Küba SG *industrial*

Technical data (R404A) SGA-F 4,5 mm

Nomenclature

Standard

SG	A	E	71	-	F	6	2

- Line designation
- Fin spacing: A = 4,5 mm; B = 7 mm; K = 10 mm; L = 12 mm
- Electric defrosting: E = with electric defrost
- Fan diameter: 50 = 500 mm; 56 = 560 mm; 63 = 630 mm; 71 = 710 mm; 80 = 800 mm
- Number of fans: 1-5
- Coil depth: 4 tubes; 6 tubes; 8 tubes
- Refrigerant: F = FKW/CO_2; G = Glycol; N = NH_3

SGA(E)-F

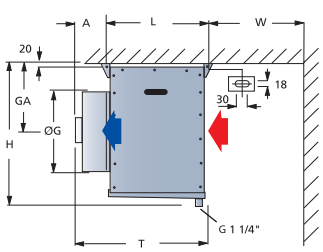
Model SGA(E)		Rating Q_0 at 50 Hz t_{L1} ±0 °C DT1 = 8K	Rating Q_0 at 50 Hz t_{L1} -18°C DT1 = 7K	Surface	Air flow	Air throw		Tube volume	Connections Inlet	Connections Outlet	Blade	Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz)		
		kW	kW	m²	m³/h	m	m	dm³	Ø mm	Ø mm	Ø mm	min⁻¹	W	A
50-F41	✇	9,8	7,9	55	5900	23	15	9	10	28	500	1390	657	1,32
50-F61	✇	12,2	9,8	82	5400	23	15	13	10	28	500	1390	657	1,32
56-F41	✇	12,5	10,1	73	7200	28	18	12	10	28	560	1338	813	1,78
56-F61	✇	15,7	12,5	110	6750	28	18	17	15	35	560	1338	813	1,78
56-F81	✇	17,6	14,1	146	6300	28	18	23	15	35	560	1338	813	1,78
63-F41	✇	15,5	12,3	99	8010	33	21	16	15	28	630	919	539	1,38
63-F61	✇	19,2	15,3	148	7650	33	21	23	22	35	630	919	539	1,38
63-F81	✇	21,1	16,7	198	7020	33	21	31	22	35	630	919	539	1,38
71-F41	✇	23,1	18,5	154	11700	43	26	24	15	35	710	940	1140	2,39
71-F61	✇	28,3	22,6	231	11000	43	26	36	22	35	710	940	1140	2,39
71-F81	✇	31,6	25,2	308	10400	43	26	48	22	42	710	940	1140	2,39
80-F41	✇	31,8	25,5	179	18450	48	-	28	15	42	800	940	1630	3,46
80-F61	✇	39,5	31,5	269	17460	48	-	42	22	42	800	940	1630	3,46
80-F81	✇	44,0	35,1	359	16200	48	-	56	22	42	800	940	1630	3,46
50-F42	✇✇	19,6	15,6	110	11800	33	21	17	15	35	500	1390	657	1,32
50-F62	✇✇	24,6	19,6	164	10800	33	21	25	15	35	500	1390	657	1,32
56-F42	✇✇	25,1	20,1	146	14400	39	25	22	15	35	560	1338	813	1,78
56-F62	✇✇	31,6	25,2	220	13500	39	25	34	22	42	560	1338	813	1,78
56-F82	✇✇	35,3	28,2	292	12600	39	25	45	22	42	560	1338	813	1,78
63-F42	✇✇	30,8	24,6	198	16020	45	29	30	22	42	630	919	539	1,38
63-F62	✇✇	38,6	30,8	296	15300	45	29	45	22	42	630	919	539	1,38
63-F82	✇✇	42,1	33,6	396	14040	45	29	60	22	42	630	919	539	1,38
71-F42	✇✇	46,3	37,1	308	23400	58	35	46	22	42	710	940	1140	2,39
71-F62	✇✇	56,8	45,3	462	22000	58	35	70	28	54	710	940	1140	2,39
71-F82	✇✇	63,2	50,5	616	20800	58	35	93	28	54	710	940	1140	2,39
80-F42	✇✇	63,7	51,0	358	36900	63	-	54	22	54	800	940	1630	3,46
80-F62	✇✇	79,0	63,1	538	34920	63	-	82	2x22	2x42	800	940	1630	3,46
80-F82	✇✇	88,0	70,2	718	32400	63	-	108	2x22	2x42	800	940	1630	3,46
50-F43	✇✇✇	29,5	23,5	165	17700	40	26	25	15	42	500	1390	657	1,32
50-F63	✇✇✇	37,0	29,5	246	16200	40	26	37	22	42	500	1390	657	1,32
56-F43	✇✇✇	37,7	30,1	220	21600	49	32	33	15	42	560	1338	813	1,78
56-F63	✇✇✇	47,5	37,8	330	20250	49	32	50	22	42	560	1338	813	1,78

