COOLING

PROTECTION AGAINST OVERHEATING

To protect installations from excessively high temperatures
STEGO filter fans ensure efficient cooling by circulating air.

INNOVATIVE VENTILATING TECHNOLOGY FOR ENCLOSURES:

FILTER FAN PLUS COOLS WITH A ‘PLUS’ OF AIR

Optimum usage of space is always important in systems with electric or electronic components. Sophisticated enclosure applications often come with a high density of components. High temperatures within the enclosure may cause malfunctions if not addressed. With STEGO’s new Filter Fan Plus and its innovative air-flap outlet technology you are safe in the knowledge that sensitive components, in all kinds of applications, are safeguarded against overheating and malfunction.

NEW AIR-FLAP OUTLET TECHNOLOGY FOR ENHANCED AIRFLOW

The new air-flap outlet technology eliminates the need for the filter mat for the air outlet, enhancing in turn the exiting airflow. So, using the same cut-out in an enclosure wall more air can be exchanged. Leading to more efficient cooling of the application. Another advantage: The flaps stay closed and dirt stays out when the fan is not in operation.

SECURE AND STABLE: TOOL-FREE RATCHET MOUNT MECHANISM

The Filter Fan Plus is placed in the enclosure cut-out from the outside of the enclosure and mounted tool-free. By pressing the built-in ratchet braces the filter fan is pulled into the cabinet wall. The ratchet braces snap into place, giving the installer audible feedback that the filter fan is now installed securely. The ratchet mount is suitable for a wall thickness from 1 to 4 mm.

ONLY ONE FILTER MAT SAVES COSTS

Flaps instead of mats: In contrast to conventional systems the Filter Fan Plus only requires one filter mat. This reduces maintenance work and costs.

IP54 | UL TYPE 12 | NEMA 12 DUST AND SPLASH WATER PROTECTION

The new Filter Fan Plus protects against dust and splash water. Proven by successfully completed protection type tests carried-out by independent testing and certification agencies, like VDE and Underwriters Laboratories (UL).

IN OR OUT?

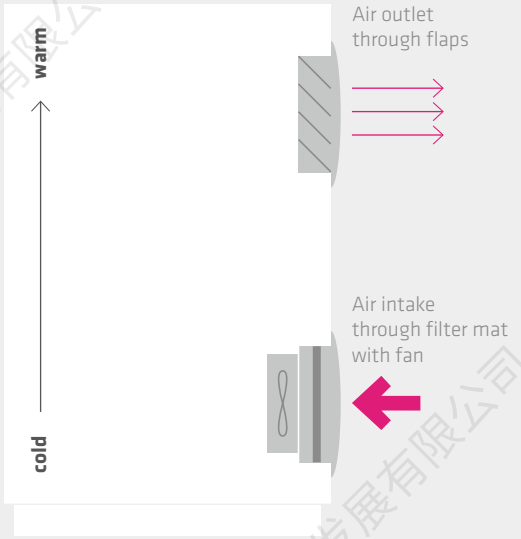
MORE AIRFLOW IN ANY CASE.

With its unique technology, the Filter Fan Plus achieves a more effective air circulation and offers a considerable plus in airflow. The result: A noticeable increase in cool air gets into the enclosure. At the same time, warm air is expelled faster and more effectively to the outside.

The Filter Fan Plus is available in two high performance systems, ensuring the right combination to suit every application.

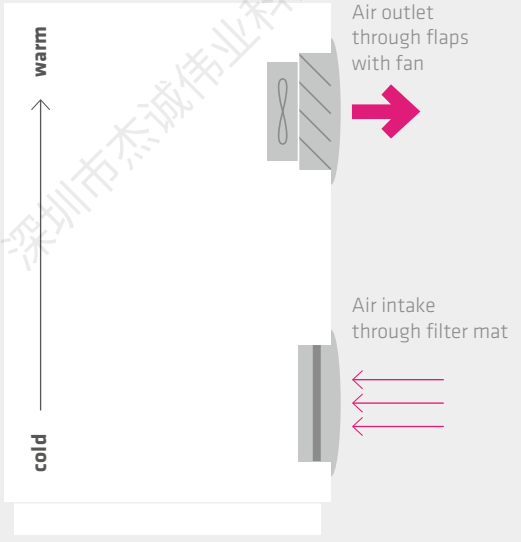
SYSTEM FPI
AIRFLOW DIRECTION „IN“

This is the more common approach: a filter fan with filter mat is located in the lower part of the enclosure and draws air from the outside. The air rises to the top of the enclosure, cooling the internal space and pushing the warm interior air through the air outlet. Whereas this air outlet now pulls more effectively, thanks to our new air-flap outlet technology.



SYSTEM FPO
AIRFLOW DIRECTION „OUT“

In this alternative approach, where it may be necessary to expel heat build-up more directly from the upper part of the enclosure, we recommend a more active evacuation of the hot air. For this purpose the fan in combination with the effective flap technology is placed in the upper part of the cabinet. The heat can be diverted quicker from the critical area. An intake filter with mat is needed in the lower part of the enclosure to allow the colder air from the outside to enter.



FILTER FAN PLUS

FPI/FPO 018 | up to 24 m³/h (92 x 92 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating.

