



PF/PFA Series Filterfans 4.0™ and Exhaust Filters

Trust in the Original

Otto Pfannenber's invention of the Filterfan® in 1958 was a milestone in the area of industrial thermal management. As a result of over 50 years of experience and continuous development, Pfannenber's Filterfans® have evolved into the trusted name for forced convective cooling to circulate and cool the air in your cabinets.

With our flow optimized fins and rotor blades, the Filterfan 4.0™ reaches a particularly high airflow and at the same time provide an IP 55, Type 12 system of protection. The flat-profile, uni-colored design complements modern machines and plants.

Pfannenber's patented click mechanism on our Filterfans 4.0™ have a unique patented 4-corner fastening system enabling safe and quick, tool-free installation allowing the filter medium to be replaced in seconds.

The fluted filter mat's folded structure provides an unrivaled airflow guaranteeing NEMA Type 12 protection, while also extending the filters lifetime 300% longer than conventional filter.

All in all, our Filterfans 4.0™ contain 11 field-proven patented features.



THE TECHNOLOGY OF COOLING

Cooling with Filterfans®

If the installation will be in a clean, non-hazardous environment with an acceptable ambient (outside the enclosure) temperature range, a simple forced-air cooling system utilizing outside air is usually adequate. Combined with an air filter, such devices generally meet the heat removal needs of typical electronic equipment and many electrical applications.

How do I know if a Filterfan® is the right product for my application?

- If the temperature rise inside the enclosure can be higher than the ambient.
- If multiple configurations are needed. Filterfans® can be located in a number of locations within complex enclosure configurations.

Calculating the required airflow

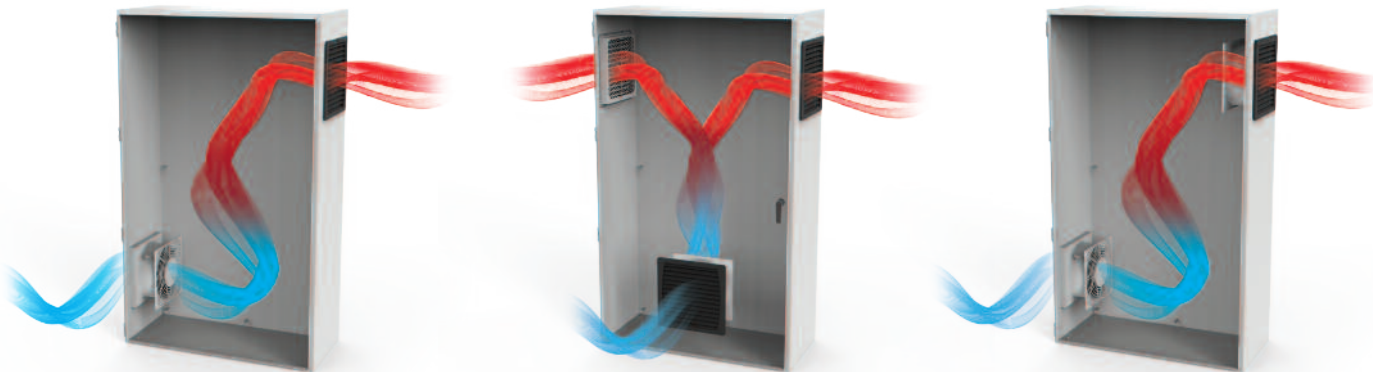
To properly size a Filterfan® it's important to understand how static pressure effects the performance of a fan. See [Understanding CFM](#) on the opposite page.

$$V = \frac{1.82 (P_D)}{\Delta T} [cfm]$$

- **V[cfm]:**
Airflow volume of Filterfans®
- **P_D [Watt]:**
Dissipation loss: Thermal power generated inside a cabinet by the dissipation loss of components
- **ΔT[°C]:**
Difference in temperature between the ambient and inside the electronic cabinet

Utilizing Filterfans®

- Always use the Filterfans® to propel the cool ambient air into enclosure.
- Slight positive pressure builds up inside the cabinet so that only air filtered by the Filterfans® flows into the enclosure.
- The air propelled into the cabinet displaces the warm air which exits through the exhaust filter.
- When installing a combination of Filterfans® and exhaust filters, fit the Filterfans® in the lower third of the cabinet and the exhaust filter(s) near the top of the cabinet.



Model No.	CFM (Filterfan® + exhaust filter)
PF11000	11
PF22000	28
PF32000	38
PF42500	74
PF43000	122
PF65000	224
PF66000	295
PF 67000	368

Model No.	CFM (Filterfan® + 2 exhaust filters)
PF11000	12
PF22000	31
PF32000	47
PF42500	79
PF43000	138
PF65000	256
PF66000	335
PF 67000	452

Model No.	CFM (Filterfan® intake + Filterfan® exhaust)
PF11000	31
PF22000	68
PF32000	95
PF42500	109
PF43000	202
PF65000	440
PF66000	832
PF 67000	1008

