

# 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

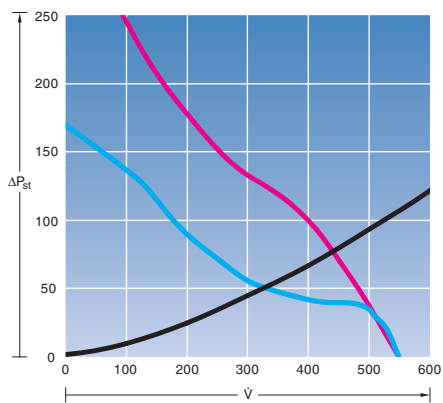


## Efficient technology

- Air throughput from 20 to 700 m<sup>3</sup>/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



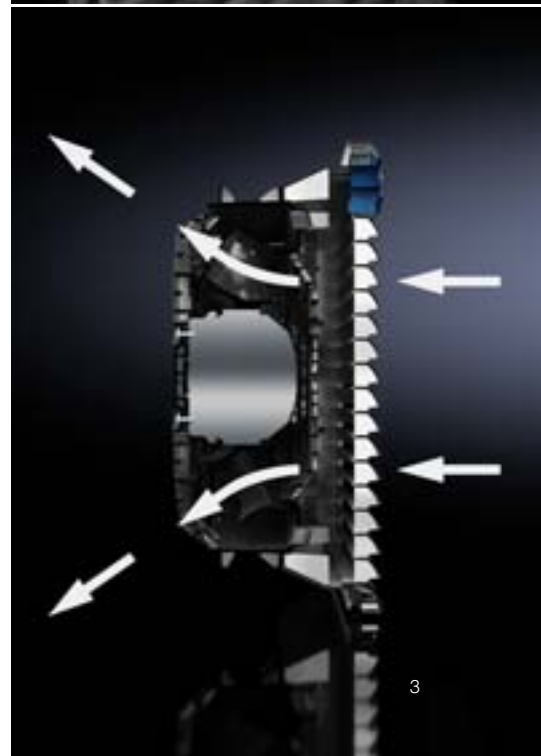
Performance diagram



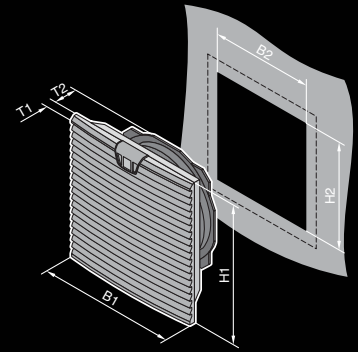
$\dot{V}$  = Volumetric flow (m<sup>3</sup>/h)  
 $\Delta P_{st}$  = Stat. pressure difference (Pa)  
 — = Resistance curve  
     Outlet filter SK 3243.200  
 — = old 50 Hz  
     Fan-and-filter unit SK 3326.xxx  
 — = new 50 Hz  
     Fan-and-filter unit SK 3243.xxx

## 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 m<sup>3</sup>/h

Model No. SK fan-and-filter unit	3237.100	3237.110	3237.124	3238.100	3238.110	3238.124
<b>Model No. SK fan-and-filter unit – EMC</b>	<b>3237.600</b>	–	–	<b>3238.600</b>	–	–
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		
<b>Air throughput, unimpeded air flow</b>	<b>20/25 m<sup>3</sup>/h</b>		<b>20 m<sup>3</sup>/h</b>	<b>55/66 m<sup>3</sup>/h</b>		<b>55 m<sup>3</sup>/h</b>
Air throughput with outlet filter including standard filter mat	1 x SK 3237.200: <b>15/18 m<sup>3</sup>/h</b>			1 x SK 3238.200: <b>43/50 m<sup>3</sup>/h</b> 2 x SK 3238.200: <b>46/56 m<sup>3</sup>/h</b>		

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					

<b>Model No. SK outlet filter</b>	<b>3237.200</b>			<b>3238.200</b>		
<b>Model No. SK outlet filter – EMC</b>	<b>3237.060</b>	–	–	<b>3238.060</b>	–	–

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	
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 105 – 120 m<sup>3</sup>/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	
<b>Air throughput, unimpeded air flow</b>	<b>105/120 m<sup>3</sup>/h</b>		<b>105 m<sup>3</sup>/h</b>
Air throughput with outlet filter including standard filter mat	1 x SK 3239.200: 87/100 m <sup>3</sup> /h 2 x SK 3239.200: 93/108 m <sup>3</sup> /h 1 x SK 3240.200: 98/111 m <sup>3</sup> /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

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## Air throughput 180 – 250 m<sup>3</sup>/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				
<b>Air throughput, unimpeded air flow</b>	<b>180/160 m<sup>3</sup>/h</b>		<b>180 m<sup>3</sup>/h</b>	<b>230/250 m<sup>3</sup>/h</b>		<b>230 m<sup>3</sup>/h</b>
Air throughput with outlet filter including standard filter mat	1 x SK 3240.200: <b>138/121 m<sup>3</sup>/h</b> 2 x SK 3240.200: <b>165/140 m<sup>3</sup>/h</b> 1 x SK 3243.200: <b>165/140 m<sup>3</sup>/h</b>			1 x SK 3240.200: <b>183/205 m<sup>3</sup>/h</b> 2 x SK 3240.200: <b>203/230 m<sup>3</sup>/h</b> 1 x SK 3243.200: <b>203/230 m<sup>3</sup>/h</b>		

