

# RESPA<sup>®</sup>-CF2 **VORTEX Hyper FLOW<sup>®</sup>**

**POWERED PRECLEANER/FILTER/PRESSURIZER**

## Our most advanced Cab Air Quality System in one compact, customizable unit!

The RESPA<sup>®</sup>-CF2 is the most advanced Cab Air Quality System available, delivering a powered precleaner, filter, and pressurizer in one compact, customizable unit.



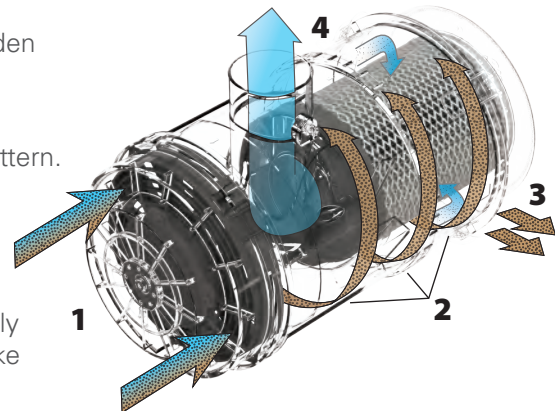
This cab filtration innovation from Sy-Klone International offers the highest quality of filtration and pressurization at the lowest cost. The cost-effective system extends the HVAC system maintenance intervals while dramatically extending filter life—which saves on filter and labor costs to the user. The powered precleaning technology allows cabs/enclosures to sustain positive pressurization, helping to keep particulate out. It is the most effective system available today.

### Benefits

- Helps meet regulatory compliance, such as the OSHA Silica Rule and Beryllium Rule
- Extends the HVAC system maintenance intervals
- Dramatically extends filter life up to 20x
- Prefilters air, which helps protect operator from hazardous chemicals and debris
- Allows cabs/enclosures to sustain positive pressurization, helping to keep particulate out
- All-weather, durable, compact, and customizable unit

### How It Works

1. Air enters filter housing, laden with particulate debris.
2. Debris-laden air is flung to outside walls in a vortex pattern.
3. Debris-laden air is ejected through the debris ejection ports.
4. After thorough filtration, only clean air enters the air intake housing.



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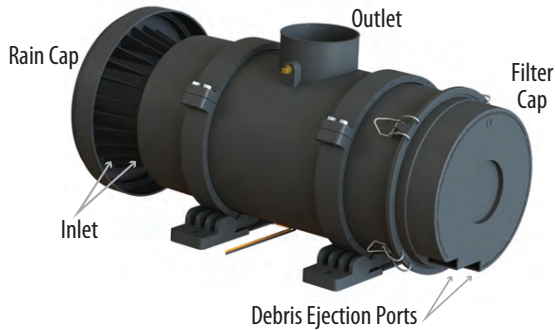
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Contact us today! [www.sy-klone.com](http://www.sy-klone.com)

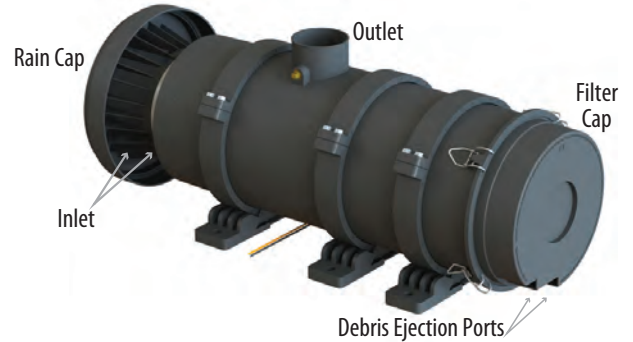


## The RESPA<sup>®</sup>-CF2 offers two sizes to maximize your precleaning ability.

### Standard Length Filter Housing



### Extended Length Filter Housing



## CF-2 Specs at a Glance

- Operating Range: Ideal operation range: 0 CFM to 130 CFM (0 m<sup>3</sup>/min to 3.68 m<sup>3</sup>/min) Extended operation range: up to 250 CFM (7.08 m<sup>3</sup>/min)
- Operation Temperature:
  - Brushless: -40 °C to + 80 °C continuous; +100 °C short exposure
  - Brushed Compact: -20 °C to + 80 °C continuous; +100 °C short exposure
- Construction: Glass-filled injection molded polypropylene exterior

## Mounting Options:

Mounting: Horizontal, Vertical (Rain cap end up)

## Precleaner Maintenance:

No routine maintenance required. Patented self-cleaning filter drops dirt continuously, which is then ejected from the filter housing.

## Debris Types:

Expels all types of mixed debris, including mud, snow, rain, leaves, sawdust, chaff, and dust.

## Precleaning Efficiency:

Ejects particulate at ≥90% first-pass efficiency.

## Partial List of Industries

Agriculture • Waste – Landfill, Transfer station, Recycling Facilities, Lift Stations • Mining – All mining (except where an explosion proof motor is required) • Construction • Demolition • Nuclear Decommissioning • Radioactive Clean up • Stevedoring • Military • Cell Phone Towers • Power Generation • Utilities • Trucking • Law Enforcement • Forestry • Fire Fighting

## Partial List of Applications

### All enclosed operator cabs in all environments:

- Heavy equipment cabs
- Stationary equipment cabs
- Cranes
- Drills
- Pipe laying machines

### Power Generation and Distribution

- Ventilated electric boxes
- Electronic cabinets
- Electronic control rooms
- Computer server cabinets

### Environmentally controlled spaces:

- Electronic control rooms
- Portable field offices
- Military portable command posts
- Crusher cabins
- Clean rooms for engine rebuilding
- Dyno rooms
- Cell tower control rooms
- Crew quarters in mining applications

**Keep Money in Your Pockets  
and Operators in Your Cabs!**

## RESPA®-CF2 Brushless Motor Systems

Part Number	Voltage	Filter			Outlet Diameter		Optional Filtration	
		Type	Part Number	Length	4-inch 101.6 mm	3-inch 76.2 mm	Odor/HEPA	Gas/HEPA
RCF2009	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard	•		•	
RCF2010	24							
RCF2025	12	HEPA/H13 <sup>2</sup>	FEFF118					
RCF2026	24							
RCF2011	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended	•		•	•
RCF2012	24							
RCF2027	12	HEPA/H13 <sup>2</sup>	FEFF119					
RCF2028	24							
RCF2013	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard			•	•
RCF2014	24							
RCF2029	12	HEPA/H13 <sup>2</sup>	FEFF118					
RCF2030	24							
RCF2015	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended			•	•
RCF2016	24							
RCF2031	12	HEPA/H13 <sup>2</sup>	FEFF119					
RCF2032	24							

<sup>1</sup>Media Rated at MERV 16, F9 under EN779. <sup>2</sup>Rated H13 under EN1822-1.

## Compact versus Brushless Motors



Brushed Compact Motor Specifications

- **12V Amperage\***: Startup: 16A; Running: 6.5A
- **24V Amperage\***: Startup: 8A; Running: 3.0A
- **Operating Temperatures**: -20 °C to 80 °C
- **Motor Life\*\***: 12,000-15,000 hours
- **Warranty**: 2 Years

The brushed motor does not come with enhanced EMI protection<sup>1</sup>. The RESPA-CF2 with a compact motor is warranted for two (2) years from date of purchase.

*\*Amperage numbers above are averages; actual motor am draw may vary.*

*\*\*Excepted motor life based on standard operating conditions.*

<sup>1</sup>Conforms with EN13309:2010.



