

F300 Electronic Air Cleaner

PRODUCT DATA



APPLICATION

The F300 Electronic Air Cleaner is mounted in the return air duct of a forced air heating, cooling, or ventilating system. It captures a significant amount of the airborne particles 0.3 micron and larger from air circulated through it.

FEATURES

- Media postfilters (optional) provide enhanced filtration.
- Available in five sizes to fit most ducts; adapts to airflow from either side.
- Capacity varies from 1000 cfm (2040 m³/hr) to 2000 cfm (3400 m³/hr), depending on size.
- Solid state power supply is self-regulating and maintains peak efficiency during a wide range of cell dirt loading conditions.
- Low pressure drop.
- Optional W8600F Air Cleaner Monitor indicates air cleaner performance, reminds homeowner when filter and cell maintenance are due and when to check the system.
- Optional wireless W8600A AIRWATCH™ LCD indicator provides reminder when air cleaner electronic cells need washing, when media postfilters need replacing, when UV lamps need replacing and when humidifier pad needs replacing.
- Galvanized cabinet protects against rust.
- Neon light next to on-off switch tells if air cleaner is powered and if high voltage is present.
- Prefilter screens protect cells from large dirt particles.
- Test button checks system operation.

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SPECIFICATIONS

IMPORTANT

The specifications given in this publication do not include normal manufacturing tolerances. Therefore, this unit may not exactly match the listed specifications. This product is tested and calibrated under closely controlled conditions, and some minor differences in performance can be expected if those conditions are changed.

Model:

F300E Electronic Air Cleaner: Includes cabinet, access door, solid state power supply, two electronic cells, two metal mesh prefilters, and two media postfilters.

F300A,B Electronic Air Cleaner: Includes cabinet, access door, solid state power supply, two electronic cells and two metal mesh prefilters.

Electrical Ratings:

Voltage and Frequency: Models available for 120V, 60 Hz., 240V, 60Hz. 120V models can be converted in the field to 240V, 60 Hz or 220/240V, 50 Hz with the 203365A Conversion Kit.

Power Consumption:

One cell models: 22 W maximum

Two cell models: 36 W maximum.

Current Draw: See Table 1.

Ionizer Voltage: 8150 Vdc.

Collector Voltage: 4075 Vdc.

Table 1. Current Draw.

Size		No. Cells	Max Current (A)	
in.	mm		120V	220/240V
16 x 25	406 x 635	2	0.4	0.2
20 x 25	508 x 635	2	0.4	0.2
16 x 20	406 x 508	2	0.4	0.2
20 x 20	508 x 508	2	0.4	0.2
20 x 12-1/2	508 x 318	1	0.4	0.2

Fractional Efficiency:

Efficiency ratings are based on American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 52.2-1999. Efficiency ranges are defined for small particles, $E_1 = .3$ to 1.0 micron; medium particles, $E_2 = 1.0$ to 3.0 microns; and large particles, $E_3 = 3.0$ to 10.0 microns.

Table 2. Fractional Efficiency With and Without Postfilter.

With postfilter	Without postfilter
$E_1 =$ Up to 81% at 492 fpm.	$E_1 =$ Up to 73% at 492 fpm.
$E_2 =$ Up to 93% at 492 fpm.	$E_2 =$ Up to 88% at 492 fpm.
$E_3 =$ Up to 99% at 492 fpm.	$E_3 =$ Up to 95% at 492 fpm.

ORDERING INFORMATION

When purchasing replacement and modernization products from your TRADELINE® wholesaler or distributor, refer to the TRADELINE® Catalog or price sheets for complete ordering number.

If you have additional questions, need further information, or would like to comment on our products or services, please write or phone:

1. Your local Honeywell Automation and Control Products Sales Office (check white pages of your phone directory).
2. Honeywell Customer Care
1885 Douglas Drive North
Minneapolis, Minnesota 55422-4386

In Canada—Honeywell Limited/Honeywell Limitée, 35 Dynamic Drive, Scarborough, Ontario M1V 4Z9.

International Sales and Service Offices in all principal cities of the world. Manufacturing in Australia, Canada, Finland, France, Germany, Japan, Mexico, Netherlands, Spain, Taiwan, United Kingdom, U.S.A.

AIR CLEANER EFFICIENCY AND PRESSURE DROP AT VARIOUS AIRFLOW RATES.