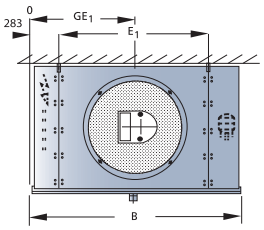
Technical data (R404A) SGL-F 12 mm

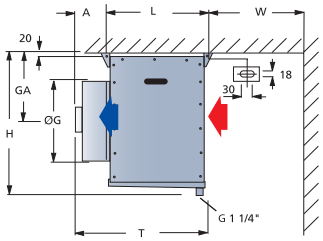
SGL(E)-F

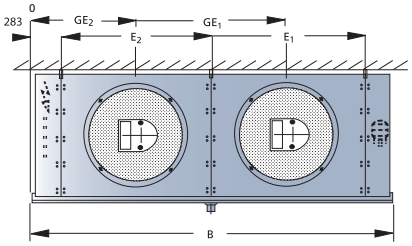
Model SGL(E)		Rating Q_0 at 50 Hz t_{L1} ±0 °C DT1 = 8K	Rating Q_0 at 50 Hz t_{L1} -18 °C DT1 = 7K	Surface	Air flow	Air throw		Tube volume	Connections Inlet	Connections Outlet	Blade	Per Fan 400 ± 10% V-3~ 50Hz (operating values at 50 Hz)		
		kW	kW	m²	m³/h	m	m	dm³	Ø mm	Ø mm	Ø mm	min⁻¹	W	A
50-F41	✇	6,2	4,9	22	6700	27	18	9	10	28	500	1390	657	1,32
50-F61	✇	8,5	6,8	33	6500	27	18	13	10	28	500	1390	657	1,32
56-F41	✇	7,9	6,3	30	8100	32	21	12	10	28	560	1338	813	1,78
56-F61	✇	11,0	8,8	44	7900	32	21	17	15	35	560	1338	813	1,78
56-F81	✇	13,3	10,7	59	7700	32	21	23	15	35	560	1338	813	1,78
63-F41	✇	9,7	7,8	40	9200	37	24	16	15	28	630	919	539	1,38
63-F61	✇	13,5	10,8	60	9000	37	24	23	22	35	630	919	539	1,38
63-F81	✇	16,0	12,7	80	8700	37	24	31	22	35	630	919	539	1,38
71-F41	✇	14,2	11,4	62	12800	47	28	24	15	35	710	940	1140	2,39
71-F61	✇	19,9	15,9	93	12600	47	28	36	22	35	710	940	1140	2,39
71-F81	✇	24,2	19,3	124	12400	47	28	48	22	42	710	940	1140	2,39
80-F41	✇	20,2	16,1	72	21600	52	-	28	15	42	800	940	1630	3,46
80-F61	✇	24,8	19,8	108	20880	52	-	42	22	42	800	940	1630	3,46
80-F81	✇	31,9	25,5	144	20520	52	-	56	22	42	800	940	1630	3,46
50-F42	✇✇	12,4	9,9	44	13400	37	24	17	15	35	500	1390	657	1,32
50-F62	✇✇	17,0	13,5	66	13000	37	24	25	15	35	500	1390	657	1,32
56-F42	✇✇	15,7	12,6	59	16200	43	28	22	15	35	560	1338	813	1,78
56-F62	✇✇	21,9	17,5	88	15800	43	28	34	22	42	560	1338	813	1,78
56-F82	✇✇	26,7	21,3	118	15400	43	28	45	22	42	560	1338	813	1,78
63-F42	✇✇	19,5	15,5	80	18400	49	32	30	22	42	630	919	539	1,38
63-F62	✇✇	26,9	21,5	119	18000	49	32	45	22	42	630	919	539	1,38
63-F82	✇✇	31,9	25,5	159	17400	49	32	60	22	42	630	919	539	1,38
71-F42	✇✇	28,4	22,7	124	25600	62	37	46	22	42	710	940	1140	2,39
71-F62	✇✇	39,9	31,9	186	25200	62	37	70	28	54	710	940	1140	2,39
71-F82	✇✇	48,4	38,6	248	24800	62	37	93	28	54	710	940	1140	2,39
80-F42	✇✇	40,4	32,3	144	43200	67	-	54	22	54	800	940	1630	3,46
80-F62	✇✇	49,6	39,6	216	41760	67	-	82	2x22	2x42	800	940	1630	3,46
80-F82	✇✇	63,8	51,0	288	41040	67	-	108	2x22	2x42	800	940	1630	3,46
50-F43	✇✇✇	18,6	14,8	66	20100	45	29	25	15	42	500	1390	657	1,32
50-F63	✇✇✇	25,4	20,3	99	19500	45	29	37	22	42	500	1390	657	1,32
56-F43	✇✇✇	23,6	18,8	89	24300	54	35	33	15	42	560	1338	813	1,78
56-F63	✇✇✇	32,9	26,3	133	23700	54	35	50	22	42	560	1338	813	1,78

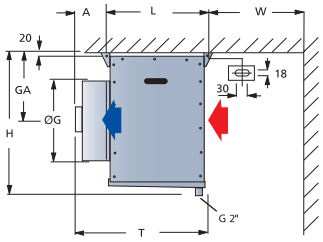
Dimensional drawings

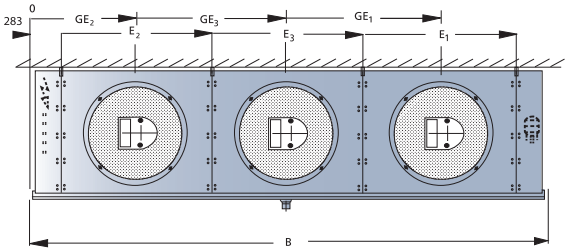


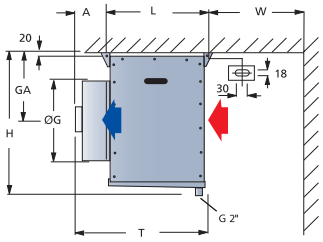


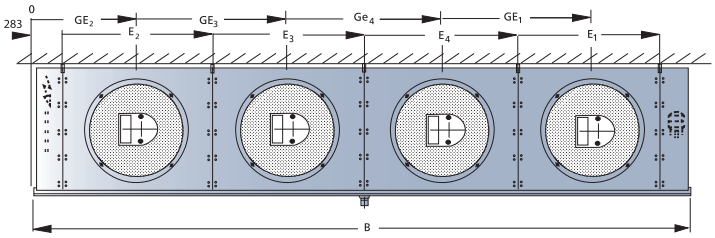


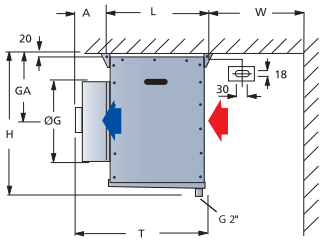


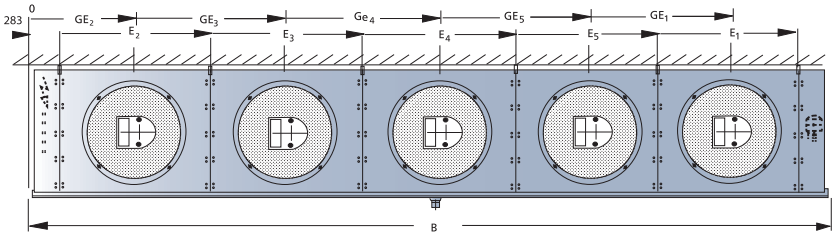












* Note the differences in dimension for accessories!
The dimensions are only valid for standard model design! When installing fans other than those listed in the „Technical data“, dimensions T and A are larger.

Sound power level L_{WA} [dB(A)]

Model	✇	✇ ✇	✇ ✇ ✇	✇ ✇ ✇ ✇	✇ ✇ ✇ ✇ ✇
SG 50	78	81	83	84	85
SG 56	85	88	90	91	92
SG 63	75	78	80	81	82
SG 70	87	90	92	93	–
SG 80	85	88	90	91	–

