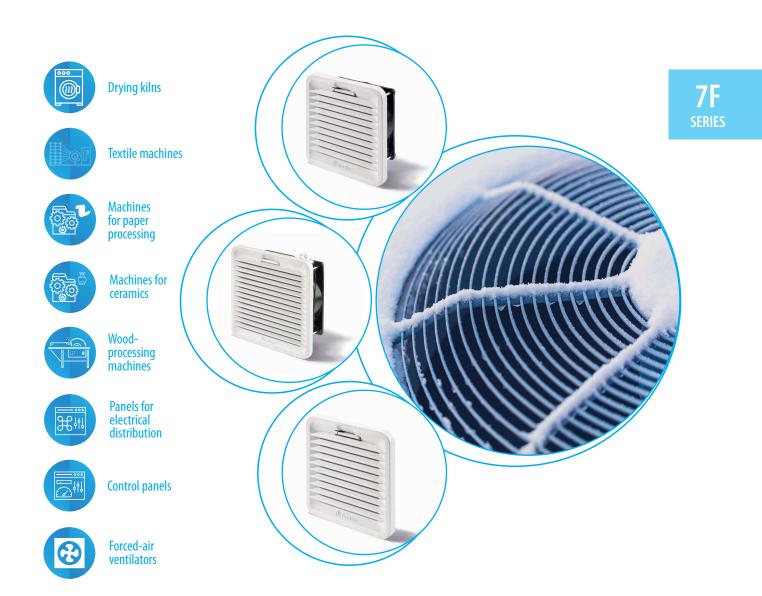


# Filter Fan (24...630)m<sup>3</sup>/h and Exhaust Filter



FINDER reserves the right to alter characteristics at any time without notice. FINDER assumes no liability for damage to persons or property, caused as a result of the incorrect use or application of its products.

## **7F SERIES** Filter Fan (24...630)m<sup>3</sup>/h

finder

	Filter Fan for electrical cabinets and enclosures 120 V or 230 V AC versions	<b>7F.20.8</b> .3	xxx.1020 🚺	7F.20.8.3	xx.2055 🔰	<b>7F.20.8</b> .3	xx.3100
	<ul> <li>Very low acoustic noise</li> <li>Minimal depth within enclosure</li> <li>Air volume 24, 55 and 100 m<sup>3</sup>/h (free flow)</li> <li>Air volume 14, 40 and 75 m<sup>3</sup>/h (with Exhaust Filter installed in cabinet)</li> <li>Nominal voltage: 120 or 230 V AC (50/60 Hz)</li> <li>Time-saving installation and maintenance</li> <li>Easily replaceable filter mat</li> <li>Filter Fan supplied in Reverse flow mode (7F.21)</li> </ul>						
		<ul> <li>Nominal volta 120 or 230 V A</li> <li>Air volume 24</li> <li>Rated power 1</li> <li>Size 1</li> </ul>	nC m <sup>3</sup> /h	<ul> <li>Nominal volta- 120 or 230 V A</li> <li>Air volume 55</li> <li>Rated power 2</li> <li>Size 2</li> </ul>	C m³/h	<ul> <li>Nominal volta: 120 or 230 V A</li> <li>Air volume 100</li> <li>Rated power 2</li> <li>Size 3</li> </ul>	C 0 m³/h
	For outline drawing see page 14 Fan data						
	Air volume (free flow) m <sup>3</sup> /h	-	24	5	5	1(	00
-	Air volume (with exhaust filter installed) m <sup>3</sup> /h				.0		5
-	Noise level dB (A)		27		2		2
-	Life time at 40 °C h		000		2000		2000
	Electrical data	50	· · · ·	500	· · -	500	· · •
	Nominal voltage ( $U_N$ ) V AC (50/60 Hz)	120	230	120	230	120	230
-	Operating range AC		1.1)U <sub>N</sub>	(0.8)		(0.8)	
_	Current consumption A	0.23	0.1	0.25	0.12	0.25	0.12
-	Rated power W	17	17	28	28	28	28
	Other data					·	
	Housing, cover		Plastics	according to UL94	V-0, light grey (F	RAL 7035)	
_	Filter mat (included)		G3 acco	rding to EN 779, f	iltering degree (8	090)%	
_	Filter material	Syntl		rogressive constru If extinguishing, (	Class F1 (DIN 534		00 °C,
_	Electrical connections				erminals		
-	Wire size (mm <sup>2</sup> ) min/max				/2.5		
-	Wire size (AWG) min/max			18,	/14		
t.com	Ambient temperature range °C			-15.	+55		
- der	Protection class				•		
/w.finc	Protection category according to EN 60529			IP			
9, ww	Protection category according to NEMA				e 12		
VII-2019,	Approvals (according to type)			CE EHE c	<b>AL</b> <sup>®</sup> US © ® US		

**7F** SERIES

**7F** SERIES

G



Filter Fan for electrical cabinets and	75 50 0 -	00/ 1020	7E EA 0 -	00/ 1270
enclosures 120 V or 230 V AC versions	/F.50.8.>	cxx.4230	7F.50.8.>	xx.4370
<ul> <li>Very low acoustic noise</li> <li>Minimal depth within enclosure</li> <li>Air volume 230 and 370 m<sup>3</sup>/h (free flow)</li> <li>Air volume 180 and 250 m<sup>3</sup>/h (with Exhaust Filter installed in cabinet)</li> <li>Nominal voltage: 120 or 230 V AC (50/60 Hz)</li> <li>Time-saving installation and maintenance</li> <li>Further available versions*: <ul> <li>EMC Filter Fan (7F.70) and EMC Exhaust Filter (7F.07)</li> <li>Filter Fan supplied in Reverse flow mode (7F.80)</li> </ul> </li> <li>* Product codes, see pages 8 &amp; 11</li> </ul>	<ul> <li>Nominal voltar 120 or 230 V A</li> <li>Air volume 230</li> <li>Rated power 4</li> <li>Size 4</li> </ul>	C D m³/h	<ul> <li>Nominal voltag 120 or 230 V A</li> <li>Air volume 370</li> <li>Rated power 7</li> <li>Size 4</li> </ul>	C D m³/h
to "Exhaust" Filter Fan mode** (except for the				
types 7F.50.8.xxx.4370, 7F.50.8.xxx.5500 and 7F.50.8.xxx.5630). ** Supplied in "Inlet" Filter Fan mode (Standard).				
For outline drawing see page 15				
Fan data				
Air volume (free flow) m <sup>3</sup> /h		30		70
Air volume (with exhaust filter installed) $m^3/h$		30		50
Noise level dB (A)		3	6	-
Life time at 40 °C h	500	000	500	000
Electrical data	100	222	100	226
Nominal voltage ( $U_N$ )V AC (50/60 Hz)OutputAC	120	230	120	230
Operating range AC	(0.8	1.1)U <sub>N</sub>	(0.8	
		~		0.4
Current consumption A	0.34	0.17	0.8	
Rated power W	0.34 40	0.17 40	0.8 70	70
· · · · · · · · · · · · · · · · · · ·				
Rated power W	40 Plastics a	40 according to UL94	70 4 V-0, light grey (R	70 AL 7035)
Rated powerWOther dataHousing, coverFilter mat (included)	40 Plastics a G3 accor	40 according to UL94 rding to EN 779, f	70 I V-0, light grey (R iltering degree (8)	70 AL 7035) 090)%
Rated powerWOther dataHousing, coverFilter mat (included)Filter material	40 Plastics a G3 accor Synthetic fik resistant to +	40 ccording to UL94 rding to EN 779, f ore with progressi -100 °C, self extin	70 I V-0, light grey (R iltering degree (8 ive construction, 1 guishing, Class F1	70 AL 7035) 090)% temperature (DIN 53438)
Rated powerWOther dataHousing, coverFilter mat (included)	40 Plastics a G3 accor Synthetic fik resistant to +	40 ccording to UL94 rding to EN 779, f ore with progressi -100 °C, self extin	70 4 V-0, light grey (R iltering degree (80 ive construction, 1	70 AL 7035) 090)% cemperature (DIN 53438)
Rated powerWOther dataHousing, coverFilter mat (included)Filter material	40 Plastics a G3 accor Synthetic fik resistant to +	40 according to UL94 rding to EN 779, f pre with progressi -100 °C, self extin -pole screw term	70 I V-0, light grey (R iltering degree (8 ive construction, 1 guishing, Class F1	70 AL 7035) 090)% :emperature (DIN 53438)
Rated powerWOther dataHousing, coverFilter mat (included)Filter materialElectrical connections/wire size	40 Plastics a G3 accor Synthetic fik resistant to +	40 according to UL94 rding to EN 779, f pre with progress -100 °C, self extin -pole screw term	70 I V-0, light grey (R iltering degree (80 ive construction, 1 guishing, Class F1 inals/max. 2.5 mm	70 AL 7035) 090)% :emperature (DIN 53438)
Rated powerWOther dataHousing, coverFilter mat (included)Filter materialElectrical connections/wire sizeScrew torqueNm	40 Plastics a G3 accor Synthetic fik resistant to +	40 according to UL94 rding to EN 779, f pre with progressi -100 °C, self extin -pole screw term 0 -10.	70 4 V-0, light grey (R iltering degree (8 ive construction, t guishing, Class F1 inals/max. 2.5 mm .8	70 AL 7035) 090)% :emperature (DIN 53438)
Rated powerWOther dataHousing, coverFilter mat (included)Filter materialElectrical connections/wire sizeScrew torqueNmAmbient temperature range°C	40 Plastics a G3 accor Synthetic fik resistant to +	40 according to UL94 rding to EN 779, f pre with progressi -100 °C, self extin -pole screw term 0 -10.	70 I V-0, light grey (R iltering degree (80 ive construction, t guishing, Class F1 inals/max. 2.5 mm .8 +70	70 AL 7035) 090)% cemperature (DIN 53438)

