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Ionization Solutions

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Critical Environment Multi-fan Overhead Ionizer

MODEL 5842

Simco-Ion's latest Critical Environment Overhead Ionizer Model 5842 is designed to provide industry-leading balanced ionization performance in cleanroom environments. The 5842 has the Novx System and Novx Insides versions; it can operate with Novx sensors to maintain precise balance (better than ±1V) by altering ion output and adapting to environmental changes. With the reliability of Steady-state DC technology, the established method for eliminating the effects of ESD and ESD-induced electromagnetic interference (EMI) in high-tech facilities, the Model 5842 delivers maximum ion output where and when you need it.

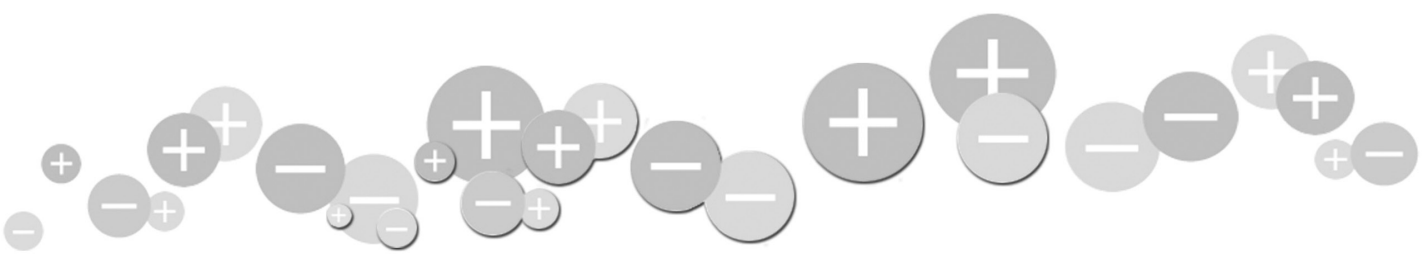
Designed with the overall ease of use features and built-in Auto-clean System for each fan, effectively reducing maintenance time and cost. The 5842 multi-fan overhead blower is available in 2-3-4 fan configuration and is the lightest overhead blower available in the industry—the ideal tool for today's stringent manufacturing process.

Features

- ±3V or better balance (±1V with the Novx Inside or Novx System versions)
- Cleanliness rated at ISO 14644-1 Class 4
- Sensor input, FMS connection, alarms and management control
- Built-in Auto-clean System with each fan
- Available in 2-3-4 fan; each with four fan speeds (high, med-high, med-low, low)

Benefits

- Provides the best ESD protection for maximizing yields
- Designed for use in an environment with a controlled level of contamination
- Increased control with immediate notification of alarms and the prevention of unauthorized adjustment to power or fan speed
- Automated emitter point cleaning for reduced maintenance cost and time
- Numerous options for flexibility and ease of use



Model 5842	
Input Voltage	2 fan: 24 VDC, 1.0A max; 3 fan: 24 VDC, 1.5A max; 4 fan: 24 VDC, 2A max
Discharge	<2 sec @ 18" (45.7 cm) overhead (±1000-100V)
Balance[1]	±3V or better balance; ±1V with the Novx Inside or Novx System versions
Ion Emission	Steady-state DC Technology
Emitter	Titanium, 8 per fan
Cleanroom Class	ISO 14644-1 Class 4
LED Indicator	Green POWER on, red FAN stall, red FAULT with optional AUDIBLE ALARM
Control	Power/fan speed DIP switch with 4 speed/velocity settings, balance adjustment, FMS connections
Audible Noise	High fan speed 61 dB (typ), low fan speed 52 dB (typ); measurements taken 12" (30.5 cm) from fan
Airflow	High: 129 cfm (typ/fan); Med-hi: 117 cfm; Med-low: 76 cfm; Low: 41 cfm
Ozone	0.005 ppm (typ)
Operating Env	50-90°F (10-32°C); 30-70% RH, non-condensing
Option	Audible alarm
Enclosure	Aluminum chassis with epoxy-polyester powder coat
Dimension	2-fan: 32"L x 2.75"H x 5.44"W (81.3 x 6.99 x 13.8 cm) 3-fan: 42"L x 2.75"H x 5.44"W (106.7 x 6.99 x 13.8 cm) 4-fan: 52"L x 2.75"H x 5.44"W (132.1 x 6.99 x 13.8 cm)
Weight	2-fan: 5.5 lb (2.49 kg), 3-fan: 7.8 lb (3.55 kg), 4-fan: 10 lb (4.55 kg)
Warranty	Two year limited warranty
Certification	CE cULus RoHS2 KC UKCA
Power Adapter 14-1710-01	
Input Voltage	90-264 VAC 50/60 Hz
Output Voltage	24 VDC, 65W
Dimension	4.5"L x 1.5"H x 2.1"W (11.4 x 3.81 x 5.33)
Weight	0.68 lb (0.31 kg)
Certification	CE cULus RoHS2 UKCA

1. Tested in accordance with ANSI/ESD STM3.1-2015.

Ordering Information

91-5842-32-NX01	5842 Blower 32" 2-Fan (Standalone), RoHS (does not incl Power Adapter)
91-5842-42-NX01	5842 Blower 42" 3-Fan (Standalone), RoHS (does not incl Power Adapter)
91-5842-52-NX01	5842 Blower 52" 4-Fan (Standalone), RoHS (does not incl Power Adapter)
91-5842A-32-NX01	5842 Blower 32" 2-Fan Antenna (Novx Inside), RoHS (does not incl Power Adapter)
91-5842A-42-NX01	5842 Blower 42" 3-Fan Antenna (Novx Inside), RoHS (does not incl Power Adapter)
91-5842A-52-NX01	5842 Blower 52" 4-Fan Antenna (Novx Inside), RoHS (does not incl Power Adapter)
91-5842N-32-NX01	5842 Blower 32" 2-Fan Novx (Novx System), RoHS (does not incl Power Adapter)
91-5842N-42-NX01	5842 Blower 42" 3-Fan Novx (Novx System), RoHS (does not incl Power Adapter)
91-5842N-52-NX01	5842 Blower 52" 4-Fan Novx (Novx System), RoHS (does not incl Power Adapter)
14-1710-01	24 VDC 65W Power Adapter (IEC power cord required, contact Sales Services for detail)
33-0504	Passive Antenna, 1.75" x 4" Tall with SMA-to-SMA Cable (5 ft)
33-0521-5	Passive Antenna, 1.75" x 1" Tall with SMA-to-SMA Cable (5 ft)
33-1620-xx	IC, Novx feedback/Control Interface Cable

Note: For Audible Alarm option, add suffix "A" to the above part numbers.

±1V Balance Performance with Novx

For ±1V balance performance, Model 5842 is available with Novx System or with Novx Inside. Both versions operate with the Novx to detect and automatically correct the balance. With the sensor placed at the target area, feedback is sent to the Model 5842 blower's internal control system, ensuring that your target maintains a ±1V or better balance at all times.

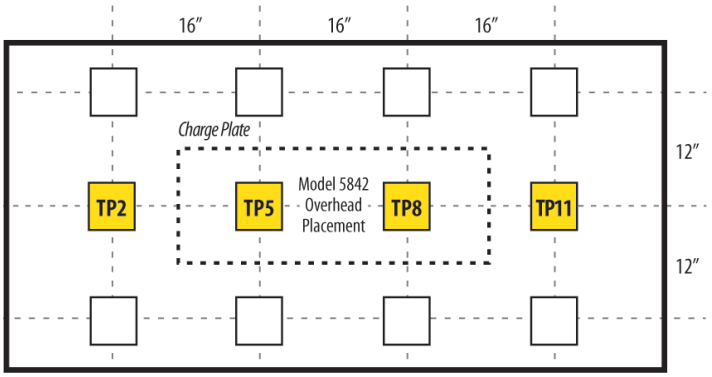
Factory Monitoring System

The blower includes an LED alarm light that indicates a range of possible conditions, including the absence of ionization at the emitter points or a stopped fan. An optional Audible Alarm is available. The Facility Monitoring System (FMS) feature provides an industry-standard 4-20 mA signal to your work cell controller for remotely monitoring error detection.

Auto-clean System

The built-in Auto-clean System features a brush mechanism that sweeps the emitter points when the blower is turned OFF and ON, allowing the Model 5842 to perform at optimum ion output and balance continuously, reducing maintenance time and cost.

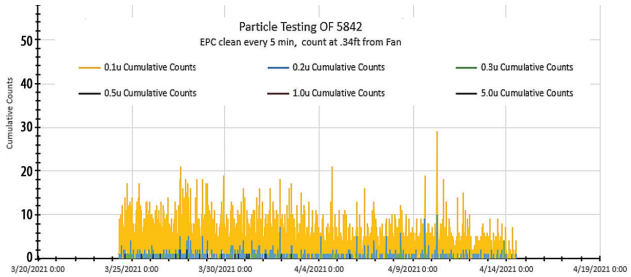
Performance



Test Point	TP2	TP5	TP8	TP11
+Decay Time (s)	2.52	1.06	1.05	2.50
-Decay Time (s)	3.46	1.44	1.52	3.26
Balance (+Vp) (V)	2	1	2	0
Balance (+Vavg) (V)	0	0	1	0
Balance (-Vp) (V)	-1	-1	-1	-1

Test performed in Simco-Ion Laboratory accordance to ESDA 3.1 Standards.
Balance (V) and decay time (s) (1000-100V) test results employing high fan speed and overhead 18" from CPM measuring plate.

Particle Test



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DS-5842_V1 - 6/23
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