

SM / SY / SZ, S-Series, Scroll compressors

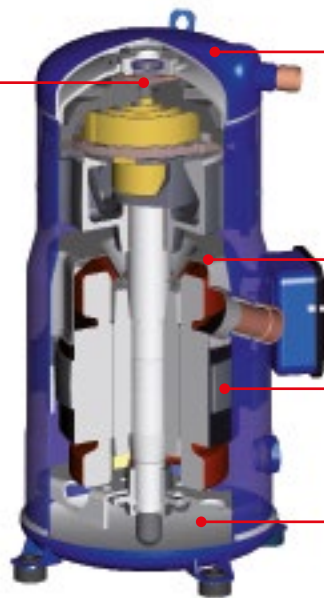
By combining an in-depth understanding of customer needs with continuous investment in product technology Danfoss is able to offer you the SM/SY/SZ series, which comprise a 7-30TR industry-leading range of scroll compressors optimized for rooftop and chiller applications.

Available in a large variety of single and manifold models for R407C, R134a and R22. Well established technology with proven track records.

Features SM / SY / SZ



New PTFE spring seal for even lower leaks



Heat shield that lowers the heat transfer between discharge and suction gas and the acoustic level

Patented motor cap

Patented motor centring spacer

Improved lower bearing centring

Facts

S-Series compressor design

- Environmentally-friendly lead-free bearings
- Prepared for manifolding with oil sight glass and oil equalizer
- Easy maintenance with oil drain tube

Technical data and ordering

SM / SY / SZ - Scroll compressors - R22 / R407C - 50 Hz

Technical data

Compressor model		Nominal Cap. 60 Hz	Nominal cooling capacity		Power input	COP	E.E.R.	Swept volume	Displacement ¹⁾	Oil charge	Net weight ²⁾
		[TR]	[W]	[Btu/h]	[kW]	[W]/[W]	[Btu/h]/[W]	[cm ³ /rev]	[m ³ /h]	[dm ³]	[kg]
R22 SINGLE	SM084	7	20 400	69 600	6.12	3.33	11.4	114.5	19.9	3.25	64
	SM090	7.5	21 800	74 400	6.54	3.33	11.4	120.5	21	3.25	65
	SM100	8	23 100	78 800	6.96	3.33	11.4	127.2	22.1	3.25	65
	SM110	9	25 900	88 400	7.82	3.32	11.3	144.2	25.1	3.25	73
	SM112	9.5	27 600	94 200	7.92	3.49	11.9	151.5	26.4	3.3	64
	SM120	10	30 100	102 700	8.96	3.36	11.5	166.6	29	3.25	73
	SM124	10	31 200	106 500	8.75	3.56	12.2	169.5	29.5	3.3	64
	SM147	12	36 000	122 900	10.08	3.57	12.2	193.5	33.7	3.3	67
	SM148	12	36 100	123 200	10.8	3.34	11.4	199	34.6	3.6	88
	SM161	13	39 000	133 100	11.59	3.37	11.5	216.6	37.7	3.6	88
	SM175	14	42 000	143 300	12.47	3.37	11.5	233	40.5	6.2	100
	SM/SY185	15	45 500	155 300	13.62	3.34	11.4	249.9	43.5	6.2	100
	SY240	20	61 200	208 900	18.2	3.36	11.5	347.8	60.5	8	150
	SY300	25	78 200	266 900	22.83	3.43	11.7	437.5	76.1	8	157
SY380	30	94 500	322 500	27.33	3.46	11.8	531.2	92.4	8.4	158	
R407C SINGLE	SZ084	7	19 300	65 900	6.13	3.15	10.8	114.5	19.9	3.25	64
	SZ090	7.5	20 400	69 600	6.45	3.16	10.8	120.5	21	3.25	65
	SZ100	8	21 600	73 700	6.84	3.15	10.8	127.2	22.1	3.25	65
	SZ110	9	24 600	84 000	7.76	3.17	10.8	144.2	25.1	3.25	73
	SZ120	10	28 600	97 600	8.99	3.17	10.8	166.6	29	3.25	73
	SZ147	12	34 900	119 079	9.92	3.52	12	193.5	33.7	3.3	67
	SZ148	12	35 100	119 800	10.99	3.19	10.9	199	34.6	3.6	88
	SZ161	13	38 000	129 700	11.84	3.21	11	216.6	37.7	3.6	88
	SZ175	14	40 100	136 900	12.67	3.17	10.8	233	40.5	6.2	100
	SZ185	15	43 100	147 100	13.62	3.16	10.8	249.9	43.5	6.2	100
	SY240	20	59 100	201 700	18.55	3.19	10.9	347.8	60.5	8	150
	SY300	25	72 700	248 100	22.73	3.2	10.9	437.5	76.1	8	157
	SY380	30	89 600	305 800	27.59	3.25	11.1	531.2	92.4	8.4	158

TR: Ton of Refrigeration

COP: Coefficient Of Performance

EER: Energy Efficiency Ratio

¹⁾ Displacement at nominal speed: 2900 rpm at 50 Hz, 3500 rpm at 60 Hz

²⁾ Net weight with oil charge

Data given for code 4 compressor, for full data details and capacity tables refer to Online Datasheet Generator: www.danfoss.com/ODSG

Rating conditions

	SM/SY compressors	SZ compressors
Refrigerant	R22	R407C
Frequency	50 Hz	50 Hz
Standard rating conditions	ARI standard conditions	-
Evaporating temperature	7.2 °C	7.2 °C (dew point)
Condensing temperature	54.4 °C	54.4 °C (dew point)
Sub-cooling	8.3 K	8.3 K
Superheat	11.1 K	11.1 K

Subject to modification without prior notification

For full data details and capacity tables refer to Online Datasheet Generator: www.danfoss.com/odsg

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Technical data and ordering

SM / SY / SZ - Scroll compressors - R22 / R407C - 60 Hz

Technical data

Compressor model		Nominal Cap. 60 Hz	Nominal cooling capacity		Power input	COP	E.E.R.	Swept volume	Displacement ¹⁾	Oil charge	Net weight ²⁾
		[TR]	[W]	[Btu/h]	[kW]	[W]/[W]	[Btu/h]/[W]	[cm ³ /rev]	[m ³ /h]	[dm ³]	[kg]
R22 SINGLE	SM084	7	24 600	84 000	7.4	3.34	11.4	114.5	24.1	3.25	64
	SM090	7.5	26 400	90 100	7.8	3.37	11.5	120.5	25.3	3.25	65
	SM100	8	27 500	93 900	8.1	3.38	11.5	127.2	26.7	3.25	65
	SM110	9	31 600	107 800	9.3	3.38	11.5	144.2	30.3	3.25	73
	SM112	9.5	34 000	116 000	9.6	3.53	12.1	151.5	31.8	3.3	64
	SM120	10	36 700	125 300	10.8	3.4	11.6	166.6	35	3.25	73
	SM124	10.5	37 700	128 700	10.6	3.56	12.2	169.5	35.6	3.3	64
	SM147	12	43 600	148 800	12.2	3.58	12.2	193.5	40.6	3.3	67
	SM148	12	43 800	149 500	13	3.37	11.5	199	41.8	3.6	88
	SM161	13	47 600	162 500	14.1	3.39	11.6	216.6	45.5	3.6	88
	SM175	14	51 100	174 400	15.3	3.34	11.4	233	48.9	6.2	100
	SM/SY185	15	55 300	188 700	16.3	3.39	11.6	249.9	52.5	6.2	100
	SY240	20	74 100	252 900	22.1	3.35	11.4	347.8	73	8	150
	SY300	25	94 500	322 500	27.5	3.43	11.7	437.5	91.9	8	157
SY380	30	115 300	393 500	33.4	3.46	11.8	531.2	111.6	8.4	158	
R407C SINGLE	SZ084	7	22 500	76 800	7.1	3.19	10.9	114.5	24.1	3.25	64
	SZ090	7.5	24 400	83 300	7.6	3.2	10.9	120.5	25.3	3.25	65
	SZ100	8	26 500	90 400	8.2	3.24	11.1	127.2	26.7	3.25	65
	SZ110	9	30 100	102 700	9.3	3.24	11.1	144.2	30.3	3.25	73
	SZ120	10	34 800	118 800	10.7	3.24	11.1	166.6	35	3.25	73
	SZ147	12	42 300	144 328	12.03	3.52	12	193.5	40.6	3.3	67
	SZ148	12	42 600	145 400	13.3	3.19	10.9	199	41.8	3.6	88
	SZ161	13	46 000	157 000	14.3	3.21	11	216.6	45.5	3.6	88
	SZ175	14	48 700	166 200	15.3	3.19	10.9	233	48.9	6.2	100
	SZ185	15	51 800	176 800	16.4	3.15	10.8	249.9	52.5	6.2	100
	SY240	20	71 100	242 700	22.7	3.14	10.7	347.8	73	8	150
	SY300	25	87 900	300 000	27.5	3.2	10.9	437.5	91.9	8	157
	SY380	30	107 300	366 200	33.5	3.2	10.9	531.2	111.6	8.4	158

TR: Ton of Refrigeration

COP: Coefficient Of Performance

EER: Energy Efficiency Ratio

¹⁾ Displacement at nominal speed: 2900 rpm at 50 Hz, 3500 rpm at 60 Hz

²⁾ Net weight with oil charge

Data given for code 4 compressor, for full data details and capacity tables refer to Online Datasheet Generator: www.danfoss.com/ODSG

Rating conditions

	SM/SY compressors	SZ compressors
Refrigerant	R22	R407C
Frequency	60 Hz	60 Hz
Standard rating conditions	ARI standard conditions	-
Evaporating temperature	7.2 °C	7.2 °C (dew point)
Condensing temperature	54.4 °C	54.4 °C (dew point)
Sub-cooling	8.3 K	8.3 K
Superheat	11.1 K	11.1 K

Subject to modification without prior notification

For full data details and capacity tables refer to Online Datasheet Generator: www.danfoss.com/odsg

Technical data and ordering

SM112-124-147 - Scroll compressors - R22

Ordering single pack

Compressor model	Connections	Motor protection	Code no.				
			3	4	6	7	9
			200 – 230 / 3 / 60	460 / 3 / 60 380 – 400 / 3 / 50	230 / 3 / 50	575 / 3 / 60 500 / 3 / 50	380 / 3 / 60
SM112	Brazed	Internal	–	120H0611	–	–	120H0613
SM124	Brazed	Internal	120H0183	120H0185	–	–	120H0187
SM147	Brazed	Internal	120H0189	120H0191	–	–	120H0197
SZ147	Brazed	Internal	–	120H1096	–	–	–

SM112-124-147 - Scroll compressors - R22

Ordering industrial pack

Compressor model	Connections	Motor protection	Code no.				
			3	4	6	7	9
			200 – 230 / 3 / 60	460 / 3 / 60 380 – 400 / 3 / 50	230 / 3 / 50	575 / 3 / 60 500 / 3 / 50	380 / 3 / 60
SM112	Brazed	Internal	120H0610	120H0612	–	–	120H0614
SM124	Brazed	Internal	120H0184	120H0186	–	–	120H0188
SM147	Brazed	Internal	120H0190	120H0311	–	–	120H0198
SZ147	Brazed	Internal	–	120H1097	–	–	–

