



ElectraFlow HDO-205

Mission Critical Overhead ESD Ionizer with Lighting Specifications and Installation

Method of operation and uses: The HDO-205 is an extreme service mission critical overhead ionizer. The HDO-205 emits a powerful yet balanced ionic output that overwhelms static laden insulative items or conductive items that are insulated from a ground source.

Uses include:

- Eliminating static from items that are used in or near static sensitive products.
- Eliminating dust or dirt due to static attraction
- The misalignment of small parts due to electrostatic charging
- The undesirable adhesion of plastic films due to electrostatic charging

Mechanical Properties

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| Operating Voltage | 110V / 60Hz standard, 220V / 50Hz optional |
| Current Consumption | Max 0.9 Amp (fan high, light on), Min 0.45 Amp |
| Operating Temperature | 32° F. - 122° F. (0 ~50°c) |
| Air Coverage | 24" x 48" minimum |
| Air Volume | 110~330 CFM, +/- 3% |
| Size (including stand) | 46.5" (L) x 6.10" (W) x 4.33" (H) inches |
| Weight | 17 Lbs. |
| Finish and casing material | Antistatic powder coated aluminum alloy |
| RoHS Compliant | EC directive 2015/863 RoHS 3 |
| Offset voltage | < +/- 7 volts typical |
| Ozone Generation | < 0.03 X10 ⁻⁶ |
| Sound Generation | 59 to 60 dB |

Typical Decay Test Results

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| Testing Condition @ <30% rH and 71.2° F. per ANSI / ESD SP.3.3 | | | | |
| Operating Voltage: 110V, Testing Voltage: 1kV to 100V, Temperature: 71.6°F. | | | | |
| Distance | 12" | 24" | 36" | 48" |
| Left | 0.7 | 2.1 | 3.90 | 4.7 |
| Center | 0.6 | 1.9 | 3.20 | 4.3 |
| Right | 0.7 | 2.0 | 3.70 | 4.8 |



Installation: Install energy efficient light bulbs (included with the ionizer) into the unit by removing the front cover with a screw driver, unpacking bulbs, screwing them into place and replacing the front panel. The HDO-205 is an overhead unit designed to provide ideal coverage for control of electrostatics. Note: Do not insert objects into air intake or outlet grille and do not operate the HDO-205 in inflammable or explosive environments. The HDO-205 ionizer should be affixed approximately 24 to 36 inches above the work surface with fans targeted directly over the work area. Avoid drafty locations such as that caused by air conditioning, heater outlets, etc.

Attachment to overhead supports: S hooks and chains may be used for mounting these ionizers to structurally sound ceilings or wire shelves. Chains and mounting hardware should have a minimum safe working load of at least 50 pounds. When mounting the unit to ceilings it is important to check state and local codes to insure compliance. These units are typically hung in the same fashion as overhead light fixtures (independently attached to the overhead building superstructure). Note: Attachment to suspended ceilings only may not be compliant with local codes. Mounting to workbench overhead supports: These ionizers may be mounted to work bench overhead shelves and beams using the supplied [side mounting bracket](#) in conjunction with angle iron, bolt on L brackets etc. These ionizers may be used either horizontally or vertically.

Electrical Requirements: The HDO-205 requires 110VAC /60Hz power. These units *must* be grounded. Each unit is supplied with a standard US 3 prong male grounded power plug. Do not modify the plug or use an ungrounded 3 prong receptacle. If an extension cord is required use heavy gauge fully grounded cords only.

Operating Procedure: Activate the HDO-205 overhead ionizing blower by turning fan speed knob clockwise. The ionization indicator will illuminate and indicate the presence of ionized air. Airflow speed can easily be adjusted utilizing the fan speed knob. Light is provided via a simple on/off switch. The time required to neutralize electrostatic potential is dependent on distance of ionizer to work surface and speed of fans. When used in electronic assembly the ionized air stream should cover as much of the working area as possible. The constant flow of ionized air prevents items from developing an electrostatic potential and neutralizes electrostatic charges present on objects introduced to the airflow.

Routine Maintenance: Inspect the emitter points on occasion. They should look clean and sharp. To clean the emitter pins press and turn the point cleaner knob (located in the middle of each air outlet) clockwise approximately one turn and reverse the assembly to lock it into the start position. Clean air inlet and outlets as needed with a soft brush or vacuum. Periodically test ionic output as indicated by your internal ESD program or ANSI/ESD S 20.20-2014, TR53, Air Ionizer Compliance Verification (discharge time and offset voltage). Offset voltages of >+/- 35 volts or decay times that exceed user defined specifications (typically < 3.0 sec @ 40%RH and 68 deg. F. with ionizer positioned 24" from the center of the work surface) may indicate the need for replacement of emitters. Normal emitter life is 5 to 10 years, replacement emitters are easy to install and available from United SCP.

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| Revision History Initial Release: 5/19/2021 Approved: SRC |
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