Brushless Motor Specifications

- **12V Amperage\***: Startup: 20A; Running: 12A
- **24V Amperage\***: Startup: 14A; Running: 6A
- **Operating Temperatures**: -40 °C to 80 °C
- **Motor Life\***: 18,000-20,000 hours
- **Warranty**: 3 Years

The brushless motors include over/under-voltage, overheating protection. The RESPA-CF2 with a brushless motor is warranted for three (3) years from date of purchase.

## RESPA®-CF2 Brushed Compact Motor Systems

Part Number	Voltage	Filter			Outlet Diameter		Optional Filtration	
		Type	Part Number	Length	4-inch 101.6 mm	3-inch 76.2 mm	Odor/HEPA	Gas/HEPA
RCF2033	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard	•		•	
RCF2034	24							
RCF2041	12	HEPA/H13 <sup>2</sup>	FEFF118					
RCF2042	24							
RCF2035	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended	•		•	•
RCF2036	24							
RCF2043	12	HEPA/H13 <sup>2</sup>	FEFF119					
RCF2044	24							
RCF2037	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard		•	•	
RCF2038	24							
RCF2045	12	HEPA/H13 <sup>2</sup>	FEFF118					
RCF2046	24							
RCF2039	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended		•	•	•
RCF2040	24							
RCF2047	12	HEPA/H13 <sup>2</sup>	FEFF119					
RCF2048	24							

<sup>1</sup>Media Rated at MERV 16, F9 under EN779. <sup>2</sup>Rated H13 under EN1822-1.

### RadialSHIELD® Filtration Options

- **Particulate Filters:**
  - MERV 16\*/ F9  
\*Media rated at MERV 16
  - HEPA/H13<sup>2</sup>
- **Odor/Particulate Combination Filter:**
  - Odor + HEPA/H13
- **Gas/Particulate Combination Filters:**
  - Gas + HEPA/H13<sup>2</sup>

Odor + HEPA/H13    HEPA/H13    MERV 16/F9    Gas + HEPA/H13



### Filtration Standards and Ratings

- **MERV 16/F9:** Media rated MERV 16 at 150 CFM (255 m<sup>3</sup>/h) airflow with ≥95% efficiency of 0.3 µm to 1.0 µm particle size; Rated F9 under EN779 at 150 CFM (255 m<sup>3</sup>/h) airflow with ≥95% efficiency of 0.4 µm (Em) particle size.
- **HEPA/H13/ISO 35H:** Rated H13 under EN1822-1 and 35H under ISO 29463-1 at 100 CFM (170 m<sup>3</sup>/h) with initial efficiency ≥99.95% at MPPS (0.1 µm to 0.3 µm particle size).
- **Odor + HEPA/H13:** Qualified as Odor Retention under ISO 11155-2. Rated H13 under EN1822-1 and 35H under ISO 29463-1 at 50 CFM (85 m<sup>3</sup>/h) with initial efficiency ≥99.95% at MPPS (0.1 µm to 0.3 µm particle size).
- **Gas ABEK1 + HEPA/H13:** Rated ABEK1 under EN12941:1998 + A1:2004 + A2:2008. Rated H13 under EN1822-1 and 35H under ISO 29463-1 at 50 CFM (85 m<sup>3</sup>/h) with initial efficiency ≥99.95% at MPPS (0.1 µm to 0.3 µm particle size).

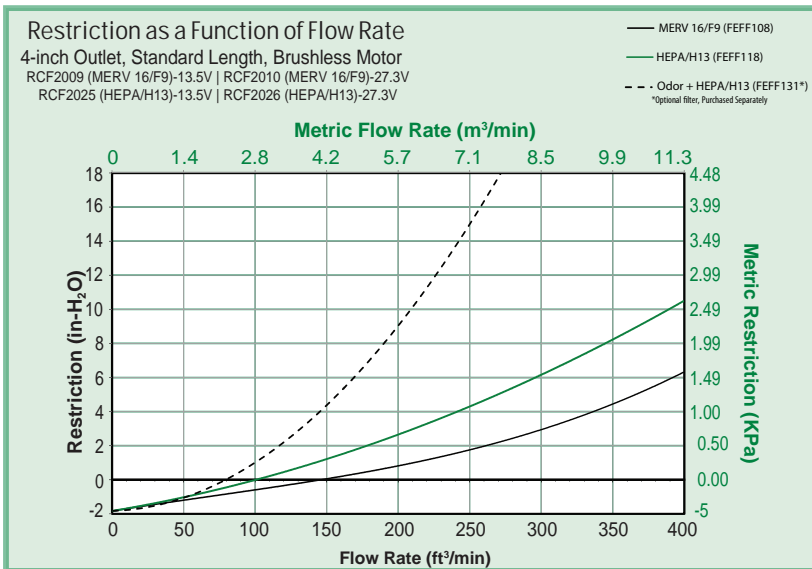
For additional filter life, upgrade to the extended length option.

Visit <https://www.sy-klone.com/filters.html> for more information on RadialSHIELD® filtration and complete lists of gases.

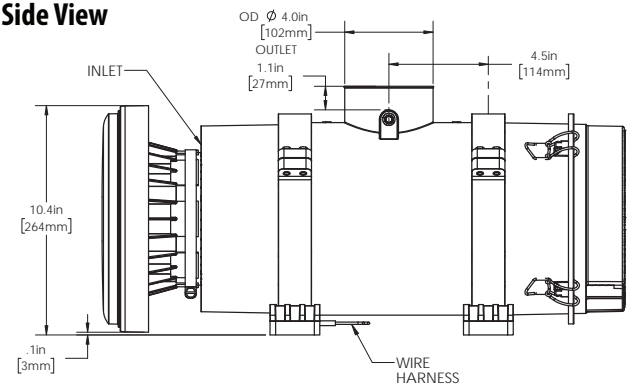
**RESPA®-CF2 Systems • 4-inch Outlet, Standard Length Filter, Brushless Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2009	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard	4-inch 101.6 mm	12.0 lbs 5.4 kg	23.7 in 601 mm	10 in 254 mm	11.3 in 286 mm
RCF2010	24								
RCF2025	12	HEPA /H13 <sup>2</sup>	FEFF118						
RCF2026	24								

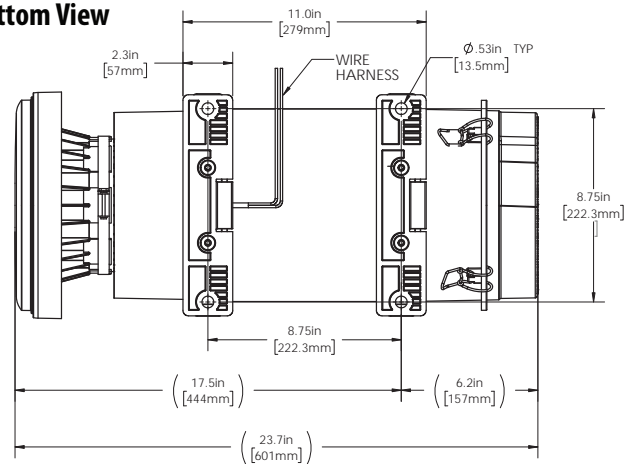
<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Standard length precleaners require 6.25 inches (159 mm) for filter removal.



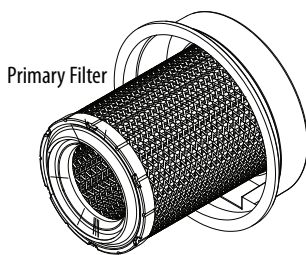
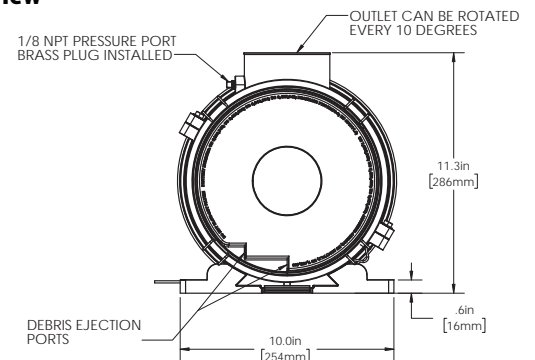
**Side View**



**Bottom View**



**End View**

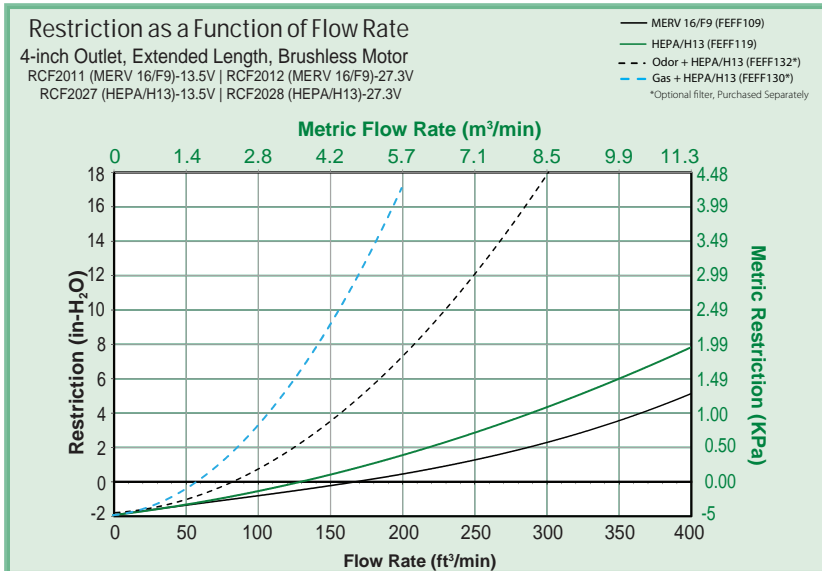


FEFF108--MERV 16/F9<sup>1</sup>  
FEFF118--HEPA/H13<sup>2</sup>  
\*FEFF131--Optional Odor + HEPA/H13<sup>2</sup>

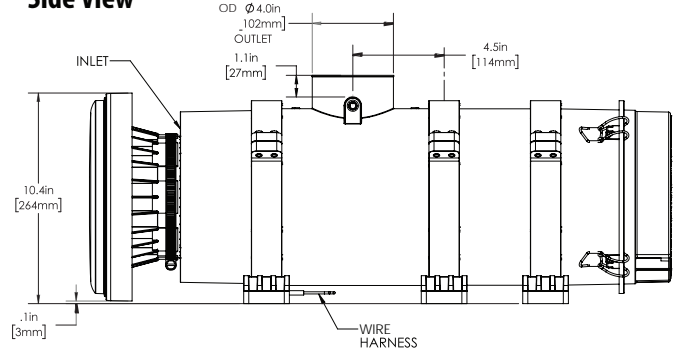
**RESPA®-CF2 Systems • 4-inch Outlet, Extended Length Filter, Brushless Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2011	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended	4-inch 101.6 mm	14.5 lbs 6.6 kg	28.7 in 728 mm	10 in 254 mm	11.3 in 286 mm
RCF2012	24								
RCF2027	12	HEPA /H13 <sup>2</sup>	FEFF119						
RCF2028	24								

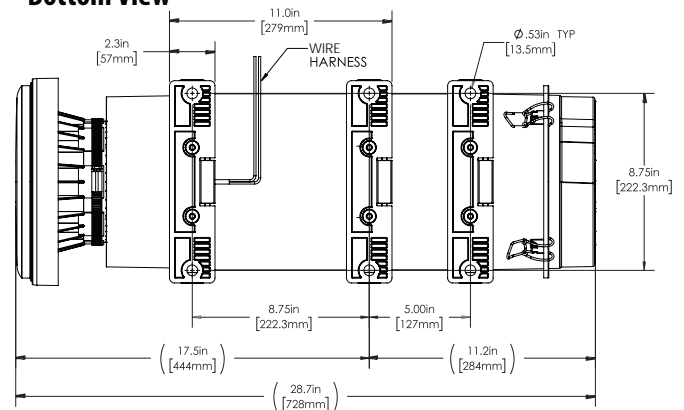
<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Extended length precleaners require 12.25 inches (311 mm) for filter removal.



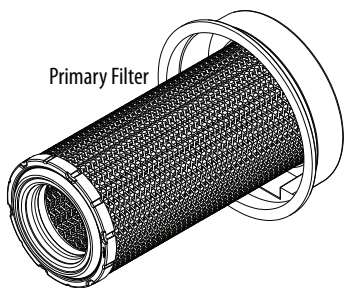
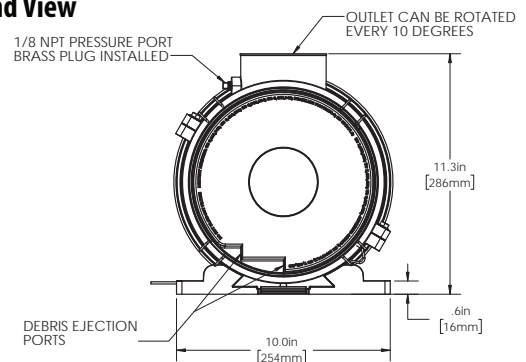
**Side View**



**Bottom View**



**End View**

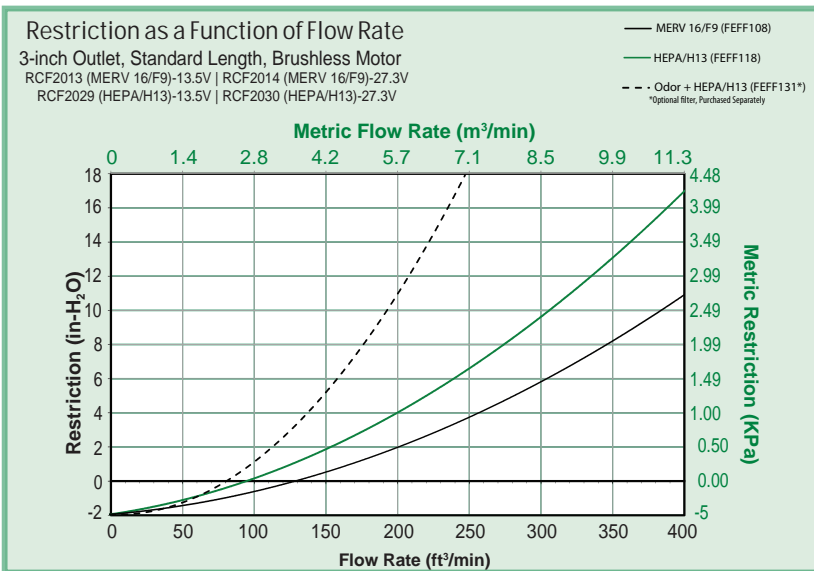


- FEFF109--MERV 16/F9<sup>1</sup>
- FEFF119--HEPA/H13<sup>2</sup>
- \*FEFF132--Optional Odor + HEPA /H13<sup>2</sup>
- \*FEFF130--Optional Gas + HEPA /H13<sup>2</sup>
- \*Purchased Separately