SM / SY - Scroll compressors - R22

Ordering single pack

Compressor model	Connections	Motor protection	Code no.		
			3	4	9
			200-230 V/3/60 Hz	460 V/3/60 Hz 380-400 V/3/50 Hz	380 V/3/60 Hz
SM084	Brazed	Internal	–	SM084-4VI	–
SM090	Brazed	Internal	SM090-3VI	SM090-4VI	–
SM100	Brazed	Internal	SM100-3VI	SM100-4VI	SM100-9VI
SM110	Brazed	Internal	SM110-3VI	SM110-4VI	SM110-9VI
SM112	Brazed	Internal	–	120H0611	–
SM120	Brazed	Internal	SM120-3VI	SM120-4VI	SM120-9VI
SM124	Brazed	Internal	120H0183	120H0185	120H0187
SM147	Brazed	Internal	120H0189	120H0191	120H0197
SM148	Brazed	Internal	SM148-3VAI	SM148-4VAI	SM148-9VAI
SM161	Brazed	Internal	SM161-3VAI	SM161-4VAI	SM161-9VAI
SM175	Brazed	Thermostat	SM175-3CAI	SM175-4CAI	–
	Rotolock	Thermostat	–	SM175-4RI	–
SM185	Brazed	Thermostat	SM185-3CAI	SM185-4CAI	SM185-9CAI
	Brazed	Module 24V AC	–	SM185-4PCI	–
	Brazed	Module 110-240 V AC	–	–	–
	Rotolock	Thermostat	SM185-3RI	SM185-4RI	SM185-9RI
SY185	Brazed	Thermostat	–	SY185-4CAI	–
	Rotolock	Thermostat	–	SY185-4RI	–
SY240	Brazed	Module 24V AC	–	SY240A4CAI	–
	Brazed	Module 110-240 V AC	SY240A3CBI	SY240A4CBI	SY240A9CBI
	Rotolock	Module 24V AC	–	SY240A4PAI	–
	Rotolock	Module 110-240 V AC	–	SY240A4PBI	–
SY300	Brazed	Module 24V AC	–	SY300A4CAI	–
	Brazed	Module 110-240 V AC	SY300A3CBI	SY300A4CBI	SY300A9CBI
	Rotolock	Module 24V AC	–	SY300A4PAI	–
SY380	Brazed	Module 110-240 V AC	–	SY300A4PBI	–
	Brazed	Module 24V AC	–	SY380A4CAI	–
	Brazed	Module 110-240 V AC	–	SY380A4CBI	120H1115

SM / SY compressors in industrial pack: use numbers from above table and replace the last digit by "M". Example: SY240A3CAM, except for voltage codes 6 and 7 available in single pack only

Technical data and ordering

SM / SY - Scroll compressors - R22

Ordering Industrial pack

Compressor model	Connections	Motor protection	Code no.		
			3	4	9
			200-230 V/3/60 Hz	460 V/3/60 Hz 380-400 V/3/50 Hz	380 V/3/60 Hz
SM084	Brazed	Internal	–	SM084-4VM	–
SM090	Brazed	Internal	SM090-3VM	SM090-4VM	SM090-9VM
SM100	Brazed	Internal	SM100-3VM	SM100-4VM	SM100-9VM
SM110	Brazed	Internal	SM110-3VM	SM110-4VM	SM110-9VM
SM112	Brazed	Internal	120H0610	120H0612	120H0614
SM120	Brazed	Internal	SM120-3VM	SM120-4VM	SM120-9VM
SM124	Brazed	Internal	120H0184	120H0186	120H0188
SM147	Brazed	Internal	120H0190	120H0311	120H0198
	Brazed *)	Internal	–	120H1179	–
SM148	Brazed	Internal	SM148-3VAM	SM148-4VAM	SM148-9VAM
SM161	Brazed	Internal	SM161-3VAM	SM161-4VAM	SM161-9VAM
SM175	Brazed	Thermostat	–	–	–
	Rotolock	Thermostat	–	SM175-4RM	–
SM185	Brazed	Thermostat	SM185-3CAM	SM185-4CAM	SM185-9CAM
	Brazed	Module 24V AC	–	SM185-4PCM	–
	Brazed	Module 110-240 V AC	–	SM185-4XCM	–
	Rotolock	Thermostat	SM185-3RM	SM185-4RM	SM185-9RM
	Rotolock	Module 110-240 V AC	–	SM185-4YCM	SM185-9YCM
SY185	Brazed	Thermostat	–	SY185-4CAM	–
SY240	Brazed	Module 24V AC	–	SY240A4CAM	–
	Brazed	Module 110-240 V AC	SY240A3CBM	SY240A4CBM	SY240A9CBM
	Rotolock	Module 24V AC	–	SY240A4PAM	–
	Rotolock	Module 110-240 V AC	SY240A3PBM	SY240A4PBM	SY240A9PBM
SY300	Brazed	Module 24V AC	–	SY300A4CAM	–
	Brazed	Module 110-240 V AC	SY300A3CBM	SY300A4CBM	SY300A9CBM
	Rotolock	Module 24V AC	–	SY300A4PAM	–
	Rotolock	Module 110-240 V AC	SY300A3PBM	SY300A4PBM	SY300A9PBM
SY380	Brazed	Module 24V AC	–	SY380A4CAM	–
	Brazed	Module 110-240 V AC	–	SY380A4CBM	120H1116

*) Single installation version without oil equalization and sight glass

SZ - Scroll compressors - R407C / R134a

Ordering single pack

Compressor model	Connections	Motor protection	Code no.		
			3	4	9
			200-230 V/3/60 Hz	460 V/3/60 Hz 380-400 V/3/50 Hz	380 V/3/60 Hz
SZ084	Brazed	Internal	–	SZ084-4VI	–
SZ090	Brazed	Internal	SZ090-3VI	SZ090-4VI	SZ090-9VI
SZ100	Brazed	Internal	SZ100-3VI	SZ100-4VI	SZ100-9VI
SZ110	Brazed	Internal	SZ110-3VI	SZ110-4VI	SZ110-9VI
SZ120	Brazed	Internal	SZ120-3VI	SZ120-4VI	SZ120-9VI
SZ147	Brazed	Internal	–	120H1096	–
SZ148	Brazed	Internal	SZ148-3VAI	SZ148-4VAI	SZ148-9VAI
SZ161	Brazed	Internal	SZ161-3VAI	SZ161-4VAI	SZ161-9VAI
SZ175	Brazed	Thermostat	–	SZ175-4CAI	–
	Rotolock	Thermostat	–	SZ175-4RI	–
SZ185	Brazed	Thermostat	SZ185-3CAI	SZ185-4CAI	SZ185-9CAI
	Brazed	Module 24V AC	–	SZ185-4PCI	–
	Rotolock	Thermostat	SZ185-3RI	SZ185-4RI	SZ185-9RI

SZ compressors in industrial pack: use numbers from above table and replace the last digit by "M". Example: SZ240A4CAM, except for voltage codes 6 and 7 available in single pack only

Technical data and ordering

SZ - Scroll compressors - R407C / R134a

Ordering Industrial pack

Compressor model	Connections	Motor protection	Code no.		
			3	4	9
			200-230 V/3/60 Hz	460 V/3/60 Hz 380-400 V/3/50 Hz	380 V/3/60 Hz
SZ084	Brazed	Internal	–	SZ084-4VM	–
SZ090	Brazed	Internal	SZ090-3VM	SZ090-4VM	SZ090-9VM
SZ100	Brazed	Internal	–	SZ100-4VM	SZ100-9VM
SZ110	Brazed	Internal	SZ110-3VM	SZ110-4VM	SZ110-9VM
SZ120	Brazed	Internal	SZ120-3VM	SZ120-4VM	SZ120-9VM
SZ147	Brazed	Internal	–	120H1097	–
SZ148	Brazed	Internal	SZ148-3VAM	SZ148-4VAM	–
SZ161	Brazed	Internal	SZ161-3VAM	SZ161-4VAM	SZ161-9VAM
SZ175	Rotolock	Thermostat	–	SZ175-4RM	–
SZ185	Brazed	Thermostat	SZ185-3CAM	SZ185-4CAM	SZ185-9CAM
	Brazed	Module 24V AC	–	–	–
	Brazed	Module 110 – 240 V	–	SZ185-4XCM	–
	Rotolock	Thermostat	–	SZ185-4RM	SZ185-9RM

Technical data and ordering

SZ - Scroll compressors - R134a - 50 Hz

Performance table

Type	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	6200	2.8	8000	2.8	10100	2.8	12600	2.8	15400	2.7	18700	2.7	22400	2.6
	55	-	-	6100	4.3	7900	4.3	9900	4.3	12400	4.3	15100	4.3	18300	4.2
SZ090	35	6700	2.9	8600	2.9	10900	3.0	13400	2.9	16400	2.9	19800	2.9	23600	2.8
	55	-	-	6600	4.5	8500	4.6	10700	4.6	13200	4.6	16000	4.5	19300	4.5
SZ100	35	7300	3.1	9400	3.1	11700	3.1	14400	3.1	17500	3.1	21000	3.1	25000	3.1
	55	-	-	7300	4.8	9300	4.8	11500	4.9	14100	4.9	17100	4.9	20400	4.8
SZ110	35	8200	3.5	10500	3.5	13200	3.5	16200	3.5	19800	3.5	23800	3.5	28400	3.5
	55	-	-	8100	5.4	10400	5.4	13000	5.5	16000	5.5	19400	5.5	23300	5.4
SZ120	35	9400	4.0	12000	4.0	15100	4.1	18700	4.1	22800	4.1	27500	4.1	32900	4.0
	55	-	-	9300	6.2	11900	6.3	14900	6.3	18400	6.3	22400	6.3	27000	6.2
SZ148	35	11200	5.0	14400	5.0	18100	5.0	22600	5.0	27900	5.0	34000	5.0	41100	5.0
	55	-	-	11200	7.7	14200	7.7	17800	7.7	22100	7.7	27100	7.8	32800	7.8
SZ161	35	12000	5.2	15300	5.2	19200	5.3	23800	5.3	29200	5.4	35500	5.4	42700	5.4
	55	-	-	12100	8.0	15300	8.0	19200	8.1	23700	8.1	28900	8.1	35000	8.1
SZ175	35	13200	5.7	16900	5.8	21200	5.8	26200	5.9	32100	5.9	38700	5.9	46200	5.8
	55	-	-	13100	8.6	16700	8.6	21000	8.7	26000	8.7	31700	8.8	38100	8.8
SZ185	35	14000	6.1	18000	6.1	22600	6.2	27900	6.2	34100	6.3	41200	6.3	49200	6.2
	55	-	-	13900	9.1	17800	9.2	22400	9.3	27700	9.3	33700	9.3	40600	9.3
SZ240	35	18900	8.4	23900	8.5	29900	8.6	37100	8.7	45700	8.7	56000	8.8	68200	8.9
	55	-	-	18800	12.3	23800	12.5	29700	12.6	36700	12.7	45000	12.9	54700	13.0
SZ300	35	23700	10.2	30000	10.4	37500	10.5	46300	10.6	56700	10.7	68900	10.8	82800	11.0
	55	-	-	23600	15.2	29700	15.4	37100	15.6	45800	15.9	55900	16.1	67800	16.4
SZ380	35	30200	12.3	38000	12.5	47300	12.7	58200	12.9	71000	13.1	85800	13.4	102900	13.6
	55	-	-	30100	18.1	37800	18.4	46900	18.7	57600	19.0	70000	19.2	84400	19.4
SZ170	35	12200	5.5	15700	5.6	19900	5.6	24800	5.5	30400	5.5	36800	5.4	44000	5.3
	55	-	-	11900	8.6	15500	8.6	19600	8.6	24300	8.6	29800	8.5	36000	8.4
SZ180	35	13300	5.9	17000	5.9	21400	5.9	26500	5.9	32300	5.8	39000	5.8	46500	5.7
	55	-	-	13100	9.1	16800	9.1	21100	9.1	26000	9.1	31600	9.1	38000	9.0
SZ200	35	14500	6.2	18400	6.2	23000	6.3	28400	6.3	34500	6.2	41400	6.2	49200	6.1
	55	-	-	14400	9.6	18200	9.7	22700	9.7	27800	9.7	33600	9.7	40200	9.7
SZ220	35	16300	7.0	20700	7.0	25900	7.1	32000	7.1	39000	7.1	46900	7.0	56000	6.9
	55	-	-	16100	10.8	20500	10.9	25600	10.9	31400	10.9	38200	10.9	45900	10.9
SZ230	35	17800	7.6	22800	7.6	28600	7.6	35300	7.6	43000	7.6	51700	7.5	61600	7.4
	55	-	-	17500	11.7	22500	11.8	28200	11.8	34800	11.8	42200	11.8	50700	11.7
SZ242	35	18600	8.0	23700	8.1	29700	8.1	36800	8.1	44900	8.1	54200	8.1	64900	8.0
	55	-	-	18300	12.5	23400	12.5	29300	12.5	36200	12.5	44200	12.5	53300	12.4
SZ250	35	19000	8.1	24300	8.1	30500	8.1	37600	8.1	45800	8.1	55100	8.0	65600	7.9
	55	-	-	18600	12.5	23900	12.5	30000	12.6	37000	12.6	45000	12.5	54000	12.5
SZ268	35	20600	9.0	26400	9.1	33200	9.1	41200	9.1	50600	9.1	61400	9.1	73900	9.0
	55	-	-	20100	13.9	25700	14.0	32300	14.0	39900	14.0	48800	14.0	59100	14.0
SZ271	35	20200	8.7	25800	8.7	32300	8.8	40000	8.9	48900	8.9	59200	8.9	71000	8.9
	55	-	-	19900	13.4	25300	13.5	31600	13.5	39000	13.6	47600	13.6	57400	13.6
SZ281	35	21400	9.2	27300	9.3	34300	9.3	42400	9.4	51900	9.4	62900	9.4	75500	9.4
	55	-	-	21000	14.2	26800	14.3	33500	14.3	41500	14.4	50600	14.4	61200	14.3
SZ285	35	21700	9.3	27800	9.4	34900	9.4	43100	9.5	52600	9.5	63400	9.4	75600	9.3
	55	-	-	21400	14.2	27500	14.2	34500	14.3	42600	14.4	51900	14.4	62400	14.3
SZ290	35	21900	9.5	28000	9.6	35200	9.6	43500	9.7	53100	9.7	64000	9.6	76300	9.5
	55	-	-	21600	14.4	27700	14.5	34800	14.6	43000	14.6	52300	14.7	62900	14.6
SZ296	35	22100	10.0	28300	10.0	35700	10.0	44500	10.0	54900	10.0	67000	10.0	80900	10.0
	55	-	-	22000	15.4	28000	15.4	35200	15.4	43500	15.5	53300	15.5	64700	15.6
SZ310	35	23300	10.1	29800	10.2	37500	10.3	46300	10.3	56500	10.3	68100	10.2	81200	10.1
	55	-	-	23000	15.4	29500	15.5	37100	15.5	45800	15.6	55700	15.6	67000	15.6
SZ320	35	24400	10.5	31300	10.6	39300	10.7	48700	10.8	59400	10.8	71700	10.8	85700	10.8
	55	-	-	24200	15.8	31000	15.9	39000	16.0	48200	16.1	58700	16.2	70700	16.2
SZ322	35	23600	10.4	30100	10.5	37800	10.5	46900	10.6	57600	10.7	69900	10.8	84100	10.8
	55	-	-	23800	15.9	30200	16.0	37800	16.1	46600	16.2	56900	16.2	68900	16.2
SZ350	35	26000	11.4	33200	11.5	41800	11.6	51700	11.7	63100	11.8	76200	11.7	91100	11.7
	55	-	-	25700	17.1	33000	17.3	41400	17.4	51200	17.5	62400	17.5	75100	17.5
SZ370	35	27600	12.1	35400	12.3	44500	12.4	55000	12.5	67200	12.5	81100	12.5	96900	12.4
	55	-	-	27400	18.2	35100	18.4	44100	18.5	54500	18.6	66400	18.7	79900	18.6

