

# FILTER FAN PLUS – DC LINE

FPI/FPO 018 | up to 33 m<sup>3</sup>/h (92 x 92 mm)

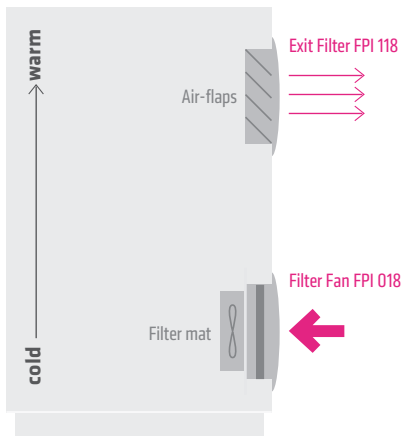


- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes (VDE and UL)
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes
- > One filter mat

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 may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.

## SYSTEM FPI



### TECHNICAL DATA



<b>Axial fan, ball bearing</b>	service life L10 at +40 °C (+104 °F): min. 70,000 h plastic
<b>Connection</b>	2 stranded wires, 300 mm
<b>Casing, hood, flaps</b>	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
<b>Enclosure cut-out</b>	92 x 92 <sup>1</sup> mm
<b>Mounting frame</b>	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed <sup>1</sup> .
<b>Filter mat</b>	ISO coarse 55% acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
<b>Filter material</b>	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
<b>Operating temperature</b>	-20 to +70 °C (-4 to +158 °F)
<b>Storage temperature</b>	-40 to +70 °C (-40 to +158 °F)
<b>Operating/Storage humidity</b>	max. 90 % RH (non-condensing)
<b>Protection type/Protection class</b>	IP54 / II (double insulated)
<b>Environmental rating UL/NEMA</b>	UL TYPE 12 / NEMA 12
<b>Approvals</b>	VDE, UL File No. E234324, EAC
<b>Note</b>	other voltages on request

<sup>1</sup> Drilling marks for screw mounting are indicated on mounting frame.

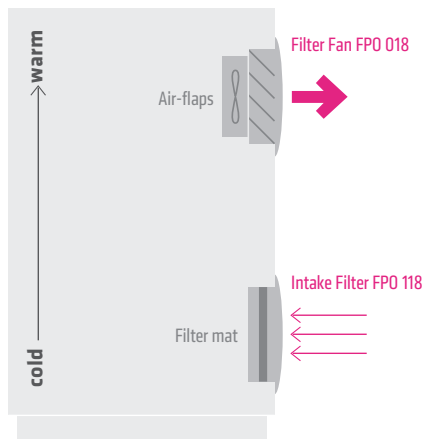
### AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

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 m <sup>3</sup> /h	16 m <sup>3</sup> /h	113 mA	2.7 W	49 dB (A)	59 mm	0.3 kg	G3
01870.1-30	DC 48 V	23 m <sup>3</sup> /h	17 m <sup>3</sup> /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 <sup>3</sup> /h	17 m <sup>3</sup> /h	113 mA	2.7 W	48 dB (A)	66 mm	0.3 kg	air-flaps
01880.1-00	DC 48 V	33 m <sup>3</sup> /h	18 m <sup>3</sup> /h	63 mA	3.0 W	49 dB (A)	66 mm	0.3 kg	air-flaps

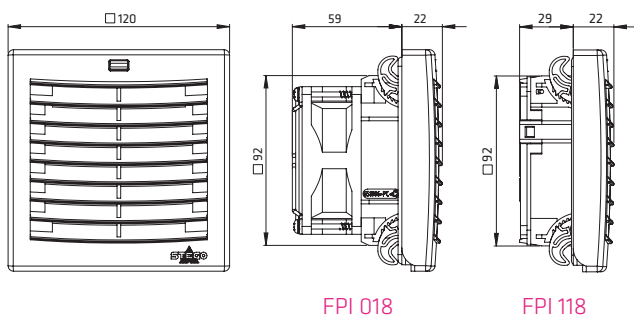
### AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11880.0-30	22 mm	0.2 kg	ISO coarse 55% acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %

### FILTER MAT FM 086

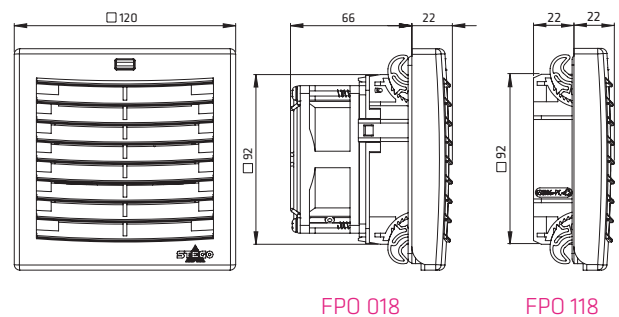
Filter class	84 x 84 mm	Initial gravimetric arrestance	1 packing unit
ISO coarse 55% acc. to ISO 16890 (G3)	Art. No. 08633.0-00	57 %	5 pieces

## TECHNICAL DRAWINGS



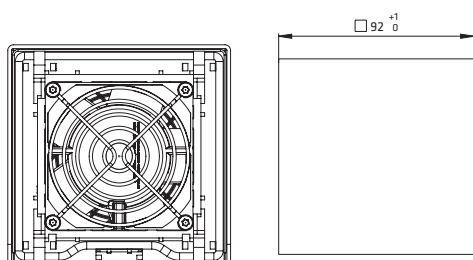
FPI 018

FPI 118

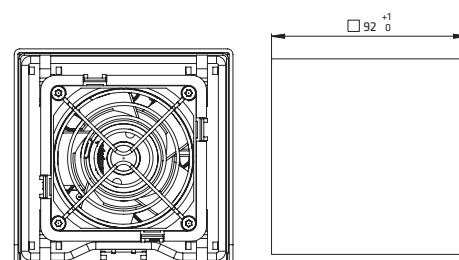


FPO 018

FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT