

ION

Critical Environment Ionizing Blower

Model 5810i



Adaptation to environment changes maintains the electrostatic charge control your application requires.

Features

- Better than ± 1 volt balance (± 3 volts without sensor)
- Aluminum or stainless steel chassis
- Options for sensor input, FMS connection, alarms, and management control
- Alpha upgrade-ready
- Low EMI

Benefits

- Provides the best corona-based ESD protection for maximizing yields
- Different chassis materials are better suited to match specific workplace environments
- Increased control with immediate notification of alarms and the prevention of unauthorized adjustment to power or fan speed
- Investment security to support continually increasing ESD protection requirements
- Low radiated or conducted radio frequency (RF) signals don't interfere with other equipment or damage product.

Precise Balance

The Critical Environment Ionizing Blower Model 5810i is an innovative electrostatics management solution engineered for the needs of today's cleanrooms. Designed and tested to meet Class 10 cleanroom requirements (configuration dependent) and the tightest balance specifications, the Model 5810i can operate with external sensors to maintain precise balance (better than ± 1 volt) by altering ion output and adapting to environment changes. With the established reliability of steady-state DC, the established method for eliminating the effects of ESD and ESD-induced electromagnetic interference (EMI) in high-tech facilities, the Model 5810i delivers maximum ion output where and when you need it.

Setting the Cleanliness Standard

Complete compatibility with the operating conditions in today's cleanrooms is ensured with silicone-free air bearing surfaces. Each fan is engineered for cleanliness, and sealed off from the rest of the chassis to meet critical cleanroom requirements. Ionizers that don't match these quality standards risk contaminating manufacturing processes and possibly reducing product yields.

Model 5810i**Specifications**

Ion emission	Steady-state DC
Balance	Better than ± 1 volt typical; ± 3 volts typical without external sensors
Emitter points	Machined titanium; eight per fan
Airflow volume	342 cfm (114 cfm per fan, typical); configuration dependent (104-125 cfm)
Discharge time	$\pm 1000V$ to 100V, at less than 3 seconds taken 18" away from the blower at high fan speed (testing in accordance with ESD STM3.1-2000)
Audible noise	High fan speed: 62 dB, typical; low fan speed: 51 dB, typical Measurements taken 12" (304 mm) below fan
Input voltage	100-240 VAC ($\pm 10\%$), 50/60 Hz
Input power	28W maximum
Output voltage	100-240 VAC, 50-60 Hz unfused, 5A max.
Indicators	<i>Visual:</i> green power on LED, red alarm LED <i>Audible:</i> optional audible alarm
Controls	Balance adjust trimpot (one per fan), three-position fan control switch (high/low/off) or fixed speed, sensor gain trimpot (optional; one per fan), slide switch for sensor type or no sensor
Chassis	Aluminum with epoxy-polyester powder coat or stainless steel
Mounting	Eye-bolts and S-hooks provided
Daisy-chain capability	Maximum of 10 units; power cord (18 AWG) between units should not exceed 12" (304 mm) in length
Dimensions	3.8"H x 6.1"D x 32"L (9.6 x 15.5 x 81.3 cm) 3.8"H x 6.1"D x 40"L (9.6 x 15.5 x 101.6 cm) 3.8"H x 6.1"D x 44"L (9.6 x 15.5 x 111.8 cm)
Weight	Two-fan unit: 8.5 lb (3.9 kg) Three-fan unit: 10 lb (4.5 kg)
Options	Sensor input RJ-11 connectors (one per fan), FMS 4-20 mA RJ-11 output (available with sensor option only), audible alarm, cord lock, stainless steel or aluminum chassis
Certifications	CE ; UL ;  (all pending)

Automatic Adaptability

The Model 5810i can operate with qualified third-party sensors to detect and maintain a better than ± 1 volt maximum offset. Sensors placed in the target area send feedback to the Model 5810i and the blower's internal adjustment system then automatically corrects the ion balance. This ensures that your target area is effectively ionized at all times, no matter what environmental factors exist. One RJ-11 sensor input is provided for each fan to ensure uniform performance.



In addition to three optional sensor inputs (one per fan), the Model 5810i offers an optional facility monitoring system (FMS) and an optional audible alarm.

Complete Flexibility

Model 5810i features were carefully developed to be compatible with even the most sensitive cleanroom environments. To minimize disruption of laminar airflow, the unit has a 3 position fan setting that can optimize static discharge performance with the smallest volume and velocity of airflow. In addition to external sensor compatibility, the Critical Environment Ionizer operates with facility monitoring systems (FMS) for complete integration into your process. Ion's Alpha Upgrade Kit transfigures the corona-based Critical Environment Ionizing Blower into an alpha solution. With electronics built for any type of environment, including those with higher humidity variances, the Model 5810i is flexible enough for your most sensitive needs.

The blower features options for increased control, including a fixed fan speed (on low or high speed) and a cord lock. Both options offer the assurance of continued, uninterrupted ionization, preventing unauthorized fan speed adjustments or removal of power from the unit.

Innovation through Experience

No other electrostatics management company comes close to meeting Ion's experience with more than 4,000,000 square feet (372,000 square meters) of ultraclean installations. This extensive market knowledge translates directly to the development of innovative products, technologies, and services. All Ion Systems products confirm the company's commitment to quality and providing state-of-the-art electrostatics management solutions to its customers.

With over twenty years of experience managing static charge in high-tech environments and a commitment to the best, most innovative service, Ion is uniquely capable of offering the most comprehensive static control solutions.



invisible problems
visible results

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