12.7	58 200	12.9	71 000	13.1	85 800	13.4	102 900	13.6
	55	-	-	30 100	18.1	37 800	18.4	46 900	18.7	57 600	19.0	70 000	19.2	84 400	19.4
SZ170	35	12 200	5.5	15 700	5.6	19 900	5.6	24 800	5.5	30 400	5.5	36 800	5.4	44 000	5.3
	55	-	-	11 900	8.6	15 500	8.6	19 600	8.6	24 300	8.6	29 800	8.5	36 000	8.4
SZ180	35	13 300	5.9	17 000	5.9	21 400	5.9	26 500	5.9	32 300	5.8	39 000	5.8	46 500	5.7
	55	-	-	13 100	9.1	16 800	9.1	21 100	9.1	26 000	9.1	31 600	9.1	38 000	9.0
SZ200	35	14 500	6.2	18 400	6.2	23 000	6.3	28 400	6.3	34 500	6.2	41 400	6.2	49 200	6.1
	55	-	-	14 400	9.6	18 200	9.7	22 700	9.7	27 800	9.7	33 600	9.7	40 200	9.7
SZ220	35	16 300	7.0	20 700	7.0	25 900	7.1	32 000	7.1	39 000	7.1	46 900	7.0	56 000	6.9
	55	-	-	16 100	10.8	20 500	10.9	25 600	10.9	31 400	10.9	38 200	10.9	45 900	10.9
SZ230	35	17 800	7.6	22 800	7.6	28 600	7.6	35 300	7.6	43 000	7.6	51 700	7.5	61 600	7.4
	55	-	-	17 500	11.7	22 500	11.8	28 200	11.8	34 800	11.8	42 200	11.8	50 700	11.7
SZ242	35	18 600	8.0	23 700	8.1	29 700	8.1	36 800	8.1	44 900	8.1	54 200	8.1	64 900	8.0
	55	-	-	18 300	12.5	23 400	12.5	29 300	12.5	36 200	12.5	44 200	12.5	53 300	12.4
SZ250	35	19 000	8.1	24 300	8.1	30 500	8.1	37 600	8.1	45 800	8.1	55 100	8.0	65 600	7.9
	55	-	-	18 600	12.5	23 900	12.5	30 000	12.6	37 000	12.6	45 000	12.5	54 000	12.5
SZ268	35	20 600	9.0	26 400	9.1	33 200	9.1	41 200	9.1	50 600	9.1	61 400	9.1	73 900	9.0
	55	-	-	20 100	13.9	25 700	14.0	32 300	14.0	39 900	14.0	48 800	14.0	59 100	14.0
SZ271	35	20 200	8.7	25 800	8.7	32 300	8.8	40 000	8.9	48 900	8.9	59 200	8.9	71 000	8.9
	55	-	-	19 900	13.4	25 300	13.5	31 600	13.5	39 000	13.6	47 600	13.6	57 400	13.6
SZ281	35	21 400	9.2	27 300	9.3	34 300	9.3	42 400	9.4	51 900	9.4	62 900	9.4	75 500	9.4
	55	-	-	21 000	14.2	26 800	14.3	33 500	14.3	41 500	14.4	50 600	14.4	61 200	14.3
SZ285	35	21 700	9.3	27 800	9.4	34 900	9.4	43 100	9.5	52 600	9.5	63 400	9.4	75 600	9.3
	55	-	-	21 400	14.2	27 500	14.2	34 500	14.3	42 600	14.4	51 900	14.4	62 400	14.3
SZ290	35	21 900	9.5	28 000	9.6	35 200	9.6	43 500	9.7	53 100	9.7	64 000	9.6	76 300	9.5
	55	-	-	21 600	14.4	27 700	14.5	34 800	14.6	43 000	14.6	52 300	14.7	62 900	14.6
SZ296	35	22 100	10.0	28 300	10.0	35 700	10.0	44 500	10.0	54 900	10.0	67 000	10.0	80 900	10.0
	55	-	-	22 000	15.4	28 000	15.4	35 200	15.4	43 500	15.5	53 300	15.5	64 700	15.6
SZ310	35	23 300	10.1	29 800	10.2	37 500	10.3	46 300	10.3	56 500	10.3	68 100	10.2	81 200	10.1
	55	-	-	23 000	15.4	29 500	15.5	37 100	15.5	45 800	15.6	55 700	15.6	67 000	15.6
SZ320	35	24 400	10.5	31 300	10.6	39 300	10.7	48 700	10.8	59 400	10.8	71 700	10.8	85 700	10.8
	55	-	-	24 200	15.8	31 000	15.9	39 000	16.0	48 200	16.1	58 700	16.2	70 700	16.2
SZ322	35	23 600	10.4	30 100	10.5	37 800	10.5	46 900	10.6	57 600	10.7	69 900	10.8	84 100	10.8
	55	-	-	23 800	15.9	30 200	16.0	37 800	16.1	46 600	16.2	56 900	16.2	68 900	16.2
SZ350	35	26 000	11.4	33 200	11.5	41 800	11.6	51 700	11.7	63 100	11.8	76 200	11.7	91 100	11.7
	55	-	-	25 700	17.1	33 000	17.3	41 400	17.4	51 200	17.5	62 400	17.5	75 100	17.5
SZ370	35	27 600	12.1	35 400	12.3	44 500	12.4	55 000	12.5	67 200	12.5	81 100	12.5	96 900	12.4
	55	-	-	27 400	18.2	35 100	18.4	44 100	18.5	54 500	18.6	66 400	18.7	79 900	18.6

Tandem
Models

To: Evaporating temperature in °C
Tc: Condensing temperature in °C

Qo: Cooling capacity in W
Pe: Power input in kW

Superheat = 11.1 K
Subcooling = 8.3 K

Voltage: 400 V / 3 / 50 Hz

Scroll compressors SZ R407C

Model	To	-20		-15		-10		-5		0		5		10		15	
	Tc	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SZ084	35	7 200	3.9	9 300	3.9	11 800	4.0	14 800	4.0	18 300	4.0	22 300	4.0	27 000	4.0	32 300	3.9
	55	-	-	-	-	-	-	11 300	6.2	14 200	6.2	17 500	6.2	21 400	6.2	25 800	6.2
SZ090	35	7 600	4.1	9 800	4.1	12 500	4.2	15 600	4.2	19 300	4.2	23 600	4.2	28 500	4.2	34 100	4.1
	55	-	-	-	-	-	-	12 000	6.5	15 000	6.5	18 500	6.5	22 500	6.5	27 200	6.5
SZ100	35	8 100	4.3	10 500	4.4	13 300	4.4	16 600	4.4	20 500	4.5	25 000	4.4	30 100	4.4	36 000	4.4
	55	-	-	-	-	-	-	12 700	6.9	15 900	6.9	19 600	6.9	23 800	6.9	28 700	6.9
SZ110	35	9 300	4.9	12 000	5.0	15 200	5.0	19 000	5.0	23 400	5.0	28 500	5.0	34 300	5.0	40 900	4.9
	55	-	-	-	-	-	-	14 500	7.9	18 100	7.9	22 300	7.9	27 200	7.8	32 700	7.8
SZ115	35	10 100	5.4	13 100	5.4	16 600	5.4	20 800	5.5	25 600	5.4	31 100	5.4	37 400	5.4	44 500	5.3
	55	-	-	-	-	-	-	15 800	8.7	19 800	8.7	24 400	8.6	29 600	8.6	35 600	8.5
SZ120	35	11 000	5.7	14 200	5.7	17 900	5.8	22 200	5.8	27 300	5.8	33 200	5.8	39 900	5.7	47 600	5.6
	55	-	-	-	-	-	-	17 000	9.2	21 200	9.2	26 100	9.2	31 600	9.1	38 000	9.0
SZ125	35	10 800	5.7	14 000	5.7	17 700	5.7	22 100	5.7	27 200	5.7	33 100	5.7	39 800	5.7	47 400	5.6
	55	-	-	-	-	-	-	16 800	9.2	21 000	9.1	25 900	9.1	31 500	9.0	37 900	9.0
SZ148	35	13 500	6.9	17 300	7.0	21 700	7.0	27 000	7.0	33 100	7.1	40 300	7.1	48 500	7.1	57 800	7.2
	55	-	-	-	-	-	-	21 200	11.1	26 200	11.1	32 100	11.1	38 900	11.1	46 700	11.1
SZ160	35	14 800	7.3	19 000	7.4	23 900	7.5	29 700	7.6	36 400	7.6	44 300	7.6	53 300	7.6	63 600	7.6
	55	-	-	-	-	-	-	23 200	11.8	28 800	11.9	35 200	11.9	42 700	11.9	51 400	11.9
SZ161	35	14 600	7.4	18 700	7.5	23 500	7.5	29 200	7.6	35 800	7.6	43 500	7.6	52 400	7.7	62 600	7.8
	55	-	-	-	-	-	-	22 900	12.0	28 400	12.0	34 700	12.0	42 100	12.0	50 600	12.0
SZ175	35	15 500	8.0	19 800	8.0	25 000	8.1	31 100	8.2	38 100	8.2	46 300	8.2	55 600	8.2	66 200	8.2
