

FILTER FAN PLUS

FPI/FPO 018 | up to 18.8 cfm (3.6 x 3.6")



- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type/Environmental ratings by independent testing agencies (VDE & UL)
- > Two optional systems for optimal airflow (FPI/FPO)
- > Industry-common enclosure cut-out sizes (5 sizes)
- > Single filter mat system design

Filter fans are used to provide "cooling" by forced air-circulation in enclosures and cabinets containing electrical/electronic and other components. The interior temperature of an enclosure can be reduced by channelling cooler, filtered outside air into the enclosure, thus expelling hot inside air. The resulting airflow prevents formation of localized hot pockets and protects electronic components from overheating.

The Filter Fan Plus series encompasses a new air-flap technology on the air outlet side, thereby reaching an unparalleled high degree of airflow. A unique ratchet mechanism is used for easy installation. It provides safe and secure mounting while guaranteeing a tight seal. Depending on the requirements, there are two optional systems available – the FPI or the FPO system (FPI = "in", FPO = "out"). The FPI system is the more commonly known installation system, where a filter fan located in the lower part of the enclosure draws cleaner, cooler air into the enclosure (airflow direction "In"). This system consists of a filter fan and exhaust filter. On opposite, with the newer FPO system, the filter fan will be located in the upper area of the enclosure to draw warmer air out of the enclosure (airflow direction "Out"). The FPO system consists of an intake filter and exhaust 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.

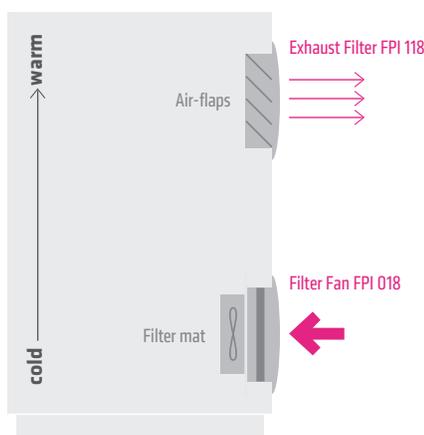


TECHNICAL DATA

| | |
|---|---|
| Axial fan, ball bearing | service life L10 at +104 °F (+40 °C): min. 50,000 h fan body aluminum, metal impeller |
| Connection | 2 stranded wires, 11.8" (300 mm) long |
| Housing, hood, flaps | plastic UL 94V-0, light grey; UV light resistant according to UL 746C (f1) |
| Enclosure cut-out | 3.6 x 3.6 ^{+0.04} inches (92 x 92 ⁺¹ mm) |
| Mounting frame | 4 built-in ratchet push levers for mounting (6 ratchet stops to accommodate for wall thicknesses Gauge 9 to 19 or 1-4 mm). Additional screw mounting possible if needed ¹ . |
| Filter mat | ISO coarse 55% acc. to ISO 16890 (G3), init. grav. arrestance 57% |
| Filter material | synthetic mesh with progressive construction, temperature resistant to +212 °F (+100 °C), self-extinguishing class F1, moisture resistant to 100 % RH, reusable |
| Operating/Storage temperature | -40 to +158 °F (-40 to +70 °C) |
| Operating/Storage humidity | max. 90 % RH (non-condensing) |
| Protection type/Protection class | IP54 / I (grounded) |
| Environmental rating UL/NEMA | UL TYPE 12 / NEMA 12 |
| Approvals | UL File No. E234324, VDE, EAC |
| Note | other voltages on request |

¹ Drilling hole markings for screw mounting are indicated on mounting frame.

SYSTEM FPI



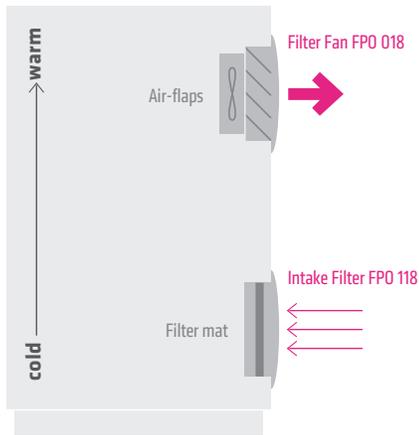
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

| Part No. | Operating voltage | Air volume, free blowing | Air volume with exhaust filter | Current consumption (50/60 Hz) | Power consumption | Average noise level (DIN EN ISO 4871) | Mounting depth | Weight (approx.) | Filter mat |
|------------|--------------------|---------------------------------|--------------------------------|--------------------------------|-------------------|---------------------------------------|----------------|-------------------|------------|
| 01870.0-30 | AC 230 V, 50/60 Hz | 11.2 cfm (19 m ³ /h) | 7.7 cfm (13 m ³ /h) | 70 mA | 12 W | 39 dB (A) | 2.6" (66 mm) | 1.3 lbs. (0.6 kg) | G3 |
| 01870.9-30 | AC 115 V, 50/60 Hz | 13.5 cfm (23 m ³ /h) | 9.4 cfm (16 m ³ /h) | 115 mA | 11 W | 43 dB (A) | 2.6" (66 mm) | 1.3 lbs. (0.6 kg) | G3 |

AIRFLOW DIRECTION "IN": EXHAUST FILTER FPI 118

| Part No. | Mounting depth | Weight (approx.) | Air outlet |
|------------|----------------|-------------------|----------------------------|
| 11870.0-00 | 1.1" (29 mm) | 0.4 lbs. (0.2 kg) | air-flap outlet technology |

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

| Part No. | Operating voltage | Air volume, free blowing | Air volume with intake filter | Current consumption (50/60 Hz) | Power consumption | Average noise level (DIN EN ISO 4871) | Mounting depth | Weight (approx.) | Air outlet |
|------------|--------------------|---------------------------------|---------------------------------|--------------------------------|-------------------|---------------------------------------|----------------|-------------------|------------|
| 01880.0-00 | AC 230 V, 50/60 Hz | 14.1 cfm (24 m ³ /h) | 8.8 cfm (15 m ³ /h) | 70 mA | 12 W | 38 dB (A) | 2.8" (72 mm) | 1.3 lbs. (0.6 kg) | air-flaps |
| 01880.9-00 | AC 115 V, 50/60 Hz | 18.8 cfm (32 m ³ /h) | 11.2 cfm (19 m ³ /h) | 115 mA | 12 W | 41 dB (A) | 2.8" (72 mm) | 1.3 lbs. (0.6 kg) | air-flaps |

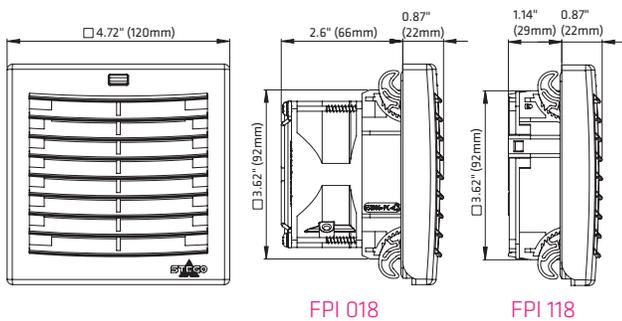
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

| Part No. | Mounting depth | Weight (approx.) | Filter mat |
|------------|----------------|-------------------|---|
| 11880.0-30 | 0.9" (22 mm) | 0.4 lbs. (0.2 kg) | ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 % |

FILTER MAT FM 086

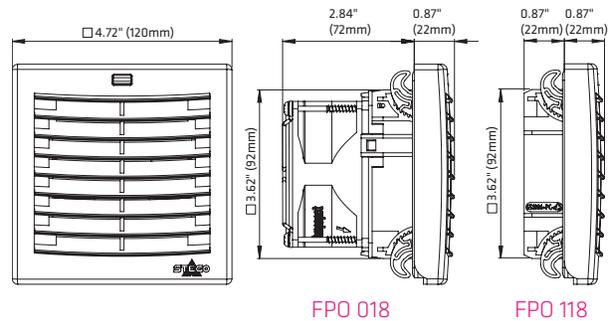
| Filter class | 3.31 x 3.31" (84 x 84 mm) | Initial gravimetric arrestance | 1 packing unit |
|---------------------------------------|---------------------------|--------------------------------|----------------|
| ISO coarse 55% acc. to ISO 16890 (G3) | Part No. 08633.0-00 | 57 % | 5 pieces |

DIMENSIONED DRAWINGS



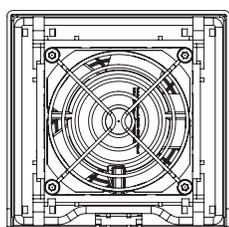
FPI 018

FPI 118

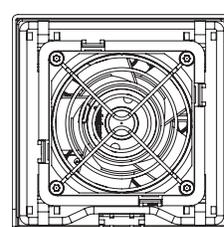


FPO 018

FPO 118



ENCLOSURE CUT-OUT



ENCLOSURE CUT-OUT