

CA118 In-Ceiling Media Air Cleaner



APPLICATION

The CA118 media air cleaner uses a three-speed direct-drive forwardcurve blower motor and a 95 percent D.O.P. particle filter to capture airborne particles such as dust, soot, and cooking smoke from the circulating air. When equipped with two CPZ[™] modules, the air cleaner also adsorbs gases and odors from the air passing through it. The CA118 is recommended for use in rooms with drop ceilings, and for spaces with structural ceilings not higher than 16 ft (4.8m), where there is a minimum one ft (0.3m) clearance between the drop ceiling and the structural ceiling.

The CA118 media air cleaner uses the Coanda effect to circulate air through the space. This effect is the tendency of air to travel close to a wall contour when ejected from a jet. The air cleaner draws contaminated air up from the center of the room, forces it through the filters, and blows the filtered air out through both narrow ends of the air cleaner.

SPECIFICATIONS

IMPORTANT

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

Table 1. Air Volume				
Air Volume	Cubic ft./Min.	Cubic Meters/Hr.	Current Draw	Sound level at 3.3 ft (1m)
High	425 cfm	723 m ³ /hr	2.8A	65 dBA
Medium	300 cfm	510 m ³ /hr	2.0A	54.5 dBA
Low	200 cfm	340 m ³ /hr	1.4A	48 dBA

Color:

Galvanized steel cabinet and white cover.

SPECIFICATIONDATA

FEATURES

- D.O.P. particle filter is 95 percent efficient at 0.3 micron particles, and more efficient on both larger and smaller particles.
- CPZ[™] modules can reduce space odors.
- Circulates air up to 425 ft³/minute (723m³/hour).
- Provides Coanda air distribution by drawing in dirty air, cleaning it, and bi-directionally recirculating the filtered air throughout the space.
- Designed to overcome the increase in air flow resistance normally caused by filter loading.
- White cover compliments ceiling color.
- Accessible three speed push-button switch.
- · Optional wall-mounted remote switch.
- Easy to remove and replace filters.

Blower/Motor:

Three-speed direct-drive forward curve. Motor lubrication is not required.

Ambient Temperature Rating:

Shipping and Storage: -20 $^{\circ}$ F to +150 $^{\circ}$ F (-29 $^{\circ}$ C to +66 $^{\circ}$ C). Operating: This equipment is intended for use at ambient

temperatures that usually are not higher than 77 °F (25 °C), but occasionally can be as high as 104 °F (40 °C) for brief periods of time. It functions in an environment of up to 95 percent relative humidity, non-condensing.

Electrical Ratings: 120V, 60 Hz.

Grille Type: Perforated metal.



Fig. 1. Approximate dimensions of CA118 in inches (mm).

Mounting:

Hangs freely from structural ceiling, or can be recessed into a frame in a drop ceiling.

Weight: Shipping (cabinet and contents): 119 lbs (54 kg). Installation: 92 lbs (42kg). CPZ™ Absorbent Module: 14 lbs (6 kg) each.

Operation at low and medium speeds usually falls within the range of "white noise."

Approvals (Pending): UL Listed. CSA (Canadian Standards Association) Listed.

OPERATION

Local, Federal and professional ventilation engineering standards and codes prescribe minimum ventilation rates to dilute air contamination in specific applications. The ventilation rates usually assume the injection of outdoor air measured as air exchange rate.

Using the CA118 Air Cleaner to comply with ventilation requirements is an acceptable alternative to ventilation with outdoor air. However, at least 20 percent of a specified ventilation code rate must be derived from outdoor air. The CA118 Air Cleaner filtered and re-circulated air can supply the remaining 80 percent.

Airborne contaminants are always present in the air where contaminant generation occurs. Air cleaning systems and ventilators do not eliminate airborne contaminants; they reduce excessive contaminant accumulation. To eliminate the contamination, the source of contamination must be removed.

The CA118 in Ceiling Media Air Cleaner was engineered to improve indoor air quality for commercial and industrial applications. The filters are effective for capturing atmospheric dust, mold spores, smoke, fumes, mists and aerosols. See Fig. 9.



Fig. 9. CA118 Air Cleaner operation.

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Fig. 9. CA118 Air Cleaner components



Fig. 2. CA118 Air Circulation Schematic (Coanda Airflow).