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Pe: Power input in [kW]

Qo: Cooling capacity in [W]

Subcooling: 8.3 K

Superheat: 11.1 K

Voltage: 400 V / 3 / 50 Hz



For more information and performance with other refrigerants, please refer to Coolselector *2 at coolselector.danfoss.com or contact Danfoss.

Technical data and ordering

SZ - Scroll compressors - R134a - 60 Hz

Performance table

Type	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	7800	3.28	9800	3.30	12300	3.31	15300	3.32	18700	3.31	22700	3.28	27200	3.25	
	55	-	-	7800	5.02	9900	5.05	12300	5.09	15200	5.11	18500	5.13	22400	5.13	
SZ090	35	8200	3.45	10400	3.48	13100	3.50	16100	3.51	19700	3.50	23900	3.48	28600	3.45	
	55	-	-	8300	5.28	10500	5.33	13000	5.36	16000	5.39	19500	5.41	23600	5.41	
SZ100	35	8800	3.65	11100	3.68	13900	3.70	17100	3.72	20900	3.72	25300	3.71	30200	3.68	
	55	-	-	8800	5.58	11100	5.63	13800	5.67	17000	5.70	20700	5.72	24900	5.72	
SZ110	35	10100	4.14	12800	4.18	15900	4.23	19600	4.26	23800	4.27	28700	4.28	34300	4.26	
	55	-	-	10000	6.35	12700	6.40	15800	6.45	19400	6.48	23600	6.50	28300	6.51	
SZ120	35	11900	4.78	15000	4.85	18600	4.91	22800	4.97	27700	5.00	33300	5.02	39600	5.02	
	55	-	-	11700	7.35	14800	7.41	18400	7.47	22600	7.51	27400	7.54	32800	7.54	
SZ148	35	13400	6.00	17100	6.14	21400	6.23	26500	6.27	32500	6.26	39500	6.17	47500	6.01	
	55	-	-	13400	9.24	17000	9.39	21300	9.48	26300	9.50	32200	9.45	39000	9.31	
SZ161	35	14600	6.23	18600	6.34	23300	6.42	28800	6.48	35300	6.52	42800	6.54	51400	6.53	
	55	-	-	14700	9.44	18700	9.59	23300	9.70	28600	9.78	34900	9.82	42000	9.84	
SZ175	35	16300	6.76	20500	6.85	25600	6.94	31500	7.02	38400	7.08	46300	7.11	55300	7.13	
	55	-	-	16100	10.13	20300	10.25	25400	10.37	31200	10.47	38000	10.56	45800	10.63	
SZ185	35	17300	7.22	21900	7.32	27200	7.42	33500	7.50	40900	7.56	49300	7.60	58900	7.61	
	55	-	-	17100	10.82	21700	10.95	27000	11.08	33300	11.19	40500	11.29	48800	11.36	
	35	17300	7.22	21900	7.32	27200	7.42	33500	7.50	40900	7.56	49300	7.60	58900	7.61	
	55	-	-	17100	10.82	21700	10.95	27000	11.08	33300	11.19	40500	11.29	48800	11.36	
SZ240	35	23200	10.14	29400	10.24	36700	10.37	45400	10.51	55500	10.68	67300	10.86	80800	11.06	
	55	-	-	23000	14.86	29100	15.04	36400	15.23	44900	15.44	54800	15.67	66200	15.91	
SZ300	35	29100	12.32	36500	12.69	45400	12.98	55900	13.21	68300	13.40	82700	13.58	99500	13.75	
	55	-	-	28800	18.40	36100	18.91	44700	19.34	55100	19.69	67200	20.00	81400	20.28	
SZ380	35	36200	15.20	45500	15.65	56500	16.00	69500	16.29	84800	16.54	102600	16.78	123200	17.05	
	55	-	-	36000	22.19	45200	22.72	56100	23.11	68900	23.38	84000	23.56	101500	23.68	
SZ170	35	15300	6.56	19400	6.60	24300	6.62	30100	6.63	36800	6.61	44700	6.56	53600	6.49	
	55	-	-	15400	10.02	19500	10.10	24300	10.17	29900	10.22	36500	10.25	44100	10.26	
SZ180	35	16200	6.90	20500	6.95	25700	6.99	31800	7.01	38900	7.00	47100	6.96	56400	6.89	
	55	-	-	16300	10.56	20600	10.65	25700	10.72	31600	10.77	38500	10.81	46500	10.82	
SZ200	35	17200	7.29	21800	7.35	27300	7.40	33700	7.43	41200	7.44	49800	7.41	59600	7.35	
	55	-	-	17300	11.16	21800	11.25	27200	11.33	33500	11.39	40800	11.43	49100	11.43	
SZ220	35	19900	8.27	25100	8.36	31300	8.45	38600	8.51	47000	8.54	56600	8.54	67500	8.51	
	55	-	-	19800	12.68	25000	12.79	31200	12.88	38300	12.95	46400	12.99	55800	13.00	
SZ242	35	23300	9.56	29500	9.70	36700	9.82	45000	9.93	54600	10.00	65500	10.04	77900	10.04	
	55	-	-	23100	14.69	29200	14.82	36300	14.93	44500	15.01	53900	15.06	64600	15.07	
SZ268	35	24900	10.78	31600	10.99	39400	11.15	48600	11.24	59300	11.26	71600	11.19	85700	11.03	
	55	-	-	24700	16.58	31400	16.80	39200	16.95	48200	17.01	58700	16.98	70700	16.85	
SZ271	35	24300	10.36	30900	10.52	38600	10.65	47700	10.74	58200	10.79	70400	10.81	84400	10.79	
	55	-	-	24400	15.78	30900	15.99	38500	16.14	47300	16.26	57600	16.32	69300	16.34	
SZ281	35	26100	11.01	33000	11.19	41300	11.34	50900	11.45	62100	11.52	74900	11.56	89600	11.55	
	55	-	-	26000	16.79	33000	17.00	41100	17.17	50500	17.29	61300	17.36	73700	17.38	
SZ296	35	26500	11.99	33700	12.27	42200	12.46	52300	12.54	64000	12.50	77700	12.33	93500	12.01	
	55	-	-	26400	18.46	33500	18.77	42000	18.95	51900	19.00	63500	18.88	76900	18.61	
SZ322	35	28800	12.44	36600	12.67	45900	12.84	56800	12.96	69500	13.03	84300	13.06	101300	13.05	
	55	-	-	29000	18.87	36700	19.16	45800	19.38	56400	19.54	68700	19.63	82800	19.66	
SZ350	35	32100	13.50	40500	13.70	50400	13.88	62100	14.03	75600	14.14	91200	14.22	109000	14.24	
	55	-	-	31600	20.25	40100	20.49	50000	20.73	61500	20.94	74900	21.11	90200	21.25	
SZ370	35	34100	14.42	43100	14.63	53700	14.82	66100	14.98	80500	15.11	97100	15.19	116000	15.21	
	55	-	-	33700	21.63	42700	21.89	53200	22.14	65500	22.37	79700	22.56	96100	22.70	

To: Evaporating temperature in [°C]

Tc: Condensing temperature in [°C]

Pe: Power input in [kW]

Qo: Cooling capacity in [W]

Subcooling: 8.3 K

Superheat: 11.1 K

Voltage: 400 V / 3 / 60 Hz



For more information and performance with other refrigerants, please refer to Coolselector® 2 at coolselector.danfoss.com or contact Danfoss.