## **7F SERIES** Filter Fan (24...630)m<sup>3</sup>/h



	7F.50.8.	xxx.5500	7F.50.8.>	xx.5630
<ul> <li>enclosures 120 V or 230 V AC versions</li> <li>Very low acoustic noise</li> <li>Minimal depth within enclosure</li> <li>Air volume 500 and 630 m<sup>3</sup>/h (free flow)</li> <li>Air volume 370 and 470 m<sup>3</sup>/h (with Exhaust Filter installed in cabinet)</li> <li>Nominal voltage: 120 or 230 V AC (50/60 Hz)</li> <li>Time-saving installation and maintenance</li> <li>Further available versions*:     <ul> <li>EMC Filter Fan (7F.70) and EMC Exhaust Filter (7F.07)</li> <li>Filter Fan supplied in Reverse flow mode (7F.80</li> </ul> </li> <li>* Product codes, see pages 8 &amp; 11</li> </ul> Note: By reversing the fan motor, the air direction can be changed from "Inlet" Filter Fan mode to "Exhaust" Filter Fan mode** (except for the types 7F.50.8.xxx.4370, 7F.50.8.xxx.5500 and 7F.50.8.xxx.5500. ** Supplied in "Inlet" Filter Fan mode (Standard).	<ul> <li>Nominal volta 120 or 230 V A</li> <li>Air volume 50</li> <li>Rated power 5</li> <li>Size 5</li> </ul>	rge AC 0 m <sup>3</sup> /h	<ul> <li>Nominal voltage</li> <li>Nominal voltage</li> <li>120 or 230 V A</li> <li>Air volume 630</li> <li>Rated power 1</li> <li>Size 5</li> </ul>	ge C D m <sup>3</sup> /h
For outline drawing see page 15				
Fan data				
Fan dataAir volume (free flow)m³/		00	63	
Fan dataAir volume (free flow)m³/Air volume (with exhaust filter installed)m³/	′h 3	70	47	70
Fan dataAir volume (free flow)m³/Air volume (with exhaust filter installed)m³/Noise leveldB (/	(h 3 A) 6	70 55	47	70 2
Fan dataAir volume (free flow)m³/Air volume (with exhaust filter installed)m³/Noise leveldB (/Life time at 40 °Cd	(h 3 A) 6	70	47	70 2
Fan dataAir volume (free flow)m³/Air volume (with exhaust filter installed)m³/Noise leveldB (/Life time at 40 °CElectrical data	(h 3 A) 6 h 50	70 55 000	47 7 500	70 2 000
Fan data       m <sup>3</sup> /         Air volume (free flow)       m <sup>3</sup> /         Air volume (with exhaust filter installed)       m <sup>3</sup> /         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H	<ul> <li>(h</li> <li>3</li> <li>A)</li> <li>6</li> <li>b</li> <li>50</li> <li>z)</li> <li>120</li> </ul>	70 55 000 230	47 7 500 120	2 2 000 230
Fan data       m <sup>3</sup> /         Air volume (free flow)       m <sup>3</sup> /         Air volume (with exhaust filter installed)       m <sup>3</sup> /         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A	<ul> <li>(h</li> <li>A)</li> <li>6</li> <li>h</li> <li>50</li> <li>z)</li> <li>120</li> <li></li> <li>(0.8)</li> </ul>	70 55 000 230 .1.1)U <sub>N</sub>	47 7 500 120 (0.8	70 2 000 230 1.1)U <sub>N</sub>
Fan data       m <sup>3</sup> /         Air volume (free flow)       m <sup>3</sup> /         Air volume (with exhaust filter installed)       m <sup>3</sup> /         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A	<ul> <li>(h</li> <li>3</li> <li>A)</li> <li>6</li> <li>b</li> <li>50</li> <li>z)</li> <li>120</li> </ul>	70 55 000 230	47 7 500 120	2 2 000 230
Fan data       m³/         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       Image: Construction	<ul> <li>(h</li> <li>A)</li> <li>6</li> <li>h</li> <li>50</li> <li>z)</li> <li>120</li> <li></li> <li>(0.8)</li> </ul>	70 55 000 230 .1.1)U <sub>N</sub>	47 7 500 120 (0.8	70 2 000 230 1.1)U <sub>N</sub>
Fan data       m³/         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (r         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       K	<ul> <li>(h</li> <li>A)</li> <li>A)</li> <li>A)</li> <li>C</li> <li>C<td>70 55 000 230 1.1)U<sub>N</sub> 0.4</td><td>47 7 500 120 (0.8 1.10</td><td>70 2 000 230 1.1)U<sub>N</sub> 0.55</td></li></ul>	70 55 000 230 1.1)U <sub>N</sub> 0.4	47 7 500 120 (0.8 1.10	70 2 000 230 1.1)U <sub>N</sub> 0.55
Fan data         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       Rated power	/h     3       A)     6       h     50       z)     120       .C     (0.8)       A     0.8       W     70	70 55 000 230 1.1)U <sub>N</sub> 0.4 70	47 7 500 120 (0.8 1.10	70 2 000 230 1.1)U <sub>N</sub> 0.55 130
Fan data         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       Rated power         Other data       I	/h     3       A)     6       h     50       z)     120       C     (0.8)       A     0.8       W     70       Plastics a	70 55 000 230 .1.1)U <sub>N</sub> 0.4 70 according to UL94	47 7 500 120 (0.8 1.10 130	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035)
Fan data       m³/         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       Rated power         Other data       Housing, cover	/h         3           A)         6           h         50           z)         120           c         (0.8)           A         0.8           W         70           Plastics a         G3 accoording acco	70 55 000 230 .1.1)U <sub>N</sub> 0.4 70 according to UL94 rding to EN 779, f pre with progress	47 7 500 120 (0.8 1.10 130 4 V-0, light grey (R	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035) 090)% temperature
Fan data       m <sup>3</sup> /         Air volume (free flow)       m <sup>3</sup> /         Air volume (with exhaust filter installed)       m <sup>3</sup> /         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       M         Rated power       M         Other data       Housing, cover         Filter mat (included)       Filter mat (included)	/h         3           A)         6           h         50           z)         120           c         (0.8)           A         0.8           W         70           Plastics a         G3 accoording acco	70 55 000 230 1.1)U <sub>N</sub> 0.4 70 according to UL94 rding to EN 779, f pre with progresss +100 °C, self extin	47 7 500 120 (0.8 1.10 130 4 V-0, light grey (R iltering degree (8) ive construction, 1	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035) 090)% temperature
Fan data         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       Current consumption         Rated power       M         Other data       Filter mat (included)         Filter material       Electrical connections/wire size	/h         3           A)         6           h         50           z)         120           c         (0.8)           A         0.8           W         70           Plastics a         G3 accoording acco	70 55 000 230 1.1)U <sub>N</sub> 0.4 70 according to UL94 rding to EN 779, f pre with progresss +100 °C, self extin screw terminals	47 7 500 120 (0.8 1.10 130 4 V-0, light grey (R iltering degree (8 ive construction, 1 guishing, Class F1	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035) 090)% temperature
Fan data         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       A         Rated power       A         Other data       Filter mat (included)         Filter material       Electrical connections/wire size         Screw torque       Na	/h         3           A)         6           h         50           z)         120           C         (0.8)           A         0.8           W         70           G3 acco         G3 acco           Synthetic fill resistant to -         5	70 55 000 230 1.1)U <sub>N</sub> 0.4 70 according to UL94 rding to EN 779, f pre with progress +100 °C, self extin screw terminals	47 7 500 120 (0.8 1.10 130 4 V-0, light grey (R iltering degree (80 ive construction, 1 guishing, Class F1 5 / max. 2.5 mm <sup>2</sup>	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035) 090)% temperature
Fan data         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       A         Rated power       A         Other data       Filter mat (included)         Filter material       Electrical connections/wire size         Screw torque       Na	/h     3       A)     6       h     50       z)     120       c     (0.8       A     0.8       W     70       Plastics a       G3 acco       Synthetic fil resistant to -       m	70 55 000 230 1.1.1)U <sub>N</sub> 0.4 70 according to UL94 rding to EN 779, f bre with progresss +100 °C, self extin screw terminals 0 -10.	47 7 500 120 (0.8 1.10 130 4 V-0, light grey (R iltering degree (8 ive construction, 1 guishing, Class F1 5 / max. 2.5 mm <sup>2</sup> .8	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035) 090)% temperature
Fan data         Air volume (free flow)       m³/         Air volume (with exhaust filter installed)       m³/         Air volume (with exhaust filter installed)       m³/         Noise level       dB (/         Life time at 40 °C       Electrical data         Nominal voltage (U <sub>N</sub> )       V AC (50/60 H         Operating range       A         Current consumption       A         Rated power       A         Other data       A         Housing, cover       Filter mat (included)         Filter material       E         Electrical connections/wire size       Screw torque         Nubient temperature range       A	/h     3       A)     6       h     50       z)     120       c     (0.8       A     0.8       W     70       Plastics a       G3 acco       Synthetic fil resistant to -       m	70 55 000 230 .1.1)U <sub>N</sub> 0.4 70 according to UL94 rding to EN 779, f bre with progress +100 °C, self extin screw terminals 0 -10.	47 7 500 120 (0.8 1.10 130 4 V-0, light grey (R iltering degree (8) ive construction, 1 guishing, Class F1 5 / max. 2.5 mm <sup>2</sup> 1.8 +70	70 2 000 230 1.1)U <sub>N</sub> 0.55 130 AL 7035) 090)% temperature



