



## SECTION 23 41 00

### COMMERCIAL SPACE AIR PURIFICATION SYSTEMS

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#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Commercial space air purification systems.
- B. Filter Media

##### 1.2 RELATED SECTIONS

- A. Section 06 10 00 - Rough Carpentry.
- B. Section 26 05 00 - Common Work Results for Electrical.

##### 1.3 REFERENCES

- A. International Electrotechnical Commission (IEC):
  - 1. IEC 60335-1:2002/A2:2006 - Household and similar electrical appliances - Safety - Part 1: General requirements.
  - 2. IEC 60335-2-65:2003/A1:2008 - Household and similar electrical appliances - Safety - Part 2-65: Particular requirements for air-cleaning appliances.
- B. European Standards (EN):
  - 1. EN1822-1 - High efficiency air filters (EPA, HEPA and ULPA) - Part 1: Classification, performance testing, marking.
- C. United States Environmental Protection Agency and U.S. Department of Energy
- D. Underwriters Laboratories (UL):
  - 1. UL 867 - UL Standard for Safety Electrostatic Air Cleaners
  - 2. UL 2998 - Environmental Claim Validation Procedure (ECVP) for Zero Ozone Emissions from Air Cleaners.

##### 1.4 DEFINITIONS

- A. ACH - Air Changes per Hour.
- B. RH - Relative humidity
- C. VOC - Volatile Organic Compounds

## 1.5 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- B. Product Data:
  - 1. Manufacturer's data sheets on each product to be used.
  - 2. Preparation instructions and recommendations.
  - 3. Storage and handling requirements and recommendations.
  - 4. Typical installation methods.
  - 5. Owner's Manual.
- C. Verification Samples: One representative unit of each type, size, and color shall be provided for review for a 30-day period.
- D. Product Drawings: Include details of materials, construction, and finish. Include relationship with adjacent construction.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
  - 1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
  - 2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
  - 3. Retain mock-up during construction as a standard for comparison with completed work.
  - 4. Do not alter or remove mock-up until work is completed or removal is authorized.

## 1.7 PRE-INSTALLATION CONFERENCE

- A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

## 1.8 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
- B. Protect from damage due to weather, excessive temperature, and construction operations.

## 1.9 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within

limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

## 1.10 WARRANTY

- A. Manufacturer's standard limited warranty unless indicated otherwise.
  - 1. AM2 Model: 3 Year Limited Warranty.
  - 2. Model AM3s and AM4s: 5-year Limited Warranty.
  - 3. One Year Warranty Extension: Available with enrollment in the Protects Program.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Fellowes, Inc., which is located at: 1789 Norwood Ave.; Itasca, IL 60143; Toll Free Tel: 800-477-7940 ; Tel: 630-893-1600; Email: [request info \(info@aeramaxpro.com\)](mailto:requestinfo@ aeramaxpro.com); Web: <http://www.aeramaxpro.com>
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

### 2.2 COMMERCIAL AIR PURIFICATION WALL MOUNT SYSTEMS

- A. Basis of Design: Model No. 9573101. AeraMax PRO AM4 PC Air Purifier.
  - 1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  - 2. Mounting: Wall. Commercial grade wall mount air purifier.
  - 3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  - 4. Air Changes:
    - a. Up to 3 ACH for 1100 sq ft (102 sq m) spaces.
    - b. Up to 5 ACH for 650 sq ft (60 sq m) spaces.
  - 5. Number of Fan Speeds: 5.
  - 6. Airflow (CFM): 153, 186, 224, 280, and 440.
  - 7. Sound Pressure Levels (dB): 42, 44, 51, 53, and 68.
  - 8. System Dimensions (HxWxD): 19.6 x 34.7 x 9 inches (499 x 881 x 228 mm).
  - 9. System Weight: 35 lbs (15.1 kg).
  - 10. Power Consumption (W): 8, 12, 18, 35, and 166.
  - 11. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  - 12. Electrical Safety Certification: UL.
  - 13. Air Intake / Outlet: Bottom and top.
  - 14. Control Panel: Capacitive touch and TFT LCD PureView Screen.
  - 15. Housing Material: UV stabilized ABS.
  - 16. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  - 17. Operating Humidity: Up to 60 percent RH.
  - 18. Warranty: 5 year limited. An additional one year limited warranty is added when unit is registered under the Protects program.

19. Installation Method: Wall mounted hard wired.
  20. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.
      - 4) UL 2998: Report 1001231822-3923572.
      - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
    - b. Air Purification Certified Testing:
      - 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
        - a) Tested By: University of Genoa Department of Experimental Medicine.
      - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
        - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
      - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
        - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
    - c. EnviroSmart patented tech Sensors: Measures sound, motion, and air quality using dual self-regulating lasers.
      - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
      - 2) Sensing Modes:
        - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
        - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
    - d. PureView Display: Allowing occupants to see the difference as they feel the difference.
      - 1) Two high grade laser particle counters monitor air quality as it enters and exits machine, enabling screen to show air quality data in two different display modes:
        - a) Room Status: Current air quality. Percent of particles being captured in real-time.
        - b) Displays in real-time PM2.5 levels entering unit and being removed in filtration process.
      - 2) Showcase VOC, odor levels, and filter change reminders.
    - e. Continuous Operation: 24/7/365.
- B. Basis of Design: Model No. 9416301. AeraMax PRO AM4 Air Purifier.
1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  2. Mounting: Wall. Commercial grade wall mount air purifier.
  3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.

4. Air Changes:
    - a. Up to 3 ACH for 1100 sq ft (102 sq m) spaces.
    - b. Up to 5 ACH for 650 sq ft (60 sq m) spaces.
  5. Number of Fan Speeds: 5.
  6. Airflow (CFM): 153, 186, 224, 280, and 440.
  7. Sound Pressure Levels (dB): 42, 44, 51, 53, and 68.
  8. System Dimensions (HxWxD): 19.6 x 34.7 x 9 inches (499 x 881 x 228 mm).
  9. System Weight: 35 lbs (15.1 kg).
  10. Power Consumption (W): 8, 12, 18, 35, and 166.
  11. Energy Star Certified: Yes.
  12. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  13. Electrical Safety Certification: UL.
  14. Air Intake / Outlet: Bottom and top.
  15. Control Panel: Capacitive touch.
  16. Housing Material: UV stabilized ABS.
  17. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  18. Operating Humidity: Up to 60 percent RH.
  19. Warranty: 5 year limited. An additional one year limited warranty is added when unit is registered under the Protects program.
  20. Installation Method: Wall mounted hard wired.
  21. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.
      - 4) UL 2998: Report 1001231822-3923572.
      - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
    - b. Air Purification Certified Testing:
      - 1) SARS-CoV-2: Effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
        - a) Tested By: University of Genoa Department of Experimental Medicine.
      - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
        - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
      - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
        - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
    - c. EnviroSmart patented tech Sensors: Measures sound, motion, and air quality using dual self-regulating lasers.
      - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
      - 2) Sensing Modes:
        - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
        - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
    - d. Continuous Operation: 24/7/365.
- C. Basis of Design: Model No. 9573001. AeraMax PRO AM3 PC Air Purifier.
1. Filtration: 4-stage HEPA filtration. Captures up to 99.97m percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.

- a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
  - b. Activated Carbon Filter: Reduces odors and VOCs.
  - c. Filter change notifications for both True HEPA and Carbon Filters.
  - d. Ionizer. May be turned on and off.
2. Mounting: Wall. Commercial grade wall mount air purifier.
  3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  4. Air Changes:
    - a. Up to 3 ACH for 550 sq ft (51.10 sq m) spaces.
    - b. Up to 5 ACH for 300 sq ft (27.87 sq m) spaces.
  5. Number of Fan Speeds: 5.
  6. Airflow (CFM): 76, 93, 112, 140, and 220.
  7. Sound Pressure Levels (dB): 38, 41, 48, 52, and 67.
  8. System Dimensions (HxWxD): 19.6 x 20.9 x 9 inches (499 x 531 x 228 mm).
  9. System Weight: 20 lbs (9.1 kg).
  10. Power Consumption (W): 5, 8, 11, 21, and 100.
  11. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  12. Electrical Safety Certification: UL.
  13. Air Intake / Outlet: Bottom and top.
  14. Control Panel: Capacitive touch and TFT LCD PureView Screen.
  15. Housing Material: UV stabilized ABS.
  16. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  17. Operating Humidity: up to 60 percent RH.
  18. Warranty: 5 year limited. An additional one year limited warranty is added when unit is registered under the Protects program.
  19. Installation Method: Wall mounted hard wired.
  20. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.
      - 4) UL 2998: Report 1001231822-3923572.
      - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
    - b. Air Purification Certified Testing:
      - 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
        - a) Tested By: University of Genoa Department of Experimental Medicine.
      - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
        - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
      - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
        - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
    - c. EnviroSmart patented tech Sensors: Measure sound, motion, and air quality using dual self-regulating lasers.
      - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
      - 2) Sensing Modes:
        - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
        - b) Quiet Mode: Quieter fan speeds when space is occupied