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Technical data and ordering

SZ - Scroll compressors - R407C - 50 Hz

Performance table

Type	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	7200	3.9	9300	3.9	11800	4.0	14800	4.0	18300	4.0	22300	4.0	27000	4.0	32300	3.9
	55	-	-	-	-	-	-	11300	6.2	14200	6.2	17500	6.2	21400	6.2	25800	6.2
SZ090	35	7600	4.1	9800	4.1	12500	4.2	15600	4.2	19300	4.2	23600	4.2	28500	4.2	34100	4.1
	55	-	-	-	-	-	-	12000	6.5	15000	6.5	18500	6.5	22500	6.5	27200	6.5
SZ100	35	8100	4.3	10500	4.4	13300	4.4	16600	4.4	20500	4.5	25000	4.4	30100	4.4	36000	4.4
	55	-	-	-	-	-	-	12700	6.9	15900	6.9	19600	6.9	23800	6.9	28700	6.9
SZ110	35	9300	4.9	12000	5.0	15200	5.0	19000	5.0	23400	5.0	28500	5.0	34300	5.0	40900	4.9
	55	-	-	-	-	-	-	14500	7.9	18100	7.9	22300	7.9	27200	7.8	32700	7.8
SZ120	35	11000	5.7	14200	5.7	17900	5.8	22200	5.8	27300	5.8	33200	5.8	39900	5.7	47600	5.6
	55	-	-	-	-	-	-	17000	9.2	21200	9.2	26100	9.2	31600	9.1	38000	9.0
SZ148	35	13500	6.9	17300	7.0	21700	7.0	27000	7.0	33100	7.1	40300	7.1	48500	7.1	57800	7.2
	55	-	-	-	-	-	-	21200	11.1	26200	11.1	32100	11.1	38900	11.1	46700	11.1
SZ161	35	14600	7.4	18700	7.5	23500	7.5	29200	7.6	35800	7.6	43500	7.6	52400	7.7	62600	7.8
	55	-	-	-	-	-	-	22900	12.0	28400	12.0	34700	12.0	42100	12.0	50600	12.0
SZ175	35	15500	8.0	19800	8.0	25000	8.1	31100	8.2	38100	8.2	46300	8.2	55600	8.2	66200	8.2
	55	-	-	-	-	-	-	24000	12.7	29800	12.8	36500	12.8	44200	12.8	53000	12.8
SZ185	35	16600	8.6	21300	8.6	26900	8.7	33400	8.8	41000	8.8	49700	8.8	59700	8.8	71100	8.8
	55	-	-	-	-	-	-	25700	13.7	32000	13.7	39200	13.8	47500	13.8	56900	13.8
SZ240	35	22400	11.7	28900	11.8	36500	11.9	45400	12.1	55900	12.2	68000	12.4	82000	12.5	98000	12.6
	55	-	-	21900	17.9	28100	18.0	35500	18.2	44000	18.4	54000	18.7	65500	18.9	78800	19.2
SZ300	35	28700	13.7	36200	13.9	45100	14.1	55500	14.3	67600	14.5	81700	14.7	98000	14.9	116600	15.2
	55	-	-	28500	21.2	35900	21.6	44600	22.1	54800	22.5	66600	22.9	80400	23.2	96300	23.6
SZ380	35	36000	16.9	45300	17.3	56400	17.6	69400	18.0	84600	18.3	102200	18.6	122400	18.9	145400	19.4
	55	-	-	35000	26.1	44200	26.6	55000	27.0	67500	27.4	82100	27.8	98900	28.1	118200	28.5
SZ170	35	14200	7.8	18300	7.9	23200	8.0	29100	8.0	36000	8.0	44000	8.0	53200	8.0	63700	7.9
	55	-	-	-	-	-	-	22300	12.3	27900	12.4	34500	12.4	42100	12.4	50900	12.4
SZ180	35	15000	8.2	19400	8.3	24600	8.3	30800	8.4	38000	8.4	46400	8.4	56100	8.3	67100	8.2
	55	-	-	-	-	-	-	23600	13.0	29500	13.0	36400	13.1	44400	13.0	53600	13.0
SZ200	35	16000	8.7	20600	8.8	26100	8.8	32700	8.9	40300	8.9	49200	8.9	59300	8.8	70900	8.7
	55	-	-	-	-	-	-	25000	13.8	31300	13.9	38600	13.9	47000	13.8	56600	13.8
SZ220	35	18400	9.9	23700	9.9	30000	10.0	37400	10.1	46100	10.1	56100	10.0	67500	10.0	80600	9.8
	55	-	-	-	-	-	-	28600	15.8	35800	15.8	44000	15.8	53500	15.7	64400	15.5
SZ230	35	20000	10.8	25800	10.8	32800	10.9	40900	10.9	50400	10.9	61200	10.9	73700	10.8	87700	10.7
	55	-	-	-	-	-	-	31100	17.4	38900	17.3	48000	17.3	58400	17.2	70200	17.0
SZ242	35	21600	11.4	27900	11.5	35200	11.6	43800	11.6	53800	11.6	65400	11.5	78600	11.4	93700	11.2
	55	-	-	-	-	-	-	33600	18.3	41800	18.4	51300	18.3	62300	18.1	74800	17.9
SZ250	35	21200	11.4	27500	11.4	34900	11.5	43500	11.5	53600	11.5	65200	11.4	78300	11.4	93300	11.3
	55	-	-	-	-	-	-	33100	18.3	41400	18.3	51100	18.2	62100	18.1	74700	17.9
SZ268	35	24100	12.6	31000	12.7	39000	12.8	48500	12.9	59500	12.9	72300	12.9	87000	12.9	103800	12.8
	55	-	-	-	-	-	-	37600	20.3	46700	20.3	57300	20.3	69400	20.2	83400	20.1
SZ271	35	23900	12.4	30600	12.5	38700	12.6	48100	12.6	59100	12.6	71900	12.7	86600	12.7	103400	12.7
	55	-	-	-	-	-	-	36700	19.9	45700	19.9	56000	19.9	68000	19.9	81800	19.8
SZ281	35	25200	13.1	32300	13.2	40800	13.3	50700	13.4	62200	13.4	75600	13.4	90900	13.4	108500	13.4
	55	-	-	-	-	-	-	39300	21.2	48800	21.2	59900	21.2	72600	21.1	87200	21.0
SZ285	35	25500	13.0	32900	13.2	41500	13.3	51700	13.3	63500	13.3	77200	13.3	92900	13.3	110800	13.2
	55	-	-	-	-	-	-	39300	21.0	48900	21.0	60100	21.0	73100	21.0	87900	20.9
SZ290	35	25200	13.4	32500	13.5	41000	13.5	51100	13.6	62800	13.7	76200	13.7	91600	13.6	109000	13.5
	55	-	-	-	-	-	-	39100	21.4	48800	21.5	59900	21.5	72700	21.4	87300	21.3
SZ296	35	26600	13.8	34000	13.9	42800	14.0	53200	14.1	65300	14.2	79300	14.2	95500	14.3	114000	14.4
	55	-	-	-	-	-	-	41700	22.2	51700	22.3	63200	22.3	76600	22.3	92000	22.3
SZ310	35	27000	14.2	34700	14.4	43900	14.5	54700	14.5	67200	14.6	81600	14.6	98000	14.5	116700	14.4
	55	-	-	-	-	-	-	41900	22.9	52200	22.9	64100	22.9	77800	22.9	93400	22.8
SZ320	35	29200	14.7	37300	14.9	47000	15.0	58400	15.1	71800	15.2	87200	15.2	105000	15.2	125400	15.2
	55	-	-	-	-	-	-	45700	23.6	56700	23.7	69400	23.8	84200	23.8	101300	23.9
SZ322	35	28700	14.9	36800	15.0	46300	15.1	57500	15.1	70600	15.2	85800	15.3	103300	15.4	123300	15.5
	55	-	-	-	-	-	-	45100	23.9	55900	24.0	68400	24.0	82900	24.0	99600	24.0
SZ350	35	30500	15.9	39100	16.1	49300	16.2	61200	16.3	75200	16.4	91200	16.4	109500	16.4	130300	16.4
	55	-	-	-	-	-	-	47200	25.4	58600	25.6	71900	25.6	87100	25.7	104400	25.7
SZ370	35	32700	17.1	42000	17.3	52900	17.4	65800	17.5	80700	17.6	98000	17.7	117700	17.7	140000	17.6
	55	-	-	-	-	-	-	50700	27.4	63000	27.5	77200	27.6	93500	27.6	112100	27.6

To: Evaporating temperature in [°C]
Subcooling: 8.3 K

Tc: Condensing temperature in [°C]
Superheat: 11.1 K

Pe: Power input in [kW]
Voltage: 400 V / 3 / 50 Hz

Qo: Cooling capacity in [W]



For more information and performance with other refrigerants, please refer to Coolselector® 2 at coolselector.danfoss.com or contact Danfoss.

Technical data and ordering

SZ - Scroll compressors - R407C - 60 Hz

Performance table

Type	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	8400	4.45	11100	4.49	14300	4.52	17900	4.53	22000	4.52	26700	4.49	32000	4.42	37900	4.33
	55	-	-	-	-	-	-	12600	7.16	16200	7.17	20300	7.17	25000	7.14	30100	7.08
SZ090	35	9200	4.82	12000	4.87	15300	4.92	19100	4.95	23500	4.96	28500	4.95	34200	4.91	40700	4.84
	55	-	-	-	-	-	-	14100	7.69	17800	7.72	22100	7.74	27000	7.73	32500	7.69
SZ100	35	10000	5.16	12900	5.23	16400	5.30	20400	5.35	25100	5.39	30600	5.41	36800	5.40	43800	5.36
	55	-	-	-	-	-	-	15800	8.19	19700	8.24	24100	8.28	29200	8.29	35000	8.28
SZ110	35	11500	5.85	14800	5.93	18700	6.01	23300	6.06	28600	6.10	34700	6.10	41700	6.08	49600	6.02
	55	-	-	-	-	-	-	18000	9.35	22400	9.40	27400	9.41	33200	9.40	39700	9.35
SZ112	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SZ120	35	13500	6.76	17300	6.85	21800	6.94	27000	7.00	33100	7.03	40100	7.02	48100	6.98	57100	6.88
	55	-	-	-	-	-	-	20900	10.88	25900	10.91	31700	10.91	38300	10.86	45900	10.76
SZ124	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SZ147	35	17200	7.51	21500	7.59	26600	7.71	32500	7.85	39500	8.03	47600	8.25	56900	8.52	67600	8.82
	55	-	-	-	-	-	-	26100	11.94	31900	12.01	38700	12.12	46500	12.27	55600	12.47
SZ148	35	16500	8.31	21100	8.40	26400	8.52	32700	8.66	40000	8.78	48500	8.88	58300	8.92	69500	8.89
	55	-	-	-	-	-	-	25800	13.28	31800	13.36	38800	13.47	46900	13.59	56200	13.70
SZ161	35	17800	8.90	22700	9.03	28500	9.14	35300	9.24	43200	9.34	52300	9.44	62900	9.56	75000	9.69
	55	-	-	-	-	-	-	27900	14.27	34400	14.38	41900	14.47	50600	14.55	60700	14.63
SZ175	35	19300	9.48	24600	9.63	30800	9.77	38000	9.89	46500	9.99	56300	10.07	67500	10.12	80200	10.14
	55	-	-	-	-	-	-	29400	15.14	36300	15.29	44300	15.43	53600	15.54	64100	15.62
SZ185	35	20600	10.19	26100	10.35	32700	10.50	40500	10.63	49500	10.75	59900	10.83	71800	10.89	85400	10.90
	55	-	-	-	-	-	-	31300	16.28	38600	16.44	47200	16.59	57000	16.71	68200	16.79
SZ185	35	20600	10.19	26100	10.35	32700	10.50	40500	10.63	49500	10.75	59900	10.83	71800	10.89	85400	10.90
	55	-	-	-	-	-	-	31300	16.28	38600	16.44	47200	16.59	57000	16.71	68200	16.79
SZ240	35	26900	13.97	34700	14.33	43900	14.68	54700	15.00	67300	15.31	81900	15.62	98700	15.92	117900	16.22
	55	-	-	26600	21.18	34200	21.63	42900	22.05	53100	22.43	64800	22.78	78400	23.11	94000	23.40
SZ300	35	35800	16.75	44900	17.09	55700	17.43	68400	17.76	83500	18.09	101300	18.42	122000	18.75	146100	19.08
	55	-	-	34300	25.62	43000	26.11	53300	26.61	65500	27.10	80000	27.61	97100	28.11	117100	28.62
SZ380	35	42900	20.29	54100	20.75	67300	21.23	82900	21.73	101000	22.24	122100	22.76	146400	23.28	174100	23.81
	55	-	-	41900	31.38	52800	31.88	65500	32.42	80500	33.00	97900	33.62	118100	34.26	141300	34.93
SZ170	35	16600	8.90	21900	8.98	28100	9.04	35300	9.06	43400	9.04	52600	8.97	63000	8.84	74600	8.65
	55	-	-	-	-	-	-	24800	14.31	31900	14.34	40000	14.33	49200	14.26	59400	14.14
SZ180	35	18100	9.63	23600	9.74	30100	9.83	37600	9.89	46300	9.92	56200	9.89	67500	9.82	80100	9.68
	55	-	-	-	-	-	-	27800	15.37	35100	15.44	43600	15.47	53100	15.45	63900	15.37
SZ200	35	19800	10.31	25500	10.46	32300	10.59	40200	10.70	49500	10.77	60200	10.80	72400	10.78	86300	10.71
	55	-	-	-	-	-	-	31200	16.37	38700	16.48	47500	16.55	57600	16.57	69000	16.54
SZ220	35	22700	11.69	29200	11.86	36800	12.00	45800	12.12	56300	12.19	68300	12.20	82100	12.15	97600	12.02
	55	-	-	-	-	-	-	35500	18.69	44100	18.78	54000	18.81	65300	18.79	78200	18.69
SZ242	35	26600	13.50	34000	13.70	42900	13.86	53200	13.98	65200	14.05	79000	14.04	94800	13.95	112600	13.76
	55	-	-	-	-	-	-	41200	21.75	51100	21.81	62500	21.80	75500	21.71	90400	21.51
SZ268	35	29600	15.07	37800	15.25	47400	15.46	58800	15.65	72000	15.81	87300	15.90	104800	15.90	124700	15.77
	55	-	-	-	-	-	-	46100	24.16	56900	24.27	69500	24.37	84000	24.45	100600	24.46
SZ271	35	28900	14.75	37000	14.96	46500	15.14	57700	15.30	70700	15.43	85700	15.54	103000	15.63	122700	15.71
	55	-	-	-	-	-	-	45200	23.63	55900	23.78	68300	23.89	82500	23.95	98900	23.98
SZ281	35	30900	15.65	39400	15.88	49500	16.07	61300	16.24	75100	16.37	91100	16.46	109300	16.53	130100	16.57
	55	-	-	-	-	-	-	48100	25.16	59400	25.30	72500	25.38	87600	25.41	105000	25.39
SZ294	35	34100	15.02	42600	15.18	52700	15.41	64500	15.70	78300	16.07	94400	16.51	112800	17.03	133900	17.64
	55	-	-	-	-	-	-	51800	23.88	63300	24.02	76700	24.24	92300	24.54	110200	24.94
SZ296	35	32600	16.62	41500	16.79	52000	17.03	64400	17.30	78800	17.55	95500	17.74	114800	17.83	136900	17.76
	55	-	-	-	-	-	-	50900	26.55	62700	26.70	76500	26.92	92500	27.16	110800	27.38
SZ322	35	35100	17.78	44800	18.04	56100	18.27	69500	18.47	85000	18.66	103100	18.87	123900	19.10	147700	19.37
	55	-	-	-	-	-	-	54900	28.53	67700	28.75	82600	28.93	99800	29.09	119600	29.24
SZ350	35	38100	18.95	48400	19.24	60600	19.52	74900	19.77	91700	19.98	110900	20.14	133000	20.23	158100	20.26
	55	-	-	-	-	-	-	57900	30.26	71600	30.56	87300	30.83	105500	31.05	126200	31.22
SZ370	35	40500	20.38	51500	20.69	64400	20.99	79700	21.26	97500	21.48	118000	21.65	141500	21.76	168200	21.79
	55	-	-	-	-	-	-	61600	32.53	76100	32.86	92900	33.15	112300	33.39	134300	33.57

To: Evaporating temperature in [°C]
Subcooling: 8.3 K

Tc: Condensing temperature in [°C]
Superheat: 11.1 K

Pe: Power input in [kW]
Voltage: 400 V / 3 / 60 Hz

Qo: Cooling capacity in [W]



For more information and performance with other refrigerants, please refer to Coolselector *2 at coolselector.danfoss.com or contact Danfoss.

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Technical data and ordering

SM / SY - Scroll compressors - R22 - 50 Hz

Performance table

Type	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	7700	4.0	9900	4.0	12500	4.0	15500	4.0	18900	4.0	22800	4.0	27200	3.9	32100	3.9
	55	-	-	-	-	-	-	12000	6.4	15000	6.3	18500	6.2	22500	6.2	26900	6.1
SM090	35	8600	4.3	10900	4.4	13600	4.4	16700	4.4	20200	4.4	24300	4.4	28900	4.4	34100	4.4
	55	-	-	-	-	-	-	13300	6.7	16400	6.7	19900	6.6	23900	6.6	28400	6.5
SM100	35	9000	4.6	11500	4.6	14400	4.7	17700	4.7	21500	4.7	25800	4.7	30700	4.7	36200	4.7
	55	-	-	-	-	-	-	14200	7.1	17400	7.1	21200	7.1	25400	7.0	30200	7.0
SM110	35	10200	5.2	13000	5.2	16200	5.2	20000	5.2	24200	5.2	29000	5.2	34400	5.2	40400	5.2
	55	-	-	-	-	-	-	15900	8.0	19600	8.0	23800	7.9	28400	7.9	33700	7.8
SM112	35	11300	5.1	14100	5.1	17400	5.2	21200	5.3	25500	5.4	30500	5.5	36100	5.6	42500	5.7
	55	-	-	-	-	-	-	17500	7.8	21200	7.9	25400	8.0	30200	8.1	35700	8.2
SM120	35	11800	6.0	15200	6.0	19000	6.0	23300	5.9	28200	5.9	33700	5.9	39900	5.9	46700	5.9
	55	-	-	-	-	-	-	18600	9.2	22800	9.2	27600	9.1	33000	9.0	38900	9.0
SM124	35	13100	5.4	16200	5.5	19800	5.7	23900	5.8	28700	6.0	34100	6.1	40300	6.2	47200	6.4
	55	-	-	-	-	-	-	19800	8.4	24000	8.6	28700	8.8	34100	9.0	40200	9.2
SM147	35	14900	6.3	18600	6.4	22900	6.5	27800	6.7	33500	6.9	40000	7.1	47300	7.2	55600	7.4
	55	-	-	-	-	-	-	22700	9.8	27500	9.9	33100	10.1	39400	10.3	46600	10.5
SM148	35	14800	7.0	18500	7.0	22900	7.1	27800	7.1	33600	7.2	40100	7.2	47500	7.3	55900	7.3
	55	-	-	-	-	-	-	22600	10.9	27500	10.9	33100	10.9	39500	11.0	46800	11.0
SM161	35	16000	7.5	20100	7.6	24700	7.6	30100	7.6	36300	7.7	43400	7.7	51400	7.8	60500	7.8
	55	-	-	-	-	-	-	24400	11.7	29700	11.7	35800	11.7	42800	11.8	50600	11.8
SM175	35	17000	8.1	21300	8.1	26400	8.2	32300	8.3	39000	8.4	46600	8.4	55200	8.5	64800	8.5
	55	-	-	-	-	-	-	26200	12.4	32000	12.5	38500	12.6	46000	12.6	54400	12.7
SM185	35	18400	8.8	23100	8.9	28600	9.0	35000	9.1	42200	9.1	50500	9.2	59800	9.3	70200	9.3
	55	-	-	-	-	-	-	13.5	28400	13.6	34600	13.7	41800	13.8	49800	13.8	58900
SY185	35	17600	8.7	22500	8.7	28100	8.7	34500	8.8	42000	8.9	50400	9.0	60000	9.1	70900	9.2
	55	-	-	-	-	-	-	13.3	28600	13.3	34800	13.3	41900	13.4	49800	13.5	58600
SY240	35	25100	11.7	31400	11.8	38800	12.0	47300	12.1	57100	12.4	68300	12.6	81000	13.0	95300	13.3
	55	-	-	-	-	-	-	38400	17.8	46600	18.0	56100	18.3	67000	18.6	79300	18.9
SY300	35	31900	14.2	39900	14.5	49300	14.8	60300	15.1	73100	15.6	87900	16.1	104800	16.7	124100	17.4
	55	-	-	-	-	-	-	48600	22.0	59200	22.4	71600	22.8	85900	23.4	102300	24.1
SY380	35	40100	17.3	49500	17.6	60500	18.0	73300	18.4	88100	18.8	104900	19.2	124100	19.8	145800	20.4
	55	-	-	-	-	-	-	59700	26.8	72300	27.1	86800	27.5	103400	27.9	122300	28.4
SM170	35	15200	8.0	19500	8.0	24600	8.0	30500	8.0	37200	8.0	44900	7.9	53500	7.9	63200	7.8
	55	-	-	-	-	-	-	23600	12.7	29600	12.6	36500	12.5	44300	12.3	53100	12.1
SM180	35	16900	8.6	21400	8.7	26700	8.8	32800	8.8	39900	8.8	47900	8.8	56900	8.8	67100	8.7
	55	-	-	-	-	-	-	26200	13.4	32300	13.3	39300	13.3	47100	13.2	56000	13.1
SM200	35	17700	9.2	22600	9.3	28300	9.3	34800	9.3	42300	9.4	50900	9.4	60500	9.4	71300	9.4
	55	-	-	-	-	-	-	27900	14.3	34400	14.2	41700	14.1	50000	14.0	59400	13.9
SM220	35	20000	10.4	25500	10.4	32000	10.4	39300	10.4	47700	10.5	57100	10.5	67700	10.4	79500	10.4
	55	-	-	-	-	-	-	31400	16.0	38600	16.0	46800	15.9	56000	15.8	66300	15.6
SM230	35	22000	10.8	27400	10.9	33700	10.9	41000	10.9	49500	10.9	59100	10.9	70100	10.9	82400	10.8
	55	-	-	-	-	-	-	32500	17.2	40800	17.1	50200	16.9	61000	16.7	73100	16.5
SM242	35	23300	12.0	29900	11.9	37400	11.9	45900	11.9	55600	11.9	66400	11.9	78500	11.8	92000	11.8
	55	-	-	-	-	-	-	36600	18.4	45000	18.3	54400	18.2	64900	18.1	76600	17.9
SM248	35	26300	10.9	32500	11.1	39600	11.3	47900	11.6	57400	11.9	68200	12.2	80500	12.5	94400	12.7
	55	-	-	-	-	-	-	39700	16.9	47900	17.2	57400	17.5	68100	17.9	80300	18.4
SM250	35	23700	11.6	29500	11.7	36200	11.7	44100	11.7	53200	11.7	63500	11.7	75300	11.7	88600	11.6
	55	-	-	-	-	-	-	35000	18.5	43800	18.4	54000	18.2	65600	18.0	78600	17.7
SM268	35	26600	13.0	33700	13.0	41800	13.0	51100	13.1	61700	13.1	73700	13.2	87300	13.2	102400	13.2
	55	-	-	-	-	-	-	40700	20.1	49800	20.1	60100	20.0	71700	20.0	84800	20.0
SM271	35	25800	12.7	32500	12.8	40300	12.8	49300	12.9	59600	12.9	71300	13.0	84500	13.0	99300	13.0
	55	-	-	-	-	-	-	39700	19.7	48600	19.7	58700	19.7	70100	19.6	83000	19.6
SM272	35	28000	11.7	34800	11.9	42600	12.2	51700	12.5	62100	12.8	73900	13.2	87400	13.5	102600	13.8
	55	-	-	-	-	-	-	41700	18.3	50500	18.5	60600	18.9	72100	19.3	85200	19.7
SM281	35	27500	13.5	34700	13.5	43000	13.6	52600	13.6	63600	13.6	75900	13.7	89900	13.7	105500	13.7
	55	-	-	-	-	-	-	42300	20.9	51800	20.9	62500	20.8	74600	20.8	88200	20.8
SM285	35	27100	13.4	34000	13.5	42100	13.6	51400	13.7	62000	13.8	74100	13.9	87800	14.0	103200	14.1
	55	-	-	-	-	-	-	41200	20.8	51100	20.8	62300	20.8	75000	20.8	89300	20.7
SM290	35	27700	13.5	34700	13.6	42900	13.7	52300	13.8	63100	13.8	75400	13.9	89400	13.9	105100	13.9
	55	-	-	-	-	-	-	42000	21.0	51900	21.1	63100	21.1	75800	21.0	90100	20.9
SM294	35	29900	12.5	37200	12.7	45800	13.0	55600	13.4	67000	13.7	79900	14.1	94600	14.5	111200	14.8
	55	-	-	-	-	-	-	45400	19.7	55100	19.9	66200	20.2	78900	20.6	93300	21.1
SM296	35	29200	14.0	36500	14.1	45000	14.2	54800	14.2	66100	14.3	79000	14.4	93600	14.5	110100	14.6
	55	-	-	-	-	-	-	44500	21.8	54100	21.8	65200	21.8	77900	21.9	92200	21.9
SM310	35	30000	14.6	37500	14.7	46300	14.8	56500	14.9	68200	15.0	81500	15.1	96500	15.1	113500	15.1
	55	-	-	-	-	-	-	45400	22.8	56000	22.9	68100	22.9	81900	22.8	97300	22.7
SM320	35	30600	15.2	38600	15.4	47900	15.6	58600	15.7	70800	15.9	84700	16.1	100300	16.3	117900	16.5
	55	-	-	-	-	-	-	47400	23.1	58300	23.3	70600	23.4	84500	23.5	100100	23.7
SM322	35	31600	15.0	39500	15.1	48700	15.2	59300	15.3	71500							

Technical data and ordering

SM / SY - Scroll compressors - R22 - 60 Hz

Performance table

Type	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	Qo	Pe	Qo	Pe	Qo	Pe	
SM084	35	9600	4.78	12200	4.81	15200	4.83	18700	4.86	22600	4.89	27100	4.91	32100	4.92	37800	4.93								
	55	-	-	-	-	-	-	15000	7.53	18500	7.51	22500	7.49	27000	7.45	32100	7.40								
SM090	35	10600	5.20	13300	5.25	16500	5.29	20200	5.33	24500	5.36	29400	5.38	34900	5.39	41100	5.39								
	55	-	-	-	-	-	-	16400	7.93	20000	7.93	24200	7.92	28900	7.90	34300	7.86								
SM100	35	11200	5.41	14100	5.46	17400	5.50	21300	5.54	25700	5.58	30700	5.61	36400	5.62	42700	5.63								
	55	-	-	-	-	-	-	17200	8.26	21000	8.26	25300	8.25	30100	8.23	35600	8.19								
SM110	35	12800	6.17	16100	6.22	20000	6.26	24400	6.30	29500	6.34	35200	6.37	41600	6.40	48800	6.43								
	55	-	-	-	-	-	-	19800	9.46	24100	9.47	29000	9.47	34500	9.46	40700	9.44								
SM112	35	14100	6.07	17600	6.19	21600	6.33	26200	6.48	31500	6.64	37600	6.83	44400	7.02	52200	7.23								
	55	-	-	-	-	-	-	21700	9.40	26200	9.51	31300	9.66	37100	9.82	43700	10.02								
SM120	35	15000	7.10	18800	7.13	23300	7.17	28400	7.20	34200	7.25	40800	7.29	48300	7.34	56600	7.39								
	55	-	-	-	-	-	-	23000	10.92	28000	10.93	33700	10.94	40100	10.94	47300	10.95								
SM124	35	16000	6.50	19800	6.64	24300	6.82	29500	7.05	35400	7.32	42200	7.63	49900	7.97	58600	8.36								
	55	-	-	-	-	-	-	24100	10.20	29100	10.37	34700	10.60	41200	10.87	48600	11.18								
SM147	35	18600	7.58	22800	7.75	27800	7.93	33500	8.10	40000	8.29	47500	8.47	55900	8.66	65500	8.84								
	55	-	-	-	-	-	-	28000	11.75	33600	11.97	40100	12.20	47600	12.46	56000	12.73								
SM148	35	18100	8.32	22600	8.44	27800	8.54	33800	8.62	40600	8.71	48500	8.79	57400	8.89	67500	9.00								
	55	-	-	-	-	-	-	27600	12.91	33500	13.03	40300	13.13	48000	13.22	56700	13.31								
SM161	35	19700	8.99	24600	9.12	30200	9.23	36700	9.32	44200	9.41	52700	9.51	62400	9.61	73300	9.72								
	55	-	-	-	-	-	-	30000	13.96	36400	14.08	43800	14.19	52100	14.29	61600	14.39								
SM175	35	21100	9.81	26400	9.98	32500	10.15	39500	10.31	47500	10.46	56500	10.59	66600	10.70	77800	10.80								
	55	-	-	-	-	-	-	32200	15.06	39200	15.23	47000	15.39	55800	15.53	65600	15.65								
SM185	35	22500	10.42	28100	10.60	34600	10.78	42000	10.95	50500	11.10	60100	11.25	70800	11.37	82800	11.47								
	55	-	-	-	-	-	-	34300	15.99	41700	16.17	50000	16.34	59300	16.49	69800	16.62								
SY185	35	22500	10.37	28000	10.49	34500	10.60	42000	10.71	50800	10.83	60800	10.94	72200	11.05	85100	11.16								
	55	-	-	-	-	-	-	34600	15.85	42100	16.13	50800	16.39	60700	16.63	71900	16.86								
SY240	35	30600	13.98	38200	14.17	47100	14.43	57300	14.75	69100	15.15	82500	15.63	97600	16.19	114800	16.84								
	55	-	-	-	-	-	-	46700	21.37	56700	21.74	68100	22.16	81000	22.64	95700	23.19								
SY300	35	39800	16.39	49400	16.85	60600	17.38	73600	17.97	88500	18.59	105600	19.25	125000	19.91	146900	20.58								
	55	-	-	-	-	-	-	59600	25.95	72300	26.65	86800	27.43	103400	28.30	122300	29.22								
SY380	35	49000	20.86	60600	21.18	74200	21.63	89900	22.16	108000	22.77	128600	23.41	152100	24.06	178600	24.68								
	55	-	-	-	-	-	-	72800	32.58	88300	32.94	106000	33.45	126200	34.09	149000	34.81								
SM170	35	18900	9.54	24000	9.60	29900	9.66	36800	9.72	44500	9.77	53300	9.80	63300	9.83	74400	9.85								
	55	-	-	-	-	-	-	29500	15.04	36400	15.01	44300	14.96	53300	14.89	63300	14.80								
SM180	35	20900	10.40	26200	10.49	32600	10.57	39900	10.65	48300	10.71	57900	10.76	68700	10.78	80900	10.78								
	55	-	-	-	-	-	-	32300	15.85	39400	15.85	47600	15.83	57000	15.79	67500	15.71								
SM200	35	22000	10.81	27700	10.91	34300	11.00	41900	11.08	50600	11.15	60500	11.21	71700	11.24	84200	11.25								
	55	-	-	-	-	-	-	34000	16.50	41400	16.51	49800	16.49	59400	16.45	70100	16.37								
SM220	35	25300	12.34	31800	12.42	39400	12.51	48100	12.59	58000	12.66	69300	12.74	82000	12.80	96200	12.85								
	55	-	-	-	-	-	-	39000	18.91	47500	18.92	57100	18.92	68000	18.90	80300	18.86								
SM242	35	29500	14.19	37100	14.25	45800	14.32	55900	14.40	67400	14.48	80400	14.58	95100	14.67	111400	14.78								
	55	-	-	-	-	-	-	45300	21.83	55200	21.84	66400	21.86	79100	21.87	93200	21.88								
SM248	35	32000	13.01	39600	13.27	48600	13.64	58900	14.09	70700	14.63	84300	15.25	99700	15.95	117200	16.71								
	55	-	-	-	-	-	-	48100	20.40	58100	20.75	69400	21.19	82400	21.73	97100	22.36								
SM268	35	32600	15.41	40800	15.56	50300	15.70	61200	15.83	73700	15.95	88000	16.08	104100	16.23	122200	16.39								
	55	-	-	-	-	-	-	49900	23.83	60600	23.95	72900	24.06	86800	24.16	102500	24.25								
SM271	35	32100	15.16	40100	15.33	49400	15.48	60200	15.62	72500	15.75	86600	15.88	102500	16.01	120300	16.15								
	55	-	-	-	-	-	-	49100	23.42	59600	23.55	71700	23.66	85400	23.75	100800	23.83								
SM272	35	34500	14.08	42600	14.39	52000	14.74	62900	15.15	75300	15.60	89600	16.09	105700	16.63	124000	17.20								
	55	-	-	-	-	-	-	52000	21.95	62600	22.34	74800	22.80	88700	23.32	104500	23.91								
SM281	35	34200	16.09	42700	16.25	52700	16.39	64100	16.53	77200	16.66	92100	16.80	109000	16.95	128000	17.11								
	55	-	-	-	-	-	-	52200	24.87	63500	25.01	76300	25.13	90900	25.24	107300	25.34								
SM294	35	37100	15.15	45600	15.50	55500	15.85	66900	16.21	79900	16.57	94800	16.94	111700	17.31	130900	17.69								
	55	-	-	-	-	-	-	55900	23.50	67200	23.94	80200	24.40	95000	24.91	111800	25.46								
SM296	35	35800	16.62	44500	16.86	54700	17.06	66500	17.24	80000	17.40	95500	17.57	113100	17.76	132900	17.98								
	55	-	-	-	-	-	-	54400	25.80	66000	26.04	79300	26.24	94500	26.42	111700	26.60								
SM322	35	38900	17.97	48400	18.22	59500	18.44	72300	18.63	87000	18.81	103800	19.00	122900	19.20	144500	19.43								
	55	-	-	-	-	-	-	59100	27.89	71700	28.15	86200	28.37	102700	28.57	121400	28.76								
SM350	35	41600	19.61	52000	19.95	64000	20.28	77800	20.60	93500	20.90	111200	21.16	131100	21.40	153300	21.58								
	55	-	-	-	-	-	-	63500	30.10	77100	30.44	92600	30.75	109900	31.04	129200	31.28								
SM370	35	44300	20.83	55300	21.19	68100	21.54	82800	21.88	99500	22.19	118300	22.48	139500	22.72	163100	22.92								
	55	-	-	-	-	-	-	67600	31.96</																

Nomenclature

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

Family, refrigerant & lubricant:
SM: Scroll, Mineral oil, R22/R417A*)
SY: Scroll, POE lubricant, R22/R417A (R407C for SY185 to 380, R134a for SY240 to 380)
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: 200-230 V/3~/60 Hz
4: 380-400 V/3~/50 Hz - 460 V/3~/60 Hz
 SY380: 380-415V/3~/50 Hz - 460 V/3~/60 Hz
6: 230 V/3~/50 Hz
7: 500 V/3~/50 Hz - 575V/3~/60 Hz
9: 380 V/3~/60 Hz
 SY380: 380-400 V/3~/60 Hz