	55	-	-	-	-	-	-	24 000	12.7	29 800	12.8	36 500	12.8	44 200	12.8	53 000	12.8
SZ185	35	16 600	8.6	21 300	8.6	26 900	8.7	33 400	8.8	41 000	8.8	49 700	8.8	59 700	8.8	71 100	8.8
	55	-	-	-	-	-	-	25 700	13.7	32 000	13.7	39 200	13.8	47 500	13.8	56 900	13.8
SZ240	35	22 400	11.7	28 900	11.8	36 500	11.9	45 400	12.1	55 900	12.2	68 000	12.4	82 000	12.5	98 000	12.6
	55	-	-	21 900	17.9	28 100	18.0	35 500	18.2	44 000	18.4	54 000	18.7	65 500	18.9	78 800	19.2
SZ300	35	28 700	13.7	36 200	13.9	45 100	14.1	55 500	14.3	67 600	14.5	81 700	14.7	98 000	14.9	116 600	15.2
	55	-	-	28 500	21.2	35 900	21.6	44 600	22.1	54 800	22.5	66 600	22.9	80 400	23.2	96 300	23.6
SZ380	35	36 000	16.9	45 300	17.3	56 400	17.6	69 400	18.0	84 600	18.3	102 200	18.6	122 400	18.9	145 400	19.4
	55	-	-	35 000	26.1	44 200	26.6	55 000	27.0	67 500	27.4	82 100	27.8	98 900	28.1	118 200	28.5
SZ170	35	14 200	7.8	18 300	7.9	23 200	8.0	29 100	8.0	36 000	8.0	44 000	8.0	53 200	8.0	63 700	7.9
	55	-	-	-	-	-	-	22 300	12.3	27 900	12.4	34 500	12.4	42 100	12.4	50 900	12.4
SZ180	35	15 000	8.2	19 400	8.3	24 600	8.3	30 800	8.4	38 000	8.4	46 400	8.4	56 100	8.3	67 100	8.2
	55	-	-	-	-	-	-	23 600	13.0	29 500	13.0	36 400	13.1	44 400	13.0	53 600	13.0
SZ200	35	16 000	8.7	20 600	8.8	26 100	8.8	32 700	8.9	40 300	8.9	49 200	8.9	59 300	8.8	70 900	8.7
	55	-	-	-	-	-	-	25 000	13.8	31 300	13.9	38 600	13.9	47 000	13.8	56 600	13.8
SZ220	35	18 400	9.9	23 700	9.9	30 000	10.0	37 400	10.1	46 100	10.1	56 100	10.0	67 500	10.0	80 600	9.8
	55	-	-	-	-	-	-	28 600	15.8	35 800	15.8	44 000	15.8	53 500	15.7	64 400	15.5
SZ230	35	20 000	10.8	25 800	10.8	32 800	10.9	40 900	10.9	50 400	10.9	61 200	10.9	73 700	10.8	87 700	10.7
	55	-	-	-	-	-	-	31 100	17.4	38 900	17.3	48 000	17.3	58 400	17.2	70 200	17.0
SZ242	35	21 600	11.4	27 900	11.5	35 200	11.6	43 800	11.6	53 800	11.6	65 400	11.5	78 600	11.4	93 700	11.2
	55	-	-	-	-	-	-	33 600	18.3	41 800	18.4	51 300	18.3	62 300	18.1	74 800	17.9
SZ250	35	21 200	11.4	27 500	11.4	34 900	11.5	43 500	11.5	53 600	11.5	65 200	11.4	78 300	11.4	93 300	11.3
