

**NEW!**



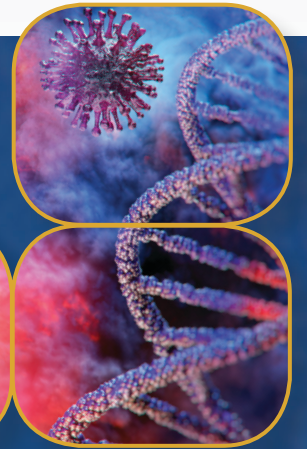
NSF cUL US  
NSF 49 UL 61010

Airstream® Class II Type A2  
Biosafety Cabinet, Model AC2-4S9-NS-G4

# Airstream®

## Class II Type A2 Biological Safety Cabinets

The Leading Energy Efficient, Quiet, and Ergonomic Biosafety Cabinet



**ESCO**  
SCIENTIFIC



## USB Port and Zero Volt Relay Contact

- USB Port to send operational information to Building Management System (BMS)
- Zero Volt Relay Contact to turn ON/OFF exhaust blower and signal the building alarm



## Centurion Touchscreen Controller

- 7" Capacitive Touch Screen, intuitive to use like phones
- Displays key safety information graphically on one screen
- Built-in guide to use the cabinet and respond to situations
- Centered and angled down for easy reach & viewing
- Datalogger to assist diagnostics and send info to BMS



## One-Piece Interior Wall

- Double layer side walls with negative pressure
- Easy to reach service fixture and outlets
- Large radius corner for easy cleaning



## Dished Work Tray

- Contains spillage
- Angled edge for easy cleaning
- V-shaped grille to prevent blocking



## Raised Ergonomic Arm Rest

- Helps prevent grille blocking
- Comfortable working posture



## Removable Paper Catch

- Easy-to-clean
- Optional pre-filter can be fitted

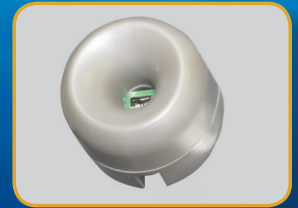


Available in 0.9, 1.2, 1.5, and 1.8 meter width (3', 4', 5', and 6')



### Airflow Sensor

- Monitors real-time airflow for safety
- Alerts the user if airflow is insufficient

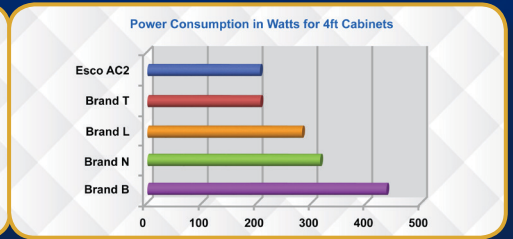
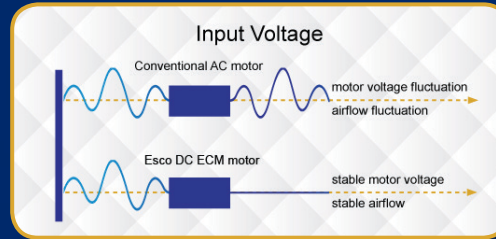


### Energy-efficient DC ECM Blower

- The leading energy efficient Class II Type A2 Biosafety Cabinet in the world with 70% energy savings compared to AC motor
- Stable airflow despite building voltage fluctuations & filter loading
- Standby mode to further reduce power consumption by 60%



Airstream®  
Class II Type A2 Biosafety Cabinet

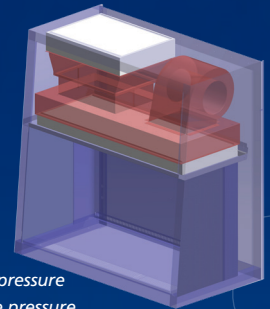


### ULPA Filter

- 10x Filtration efficiency of HEPA filter
- Creates ISO Class 3 work zone instead of industry-standard ISO Class 5
- Same 10 years filter life and replacement cost as HEPA filters

### Dynamic Chamber™

- Blower plenum and side walls are surrounded by negative pressure
- Prevents contaminants from escaping outside
- Steel plenum with Isocide™ coating, instead of flexible bag plenum, to prevent contamination leak