and all fan speeds when space is unoccupied. Ideal where noise is a concern.

- d. PureView Display: Allowing occupants to see the difference as they feel the difference.
    - 1) Two high grade laser particle counters monitor air quality as it enters and exits machine, enabling screen to show air quality data in two different display modes:
      - a) Room Status: Current air quality. Percent of particles being captured in real-time.
      - b) Displays in real-time PM2.5 levels entering unit and being removed in filtration process.
    - 2) Showcase VOC, odor levels, and filter change reminders.
  - e. Continuous Operation: 24/7/365.
- D. Basis of Design: Model No. 9416201. AeraMax PRO AM3 Air Purifier.
- 1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  - 2. Mounting: Wall. Commercial grade wall mount air purifier.
    - a. Floor Stand Accessory.
  - 3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  - 4. Air Changes:
    - a. Up to 3 ACH for 550 sq ft (51.10 sq m) spaces.
    - b. Up to 5 ACH for 300 sq ft (27.87 sq m) spaces.
  - 5. Number of Fan Speeds: 5.
  - 6. Airflow (CFM): 76, 93, 112, 140, and 220.
  - 7. Sound Pressure Levels (dB): 38, 41, 48, 52, and 67.
  - 8. System Dimensions (HxWxD): 19.6 x 20.9 x 9 inches (499 x 531 x 228 mm).
  - 9. System Weight: 20 lbs (9.1 kg).
  - 10. Power Consumption (W): 5, 8, 11, 21, and 100.
  - 11. Energy Star Certified: Yes.
  - 12. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  - 13. Electrical Safety Certification: UL.
  - 14. Air Intake / Outlet: Bottom and top.
  - 15. Control Panel: Capacitive touch.
  - 16. Housing Material: UV stabilized ABS.
  - 17. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  - 18. Operating Humidity: Up to 60 percent RH.
  - 19. Warranty: 5 year limited; an additional one year limited warranty added when unit is registered under the Protects program.
  - 20. Installation Method: Wall mounted hard wired.
  - 21. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.
      - 4) UL 2998: Report 1001231822-3923572.
      - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
    - b. Air Purification Certified Testing:

- 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
    - a) Tested By: University of Genoa Department of Experimental Medicine.
  - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
    - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
  - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
    - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
  - c. EnviroSmart patented tech Sensors: Measure sound, motion, and air quality using dual self-regulating lasers.
    - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
    - 2) Sensing Modes:
      - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
      - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
  - d. Continuous Operation: 24/7/365.
- E. Basis of Design: Model No. 9540901. AeraMax PRO AM2 Air Purifier Stand. Slim Profile.
1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  2. Mounting: Wall. Commercial grade wall mount air purifier.
    - a. Recess Kit: Model No. 9540801. ADA compliant. Hard wired.
  3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  4. Air Changes:
    - a. Up to 3 ACH for 250 sq ft (23.23 sq m) spaces.
    - b. Up to 5 ACH for 150 sq ft (13.93 sq m) spaces.
  5. Number of Fan Speeds: 5.
  6. Airflow (CFM): 35, 43, 51, 64, and 100.
  7. Sound Pressure Levels (dB): 45, 48, 51, 60, and 64.
  8. System Dimensions (HxWxD): 22.6 x 14 x 4.1 inches (566 x 348 x 102 mm).
  9. System Weight: 10.6 lbs (4.8 kg).
  10. Power Consumption (W): 5, 7, 11, 33, and 55.
  11. Energy Star Certified: Yes.
  12. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  13. Electrical Safety Certification: UL.
  14. Air Intake / Outlet: Sides and top.
  15. Control Panel: Capacitive touch.
  16. Housing Material: UV stabilized ABS.
  17. Operating Temperature: 50 to 104 degrees F (10 to 40 degrees C).
  18. Operating Humidity: up to 60 percent RH.