	55	-	-	-	-	-	-	33 100	18.3	41 400	18.3	51 100	18.2	62 100	18.1	74 700	17.9
SZ268	35	24 100	12.6	31 000	12.7	39 000	12.8	48 500	12.9	59 500	12.9	72 300	12.9	87 000	12.9	103 800	12.8
	55	-	-	-	-	-	-	37 600	20.3	46 700	20.3	57 300	20.3	69 400	20.2	83 400	20.1
SZ271	35	23 900	12.4	30 600	12.5	38 700	12.6	48 100	12.6	59 100	12.6	71 900	12.7	86 600	12.7	103 400	12.7
	55	-	-	-	-	-	-	36 700	19.9	45 700	19.9	56 000	19.9	68 000	19.9	81 800	19.8
SZ281	35	25 200	13.1	32 300	13.2	40 800	13.3	50 700	13.4	62 200	13.4	75 600	13.4	90 900	13.4	108 500	13.4
	55	-	-	-	-	-	-	39 300	21.2	48 800	21.2	59 900	21.2	72 600	21.1	87 200	21.0
SZ285	35	25 500	13.0	32 900	13.2	41 500	13.3	51 700	13.3	63 500	13.3	77 200	13.3	92 900	13.3	110 800	13.2
	55	-	-	-	-	-	-	39 300	21.0	48 900	21.0	60 100	21.0	73 100	21.0	87 900	20.9
SZ290	35	25 200	13.4	32 500	13.5	41 000	13.5	51 100	13.6	62 800	13.7	76 200	13.7	91 600	13.6	109 000	13.5
	55	-	-	-	-	-	-	39 100	21.4	48 800	21.5	59 900	21.5	72 700	21.4	87 300	21.3
SZ296	35	26 600	13.8	34 000	13.9	42 800	14.0	53 200	14.1	65 300	14.2	79 300	14.2	95 500	14.3	114 000	14.4
	55	-	-	-	-	-	-	41 700	22.2	51 700	22.3	63 200	22.3	76 600	22.3	92 000	22.3
SZ310	35	27 000	14.2	34 700	14.4	43 900	14.5	54 700	14.5	67 200	14.6	81 600	14.6	98 000	14.5	116 700	14.4
	55	-	-	-	-	-	-	41 900	22.9	52 200	22.9	64 100	22.9	77 800	22.9	93 400	22.8
SZ320	35	29 200	14.7	37 300	14.9	47 000	15.0	58 400	15.1	71 800	15.2	87 200	15.2	105 000	15.2	125 400	15.2
	55	-	-	-	-	-	-	45 700	23.6	56 700	23.7	69 400	23.8	84 200	23.8	101 300	23.9
SZ322	35	28 700	14.9	36 800	15.0	46 300	15.1	57 500	15.1	70 600	15.2	85 800	15.3	103 300	15.4	123 300	15.5
	55	-	-	-	-	-	-	45 100	23.9	55 900	24.0	68 400	24.0	82 900	24.0	99 600	24.0
SZ350	35	30 500	15.9	39 100	16.1	49 300	16.2	61 200	16.3	75 200	16.4	91 200	16.4	109 500	16.4	130 300	16.4
	55	-	-	-	-	-	-	47 200	25.4	58 600	25.6	71 900	25.6	87 100	25.7	104 400	25.7
SZ370	35	32 700	17.1	42 000	17.3	52 900	17.4	65 800	17.5	80 700	17.6	98 000	17.7	117 700	17.7	140 000	17.6
	55	-	-	-	-	-	-	50 700	27.4	63 000	27.5	77 200	27.6	93 500	27.6	112 100	27.6

