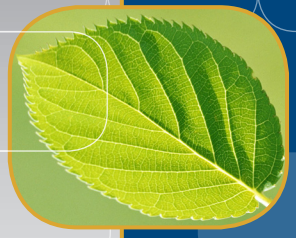


Airstream®

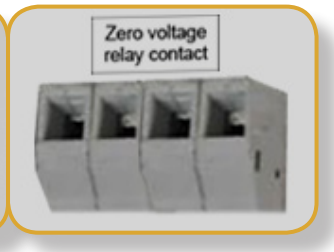
EN12469

Airstream Class I Biosafety Cabinet, Model AC1-4E8

Class I Microbiological Safety Cabinets

The Leading Energy Efficient, Quiet, and Ergonomic Biosafety Cabinet

ESCO®
WORLD CLASS. WORLDWIDE.



RS 232 Port and Zero Volt Relay Contact

- *RS 232 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*

Sentinel™ Gold Microprocessor Controller

- *Displays all safety information on one screen*
- *Centered and angled down for easy reach & viewing*

Optional Secondary H14 or Carbon Filter

H14 Filter

- *10x filtration efficiency of HEPA filter*

Easy to Clean Back Wall

- *Large back wall radius for easy cleaning*
- *With UV Lamp Provision*

UV Door

- *Safety door against UV light*
- *Provides air-tight seal during decontamination*
- *Integrated with VHP Injection Port for easy connection to VHP/ HPV generator*

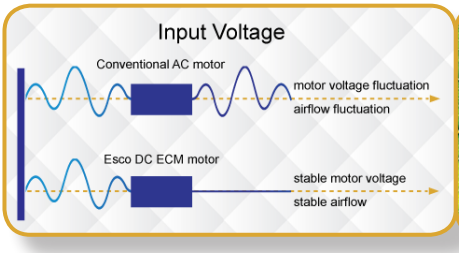
Available in 1.2 meter / 4 ft width

EN12469

Esco Class I Microbiological Safety Cabinets has been certified by PHE / Public Health England (formerly HPA) for compliance to EN 12469

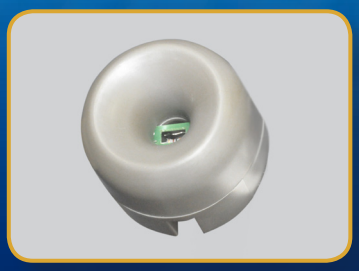
Energy Efficient DC ECM Motor

- *70% Energy savings from AC motor*
- *Stable airflow, despite building voltage fluctuations*
- *Standby Mode to further reduce power consumption by 60%*



Airflow Sensor

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



Hinged Window

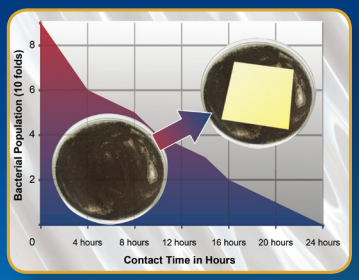
- *90° opening for an easy workzone access*
- *8 mm UV Resistant Polycarbonate Window*
- *Gasket-surrounded window to provide airtight seal for better safety.*

Work Top

- *1.2 mm (0.05") 18 gauge SS 304, 4B Finish*
- *Spill-retaining work top design with a recessed central area contains accidental liquid spills.*

Isocide™ Powder Coat

- *Silver-ion impregnated powder coat*
- *Inhibit microbial growth to improve safety*



	Biological Safety Cabinets	Filtration	Electrical Safety
Standard Compliance	EN 12469, Europe SANS12469, South Africa	EN-1822 (H14), Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	IEC61010-1, Worldwide EN-61010-1, Europe

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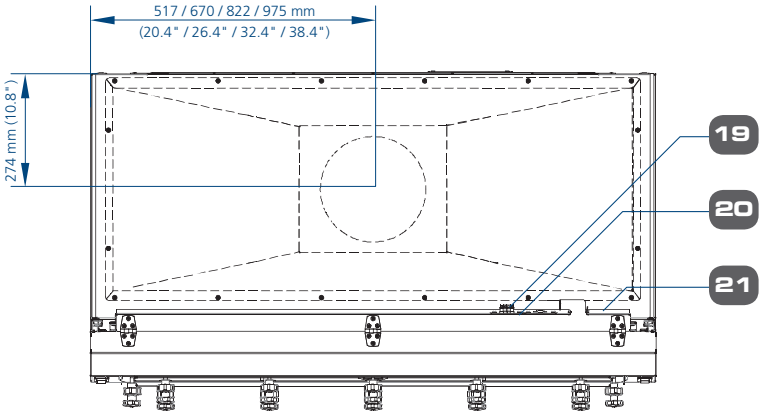
TECHNICAL SPECIFICATIONS