Filter Fan for electrical cabinets and enclosures 24 V DC versions	7F.20.9.024.1020	7F.20.9.024.2055	7F.20.9.024.3100
<ul> <li>Very low acoustic noise</li> <li>Minimal depth within enclosure</li> <li>Air volume 24, 55 and 100 m<sup>3</sup>/h (free flow)</li> <li>Air volume 14, 40 and 75 m<sup>3</sup>/h (with Exhaust Filter installed in cabinet)</li> <li>Nominal voltage: 24 V DC</li> <li>Time-saving installation and maintenance</li> <li>Easily replaceable filter mat</li> <li>Filter Fan supplied in Reverse flow mode (7F.21)</li> </ul>	<ul> <li>Nominal voltage 24 V DC</li> <li>Air volume 24 m<sup>3</sup>/h</li> <li>Rated power 3.6 W</li> <li>Size 1</li> </ul>	<ul> <li>Nominal voltage 24 V DC</li> <li>Air volume 55 m<sup>3</sup>/h</li> <li>Rated power 7 W</li> <li>Size 2</li> </ul>	<ul> <li>Nominal voltage 24 V DC</li> <li>Air volume 100 m<sup>3</sup>/h</li> <li>Rated power 7 W</li> <li>Size 3</li> </ul>
For outline drawing see page 14 Fan data	h 24	55	100
Air volume (free flow) m <sup>3</sup> /		55	100
Air volume (with exhaust filter installed) m <sup>3</sup> /	h 14	40	75
Noise level dB (A	A) 37.5	46	45
Life time at 40 °C	h 50000	50000	50000
	II 30000	50000	50000
	30000	50000	50000
Electrical data		24	24
Electrical data Nominal voltage (U <sub>N</sub> ) V D	C 24		
Electrical data Nominal voltage (U <sub>N</sub> ) V D Operating range D	C 24	24	24
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption	C 24 C (0.81.1)U <sub>N</sub>	24 (0.81.1)U <sub>N</sub>	24 (0.81.1)U <sub>N</sub>
Electrical data Nominal voltage (U <sub>N</sub> ) V D Operating range D Current consumption Rated power N	C 24 C (0.81.1)U <sub>N</sub> A 0.15	24 (0.81.1)U <sub>N</sub> 0.32	24 (0.81.1)U <sub>N</sub> 0.32
Electrical data Nominal voltage (U <sub>N</sub> ) V D Deparating range D Current consumption Rated power N Dther data	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6	24 (0.81.1)U <sub>N</sub> 0.32	24 (0.81.1)U <sub>N</sub> 0.32 7
Electrical data Nominal voltage (U <sub>N</sub> ) V D Operating range D Current consumption Rated power N Other data Housing, cover	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic	24 (0.81.1)U <sub>N</sub> 0.32 7	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035)
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       N         Other data       D         Housing, cover       Filter mat (included)	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc	24 (0.81.1)U <sub>N</sub> 0.32 7 s according to UL94 V-0, light grey (	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       N         Other data       D         Housing, cover       Filter mat (included)         Filter material       D	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc	24       (0.81.1)U <sub>N</sub> 0.32       7       s according to UL94 V-0, light grey (isording to EN 779, filtering degree (atomic construction, temperature resist)	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       N         Other data       D         Housing, cover       Filter mat (included)         Filter material       Electrical connections	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc Synthetic fibre with progress	24 (0.81.1)U <sub>N</sub> 0.32 7 s according to UL94 V-0, light grey (1 cording to EN 779, filtering degree (8 ive construction, temperature resist Class F1 (DIN 53438)	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       M         Other data       D         Housing, cover       Filter mat (included)         Filter material       Electrical connections         Wire size (mm <sup>2</sup> )       min/ma	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc Synthetic fibre with progress X	24         (0.81.1)U <sub>N</sub> 0.32         7         s according to UL94 V-0, light grey (fistording to EN 779, filtering degree (stording to EN 779, filtering to EN 779, filtering degree (stording to EN 779, filtering to EN 779	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       M         Other data       D         Housing, cover       Filter mat (included)         Filter material       Electrical connections         Wire size (mm <sup>2</sup> )       min/ma         Wire size (AWG)       min/ma	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc Synthetic fibre with progress X	24         (0.81.1)U <sub>N</sub> 0.32         7         s according to UL94 V-0, light grey (Internet of the second s	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       N         Other data       D         Housing, cover       Filter mat (included)         Filter material       Electrical connections         Wire size (mm <sup>2</sup> )       min/ma         Wire size (AWG)       min/ma	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc Synthetic fibre with progress x x x	24         (0.81.1)U <sub>N</sub> 0.32         7         saccording to UL94 V-0, light grey (light	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       M         Other data       D         Housing, cover       Filter mat (included)         Filter material       D         Electrical connections       Min/ma         Wire size (mm <sup>2</sup> )       min/ma         Ambient temperature range       °	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc Synthetic fibre with progress x x x	24         (0.81.1)U <sub>N</sub> 0.32         7         saccording to UL94 V-0, light grey (light	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%
Electrical data         Nominal voltage (U <sub>N</sub> )       V D         Operating range       D         Current consumption       D         Rated power       M         Other data       D         Housing, cover       Filter mat (included)         Filter material       D         Electrical connections       Wire size (mm²)         Wire size (AWG)       min/ma         Ambient temperature range       °         Protection class       P	C 24 C (0.81.1)U <sub>N</sub> A 0.15 V 3.6 Plastic G3 acc Synthetic fibre with progress x x x	24         (0.81.1)U <sub>N</sub> 0.32         7         s according to UL94 V-0, light grey (listroiding to EN 779, filtering degree (listroiding to EN 779, filtering to	24 (0.81.1)U <sub>N</sub> 0.32 7 RAL 7035) 3090)%

**7F** SERIES

6

## **7F SERIES** Filter Fan (24...630)m<sup>3</sup>/h



#### Filter Fan for electrical cabinets and enclosures 24 V DC versions

- Very low acoustic noise
- Minimal depth within enclosure
- Air volume 230 m<sup>3</sup>/h (free flow)
- Air volume 180 m<sup>3</sup>/h (with Exhaust Filter installed in cabinet)
- Nominal voltage: 24 V DC
- Time-saving installation and maintenance
- Filter Fan supplied in Reverse flow mode (7F.80)

\* Product codes, see pages 8 & 11

## 7F.50.9.024.4230



- Nominal voltage 24 V DC
- Air volume 230 m<sup>3</sup>/h
- Rated power 26 W
- Size 4

Note:

By reversing the fan motor, the air direction can be changed from "Inlet" Filter Fan mode to "Exhaust" Filter Fan mode\*\* (except for the types 7F.50.8.xxx.4370, 7F.50.8.xxx.5500 and 7F.50.8.xxx.5630).

\*\* Supplied in "Inlet" Filter Fan mode (Standard).

For outline	drawing	see	page	15

for outline drawing see page 15		
Fan data		
Air volume (free flow)	m³/h	230
Air volume (with exhaust filter installed)	m³/h	180
Noise level	dB (A)	61
Life time at 40 °C	h	50000
Electrical data		
Nominal voltage (U <sub>N</sub> )	V DC	24
Operating range	DC	(0.81.1)U <sub>N</sub>
Current consumption	А	1.08
Rated power	W	26
Other data		
Housing, cover		Plastics according to UL94 V-0, light grey (RAL 7035)
Filter mat (included)		G3 according to EN 779, filtering degree (8090)%
Filter material		Synthetic fibre with progressive construction, temperature resistant to 100 °C, self extinguishing, Class F1 (DIN 53438)
Electrical connections/wire size		screw terminals / max. 2.5 mm <sup>2</sup>
Screw torque	Nm	0.8
Ambient temperature range	°C	-10+70
Protection class		I
Protection category according to EN 6052	.9	IP 54
Approvals (according to type)		



VII-2019, www.findernet.com

## **Ordering information**

7F

SERIES

Example: Series 7F, Filter Fan for mounting in sidewalls, nominal voltage 230 V AC, size 1, air volume 24 m<sup>3</sup>/h.

7 F . 2 0	. 8	. 2	3 0	. 1	0	2	0
Series Type 20 = Filter Fan - for indoor use 21 = Reverse flow Filter Fan - for indoor use 50 = Filter Fan - for indoor use 70 = EMC Filter Fan - for indoor use 80 = Reverse flow Filter Fan - for indoor use							
Supply version 8 = AC (50/60 Hz) 9 = DC							
<b>Operating voltage</b> 024 = 24 V DC 120 = 120 V AC 230 = 230 V AC							
Enclosure cut-out $1 = \text{Size 1} (92^{+1.0} \times 92^{+1.0}) \text{ mm}$ $2 = \text{Size 2} (125^{+1.0} \times 125^{+1.0}) \text{ mm}$ $3 = \text{Size 3} (177^{+1.0} \times 177^{+1.0}) \text{ mm}$ $4 = \text{Size 4} (224^{+1.0} \times 224^{+1.0}) \text{ mm}$ $5 = \text{Size 5} (291^{+1.0} \times 291^{+1.0}) \text{ mm}$							
Air volume (free flow)							

G

#### Filter Fans - All versions

Standard versions	EMC versions	<b>Reverse flow versions</b>	
7F.20.8.120.1020	_	7F.21.8.120.1020	Filter Fan, Size 1
7F.20.8.120.2055	—	7F.21.8.120.2055	Filter Fan, Size 2
7F.20.8.120.3100	—	7F.21.8.120.3100	Filter Fan, Size 3
7F.50.8.120.4230	_	7F.80.8.120.4230	Filter Fan, Size 4
7F.50.8.120.4370	_	7F.80.8.120.4370	Filter Fan, Size 4
7F.50.8.120.5500	_	7F.80.8.120.5500	Filter Fan, Size 5
7F.50.8.120.5630	_		Filter Fan, Size 5
7F.20.8.230.1020	_	7F.21.8.230.1020	Filter Fan, Size 1
7F.20.8.230.2055	_	7F.21.8.230.2055	Filter Fan, Size 2
7F.20.8.230.3100	—	7F.21.8.230.3100	Filter Fan, Size 3
7F.50.8.230.4230	7F.70.8.230.4230	7F.80.8.230.4230	Filter Fan, Size 4
7F.50.8.230.4370	7F.70.8.230.4370	7F.80.8.230.4370	Filter Fan, Size 4
7F.50.8.230.5500	7F.70.8.230.5500	7F.80.8.230.5500	Filter Fan, Size 5
7F.50.8.230.5630	7F.70.8.230.5630		Filter Fan, Size 5
7F.20.9.024.1020	_	7F.21.9.024.1020	Filter Fan, Size 1
7F.20.9.024.2055	_	7F.21.9.024.2055	Filter Fan, Size 2
7F.20.9.024.3100	—	7F.21.9.024.3100	Filter Fan, Size 3
7F.50.9.024.4230	7F.70.9.024.4230	7F.80.9.024.4230	Filter Fan, Size 4

#### Note:

The technical features (air volume, dimensions and electrical parameters) for the Standard Filter Fans (7F.20 and 7F.50), the EMC Filter Fans (7F.70) and the Reverse flow versions (7F.21 and 7F.80) - are exactly the same.