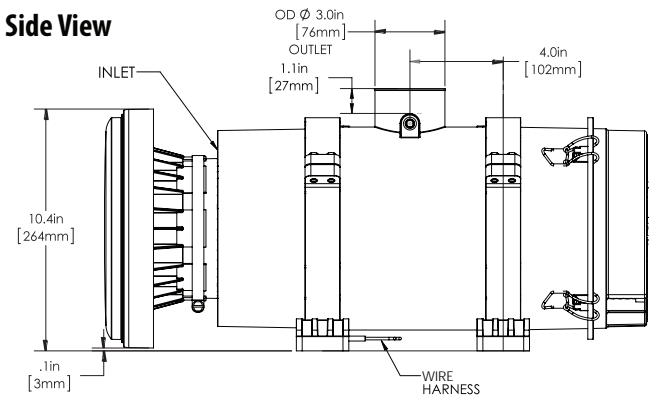
**RESPA®-CF2 Systems • 3-inch Outlet, Standard Length Filter, Brushless Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2013	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard	3-inch 76.2 mm	11.7 lbs 5.3 kg	23.7 in 601 mm	10 in 254 mm	11.3 in 286 mm
RCF2014	24								
RCF2029	12	HEPA /H13 <sup>2</sup>	FEFF118						
RCF2030	24								

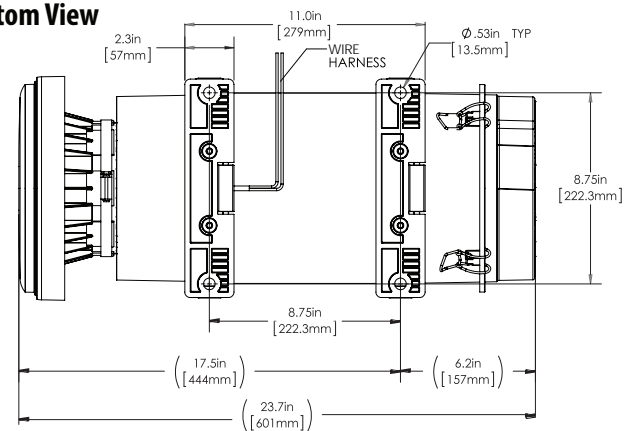
<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Standard length precleaners require 6.25 inches (159 mm) for filter removal.



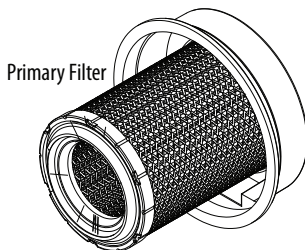
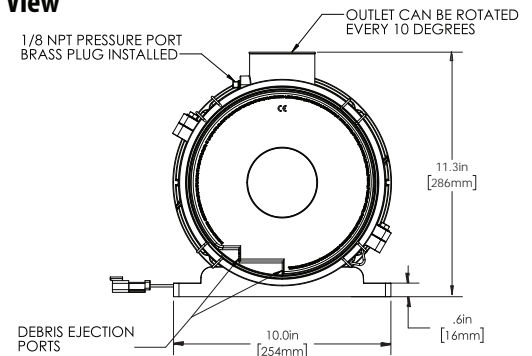
**Side View**



**Bottom View**



**End View**

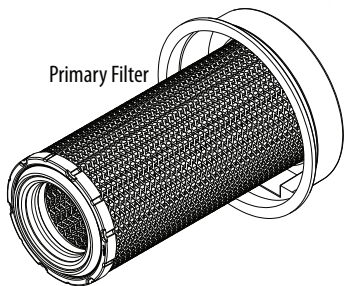
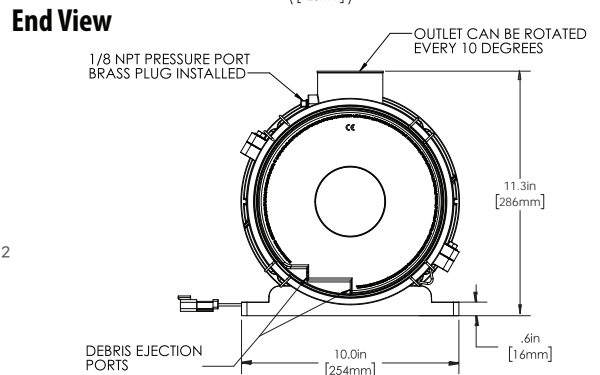
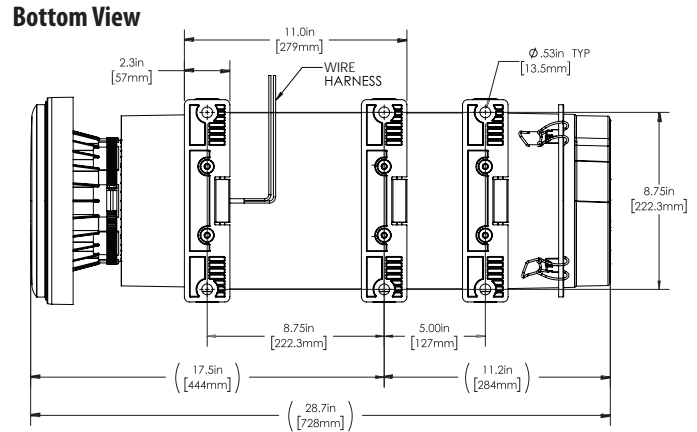
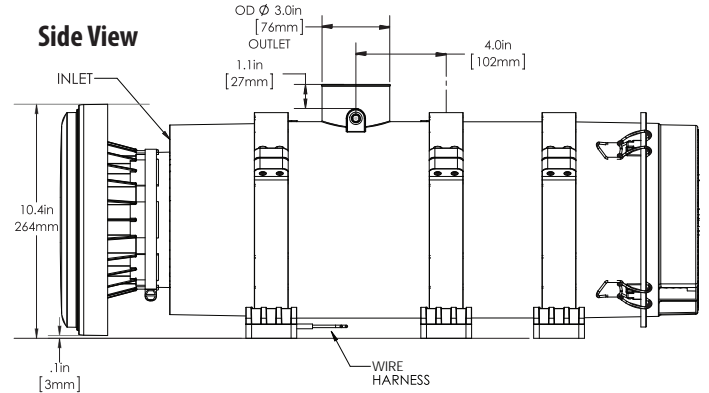
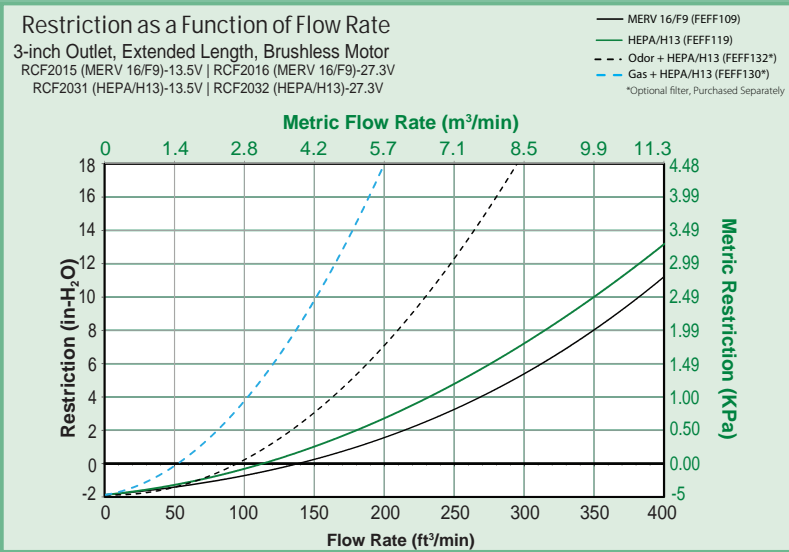


FEFF108--MERV 16/F9<sup>1</sup>  
FEFF118--HEPA/H13<sup>2</sup>  
\*FEFF131--Optional Odor + HEPA/H13<sup>2</sup>

**RESPA®-CF2 Systems • 3-inch Outlet, Extended Length Filter, Brushless Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2015	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended	3-inch 76.2 mm	14.2 lbs 6.4 kg	28.7 in 728 mm	10 in 254 mm	11.3 in 286 mm
RCF2016	24								
RCF2031	12	HEPA /H13 <sup>2</sup>	FEFF119						
RCF2032	24								

<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Extended length precleaners require 12.25 inches (311 mm) for filter removal.