FILTERFANS 4.0™ QUICK SELECTION CHART

Type	Air flow rate¹	Rated voltage	Cut-out dimensions (HxW)³ inches (mm)	Approvals					Page	
	CFM² (Type 12 / IP 55)			UL	cUL	GOST	CSA	CE		
PF Series Filterfans 4.0™										
PF 11000	17	115 V / 230 V AC	3.62 x 3.62 (92 x 92)	●	●	●	●	●	19	
		24 V DC								
PF 22000	38	115 V / 230 V AC	4.92 x 4.92 (125 x 125)	●	●	●	●	●	19	
		24 V DC								
PF 32000	65	115 V / 230 V AC	6.97 x 6.97 (177 x 177)	●	●	●	●	●	20	
		24 V DC								
PF 42500	94	115 V / 230 V AC	8.78 x 8.78 (223 x 223)	●	●	●	●	●	21	
		24 V DC								
PF 43000	169	115 V / 230 V AC	8.78 x 8.78 (223 x 223)	●	●	●	●	●	21	
		24 V DC								
PF 65000	297	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●	●	●	●	22	
PF 66000	462	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●	●	●	●	23	
		400 V / 460 V 3 Ø								
PF 67000	560	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●	●	●	●	23	
		400 V / 460 V 3 Ø								
PF Slim Line Filterfans 4.0™										
PF 33000 SL	152	115 V / 230 V AC	6.97 x 6.97 (177 x 177)	●	●			●	20	
PF 65000 SL	325	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●		●	●	22	
PF 67000 SL	427	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●		●	●	23	
		400 V / 460 V 3 Ø								
PTF Series Top-Mounted Filterfans 4.0™										
PTF 60500	206	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●	●		●	24	
PTF 60700	324	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●	●		●	24	
		400 V / 460 V 3 Ø								
PTF 61000	441	115 V / 230 V AC	11.46 x 11.46 (291 x 291)	●	●	●		●	24	
PTFA Series Top Exhaust Filters										
PTFA 60000	N/A	N/A	11.46 x 11.46 (291 x 291)	●	●	●		●	24	
PFA Series exhaust filters										
PFA 10000	N/A	N/A	3.62 x 3.62 (92 x 92)	●	●	●	●	●	25	
PFA 20000			4.92 x 4.92 (125 x 125)	●	●	●	●	●	25	
PFA 30000			6.97 x 6.97 (177 x 177)	●	●	●	●	●	25	
PFA 40000			8.78 x 8.78 (223 x 223)	●	●	●	●	●	25	
PFA 60000			11.46 x 11.46 (291 x 291)	●	●	●	●	●	25	

¹ free-blowing

• available ○ pending

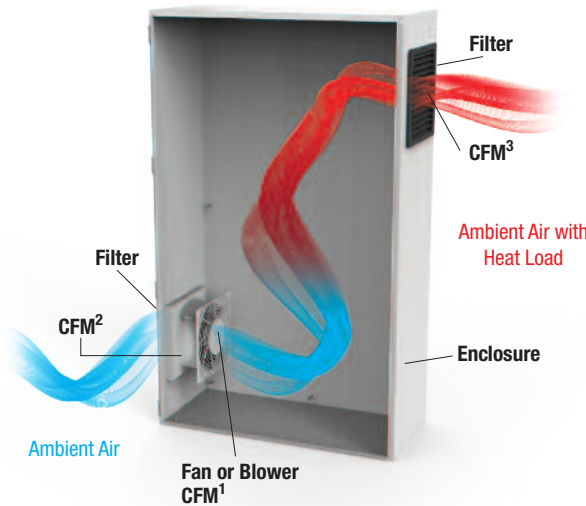
Understanding CFM

Model No.	CFM¹	CFM²	CFM³
PF11000	36	17	11
PF22000	105	38	28
PF32000	105	65	38
PF42500	121	94	74
PF43000	224	155	122
PF65000	489	297	224
PF66000	1024	462	295
PF 67000	1250	560	368

¹ Fan only (unfiltered)

² Filterfan® assembly (uninstalled)

³ Single Filterfan® installed on an enclosure with one filtered exhaust assembly
(Note: Always calculate cooling capacity of Filterfans® with the CFM³ value.)



FILTERFANS 4.0™
Filterfans® / Exhaust Filters

Trust in the Original. Otto Pfannenbergs invention of the Filterfan® in 1958 was a milestone in the area of industrial thermal management. Today Pfannenberg provides a wide range of different solutions for industrial thermal management and is thus one of the few specialists that can provide the appropriate devices for virtually all industrial requirements – worldwide.

NEMA Type 12 Protection

The closed frame design prevents unfiltered air from penetrating the cabinet.

Highest Quality Fans

German manufactured fans that exceed industry standards for quality, performance and service life.

Highest System Airflow Compared to Competitors Filter Fans.

The design of the louvers supports the greatest airflow while further protecting against airborne dust and dirt.

Patented Tool-Less 4 Corner Fastening System

The patented fastening system allows for fast installation (possible to install in seconds) and easy removal reducing MTR.

Aesthetically Pleasing Design Using Neutral Colors

Available in a standard RAL 7035 Grey and an optional Black color. These units blend in well with the modern styles and colors used for existing machines and systems.

300% Longer Service Time via Patented Fluted Filter Mat

A larger surface area on the filter mat allows for a high filtration level, greater service life and maximum airflow. Saving time and money.

Globally Compatible

ERP compliant to meet European efficiency directives. Units also comply with additional national and international standards, e.g. TÜV, NEMA, UL, CSA and EAC.