Dimensional drawings, electric defrost, weights

	Dimensions [mm]																			Electrical defrost			Net weight			
Size	H	B	T	L	E_1	E_2	E_3	E_4	E_5	A	W	W_{Hood}	ØG	GA	GE_1	GE_2	GE_3	GE_4	GE_5	Coil	Tray	Total	SGA	SGB	SGK	SGL
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kW	kW	kW / *	kg	kg	kg	kg
50-41	718	1620	906	704	1054	-	-	-	-	220	500	860	517	329	783	-	-	-	-	4,78	2,29	7,07/1	129	121	118,3	116
50-61	718	1620	906	704	1054	-	-	-	-	220	500	860	517	329	783	-	-	-	-	5,97	2,29	8,26/1	145	138	129,3	126
56-41	918	1620	906	704	1054	-	-	-	-	220	550	860	563	429	783	-	-	-	-	6,69	2,29	8,98/1	162	151	148	145
56-61	918	1620	906	704	1054	-	-	-	-	220	550	860	563	429	783	-	-	-	-	7,96	2,29	10,25/2	184	163	163,5	162
56-81	918	1620	906	704	1054	-	-	-	-	220	550	860	563	429	783	-	-	-	-	10,51	2,29	12,8/2	213	191	184,4	179
63-41	1018	1820	931	729	1254	-	-	-	-	220	600	960	636	479	883	-	-	-	-	9,16	2,60	11,76/2	204	190	184,9	181
63-61	1018	1820	931	729	1254	-	-	-	-	220	600	960	636	479	883	-	-	-	-	10,31	2,60	12,91/2	235	214	207	202
63-81	1018	1820	931	729	1254	-	-	-	-	220	600	960	636	479	883	-	-	-	-	13,74	2,60	16,34/2	268	240	230,6	224
71-41	1318	2020	1069	757	1454	-	-	-	-	330	700	1340	733	629	983	-	-	-	-	14,30	2,87	17,17/2	284	262	254,6	249
71-61	1318	2020	1069	757	1454	-	-	-	-	330	700	1340	733	629	983	-	-	-	-	15,60	2,87	18,47/2	332	299	287,7	279
71-81	1318	2020	1069	757	1454	-	-	-	-	330	700	1340	733	629	983	-	-	-	-	22,10	2,87	24,97/2	385	341	325,9	315
80-41	1518	2020	1159	757	1454	-	-	-	-	420	800	1340	803	729	983	-	-	-	-	16,90	2,87	19,77/2	350	307	299,1	293
80-61	1518	2020	1159	757	1454	-	-	-	-	420	800	1340	803	729	983	-	-	-	-	18,20	2,87	21,07/2	390	351	338,8	329
80-81	1518	2020	1159	757	1454	-	-	-	-	420	800	1340	803	729	983	-	-	-	-	26,00	2,87	28,87/2	450	398	381,5	368
50-42	718	2620	906	704	2054	1000	-	-	-	220	500	860	517	329	1783	783	-	-	-	8,60	3,75	12,35/2	213	198	192,4	188
50-62	718	2620	906	704	2054	1000	-	-	-	220	500	860	517	329	1783	783	-	-	-	10,80	3,75	14,55/2	246	222	214,7	209
56-42	918	2620	906	704	2054	1000	-	-	-	220	550	860	563	429	1783	783	-	-	-	12,04	3,75	15,79/2	267	246	239,5	234
56-62	918	2620	906	704	2054	1000	-	-	-	220	550	860	563	429	1783	783	-	-	-	14,40	3,75	18,15/2	312	281	270,4	267
56-82	918	2620	906	704	2054	1000	-	-	-	220	550	860	563	429	1783	783	-	-	-	18,92	3,75	22,67/2	362	320	305,8	295
63-42	1018	3020	931	729	2454	1200	-	-	-	220	600	960	636	479	2083	883	-	-	-	16,00	4,33	20,33/2	346	318	308,4	301
63-62	1018	3020	931	729	2454	1200	-	-	-	220	600	960	636	479	2083	883	-	-	-	18,00	4,33	22,33/2	409	366	351,9	341
63-82	1018	3020	931	729	2454	1200	-	-	-	220	600	960	636	479	2083	883	-	-	-	24,00	4,33	28,33/2	472	415	396,6	383
71-42	1318	3420	1069	757	2854	1400	-	-	-	330	700	1340	733	629	2383	983	-	-	-	24,75	4,84	29,59/2	484	439	424,9	414
71-62	1318	3420	1069	757	2854	1400	-	-	-	330	700	1340	733	629	2383	983	-	-	-	27,00	4,84	31,84/2	582	514	492,5	476
71-82	1318	3420	1069	757	2854	1400	-	-	-	330	700	1340	733	629	2383	983	-	-	-	38,25	4,84	43,09/3	678	590	560,4	538
80-42	1518	3420	1159	757	2854	1400	-	-	-	420	800	1340	803	729	2383	983	-	-	-	29,25	4,84	34,09/2	608	521	505,5	493
80-62	1518	3420	1159	757	2854	1400	-	-	-	420	800	1340	803	729	2383	983	-	-	-	31,50	4,84	36,34/2	685	606	582,1	563
80-82	1518	3420	1159	757	2854	1400	-	-	-	420	800	1340	803	729	2383	983	-	-	-	45,00	4,84	49,84/3	800	694	661,7	636
50-43	718	3620	906	704	3054	1000	2000	-	-	220	500	860	517	329	2783	783	1783	-	-	13,00	5,20	18,2/2	301	277	269,1	263
50-63	718	3620	906	704	3054	1000	2000	-	-	220	500	860	517	329	2783	783	1783	-	-	15,60	5,20	20,8/2	351	316	304,7	296
56-43	918	3620	906	704	3054	1000	2000	-	-	220	550	860	563	429	2783	783	1783	-	-	18,20	5,20	23,4/2	376	344	333,7	326
56-63	918	3620	906	704	3054	1000	2000	-	-	220	550	860	563	429	2783	783	1783	-	-	20,80	5,20	26/2	445	398	382,1	378
56-83	918	3620	906	704	3054	1000	2000	-	-	220	550	860	563	429	2783	783	1783	-	-	28,60	5,20	33,8/3	518	453	431,9	416
63-43	1018	4220	931	729	3654	1200	2400	-	-	220	600	960	636	479	3283	883	2083	-	-	23,84	5,96	29,8/2	489	446	488,9	421
63-63	1018	4220	931	729	3654	1200	2400	-	-	220	600	960	636	479	3283	883	2083	-	-	26,82	5,96	32,78/2	582	516	582,2	480
63-83	1018	4220	931	729	3654	1200	2400	-	-	220	600	960	636	479	3283	883	2083	-	-	35,76	5,96	41,72/3	678	593	678,4	543
71-43	1318	4820	1069	757	4254	1400	2800	-	-	330	700	1340	733	629	3783	983	2383	-	-	37,84	6,88	44,27/3	702	635	699,4	597
71-63	1318	4820	1069	757	4254	1400	2800	-	-	330	700	1340	733	629	3783	983	2383	-	-	41,28	6,88	47,64/3	845	744	708,3	686
71-83	1318	4820	1069	757	4254	1400	2800	-	-	330	700	1340	733	629	3783	983	2383	-	-	58,48	6,88	64,49/4	997	864	995	788
80-43	1518	4820	1159	757	4254	1400	2800	-	-	420	800	1340	803	729	3783	983	2383	-	-	44,72	6,88	51,01/3	884	753	729,5	710
80-63	1518	4820	1159	757	4254	1400	2800	-	-	420	800	1340	803	729	3783	983	2383	-	-	48,16	6,88	54,38/3	997	878	841,7	813
80-83	1518	4820	1159	757	4254	1400	2800	-	-	420	800	1340	803	729	3783	983	2383	-	-	68,80	6,88	74,6/4	1177	1019	970,4	932
50-44	718	4620	906	704	4054	1000	2000	3000	-	220	500	860	517	329	3783	783	1783	2783	-	16,85	6,74	22,64/2	374	342	332	324
50-64	718	4620	906	704	4054	1000	2000	3000	-	220	500	860	517	329	3783	783	1783	2783	-	20,22	6,74	25,82/2	440	392	376,8	365
56-44	918	4620	906	704	4054	1000	2000	3000	-	220	550	860	563	429	3783	783	1783	2783	-	23,59	6,74	29/2	469	427	413,1	403
56-64	918	4620	906	704	4054	1000	2000	3000	-	220	550	860	563	429	3783	783	1783	2783	-	26,96	6,74	32,18/2	559	496	475	469
56-84	918	4620	906	704	4054	1000	2000	3000	-	220	550	860	563	429	3783	783	1783	2783	-	37,07	6,74	41,72/3	647	563	534,5	514
63-44	1018	5420	931	729	4854	1200	2400	3600	-	220	600	960	636	479	4483	883	2083	3283	-	31,20	7,80	39/3	632	575	556,4	542
63-64	1018	5420	931	729	4854	1200	2400	3600	-	220	600	960	636	479	4483	883	2083	3283	-	35,10	7,80	42,9/3	754	669	640,9	620
63-84	1018	5420	931	729	4854	1200	2400	3600	-	220	600	960	636	479	4483	883	2083	3283	-	46,80	7,80	54,6/4	882	767	730	702
71-44	1318	6220	1069	757	5654	1400	2800	4200	-	330	700	1340	733	629	5183	983	2383	3783	-	47,92	8,71	57,2/3	893	804	775,3	753
71-64	1318	6220	1069	757	5654	1400	2800	4200	-	330	700	1340	733	629	5183	983	2383	3783	-	52,27	8,71	61,6/4	1082	947	902,6	870
71-84	1318	6220	1069	757	5654	1400	2800	4200	-	330	700	1340	733	629	5183	983	2383	3783	-	74,05	8,71	83,6/4	1278	1099	1041	997
80-44	1518	6220	1159	757	5654	1400	2800	4200	-	420	800	1340	803	729	5183	983	2383	3783	-	56,63	8,71	66/4	1130	956	923,9	898
80-64	1518	6220	1159	757	5654	1400	2800	4200	-	420	800	1340	803	729	5183	983	2383	3783	-	60,98	8,71	70,4/4	1277	1119	1071	1032
80-84	1518	6220	1159	757	5654	1400	2800	4200	-	420	800	1340	803	729	5183	983	2383	3783	-	87,12	8,71	96,8/5	1510	1298	1233	1182
50-45	718	5620	906	704	5054	1000	2000	3000	4000	220	500	860	517	329	4783	783	1783	2783	3783	20,00	8,00	27,3/2	473	433	420,6	411
50-65	718	5620	906	704	5054	1000	2000	3000	4000	220	500	860	517	329	4783	783	1783	2783	3783	24,00	8,00	31,2/2	558	500	480,1	465
56-45	918	5620	906	704	5054	1000	2000	3000	4000	220	550	860	563	429	4783	783	1783	2783	3783	28,00	8,00	35,1/2	593	540	522,8	510
56-65	918	5620	906	704	5054	1000	2000	3000	4000	220	550	860	563	429	4783	783	1783	2783	3783	32,00	8,00	39/3	707	628	602	594
56-85	918	5620	906	704	5054	1000	2000	3000	4000	220	550	860	563	429	4783	783	1783	2783	3783	44,00	8,00	50,7/3	826	720	684,7	659
63-45	1018	6620	931	729	6054	1200	2400	3600	4800	220	600	960	636	479	5683	883	2083	3283	4483	36,80	9,20	46/3	773	702	678,2	661
63-65	1018	6620	931	729	6054	1200	2400	3600	4800	220	600	960	636	479	5683	883	2083	3283	4483	41,40	9,20	50,6/3	925	818	782,9	757
63-85	1018	6620	931	729	6054	1200	2400	3600	4800	220	600	960	636	479	5683	883	2083	3283	4483	55,20	9,20	64,4/4	1084	941	893,6	859

The dimensions are only valid for standard model design!
Note the differences in dimension for versions and accessories.

* Electric defrost divided in /n circuits

Versions

Motor versions

Normal refrigeration fan guard
- **V1.07**

For certain applications, e.g. in small spaces and quick cooling rooms the fan guard version is the right solution.

In this version, the design of the fan unit includes a contact safety grille without Air Straightener and air duct.

For other alternative motor versions, see Küba Select or version overview, p. 126

Water / brine circulation

- **V2…**

Tube circuitry and connections for water and brine are available.

Alternative casing versions

Double insulated, hinge-down drip tray
- **V3.09**

The double-shelled drip tray has 25 mm of insulation. The insulation prevents condensation water from building up on the bottom side of the tray and reduces the transfer of defrosting heat into the cold storage area.

This changes the following dimensions:

Width B: +60 mm
Height H: +30 mm
Depth T: +30 mm

Hinged fans
- **V3.10**

To make the coolers easy to clean, the fans are mounted with stainless steel hinges.

Defrost versions

All Küba Air Coolers are available with electric defrosting. See nomenclature, p. 72

Hot gas defrost in the drip tray
- Hot gas connection on both sides
- V4.01 Copper
- V4.02 Stainless steel

Hot gas in the heat exchanger
- V4.05 Hot gas connection on the heat exchanger

Hot gas in the heat exchanger and in the drip tray, copper design with/without check valve
- Hot gas connection on both sides
- V6.07 with check valve
- V6.08 without check valve

On request: additional defrosting circuit: for defrost with hot gas in separate circuit for the hot gas; the circuit is integrated into the heat exchanger.

Versions

Protection against corrosion

Stainless steel casing
- **V3.12**

For protection in aggressive cold storage air, e.g. in smokehouses and curing areas, all casing components are stainless steel. Industrial quality.

- **V6.01**

Heat exchanger:
Tubing: Cu
Fins: Al „goldlack“ coating
End plates: Al, protective coating

Casing: Sendzimir galvanised steel, protective coating on both sides

- **V6.02**

Heat exchanger:
Tubing: Stainless steel
Fins: Al „goldlack“ coating
End plates: Stainless steel

Casing: Sendzimir galvanised steel, protective coating on both sides
Refrigerant distributor: Standard Venturi
Stainless steel CAL® distributor on request

- **V6.03**

Heat exchanger:
Tubing: Stainless steel
Fins: Al
End plates: Al, protective coating

Casing: Sendzimir galvanised steel, protective coating on one side
Refrigerant distributor: Standard Venturi
Stainless steel CAL® distributor on request

- **V6.04**

Heat exchanger:
Tubing: Cu
Fins: Al „goldlack“ coating
End plates: Al

Casing: Sendzimir galvanised steel, protective coating on one side

Further information regarding corrosion protection can be found on pages 132 to 135

Accessories

Recommended for frozen storage

- Shut-Up®
- Defrosting hood
- Fan collar heaters
- Duct at 5° incline
- Double insulated drip tray
- Insulate the top panel on site

Shut-Up®

The Küba Shut-Up® optimises the defrosting procedure, particularly in deep-freeze applications.

Applications

- Frozen storage starting at -18 °C
- Alternating defrosting of the Air Coolers in one room

Advantages (in connection with the defrosting hood)

With Shut-Up® and the defrost hood, a positive accumulation of heat occurs in the air cooler during the defrost process. The heat remains in the cooler, which means:

- Defrosting times reduced more than 50%
- Significant amounts of energy saved
- No frost build up on the ceiling of the storage room or on the goods due to minimal vapour build-up
- Defrosting temperature in cooler is ≦5°C

Calculation hint

Due to the additional external pressure, the air quantity and air cooler capacity change:

Model	Change in air quantity	Change in rating
Küba SG *industrial*	-10%	-5%

Selection table

for model	Shut-Up®
SG... ✇	1 piece
SG... ✇ ✇	2 pieces
SG... ✇ ✇ ✇	3 pieces
SG... ✇ ✇ ✇ ✇	4 pieces
SG... ✇ ✇ ✇ ✇ ✇	5 pieces

Cooling phase, fans switched on: Shut-Up® is inflated

Defrosting, fans switched off: Shut-Up® closes the air cooler

Accessories

Defrost hood

The defrost hood optimises the defrosting process, particularly in deep-freeze applications.

Applications
- Frozen storage starting at -18 °C
- Alternating defrosting of the Air Coolers in one room

Advantages (in connection with Shut-Up®)
With the defrost hood and Shut-Up®, a positive accumulation of heat occurs in the air cooler during the defrost process. The heat remains in the cooler, which means:
- Defrost times reduced by more than 50%
- Significant amounts of energy saved
- No frost build up on the ceiling of the storage room or on the goods due to minimal vapour build-up
- Defrost temperature in cooler is ≦5°C

Construction
- The double-shelled drip tray has 12mm of insulation
- The casing is made of aluminium and is coating (RAL 9018)
- The construction is modular, i.e. 1 module per fan
- Unassembled upon delivery, i.e. the hoods must be mounted on the air cooler on site

Module dimensions and weight:

Model	H mm	B mm	T mm	Weight kg	$W_{min.}$ mm
SG 50..1-5	880	945	800	33	1050
SG 56..1-5	1080	945	800	35	1050
SG 63..1-5	1180	1145	900	42	1150
SG 71..1-4	1580	1345	1280	58	1500
SG 80..1-4	1680	1345	1280	66	1500