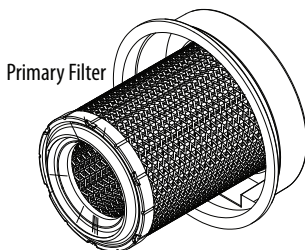
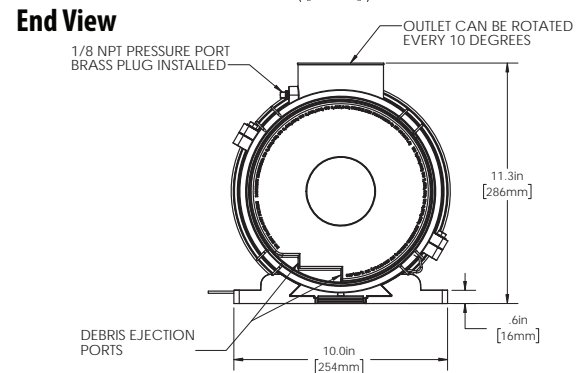
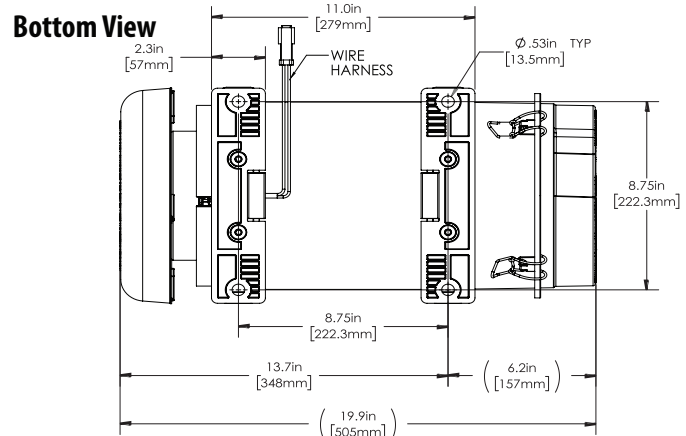
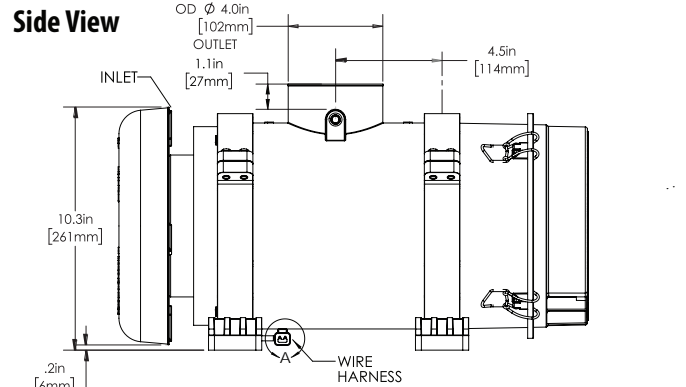
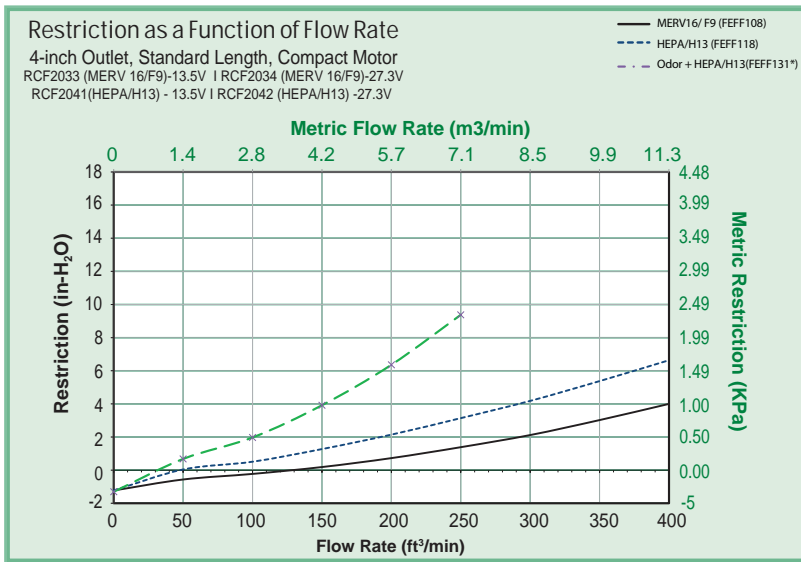
- FEFF109--MERV 16/F9<sup>1</sup>
- FEFF119--HEPA/H13<sup>2</sup>
- \*FEFF132--Optional Odor + HEPA /H13<sup>2</sup>
- \*FEFF130--Optional Gas + HEPA /H13<sup>2</sup>
- \*Purchased Separately



**RESPA®-CF2 Systems • 4-inch Outlet, Standard Length Filter, Brushed Compact Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2033	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard	4-inch 102 mm	10.8 in 4.9 kg	19.9 in 505 mm	10.3 in 261 mm	11.3 in 286 mm
RCF2034	24								
RCF2041	12	HEPA /H13 <sup>2</sup>	FEFF118						
RCF2042	24								

<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Standard length precleaners require 6.25 inches (159 mm) for filter removal.

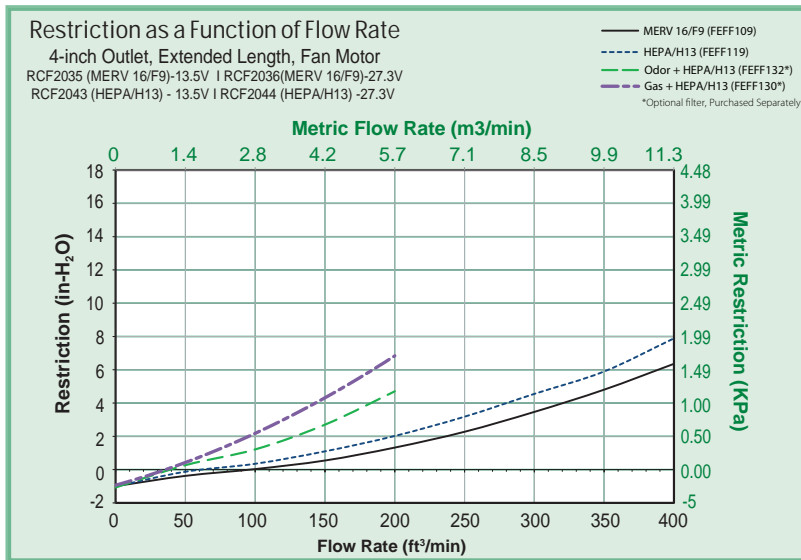


Primary Filter  
FEFF108--MERV 16/F9<sup>1</sup>  
FEFF118--HEPA/H13<sup>2</sup>  
\*FEFF131--Optional Odor + HEPA/H13<sup>2</sup>

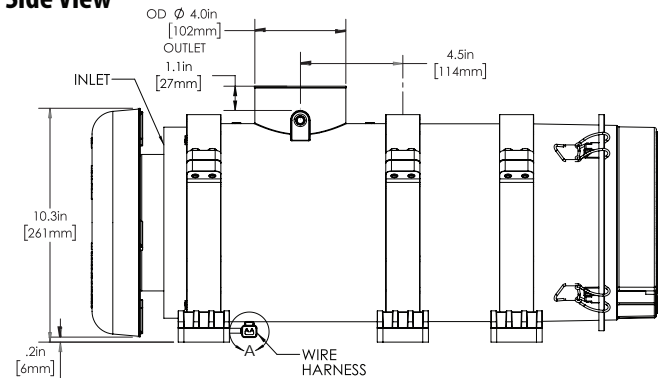
**RESPA®-CF2 Systems • 4-inch Outlet, Extended Length Filter, Brushed Compact Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2035	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended	4-inch 76.2 mm	13.32 lbs 6.0 kg	24.9 in 632 mm	10 in 254 mm	11.3 in 286 mm
RCF2036	24								
RCF2043	12	HEPA /H13 <sup>2</sup>	FEFF119						
RCF2044	24								

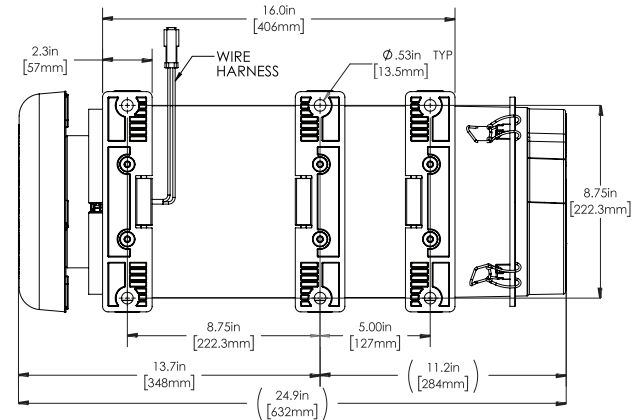
<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Extended length precleaners require 12.25 inches (311 mm) for filter removal.



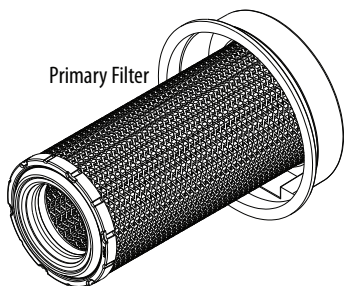
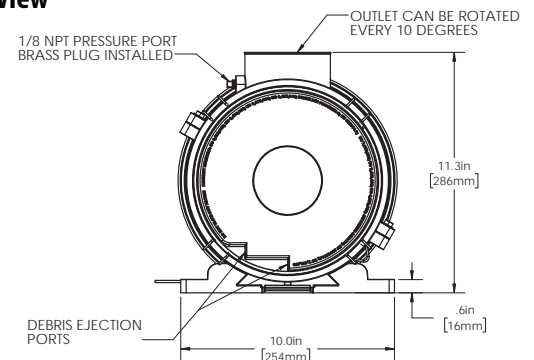
**Side View**



**Bottom View**



**End View**

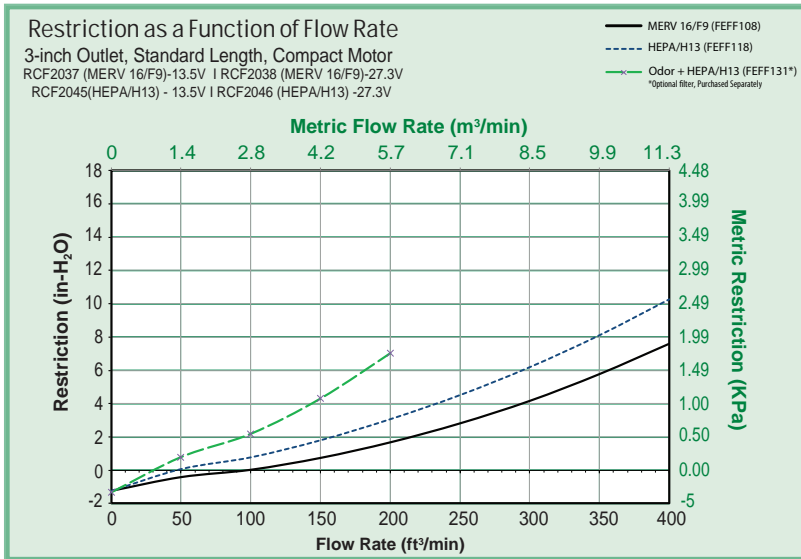


- FEFF109--MERV 16/F9<sup>1</sup>
- FEFF119--HEPA/H13<sup>2</sup>
- \*FEFF132--Optional Odor + HEPA /H13<sup>2</sup>
- \*FEFF130--Optional Gas + HEPA /H13<sup>2</sup>
- \*Purchased Separately

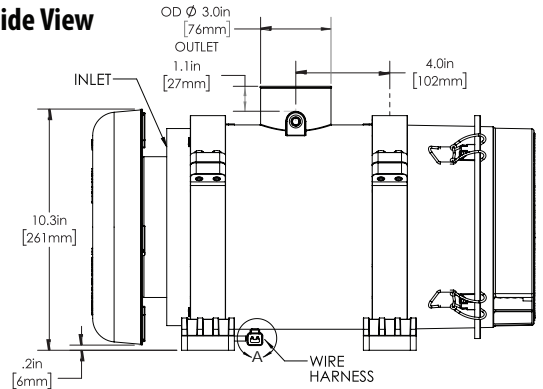
**RESPA®-CF2 Systems • 3-inch Outlet, Standard Length Filter, Brushed Compact Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2037	12	MERV 16 /F9 <sup>1</sup>	FEFF108	Standard	3-inch 76.2 mm	10.5 lbs 4.8 kg	18.9 in 479 mm	10 in 254 mm	11.3 in 286 mm
RCF2038	24								
RCF2045	12	HEPA /H13 <sup>2</sup>	FEFF118						
RCF2046	24								

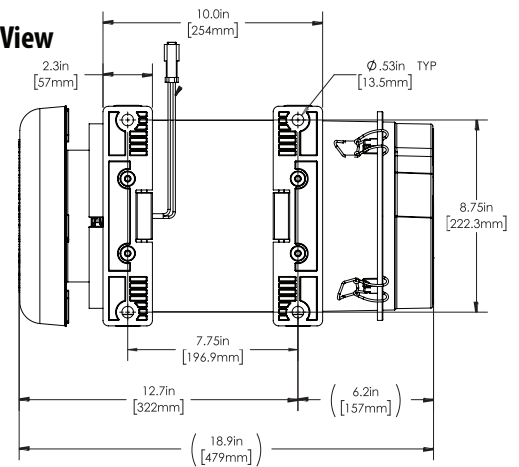
<sup>1</sup>Media rated at MERV 16, F9 under EN779. <sup>2</sup>Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Standard length precleaners require 6.25 inches (159 mm) for filter removal.



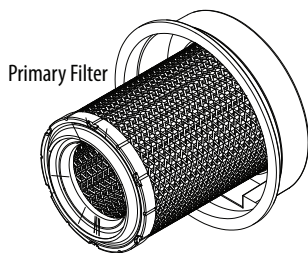
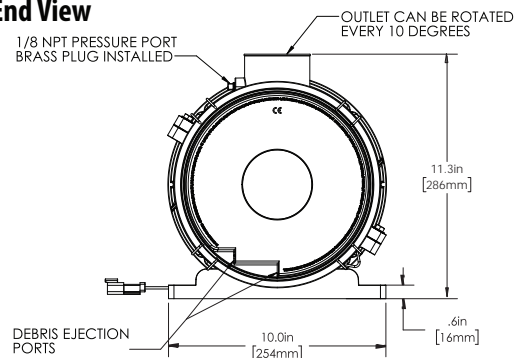
**Side View**