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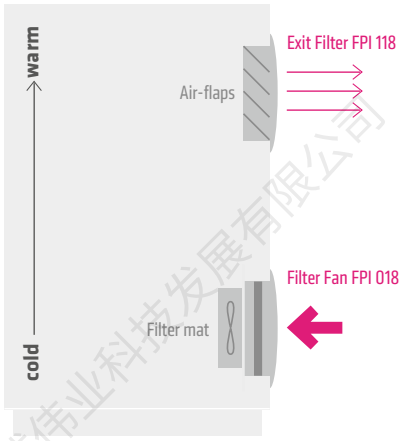
SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 50,000 h fan body aluminium, rotor metal
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	92 x 92^{+1} mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating/Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP54 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

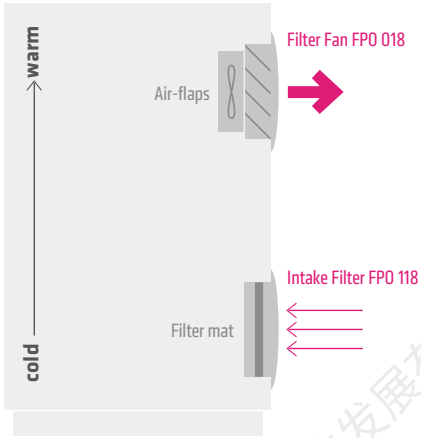
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01870.0-30	AC 230 V, 50/60 Hz	19 m³/h	13 m³/h	70 mA	12 W	39 db (A)	66 mm	0.6 kg	G3
01870.9-30	AC 115 V, 50/60 Hz	23 m³/h	16 m³/h	115 mA	11 W	43 db (A)	66 mm	0.6 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11870.0-00	29 mm	0.2 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01880.0-00	AC 230 V, 50/60 Hz	24 m^3/h	15 m^3/h	70 mA	12 W	38 db (A)	72 mm	0.6 kg	air-flaps
01880.9-00	AC 115 V, 50/60 Hz	32 m^3/h	19 m^3/h	115 mA	12 W	41 db (A)	72 mm	0.6 kg	air-flaps

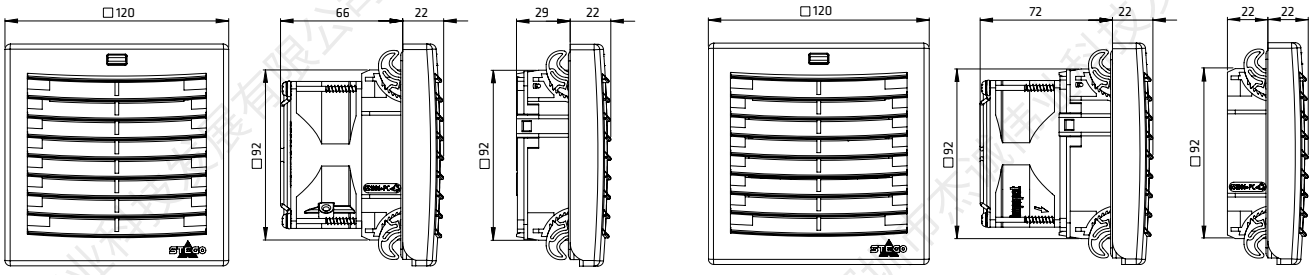
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11880.0-30	22 mm	0.2 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

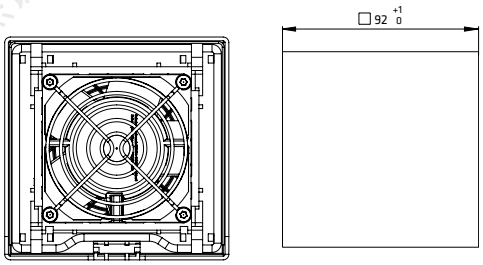
FILTER MAT FM 086

Filter class	84 x 84 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08633.0-00	84 %	5 pieces

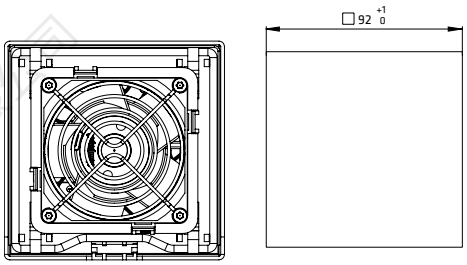
TECHNICAL DRAWINGS



FPI 018 FPI 118 FPO 018 FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT

FILTER FAN PLUS

FPI/FPO 018 | up to 97 m³/h (124 x 124 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

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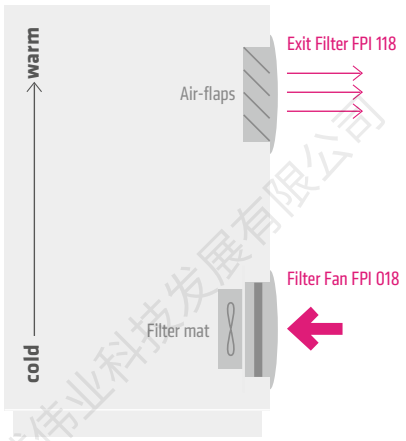
SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 37,000 h fan body aluminium, rotor metal
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	124 x 124^{+1} mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating/Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP54 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

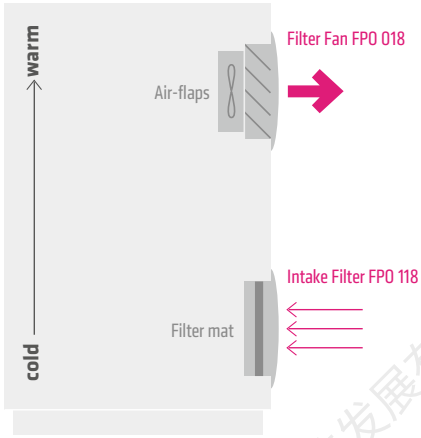
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01871.0-30	AC 230 V, 50/60 Hz	52 m³/h	42 m³/h	120 mA	19 W	49 db (A)	66 mm	0.8 kg	G3
01871.9-30	AC 115 V, 50/60 Hz	62 m³/h	51 m³/h	230 mA	18 W	53 db (A)	66 mm	0.8 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11871.0-00	35 mm	0.3 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01881.0-00	AC 230 V, 50/60 Hz	97 m^3/h	47m^3/h	120 mA	19 W	49 db (A)	79 mm	0.9 kg	air-flaps
01881.9-00	AC 115 V, 50/60 Hz	117 m^3/h	58 m^3/h	230 mA	18 W	52 db (A)	79 mm	0.9 kg	air-flaps

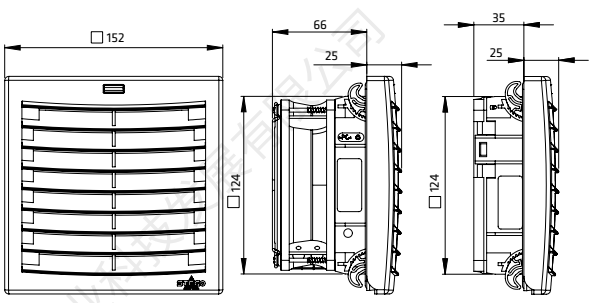
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11881.0-30	22 mm	0.2 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

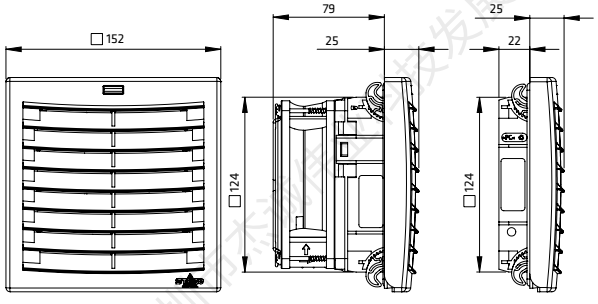
FILTER MAT FM 086

Filter class	118 x 118 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08634.0-00	84 %	5 pieces

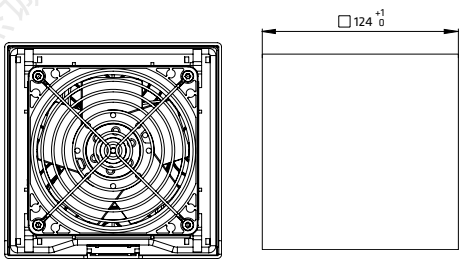
TECHNICAL DRAWINGS



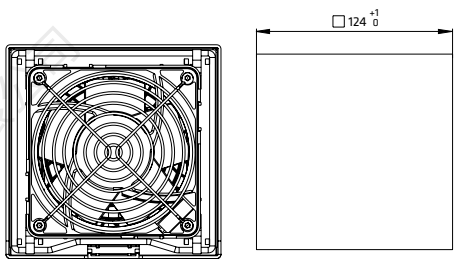
FPI 018 FPI 118



FPO 018 FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT

FILTER FAN PLUS

FPI/FPO 018 | up to 263 m³/h (176 x 176 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

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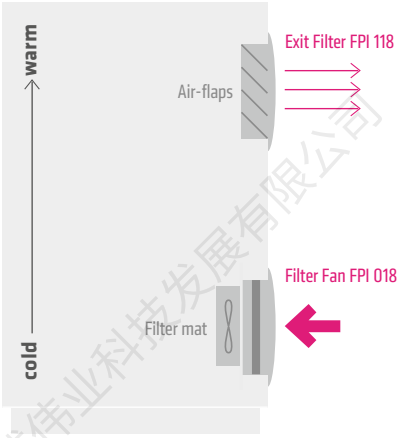
SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 65,000 h fan body aluminium, rotor metal
Connection	3-pole clamp for 2.5 mm², clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	176 x 176 +1 mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_m 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	50 Hz: -25 to +50 °C (-13 to +122 °F) 60 Hz: -25 to +70 °C (-13 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP54 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

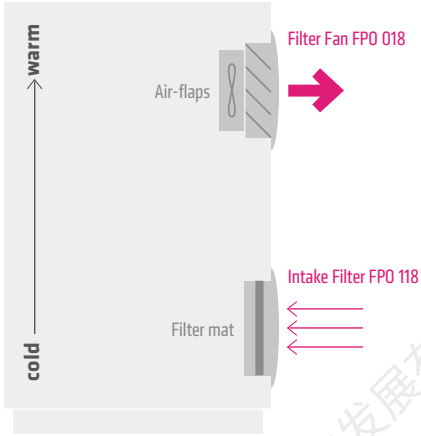
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01872.0-30	AC 230 V, 50/60 Hz	170 m³/h	139 m³/h	310/250 mA	45 W	55 db (A)	117 mm	1.6 kg	G3
01872.9-30	AC 115 V, 50/60 Hz	204 m³/h	187 m³/h	560/470 mA	38 W	58 db (A)	117 mm	1.6 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11872.0-00	43 mm	0.4 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01882.0-00	AC 230 V, 50/60 Hz	263 m^3/h	137m^3/h	310/250 mA	45 W	56 db (A)	117 mm	1.6 kg	air-flaps
01882.9-00	AC 115 V, 50/60 Hz	313 m^3/h	166 m^3/h	560/470 mA	38 W	60 db (A)	117 mm	1.6 kg	air-flaps

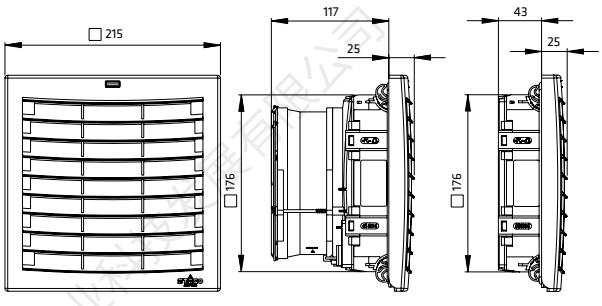
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11882.0-30	25 mm	0.4 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