Versatile Options

Options including UV Protected Plastic for use in direct sunlight, EMC shielding to attenuate RF signals and exhausting fans for custom applications.

PF SERIES
FILTERFANS 4.0™



PF 11000

- Airflow rate up to 17 CFM
• System of protection IP 54, NEMA type 12
• Cut-out dimensions: 92 x 92 mm



Table with 4 columns: Parameter, Value, System of protection (UL 50), NEMA Type 12 - standard filter. Rows include Available voltages, Design, Service life, Weight, Color, Noise level, Type of connection, Bearing type, Approvals, Power consumption, Width x height x depth, and System of protection.

PF 22000

- Airflow rate up to 38 CFM
• System of protection IP 55, NEMA type 12
• Cut-out dimensions: 125 x 125 mm



Table with 4 columns: Parameter, Value, System of protection (UL 50), NEMA Type 12 - fluted filter. Rows include Available voltages, Design, Service life, Weight, Color, Noise level, Type of connection, Bearing type, Approvals, Power consumption, Width x height x depth, and System of protection.

*Consult factory for additional options



Energy Savings Solution

DID YOU KNOW?

Installing a thermostat with a Filterfan® can save energy and extend the service life of the Filterfan®.

Pfannenbergs FLZ 530 Thermostats are designed to work directly with our Filterfans®. This provides efficient operation of the Filterfan® based on the temperature setting leading to greater reliability within the production process.

For additional thermostat models please visit the Heaters & Thermostat section found within this catalog.

Table with 3 columns: Model number, Range, Part Number. Row for FLZ 530 with range 0-60 °C and 32-140 °F.

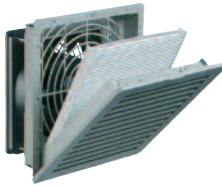


PF SERIES

FILTERFANS 4.0™

PF 32000

- Airflow rate up to 65 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 177 x 177 mm



PF 32000 FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 24 VDC	System of protection (UL 50)	NEMA Type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h / 37,500 h / 62,500 h (DC)	Unimpeded airflow	65 CFM
Weight	1.9 lb / 1.3 lb (DC)	Airflow rate in combination (PF + PFA 30.000)	38 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	40 dB (A)	Part no. * 115 V, Lt. Grey	11632154055
Type of connection	terminal strip / cable, 2 core, length 310 mm	Part no. * 115 V, Black	11632154050
Bearing type	sleeve bearing / ball bearing (DC)	Part no. * 230 V, Lt. Grey	11632104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11632104050
Power consumption	20 W / 18 W / 5 W (DC)	Part no. * 24 VDC, Lt. Grey	11632804055
Width x height x depth	7.95 x 7.95 x 3.66 in	Part no. * 24 VDC, Black	11632804050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600035
		Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

PF 33000 SL SLIM LINE FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 24 VDC	System of protection (UL 50)	NEMA Type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h / 80,000 h (DC)	Unimpeded airflow	152 CFM
Weight	3.68 lb	Airflow rate in combination (PF + PFA 30.000)	115 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	42 dB (A)	Part no. * 115 V, Lt. Grey	11633156055
Type of connection	cables (DC) / Terminal (AC)	Part no. * 115 V, Black	11633156050
Bearing type	ball bearing (DC)	Part no. * 230 V, Lt. Grey	11633106055
Approvals	UL, CE, CSA	Part no. * 230 V, Black	11633106050
Power consumption	40 W / 39 W / 12 W (DC)	Part no. * 24 VDC, Lt. Grey	11633806055
Width x height x depth	7.95 x 7.95 x 3.70 in	Part no. * 24 VDC, Black	11633806050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600035
		Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

*Consult factory for additional options



DID YOU KNOW?

That if you need to install a Filterfan® in an environment that requires additional protection from the weather or a directed water spray, Pfannenberg offers protective hoods. These NEMA 3R/4 Rain Hoods offer protection from falling water, snow/ice and washdown spray with minimal airflow reduction. The hoods are available in light grey or dark grey to match your enclosures and a 4X stainless steel option. **Note: This technique will not prevent hazardous gases or humidity from entering the cabinet.**

Turn to page 27 for an overview of our new and improved rainhoods.

PF SERIES

FILTERFANS 4.0™

PF 42500

- Airflow rate up to 94 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 223 x 223 mm



PF 42500 FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 24 VDC	System of protection (UL 50)	NEMA Type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	42,500 h / 40,000 h / 70,000 h (DC)	Unimpeded airflow	94 CFM
Weight	3 lb / 2 lb (DC)	Airflow rate in combination (PF + PFA 40.000)	74 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	43 dB (A)	Part no. * 115 V, Lt. Grey	11642154055
Type of connection	spring-type terminal	Part no. * 115 V, Black	11642154050
Bearing type	ball bearing	Part no. * 230 V, Lt. Grey	11642104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11642104050
Power consumption	17 W / 4.7 W (DC)	Part no. * 24 VDC, Lt. Grey	11642804055
Width x height x depth	9.92 x 9.92 x 4.05 in	Part no. * 24 VDC, Black	11642804050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600036
		Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

PF 43000 FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 24 VDC	System of protection (UL 50)	NEMA Type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h / 80,000 h (DC)	Unimpeded airflow	155 CFM
Weight	3.68 lb / 3.33 lb (DC)	Airflow rate in combination (PF + PFA 40.000)	122 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	46 dB (A) / 42 dB (A) (DC)	Part no. * 115 V, Lt. Grey	11643154055
Type of connection	spring-type terminal	Part no. * 115 V, Black	11643154050
Bearing type	ball bearing	Part no. * 230 V, Lt. Grey	11643104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11643104050
Power consumption	40 W / 39 W / 12 W (DC)	Part no. * 24 VDC, Lt. Grey	11643804055
Width x height x depth	9.92 x 9.92 x 4.69 in	Part no. * 24 VDC, Black	11643804050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600036
		Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

*Consult factory for additional options

PF 43000

- Airflow rate up to 155 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 223 x 223 mm



DID YOU KNOW?

Untreated plastics exposed to continuous sunlight will experience UV degradation; becoming damaged, cracked and brittle. Pfannenberg's specially treated IP55 UV-Resistant Plastic Filterfans® and UV-Resistant Plastic Exhaust Filters are the best option for use in outdoor applications exposed to the sun.

Protect your investment, reduce maintenance costs and extend the life of the product.

Available in PF 22000 - PF 67000 series models. Just add "UV" to the model number when ordering.



PF SERIES

FILTERFANS 4.0™

PF 65000

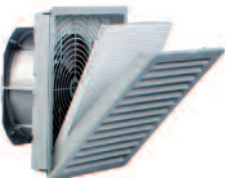
- Airflow rate up to 297 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PF 65000 FILTERFANS®			
Available voltages ± 10%	115 V, 230 V	System of protection (EN 60529)	IP 55
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	System of protection (UL 50)	NEMA Type 12 - fluted filter
Service life L ₁₀ (+ 40 °C)	40,000 h	Filter mat quality class	G 4
Weight	7 lb	Unimpeded airflow	297 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Airflow rate in combination (PF + PFA 60.000)	224 CFM
Noise level (EN ISO 3741)	52 dB (A)	Filtration efficiency	91%
Type of connection	spring-type terminal	Part no. * 115 V, Lt. Grey	11665154055
Bearing type	ball bearing	Part no. * 115 V, Black	11665154050
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Lt. Grey	11665104055
Power consumption	90 W / 80 W	Part no. * 230 V, Black	11665104050
Width x height x depth	12.6 x 12.6 x 6.18 in	Part no. Spare part filter mats (5 pieces)	18611600037
System of protection (EN 60529)	IP 55	Part no. NEMA Type 3R Rainhood *	See page 27 for part no.

PF 65000 SL

- Airflow rate up to 325 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PF 65000 SL SLIM LINE FILTERFANS®			
Available voltages ± 10%	115 V, 230 V	System of protection (UL 50)	NEMA type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h	Unimpeded airflow	325 CFM
Weight	7 lb	Airflow rate in combination (PF + PFA 60.000)	249 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	52 dB (A)	Part no. * 115 V, Lt. Grey	11675154055
Type of connection	spring-type terminal	Part no. * 115 V, Black	11675154050
Bearing type	ball bearing	Part no. * 230 V, Lt. Grey	11675104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11675104050
Power consumption	80 W	Part no. Spare part filter mats (5 pieces)	18611600037
Width x height x depth	12.6 x 12.6 x 5.16 in	Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.
System of protection (EN 60529)	IP 55		

*Consult factory for additional options

DID YOU KNOW?

Installing a standard intake Filterfan® lower than the exhaust filter is the most efficient method for removing heat from an enclosure. There are times when the placement of internal electronics prevents this type of installation. You can flip the fan in the field or you can order reverse flow Filterfans® that exhausts air from the upper portion of the enclosure. This process creates a partial vacuum allowing air to be drawn in through a PFA Exhaust Filter maintaining the same system airflow. Reverse Filterfans® can also be used in series with intake Filterfans® to increase airflow through the system.

Reverse flow Filterfans® are available for all models. Just add "A" to the model number when ordering. Consult factory for 11 digit part number.

PF SERIES

FILTERFANS 4.0™

PF 66000

- Airflow rate up to 462 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PF 66000 FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 400 / 460 V	System of protection (UL 50)	NEMA type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h	Unimpeded airflow	462 CFM
Weight	7 lb	Airflow rate in combination (PF + PFA 60.000)	295 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	64 dB (A)	Part no. * 115 V, Lt. Grey	11666154055
Type of connection	spring-type terminal	Part no. * 115 V, Black	11666154050
Bearing type	ball bearing	Part no. * 230 V, Lt. Grey	11666104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11666104050
Power consumption	160 W / 150 W / 155 W	Part no. * 400/460 V, Lt. Grey	11666024055
Width x height x depth	12.6 x 12.6 x 6.18 in	Part no. * 400/460 V, Black	11666024050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600037
		Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

PF 67000

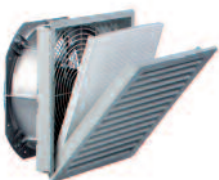
- Airflow rate up to 560 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PF 67000 FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 400 / 460 V	System of protection (UL 50)	NEMA type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h	Unimpeded airflow	560 CFM
Weight	8.16 lb	Airflow rate in combination (PF + PFA 60.000)	368 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	66 / 69 dB (A)	Part no. * 115 V, Lt. Grey	11667154055
Type of connection	spring-type terminal	Part no. * 115 V, Black	11667154050
Bearing type	ball bearing	Part no. * 230 V, Lt. Grey	11667104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11667104050
Power consumption	195 W / 200 W / 170 W	Part no. * 400/460 V, Lt. Grey	11667024055
Width x height x depth	12.6 x 12.6 x 6.18 in	Part no. * 400/460 V, Black	11667024050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600037
		Part no. NEMA Type 3R Rainhood *	See page 27 for part no.