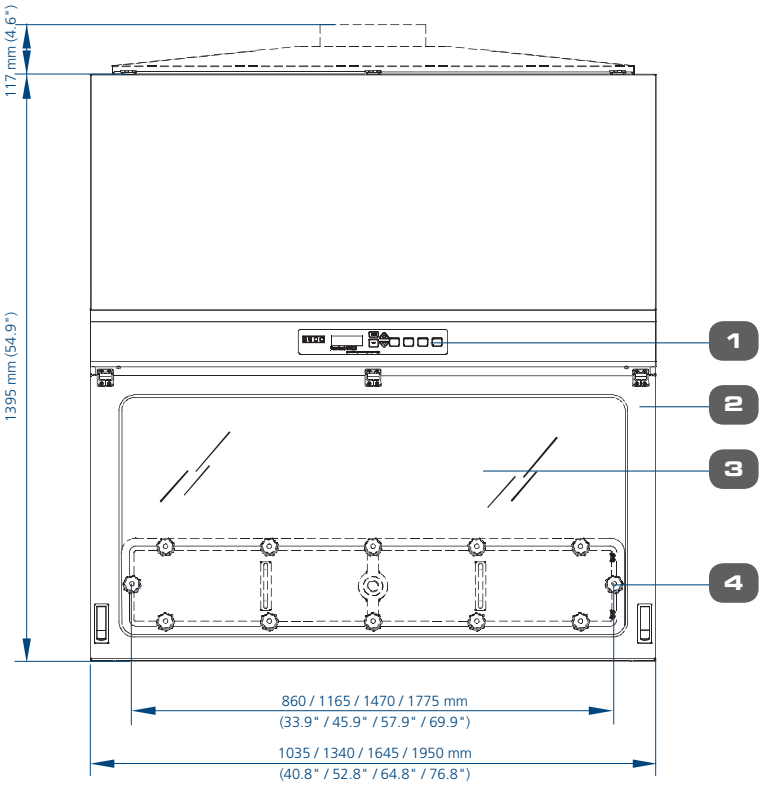
Model		AC1-3E8 2010650	AC1-4E8 2010732	AC1-5E8 2010879	AC1-6E8 2010881
External Dimensions (W x D x H)		1035 x 731 x 1395 mm (40.7" x 28.8" x 55.0")	1340 x 731 x 1395 mm (52.8" x 28.8" x 55.0")	1645 x 731 x 1395 mm (64.8" x 28.8" x 55.0")	1950 x 731 x 1395 mm (76.8" x 28.8" x 55.0")
Gross Internal Dimensions (W x D x H)		915 x 668 x 730 mm (36.0" x 27.1" x 28.7")	1220 x 660 x 670 mm (48.0" x 27.1" x 28.7")	1525 x 668 x 730 mm (60.0" x 27.1" x 28.7")	1830 x 668 x 730 mm (72.0" x 27.1" x 28.7")
Usable Work Area		0.57 m^2	0.76 m^2	0.95 m^2	1.2 m^2
Maximum Window Opening (at 90° opening)		565 mm (22.2")			
Working Opening		200 mm (7.9")			
Average Inflow Velocity		0.85 m/s (167 fpm)			
Airflow Volume	Inflow	569 m^3/h (335 cfm)	758 m^3/h (446 cfm)	946 m^3/h (557 cfm)	1120 m^3/h (659 cfm)
	Exhaust	569 m^3/h (335 cfm)	758 m^3/h (446 cfm)	946 m^3/h (557 cfm)	1120 m^3/h (659 cfm)
	Required Exhaust with Optional Thimble Exhaust Collar	914 m^3/h (538 cfm)	1219 m^3/h (717 cfm)	1524 m^3/h (897 cfm)	1829 m^3/h (1077 cfm)
	Static Pressure for Optional Thimble Exhaust Collar	64 Pa (0.25 in H_2O)	85 Pa (0.34 in H_2O)	106 Pa (0.43 in H_2O)	120 Pa (0.43 in H_2O)
HEPA 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 in Typical Lab Room per EN 12469		48.0 dBA	48.4 dBA	49.4 dBA	51.0 dBA
Fluorescent Lamp Intensity		>1200 Lux (>111 foot-candles)			
Cabinet Construction	Main body	1.2 mm (0.08") /18 gauge EG Steel with Isocide™ Oven-Baked Epoxy-Polyester Powder Coating			
	Work Zone	Table: 1.2 mm (0.08") / 18 gauge, SS 304, 4B Finish			
	Side Walls	5 mm (0.2") UV Absorbing Tempered Glass			
Electrical	Cabinet Full Load Amps (FLA)	7.8	8.1	8.5	9.5
	Heat Load (BTU / Hr)	546	628	802	870
Nominal Power Consumption		160 W	184 W	235 W	255 W
Net Weight*		173 Kg (379 lbs)	230 Kg (507 lbs)	288 Kg (635 lbs)	361 Kg (796 lbs)
Shipping Weight*		214 Kg (472 lbs)	285 Kg (628 lbs)	356 Kg (785 lbs)	445 Kg (981 lbs)
Shipping Dimensions, Maximum (W x D x H)*		1120 x 820 x 1760 mm (44.0" x 32.3" x 69.3")	1450 x 820 x 1760 mm (57.1" x 32.3" x 67.6")	1720 x 820 x 1760 mm (68.0" x 32.3" x 69.3")	2050 x 820 x 1760 mm (80.7" x 32.3" x 69.3")
Shipping Volume, Maximum*		1.6 m^3 (57 ft^3)	2.09 m^3 (74 ft^3)	2.48 m^3 (87 ft^3)	2.96 m^3 (104.5 ft^3)