Tandem Models

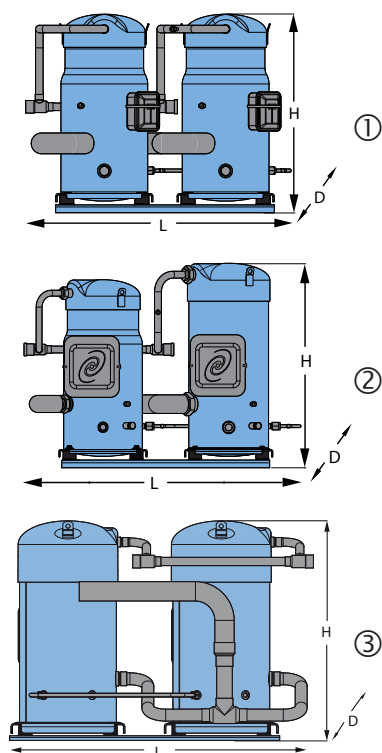
To: Evaporating temperature in °C
Tc: Condensing temperature in °C

Qo: Cooling capacity in W
Pe: Power input in kW

Superheat = 11.1 K
Subcooling = 8.3 K

Voltage: 400 V / 3 / 50 Hz

Scroll compressors – tandem



Outline n°	Model	Composition	Voltage code			Dimensions (mm)		
			4	6	7	L	D	H
			400/3/50 460/3/60	230/3/50	500/3/50 575/3/60			
①	SM/SZ170	S084 + S084	●	●	●	757	432	532
	SM/SZ180	S090 + S090	●	●	●	757	432	532
	SM/SZ200	S100 + S100	●	●	●	757	432	532
	SM/SZ220	S110 + S110	●	●	●	777	443	582
	SM/SZ230	S115 + S115	●	●	●	836	480	603
	SM/SZ242	S120 + S120	●	●	●	777	443	582
	SM248	S124 + S124	○			844	445	564
	SM/SZ250	S125 + S125	●	●	●	836	480	603
	SM272	S124 + S147	○			844	445	564
	SM294	S147 + S147	○			844	445	564
	SM/SZ296	S148 + S148	●	●	●	924	438	614
	SM/SZ320	S160 + S160	●	●	●	911	480	657
	SM/SZ322	S161 + S161	●	●	●	924	438	614
	SM/SZ350	S175 + S175	●	●	●	1004	495	717
	SM/SZ370	S185 + S185	●	●	●	1004	495	717
②	SM/SZ268	S148 + S120	●	●	●	930	441	614
	SM/SZ271	S161 + S110	●	●	●	930	441	614
	SM/SZ281	S161 + S120	●	●	●	930	441	614
	SM/SZ285	S160 + S125	●	●	●	884	480	657
	SM/SZ290	S175 + S115	●	●	●	924	496	705
	SM/SZ310	S185 + S125	●	●	●	924	496	705
	SY/SZ425	S240 + S185	○	○	○	1029	552	729
	SY/SZ485	S300 + S185	○	○	○	1029	552	740
	SY/SZ482	S240 + S240	○	○	○	984	510	730
	SY/SZ540	S300 + S240	○	○	○	984	510	740
③	SY/SZ600	S300 + S300	○	○	○	984	510	740
	SY/SZ620	S240 + S380	○			1058	595	770
	SY/SZ680	S300 + S380	○			1058	595	770
	SY/SZ760	S380 + S380	○			1063	595	770

● Factory built tandems

○ Tandems to be achieved by assembly of individual compressors. Specific outline drawings of tandems, trio and quadro units are available, refer to FRCC.PC.005.

⚠ Note: Contact Danfoss product specialist for tandem compressor inquiries

⚠ Note: Factory built tandems not currently stocked in Australia