PF 67000 SL

- Airflow rate up to 427 CFM
- System of protection IP 55, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PF 67000 SL SLIM LINE FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 400 / 460 V	System of protection (UL 50)	NEMA type 12 - fluted filter
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO	Filter mat quality class	G 4
Service life L ₁₀ (+ 40 °C)	40,000 h	Unimpeded airflow	427 CFM
Weight	8.82 lb / 8.93 lb / 8.49 lb	Airflow rate in combination (PF + PFA 60.000)	342 CFM
Color	RAL 7035 (Lt. Grey) RAL 9011 (Black)	Filtration efficiency	91%
Noise level (EN ISO 3741)	69 dB (A)	Part no. * 115 V, Lt. Grey	11677154055
Type of connection	spring-type terminal	Part no. * 115 V, Black	11677154050
Bearing type	ball bearing	Part no. * 230 V, Lt. Grey	11677104055
Approvals	UL, cUL, CE, (on request: GOST)	Part no. * 230 V, Black	11677104050
Power consumption	165 W / 180 W / 165 W	Part no. * 400/460 V, Lt. Grey	16677124055
Width x height x depth	12.6 x 12.6 x 5.27 in	Part no. * 400/460 V, Black	16677124050
System of protection (EN 60529)	IP 55	Part no. Spare part filter mats (5 pieces)	18611600037
		Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

*Consult factory for additional options

DID YOU KNOW?

Pfannenberg's Filterfans 4.0™ were developed and optimized after more than 1,000 tests in our modern test laboratory. Our engineers use specially designed climate chambers to test and measure the capabilities of our thermal management products.



PTF SERIES
ROOF MOUNT FILTERFANS®

PTF 60500

- Airflow rate up to 206 CFM
- Tool-less mounting, patented quick fastening system
- System of protection IP 54, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PTF 60500 ROOF MOUNT FILTERFANS®			
Available voltages ± 10%	115 V, 230 V	Width x Depth x Height	16.93 x 16.93 x 4.92
Design (housing and protection against accidental contact)	sheet steel, cover powder-coated; snap-in housing made of injection-molded thermoplastic (ABS-FR) self-extinguishing, UL 94 VO	System of protection (EN 60529 / UL 50)	IP 54
Service life L ₁₀ (+ 40 °C)	approx. 50,000 h	Filter mat quality class	G 3
Weight	5.5 lb	Unimpeded airflow	206 CFM
Color	RAL 7035 (Lt. Grey)	Airflow rate in combination (PF + PFA 60.000)	142 CFM
Noise level (EN ISO 3741)	67 dB (A)	Filtration efficiency	81% 0%
Type of connection	terminal strip	Part no. * (115 V)	11685151055
Bearing type	ball bearing	Part no. Spare part filter mats (20 pieces)	18611600038
Approvals	UL, cUL, CE, (on request: GOST)		
Power consumption	4 x 24 W / 4 x 29 W		

PTF 60700

- Airflow rate up to 324 CFM
- Tool-less mounting, patented quick fastening system
- System of protection IP 54, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PTF 60700 ROOF MOUNT FILTERFANS®			
Available voltages ± 10%	115 V, 230 V, 400 / 460 V	Width x Depth x Height	18.5 x 18.5 x 5.51 in
Design (housing and protection against accidental contact)	sheet steel, cover powder-coated; snap-in housing made of injection-molded thermoplastic (ABS-FR) self-extinguishing, UL 94 VO	System of protection (EN 60529 / UL 50)	IP 54
Service life L ₁₀ (+ 40 °C)	approx. 40,000 h	Filter mat quality class	G 3
Weight	5.8 lb	Unimpeded airflow	324 CFM
Color	RAL 7035 (Lt. Grey)	Airflow rate in combination (PF + PFA 60.000)	218 CFM
Noise level (EN ISO 3741)	69 dB (A)	Filtration efficiency	81%
Type of connection	terminal strip	Part no. * (115 V)	11687152055
Bearing type	ball bearing	Part no. Spare part filter mats (20 pieces)	18611600039
Approvals	UL, cUL, CE, (on request: GOST)		
Power consumption	90 W / 80 W		

PTF 61000

- Airflow rate up to 441 CFM
- Tool-less mounting, patented quick fastening system
- System of protection IP 54, NEMA type 12
- Cut-out dimensions: 291 x 291 mm