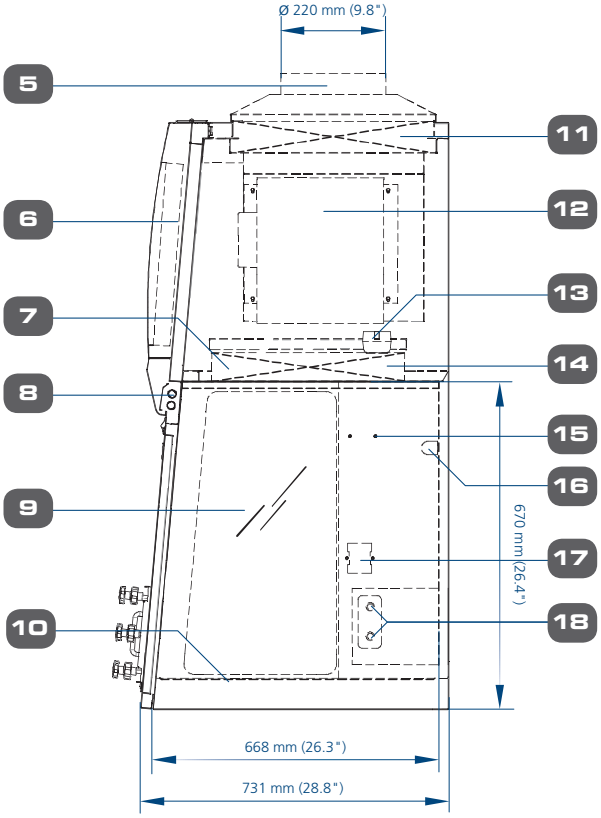
Noise reading in open field condition / **anechoic chamber. Noise reading in **normal room varies** by room size, layout, and background noise, but may reach roughly 3-4 dBA above these values.*
***Cabinet only, excludes optional stand.*

AC1 Biological Safety Cabinet
Engineering Drawing



1. Sentinel™ Gold Microprocessor System
2. Hinged Front Door
3. 8 mm UV Resistant Polycarbonate Window
4. Air Tight UV / Decontamination Panel
5. Exhaust Ducting (optional)
6. Electrical Panel
7. Diffuser / Optional Pre-filter
8. T5 Fluorescent Lamps
9. Side Tempered Glass
10. Stainless Steel Table
11. Optional Secondary H14 Filter / Carbon filter)
12. DC ECM Blower
13. Inflow Sensor
14. Main H14 Filter
15. IV Bar Retrofit Kit Provision
16. UV Lamp Provision
17. Standard Electrical Outlet Kit Provision
18. Servide Fixture Retrofit Kit Provision (2 on each side)
19. 2 Sets Zero Volt Relay Contact
20. RS 232 Port
21. Power Inlet





Comprehensive Performance Testing at Esco

Every Airstream® Plus AC1 model manufactured by Esco is individually tested, documented by serial number and validated with the following test methods:

- *Inflow and downflow velocity*
- *PAO aerosol challenge for filter integrity*
- *Airflow pattern visualization*
- *Electrical safety to IEC61010-1*
- *Additional KI-Discus containment and microbiological testing are performed on statistical sampling basis.*

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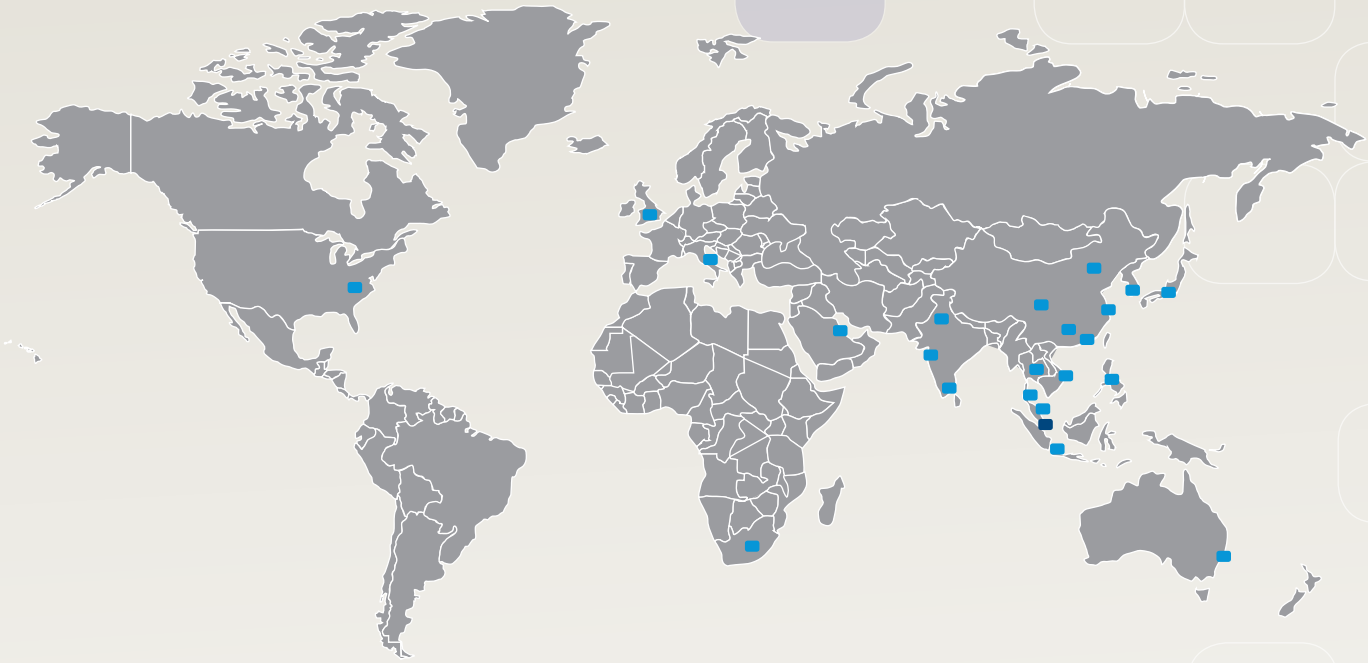
ESCO GLOBAL NETWORK



ART Equipment
Biological Safety Cabinets
CO_2 Incubators
Cold Storage
Compounding Pharmacy Equipment
Containment / Pharma Products
Ductless Fume Hoods
Lab Animal Research Products
Laboratory Fume Hoods
Laboratory Incubators
Laboratory Ovens
Laminar Flow Cabinets
Laboratory Shakers
PCR Cabinets
PCR Thermal Cyclers
Powder Weighing Balance Enclosures

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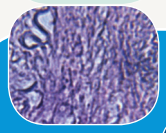

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Esco Micro Pte. Ltd. • 21 Changi South Street 1 • Singapore 486 777
Tel +65 6542 0833 • Fax +65 6542 6920 • mail@escoglobal.com
www.escoglobal.com

Esco Technologies, Inc. • 903 Sheehy Drive, Suite F, Horsham, PA 19044, USA
Toll-Free USA and Canada 1-877-479-3726 • Tel 215-441-9661 • Fax 484-698-7757
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Wolf Laboratories Limited

www.wolflabs.co.uk

Wolflabs

Tel: 01759 301142 Fax:01759 301143 sales@wolflabs.co.uk

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