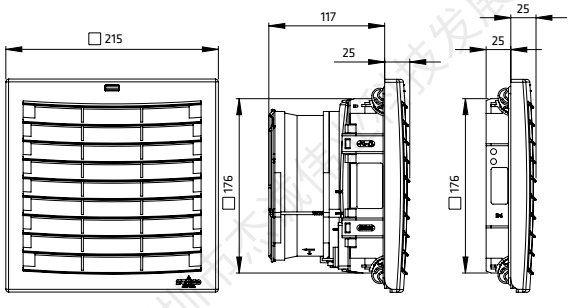
FILTER MAT FM 086

Filter class	168 x 168 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08635.0-00	84 %	5 pieces

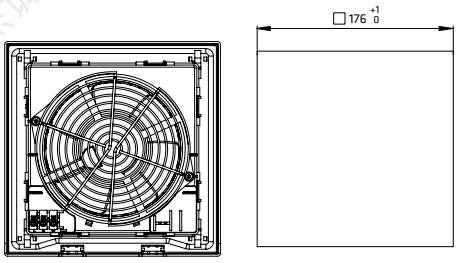
TECHNICAL DRAWINGS



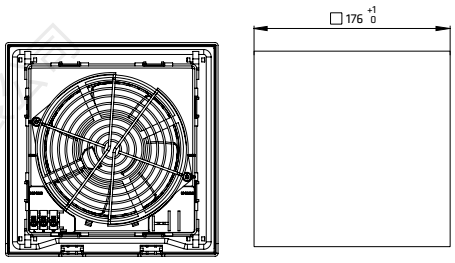
FPI 018 FPI 118



FPO 018 FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT

FILTER FAN PLUS

FPI/FPO 018 | up to 536 m³/h (223 x 223 mm)

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- > Easy mounting
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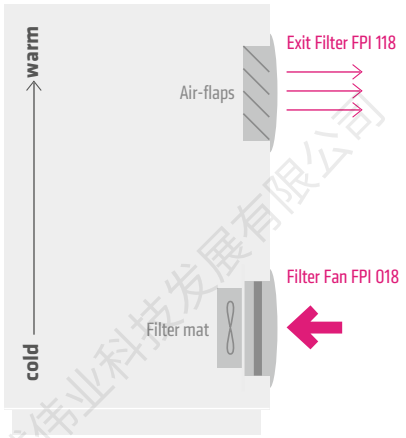
SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 56,000 h rotor metal
Connection	3-pole clamp for 2.5 mm², clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	223 x 223[+1] mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	-25 to +65 °C (-13 to +149 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 75 % RH (non-condensing)
Protection type/Protection class	IP54 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

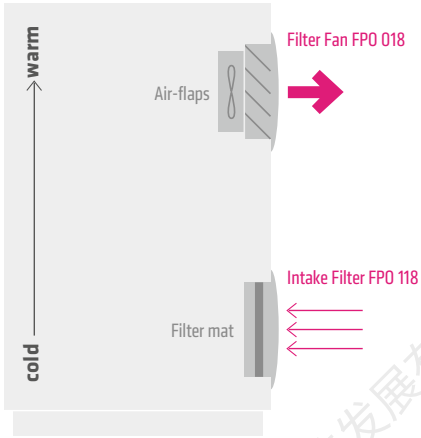
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01873.0-30	AC 230 V, 50/60 Hz	305 m³/h	271 m³/h	300/340 mA	64 W	64 db (A)	147 mm	2.4 kg	G3
01873.9-30	AC 115 V, 50/60 Hz	332 m³/h	293 m³/h	600/700 mA	81 W	67 db (A)	147 mm	2.4 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11873.0-00	46 mm	0.6 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01883.0-00	AC 230 V, 50/60 Hz	536 m^3/h	281 m^3/h	300/340 mA	64 W	65 db (A)	147 mm	2.4 kg	air-flaps
01883.9-00	AC 115 V, 50/60 Hz	581 m^3/h	310 m^3/h	600/700 mA	81 W	68 db (A)	147 mm	2.4 kg	air-flaps

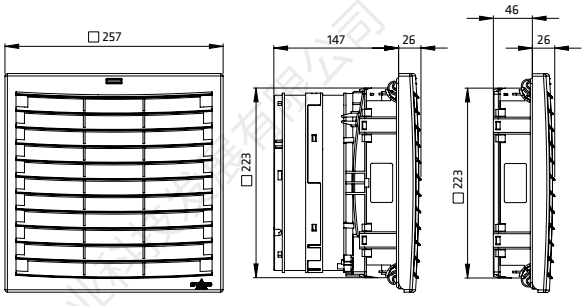
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11883.0-30	25 mm	0.5 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

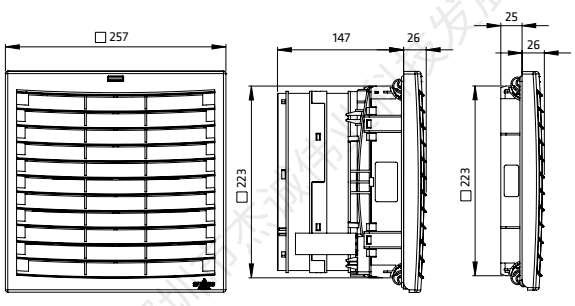
FILTER MAT FM 086

Filter class	215 x 215 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08636.0-00	84 %	5 pieces

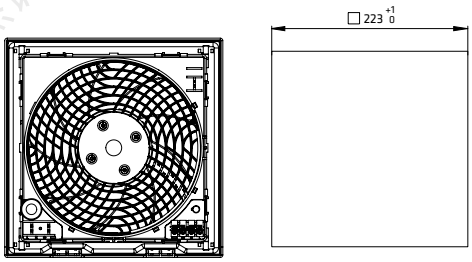
TECHNICAL DRAWINGS



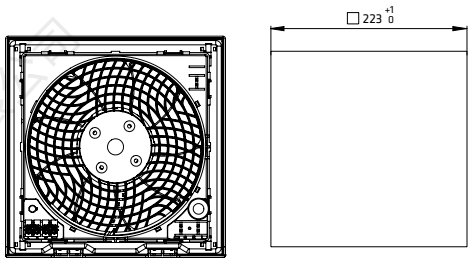
FPI 018 FPI 118



FPO 018 FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT

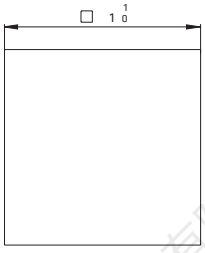
FILTER FAN PLUS

FPI/FPO 018 | up to 1010 m³/h (291 x 291 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat
- > Two fan speeds

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating.

The Filter Fan Plus series uses a new air-flap outlet technology for the air outlet and thus reaches a high degree of airflow. A ratchet mechanism is used for mounting and provides high stability and tightness. Depending on the application there are two systems that are available – the FPI or FPO system. The FPI system is a standard installation with a filter fan in the lower part of the enclosure which ensures that fresh air is fed into the enclosure (airflow direction "In"). This system consists of a filter fan and exit filter. Whereas in the FPO system, the filter fan is located in the upper area of the enclosure to avoid heat buildups (airflow direction "Out"). The FPO system is composed of an intake filter and exit filter fan. The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.



Enclosure cut-out

TECHNICAL DATA

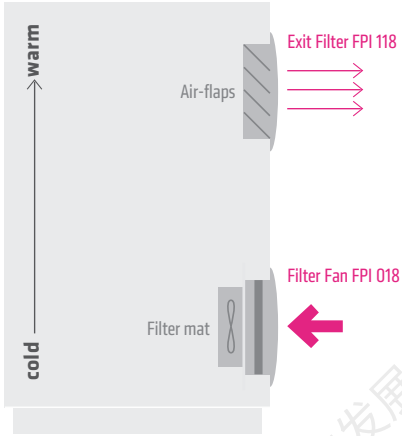
Axial fan, ball bearing	fan speed 1: service life L10 at +40 °C (+104 °F): min. 76,000 h rotor metal fan speed 2: service life L10 at +40 °C (+104 °F): min. 54,000 h rotor plastic
Connection	3-pole clamp for 2.5 mm², clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	291 x 291[+1] mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	fan speed 1 & 2, 50 Hz: -25 to +55 °C (-13 to +131 °F) fan speed 1, 60 Hz: -25 to +35 °C (-13 to +95 °F) fan speed 2, 60 Hz: -25 to +50 °C (-13 to +122 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 75 % RH (non-condensing)
Protection type/Protection class	IP54 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

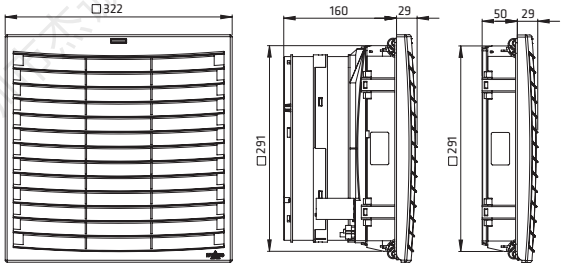
[1] Drilling marks for screw mounting are indicated on mounting frame.

SYSTEM FPI
AIRFLOW DIRECTION "IN"

SYSTEM FPO
AIRFLOW DIRECTION "OUT"

SYSTEM FPI





FPI 018 FPI 118

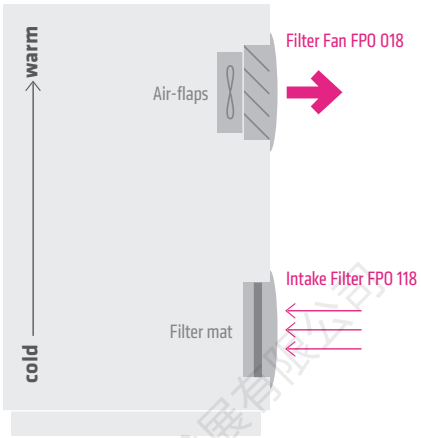
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

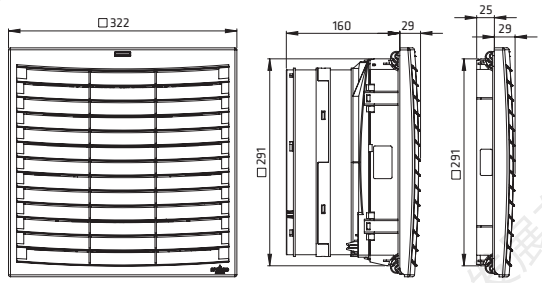
Art. No.	Operating voltage	Fan speed	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01874.0-30	AC 230 V, 50/60 Hz	1	433 m^3/h	373 m^3/h	400/480 mA	95 W	62 db (A)	160 mm	3.1 kg	G3
01874.0-31	AC 230 V, 50/60 Hz	2	624 m^3/h	560 m^3/h	550/700 mA	140 W	70 dB (A)	160 mm	3.3 kg	G3
01874.9-30	AC 115 V, 50/60 Hz	1	394 m^3/h	339 m^3/h	660/800 mA	90 W	61 dB (A)	160 mm	3.1 kg	G3
01874.9-31	AC 115 V, 50/60 Hz	2	665 m^3/h	593 m^3/h	1100/1450 mA	165 W	72 dB (A)	160 mm	3.3 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11874.0-00	50 mm	1.0 kg	air-flap outlet technology

SYSTEM FPO





FPO 018 FPO 118

AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Fan speed	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01884.0-00	AC 230 V, 50/60 Hz	1	727 m^3/h	413 m^3/h	400/480 mA	95 W	63 db (A)	160 mm	3.2 kg	air-flaps
01884.0-01	AC 230 V, 50/60 Hz	2	1010 m^3/h	599 m^3/h	550/700 mA	140 W	70 db (A)	160 mm	3.4 kg	air-flaps
01884.9-00	AC 115 V, 50/60 Hz	1	703 m^3/h	391 m^3/h	660/800 mA	90 W	62 dB (A)	160 mm	3.2 kg	air-flaps
01884.9-01	AC 115 V, 50/60 Hz	2	1031 m^3/h	609 m^3/h	1100/1450 mA	165 W	71 dB (A)	160 mm	3.4 kg	air-flaps

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11884.0-30	25 mm	0.8 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

FILTER MAT FM 086

Filter class	283 x 283 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08637.0-00	84 %	5 pieces

FILTER FAN PLUS – DC LINE

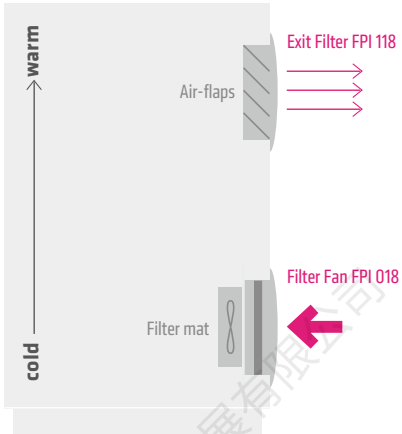
FPI/FPO 018 | up to 33 m³/h (92 x 92 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes
- > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating.

The Filter Fan Plus series uses a new air-flap outlet technology for the air outlet and thus reaches a high degree of airflow. A ratchet mechanism is used for mounting and provides high stability and tightness. Depending on the application there are two systems that are available – the FPI or FPO system. The FPI system is a standard installation with a filter fan in the lower part of the enclosure which ensures that fresh air is fed into the enclosure (airflow direction "In"). This system consists of a filter fan and exit filter. Whereas in the FPO system, the filter fan is located in the upper area of the enclosure to avoid heat buildups (airflow direction "Out"). The FPO system is composed of an intake filter and exit filter fan. The Filter Fan Plus series has been designed for indoor use.

SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 70,000 h plastic
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	92 x 92^{+1} mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	-20 to +70 °C (-4 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP54 / II (double insulated)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

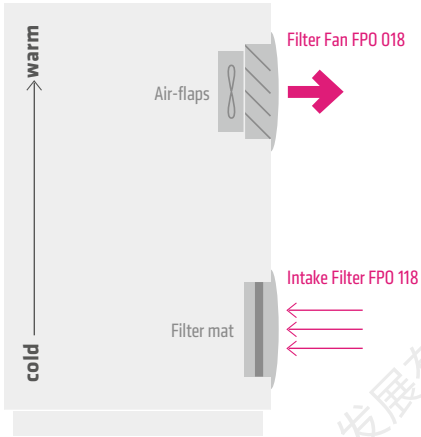
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01870.2-30	DC 24 V	22 m³/h	16 m³/h	113 mA	2.7 W	49 dB (A)	59 mm	0.3 kg	G3
01870.1-30	DC 48 V	23 m³/h	17 m³/h	63 mA	3.0 W	51 dB (A)	59 mm	0.3 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11870.0-00	29 mm	0.2 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01880.2-00	DC 24 V	31 m^3/h	17 m^3/h	113 mA	2.7 W	48 dB (A)	66 mm	0.3 kg	air-flaps
01880.1-00	DC 48 V	33 m^3/h	18 m^3/h	63 mA	3.0 W	49 dB (A)	66 mm	0.3 kg	air-flaps

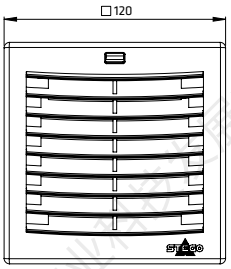
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

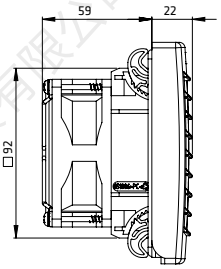
Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11880.0-30	22 mm	0.2 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

FILTER MAT FM 086

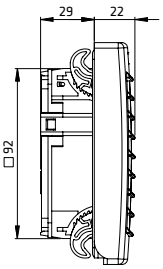
Filter class	84 x 84 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08633.0-00	84 %	5 pieces

TECHNICAL DRAWINGS

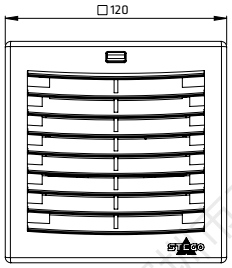


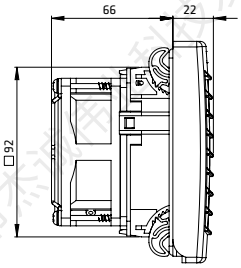


FPI 018

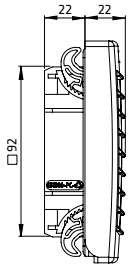


FPI 118

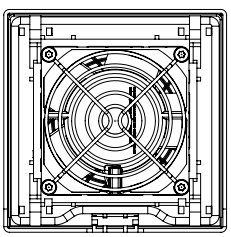


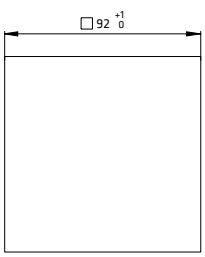


FPO 018

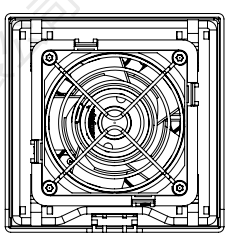


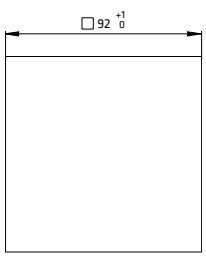
FPO 118





ENCLOSURE CUT-OUT





ENCLOSURE CUT-OUT

FILTER FAN PLUS – DC LINE

FPI/FPO 018 | up to 125 m³/h (124 x 124 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes
- > One filter mat

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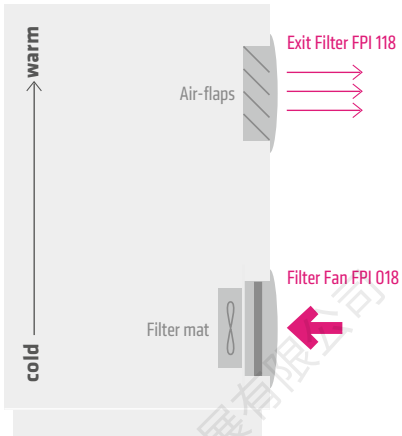
The Filter Fan Plus series uses a new air-flap outlet technology for the air outlet and thus reaches a high degree of airflow. A ratchet mechanism is used for mounting and provides high stability and tightness. Depending on the application there are two systems that are available – the FPI or FPO system. The FPI system is a standard installation with a filter fan in the lower part of the enclosure which ensures that fresh air is fed into the enclosure (airflow direction "In"). This system consists of a filter fan and exit filter. Whereas in the FPO system, the filter fan is located in the upper area of the enclosure to avoid heat buildups (airflow direction "Out"). The FPO system is composed of an intake filter and exit filter fan. The Filter Fan Plus series has been designed for indoor use.

SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 65,000 h plastic
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	124 x 124^{+1} mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	-20 to +70 °C (-4 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP54 / II (double insulated)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

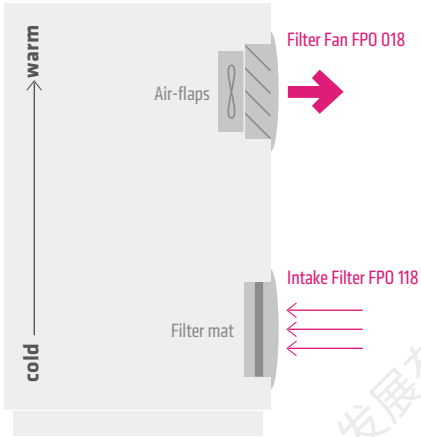
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01871.2-30	DC 24 V	66 m³/h	56 m³/h	171 mA	4.1 W	58 dB (A)	66 mm	0.5 kg	G3
01871.1-30	DC 48 V	67 m³/h	56 m³/h	88 mA	4.2 W	52 dB (A)	66 mm	0.5 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11871.0-00	35 mm	0.3 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01881.2-00	DC 24 V	118 m^3/h	63 m^3/h	171 mA	4.1 W	56 dB (A)	79 mm	0.5 kg	air-flaps
01881.1-00	DC 48 V	125 m^3/h	63 m^3/h	88 mA	4.2 W	50 dB (A)	79 mm	0.5 kg	air-flaps

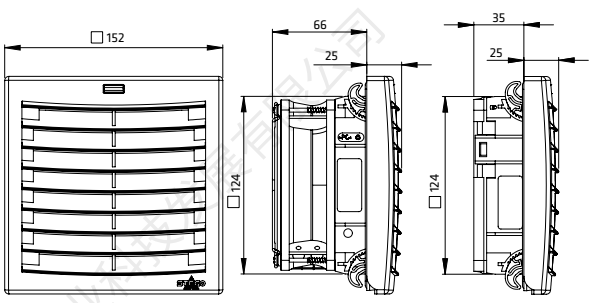
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11881.0-30	22 mm	0.2 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

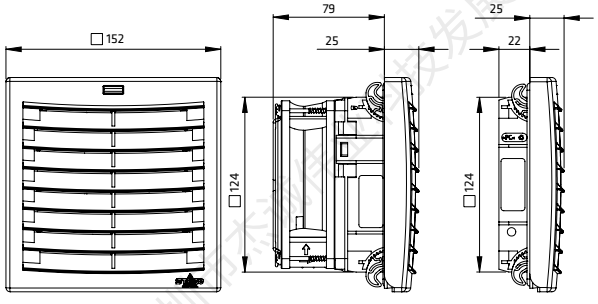
FILTER MAT FM 086

Filter class	118 x 118 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08634.0-00	84 %	5 pieces

