

Rittal – TopTherm fan-and-filter unit



System Climate Control

FRIEDHELM LOH GROUP



**More pressure.
Higher air flow rates.**

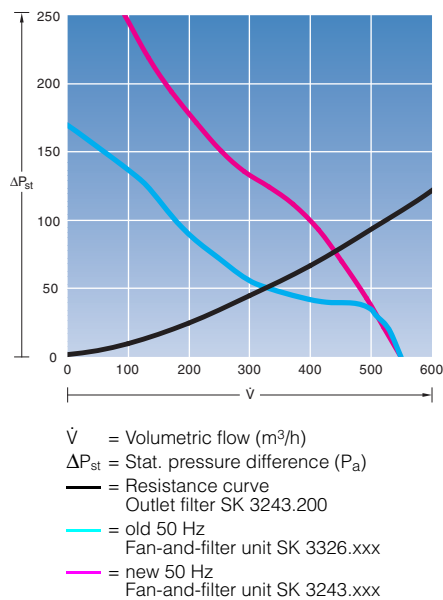


Assembly without tools

- Straightforward assembly, exchange and maintenance with no need for tools of any kind
- Simple reversal of the air flow direction by turning the fan module
- Individual positioning of the power connection
- Spring clamp terminals for electrical connection without tools
- Louvred grille latch for fast filter mat replacement without tools



Performance diagram



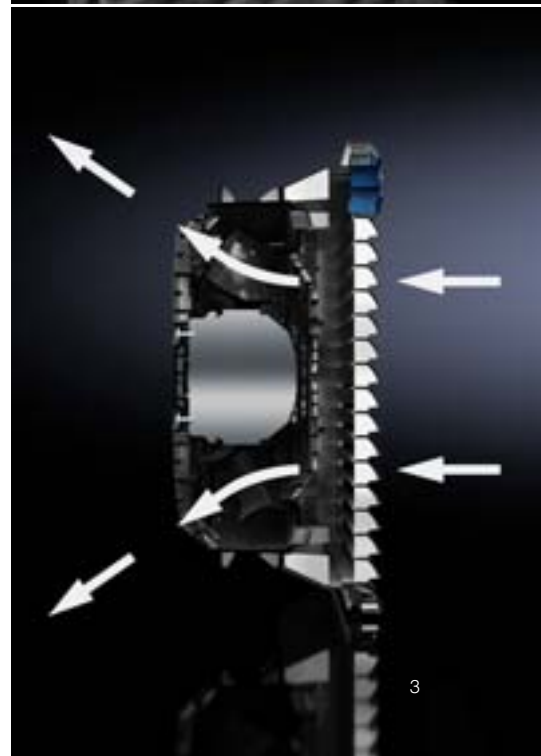
Efficient technology

- Air throughput from 20 to 700 m^3/h
- New diagonal fan technology for greater pressure stability and constant air flows in use, even with a contaminated filter mat
- Minimum installation depth
- Flow-optimised air routing
- Extended service life of filter mats and thus longer maintenance intervals

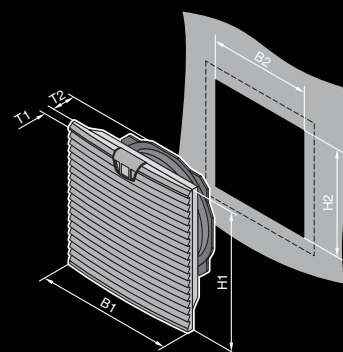


Air routing

- Intelligent symbiosis of radial and axial fan technology
- Air flow spreads diagonally from the fan, promoting a more even air distribution in the enclosure



TopTherm fan-and-filter unit



Supply includes:

Complete unit ready to install,
including filter mat.

B = Width
H = Height
T = Depth

Air throughput 20 – 66 m³/h

Model No. SK fan-and-filter unit	3237.100	3237.110	3237.124	3238.100	3238.110	3238.124
Model No. SK fan-and-filter unit – EMC	3237.600	–	–	3238.600	–	–
Rated operating voltage V, Hz	230, 50/60	115, 50/60	24 (DC)	230, 50/60	115, 50/60	24 (DC)
Dimensions mm	B1/H1	116.5 x 116.5		148.5 x 148.5		
	B2/H2	92 x 92		124 x 124		
	T1	16		16		
Max. installation depth mm	T2	43		58.5		
Air throughput, unimpeded air flow	20/25 m³/h		20 m³/h	55/66 m³/h		55 m³/h
Air throughput with outlet filter including standard filter mat	1 x SK 3237.200: 15/18 m³/h			1 x SK 3238.200: 43/50 m³/h 2 x SK 3238.200: 46/56 m³/h		

Diagonal fan	Self-starting shaded pole motor		DC motor	Self-starting shaded pole motor		DC motor
Rated current	0.065 A/0.052 A	0.14 A/0.12 A	0.14 A	0.12 A/0.11 A	0.24 A/0.23 A	0.28 A
Power consumption	11 W/9 W		3 W	19 W/17 W	19 W/17 W	6 W
Pre-fuse	2 A					
Noise level	38/43 dB (A)		38 dB (A)	46/49 dB (A)		46 dB (A)
Operating temperature range	–15°C to +55°C					
Storage temperature range	–30°C to +85°C					
Colour	RAL 7035					
Protection category to EN 60 529	IP 54 standard IP 55 with additional fine filter mat IP 56 with additional fine filter mat and hose-proof hood					

Model No. SK outlet filter	3237.200			3238.200		
Model No. SK outlet filter – EMC	3237.060	–	–	3238.060	–	–

Accessories	Packs of		
Filter mats	5	3321.700	3322.700
Fine filter mats	5	–	3238.055
Hose-proof hood	1	3237.080	3238.080
Blanking cover	1	3237.020	3238.020
Thermostat	1	3110.000	
Temperature indicator	1	3114.200	
Hygostat	1	3118.000	
Speed control	1	3120.200	

Special voltages available on request. We reserve the right to make technical modifications.

TopTherm fan-and-filter unit

Air throughput 105 – 120 m³/h

Model No. SK fan-and-filter unit	3239.100	3239.110	3239.124
Model No. SK fan-and-filter unit – EMC	3239.600	–	–
Rated operating voltage V, Hz	230, 50/60	115, 50/60	24 (DC)
Dimensions mm	B1/H1	204 x 204	
	B2/H2	177 x 177	
	T1	24	
Max. installation depth mm	T2	90	
Air throughput, unimpeded air flow	105/120 m³/h		105 m³/h
Air throughput with outlet filter including standard filter mat	1 x SK 3239.200: 87/100 m³/h 2 x SK 3239.200: 93/108 m³/h 1 x SK 3240.200: 98/111 m³/h		

Diagonal fan	Self-starting shaded pole motor		DC motor
Rated current	0.12 A/0.11 A	0.24 A/0.23 A	0.28 A
Power consumption	19 W/17 W		6 W
Pre-fuse	2 A		
Noise level	46/49 dB (A)		46 dB (A)
Operating temperature range	–15°C to +55°C		
Storage temperature range	–30°C to +85°C		
Colour	RAL 7035		
Protection category to EN 60 529	IP 54 standard/IP 55 with additional fine filter mat/IP 56 with additional fine filter mat and hose-proof hood		
Model No. SK outlet filter	3239.200		
Model No. SK outlet filter – EMC	3239.060	–	–

Accessories	Packs of	
Filter mats	5	3171.100
Fine filter mats	5	3181.100
Hose-proof hood	1	3239.080
Blanking cover	1	3239.020
Thermostat	1	3110.000
Temperature indicator	1	3114.200
Hygrostat	1	3118.000
Speed control	1	3120.200

Special voltages available on request. We reserve the right to make technical modifications.

Air throughput 180 – 250 m³/h

Model No. SK fan-and-filter unit	3240.100	3240.110	3240.124	3241.100	3241.110	3241.124
Model No. SK fan-and-filter unit – EMC	3240.600	–	–	3241.600	–	–
Rated operating voltage V, Hz	230, 50/60	115, 50/60	24 (DC)	230, 50/60	115, 50/60	24 (DC)
Dimensions mm	B1/H1	255 x 255				
	B2/H2	224 x 224				
	T1	25				
Max. installation depth mm	T2	107				
Air throughput, unimpeded air flow	180/160 m³/h		180 m³/h	230/250 m³/h		230 m³/h
Air throughput with outlet filter including standard filter mat	1 x SK 3240.200: 138/121 m³/h 2 x SK 3240.200: 165/140 m³/h 1 x SK 3243.200: 165/140 m³/h			1 x SK 3240.200: 183/205 m³/h 2 x SK 3240.200: 203/230 m³/h 1 x SK 3243.200: 203/230 m³/h		

Diagonal fan	Self-starting shaded pole motor		DC motor	Self-starting shaded pole motor		DC motor
Rated current	0.19 A/0.18 A	0.38 A/0.36 A	0.07 A	0.27 A/0.28 A	0.54 A/0.52 A	0.2 A
Power consumption	33 W/33 W		10 W	42 W/46 W	43 W/46 W	25 W
Pre-fuse	2 A	4 A	2 A	4 A		2 A
Noise level	51/46 dB (A)		51 dB (A)	54/56 dB (A)		54 dB (A)
Operating temperature range	−30°C to +55°C					
Storage temperature range	−30°C to +85°C					
Colour	RAL 7035					
Protection category to EN 60 529	IP 54 standard/IP 55 with additional fine filter mat/IP 56 with additional fine filter mat and hose-proof hood					
Model No. SK outlet filter	3240.200					
Model No. SK outlet filter – EMC	3240.060	–	–	3240.060	–	–

Accessories	Packs of	
Filter mats	5	3172.100
Fine filter mats	5	3182.100
Hose-proof hood	1	3240.080
Blanking cover	1	3240.020
Thermostat	1	3110.000
Temperature indicator	1	3114.200
Hygrostat	1	3118.000
Speed control	1	3120.200

Special voltages available on request. We reserve the right to make technical modifications.

TopTherm fan-and-filter unit

Air throughput 550 – 770 m³/h

Model No. SK fan-and-filter unit	3243.100	3243.110	3244.100	3244.110	3244.140
Model No. SK fan-and-filter unit – EMC	3243.600	–	3244.600	–	–
Rated operating voltage V, Hz	230, 50/60	115, 50/60	230, 50/60	115, 50/60	400/460, 3~, 50/60
Dimensions mm	B1/H1	323 x 323			
	B2/H2	292 x 292			
	T1	25			
Max. installation depth mm	T2	118.5	130.5		
Air throughput, unimpeded air flow	550/600 m³/h		700/770 m³/h		
Air throughput with outlet filter including standard filter mat	1 x SK 3243.200: 465/510 m³/h 2 x SK 3243.200: 508/548 m³/h		1 x SK 3243.200: 544/587 m³/h 2 x SK 3243.200: 614/662 m³/h		

Diagonal fan	1~ capacitor motor				Rotary current motor
Rated current	0.37 A/0.48 A	0.75 A/0.80 A	0.59 A/0.81 A	1.0 A/1.4 A	0.22 A/0.24 A
Power consumption	71 W/89 W	70 W/80 W	109 W/155 W	110 W/156 W	96 W/138 W
Pre-fuse	4 A	6 A	4 A	6 A	Motor circuit-breaker
Noise level	59/61 dB (A)		65/68 dB (A)		
Operating temperature range	-30°C to +55°C				
Storage temperature range	-30°C to +85°C				
Colour	RAL 7035				
Protection category to EN 60 529	IP 54 standard IP 55 with additional fine filter mat IP 56 with additional fine filter mat and hose-proof hood				
Model No. SK outlet filter	3243.200				
Model No. SK outlet filter – EMC	3243.060	–	3243.060	–	–

Accessories		Packs of
Filter mats	5	3173.100
Fine filter mats	5	3183.100
Hose-proof hood	1	3243.080
Blanking cover	1	3243.020
Thermostat	1	3110.000
Temperature indicator	1	3114.200
Hygrostat	1	3118.000
Speed control	1	3120.200

Special voltages available on request. We reserve the right to make technical modifications.

Conversion table old/new

Output class	20/25 m³/h	55/66 m³/h	105/120 m³/h	180/160 m³/h	230/250 m³/h	550/600 m³/h	700/770 m³/h
Cut-out dimensions (old = new)	92 x 92	124 x 124	177 x 177	224 x 224		292 x 292	
24 V	new	3237.124	3238.124	3239.124	3240.124	3241.124	–
	old	3321.027	3322.027	3323.027	3324.027	3325.027	–
230 V	new	3237.100	3238.100	3239.100	3240.100	3241.100	3243.100
	old	3321.107	3322.107	3323.107	3324.107	3325.107	3326.107
115 V	new	3237.110	3238.110	3239.110	3240.110	3241.110	3243.110
	alt	3321.117	3322.117	3323.117	3324.117	3325.117	3326.117
400 V	new	–	–	–	–	–	3244.140
	old	–	–	–	–	–	3327.147
EMC fan-and-filter unit, 230 V	new	3237.600	3238.600	3239.600	3240.600	3241.600	3243.600
	old	3321.607	3322.607	3323.607	3324.607	3325.607	3326.607
Outlet filter	new	3237.200	3238.200	3239.200	3240.200	3243.200	
	old	3321.207	3322.207	3323.207	3325.207	3326.207	
EMC outlet filter	new	3237.060	3238.060	3239.060	3240.060	3243.060	
	old	3321.267	3322.267	3323.267	3325.267	3326.267	
Hose-proof hood	new	3237.080	3238.080	3239.080	3240.080	3243.080	
	old	3321.800	3322.800	3323.800	3324.800	3326.800	
Blanking cover	new	3237.020	3238.020	3239.020	3240.020	3243.020	
	old	–	–	–	–	–	–
Standard filter mat (IP 54)	new	3321.700	3322.700	3171.100	3172.100	3173.100	
	old	3321.700	3322.700	3171.100	3172.100	3173.100	3327.700
Fine filter mat (IP 55)	new	–	3238.055	3181.100	3182.100	3183.100	
	old	–	–	3181.100	3182.100	3183.100	

Accessories for fan-and-filter units

Hose-proof hood

For fan-and-filter units/outlet filters. When the hose-proof hood is mounted above the fan-and-filter unit and outlet filter in conjunction with a fine filter mat, a protection category of IP 56 to EN 60 529 is achieved.

Material:

Stainless steel, silicone

Protection category:

In conjunction with the fan-and-filter units/outlet filters, NEMA 3R + 12 is met.

For fan-and-filter unit	Dimensions mm	Model No. SK
SK 3237. . . .	150 x 230 x 40	3237.080
SK 3238. . . .	176 x 245 x 55	3238.080
SK 3239. . . .	233 x 330 x 55	3239.080
SK 3240. . . ./SK 3241. . . .	282 x 390 x 85	3240.080
SK 3243. . . ./SK 3244. . . . SK 3245. . . .	350 x 480 x 110	3243.080



Blanking cover

If existing mounting cut-outs for fan-and-filter units/outlet filters need to be closed to achieve a higher protection category, the filter mat of the fan-and-filter unit/outlet filter can simply be replaced with a blanking cover; welding or other mechanical modification of the enclosure is not necessary.

Material:

Plastic

Protection category:

IP 55

For fan-and-filter unit	Model No. SK
SK 3237. . . .	3237.020
SK 3238. . . .	3238.020
SK 3239. . . .	3239.020
SK 3240. . . ./SK 3241. . . .	3240.020
SK 3243. . . ./SK 3244. . . . SK 3245. . . .	3243.020



Spare filter mats

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100°C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Material:

Chemical fibre

For fan-and-filter unit	Filter class to DIN EN 779	Model No. SK
3237. . . .	G2	3321.700
3238. . . .	G2	3322.700
3239. . . .	G3	3171.100
3240. . . ./3241. . . .	G3	3172.100
3243. . . ./3244. . . .	G3	3173.100



Fine filter mats

Made of chopped-fibre mat with a progressive structure. Temperature-resistant to 100°C, self-extinguishing category F1 to DIN 53 438. Dust-laden air side: Open structure. Clean air side: Closed structure. Reliable filtering of virtually all types of dust from a particle size of 10 µm.

Material:

Chemical fibre

For fan-and-filter unit	Filter class to DIN EN 779	Model No. SK
3238. . . .	F5	3238.055
3239. . . .	F5	3181.100
3240. . . ./3241. . . .	F5	3182.100
3243. . . ./3244. . . .	F5	3183.100



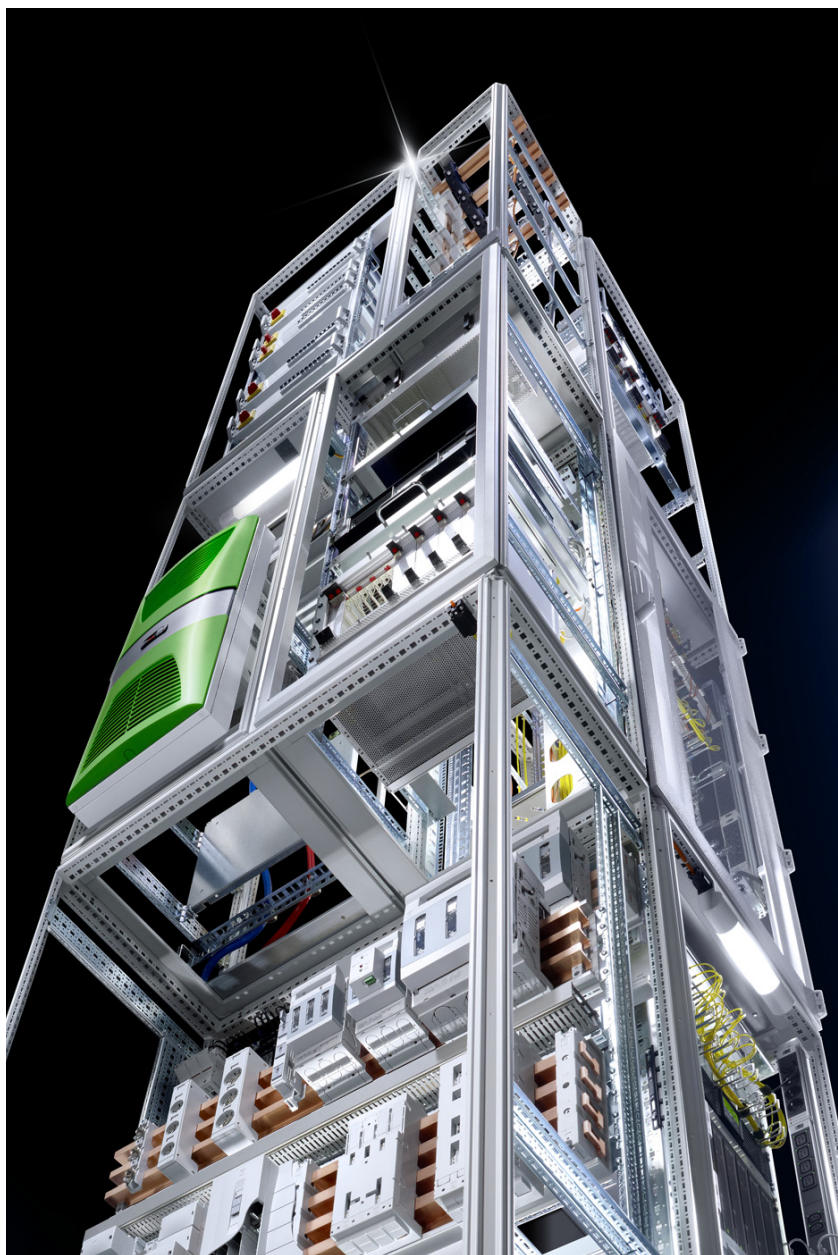
Rittal – The System.

Faster – better – worldwide.

Maximum efficiency, reduced costs, energy savings. Rittal's strategy says think in terms of system solutions and provide a system for all applications – from power distribution and automation, to building installation, through to the IT infrastructure.

And offer your customers unprecedented benefits.

- Industrial enclosures
- Power distribution
- Electronic packaging
- System climate control
- IT systems
- Service



04/2010 • E302