PTF 61000 ROOF MOUNT FILTERFANS®			
Available voltages ± 10%	115 V, 230 V	Width x Depth x Height	18.5 x 18.5 x 5.51 in
Design (housing and protection against accidental contact)	sheet steel, cover powder-coated; snap-in housing made of injection-molded thermoplastic (ABS-FR) self-extinguishing, UL 94 VO	System of protection (EN 60529 / UL 50)	IP 54
Service life L ₁₀ (+ 40 °C)	approx. 40,000 h	Filter mat quality class	G 3
Weight	6 lb	Unimpeded airflow	441 CFM
Color	RAL 7035 (Lt. Grey)	Airflow rate in combination (PF + PFA 60.000)	294 CFM
Noise level (EN ISO 3741)	77 dB (A)	Filtration efficiency	81%
Type of connection	terminal strip	Part no. * (115 V)	11681152055
Bearing type	ball bearing	Part no. Spare part filter mats (20 pieces)	18611600039
Approvals	UL, cUL, CE, (on request: GOST)		
Power consumption	160 W / 150 W		

PTFA 60000

- Tool-less mounting, patented quick fastening system
- System of protection IP 54, NEMA type 12
- W x D x H: 16.93 x 16.93 x 4.92 in
- Cut-out dimensions: 291 x 291 mm



PTFA 60000 TOP MOUNT EXHAUST FILTERS	
Design (housing and protection against accidental contact)	sheet steel, cover powder-coated; snap-in housing made of injection-molded thermoplastic (ABS-FR) self-extinguishing, UL 94 VO
Color	RAL 7035 (Lt. Grey)
Approvals	UL, cUL, CE, (on request: GOST)
System of protection (EN 60529 / UL 50)	IP 54
Filter mat quality class	G 3
Part no. *	11186002054
Part no. Spare filter mats (20 pieces)	18611600038

*Consult factory for additional options

PFA SERIES
EXHAUST FILTERS

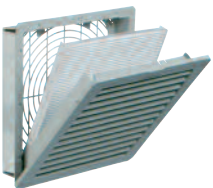
PFA 10000

- Snap fastener without screws
- Simple filter mat exchange
- With integrated foam seal to enclosure
- W x H x D: 4.29 x 4.29 x .90 in
- Cut-out dimensions: 92 x 92 mm
- Color: RAL 7035 (Lt. Grey) RAL 9011 (Black)



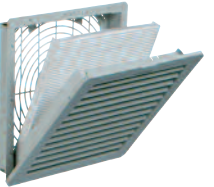
PFA 20000

- Snap fastener without screws
- Simple filter mat exchange
- With integrated foam seal to enclosure
- W x H x D: 5.71 x 5.71 x 1.22 in
- Cut-out dimensions: 125 x 125 mm
- Color: RAL 7035 (Lt. Grey) RAL 9011 (Black)



PFA 30000

- Snap fastener without screws
- Simple filter mat exchange
- With integrated foam seal to enclosure
- W x H x D: 7.95 x 7.95 x 1.57 in
- Cut-out dimensions: 177 x 177 mm
- Color: RAL 7035 (Lt. Grey) RAL 9011 (Black)



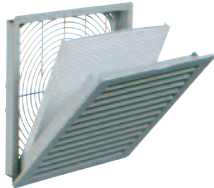
PFA 40000

- Snap fastener without screws
- Simple filter mat exchange
- With integrated foam seal to enclosure
- W x H x D: 9.92 x 9.92 x 1.74 in
- Cut-out dimensions: 223 x 223 mm
- Color: RAL 7035 (Lt. Grey) RAL 9011 (Black)



PFA 60000

- Snap fastener without screws
- Simple filter mat exchange
- With integrated foam seal to enclosure
- W x H x D: 12.6 x 12.6 x 1.8 in
- Cut-out dimensions: 291 x 291 mm
- Color: RAL 7035 (Lt. Grey) RAL 9011 (Black)



PFA 10000 EXHAUST FILTERS	
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO
Approvals	UL, cUL, CE, (on request: GOST)
Version	IP 54
System of protection (EN 60529 / UL 50)	NEMA type 12 - standard filter
Filter mat quality class	G 3
Part no. *	11710001055 (Lt. Grey)
Part no. *	11710001050 (Black)
Part no. Spare filter mats (5 pieces)	18611600029
Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

PFA 20000 EXHAUST FILTERS	
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO
Approvals	UL, cUL, CE, (on request: GOST)
System of protection (EN 60529 / UL 50)	NEMA type 12 - fluted filter
Filter mat quality class	G 4
Part no. *	11720004055 (Lt. Grey)
Part no. *	11720004050 (Black)
Part no. Spare filter mats (5 pieces)	18611600034
Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

PFA 30000 EXHAUST FILTERS	
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO
Approvals	UL, cUL, CE, (on request: GOST)
System of protection (EN 60529 / UL 50)	NEMA type 12 - fluted filter
Filter mat quality class	G 4
Part no. *	11730004055 (Lt. Grey)
Part no. *	11730004050 (Black)
Part no. Spare filter mats (5 pieces)	18611600035
Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

PFA 40000 EXHAUST FILTERS	
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO
Approvals	UL, cUL, CE, (on request: GOST)
System of protection (EN 60529 / UL 50)	NEMA type 12 - fluted filter
Filter mat quality class	G 4
Part no. *	11740004055 (Lt. Grey)
Part no. *	11740004050 (Black)
Part no. Spare filter mats (5 pieces)	18611600036
Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