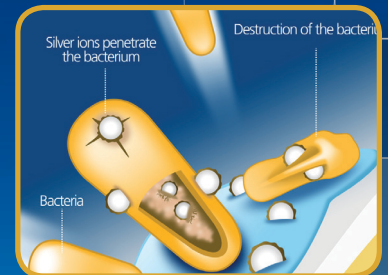
■ Positive pressure  
■ Negative pressure

### Angled Sash

- 10° angled front to optimize user comfort, reduce glare and maximize reach into the work area

### ISOCIDE™ Powder Coat

- Silver-ion impregnated powder coat
- Inhibits microbial growth to improve safety
- Prevents the plenum from becoming biohazard landfill



Certification				
	Biosafety Cabinets	Air Quality	Filtration	Electrical Safety
Standards Compliance	NSF / ANSI 49*	ISO 14644.1, Class 3, Worldwide JIS B9920, Class 3, Japan JIS B55295, Class 3, Japan US Fed Std 209E, Class 1 USA	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	UL-61010A-1, USA CSA22.2, No.1010-192, Canada EN-61010-1, Europe IEC61010-1, Worldwide

\* The NSF / ANSI 49 certified models are AC2-359-NS, AC2-459-NS, AC2-559-NS, AC2-659-NS

## TECHNICAL SPECIFICATIONS

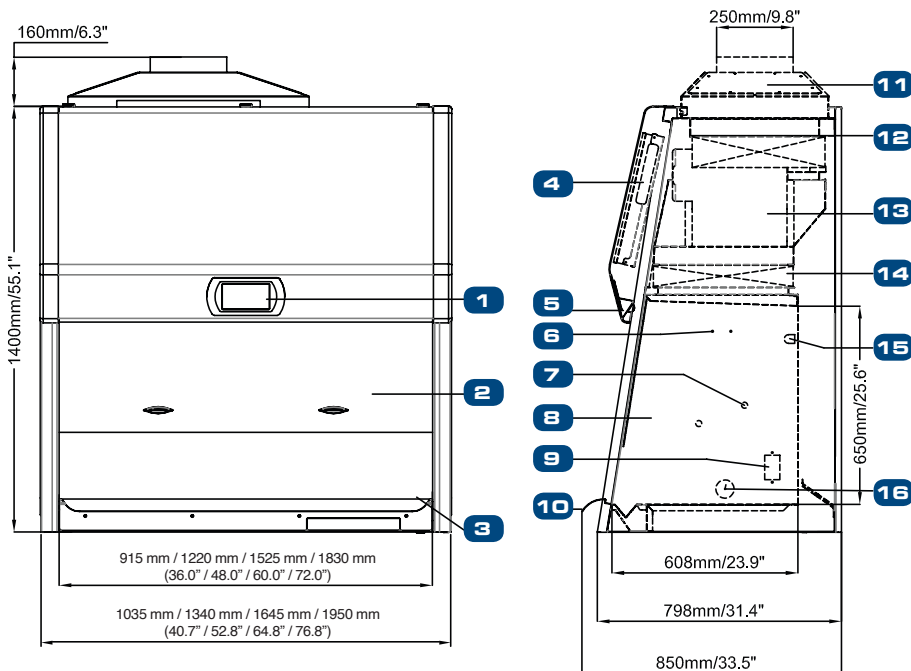
Model	110-130 VAC, 50/60 Hz	AC2-359-NS-G4 2010945	AC2-459-NS-G4 2010752	AC2-559-NS-G4 2010977	AC2-659-NS-G4 2010925
External Dimensions (W x D x H)		1035 x 850 x 1400 mm (40.7" x 33.5" x 55.1")	1340 x 850 x 1400 mm (52.8" x 33.5" x 55.1")	1645 x 850 x 1400 mm (64.8" x 33.5" x 55.1")	1950 x 850 x 1400 mm (76.8" x 33.5" x 55.1")
Gross Internal Dimensions (W x D x H)		915 x 610 x 660 mm (36.0" x 24.0" x 26.0")	1220 x 610 x 660 mm (48.0" x 24.0" x 26.0")	1525 x 610 x 660 mm (60.0" x 24.0" x 26.0")	1830 x 610 x 660 mm (72.0" x 24.0" x 26.0")
Usable Work Area		0.45 m <sup>2</sup> (4.9 ft <sup>2</sup> )	0.6 m <sup>2</sup> (6.5 ft <sup>2</sup> )	0.75 m <sup>2</sup> (8.2 ft <sup>2</sup> )	0.9 m <sup>2</sup> (9.8 ft <sup>2</sup> )
Tested Opening		203 mm (8") or 254 mm (10")			
Working Opening		218 mm (8.6") or 268 mm (10.6")			
Average Inflow Velocity		0.53 m/s (105 fpm)			
Average Downflow Velocity		0.30 m/s (60 fpm)			
Airflow Volume	Inflow / Exhaust Without Ducting	354 cmh (208 cfm)	473 cmh (280 cfm)	591 cmh (348 cfm)	709 cmh (417 cfm)
	Downflow	553 cmh (325 cfm)	738 cmh (434 cfm)	922 cmh (543 cfm)	1107 cmh (652 cfm)
	Required Exhaust with Optional Thimble Exhaust Collar	531 cmh (313 cfm)	710 cmh (418 cfm)	887 cmh (522 cfm)	1064 cmh (626 cfm)
	Static Pressure For Optional Thimble Exhaust Collar	32 Pa / 0.12 in H <sub>2</sub> O	45 Pa / 0.18 in H <sub>2</sub> O	57 Pa / 0.23 in H <sub>2</sub> O	68 Pa / 0.27 in H <sub>2</sub> O
ULPA Filter Typical Efficiency		>99.999% at 0.1 to 0.3 micron, ULPA as per IEST-RP-CC001.3 USA >99.999% at MPPS, H14 as per EN 1822 EU			
Sound Emission per NSF / ANSI 49*		57.5 dBA		58.5 dBA	60.5 dBA
Fluorescent Lamp Intensity		982 lux (91 foot candles)	1079 lux (100 foot candles)	1040 lux (97 foot candles)	1035 lux (96 foot candles)
Cabinet Construction	Main Body	1.2 mm (0.05") / 18 gauge EG Steel with Isocide™ Oven-Baked Epoxy-Polyester Anti-microbial Powder Coating			
	Work Zone	1.5 mm (0.06") / 16 gauge, Stainless Steel 304, 4B finish			
	Side Walls	1.5 mm (0.06") / 16 gauge, Stainless Steel 304, 4B finish			
Electrical 110-130 VAC, 50/60 Hz	Cabinet Full Load Amps (FLA)	11	11.5	12.5	15
	Heat Load (BTU / Hr)	503	628	698	999
	Nominal Power Consumption (W)	160	200	222	318

Specifications are subject to change without notice.

\*Noise reading in open field condition / anechoic chamber.

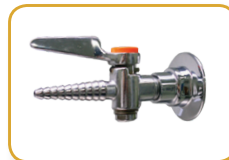
Noise reading in normal room varies by room size, layout, and background noise, but may reach roughly 3-4 dBA above these values.

## Engineering Drawing



1. Esco 7" Touch screen Control System
2. Tempered Glass - Sliding Sash Window
3. Stainless Steel Dished Work Tray
4. Electrical/Electronic Panel
5. LED Lamps
6. Provision for IV Bar (Optional)
7. Service Fixture Retrofit Kit Provision
8. Stainless Steel Side Wall
9. Duplex GFCI Electrical Outlets (5A Max)
10. Stainless Steel Curved Armrest
11. Exhaust Collar (Optional)
12. Exhaust ULPA (H14) Filter
13. ECM Blower
14. Downflow ULPA (H14) Filter
15. UV Lamp
16. Cable Port

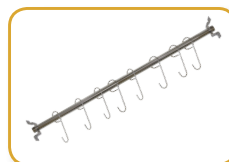
### Common Accessories



Additional SF-2U Service Fixture



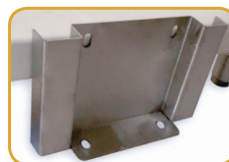
Thimble Exhaust Collar with Alarm



IV Bar



Foot Rest



Seismic Bracket



SPM Motorized Stand, 28-40" height