

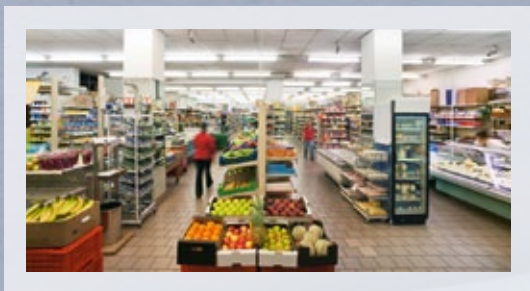
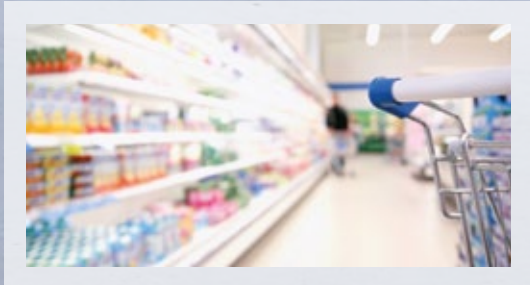
Just cool with green: GEA Küba *market SP*
The new standard for basic refrigeration applications

GEA Küba *market* SP

The new standard for basic refrigeration applications

Hinged, integrated fan system

Integrated electrical terminal box



Type designation code

1	2	3	4	5	6	7
SP	A	E	35	-	F	2 3

- 1 Model range designation
- 2 Fin spacing (A=4 mm; B=7 mm)
- 3 Electric defrost
- 4 Fan diameter
- 5 Refrigerant (F=FC/CO₂; G=Glycol)
- 6 Number of rows deep
- 7 Number of fans (1-5 fans)

GEA Küba *market* SP

from the GEA Küba Green Line production range

Maximum energy efficiency

- The Küba HFE® system combines the thermodynamic and fluid-dynamic interaction of the components with optimal fin structure and with newly developed heat-exchanger design. The result is stable control action, even with minimal temperature differences.
- The GEA Küba defrost system guarantees quick and energy-efficient defrosting after long cooling cycles.
- The system of motors with fan blades and full bell mouth is optimized in aerodynamic design and are available with AC or EC technology.



Hygienic without a doubt

- The hinged fan system makes thorough cleaning of the heat exchanger and the fan very easy.
- The casing has smooth, powder-coated surfaces that are easy to clean, food-safe, and environmentally friendly.
- The new fan system has a reliable splashguard feature that reliably protects it from liquid splashes from the outside. The new GEA Küba *market* SP is manufactured to comply with the requirements of protection classes IP54 (EC motor) and IP44 (AC motor).



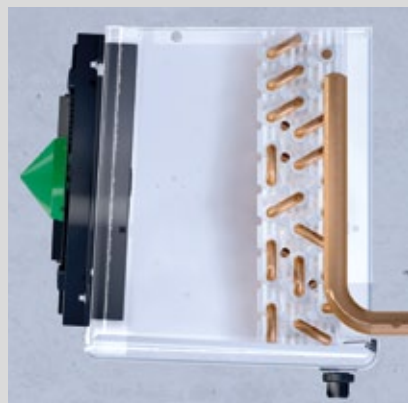
Simple installation

- The proven, rugged and sophisticated casing makes mounting of the cooler easy. The round corners and the smooth edges of the casing parts mean no danger of injury for installation and cleaning staff.
- The integrated terminal box for electrical wiring of the fans is also an innovation. Standard spring-loaded terminals enable fast and sure connections.
- The connection area to the side is generous to enable simple maintenance.



GEA Küba *market SP*

Standard types and variants

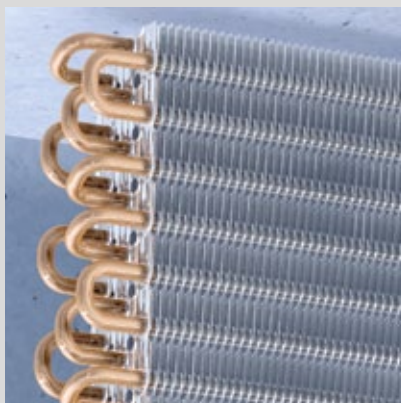


Casing

- Smooth aluminum
- High-grade powder coating provides superior edge-covering corrosion protection
- RAL 9018 papyrus white
- Fan plate inclined at 3° to the drip tray
- Food-safe
- Easy to clean
- Excellent corrosion protection

Electric defrost

- Wired ready to connect in junction boxes
- Optimized tubular heater configurations ensure fast and even defrosting
- Aluminium heat pipes that ensure excellent heat transfer to the fins and thus effective defrosting cycles with optimized service life.
- Mains voltage: 230 V-1/400V-3-Y



Heat exchanger for direct expansion

- Heat exchanger with staggered tube system consisting of special copper tubes, drawn oxygen-free and inner finned according to DIN EN 12735-1,2 and with 12 mm diameter and closed, pure-aluminum HFE fins.
- Fins flared to form-fit the core tube
- Highly effective heat transfer and compact design
- Fin spacing:
A = 4.0 mm
B = 7.0 mm
- Inlet connections:
With single injection:
Copper pipe for brazed connections, tightly sealed
SPA and SPB for multiple injection:
Flow distributor, with brazed copper stub connection
- Outlet connections:
Copper pipe for brazed connections, with Schrader valve UNF 7/16 inch



Fan system

- Fan system with integrated terminal box and protection against liquid spray
- Permissible motor operating temperatures from -30 to +20°C (EC), and -40 to +20°C (AC)
- Built-in protector (AC) and connection box integrated in the hinge
- Pre-wired to springloaded terminals, with outgoing thermistor leads to terminals (AC)
- 230 Volt, 50/60 Hz, 1-phase as AC, or optionally as EC system
- Optional EC motor available with integrated motor management for monitoring of operational parameters to protect the fan unit: excess current, excess temperature, and undervoltage
- Motor available with AC and EC fans

Variants und Accessories available

Motor variants

V 1.50 EC fan,
SP 23:
ESM Motor with 2 speeds
from SP 30:
EC motor – fixed speed

V 1.52 EC fan, controllable, 0-10V

Heat exchanger

V 6.01 Corrosion protection 1 *

V 6.04 Corrosion protection 4 **

V 2.xx Brine

V 7.45 CO₂, 45 bar

V 7.60 CO₂, 60 bar

V 4.01 Hot gas defrost (tray)

Accessories

+ Shut-Up® including adapter

+ Fold-down drip tray

* Tube: copper · Fin: aluminum-gold varnish · Casing: Al / pre-galvanized steel sheets with protective coating on both sides
** Tube: copper · Fin: aluminum-gold varnish · Casing: Al / pre-galvanized steel sheets with protective coating on one side

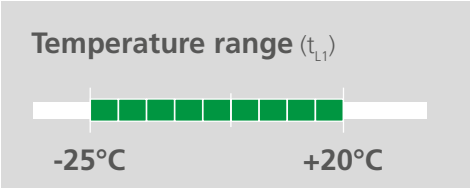
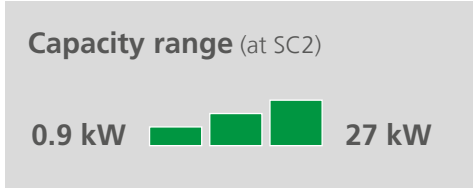
Motor Label Data*

Type	Ø mm	50 Hz			60 Hz		
		rpm	W	A	rpm	W	A
SP23 F21-34	230	1600	30	0.24	1600	30	0.24
SP30 F21-34	300	1320	72	0.32	1500	90	0.40
SP35 F21-45	350	1400	180	0.81	1600	250	1.10
SP45 F31-44	450	1400	245	1.10	1600	355	1.55

*Data provided by the manufacturer

GEA Küba market SP

Technical data – SPB(E)



Type	Rating Q_0 at 50 Hz, DT1, R404A		Cooling surface	Air flow	Air throw	Tube volume	Connections		Sound	Fans (Operational values at 50 Hz)					
	SC2	SC3					Inlet	Outlet		L_{WA}	Blade	Current	Per Fan		
	kW	kW											\varnothing mm	\varnothing mm	db (A)
SPB 23-F21	0.9	0.6	2.8	980	7	0.84	10x1.0*	12x1.0	67	230	230 V-1	1,580	30	0.25	
SPB 23-F31	1.2	0.8	4.2	890	7	1.26	10x1.0*	12x1.0	67	230	230 V-1	1,580	30	0.25	
SPB 30-F21	1.5	1.1	4.3	1.660	11	1.34	10x1.0*	12x1.0	65	300	230 V-1	1,360	65	0.30	
SPB 30-F31	2.0	1.4	6.4	1.590	11	2.16	10x1.0*	18x1.0	65	300	230 V-1	1,360	65	0.30	
SPB 35-F21	2.4	1.6	6.6	3.040	19	2.06	12x1.0**	18x1.0	72	350	230 V-1	1,430	145	0.68	
SPB 35-F31	3.3	2.4	9.8	2.940	19	3.01	12x1.0**	22x1.0	72	350	230 V-1	1,430	145	0.68	
SPB 35-F41	4.0	2.9	12.9	2.820	18	4.06	12x1.0**	22x1.0	72	350	230 V-1	1,430	145	0.68	
SPB 45-F31	5.6	4.0	16.7	5.010	26	5.17	15x1.0**	28x1.5	81	450	230 V-1	1,360	270	1.20	
SPB 45-F41	6.8	5.1	22.1	4.870	25	6.77	15x1.0**	28x1.5	81	450	230 V-1	1,360	270	1.20	
SPB 23-F32	2.3	1.7	8.4	1.780	12	2.51	10x1.0*	18x1.0	70	230	230 V-1	1,580	30	0.25	
SPB 30-F22	3.0	2.1	8.6	3.320	17	2.73	12x1.0**	22x1.0	68	300	230 V-1	1,360	65	0.30	
SPB 30-F32	4.0	2.9	12.8	3.180	16	4.11	12x1.0**	22x1.0	68	300	230 V-1	1,360	65	0.30	
SPB 35-F22	4.9	3.3	13.2	6.080	25	3.94	15x1.0**	22x1.0	75	350	230 V-1	1,430	145	0.68	
SPB 35-F32	6.6	4.5	19.5	5.880	24	5.93	15x1.0**	28x1.5	75	350	230 V-1	1,430	145	0.68	
SPB 35-F42	8.0	5.8	25.8	5.640	24	7.76	15x1.0**	28x1.5	75	350	230 V-1	1,430	145	0.68	
SPB 45-F32	11.3	8.0	33.4	10.020	32	9.93	15x1.0**	35x1.5	84	450	230 V-1	1,360	270	1.20	
SPB 45-F42	13.6	10.3	44.3	9.740	31	13.31	15x1.0**	35x1.5	84	450	230 V-1	1,360	270	1.20	
SPB 23-F33	3.5	2.5	12.5	2.670	16	3.65	12x1.0**	22x1.0	72	230	230 V-1	1,580	30	0.25	
SPB 30-F23	4.5	3.0	13.0	4.980	20	4.06	15x1.0**	22x1.0	70	300	230 V-1	1,360	65	0.30	
SPB 30-F33	6.0	4.3	19.2	4.770	20	5.98	15x1.0**	28x1.5	70	300	230 V-1	1,360	65	0.30	
SPB 35-F23	7.2	5.3	19.8	9.120	28	5.87	15x1.0**	28x1.5	77	350	230 V-1	1,430	145	0.68	
SPB 35-F33	9.8	7.2	29.3	8.820	28	8.59	15x1.0**	35x1.5	77	350	230 V-1	1,430	145	0.68	
SPB 35-F43	11.9	8.8	38.7	8.460	27	11.31	15x1.0**	35x1.5	77	350	230 V-1	1,430	145	0.68	
SPB 45-F33	16.9	12.1	50.2	15.030	35	14.74	22x1.0**	42x1.5	86	450	230 V-1	1,360	270	1.20	
SPB 45-F43	20.6	14.9	66.4	14.610	34	19.92	22x1.0**	42x1.5	86	450	230 V-1	1,360	270	1.20	
SPB 23-F34	4.6	3.5	16.7	3.560	18	4.86	15x1.0**	22x1.0	73	230	230 V-1	1,580	30	0.25	
SPB 30-F24	6.0	4.2	17.3	6.640	23	5.44	15x1.0**	28x1.5	71	300	230 V-1	1,360	65	0.30	
SPB 30-F34	7.9	6.0	25.5	6.360	22	7.98	15x1.0**	28x1.5	71	300	230 V-1	1,360	65	0.30	
SPB 35-F24	9.7	6.9	26.4	12.160	31	7.64	15x1.0**	35x1.5	78	350	230 V-1	1,430	145	0.68	
SPB 35-F34	13.2	9.5	39.0	11.760	30	11.44	15x1.0**	35x1.5	78	350	230 V-1	1,430	145	0.68	
SPB 35-F44	16.0	11.6	51.7	11.280	30	15.04	22x1.0**	35x1.5	78	350	230 V-1	1,430	145	0.68	
SPB 45-F34	22.3	16.7	66.9	20.040	38	19.86	22x1.0**	42x1.5	87	450	230 V-1	1,360	270	1.20	
SPB 45-F44	27.2	20.6	88.6	19.480	37	26.01	28x1.5**	42x1.5	87	450	230 V-1	1,360	270	1.20	
SPB 35-F45	19.8	14.9	64.6	14.100	31	18.59	22x1.0**	42x1.5	79	350	230 V-1	1,430	145	0.68	















SC2 = $t_{L1} \pm 0^\circ\text{C}$ | DT1= 8K
 SC3 = $t_{L1} - 18^\circ\text{C}$ | DT1= 7K

* Single injection
 ** Multiple injection
 *** Throw limit at 0.5 m/s

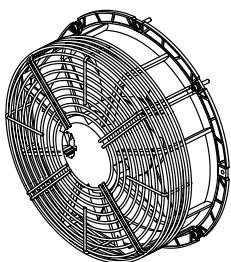
The technical data are also given in the product selection software.
 Data are subject to modification.

GEA Küba market SP

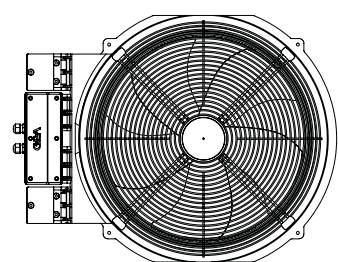
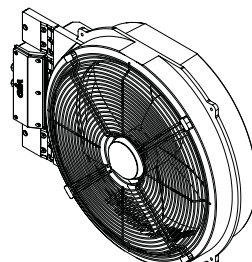
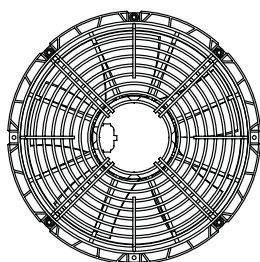
Dimensions, weights, electric defrost

Type	Dimensions										Electric defrost 230 V-1 / 400 V-3-Y			Weight (net)		Weight (gross)		Drain
	H	B	T	L	E ₁	E ₂	E ₃	F	A	W	Coil	Tray	Total	SPA/B	SPA/B E	SPA/B	SPA/B E	D
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kW	kW	kW	kg	kg	kg	kg	"
 SP 23-F21	351	760	400	335	480	-	-	140	79	200	0.5	0.4	0.9	11	12	15	16	G ¾
SP 23-F31	351	760	400	335	480	-	-	140	79	200	0.5	0.4	0.9	12	13	16	17	G ¾
SP 30-F21	427	960	425	360	620	-	-	170	78	200	0.6	0.6	1.2	18	19	23	24	G ¾
SP 30-F31	427	960	425	360	620	-	-	170	78	200	0.6	0.6	1.2	20	21	25	26	G ¾
SP 35-F21	505	1,130	607	515	730	-	-	200	105	300	0.7	0.8	1.5	28	29	35	36	G ¾
SP 35-F31	505	1,130	607	515	730	-	-	200	105	300	1.4	0.8	2.2	31	32	38	39	G ¾
SP 35-F41	505	1,130	607	515	730	-	-	200	105	300	1.4	0.8	2.2	34	35	41	42	G ¾
SP 45-F31	657	1,330	613	510	930	-	-	200	120	400	1.7	0.9	2.6	45	47	79	81	G ¾
SP 45-F41	657	1,330	613	510	930	-	-	200	120	400	2.6	0.9	3.5	50	52	83	86	G ¾
 SP 23-F32	351	1,210	400	335	930	-	-	140	79	200	0.9	0.8	1.7	20	21	25	26	G ¾
 SP 30-F22	427	1,550	425	360	1,210	-	-	170	78	200	1.0	1.0	2.0	30	32	57	58	G ¾
SP 30-F32	427	1,550	425	360	1,210	-	-	170	78	200	1.0	1.0	2.0	33	35	60	61	G ¾
SP 35-F22	505	1,830	607	515	1,430	-	-	200	105	300	1.3	1.3	2.6	48	50	85	87	G 1¼
SP 35-F32	505	1,830	607	515	1,430	-	-	200	105	300	2.6	1.3	3.9	53	56	90	92	G 1¼
SP 35-F42	505	1,830	607	515	1,430	-	-	200	105	300	2.4	1.3	3.7	58	61	95	97	G 1¼
SP 45-F32	657	2,230	613	510	1,830	-	-	200	120	400	3.2	1.6	4.8	82	86	165	169	G 1¼
SP 45-F42	657	2,230	613	510	1,830	-	-	200	120	400	4.5	1.6	6.1	88	93	171	175	G 1¼
 SP 23-F33	351	1,660	400	335	1,380	450	-	140	79	200	1.2	1.1	2.3	28	29	60	62	G ¾
 SP 30-F23	427	2,140	425	360	1,800	590	-	170	78	200	1.5	1.5	3.0	43	45	81	83	G ¾
 SP 30-F33	427	2,140	425	360	1,800	590	-	170	78	200	1.5	1.5	3.0	47	49	84	86	G ¾
 SP 35-F23	505	2,530	607	515	2,130	700	-	200	105	300	1.8	1.8	3.6	68	70	150	153	G 1¼
SP 35-F33	505	2,530	607	515	2,130	700	-	200	105	300	3.6	1.8	5.4	74	78	157	161	G 1¼
SP 35-F43	505	2,530	607	515	2,130	700	-	200	105	300	3.4	1.8	5.2	82	86	165	168	G 1¼
SP 45-F33	657	3,130	613	510	2,730	900	-	200	120	400	4.4	2.2	6.6	123	128	258	263	G 1¼
SP 45-F43	657	3,130	613	510	2,730	900	-	200	120	400	6.5	2.2	8.7	132	138	267	273	G 1¼
 SP 23-F34	351	2,110	400	335	1,830	900	-	140	79	200	1.5	1.5	3.0	35	38	103	105	G ¾
 SP 30-F24	427	2,730	425	360	2,390	1,180	-	170	78	200	2.0	2.0	4.0	57	59	147	150	G 1¼
 SP 30-F34	427	2,730	425	360	2,390	1,180	-	170	78	200	2.0	2.0	4.0	60	63	151	153	G 1¼
 SP 35-F24	505	3,230	607	515	2,830	1,400	-	200	105	300	2.3	2.3	4.6	90	93	217	220	G 1¼
 SP 35-F34	505	3,230	607	515	2,830	1,400	-	200	105	300	4.5	2.3	6.8	98	103	226	231	G 1¼
 SP 35-F44	505	3,230	607	515	2,830	1,400	-	200	105	300	4.4	2.2	6.6	109	114	237	241	G 1¼
SP 45-F34	657	4,030	613	510	3,630	1,800	-	200	120	400	7.2	0.7	7.9	158	166	323	331	G 1¼
SP 45-F44	657	4,030	613	510	3,630	1,800	-	200	120	400	8.6	0.7	9.3	171	179	336	345	G 1¼
 SP 35-F45	505	3,930	607	515	3,530	1,400	2,100	200	105	300	5.8	0.7	6.5	137	143	294	301	G 1¼

GEA Küba market SP fan units



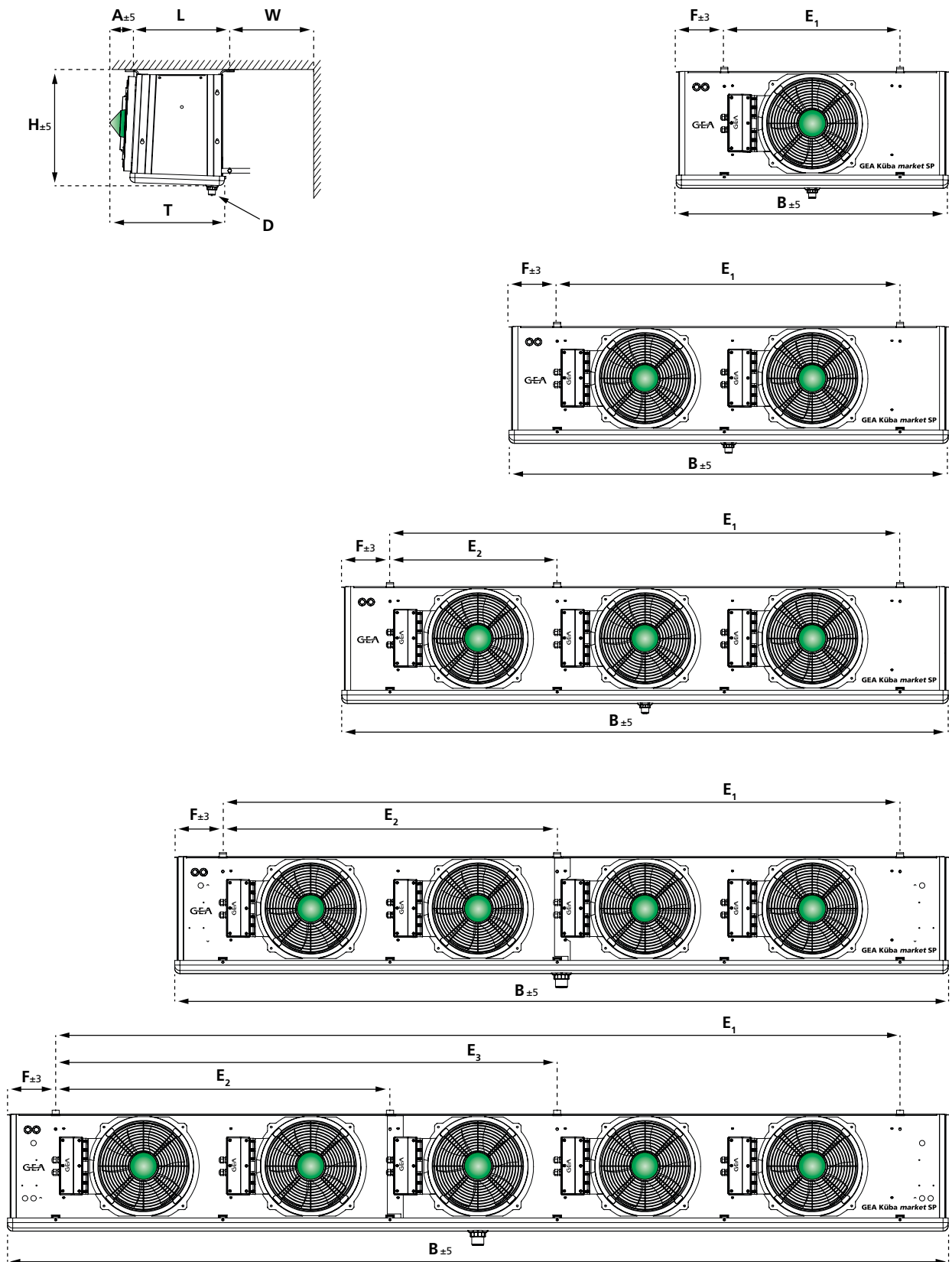
SP23: Standard = ESM motor



SP30, SP35, SP45: Standard AC, EC model (V1.50, V1.52)

Dimensional drawings for GEA Küba market SP (1-5 motors)

Example showing GEA Küba market SP with 300 mm blade diameter





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GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 index.

GEA Heat Exchangers

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