19. Warranty: 3 year limited. An additional one year limited warranty is added when unit is registered under the Protects program
20. Installation Method: Wall mounted with plug.
21. Installation Method: Recess kit. ADA Compliant Hard wired installation.
22. Performance Requirements:
  - a. Standards Certification and Compliance:
    - 1) IEC 60335-1:2002/A2:2006.
    - 2) IEC 60335-2-65:2003/A1:2008.
    - 3) UL 867: Report 20170213-E349375, 2017.
    - 4) UL 2998: Report 1001231822-3923572.
  - b. Air Purification Certified Testing:
    - 1) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
      - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
  - c. EnviroSmart patented tech Sensors: Measure sound, motion, and air quality using dual self-regulating lasers.
    - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
    - 2) Sensing Modes:
      - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
      - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
  - d. Continuous Operation: 24/7/365.

### 2.3 COMMERCIAL AIR PURIFICATION FLOOR STAND SYSTEMS

- A. Basis of Design: Model No. 9573301. AeraMax PRO AM4S PC Air Purifier.
  1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  2. Mounting: Floor Stand.
  3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  4. Air Changes:
    - a. Up to 3 ACH for 1100 sq ft (102 sq m) spaces.
    - b. Up to 5 ACH for 650 sq ft (60 sq m) spaces.
  5. Number of Fan Speeds: 5.
  6. Airflow (CFM): 153, 186, 224, 280, and 440.
  7. Sound Pressure Levels (dB): 42, 44, 51, 53, and 68.
  8. System Dimensions (HxWxD): 19.6 x 34.7 x 9 inches (499 x 881 x 228 mm).
  9. System Weight: 35 lbs (15.1 kg).
  10. Power Consumption (W): 8, 12, 18, 35, and 166.
  11. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  12. Electrical Safety Certification: UL.
  13. Air Intake / Outlet: Bottom and top.
  14. Control Panel: Capacitive touch and TFT LCD PureView Screen.
  15. Housing Material: UV stabilized ABS.

16. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  17. Operating Humidity: Up to 60 percent RH.
  18. Warranty: 5 year limited. An additional one year limited warranty is added when unit is registered under the Protects program.
  19. Installation Method: Floor stand constructed, plug; power outlet.
  20. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.
      - 4) UL 2998: Report 1001231822-3923572.
      - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
    - b. Air Purification Certified Testing:
      - 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
        - a) Tested By: University of Genoa Department of Experimental Medicine.
      - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
        - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
      - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
        - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
    - c. EnviroSmart patented tech Sensors: Measures sound, motion, and air quality using dual self-regulating lasers.
      - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
      - 2) Sensing Modes:
        - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
        - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
    - d. PureView Display: Allowing occupants to see the difference as they feel the difference.
      - 1) Two high grade laser particle counters monitor air quality as it enters and exits machine, enabling screen to show air quality data in two different display modes:
        - a) Room Status: Current air quality. Percent of particles being captured in real-time.
        - b) Displays in real-time PM2.5 levels entering unit and being removed in filtration process.
      - 2) Showcase VOC, odor levels, and filter change reminders.
    - e. Continuous Operation: 24/7/365.
- B. Basis of Design: Model No. 9451201. AeraMax PRO AM4S Air Purifier.
1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.

- d. Ionizer. May be turned on and off.
- 2. Mounting: Floor Stand.
- 3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
- 4. Air Changes:
  - a. Up to 3 ACH for 1100 sq ft (102 sq m) spaces.
  - b. Up to 5 ACH for 650 sq ft (60 sq m) spaces.
- 5. Number of Fan Speeds: 5.
- 6. Airflow (CFM): 153, 186, 224, 280, and 440.
- 7. Sound Pressure Levels (dB): 42, 44, 51, 53, and 68.
- 8. System Dimensions (HxWxD): 19.6 x 34.7 x 9 inches (499 x 881 x 228 mm).
- 9. System Weight: 35 lbs (15.1 kg).
- 10. Power Consumption (W): 8, 12, 18, 35, and 166.
- 11. Energy Star Certified: Yes.
- 12. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
- 13. Electrical Safety Certification: UL.
- 14. Air Intake / Outlet: Bottom and top.
- 15. Control Panel: Capacitive touch.
- 16. Housing Material: UV stabilized ABS.
- 17. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
- 18. Operating Humidity: Up to 60 percent RH.
- 19. Warranty: 5 year limited. An additional one year limited warranty is added when unit is registered under the Protects program.
- 20. Installation Method: Floor stand constructed, plug; power outlet.
- 21. Performance Requirements:
  - a. Standards Certification and Compliance:
    - 1) IEC 60335-1:2002/A2:2006.
    - 2) IEC 60335-2-65:2003/A1:2008.
    - 3) UL 867: Report 20170213-E349375, 2017.
    - 4) UL 2998: Report 1001231822-3923572.
    - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
  - b. Air Purification Certified Testing:
    - 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier
      - a) Tested By: University of Genoa Department of Experimental Medicine.
    - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
      - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
    - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
      - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
  - c. EnviroSmart patented tech Sensors: Measures sound, motion, and air quality using dual self-regulating lasers.
    - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
    - 2) Sensing Modes:
      - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
      - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
  - d. Continuous Operation: 24/7/365

- C. Basis of Design: Model No. 9573201. AeraMax PRO AM3S PC Air Purifier.
1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  2. Mounting: Floor Stand.
  3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  4. Air Changes:
    - a. Up to 3 ACH for 550 sq ft (51.10 sq m) spaces.
    - b. Up to 5 ACH for 300 sq ft (27.87 sq m) spaces.
  5. Number of Fan Speeds: 5.
  6. Airflow (CFM): 76, 93, 112, 140, and 220.
  7. Sound Pressure Levels (dB): 38, 41, 48, 52, and 67.
  8. System Dimensions (HxWxD): 19.6 x 20.9 x 9 inches (499 x 531 x 228 mm).
  9. System Weight: 20 lbs (9.1 kg).
  10. Power Consumption (W): 5, 8, 11, 21, and 100.
  11. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  12. Electrical Safety Certification: UL.
  13. Air Intake / Outlet: Bottom and top.
  14. Control Panel: Capacitive touch and TFT LCD PureView Screen.
  15. Housing Material: UV stabilized ABS.
  16. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  17. Operating Humidity: up to 60 percent RH.
  18. Warranty: 5 year limited. An additional one year limited warranty is added when unit is registered under the Protects program.
  19. Installation Method: Floor stand constructed, plug; power outlet.
  20. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.
      - 4) UL 2998: Report 1001231822-3923572.
      - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
    - b. Air Purification Certified Testing:
      - 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
        - a) Tested By: University of Genoa Department of Experimental Medicine.
      - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
        - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
      - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
        - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
    - c. EnviroSmart patented tech Sensors: Measures sound, motion, and air quality using dual self-regulating lasers.
      - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.

- 2) Sensing Modes:
    - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
    - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
  - d. PureView Display: Allowing occupants to see the difference as they feel the difference.
    - 1) Two high grade laser particle counters monitor air quality as it enters and exits machine, enabling screen to show air quality data in two different display modes:
      - a) Room Status: Current air quality. Percent of particles being captured in real-time.
      - b) Displays in real-time PM2.5 levels entering unit and being removed in filtration process.
    - 2) Showcase VOC, odor levels, and filter change reminders.
  - e. Continuous Operation: 24/7/365
- D. Basis of Design: Model No. 9450001. AeraMax PRO AM3S Air Purifier.
1. Filtration: 4-stage HEPA filtration. Captures up to 99.97 percent of particles as small as 0.3 microns, including allergens, such as pollen, dust, pet dander, and smoke.
    - a. AeraSafe antimicrobial treatment applied to the H13 True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
    - b. Activated Carbon Filter: Reduces odors and VOCs.
    - c. Filter change notifications for both True HEPA and Carbon Filters.
    - d. Ionizer. May be turned on and off.
  2. Mounting: Floor Stand.
  3. EnviroSmart Technology: Continuously monitors occupancy and room air quality and automatically adjusts to clean the air.
  4. Air Changes:
    - a. Up to 3 ACH for 550 sq ft (51.10 sq m) spaces.
    - b. Up to 5 ACH for 300 sq ft (27.87 sq m) spaces.
  5. Number of Fan Speeds: 5.
  6. Airflow (CFM): 76, 93, 112, 140, and 220.
  7. Sound Pressure Levels (dB): 38, 41, 48, 52, and 67.
  8. System Dimensions (HxWxD): 19.6 x 20.9 x 9 inches (499 x 531 x 228 mm)
  9. System Weight: 20 lbs (9.1 kg).
  10. Power Consumption (W): 5, 8, 11, 21, and 100.
  11. Energy Star Certified: Yes.
  12. Power Requirements: 120 Volts, 60 Hz, 2 Amps.
  13. Electrical Safety Certification: UL.
  14. Air Intake / Outlet: Bottom and top.
  15. Control Panel: Capacitive touch.
  16. Housing Material: UV stabilized ABS.
  17. Operating Temperature: 41 to 104 degrees F (5 to 40 degrees C).
  18. Operating Humidity: up to 60 percent RH.
  19. Warranty: 5 year limited. An additional one year limited warrant is added when unit is registered under the Protects program.
  20. Installation Method: Floor stand constructed, plug; power outlet.
  21. Performance Requirements:
    - a. Standards Certification and Compliance:
      - 1) IEC 60335-1:2002/A2:2006.
      - 2) IEC 60335-2-65:2003/A1:2008.
      - 3) UL 867: Report 20170213-E349375, 2017.

- 4) UL 2998: Report 1001231822-3923572.
  - 5) EN1822-1: 2019 H13 Report No. 0681-21A-04.
  - b. Air Purification Certified Testing:
    - 1) SARS-CoV-2: effective in eliminating aerosolized concentration of SARS-CoV-2 by 99.9999 percent through a single air pass test of the purifier.
      - a) Tested By: University of Genoa Department of Experimental Medicine.
    - 2) Filtration of Influenza A (H1N1): 99.9 percent efficacy.
      - a) Tested By: Airmid Healthgroup. Report No. ASCR092102v2.
    - 3) Filtration of Coronavirus (HCoV 229E Vero-E6): Antiviral Activity Rate greater than 99.99 percent after 60 minutes.
      - a) Tested By: Shanghai WEIPU Chemical Technology Service Co., Ltd. Report No. WP-21036198-JC-01En.
  - c. EnviroSmart patented tech Sensors: Measure sound, motion, and air quality using dual self-regulating lasers.
    - 1) Works when it needs to, and shifts to standby when possible, saving energy and extending filter lifespan.
    - 2) Sensing Modes:
      - a) Normal Mode: Automatically adjusts between fan speeds to control air quality. Ideal for most shared spaces.
      - b) Quiet Mode: Quieter fan speeds when space is occupied and all fan speeds when space is unoccupied. Ideal where noise is a concern.
  - d. Continuous Operation: 24/7/365.
- E. Basis of Design: Model No. 9540901. AeraMax PRO AM2 Air Purifier Stand. Floor stand accessory for use with AeraMax PRO AM2 Air Purifier.
- 1. Allows low-profile, portable placement of AeraMax PRO AM2 on floor.
  - 2. Sturdy design with a quick, no tool assembly.
  - 3. Allows mobility for placement of air purifier in other rooms.
  - 4. Includes: 1 stand, 2 push screws, and assembly instructions.

## 2.4 FILTER MEDIA

- A. Performance Requirements:
- 1. Pre-Filter: Captures large particles and contaminants. Protects lifespan of other filters.
  - 2. Active Carbon Filter: Adsorbs odors and VOCs from air.
  - 3. H13 True HEPA Filter:
    - a. Captures and traps 99.97 percent of airborne particles; verified HEPA capture efficiency at 0.3 microns.
    - b. AM3 and AM4 2 inch HEPA: H13 True HEPA filter captures up to 99.9 percent of particles as small as 0.1 microns, including allergens such as pollen, dust, pet dander and smoke. Tested to EN1822:2019 Standards.
    - c. AeraSafe antimicrobial treatment applied to the True HEPA filter inhibits the growth of odor and stain-causing microorganisms, extending the filter lifespan.
  - 4. Bipolar Ionizer: Improves the capture efficiency of the particulate filter
  - 5. No Maintenance of Filters: Cleaning or vacuuming must be required for unit
- B. Filters for AM3 and AM4 Models:
- 1. Standard Filter Configuration:
    - a. Carbon Filter with Pre-Filter: 3/8 inch (9.5 mm).

- 1) Active Carbon Weight: Approximately 1 lbs (0.45 kg).
      - 2) Estimated Filter Life: 6 Months.
      - 3) Pack Size: 4 Pack. Item Number: 9416502
    - b. H13 True HEPA filter captures up to 99.9 percent of particles as small as 0.1 microns, including allergens such as pollen, dust, pet dander and smoke. Tested to EN1822:2019 Standards.
    - c. H13 True HEPA: 2 inch (51 mm).
      - 1) HEPA Filter Media: Approx. 27 sq ft (2.51 sq m).
      - 2) Antimicrobial Treatment: Yes.
      - 3) Estimated Filter Life: 12 Months.
        - a) Pack Size: 2 Pack. Item Number: 9416602
  - 2. Hybrid Filter
    - a. Filter Type: 2 inch (51 mm) Filter made of the following:
      - 1) Carbon: 50 percent
        - a) Active Carbon Weight: Approximately 1 lbs (0.45 kg).
      - 2) True HEPA: 50 percent.
        - a) HEPA Filter Media: Approx. 14 sq ft (1.3 sq m).
        - b) Antimicrobial Treatment: Yes.
      - 3) Estimated Filter Life: 12 Months.
      - 4) Pack Size: 2 Pack. Item Number: 9436902
        - a) Ships with pre-filters.
  - 3. Full Carbon Filter (High Odor/VOC)
    - a. Filter Type: 2 inch (51 mm) Carbon Filter with Pre-Filter:
      - 1) Active Carbon Weight: Approximately 6 lbs (2.72 kg).
      - 2) Estimated Filter Life: 12 Months.
      - 3) Pack Size: 2 Pack. Item Number: 9436802
  - 4. Pre-Filters:
    - a. Filter Type: Preplacement Pre-Filters.
    - b. HEPA Filter Media:
    - c. Estimated Filter Life: 6 to 12 months.
    - d. Pack Size: 4 pack. Item Number: 9600501.
- C. Filters for AM2 Models:
- 1. Standard Filter Configuration:
    - a. Filter Type: 1-3/4 inch (44.5 mm) Filter made of the following:
      - 1) Carbon: 50 percent
        - a) Active Carbon Weight: Approximately 3/4 lbs (0.34 kg).
      - 2) True HEPA: 50 percent.
        - a) HEPA Filter Media: Approx. 5.4 sq ft (0.50 kg).
        - b) Antimicrobial Treatment: Yes.
      - 3) Estimated Filter Life: 12 Months.
      - 4) Pack Size: 1 Pack. Item Number: 9544501
  - 2. Full True HEPA Configuration:
    - a. Filter Type: 1-3/4 inch (44.5 mm) True HEPA filter.
      - 1) HEPA Filter Media: Approx. 12.3 sq ft (1.14 sq m).
      - 2) Antimicrobial Treatment: Yes.
      - 3) Estimated Filter Life: 12 Months.
      - 4) Pack Size: 1 Pack. Item Number: 9544301
  - 3. Full Carbon Filter for High Odor and VOCs
    - a. Filter Type: 1-3/4 inch (44.5 mm) Carbon filter.
      - 1) Active Carbon Weight: Approximately 1-1/2 lbs (0.68 kg).
      - 2) Estimated Filter Life: 12 Months.
      - 3) Pack Size: 1 Pack. Item Number: 9544601
  - 4. Pre-Filters:
    - a. Filter Type: Preplacement Pre-Filters.
    - b. Estimated Filter Life: 6 to 12 months.

- c. Pack Size: 4 pack. Item Number: 9608401.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly constructed and prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

### 3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

### 3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.

### 3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.
- B. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.

### 3.5 CLEANING AND PROTECTION

- A. Clean products in accordance with the manufacturer's recommendations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION