Blowers and Fans
General Selection Considerations

General Specifications
All Hammond blowers and filter fans are engineered for performance and built for reliability. This versatile line includes a blower, fan tray and filter fans.

Blowers and fans use forced convection cooling, which means ambient air flows through a filter into the enclosure to cool heated components. Both blowers and fans are sized in CFM (cubic feet per minute).

It is recommended that an exhaust filter be used in combination with the blower or filter fan to act both as an exhaust point for the hot internal air plus aid in the pressurization of the enclosure, reducing the chance of unfiltered air entering the enclosure. Whenever possible, the blower or filter fan should be located in the bottom third of the enclosure and the filtered exhaust grill placed as high as possible on the opposing side. Performance levels can be further increased by adding a second exhaust filter.

Sizing Blowers and Fans
To determine the CFM (cubic feet per minute) required in any standard situation, use the following calculation, (non-standard situations would consist of high air density - significantly more than 0.075 lbs per cubic foot.)

\[
\text{CFM} = \frac{\text{Power to be dissipated (Watts) x 3.17}}{\text{Maximum Allowable Internal Temperature (°F) - Maximum Ambient Temperature (°F)}}
\]

Note - The calculation above is exact, but adding an additional 25% to the CFM level is a standard safety factor.

If the air density is high (significantly more than 0.075 lbs per cubic foot), use the number calculated above in the following formula:

\[
\text{CFM} \times (0.075)
\]

Non-standard Air Density (lbs per cubic foot)

Note: Ambient Temperature must be lower than maximum internal temperature for fan/blower to be effective.
Packaged Twin Blowers
160 to 470 CFM

Description
- Each contains a quadruplex centrifugal blower powered by a single precision ball-bearing motor.
- These widely-used Packaged Twin Blowers deliver air from more than 50% of their 17” width.
- Internal neoprene isolation mounts reduce transmission of vibration to the enclosure.
- Can be mounted on panel rails or into a cutout in an enclosure.

Features
- Capacities: 160 to 470 CFM.
- Heavy-gauge steel enclosures with EIA-notched flanges for rail mounting.
- Attractive 19 inch stainless steel grills.
- UR/CSA approved ball-bearing motors.
- Inlet air cools motor for longer life.
- Permanent filters.
- Exhaust guards included.
- Six foot (minimum) SJTW 3-wire cord.

Accessories
- Filter coat...see page 413

---

### Packaged Twin Blowers

#### Description

- **Packaged Twin Blowers** deliver air from more than 50% of their 17” width.
- They can be mounted on panel rails or into a cutout in an enclosure.

#### Features

- **Capacities**: 160 to 470 CFM.
- **Heavy-gauge steel enclosures** with EIA-notched flanges for rail mounting.
- **Attractive 19 inch stainless steel grills**.
- **UR/CSA approved ball-bearing motors**.
- **Inlet air cools motor for longer life**.
- **Permanent filters**.
- **Exhaust guards included**.
- **Six foot (minimum) SJTW 3-wire cord**.

#### Accessories

- **Filter coat**: see page 413

---

### Technical Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Free Flow Air Delivery (CFM)</th>
<th>RPM Nominal</th>
<th>Ambient Temp.</th>
<th>Panel Height</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>Ship Wt.lbs</th>
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<td>1.44</td>
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</tbody>
</table>

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Technical references and DXF downloads available at [www.hammfg.com](http://www.hammfg.com)

All dimensions in inches unless specified otherwise
PF Filter Fans

Description
- This line of fans provides innovative technology for fan cooling and pressurizing of industrial cabinets.
- A high quality filter fan provides an economical method of ensuring your enclosure does not overheat.
- Filtered passive ventilation can be provided by an exhaust filter for either convection cooling or in combination with a fan in forced air cooling.
- The slim-line design of this fan line is unique, when installed, the front louvered grill protrudes less than one quarter inch. The attractive grill maintains the sleek aesthetics of an enclosure system.

Standards
- UR, CUR and CE.
- Built to IP54 standards (except PF1000/PFA1000 - IP43 standards).
- Maintains NEMA 12 integrity of enclosure.
- Fan CSA Listed.

Features
- Available in 115V and 230V versions
- High performance fan motors with finger guards.
- ABS-FR grills (except PF1000 Series which is polystyrene FR).
- Durable, reusable filter mat.
- Grills are black allowing for a complementary match to all cabinet colors.
- Integral gasket to seal against enclosure. (except PF1000 - use PFG1000)

Easy Installation
- The patented "Click and Fit" system allows for rapid filter fan and exhaust filter installation without screws.
- After using the convenient cutout template (provided with every unit), the fan and/or exhaust filter just snaps into the opening.

Options
- Reverse flow (exhaust) available on 5,6,7000 models

Accessories
- Exhaust filters...see page 410
- Replacement grills...see page 410
- Replacement filters...see page 410

Part No. Voltage Air Delivery Free Flow Air Delivery with Exhaust Max. Static Pressure Filter Density Filtering Level Sound Level Connector Type Ambient Temp. °F Ship Wt. lbs

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Voltage</th>
<th>Free Flow Air Delivery (CFM)</th>
<th>Air Delivery w/Exhaust (CFM)</th>
<th>Max. Static Pressure (Pa)</th>
<th>Filter Density (g/m²)</th>
<th>Filtering Level</th>
<th>Sound Level (dB)</th>
<th>Connector Type</th>
<th>Ambient Temp. °F Max/Min</th>
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<td>39</td>
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<td>140/14</td>
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<tr>
<td>PF2000</td>
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<td>49</td>
<td>terminal strip</td>
<td>122/14</td>
<td>IP54 2</td>
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<tr>
<td>PF2500</td>
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<td>89</td>
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<td>73%</td>
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<td>122/14</td>
<td>IP54 4</td>
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<tr>
<td>PF3000</td>
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<td>169</td>
<td>142</td>
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<td>150</td>
<td>73%</td>
<td>55</td>
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<td>IP54 4</td>
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<tr>
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<td>terminal strip</td>
<td>122/14</td>
<td>IP54 8</td>
<td>8</td>
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</tbody>
</table>
PF Filter Fans

Mechanical Data:
PF 1000

Φ 3.94" 100 mm

Installation Cutout
92 mm x 92 mm
3.62" x 3.62
Standard Panel Size

PF 2000

Φ 5.71" 145 mm

Installation Cutout
125 mm x 125 mm
4.92" x 4.92"

PF 2500 & 3000

Φ 9.65" 245 mm

Installation Cutout
223 mm x 223 mm
8.78" x 8.78"

PF 5000, 6000 & 7000

Φ 12.80 325 mm

Installation Cutout
291 mm x 291 mm
11.47" x 11.47"

Note: All cutout tolerances +1/- 0 mm

Technical references and DXF downloads available at www.hammfg.com
All dimensions in inches unless specified otherwise
Exhaust Filters
- Built to IP54 standards (except PFA1000 - IP43 standards).
- ABS-FR grills (except PF1000 Series which is polystyrene FR).
- Self-extinguishing, re-usable filter mat.
- Grills are black to complement all cabinet colors.
- Grills also available (see below)
- Integral gasket seals against enclosure.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Filter Density (g/m²)</th>
<th>Filtering Level</th>
<th>Comparable IP Standard</th>
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<tbody>
<tr>
<td>PFA1000</td>
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<td>IP43</td>
</tr>
<tr>
<td>PFA2000</td>
<td>150</td>
<td>73%</td>
<td>IP54</td>
</tr>
<tr>
<td>PFA3000</td>
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<td>IP54</td>
</tr>
<tr>
<td>PFA5000</td>
<td>150</td>
<td>73%</td>
<td>IP54</td>
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</table>

Replacement Grill
- Packaged individually.
- Consists of replacement grill only.

<table>
<thead>
<tr>
<th>Black Part No.</th>
<th>RAL7032 Beige Part No.</th>
<th>Use With Filter Fan</th>
<th>Use With Exhaust Filter</th>
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<tr>
<td>PG1BK</td>
<td>PG1RAL</td>
<td>PF1000</td>
<td>PFA1000</td>
</tr>
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<td>PG2BK</td>
<td>PG2RAL</td>
<td>PF2000</td>
<td>PFA2000</td>
</tr>
<tr>
<td>PG3BK</td>
<td>PG3RAL</td>
<td>PF2500/PF3000</td>
<td>PFA3000</td>
</tr>
<tr>
<td>PG5BK</td>
<td>PG5RAL</td>
<td>PF5000/PF6000/PF7000</td>
<td>PFA5000</td>
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</tbody>
</table>

Replacement Filters
- Packaged in quantities of 5.
- Made of self-extinguishing synthetic fibers.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Dimensions</th>
<th>Use With Filter Fan</th>
<th>Filter Density (g/m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PFF1000</td>
<td>inch 3.40</td>
<td>PF1000</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>mm 85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFF2000</td>
<td>inch 4.50</td>
<td>PF2000</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>mm 115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFF3000</td>
<td>inch 8.30</td>
<td>PF2500/PF3000</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>mm 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFF5000</td>
<td>inch 11.00</td>
<td>PF5000/PF6000/PF7000</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>mm 280</td>
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</tbody>
</table>

Call Hammond for other Cooling Solutions....
- Intergral Door Air Conditioners
- Air/Water Heat Exchangers
- Custom Air/Air Heat Exchangers
- EMC Filter Fans
- other customer cooling solutions through our knowlegeable Pfannenberg experts
Applications

- NEMA 3R / Outdoor Rainhoods Standard Filterfans
- Fits sizes PF 2000, PF 25/3000 & PF 5/6/7000 Units
- 304 Stainless Steel Design for use on Washdown NEMA 4X enclosures
- Due to dust protection regulations, NEMA 4/4X rating on these systems is not possible.
- Gasket and sealing washers included.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Goes With</th>
<th>Color</th>
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<tbody>
<tr>
<td>PFRH2000LG</td>
<td>PF/PFA2000</td>
<td>RAL7035</td>
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<td>PF/PFA2000</td>
<td>ANSI 61 Grey</td>
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<tr>
<td>PFRH2000SS</td>
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</tr>
<tr>
<td>PFRH3000LG</td>
<td>PF/PFA2500/3000</td>
<td>RAL7035</td>
</tr>
<tr>
<td>PFRH3000GY</td>
<td>PF/PFA2500/3000</td>
<td>ANSI 61 Grey</td>
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<td>PF/PFA5000/6000/7000</td>
<td>304 Stainless Steel</td>
</tr>
</tbody>
</table>

Technical references and DXF downloads available at www.hammfg.com

All dimensions in inches unless specified otherwise

Series No. | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  |
-----------|----|----|----|----|----|----|----|----|----|----|
PFRH2000   | 6.85 | N/A | 0.97 | 1.48 | 4.75 | N/A | 4.92 | 0.75 | 7.60 | 10.56 |
PFRH3000   | 10.79 | 5.39 | 1.00 | 2.50 | 6.82 | N/A | 8.78 | 0.75 | 11.54 | 14.69 |
PFRH5000   | 13.74 | 6.87 | 1.14 | 2.15 | 5.86 | 5.86 | 11.45 | 0.75 | 14.49 | 18.63 |

Data Subject to change without notice
Filtered Fan Boxes and Filter Grills

**Description**
- In a typical cooling arrangement, the filtered fan box pulls air into the enclosures and the filter grill is used as an air outlet.
- The washable aluminum filter grill and the air filter are easily accessible and can be removed for cleaning.
- The filtered fan boxes are available in either 115 VAC or 230 VAC, 50/60 Hz.
- Filtered passive ventilation can be provided by an exhaust filter for either convection cooling or in combination with a fan in forced air cooling.

**Standards**
- UR/CUR/CE approved fan motors.
- CSA listed on fan only.

**Features**
- 115 VAC or 230 VAC, 50/60 Hz.
- 12" lead wires.
- Exceptionally quiet operation.
- Versatile mounting and adaptability.
- Heavy-gauge steel construction.
- Attractive stainless steel grills.
- Shipped with air flow to pressurize. Can be user modified to exhaust.
- Aluminum filter is coated with adhesive baffle surfaces for dust and dirt collection. Can be recoated after cleaning for optimum performance.
- Drilling template included.
- NOTE: One grill and filter are included with each fan package. Normally, an additional exhaust grill and filter are required for each installation and must be ordered separately.

**Accessories**
- Filter coat...see page 413
- Replacement Filter...see page 413

Technical references and DXF downloads available at www.hammfg.com  
All dimensions in inches unless specified otherwise
### Filtered Fan Boxes

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Free Flow Air Delivery CFM</th>
<th>Volts</th>
<th>RPM Nominal</th>
<th>Running Watts</th>
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<th>B</th>
<th>C</th>
<th>D</th>
<th>D'</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>Ship Ship Wt. lbs</th>
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</thead>
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<td>115</td>
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<td>XF4230</td>
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<td>3300</td>
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<td>8.88</td>
<td>3.00</td>
<td>7.13</td>
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### Exhaust Grill and Filters

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<th>D</th>
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<td>7.88</td>
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<td>8.50</td>
</tr>
<tr>
<td>XFG10</td>
<td>11.63</td>
<td>13.00</td>
<td>11.13</td>
<td>11.88</td>
<td>6.88</td>
<td>12.50</td>
</tr>
</tbody>
</table>

1 Dimension for mounting and cabinet cutout. Secure sheet metal with #8 hardware.

### Replacement Filters

<table>
<thead>
<tr>
<th>Part No</th>
<th>Pkg. Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>XFF4</td>
<td>3</td>
</tr>
<tr>
<td>XFF6</td>
<td>3</td>
</tr>
<tr>
<td>XFF10</td>
<td>3</td>
</tr>
</tbody>
</table>

## Filter Coat

- Provides a filter adhesive with a grease-like consistency which absorbs and traps dust particles.
- 10 oz. bottle with environmentally friendly trigger spray.

### Cutout Detail

![Cutout Detail Diagram]

Technical references and DXF downloads available at www.hammfg.com

All dimensions in inches unless specified otherwise

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Canada: 519.822.2960 or 905.456.3770 USA: 716.630.7030
Data Subject to change without notice
**Filter Fan Grills**
- Mounts easily with 4 screws using the template provided.
- All mounting hardware included.
- Standard 80mm/3.15” and 120mm/4.00” fans can be attached with hardware provided to make a filter fan.
- Can be used alone as an enclosure exhaust.
- Moulded in flame retardant ABS.
- Flame retardant synthetic filter supplied.
- Integral gasket on reverse of grill seals against enclosure surface.
- Available in black, RAL7032 beige and ASA61/RAL7011 gray to match enclosures.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size(mm)</th>
<th>Size (In.)</th>
<th>CFM</th>
<th>AC Voltage</th>
<th>Use Fan Guard</th>
<th>Use Filter Fan Grill</th>
</tr>
</thead>
<tbody>
<tr>
<td>XPFA80BK</td>
<td>80</td>
<td>3.15</td>
<td>32</td>
<td>115</td>
<td>FAN80AC115</td>
<td>XPFA80...1</td>
</tr>
<tr>
<td>XPFA120BK</td>
<td>120</td>
<td>4.70</td>
<td>100</td>
<td>115</td>
<td>DNMF100AC115</td>
<td>DNFG</td>
</tr>
</tbody>
</table>

**Accessories**
- Spare hardware kit, Part No. 1421F4

---

**Climate Control**

**AC Fans and Guards**

**Fan Cords and Daisy Chains (10 amp, 115V)**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Lead Length (In)</th>
<th>Connector</th>
<th>Fan End Termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNMFC</td>
<td>Fan Cord</td>
<td>24&quot; Straight</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>DNFC48P</td>
<td>Fan Cord</td>
<td>48&quot; 45°</td>
<td>2 pin 115V plug</td>
<td></td>
</tr>
<tr>
<td>DNFC72P</td>
<td>Fan Cord</td>
<td>72&quot; 45°</td>
<td>2 pin 115V plug</td>
<td></td>
</tr>
<tr>
<td>DNFCDC2P</td>
<td>Daisy Chain</td>
<td>24&quot; 2x45°, 24&quot; apart</td>
<td>2 pin 115V plug</td>
<td></td>
</tr>
<tr>
<td>DNFCDC3P</td>
<td>Daisy Chain</td>
<td>24&quot; 3x45°, 24&quot; apart</td>
<td>2 pin 115V plug</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Size(mm)</th>
<th>Size (In.)</th>
<th>CFM</th>
<th>AC Voltage</th>
<th>Use Fan Guard</th>
<th>Use Filter Fan Grill</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAN80AC115</td>
<td>80</td>
<td>3.15</td>
<td>32</td>
<td>115</td>
<td>FAN80FG</td>
<td>XPFA80...1</td>
</tr>
<tr>
<td>FAN80AC230</td>
<td>120</td>
<td>4.70</td>
<td>100</td>
<td>115</td>
<td>DNFG</td>
<td>XPFA80...1</td>
</tr>
<tr>
<td>DNMF100AC115</td>
<td>150</td>
<td>6.00</td>
<td>210</td>
<td>115</td>
<td>FAN150FG</td>
<td>n/a</td>
</tr>
<tr>
<td>DNMF100AC230</td>
<td>255</td>
<td>10.00</td>
<td>550</td>
<td>115</td>
<td>FAN10FG</td>
<td>n/a</td>
</tr>
</tbody>
</table>

*...* specify color - BK (black), CG (RAL 7032) or GY (ASA61 gray)

**Accessories**
- Spare hardware kit, Part No. 1421F4

---

Technical references and DXF downloads available at www.hammfg.com

All dimensions in inches unless specified otherwise
Top Mount Fan
- Mounts to top of enclosure.
- Ideal for use with IME Series (not compatible with 400mm deep IMET cabinets).
- 470 CFM free flow, 375 CFM using PFA6000 as inlet.
- 115V 50/60Hz
- Terminal block connection.
- 20.9” x 13.8” x 4.3”H
- UL/cUL Approved.
- Gasket seal- IP33 ingress protection level.
- Finished in RAL7032 beige.

Punched 19” Fan Panels
- Create your own rack mount fan or filter fan from these panels.
- Black powder coated steel.
- Also available in 24” and other widths or custom configurations.
- Fans sold separately

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Panel Size</th>
<th>Cutouts for Std. Fans</th>
<th># Holes</th>
<th>Optional Fan Part No. (115V)</th>
<th>Optional Fan Guard Grill</th>
<th>Optional Filter Grill (Black)</th>
<th>Optional Replacement Filter (pkg. 5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPFP190802BK1</td>
<td>3U</td>
<td>80mm/3.15”</td>
<td>2</td>
<td>FAN80AC115</td>
<td>FAN80FG</td>
<td>XPFA80BK</td>
<td>PFF1000</td>
</tr>
<tr>
<td>PPFP190803BK1</td>
<td>3U</td>
<td>80mm/3.15”</td>
<td>3</td>
<td>FAN80AC115</td>
<td>FAN80FG</td>
<td>XPFA80BK</td>
<td>PFF1000</td>
</tr>
<tr>
<td>PPFP191202BK1</td>
<td>4U</td>
<td>120mm/4.70”</td>
<td>2</td>
<td>DNMF100AC115</td>
<td>DNFG</td>
<td>XPFA120BK</td>
<td>PFF2000</td>
</tr>
</tbody>
</table>

Punched 19” Grill Panels (with integral front finger guard)

- Technical references and DXF downloads available at www.hammfmg.com
- All dimensions in inches unless specified otherwise

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Canada: 519.822.2960 or 905.456.3770 USA: 716.630.7030 Data Subject to change without notice
Fan Tray
300, 600 and 900 CFM

Application
• Rack mount fan trays provide a compact, economical solution for cooling in electronic cabinets.
• Fan trays can be positioned at the bottom of an enclosure to force air through the cabinet, at the top to exhaust air out of the cabinet or below specific pieces of equipment for spot cooling.

Standards
• UR/CUR listed

Features
• 300, 600 and 900 CFM sizes.
• 115VAC, 50/60Hz.
• 19” panel width mounting.
• Low profile 1.75” (1U) height.
• 600 and 900 CFM units include removable rear support brackets.
• Circuit breaker protected.
• 6 foot 14/3 SJTW cord with molded 3 prong plug.
• Thermally protected, ball bearing fans.
• Integral finger guards above and below fans.
• Shipped fully assembled.
• Available with or without ON/OFF switch.

Finish
• Stocked in textured, black body finish.
• Textured black face panel.

Options
• Contact Hammond for information on:
  • 24” panel width mounting.
  • 230 V version (without plug).
  • 15 foot cord
  • Optional colors

Technical references and DXF downloads available at www.hammfg.com

<table>
<thead>
<tr>
<th>Without Switch Part No.</th>
<th>With Lighted Switch Part No.</th>
<th>CFM</th>
<th>Running Amps</th>
<th>Watts</th>
<th>Panel Width</th>
<th>Case Width</th>
<th>Case Depth</th>
<th>Rear Bracket Depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT300TA1BK</td>
<td>FT300HA1BK</td>
<td>300</td>
<td>0.5</td>
<td>40</td>
<td>19</td>
<td>17.00</td>
<td>7.50</td>
<td>n/a</td>
</tr>
<tr>
<td>FT600TA1BK</td>
<td>FT600HA1BK</td>
<td>600</td>
<td>1.0</td>
<td>80</td>
<td>19</td>
<td>17.00</td>
<td>13.00</td>
<td>2.40</td>
</tr>
<tr>
<td>FT900TA1BK</td>
<td>FT900HA1BK</td>
<td>900</td>
<td>1.5</td>
<td>120</td>
<td>19</td>
<td>17.00</td>
<td>18.50</td>
<td>7.90</td>
</tr>
</tbody>
</table>

Note: All cad drawings are shown with optional lighted switch. All units are also available without switch - see chart below.

All dimensions in inches unless specified otherwise.
General Information

Heating products protect electronic and electrical components from temperature problems that are below acceptable tolerances. There are obvious circumstances when extremely low ambient (outside cabinet) temperatures would require a heater, but there are also less apparent times that a heater should be considered. For example, a system may run all day having its components generate heat, but once the system shuts down for the night, the quick drop in temperature could cause condensation and possibly corrosion - a heater could maintain a safe, constant temperature.

Combined Cooling and Heating

Some components today are sensitive enough that both cooling and heating could be required in the same enclosure. When designing your system, be aware of the need to maintain a relatively constant temperature inside the enclosure as ambient temperatures swing from cool to very hot. Hammond thermostats (one for heaters and one for cooling products) can control both systems automatically.

Heater Sizing Information

\( P_H = \) Total power required for this application (W)
\( P_V = \) Existing power from components (W)
\( DT = \) Temperature differential (Kelvin) ambient to cabinet interior (1°Kelvin = 1°C = 1.8°F)
\( A = \) Free-standing cabinet surface area (ft²)
\( k = \) Heat transmission coefficient (W/ft² K) convection in quiet air:
- Painted steel approx. 0.51 W/ft² K
- Aluminum approx. 1.115 W/ft² K
- Plastic approx. 0.325 W/ft² K
- Stainless Steel approx. 0.344 W/ft² K

Formula

\[ P_H = (DT \times k \times A) - P_V \]

If enclosure located outside, use \( x2 \) (DT x k x A)

Sample with solution:

\( DT = 5K \)
\( k = \) Painted steel = 0.51 W/ft²
\( A = 50 \text{ ft}^2 \)
\( P_V = 50 \text{ W} \)
\( P_H = (5 \times 0.51 \times 50) - 50 \)
\[ = 127.5 - 50 \]
\[ = 77.5 \text{ W} \]

Recommend: SHP045039, 80W Heater