Calculation hint
Due to the additional external pressure, the air quantity and air cooler capacity change:

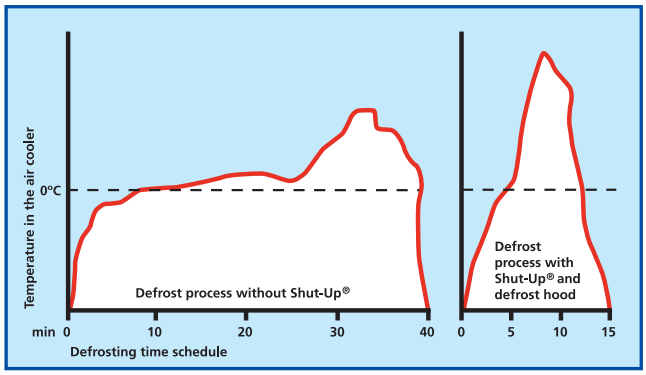
Model	Change in air quantity	Change in cooler rating
SG *industrial*	-10%	-5%

For deep-freeze applications, Küba engineers recommend an insulated drip tray.

When using floor brackets please make sure you have the right version „For defrost hood“.

Mode of operation during defrosting
Shut-Up® is suspended over the fan unit, closing the air cooler. Hot air cannot escape. The cold air from the room forms a blocking layer at the defrosting hood from the outside
- Hot air cannot escape
- A chimney effect is prevented

Defrosting process with Shut-Up® and defrost hood



With our deep-freeze package (Shut-Up® and defrosting hood) you will reduce defrosting time by more than half

Fan collar heater VRB

To prevent the fan blade at the collar from freezing up in cases of extreme humidity in the freezer or frozen storage area.

The standard Küba SG *industrial* line is suitable for use with fan collar heaters. We recommend using fan collar heaters for applications below 0 °C for version V1 .60 to prevent temperatures from falling below the dew point.

Accessories

Scope of delivery
Electric tubular heater with stainless steel sleeve
Ø 8.5 mm
Connection ends: 1.5 x 2000 mm
Tension spring: stainless steel

Technical data

Model	For blade Ø mm	P at 230V kW	Weight kg
VRB 50	500	0,27	0,55
VRB 56	560	0,30	0,60
VRB 63	630	0,39	0,65
VRB 71	710	0,38	0,70
VRB 80	800	0,40	0,80

Selection table

for model	VRB
SG... ✇	1
SG... ✇ ✇	2
SG... ✇ ✇ ✇	3
SG... ✇ ✇ ✇ ✇	4
SG... ✇ ✇ ✇ ✇ ✇	5

Fan collar heater cover

Benefits:
- Contact protection
- Reduces heat radiation from the fan collar heaters into the Cold Room
- Improves heat conductivity at the collar
- Increases the efficiency of the fan collar heaters
- Protects against slipping

Can only be used in connection with a metal air duct.

Duct at 5° incline

For complex deep-freeze applications, the duct has a 5° incline to ensure trouble-free operation.

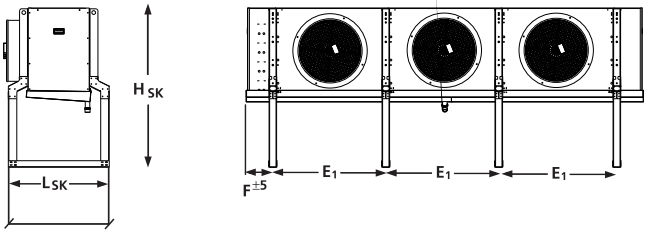
Applications
- Deep-freeze applications at high humidity
- Deep-freeze applications with high-availability, sensitive products (e.g. pharmaceuticals) with few redundant coolers

Advantages
Ventilation duct at 5° incline ensures that condensation water runs out of the duct into the drip tray.
- Reduced risk of fan blades at the collar freezing up
- Prevents ice formation on the Air Straighteners

Construction
- Ventilation duct with an inclination of 5° to the casing and integrated air guiding grid
- Ventilation duct made of Sendzimir galvanised steel plate, coated (RAL 9018)
- Suitable for installation of the Küba Shut-Up® – with no additional accessories

Calculation hint
The ducts at 5° incline should always be used together with Shut-Up® and defrosting hoods, fan collar heaters and insulated drip trays.

Floor mounting brackets SK



Küba SG		50	56	63	71	80
Dimensions mm	SK	1048	1048	1073	1101	1101
	H_{SK}	1384	1584	1684	1984	2184
	L_{SK}	782	782	807	835	835
	E_{SK}	=E¹	According Küba SG dimension page 89			
	F	=F				

Finned tube heaters SGHR

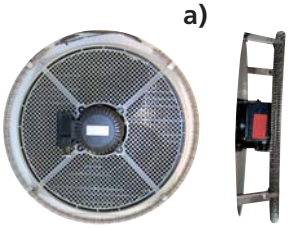
For Air Coolers with draw-through fans, on site assembly. Suitable for air conditioning or heating in the winter.

Accessories

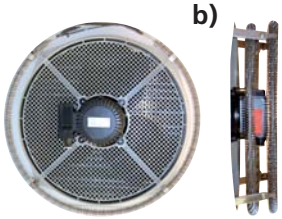
Only for use with running air cooler fans so that the ceiling of the cold storage areas does not overheat. Please observe the respective safety guidelines.

Scope of delivery: • Electric finned tube heater in stainless steel
• Connection ends: 1.5 x 2000 mm • Assembly kit • Connection box IP 54

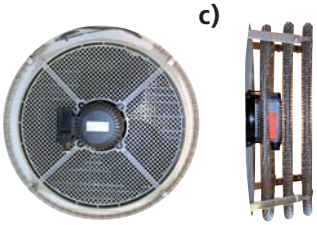
a)



b)



c)



Model	for blade	Nominal rating at 230 V	Weight	Model	for blade	Nominal rating at 230 V	Weight
	Ø mm	kW	kg		Ø mm	kW	kg
SGHR 50	500	3,19	1,13	**SGHR 50 Z**	500	3,19	1,13
SGHR 56	560	3,51	1,27	**SGHR 56 Z**	560	3,51	1,27
SGHR 63	630	8,08	2,68	**SGHR 63 Z**	630	4,04	1,34
SGHR 71	710	9,48	3,23	**SGHR 71 Z**	710	4,74	1,51
SGHR 80	800	10,5	3,40	**SGHR 80 Z**	800	5,24	1,70

Selection table

For Air Coolers	Normal heating capacity		Greater heating capacity	
	kW	Number to order	kW	Number to order
SG 50-1	3,19	a) 1 SGHR 50	6,38	b) 1 SGHR 50 + 1 SGHR 50Z
SG 56-1	3,51	a) 1 SGHR 56	7,02	b) 1 SGHR 56 + 1 SGHR 56Z
SG 63-1	8,08	b) 1 SGHR 63	12,1	c) 1 SGHR 63 + 1 SGHR 63Z
SG 71-1	9,48	b) 1 SGHR 71	14,2	c) 1 SGHR 71 + 1 SGHR 71Z
SG 80-1	10,5	b) 1 SGHR 80	15,8	c) 1 SGHR 80 + 1 SGHR 80Z
SG 50-2	6,38	a) 2 SGHR 50	12,8	b) 2 SGHR 50 + 2 SGHR 50Z
SG 56-2	7,02	a) 2 SGHR 56	14,0	b) 2 SGHR 56 + 2 SGHR 56Z
SG 63-2	16,2	b) 2 SGHR 63	24,2	c) 2 SGHR 63 + 2 SGHR 63Z
SG 71-2	19,0	b) 2 SGHR 71	28,4	c) 2 SGHR 71 + 2 SGHR 71Z
SG 80-2	21,0	b) 2 SGHR 80	31,6	c) 2 SGHR 80 + 2 SGHR 80Z
SG 50-3	9,57	a) 3 SGHR 50	19,1	b) 3 SGHR 50 + 3 SGHR 50Z
SG 56-3	10,5	a) 3 SGHR 56	21,1	b) 3 SGHR 56 + 3 SGHR 56Z
SG 63-3	24,3	b) 3 SGHR 63	36,3	c) 3 SGHR 63 + 3 SGHR 63Z
SG 71-3	28,5	b) 3 SGHR 71	42,6	c) 3 SGHR 71 + 3 SGHR 71Z
SG 80-3	31,5	b) 3 SGHR 80	47,4	c) 3 SGHR 80 + 3 SGHR 80Z
SG 50-4	12,8	a) 4 SGHR 50	25,5	b) 4 SGHR 50 + 4 SGHR 50Z
SG 56-4	14,1	a) 4 SGHR 56	28,1	b) 4 SGHR 56 + 4 SGHR 56Z
SG 63-4	32,2	b) 4 SGHR 63	48,4	c) 4 SGHR 63 + 4 SGHR 63Z
SG 71-4	38,0	b) 4 SGHR 71	56,8	c) 4 SGHR 71 + 4 SGHR 71Z
SG 80-4	42,0	b) 4 SGHR 80	63,2	c) 4 SGHR 80 + 4 SGHR 80Z
SG 50-5	15,9	a) 5 SGHR 50	31,9	b) 5 SGHR 50 + 5 SGHR 50Z
SG 56-5	17,6	a) 5 SGHR 56	35,1	b) 5 SGHR 56 + SGHR 56Z
SG 63-5	40,4	b) 5 SGHR 63	60,5	c) 5 SGHR 63 + SGHR 63Z

Accessories

Air hoses (on site procurement, not available from Küba)

Ventilation can be optimised with textile / PVC air hoses.

Applications
- Applications in work rooms and production areas
- Cooled goods that are sensitive to drafts (e.g. flowers, ripening cheeses)

Advantages
The air hoses make uniform air distribution possible at very low air speeds.
- Working in a draft-free environment yields low illness rates
- Maximum protection for sensitive cooled goods
- No condensation water: temperatures do not fall below the dew point because air can penetrate the woven material

Calculation hints
Please take the respective pressure drop for the cooler design into consideration.