Specification

Power Frequency AC Ionizer_PF1201C

01 Description

- Comply with the limit requirements of ANSI/ESD S20.20 for audit inspection and conformity verification test of ionization equipment.
- Comply with ANSI/ESD S20.20 -2014 ANSI/ESD STM3.1 requirements for audit inspection and testing of ionization equipment.
  The desktop ionizing blower produces an airflow that is rich in positive and negative ions. Directing the airflow on an object that has a static electricity charge will neutralize the charge.
- PF1201C is a portable ionized air blower. It uses a small fan to produce airflow. The volume of airflow is controlled by a variable speed control, which provides a wide range of airflow setting. The high voltage AC is applied to a circular arrangement of tungsten steel ion emitter points, which results in an intense alternating electric field at the tip of the emitter points. It is this electric field that creates alternating polarity ions in the airflow. To assure that the unit is working properly, the high voltage AC is monitored by an ionization indicator lamp.
- PF1201C features a patented balancing circuit. Also features a patented built in emitter cleaner,which can remove the dust on the emitter and maintain the normal operation of the ionization device.
- The desktop ionizing blower was designed for use with sensitive electronic components, where electrostatic discharge is a problem. The desk-top ionizing blower can also be used where static electricity causes problems such as: attraction of dirt to product, misalignment of small parts due to electrostatic "jumping" and undesirable adhesion of plastic films due to electrostatic charge.

02 Features

- Small, light weight and portable
- Rapidly neutralizes static charges
- Variable speed fan with wide range of air flow
- Inherently balanced ion output
- Ionization indicator lamp

03 Ion Output (Discharge Time)

Away from Blower	Left 300mm	Center line	Right 300mm
300mm		1.3sec	
600mm	3.2sec	2.5sec	3.3sec
900mm	6.4sec	4.6sec	6.5sec

• Distance measured in mm, decay time measured in seconds.
• Test data available using ME 268A charges plate analyzer.
• Test figures are subject to the variation in the atmospheric conditions.
• Discharge times are in seconds from 1000 volts to 100 volts.

04 Static Elimination Performance

Operating voltage: DC24V Temperature 23±3°C		Test voltage ±1000V-±100V RH: 50%+/-5%		
Distance(mm)		300	600	900
Decay time	Positive	0.7S	1.5S	2.3S
	Negative	1.0S	2.0S	3.2S
Ion Balance	Positive	±10V		
	Negative			
Measurement method: Please use 20PF, 150mm static elimination monitor to measure				
When the maximum air volume, from ± 1000V --- ± 100V decay time (this test results are tested using straight wind window)				
Results vary from environment to environment, the above is reference data, please test according to the actual use of the environment				

05 Specifications

Ling voltage	220V/50Hz, 110V/60Hz
Current Draw	Max.0.25 Amp (fan high, light on)
	Min 0.12 Amp (fan low, light off)
Air Volume output	Fan Speed Flow,Low 45 CFM,High 110 CFM
Air Flow characteristics	30cm×30cm Area Coverage
Operating Temperature	32°F(0°C)---122°F(50°C)
Enclosure	Aluminum
Finish	Powder Coat
Size	190mmL×95mmW×260mmH
Ion Balance (offset voltage)	0V+/- 10V

06 Maintenance

A. Emitter Cleaning

To clean ion emitter points: simply rotate point cleaner knob located at center of each outlet clockwise to the stop (approximately one turn) and release. The spring-loaded point cleaning brush will return to its home position.

B. Air Inlet and Outlet Cleaning

The air inlet grilles on the top of the unit and ionized air outlets should remain clean to prevent restriction of airflow. They can be cleaned with a soft brush or vacuum.

C. Ion Output Check

Use a charged plate monitor to test the unit for ion output. Discharge times should be measured and checked.

1. In a charged plate monitor is not available, but a hand held electrostatic field meter is available, ion output may be checked using the following procedure.

- Take a piece of plastic and rub it with cloth until a static charge can be read with the static meter.
- Turn on the PF1201C unit and set fan speed to high.
- Hold the plastic 1-foot away from center ionized air outlet for five seconds.
- Remove plastic from ionized air stream and measure static charge. The plastic should be neutralized.

2. If no instrumentation is available, ion output may be verified with the following procedure.

- Tear-off about a 300mm length of Scotch brand (or equivalent) transparent tape.
- Approach non-adhesive side of tape with you free hand and note the electrostatic attraction of tape to your hand.
- Pass tape through the ionized air stream approximately 1 foot from unit and again approach non-adhesive side of tape with your free hand. If the tape has been neutralized, it will not attract.

D. Ion Balance Check

- Use a charged plate monitor to test unit for ion balance of +/- 10v.
- Do not try to determine ion balance by holding a static meter in the ionized air stream as this will result in a meaningless reading.

07 Electrical Shock Hazard

- Do not insert objects through intake or outlet grille.
- Do not try to verify operation of unit by drawing a spark from an ion emitter point. The design of the balancing circuit makes the "spark test" inconclusive. Sustained grounding of ion emitters may damage balancing circuit.

08 Maintenance and Service

We strictly pursue the policy of high quality, high reputation, and customers are paramount. To all ESDMAN products, we promise;

A. Warranty

Guarantee is due for one year from date of purchase. During this period any quality problem caused by product parts, materials are under warranty.

B. Service after warranty expired

Replacement parts and material are charged to customer after warranty expired. Labor cost for repairing is free.