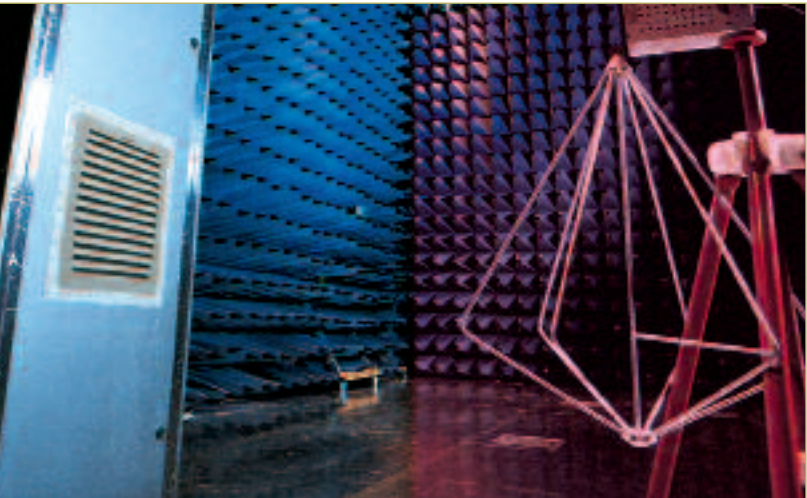
PFA 60000 EXHAUST FILTERS	
Design (housing and protection against accidental contact)	made of injection-molded thermoplastic, self-extinguishing, UL 94 VO
Approvals	UL, cUL, CE, (on request: GOST)
System of protection (EN 60529 / UL 50)	NEMA type 12 - fluted filter
Filter mat quality class	G 4
Part no. *	11760004055 (Lt. Grey)
Part no. *	11760004050 (Black)
Part no. Spare filter mats (5 pieces)	18611600037
Part no. NEMA Type 3R/4/4X Rainhoods *	See page 27 for part no.

*Consult factory for additional options

PF/PFA EMC SERIES

EMC FILTERFANS 4.0™ / EXHAUST FILTERS

Protect your sensitive electronics from electromagnetic interference when cooling with Filterfans®. The use of a Filterfan® for thermal management requires an opening to be cut into the cabinet. These openings can allow electromagnetic radiation to pass in or out unhindered. **Pfannenbergs EMC Filterfans® offer the widest range of protection against electromagnetic interference.** We offer several combinations of EMC Filterfans® and exhaust filters for air flow rates from 17 to 560 CFM2. To better protect the environment, our EMC Filterfans® and exhaust filters do not use metalized plastics, because these are difficult to recycle.



EMC – Electromagnetic Compatibility

In standards, electromagnetic compatibility, or ‘EMC’ for short, is defined as the ability of a component, device or system to function satisfactorily under the influence of electromagnetic fields in its surroundings, without influencing its surroundings, to which other electrical equipment also belongs, in an impermissible way. We guarantee that our EMC shielded Filterfans® provide protection against electromagnetic interference by ensuring continuity between the shielding part of the fan and the metal structure of the cabinet based on the attenuation characteristics below:

Attenuation at 30 MHz approx. 71 dB

Attenuation at 400 MHz approx. 57 dB

Measured in accordance with EN 50 147-1 (1996): absorber rooms, part 1, measurement of screening attenuation.

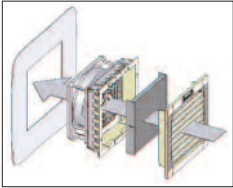
Type	Part Number	Replacement Filter Mat	Air flow rate¹	Rated voltage	Cut-out dimensions (HxW)³ inches (mm)	Approvals			
			CFM2 (Type 12 / IP 55)			UL	cUL	GOST	CE
PF Series EMC Filterfans 4.0™									
PF 11000 EMC	11811151055 115 V, LT. Grey	18611600029	Same as PF series	Same as PF series	3.66 x 3.66 (93 x 93)	●	●	●	●
PF 22000 EMC	11822153055 115 V, LT. Grey	18611600034			4.96 x 4.96 (126 x 126)	●	●	●	●
PF 32000 EMC	11832153055 115 V, LT. Grey	18611600035			7.01 x 7.01 (178 x 178)	●	●	●	●
PF 42500 EMC	11842153055 115 V, LT. Grey	18611600036			8.82 x 8.82 (224 x 224)	●	●	●	●
PF 43000 EMC	11843153055 115 V, LT. Grey	18611600036			8.82 x 8.82 (224 x 224)	●	●	●	●
PF 65000 EMC	11865153055 115 V, LT. Grey	18611600037			11.50 x 11.50 (292 x 292)	●	●	●	●
PF 66000 EMC	11866153055 115 V, LT. Grey	18611600037			11.50 x 11.50 (292 x 292)	●	●	●	●
PF 67000 EMC	11867153055 115 V, LT. Grey	18611600037			11.50 x 11.50 (292 x 292)	●	●	●	●
PFA Series EMC Exhaust Filters									
PFA 10000 EMC	11710001055 (Lt. Grey)	18611600029	N/A	N/A	3.66 x 3.66 (93 x 93)	●	●	●	●
PFA 20000 EMC	11720004055 (Lt. Grey)	18611600034			4.96 x 4.96 (126 x 126)	●	●	●	●
PFA 30000 EMC	11730004055 (Lt. Grey)	18611600035			7.01 x 7.01 (178 x 178)	●	●	●	●
PFA 40000 EMC	11740004055 (Lt. Grey)	18611600036			8.82 x 8.82 (224 x 224)	●	●	●	●
PFA 60000 EMC	11760004055 (Lt. Grey)	18611600037			11.50 x 11.50 (292 x 292)	●	●	●	●



Superior metal shielding

Unequaled worldwide: contact surfaces without beryllium-copper seal!

Contact springs



No elaborate reworking of the cut-out

- No adhering of copper tape or similar aids
- No time-consuming scratching off of coatings in order to ensure a good contact
- Contact is made via the cut edge of the cut-out for the Filterfans® or exhaust filter

FILTERFAN® RAINHOODS

NEMA 3R/4/4X/IPx6 WASHDOWN RAINHOODS



Easy Installation

The mounting bracket can easily be installed to the enclosure around the existing cut-out.

Easy Maintenance

Easily remove the rain hood without tools for maintenance and filter mat replacement. (Optional tamper resistant fasteners available to eliminate unauthorized access)

Maximized Airflow & Superior Overspray Protection

Direct spray barrier allows for superior protection from overspray entering the cabinet, **while only reducing airflow <7%.**

NEMA Type 3R/4/4X / IPx6

Design:

This mounting system was designed to ensure a proper NEMA Type / IP rating and protection when used with Pfannenberg Filterfans® and exhaust filters.

NEW

SANITARY RAINHOOD

Pfannenberg offers a specialty 4X stainless steel rainhood to meet the FDA compatible requirements found in Food & Beverage Manufacturing Facilities.



Rugged Steel Construction

Powder coated or stainless steel cover designed for manufacturing environments. Easily painted to match enclosure or machine.

Compatible with Existing Fan Cutouts

Rainhoods come in different sizes and are designed to be compatible with existing Pfannenberg Filterfans® and Exhaust Filters.

FDA Compatible White Gasket Design

Our white gasket design is ideal for Rainhoods that are used on enclosures in Food & Beverage applications. This gasket allows for easy detection of any contamination and is free of potentially harmful color additives.

Robust Sealing Against Enclosure

A primary design element found within our rainhoods is the robust sealing of our gasket. Our gasket features; multiple seal dams with a high compression ratio and dense closed cell material. This gasket found in both our regular and sanitary designs.

Easy Washdown and Disinfection

With a smooth, clean and seamless design, Pfannenberg Rainhoods allow for easy washdown and disinfection. Direct spray barrier design allows for superior protection from overspray entering the cabinet while minimizing airflow loss.

NEMA Type 3R/4/4X / IPx6 Series Rainhoods for Filterfans®			
Model Numbers	Description	Compatibility	Part Number
PF-RH-20000-WD-LG	Rainhood, Lt Grey RAL 7035, NEMA Type 3R/4	PF 22000 Filterfans® PFA 20000 Exhaust Filters	18182000010
PF-RH-20000-WD-GY	Rainhood, Grey ANSI 61, NEMA Type 3R/4		18182000009
PF-RH-20000-WD-SS	Rainhood, 304 SS NEMA Type 4/4X		18182000011
PF-SH-20000-WD-SS	Sanitary Hood SS NEMA Type 4/4X (White FDA Gasket)	PFA 20000 Exhaust Filters	18182000026
PF-RH-30000-WD-LG	Rainhood, Lt Grey RAL 7035, NEMA Type 3R/4	PF 3X000 Filterfans® PFA 30000 Exhaust Filters	18182000013
PF-RH-30000-WD-GY	Rainhood, Grey ANSI 61, NEMA Type 3R/4		18182000012
PF-RH-30000-WD-SS	Rainhood, 304 SS NEMA Type 4/4X		18182000014
PF-SH-30000-WD-SS	Sanitary Hood SS NEMA Type 4/4X (White FDA Gasket)	PFA 30000 Exhaust Filters	18182000027
PF-RH-40000-WD-LG	Rainhood, Lt Grey RAL 7035, NEMA Type 3R/4	PF 4XX00 Filterfans® PFA 40000 Exhaust Filters	18182000016
PF-RH-40000-WD-GY	Rainhood, Grey ANSI 61, NEMA Type 3R/4		18182000015
PF-RH-40000-WD-SS	Rainhood, 304 SS NEMA Type 4/4X		18182000017
PF-SH-40000-WD-SS	Sanitary Hood SS NEMA Type 4/4X (White FDA Gasket)	PFA 40000 Exhaust Filters	18182000028
PF-RH-60000-WD-LG	Rainhood, Lt Grey RAL 7035, NEMA Type 3R/4	PF 6XX00 Filterfans® PFA 60000 Exhaust Filters	18182000019
PF-RH-60000-WD-GY	Rainhood, Grey ANSI 61, NEMA Type 3R/4		18182000018
PF-RH-60000-WD-SS	Rainhood, 304 SS NEMA Type 4/4X		18182000020
PF-SH-60000-WD-SS	Sanitary Hood SS NEMA Type 4/4X (White FDA Gasket)		18182000029

NEMA Type 3R,
4, 4X Rated /
IPx6 Rating



INDUSTRY'S FIRST UL LISTED RAINHOOD SOLUTION



ENVIRONMENTALLY RATED
ENCLOSURE ACCESSORY
SOLUTION
Based on FTFA.E489500

This technique will not prevent hazardous gases or humidity from entering the cabinet.