7F.50.8.120.5630 has no UL approval. Other versions on request.

<b>7F SERIES</b> Exhaust Filter		Ø	finder	<b>7F</b> SERIES
<b>Exhaust Filter</b> The size of the Exhaust Filter should match	7F.02.0.000.1000	F.02.0.000.2000	VEV 7F.02.0.000.3000	
<ul> <li>the size of the Filter Fan to achieve the best ventilation within the cabinet</li> <li>Minimum depth within enclosure</li> <li>Time-saving installation and maintenance</li> <li>Easily replaceable filter mat</li> </ul>				
	• For Filter Fans 7F.20.x.xxx.1020 • Size 1	<ul> <li>For Filter Fans 7F.20.x.xx.2055</li> <li>Size 2</li> </ul>	<ul> <li>For Filter Fans 7F.20.x.xxx.3100</li> <li>Size 3</li> </ul>	
				G
For outline drawing see page 14				
Other data		I		
Housing, cover	Plastics	according to UL94 V-0, light gro	ey (RAL 7035)	
Filter mat (included)		ording to EN 779, filtering degree		
Filter material	Synthetic fibre with p	rogressive construction, tempe elf extinguishing, Class F1 (DIN	erature resistant to +100 °C,	
Protection category according to EN 60529		IP 54		
Protection category according to NEMA		Type 12		
Approvals (according to type)		CE EAE c910°us		

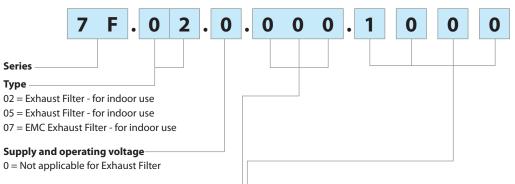


Exhaust Filter	7F.05.0.000.4000	7F.05.0.000.5000	
The size of the Exhaust Filter should match the size of the Filter Fan to achieve the			
best ventilation within the cabinet			
<ul> <li>Minimum depth within enclosure</li> <li>Time-saving installation and maintenance</li> <li>Further available versions*: <ul> <li>EMC Exhaust Filters (7F.07)</li> </ul> </li> </ul>			
* Product codes, see page 11			
	<ul> <li>For Filter Fans 7F.50.x.xxx.4230 or 7F.50.8.xxx.4370</li> <li>Size 4</li> </ul>	<ul> <li>For Filter Fans 7F.50.8.xxx.5500 or 7F.50.8.xxx.5630</li> <li>Size 5</li> </ul>	
For outline drawing see page 15			
Other data			
Housing, cover	Plastics according to UL94	4V-0, light grey (RAL 7035)	
Filter mat (included)	G3 according to EN 779, f	iltering degree (8090)%	
Filter material		ive construction, temperature guishing, Class F1 (DIN 53438)	
Protection category according to EN 60529		54	
Approvals (according to type)	C€ ER	c <b>AV</b> <sup>®</sup> us	

SERIES

## **Ordering information**

Example: Series 7F, Exhaust Filter for mounting in sidewalls, size 1.



## Operating voltage -

000 = Not applicable for Exhaust Filter

#### Enclosure cut-out

1000 = Size 1 (92<sup>+1.0</sup> x 92<sup>+1.0</sup>) mm 2000 = Size 2 (125<sup>+1.0</sup> x 125<sup>+1.0</sup>) mm 3000 = Size 3 (177<sup>+1.0</sup> x 177<sup>+1.0</sup>) mm 4000 = Size 4 (224<sup>+1.0</sup> x 224<sup>+1.0</sup>) mm 5000 = Size 5 (291<sup>+1.0</sup> x 291<sup>+1.0</sup>) mm

#### **Exhaust Filter - All versions**

Standard-versions	EMC - versions	
7F.02.0.000.1000	—	Exhaust Filter, Size 1
7F.02.0.000.2000	—	Exhaust Filter, Size 2
7F.02.0.000.3000	_	Exhaust Filter, Size 3
7F.05.0.000.4000	7F.07.0.000.4000	Exhaust Filter, Size 4
7F.05.0.000.5000	7F.07.0.000.5000	Exhaust Filter, Size 5

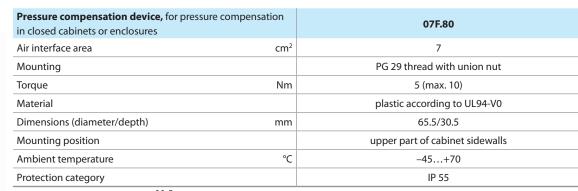
## Components

Standard-Filter Fan	Standard-Exhaust Filter	EMC-Filter Fan	EMC-Exhaust Filter	Filter mat	Size
7F.20.8.xxx.1020	7F.02.0.000.1000	_	_	07F.15	1
7F.20.8.xxx.2055	7F.02.0.000.2000	_	_	07F.25	2
7F.20.8.xxx.3100	7F.02.0.000.3000	_	_	07F.35	3
7F.50.8.xxx.4230	7F.05.0.000.4000	7F.70.8.230.4230	7F.07.0.000.4000	07F.45	4
7F.50.8.xxx.4370	7F.05.0.000.4000	7F.70.8.230.4370	7F.07.0.000.4000	07F.45	4
7F.50.8.xxx.5500	7F.05.0.000.5000	7F.70.8.230.5500	7F.07.0.000.5000	07F.55	5
7F.50.8.xxx.5630	7F.05.0.000.5000	7F.70.8.230.5630	7F.07.0.000.5000	07F.55	5
7F.20.9.024.1020	7F.02.0.000.1000	_	—	07F.15	1
7F.20.9.024.2055	7F.02.0.000.2000	_	—	07F.25	2
7F.20.9.024.3100	7F.02.0.000.3000	_	—	07F.35	3
7F.50.9.024.4230	7F.05.0.000.4000	7F.70.9.024.4230	7F.07.0.000.4000	07F.45	4

