



# SH Scroll compressors

## 60 Hz - R410A

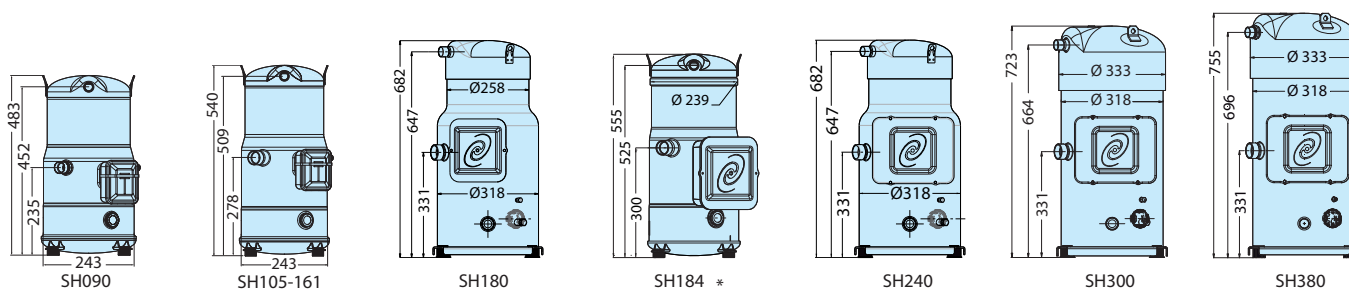
## CODE NUMBERS



Compressor model	Connections	Mounting feet	Motor protection	Nbr	Code no. for Industrial pack				Code no. for Single pack			
					3	4	7	9	3	4	7	9
					200-230/3/60	460/3/60 380-400/3/50	575/3/60 500/3/50	380/3/60	200-230/3/60	460/3/60 380-400/3/50	575/3/60 500/3/50	380/3/60
SH090	Brazed	flexible	Internal	8	120H0002	120H0004	120H0008	120H0010	120H0001	120H0003	120H0007	120H0009
SH105	Brazed	flexible	Internal	8	120H0210	120H0212	120H0216	120H0218	120H0209	120H0211	120H0215	120H0217
SH120	Brazed	flexible	Internal	8	120H0012	120H0014	120H0018	120H0020	120H0011	120H0013	120H0017	120H0019
SH140	Brazed	flexible	Internal	8	120H0200	120H0202	120H0206	120H0208	120H0199	120H0201	120H0205	120H0207
SH161	Brazed	flexible	Internal	8	120H0022	120H0024	120H0028	120H0030	120H0021	120H0023	120H0027	120H0029
SH180 ①	Brazed	flexible	Module 24 V	6	120H0032	120H0040	120H0048	120H0056	120H0031	120H0039	120H0047	120H0055
	Brazed	flexible	Module 230 V	6	120H0034	120H0042	120H0050	120H0058	120H0033	120H0041	120H0049	120H0057
	Brazed	flexible	Module 115V	6	120H0224	120H0226	120H0228	120H0230	120H0225	120H0227	120H0229	120H0231
	Brazed	rigid	Module 24V	6	120H0266	120H0268	120H0270	120H0272	120H0265	120H0267	120H0269	120H0271
	Brazed	rigid	Module 230V	6	120H0274	120H0276	120H0278	120H0280	120H0273	120H0275	120H0277	120H0279
Brazed	rigid	Module 115V	6	120H0282	120H0284	120H0286	120H0288	120H0281	120H0283	120H0285	120H0287	
SH184 *	Brazed	flexible	Internal	8	120H0360	120H0362	120H0366	120H0368	120H0359	120H0361	120H0365	120H0367
SH240 ①	Brazed	flexible	Module 24 V	6	120H0064	120H0075	120H0086	120H0097	120H0063	120H0074	120H0085	120H0096
	Brazed	flexible	Module 115 - 230 V	6	120H0066	120H0077	120H0088	120H0099	120H0065	120H0076	120H0087	120H0098
	Brazed	rigid	Module 24V	6	120H0290	120H0292	120H0294	120H0296	120H0289	120H0291	120H0293	120H0295
	Brazed	rigid	Module 115-230V	6	120H0298	120H0300	120H0302	120H0304	120H0297	120H0299	120H0301	120H0303
SH300 ①	Brazed	flexible	Module 24 V	4	120H0108	120H0119	120H0130	120H0141	120H0107	120H0118	120H0129	120H0140
	Brazed	flexible	Module 115 - 230 V	4	120H0110	120H0121	120H0132	120H0143	120H0109	120H0120	120H0131	120H0142
	Brazed	rigid	Module 24V	4	120H0234	120H0238	120H0242	120H0246	120H0233	120H0237	120H0241	120H0245
Brazed	rigid	Module 115-230V	4	120H0236	120H0240	120H0244	120H0248	120H0235	120H0239	120H0243	120H0247	
SH380 ①	Brazed	flexible	Module 24 V	4	120H0152	120H0160	120H0168	120H0176	120H0151	120H0159	120H0167	120H0175
	Brazed	flexible	Module 115 - 230 V	4	120H0154	120H0162	120H0170	120H0178	120H0153	120H0161	120H0169	120H0177
	Brazed	rigid	Module 24V	4	120H0250	120H0254	120H0258	120H0262	120H0249	120H0253	120H0257	120H0261
	Brazed	rigid	Module 115-230V	4	120H0252	120H0256	120H0260	120H0264	120H0251	120H0255	120H0259	120H0263

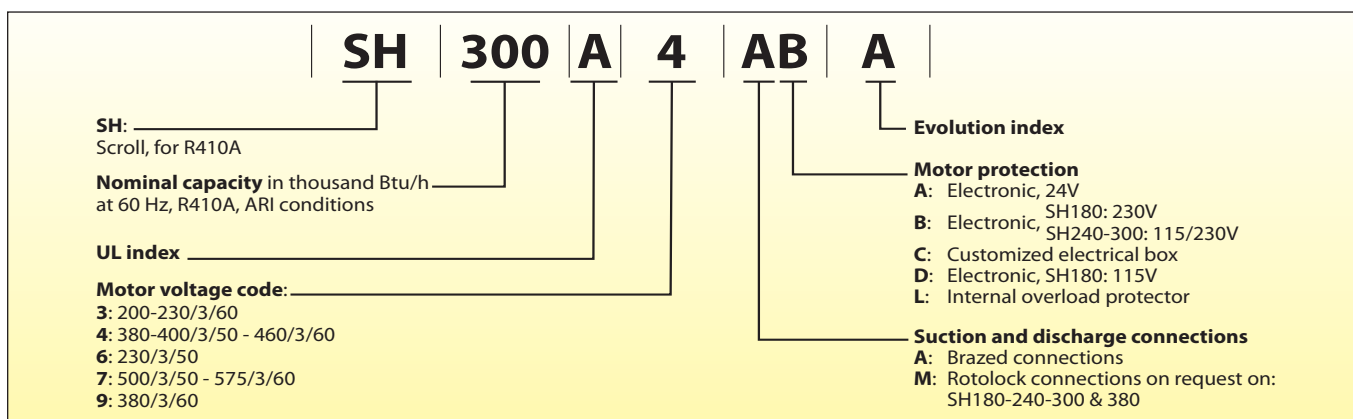
① models with rigid mounting feet are for parallel mounting only. For single mounting, use models with flexible mounting feet or use flexible grommet kit ref 8156138

## DIMENSIONS



\* SH184: preliminary data - SH184 available end 2008

## NAMEPLATE REFERENCE



## PERFORMANCE DATA

Model	To Tc	-20		-15		-10		-5		0		5		10		15	
		Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe	Qo	Pe
SH090-4	35	11 500	5.5	14 400	5.6	17 800	5.6	21 800	5.7	26 400	5.7	31 600	5.8	37 600	5.9	44 400	6.0
	45	10 000	6.8	12 700	6.9	15 800	6.9	19 500	6.9	23 600	7.0	28 500	7.0	33 900	7.1	40 200	7.2
	55	-	-	-	-	13 500	8.6	16 800	8.6	20 500	8.6	24 800	8.7	29 700	8.7	35 300	8.8
SH105-4	35	14 200	6.5	17 500	6.6	21 400	6.7	25 900	6.8	31 000	6.9	37 000	7.0	43 700	7.0	51 300	7.1
	45	12 500	7.9	15 600	7.9	19 200	8.0	23 300	8.1	28 000	8.2	33 500	8.3	39 700	8.4	46 800	8.5
	55	-	-	-	-	16 600	9.8	20 300	9.8	24 500	9.9	29 400	10.0	35 100	10.1	41 500	10.3
SH120-4	35	16 000	7.2	19 900	7.3	24 500	7.4	29 800	7.5	35 800	7.7	42 800	7.8	50 700	8.1	59 700	8.3
	45	14 000	8.8	17 600	8.9	21 800	9.0	26 600	9.1	32 200	9.2	38 500	9.4	45 700	9.5	53 900	9.8
	55	-	-	-	-	18 700	11.1	23 000	11.1	28 000	11.2	33 700	11.3	40 100	11.5	47 500	11.6
SH140-4	35	19 100	8.3	23 400	8.4	28 500	8.6	34 400	8.7	41 200	8.8	49 000	9.0	57 800	9.1	67 900	9.3
	45	16 900	10.1	20 900	10.2	25 500	10.3	30 900	10.5	37 100	10.6	44 300	10.8	52 400	10.9	61 700	11.1
	55	-	-	-	-	22 100	12.6	26 900	12.7	32 400	12.9	38 800	13.0	46 200	13.2	54 600	13.4
SH161-4	35	21 400	9.2	26 300	9.3	32 100	9.5	38 700	9.6	46 400	9.7	55 200	9.9	65 200	10.1	76 600	10.3
	45	18 700	11.4	23 300	11.5	28 500	11.6	34 600	11.7	41 600	11.8	49 600	11.9	58 800	12.1	69 200	12.2
	55	-	-	-	-	24 500	14.3	29 900	14.4	36 100	14.5	43 200	14.6	51 500	14.7	60 800	14.8
SH180-4	35	24 000	10.8	29 700	10.8	36 400	10.9	44 000	10.9	52 900	10.9	63 100	10.9	74 700	10.9	88 000	10.9
	45	20 300	13.5	25 600	13.5	31 700	13.5	38 800	13.5	47 000	13.5	56 300	13.6	67 000	13.6	79 200	13.6
	55	-	-	-	-	27 000	16.8	33 400	16.7	40 700	16.7	49 200	16.7	58 800	16.7	69 900	16.7
SH184-4*	35	24 500	10.4	30 100	10.7	36 600	10.9	44 100	11.1	52 700	11.3	62 600	11.5	73 800	11.7	86 500	11.8
	45	21 600	12.7	26 700	12.9	32 700	13.1	39 500	13.3	47 500	13.5	56 500	13.8	66 800	14.0	78 500	14.2
	55	-	-	-	-	28 300	15.9	34 400	16.1	41 500	16.3	49 600	16.5	58 900	16.8	69 500	17.0
SH240-4	35	33 000	14.5	40 800	14.6	49 800	14.6	60 200	14.7	72 200	14.7	85 900	14.8	101 600	15.0	119 300	15.3
	45	29 000	17.9	36 100	18.0	44 200	18.1	53 700	18.2	64 600	18.3	77 200	18.3	91 400	18.4	107 600	18.5
	55	-	-	-	-	38 200	22.5	46 600	22.6	56 200	22.7	67 400	22.7	80 100	22.8	94 700	22.9
SH300-4	35	41 200	19.1	51 100	19.3	62 600	19.4	75 900	19.5	91 200	19.6	108 800	19.7	128 800	19.8	151 500	20.0
	45	36 100	23.2	45 100	23.4	55 600	23.6	67 800	23.7	81 800	23.8	97 800	23.8	116 100	23.9	136 900	24.0
	55	-	-	-	-	47 800	28.8	58 500	28.9	70 900	29.0	85 200	29.1	101 600	29.1	120 200	29.1
SH380-4	35	49 000	22.6	60 500	22.7	74 000	22.9	89 700	23.0	107 800	23.2	128 600	23.4	152 300	23.8	179 200	24.3
	45	42 900	27.5	53 400	27.7	65 700	27.8	79 900	27.9	96 400	28.0	115 400	28.2	137 100	28.4	161 900	28.8
	55	-	-	-	-	56 300	34.0	68 900	34.1	83 500	34.2	100 300	34.3	119 800	34.5	142 000	34.7

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: 460 V / 3 / 60 Hz

## TECHNICAL SPECIFICATIONS

Model	Nominal tons 60 Hz	Nominal cooling capacity ①		Power input ①	Max. operating current	COP ①	E.E.R. ①	Sound power	Swept volume	Displacement ③	Oil charge	Net weight ④
	TR	W	Btu/h	kW	A ②	W/W	Btu/h/W	dB(A)	cm³/rev	m³/h	dm³	kg
SH090	7.5	27 100	92 500	8.57	16.8	3.16	10.79	72	88	18.6	3	58
SH105	9	32 100	109 500	9.96	19.3	3.22	11.00	74	104	21.7	3.3	64
SH120	10	36 800	125 400	11.25	21.4	3.27	11.15	75	117	24.6	3.3	64
SH140	12	42 300	144 300	12.94	24.5	3.27	11.15	76	133	27.9	3.3	67
SH161	13	47 200	160 900	14.43	27.0	3.27	11.15	77	152	31.9	3.3	69
SH180	15	53 700	183 400	16.45	32.1	3.27	11.15	85	170	35.7	6.7	106
SH184 *	15	54 000	184 300	16.50	31.5	3.28	11.20	-	170	35.6	3.6	71
SH240	20	73 500	251 000	22.48	42.8	3.27	11.15	86	228	47.8	6.7	108
SH300	25	93 000	317 600	28.71	54.2	3.24	11.05	86	286	60.0	6.7	153
SH380	30	109 600	374 300	34.02	63.6	3.22	11.00	88	345	72.3	7.2	164

① at ARI standard rating conditions: 7.2°C evaporating temperature, 54.4°C condensing temperature, 8.3 K subcooling, 11.1 K superheat,

② for +15°C evap. temp; +68°C cond. temp under nominal voltage 460V / 3 / 60 Hz,

③ displacement at nominal speed: 3500 rpm at 60 Hz,

④ net weight with oil charge

\* SH184: preliminary data - SH184 available end 2008

## FURTHER REFERENCE



**Online Datasheet Generator** - User-friendly access to datasheets with full technical data, performance tables, spareparts & accessories and outlines drawings. [www.danfoss.com/odsg](http://www.danfoss.com/odsg)

**Selection and application guidelines for Performer scroll compressors**, Single - SH090 to SH380, 50 Hz - 60 Hz, R410A, Literature: FRCC.PC.007.

**Selection & application guidelines for Performer scroll compressors in parallel installations**, SH R410A, Literature: FRCC.PC.008.

**RS+3**, For precise compressor selection and performance calculation at user defined conditions.



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