

# Fan Filter

NTL-FF120 | up to 24m³/h



- New air-flap outlet technology for high airflow
- Easy mounting
- Protection type test/Environmental rating by independent testing institutes
- Standard enclosure cut-out sizes (5 sizes)
- One filter mat

Fan filters 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.

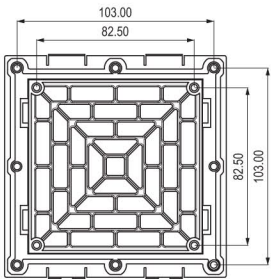
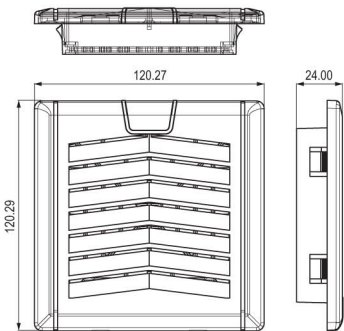
The Fan filter series uses a new air-flap outlet technology for the air outlet and thus reaches a high degree of airflow. A ratchet mechanism is used for mounting and provides high stability and tightness. The system is a standard installation with a filter fan in the lower part of the enclosure which ensures that fresh air is fed into the enclosure (airflow direction "In"). This system consists of a filter fan and exit filter.

## Technical Data

CE RoHS ISO9001 Patent

| NTL-FF120                        |   |
|----------------------------------|---|
| Axial fan, ball bearing          | service life L10 at +40°C (+104°F): min. 50,000h<br>fan body aluminium, rotor metal   |
| Connection                       | 2 stranded wires, 300mm   |
| Casing, hood, flaps              | plastic according to UL94 V-0, light grey;<br>UV light resistant according to UL746C (f1)   |
| Enclosure cut-out                | 92 x 92 <sup>1</sup> mm   |
| Mounting frame                   | 4 built-in ratchet braces for mounting (6 notches for wall thickness 1-4mm).<br>Additional use of screws possible if needed <sup>1</sup> .              |
| Filter mat                       | G4 acc. to DIN EN 779, filtering degree 94%   |
| Filter material                  | synthetic fibre with progressive construction, temperature resistant to +100°C,<br>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)  |
| Note                             | other voltages on request   |

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



## Airflow Direction "In": Fan Filter NTL-FF120

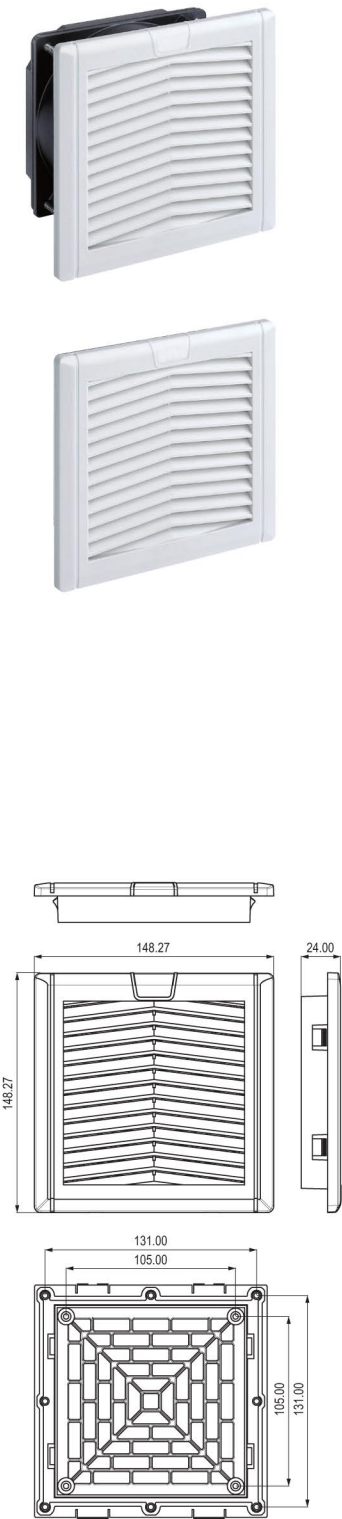
| Art. No. | Operating voltage | Air volume, free flow | Air volume with exit filter | Power consumption |
|----------|-------------------|-----------------------|-----------------------------|-------------------|
| 860204   | AC 230V, 50/60Hz  | 19m³/h                | 13m³/h                      | 12W               |
| 860205   | AC 110V, 50/60Hz  | 23m³/h                | 16m³/h                      | 11W               |

## Airflow Direction "In": Exit Filter NTL-F120

| Art. No. | Operating voltage | Air outlet                 | Depth in enclosure |
|----------|-------------------|----------------------------|--------------------|
| 860206   | -                 | air-flap outlet technology | 24mm               |

# Fan Filter

## NTL-FF152 | up to 97m³/h



- New air-flap outlet technology for high airflow
- Easy mounting
- Protection type test/Environmental rating by independent testing institutes
- Standard enclosure cut-out sizes (5 sizes)
- One filter mat

Fan filters 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 Fan filter 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. The 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.

### Technical Data

CE RoHS ISO9001 Patent

| NTL-FF152                        |   |
|----------------------------------|---|
| Axial fan, ball bearing          | service life L10 at +40°C (+104°F): min. 37,000 h<br>fan body aluminium, rotor metal  |
| Connection                       | 2 stranded wires, 160mm   |
| Casing, hood, flaps              | plastic according to UL94 V-0, light grey;<br>UV light resistant according to UL746C (f1)   |
| Enclosure cut-out                | 124 x 124 <sup>+1</sup> mm  |
| Mounting frame                   | 4 built-in ratchet braces for mounting (6 notches for wall thickness 1-4mm).<br>Additional use of screws possible if needed <sup>1</sup> .              |
| Filter mat                       | G4 acc. to DIN EN 779, filtering degree 94%   |
| Filter material                  | synthetic fibre with progressive construction, temperature resistant to +100°C,<br>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)  |
| Note                             | other voltages on request   |

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

### Airflow Direction "In": Fan Filter NTL-FF152

| Art. No. | Operating voltage | Air volume, free flow | Air volume with exit filter | Power consumption |
|----------|-------------------|-----------------------|-----------------------------|-------------------|
| 860207   | AC 230V, 50/60Hz  | 52m³/h                | 42m³/h                      | 19W               |
| 860208   | AC 110V, 50/60Hz  | 62m³/h                | 51m³/h                      | 18W               |

### Airflow Direction "In": Exit Filter NTL-F152

| Art. No. | Operating voltage | Air outlet                 | Depth in enclosure |
|----------|-------------------|----------------------------|--------------------|
| 860209   | -                 | air-flap outlet technology | 24mm               |

# Fan Filter

NTL-FF204 | up to 263 m³/h



- New air-flap outlet technology for high airflow
- Easy mounting
- Protection type test/Environmental rating by independent testing institutes
- Standard enclosure cut-out sizes (5 sizes)
- One filter mat

Fan filters 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.

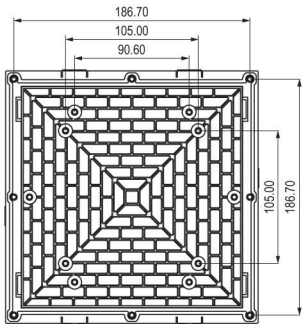
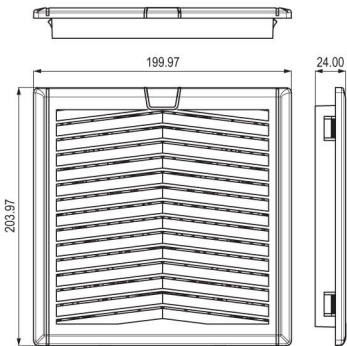
The Fan filter series uses a new air-flap outlet technology for the air outlet and thus reaches a high degree of airflow. A ratchet mechanism is used for mounting and provides high stability and tightness. The system is a standard installation with a filter fan in the lower part of the enclosure which ensures that fresh air is fed into the enclosure (airflow direction "In"). This system consists of a filter fan and exit filter.

## Technical Data

CE RoHS ISO9001 Patent

| NTL-FF204                        |   |
|----------------------------------|---|
| Axial fan, ball bearing          | service life L10 at +40°C (+104°F): min. 65,000h<br>fan body aluminium, rotor metal   |
| Connection                       | 3-pole clamp for 2.5mm², clamping torque 0.8Nm max.   |
| Casing, hood, flaps              | plastic according to UL94 V-0, light grey;<br>UV light resistant according to UL746C (f1)   |
| Enclosure cut-out                | 176 x 176 <sup>+1</sup> mm  |
| Mounting frame                   | 4 built-in ratchet braces for mounting (6 notches for wall thickness 1-4mm).<br>Additional use of screws possible if needed <sup>1</sup> .              |
| Filter mat                       | G4 acc. to DIN EN 779, filtering degree 94%   |
| Filter material                  | synthetic fibre with progressive construction, temperature resistant to +100°C,<br>self-extinguishing class F1, moisture resistant to 100% RH, reusable |
| Operating temperature            | 50 Hz: -25 to +50°C (-13 to +122°F)<br>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)  |
| Note                             | other voltages on request   |

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



## Airflow Direction "In": Fan Filter NTL-FF204

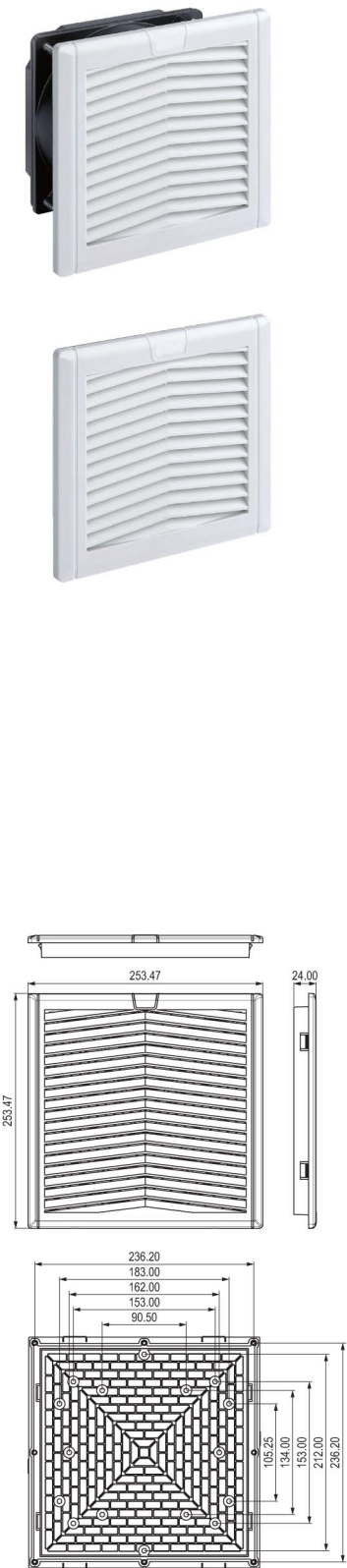
| Art. No. | Operating voltage | Air volume, free flow | Air volume with exit filter | Power consumption |
|----------|-------------------|-----------------------|-----------------------------|-------------------|
| 860210   | AC 230V, 50/60Hz  | 170m³/h               | 123m³/h                     | 45W               |
| 860211   | AC 110V, 50/60Hz  | 204m³/h               | 187m³/h                     | 38W               |

## Airflow Direction "In": Exit Filter NTL-F204

| Art. No. | Operating voltage | Air outlet                 | Depth in enclosure |
|----------|-------------------|----------------------------|--------------------|
| 860212   | -                 | air-flap outlet technology | 24mm               |

# Fan Filter

NTL-FF255 | up to 536m³/h



- New air-flap outlet technology for high airflow
- Easy mounting
- Protection type test/Environmental rating by independent testing institutes
- Standard enclosure cut-out sizes (5 sizes)
- One filter mat

Fan filters 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 Fan filter 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. The 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.

## Technical Data

CE RoHS ISO9001 Patent

| NTL-FF255                        |   |
|----------------------------------|---|
| Axial fan, ball bearing          | service life L10 at +40°C (+104°F): min. 56,000h<br>rotor metal   |
| Connection                       | 3-pole clamp for 2.5mm², clamping torque 0.8Nm max.   |
| Casing, hood, flaps              | plastic according to UL94 V-0, light grey;<br>UV light resistant according to UL746C (f1)   |
| Enclosure cut-out                | 223 x 223 <sup>+1</sup> mm  |
| Mounting frame                   | 4 built-in ratchet braces for mounting (6 notches for wall thickness 1-4mm).<br>Additional use of screws possible if needed <sup>1</sup> .              |
| Filter mat                       | G4 acc. to DIN EN 779, filtering degree 94%   |
| Filter material                  | synthetic fibre with progressive construction, temperature resistant to +100°C,<br>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)  |
| Note                             | other voltages on request   |

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

## Airflow Direction "In": Fan Filter NTL-FF255

| Art. No. | Operating voltage | Air volume, free flow | Air volume with exit filter | Power consumption |
|----------|-------------------|-----------------------|-----------------------------|-------------------|
| 860213   | AC 230V, 50/60Hz  | 305m³/h               | 210m³/h                     | 64W               |
| 860214   | AC 110V, 50/60Hz  | 332m³/h               | 293m³/h                     | 81W               |

## Airflow Direction "In": Exit Filter NTL-F255

| Art. No. | Operating voltage | Air outlet                 | Depth in enclosure |
|----------|-------------------|----------------------------|--------------------|
| 860215   | -                 | air-flap outlet technology | 24mm               |

- Fan filters 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.

## Technical Data

CE **RoHS** ISO9001 Patent

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

| Art. No. | Operating voltage | Air volume, free flow | Air volume with exit filter | Power consumption |
|----------|-------------------|-----------------------|-----------------------------|-------------------|
| 860216   | AC 230V, 50/60Hz  | 433m³/h               | 373m³/h                     | 95W               |
| 860217   | AC 110V, 50/60Hz  | 394m³/h               | 339m³/h                     | 90W               |

| Art. No. | Operating voltage | Air outlet                 | Depth in enclosure |
|----------|-------------------|----------------------------|--------------------|
| 860218   | -                 | air-flap outlet technology | 24mm               |