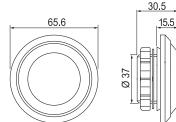
Spare Filter mats	07F.15	07F.25	07F.35	07F.45	07F.55
Protection category	IP54				

## **Accessories**





07F.80



Unit package contains 2 pressure compensation devices

**7F** 

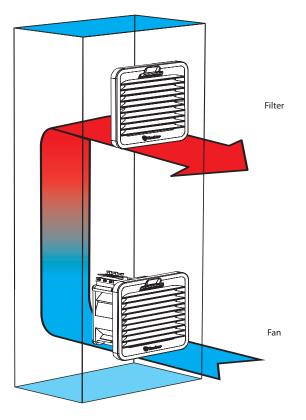
**SERIES** 

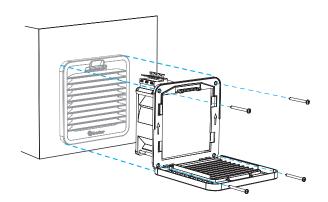
G



## **Mounting instructions for Filter Fans**

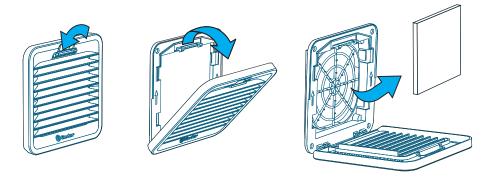
Mounting arrangement of Filter Fans and Exhaust Filter





The installation with the only clips is optimized for 1.5 mm thick sheets; it is also possible with thicknesses from 1 to 2.5 mm. Fixing with screws (supplied) is recommended. Tightening torque 0.3 Nm.

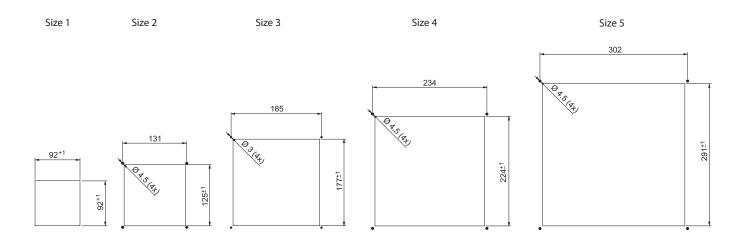
## Replacement of Filter mat (Type 7F.20)







## Drilling template and mounting cut-outs for Filter Fans and Exhaust Filter



#### Mounting and maintenance

- 1. Make the panel cut-out according to the size of the Filter Fan or Exhaust Filter in the sidewall of the cabinet as appropriate.
- A template of the panel cut-out is included in the packaging of the Filter Fan or Exhaust Filter.
- 2. Make the electrical connection.
- 3. Mount by simply snapping the side-located lugs on the Filter Fan or Exhaust Filter into the panel cut-out (without using screws for sidewall thickness of 1.2...2.4 mm).
  - At other thickness it is recommended to mount the Filter Fan by the screws supplied (for size 1, the template shows the mounting cut-out only).
- 4. When screws are needed for the mounting, remove the plastic cover and fix the Filter Fan with the 4 screws supplied.
- Then insert the filter mat and snap the plastic cover to the mounting frame.
- 5. During maintenance or when replacing the filter mat remove the plastic cover, replace the filter mat and snap on the plastic cover.