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

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# TopTherm fan-and-filter unit

Air throughput 550 – 770 m<sup>3</sup>/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		
<b>Air throughput, unimpeded air flow</b>	<b>550/600 m<sup>3</sup>/h</b>		<b>700/770 m<sup>3</sup>/h</b>		
Air throughput with outlet filter including standard filter mat	1 x SK 3243.200: <b>465/510 m<sup>3</sup>/h</b> 2 x SK 3243.200: <b>508/548 m<sup>3</sup>/h</b>		1 x SK 3243.200: <b>544/587 m<sup>3</sup>/h</b> 2 x SK 3243.200: <b>614/662 m<sup>3</sup>/h</b>		

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	<b>3243.200</b>				
Model No. SK outlet filter – EMC	<b>3243.060</b>	–	<b>3243.060</b>	–	–

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 m <sup>3</sup> /h	55/66 m <sup>3</sup> /h	105/120 m <sup>3</sup> /h	180/160 m <sup>3</sup> /h	230/250 m <sup>3</sup> /h	550/600 m <sup>3</sup> /h	700/770 m <sup>3</sup> /h
Cut-out dimensions (old = new)	92 x 92	124 x 124	177 x 177	224 x 224		292 x 292	
24 V	<b>new</b>	<b>3237.124</b>	<b>3238.124</b>	<b>3239.124</b>	<b>3240.124</b>	<b>3241.124</b>	–
	old	3321.027	3322.027	3323.027	3324.027	3325.027	–
230 V	<b>new</b>	<b>3237.100</b>	<b>3238.100</b>	<b>3239.100</b>	<b>3240.100</b>	<b>3241.100</b>	<b>3243.100</b>
	old	3321.107	3322.107	3323.107	3324.107	3325.107	3326.107
115 V	<b>new</b>	<b>3237.110</b>	<b>3238.110</b>	<b>3239.110</b>	<b>3240.110</b>	<b>3241.110</b>	<b>3243.110</b>
	alt	3321.117	3322.117	3323.117	3324.117	3325.117	3326.117
400 V	<b>new</b>	–	–	–	–	–	<b>3244.140</b>
	old	–	–	–	–	–	3327.147
EMC fan-and-filter unit, 230 V	<b>new</b>	<b>3237.600</b>	<b>3238.600</b>	<b>3239.600</b>	<b>3240.600</b>	<b>3241.600</b>	<b>3243.600</b>
	old	3321.607	3322.607	3323.607	3324.607	3325.607	3326.607
Outlet filter	<b>new</b>	<b>3237.200</b>	<b>3238.200</b>	<b>3239.200</b>	<b>3240.200</b>	<b>3243.200</b>	
	old	3321.207	3322.207	3323.207	3324.207	3325.207	
EMC outlet filter	<b>new</b>	<b>3237.060</b>	<b>3238.060</b>	<b>3239.060</b>	<b>3240.060</b>	<b>3243.060</b>	
	old	3321.267	3322.267	3323.267	3324.267	3325.267	
Hose-proof hood	<b>new</b>	<b>3237.080</b>	<b>3238.080</b>	<b>3239.080</b>	<b>3240.080</b>	<b>3243.080</b>	
	old	3321.800	3322.800	3323.800	3324.800	3325.800	
Blanking cover	<b>new</b>	<b>3237.020</b>	<b>3238.020</b>	<b>3239.020</b>	<b>3240.020</b>	<b>3243.020</b>	
	old	–	–	–	–	–	–
Standard filter mat (IP 54)	<b>new</b>	<b>3321.700</b>	<b>3322.700</b>	<b>3171.100</b>	<b>3172.100</b>	<b>3173.100</b>	
	old	3321.700	3322.700	3171.100	3172.100	3173.100	3327.700
Fine filter mat (IP 55)	<b>new</b>	–	<b>3238.055</b>	<b>3181.100</b>	<b>3182.100</b>	<b>3183.100</b>	
	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	<b>3237.080</b>
SK 3238. . . .	176 x 245 x 55	<b>3238.080</b>
SK 3239. . . .	233 x 330 x 55	<b>3239.080</b>
SK 3240. . . ./SK 3241. . . .	282 x 390 x 85	<b>3240.080</b>
SK 3243. . . ./SK 3244. . . . SK 3245. . . .	350 x 480 x 110	<b>3243.080</b>



## 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. . . .	<b>3237.020</b>
SK 3238. . . .	<b>3238.020</b>
SK 3239. . . .	<b>3239.020</b>
SK 3240. . . ./SK 3241. . . .	<b>3240.020</b>
SK 3243. . . ./SK 3244. . . . SK 3245. . . .	<b>3243.020</b>



## 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	<b>3321.700</b>
3238. . . .	G2	<b>3322.700</b>
3239. . . .	G3	<b>3171.100</b>
3240. . . ./3241. . . .	G3	<b>3172.100</b>
3243. . . ./3244. . . .	G3	<b>3173.100</b>



## 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	<b>3238.055</b>
3239. . . .	F5	<b>3181.100</b>
3240. . . ./3241. . . .	F5	<b>3182.100</b>
3243. . . ./3244. . . .	F5	<b>3183.100</b>



# 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



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