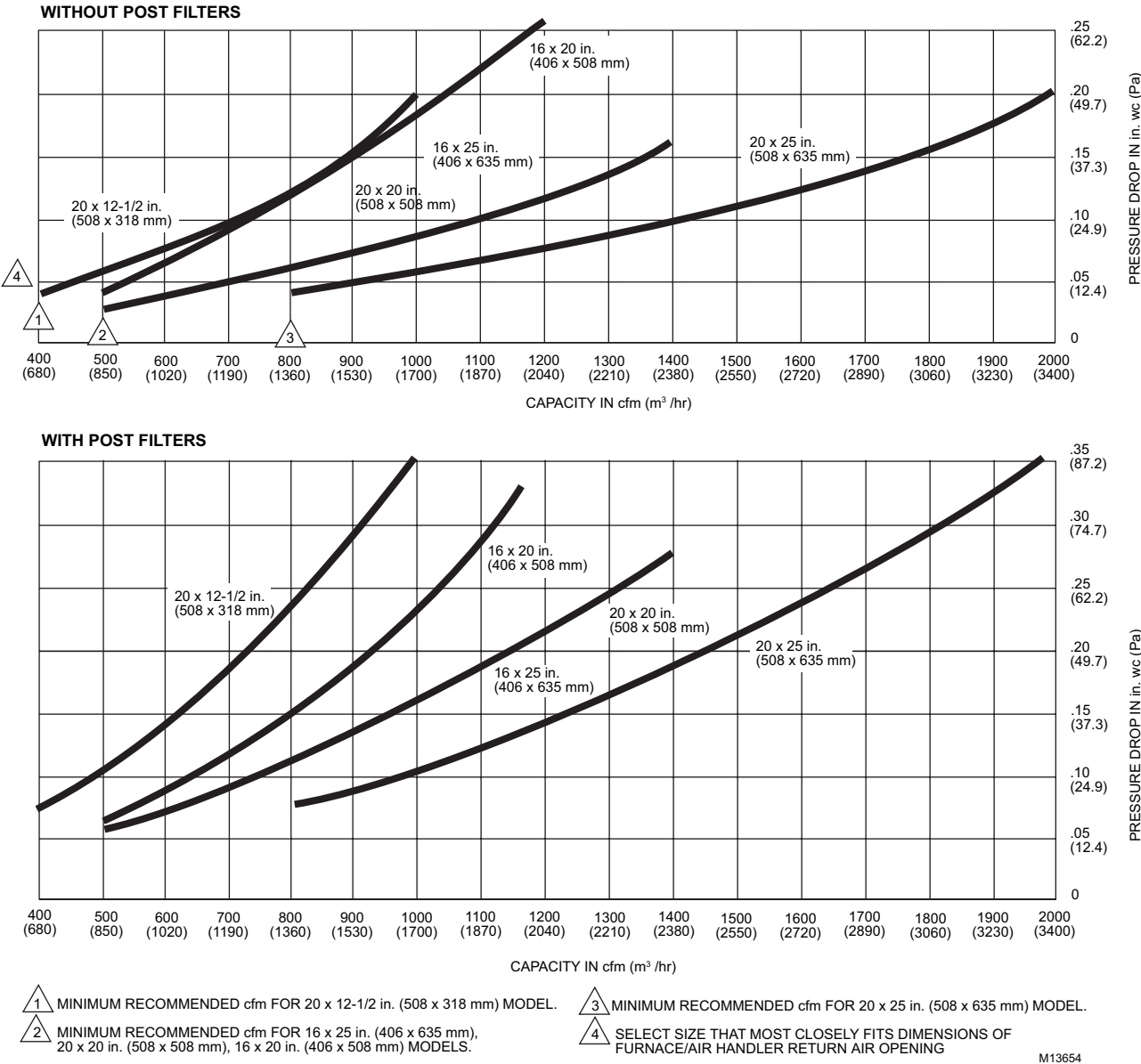


Fig. 1. Pressure Drop Vs. Airflow.

Temperature Ratings:

Operating Ambient: 40° to 125°F (4° to 52°C).
 Temperature of Airflow Through Cells: 40° to 125°F (4° to 52°C).
 Maximum Cell Washing Temperature: 220°F (140°C).
 Storage and Shipping Ambient: Minus 40°F to plus 140°F (minus 40°C to plus 60°C).

Mounting:

Mounts in the return air duct of a forced air heating, cooling, or ventilating system. Mount upstream from an atomizing humidifier. See Planning the Installation section.

Weight:

See Table 3.

Dimensions:

See Fig. 2.

Approvals:

Underwriters Laboratories Inc. Listed: File E30954.

Accessories:

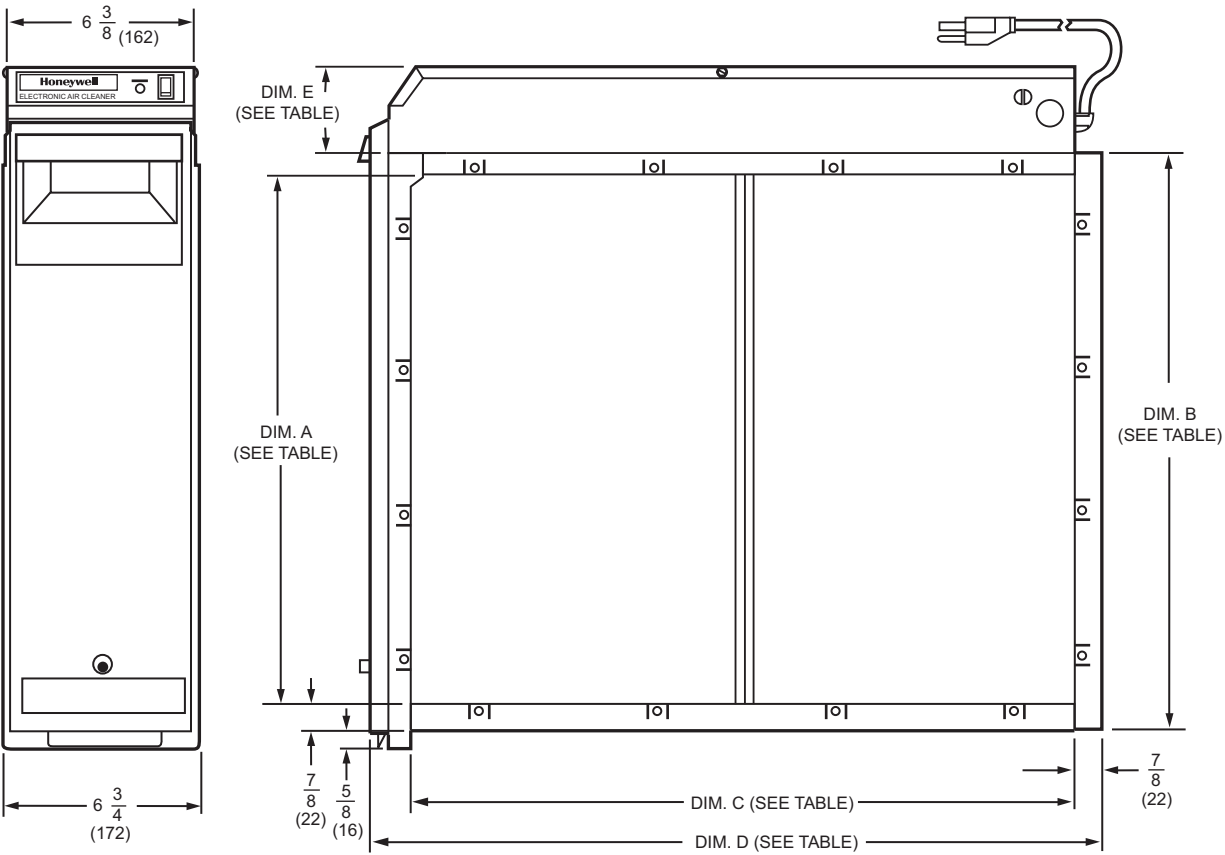
203365A Conversion Kit for changing 120V, 60 Hz power supply to 240V, 60 Hz or 220/240V, 50 Hz.
 W8600F Air Cleaner Monitor.
 W8600A AIRWATCH™ Indicator.

Repair Parts:

See Replacement Parts/Exploded View section.

Table 3. Shipping and Installed Weight.

Item	Weight									
	16 x 20 in. (406 x 508 mm)		16 x 25 in. (406 x 635 mm)		20 x 12-1/2 in. (508 x 318 mm)		20x 20 in. (508x 508 mm)		20 x 25 in. (508 x 635 mm)	
	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg
Electronic Cell (each)	5	2.25	6	2.7	7-1/2	3.4	6-3/16	2.8	7-1/2	3.4
Shipping Weight	30	13.6	33	15.0	25	11.3	33	15.0	38	17.2
Installed Weight (Cells included)	26	11.6	28	12.7	21	9.5	29	13.2	33	15.0



F50F SIZE		DIM. A		DIM. B		DIM. C		DIM. D		DIM. E	
IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM	IN.	MM
16 X 25	406 X 635	14 7/16	367	16 3/16	411	23 1/4	591	25 1/2	648	2 3/4	70
16 X 20	406 X 508	14 7/16	367	16 3/16	411	18 1/4	457	20 1/2	521	2 3/4	70
20 X 25	508 X 635	18 7/16	468	20 3/16	513	23 1/4	591	25 1/2	648	2 3/4	70
20 X 20	508 X 508	18 7/16	468	20 3/16	513	18 1/4	457	20 1/2	521	2 3/4	70
20 X 12 1/2	508 X 318	18 7/16	468	20 3/16	513	10 7/8	276	13 1/8	333	3 5/8	92

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Fig. 2. Electronic air cleaner installation dimensions in in. (mm).

PLANNING THE INSTALLATION

Application

The F300 Electronic Air Cleaner is used in a forced air heating, cooling, or ventilating system. It removes airborne particles from the air circulated through it. All models have an internal air flow switch that automatically energizes the air cleaner cells when the system blower is on.

Review Installation Requirements

The air cleaner should be installed where all the air passing through the system circulates through it. The best location is in the return air duct next to the blower compartment so the air cleaner can help keep the blower motor and evaporator coils clean.

IMPORTANT

Do not mount in the discharge air duct.

For most efficient air cleaning, airflow must be spread evenly across the face of the air cleaner. If the duct is a different size than the air cleaner cabinet, gradual transitions are recommended. If the duct turns sharply just before the air cleaner, turning vanes are recommended.

Applications with Air Conditioning

The air cleaner should be installed upstream from the evaporator coil. The air cleaner will help keep the coil clean, reducing maintenance.