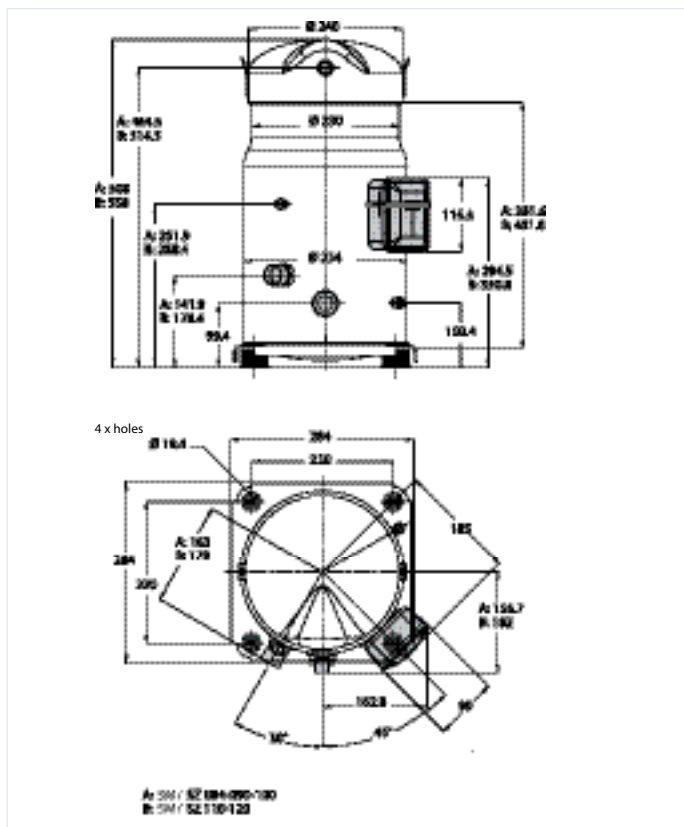
Motor protection type	Connection	Module voltage	Applies to
Internal overload protector	V : brazed		S 084-090-100-110-120-148-161
	A : brazed		S 112-124-147
Internal thermostat	C : brazed		S 185
	R : rotolock		
Electronic protection module	P : brazed	24 V AC	
	X : brazed	110 - 240 V	
	Y : rotolock	110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

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

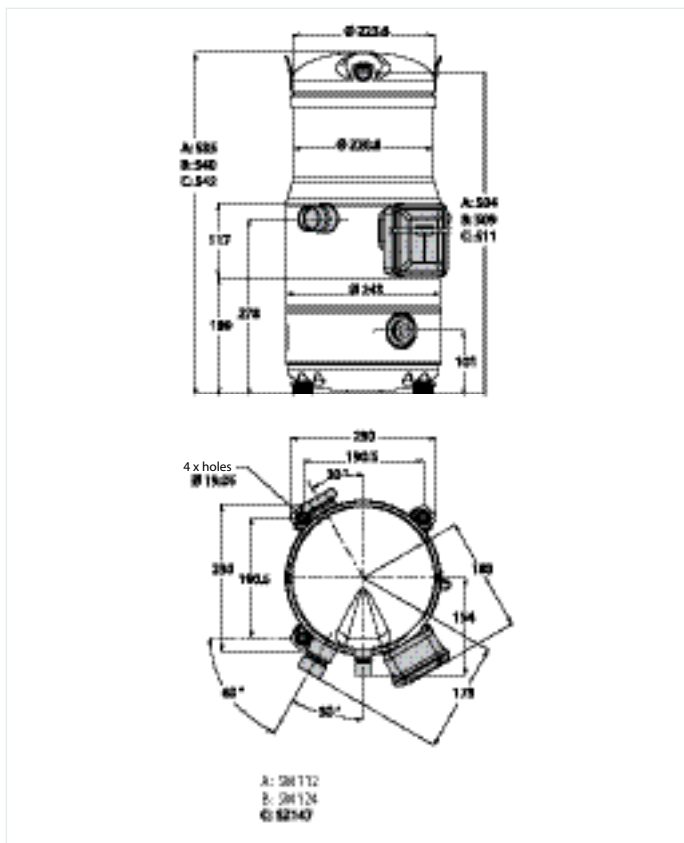
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Dimensions

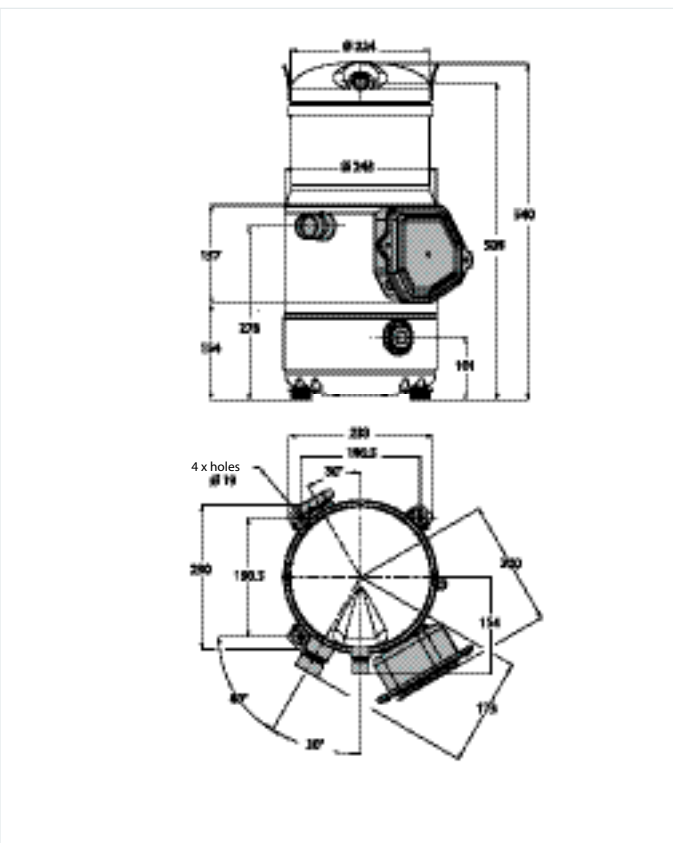
SM / SZ 084-090-100-110-120



SM 112-124-SM / SZ147³⁾



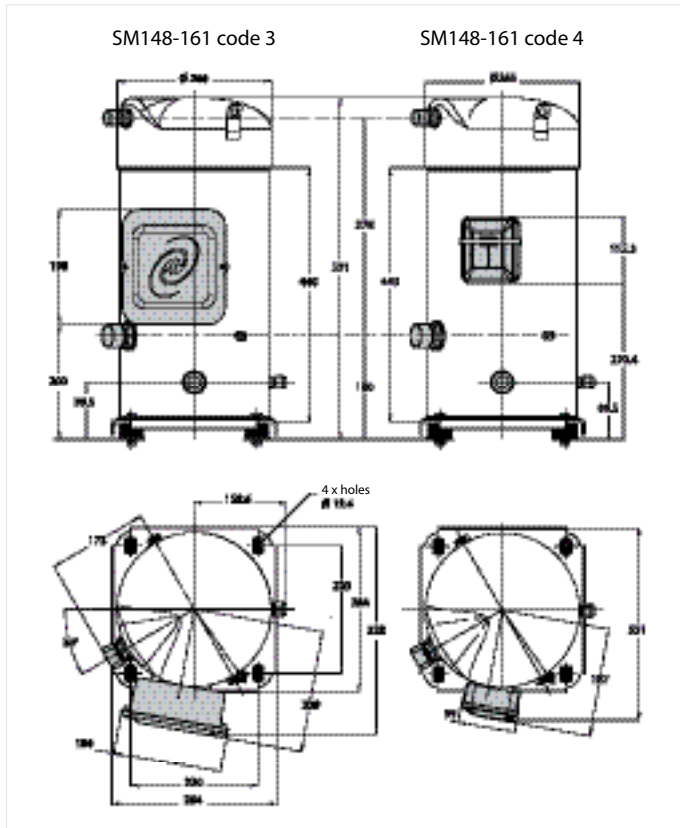
SM / SZ 147 code 3



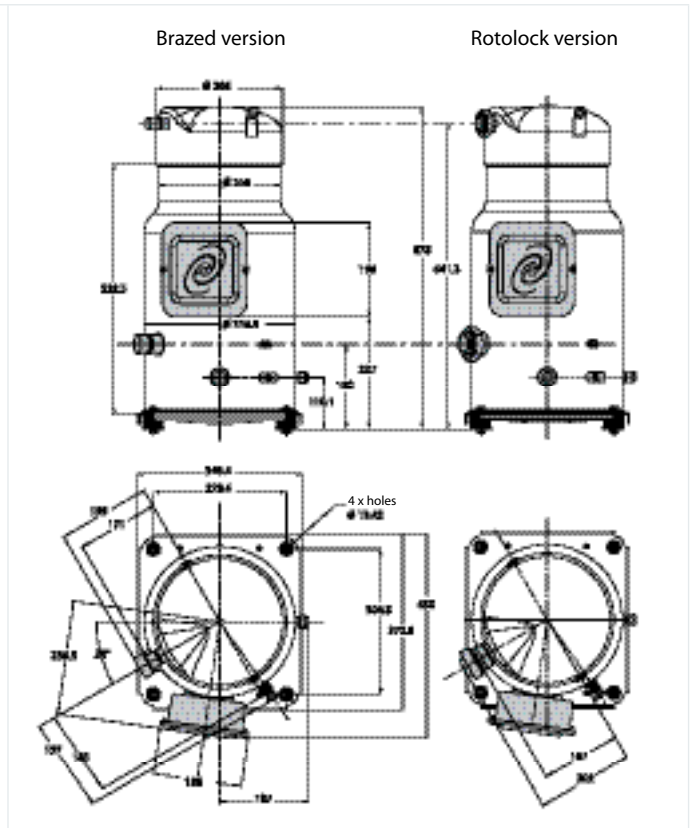
³⁾ except code 3

Dimensions

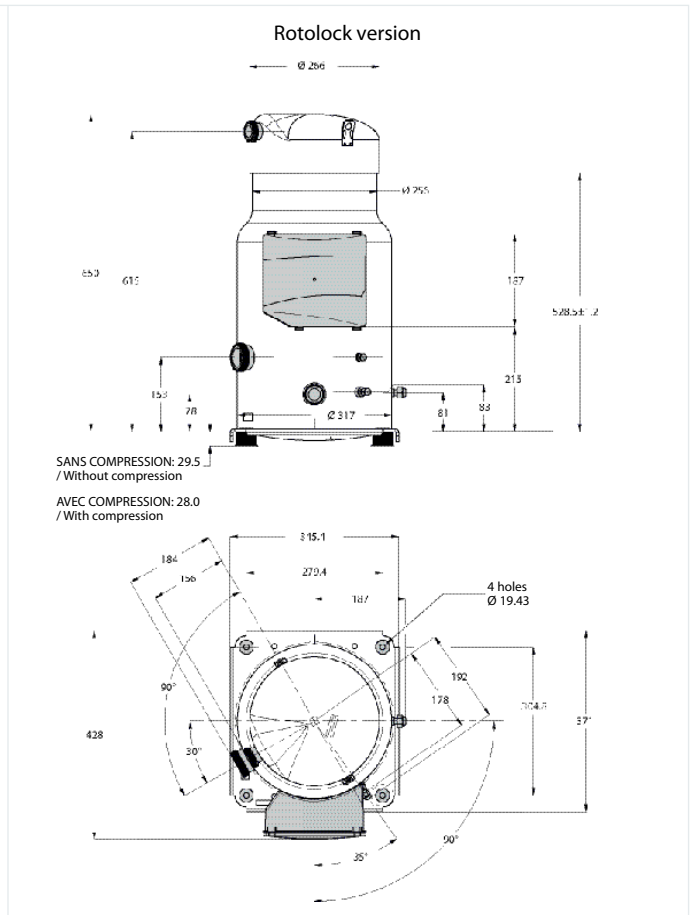
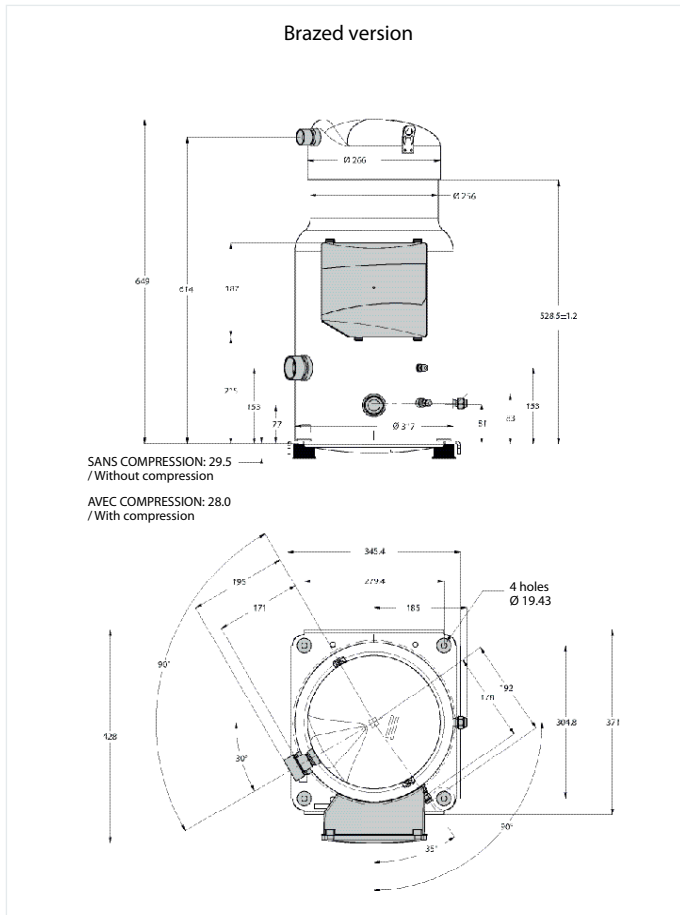
SM / SZ148-161



SM/SZ 175-185 & SY185 - R and C version



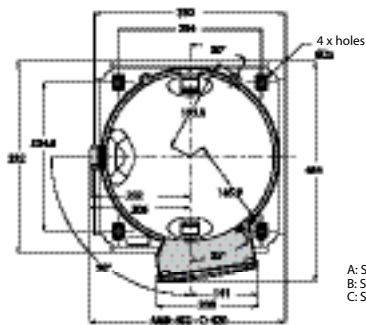
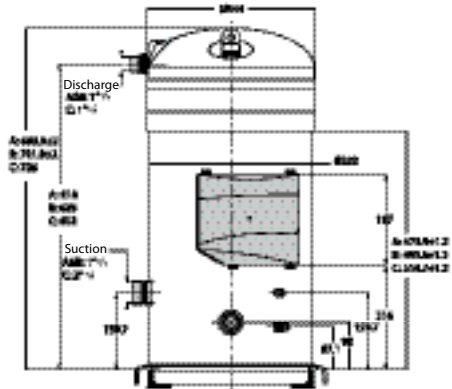
SM/SZ 185 P, X, Y version



Dimensions

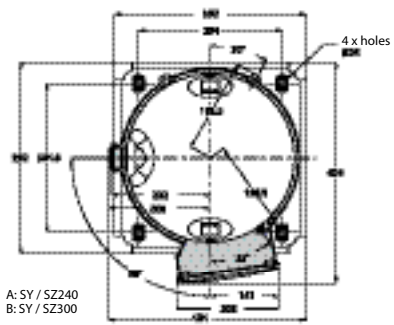
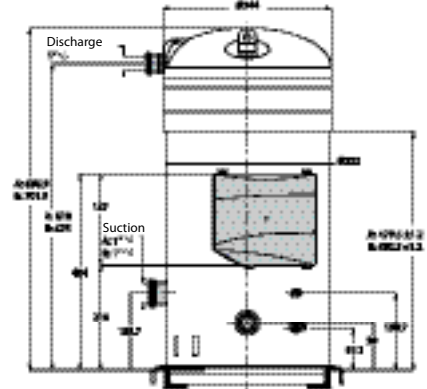
SY / SZ 240-300-380

Brazed version



A: SY / SZ240
B: SY / SZ300
C: SY / SZ380

Rotolock version



A: SY / SZ240
B: SY / SZ300

Technical data

SM / SY / SZ - Scroll compressors - Tandem / Trio

Features



Type	Composition	R22	R404A / R507A	R407C	R134a	Oil management	
Tandem	SM/SZ170	SM/SZ084 + SM/SZ084	o	o	o	o	Dynamic
	SM/SZ180	SM/SZ090 + SM/SZ090	o	o	o	o	Dynamic
	SM/SZ200	SM/SZ100 + SM/SZ100	o	o	o	o	Dynamic
	SM/SZ220	SM/SZ110 + SM/SZ110	o	o	o	o	Dynamic
	SM/SZ242	SM/SZ120 + SM/SZ120	o	o	o	o	Dynamic
	SM248	SM124 + SM124	o	–	–	–	Static
	SM/SZ268	SM/SZ120 + SM/SZ148	o	o	o	o	Dynamic
	SM/SZ271	SM/SZ110 + SM/SZ161	o	o	o	o	Dynamic
	SM272	SM124 + SM147	o	–	–	–	Static
	SM/SZ281	SM/SZ120 + SM/SZ161	o	o	o	o	Dynamic
	SM294	SM147 + SM147	o	–	–	–	Static
	SM/SZ296	SM/SZ148 + SM/SZ148	o	o	o	o	Dynamic
	SM/SZ322	SM/SZ161 + SM/SZ161	o	o	o	o	Dynamic
	SM/SZ350	SM/SZ175 + SM/SZ175	o	o	o	o	Dynamic
	SY/SZ370	SY/SZ185 + SY/SZ185	o	o	o	o	Dynamic
	SY/SZ425	SY/SZ240 + SY/SZ185	o	–	o	o	Dynamic
	SY/SZ482	SY/SZ240 + SY/SZ240	o	–	o	o	Static
	SY/SZ485	SY/SZ300 + SY/SZ185	o	–	o	o	Dynamic
	SY/SZ540	SY/SZ300 + SY/SZ240	o	–	o	o	Static
	SY/SZ600	SY/SZ300 + SY/SZ300	o	–	o	o	Static
SY/SZ620	SY/SZ240 + SY/SZ380	o	–	o	o	Static	
SY/SZ680	SY/SZ300 + SY/SZ380	o	–	o	o	Static	
SY/SZ760	SY/SZ380 + SY/SZ380	o	–	o	o	Static	
Trio	SM/SZ444	3 x SM/SZ148	o	o	o	o	Static
	SM/SZ483	3 x SM/SZ161	o	o	o	o	Static
	SY/SZ550	3 x SY/SZ185	o	o	o	o	Dynamic
	SY/SZ720	3 x SY/SZ240	o	–	o	o	Static
	SY/SZ900	3 x SY/SZ300	o	–	o	o	Static
	SY/SZ1140	3 x SY/SZ380	o	–	o	o	Static
Quadro	SM/SZ740	4 x SY/SZ185	o	o	o	o	Dynamic

o Field assembly
– Not available

SM / SY / SZ - Scroll compressors

Field assembly

Tandem Type	Connection	Configuration example	Oil equalisation fittings	Tandem assembly kit code no.	
				Kit ¹⁾	Kit ²⁾
SM/SZ170	Brazed	SZ084-4VI + SZ084-4VI	2 x 023U801466	7703251	7765012
SM/SZ180	Brazed	SZ090-4VI + SZ090-4VI	2 x 023U801466	7703251	7765012
SM/SZ200	Brazed	SZ100-4VI + SZ100-4VI	2 x 023U801466	7703251	7765012
SM/SZ220	Brazed	SZ110-4VI + SZ110-4VI	2 x 023U801466	7703384	7765025
SM/SZ242	Brazed	SZ120-4VI + SZ120-4VI	2 x 023U801466	7703384	7765025
SM/SZ268	Brazed	SZ148-4VAI + SZ120-4VI	2 x 023U801466	7703390	7765025
SM/SZ271	Brazed	SZ161-4VAI + SZ110-4VI	2 x 023U801466	7703390	7765025
SM/SZ281	Brazed	SZ161-4VAI + SZ120-4VI	2 x 023U801466	7703390	7765025
SM/SZ296	Brazed	SZ148-4VAI + SZ148-4VAI	2 x 023U801466	7703390	7765025
SM/SZ322	Brazed	SZ161-4VAI + SZ161-4VAI	2 x 023U801466	7703390	7765025
SM/SZ350	Rotolock	SZ175-4SCI + SZ175-4SCI	2 x 023U801466	7703371	7765013
SM/SZ350	Brazed	SZ175-4PCI + SZ175-4PCI	2 x 023U801466	–	7765017
SM/SZ370	Rotolock	SZ185-4SCI + SZ185-4SCI	2 x 023U801466	7703371	7765013
SM/SZ370	Brazed	SZ185-4PCI + SZ185-4PCI	2 x 023U801466	–	7765017
SY/SZ425	Brazed	SZ240A4AAI + SZ185-4PCI	023U801666 + 023U801466	–	7765027
SY/SZ485	Rotolock	SZ300A4AAI + SZ185-4PCI	023U801666 + 023U801466	–	7765027

Different tandem assembly kits are available:

¹⁾ Containing the suction and discharge Tees sleeves and the suction oil separator / gas restrictor

²⁾ Containing the suction oil separator / gas restrictor only

Technical data

SM - Scroll compressors

Operation principle

Tandem model	Composition	Suction [in]	Discharge [in]	Oil equalisation line [in]	Outline drawing number
SM248	SM124 + SM124	1 ½	1 ¾	¾	8556051
SM272	SM124 + SM147	1 ½	1 ¾	¾	8556051
SM294	SM147 + SM147	1 ½	1 ¾	1 ½	8556051

SM - Scroll compressors

Ordering information

Tandem model	Configuration example	Tandem assembly kit code no.
SM248	120H0185 + 120H0185	7777044
SM272	120H0185 + 120H0191	7777050
SM294	120H0191 + 120H0191	7777054

Refer to FRCC.PC.003 "Ordering information & packaging" section for other codes or industrial pack version.

SY / SZ - Scroll compressors

Operation principle

Tandem model	Composition	Suction [in]	Discharge [in]	Oil equalisation line [in]	Outline drawing number
SY/SZ482	S 240 + S 240	2 ½	1 ½	½	8556013
SY/SZ540	S 300 + S 240	2 ½	1 ½	½	8556034
SY/SZ600	S 300 + S 300	2 ½	1 ½	½	8556013
SY/SZ620	S 380 + S 240	2 ½	2 ½	½	8556036
SY/SZ680 left suction	S 380 + S 300	2 ½	2 ½	½	8556032
SY/SZ680 right suction	S 380 + S 300	2 ½	2 ½	½	8556032
SY/SZ760	S 380 + S 380	2 ½	2 ½	½	8556029

SY / SZ - Scroll compressors

Ordering information

Tandem model	Composition		Code number	Washer Ø [mm]	Oil equalisation fitting	Washer in suction of compressor
	Cp1	Cp2				
SY/SZ482	SZ240	SZ240	-	-	2 x 023U801666	-
SY/SZ540	SZ300	SZ240	7777023	29.5	2 x 023U801666	Cp1
SY/SZ600	SZ300	SZ300	-	-	2 x 023U801666	-
SY/SZ620	SZ380	SZ240	-	-	2 x 023U801666	-
SY/SZ680 left suction	SZ380	SZ300	7777036	38	2 x 023U801666	Cp2
SY/SZ680 right suction	SZ380	SZ300	7777036	39	2 x 023U801666	Cp2
SY/SZ760	SZ380	SZ380	-	-	2 x 023U801666	-

Refer to FRCC.PC.003 "Ordering information & packaging" section for other codes or other connections, or other motor protection version or industrial pack version.

SY / SZ - Scroll compressors

Operation principle

Trio model	Composition	Suction [in]	Discharge [in]	Oil equalisation [in]	Trio drawing number
SY/SZ720	3 x S240	2 ½	1 3/8	½	8556018 *) 8556024 **)
SY/SZ900	3 x S300	2 ½	1 3/8	½	8556018 *) 8556024 **)
SY/SZ1140	5 x S380	2 ½	1 3/8	½	8556145 *) 8556030 **)

*) Left suction connection **) Right suction connection

SY / SZ - Scroll compressors

Operation principle

Trio model	Configuration example	Flare adapters	Restrictors
SY/SZ720	3 x SZ240A4CBM	6 x 023U801666	Standard piping and Tee's
SY/SZ900	3 x SZ300A4CBM	6 x 023U801666	Standard piping and Tee's
SY/SZ1140	3 x SZ380A4CBM	6 x 023U801666	Standard piping and Tee's