**7**F

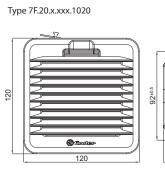
SERIES

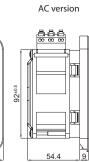


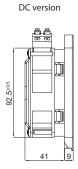
## **Outline drawings**

**7F** 

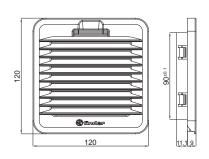
SERIES



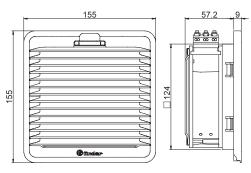




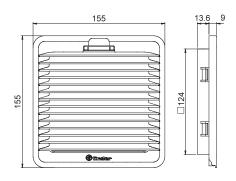
Type 7F.02.0.000.1000



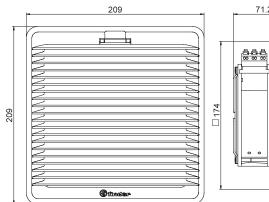


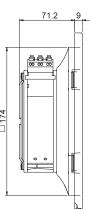


Type 7F.02.0.000.2000

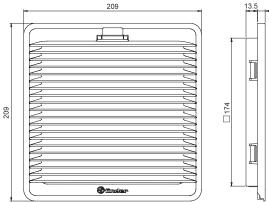


Type 7F.20.x.xxx.3100





Type 7F.02.0.000.3000

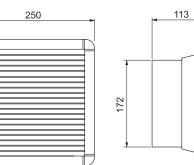






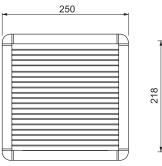
## **Outline drawings**

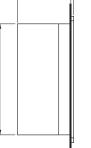
Type 7F.50.x.xxx.4230



5.5

Type 7F.50.x.xxx.4370

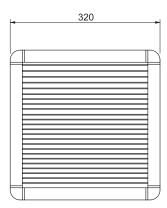


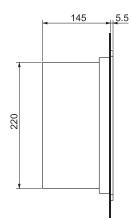


104

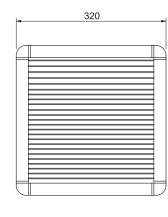
5.5

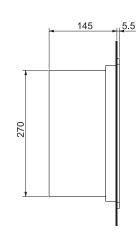
## Type 7F.50.x.xxx.5500



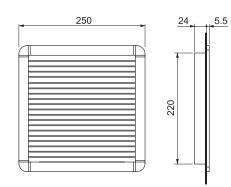


## Type 7F.50.x.xxx.5630

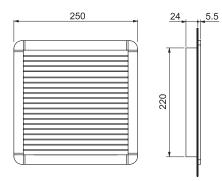




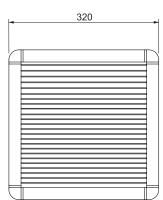
Type 7F.05.0.000.4000

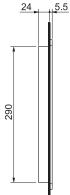


Type 7F.05.0.000.4000

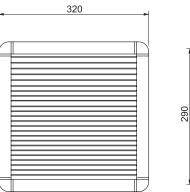


Type 7F.05.0.000.5000





Type 7F.05.0.000.5000



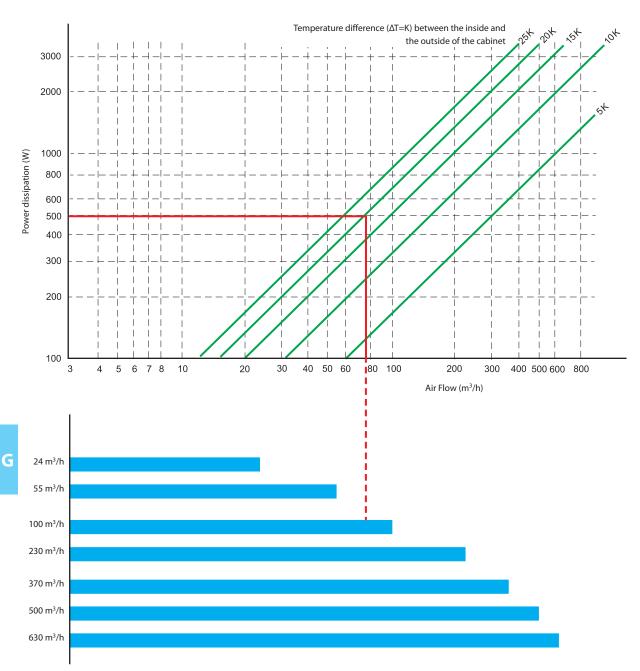




## **Fan selection**

7F

SERIES



## Example

First, estimate the power dissipated within the cabinet. Then calculate the maximum difference between the internal and external temperature (green lines) by considering the difference between the maximum permitted internal temperature (as dictated by the temperature rating of the enclosed components, or specification) and the maximum temperature expected outside the cabinet.

The projection onto the X axis, of the intersection between the power (watts) and the appropriate green line, corresponds to the air flow rate in  $m^3/h$  required to meet the maximum internal temperature limit. Extending this line vertically to intersect with the blue horizontal lines, indicates the most appropriate model of 7F fan to be fitted to the cabinet to provide the requisite air flow.

The example above considers a cabinet with an internal thermal power dissipation of 500 W, and assumes the maximum temperature difference between the inside and the outside of the cabinet to be 20K. The required air flow can be seen to be a little less than 80 m<sup>3</sup>/h.

It is suggested that this is increased by 10% to allow for the affects of a dirty filter.

And so, it can be seen that models of the 7F with 100 m<sup>3</sup>/h flow rate will provide the proper dissipation of heat under these circumstances.



## **Application notes**

## Filter Fan

The ball-bearing axial fan housing is made of aluminium and the rotor is made of plastic or metal (depending on the type).

## Filter classes

Within EN 779 are specified 9 filter classes, categorised into 4 coarse dust filters und 5 fine dust filters.

The coarse dust filters G1 - G4 are able to filter particles > 10  $\mu$ m and the fine dust filters G5 - G9 are able to filter particles from (1...10) $\mu$ m.

Filter classes	Example of particle	Particle size
G1 - G4 (EU1 - EU4)	Textile fibers, hair, sand, pollen, spores, insects, cement dust	> 10 μm
G5 - G9 (EU5 - EU9)	Pollen, spores, cement dust, tobacco smoke, oil smoke, soot	(110)µm

## Filtering degree (Am)

The degree of filtering (Am) is the percentages of dust, by weight, that is caught and retained by the filter.

#### Filter mats

The quality of these filters mats has been independently tested, according EN 779 and branded after passing the test.

The filter mats are to filter class G3 and have an average filtering degree of (80...90)%.

#### Filter material

The filter material consists of a synthetic fiber with progressive construction which is moisture-resistant to 100% RH and temperature resistant to +100 °C.

According to the strict requirements of fire class F1, DIN 53438, these filter mats are self extinguishing.

## Progressive construction at filter mats

The individual fibers of these filter mats are bonded by a special process to provide a progressive construction where the fiber size and spacing varies through the thickness of the filter mat.

This means that coarse dust particles are caught early and fine dust later through the thickness of the mat. In this way the entire depth of the filter mat is used.

#### Flammability class of the housing and the cover

The plastic materials used comply with flammability class V-0, according UL94.

## **EMC Filter Fans and EMC Exhaust Filters**

The plastic mounting frame of the EMC Filter Fans (7F.70) and EMC Exhaust Filters (7F.07) are sprayed with a conductive (metallic) paint.

The gasket located on the mounting frame, for sealing the Filter Fan or Exhaust Filter in the cabinet is also metalised.

In addition; located at the EMC Filter Fan between the metalized mounting frame and the filter mat, is a metal grid.

Therefore, between the metal parts of the Filter Fan and the metal cabinet, there is a conductive connection.

## Filter Fan in "reverse flow" version

As supplied, the standard Filter Fan is in "Draw-In"- mode, which means that cool air is filtered and drawn into the cabinet. In some cases it may be required that the warm air is blown out of the cabinet.

In which case it is possible to get Filter Fans in "Exhaust Filter" mode version (7F.80).

#### Mounting of the pressure compensation device

In sealed cabinets and enclosures the internal pressure can vary due to changes in temperature. The pressure compensation device (07F.80) will relieve this internal/external pressure differential whilst maintaining a high level of protection - preventing the ingress of dust and moisture into the cabinet or the enclosure. The pressure compensation device is approved for use in cabinets and enclosures according to DIN EN 62208.

Drill a hole Ø  $37^{+1.0}$  mm in the housing wall and fix the pressure compensation device with the accompanying nut. It is important to ensure that the sealing ring is located on the outside. To ensure optimum pressure balance, it is recommended to fit 2 pressure compensation device at the upper sides of the cabinet or enclosure.