**Bottom View**



**End View**

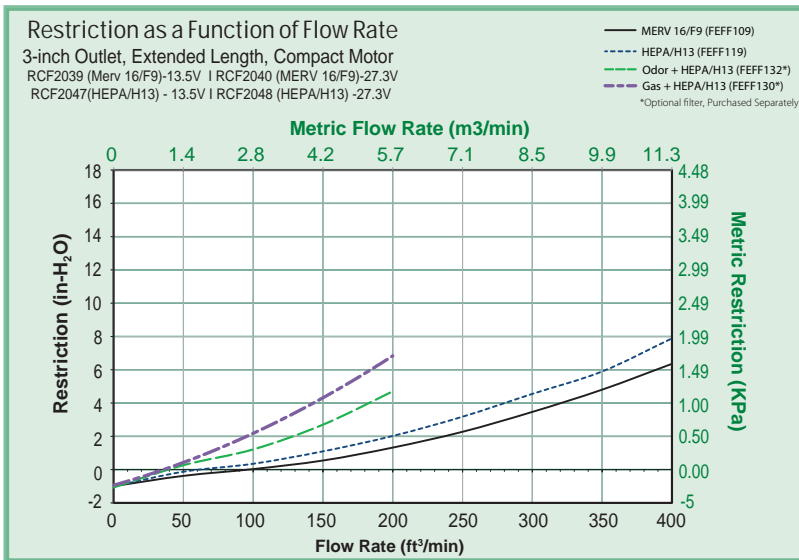


FEFF108--MERV 16/F9<sup>1</sup>  
 FEFF118--HEPA/H13<sup>2</sup>  
 \*FEFF131--Optional Odor + HEPA/H13<sup>2</sup>

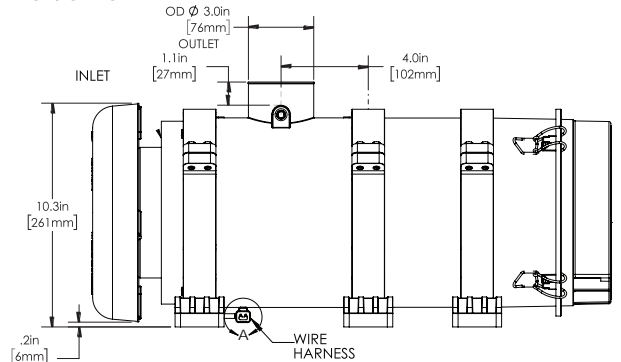
**RESPA®-CF2 Systems • 3-inch Outlet, Extended Length Filter, Brushed Compact Motor**

Part Number	Voltage	Filter			Outlet Diameter	Weight	Dimensions		
		Type	Part Number	Length			Length	Width	Height
RCF2039	12	MERV 16 /F9 <sup>1</sup>	FEFF109	Extended	3-inch 76.2 mm	12.97 lbs 5.9 kg	23.9 in 606 mm	10 in 254 mm	11.3 in 286 mm
RCF2040	24								
RCF2047	12	HEPA /H13 <sup>2</sup>	FEFF119						
RCF2048	24								

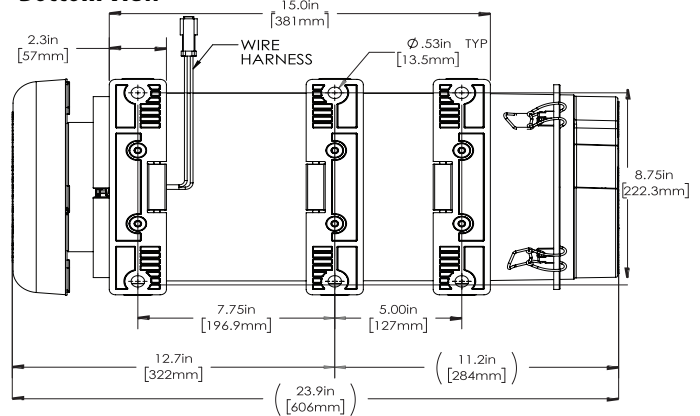
<sup>1</sup> Media rated at MERV 16, F9 under EN779. <sup>2</sup> Rated H13 under EN1822-1.  
Units include rain cap and base mount with clamp brackets.  
Optional flange mount available.  
Extended length precleaners require 12.25 inches (311 mm) for filter removal.



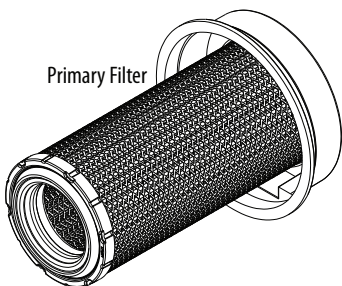
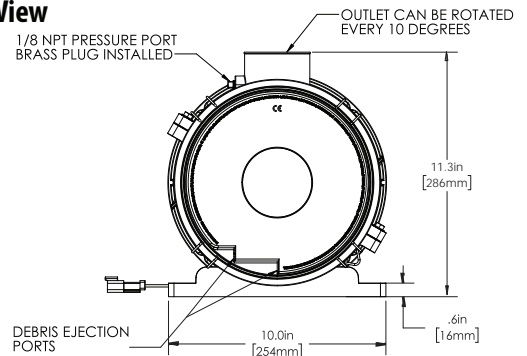
**Side View**



**Bottom View**



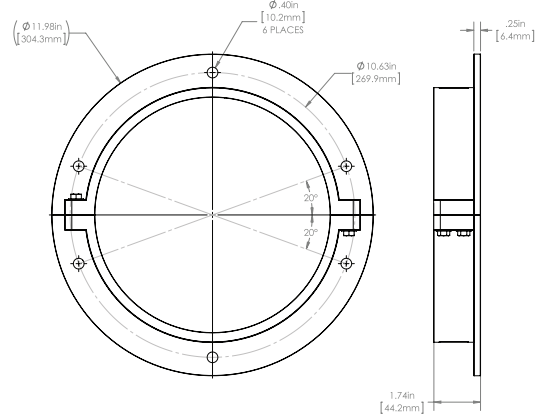
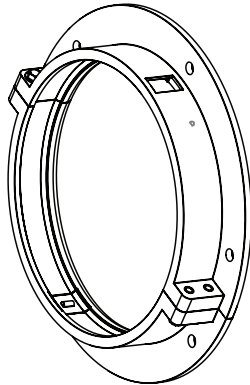
**End View**



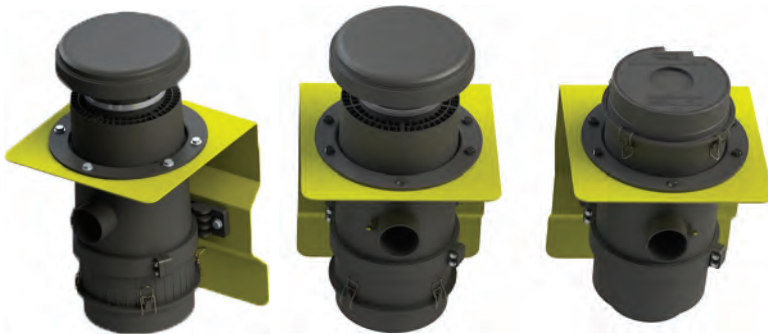
- FEFF109--MERV 16/F9<sup>1</sup>
- FEFF119--HEPA/H13<sup>2</sup>
- \*FEFF132--Optional Odor + HEPA /H13<sup>2</sup>
- \*FEFF130--Optional Gas + HEPA /H13<sup>2</sup>
- \*Purchased Separately

## RESPA®-CF2 Adaptation Parts

### RIC0701 Optional Flange Mount



### Mounting Examples:



- The RESPA®-CF2 can be mounted vertically or horizontally.
- Debris ejection port can be oriented in any direction, as long as it is away from the operator and painted surfaces.

## RESPA®-CF2 Installation Kits

PART NUMBER	SERVICE PART DESCRIPTION
GK015	RESPA®-CF2 Installation Kit: 3-inch and 4-inch

## RESPA®-CF2 Service Parts

PART NUMBER	SERVICE PART DESCRIPTION
RCF2901	RESPA®-CF2 Service Part: Raincap
RCF2903	RESPA®-CF2 Service Part: 12-Volt Brushless Motor
RCF2905	RESPA®-CF2 Service Part: 24-Volt Brushless Motor
RCF2908	RESPA®-CF2 Service Part: Clamp Assembly
RCF2909	RESPA®-CF2 Service Part: Filter Ring
RCF2910	RESPA®-CF2 Service Part: Extended Filter Ring
RCF2911	RESPA®-CF2 Service Part: Inlet Screen for Internal Motor
RCF2912	RESPA®-CF2 Service Part: 3-inch Outlet Housing
RCF2913	RESPA®-CF2 Service Part: 4-inch Outlet Housing
RCF2915	RESPA®-CF2 Service Part: 12/24 Wiring Kit
RCF2918	RESPA®-CF2 Service Part: 12-Volt Compact Brushed Motor Kit
RCF2919	RESPA®-CF2 Service Part: 24-Volt Compact Brushed Motor Kit
RCF2020	RESPA-CF2/XLR Service Part: Compact Brushed Motor Rain Cap
AD0197	4-inch Flange Assembly Boxed
AD0198	3-inch Flange Assembly Boxed
REC0157	RESPA®-CF/CF2 Mounting Plate

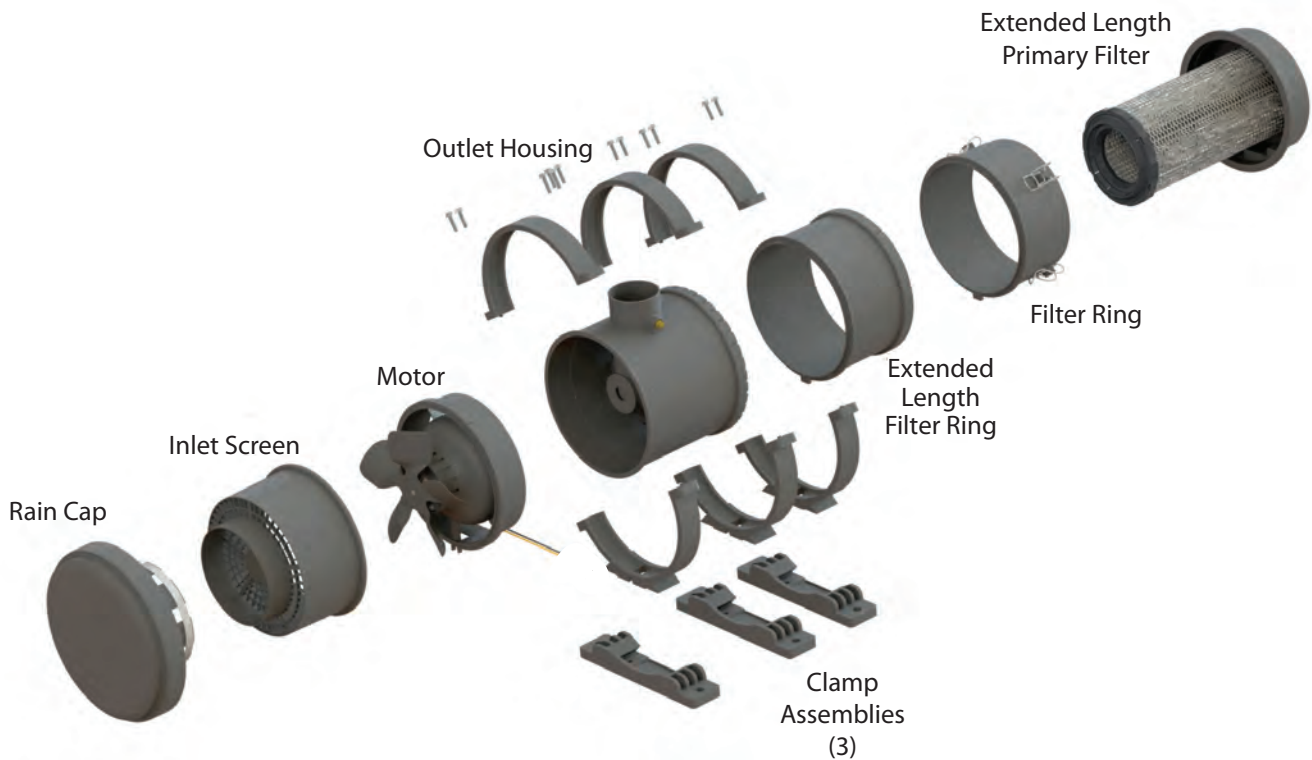


## RESPA®-CF2 Brushless Service Parts: Exploded Diagrams

### Standard Length



### Extended Length

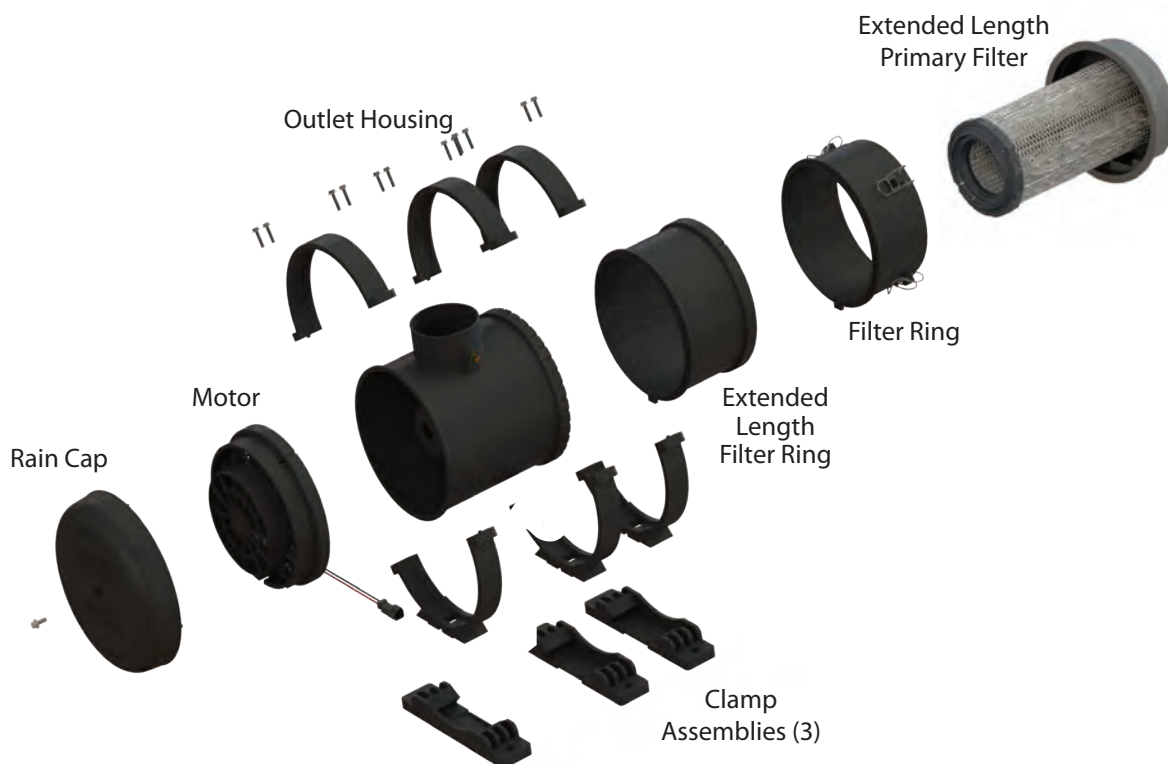


# RESPA®-CF2 Brushed Compact Motor Service Parts: Exploded Diagrams

## Standard Length



## Extended Length



## RESPA®-CF2 Filter Change Instructions