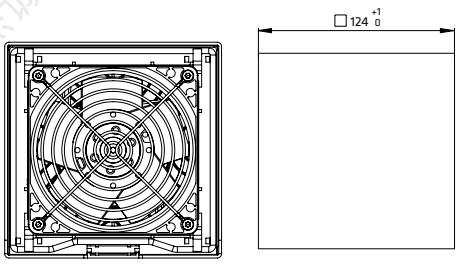
TECHNICAL DRAWINGS



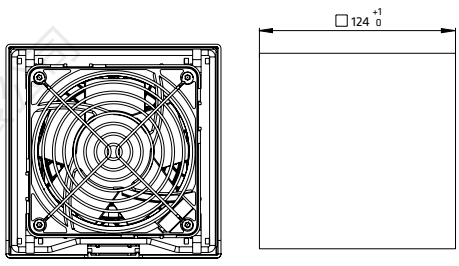
FPI 018 FPI 118



FPO 018 FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT

FILTER FAN PLUS – DC LINE

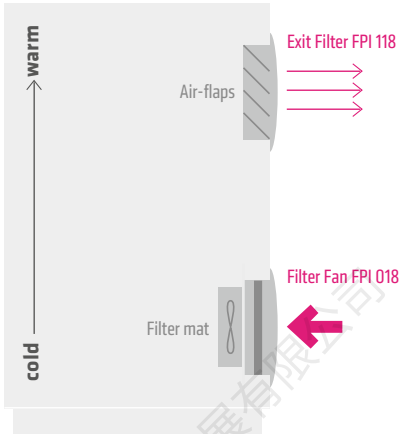
FPI/FPO 018 | up to 277 m³/h (176 x 176 mm)

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes
- > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating.

The Filter Fan Plus series uses a new air-flap outlet technology for the air outlet and thus reaches a high degree of airflow. A ratchet mechanism is used for mounting and provides high stability and tightness. Depending on the application there are two systems that are available – the FPI or FPO system. The FPI system is a standard installation with a filter fan in the lower part of the enclosure which ensures that fresh air is fed into the enclosure (airflow direction "In"). This system consists of a filter fan and exit filter. Whereas in the FPO system, the filter fan is located in the upper area of the enclosure to avoid heat buildups (airflow direction "Out"). The FPO system is composed of an intake filter and exit filter fan. The Filter Fan Plus series has been designed for indoor use.

SYSTEM FPI



TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 80,000 h fan body aluminium, rotor plastic
Connection	3-pole clamp for 2.5 mm², clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	176 x 176[+1] mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed[1].
Filter mat	G3 acc. to DIN EN 779, average arrestance A_a 84 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	-25 to +70 °C (-13 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Protection type/Protection class	IP54 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

[1] Drilling marks for screw mounting are indicated on mounting frame.

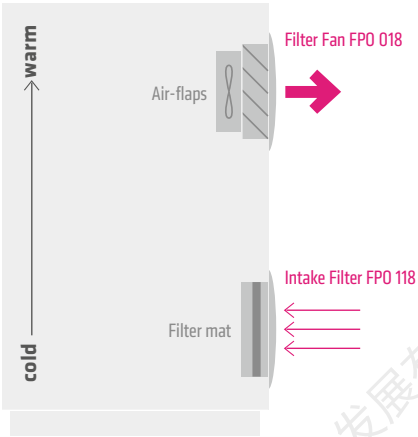
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01872.2-30	DC 24 V	178 m³/h	156 m³/h	500 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	G3
01872.1-30	DC 48 V	170 m³/h	147 m³/h	250 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11872.0-00	43 mm	0.4 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01882.2-00	DC 24 V	269 m^3/h	141 m^3/h	500 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	air-flaps
01882.1-00	DC 48 V	277 m^3/h	146 m^3/h	250 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	air-flaps

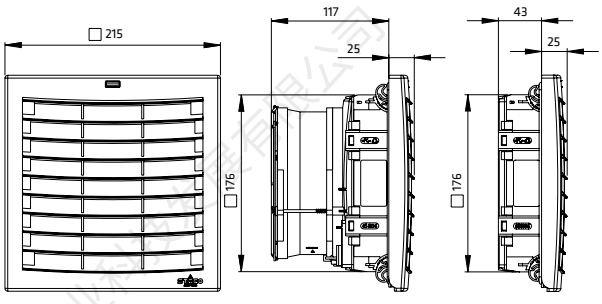
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11882.0-30	25 mm	0.4 kg	G3 acc. to DIN EN 779, average arrestance A_a 84 %

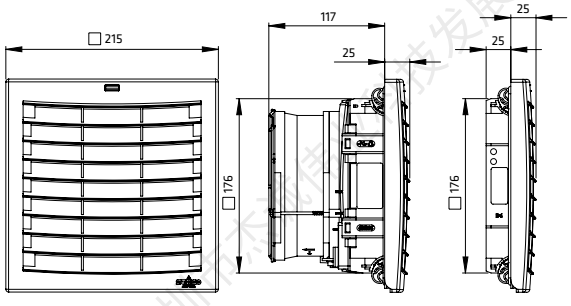
FILTER MAT FM 086

Filter class	168 x 168 mm	Average arrestance A_a	1 packing unit
G3 acc. to DIN EN 779	Art. No. 08635.0-00	84 %	5 pieces

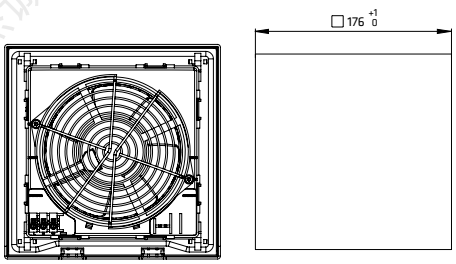
TECHNICAL DRAWINGS



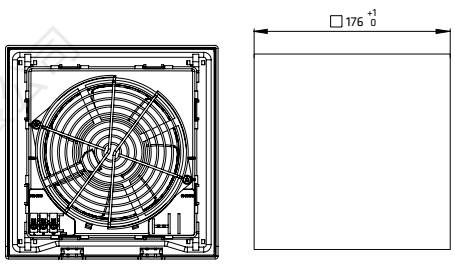
FPI 018 FPI 118



FPO 018 FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT