NEW!

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
SCIENTIFIC®

RS 232 SERIAL INTERFACE PORT

Zero voltage relay contact

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

Airflow Sensor

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

ESCO AC1   01:46
Front Door: Closed
I:0.80m/s

MENU
SET / DIAGNOSTICS

Sentinel • GOLD
MICROPROCESSOR CONTROL SYSTEM

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

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.
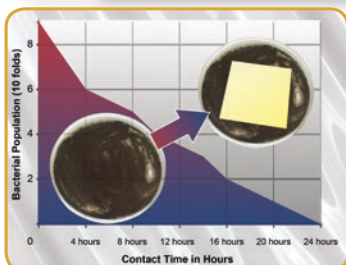
UV Door

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

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
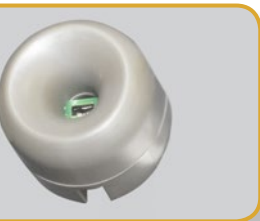- Inhibit microbial growth to improve safety
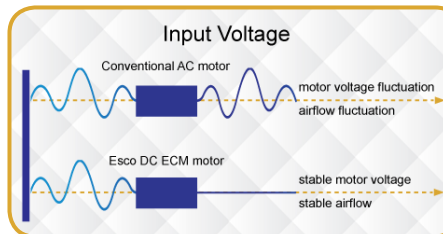
Available in 1.2 meter / 4 ft width

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

cen
EN12469

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%**

Input Voltage

Conventional AC motor — motor voltage fluctuation / airflow fluctuation

Esco DC ECM motor — stable motor voltage / stable airflow
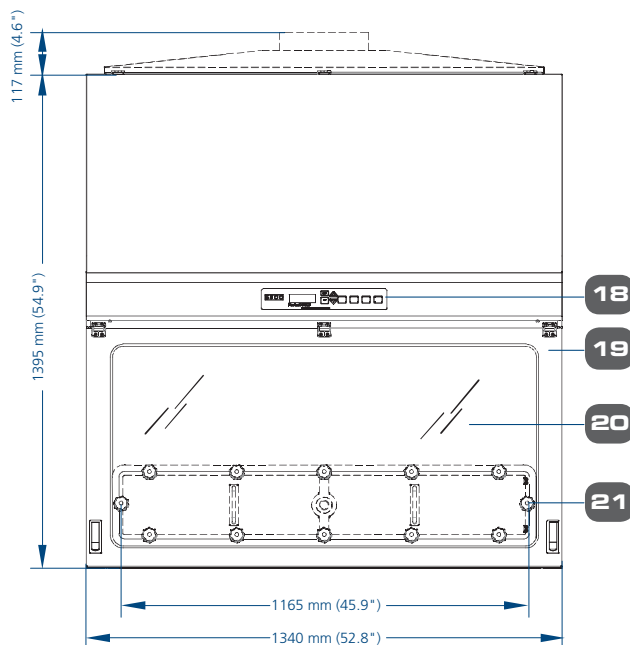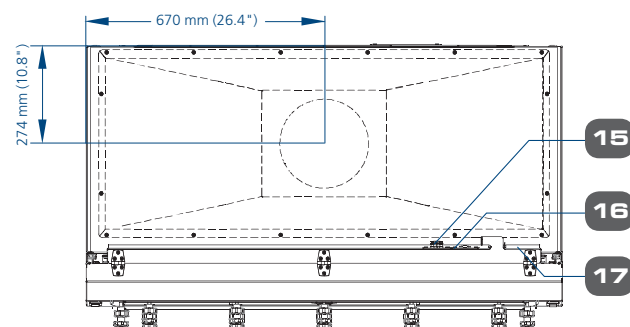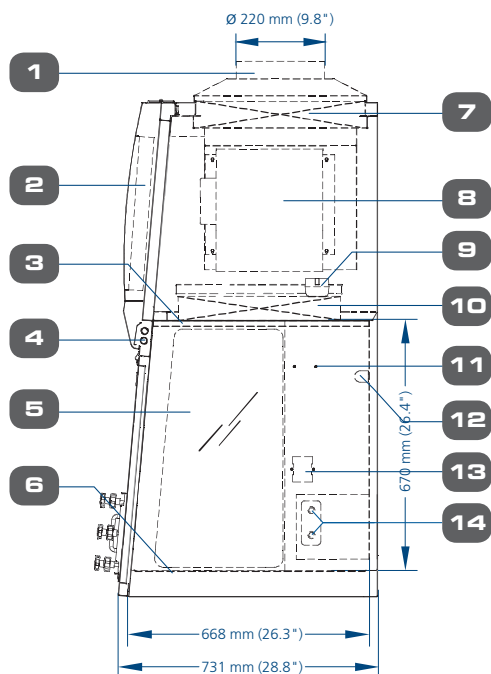
TECHNICAL SPECIFICATIONS

Model	AC1-4E8
External Dimensions (W x D x H)	1340 x 731 x 1395 mm (52.8" x 28.8" x 55.0")
Gross Internal Dimensions (W x D x H)	1220 x 660 x 670 mm (48.0" x 26.0" x 26.4")
Usable Work Area	0.76 m²
Maximum Window Opening (at 90° opening)	565 mm (22.2")
Working Opening	203 mm (8")
Average Inflow Velocity	0.85 m/s (167 fpm)

Airflow Volume	Inflow	758 m³/h (446 cfm)
	Exhaust	758 m³/h (446 cfm)
	Required Exhaust with Optional Thimble Exhaust Collar	1219 m³/h (717 cfm)
	Static Pressure for Optional Thimble Exhaust Collar	85 Pa (0.34 in H2O)

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	48.4 dBA
Fluorescent Lamp Intensity (lux)	>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)	8.1
	Heat Load (BTU / Hr)	628

Nominal Power Consumption	184 W
Net Weight *	230 Kg (507 lbs)
Shipping Weight *	285 Kg (628 lbs)
Shipping Dimensions, Maximum (W x D x H)*	1450 x 820 x 1760 mm (57.1" x 32.3" x 67.6")
Shipping Volume, Maximum *	2.09 m³

Accesories for AC1 Biological Safety Cabinets

Cabinet	Stainless Steel Side Wall	AC1-4E8 2010732
Optional Secondary Filter	Secondary H14 Filter	HP-AC1-4 5080138
	Secondary Carbon Filter	CRF/SEC-AC1-4 5080139
Exhaust Ducting	Exhaust Hard Ducting (with VHP out Port)	EHD AC1-4 5170666
	Anti-blowback Valve 10"	ABBV-10P 5170352
	Tri-safe Exhaust Collar with Alarm	TEM-4 2010606
	Exhaust Damper	B2-DAMPER 5170352
Hydrogen Peroxide Decontamination Kit	UV Door (with VHP In Port)	UV DOOR AC1-4 5090044
	VHP Out Top Box for Cabinet WITHOUT Exhaust Collar Installed (Ø 1")	VHP OUT TOP BOX 4ft 5170665
Work Zone	UV Lamp	UV-30A-L 5170255
	IV Bar	IV-1215 5170231
	Pre-filter	PF-25 5090045
Electrical Outlet	Universal	EO-UNI 5170060
Service Fixtures	EU SF-Gas-20 mm	SF-1G20 5170410
	EU SF-Vacuum-20 mm	SF-1V20 5170457
	EU SF-Air-20 mm	SF-1A20 5170502
	EU SF-Nitrogen-20 mm	SF-1N20 5170503
	EU SF-Water-20 mm	SF-1W20 5170458
	EU SF-Universal-22 mm	SF-2U22 5170504
Support Stands, Ships Flat	Fixed Stand with Leveling Feet, 28" height	SAL-4A0 Gen 2 5130134
	Fixed Stand with Leveling Feet, 34" height	SAL-4B0 Gen 2 5130175
	Fixed Stand with Caster Wheels, 28" height	SPC-4A0 Gen 2 5130152
	Fixed Stand with Caster Wheels, 34" height	SPC-4B0 Gen 2 5130166
	Motorized Height Stand with Caster Wheels	SPM-4A_
Misc	IQ OQ Protocol	9010179

Standards Compliance	Biological Safety Cabinets	Filtration	Electrical Safety
	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

ESCO SCIENTIFIC

AC1 Biological Safety Cabinet
Engineering Drawing

670 mm (26.4")

274 mm (10.8")

15
16
17

Ø 220 mm (9.8")

1
2
3
4
5
6
7
8
9
10
11
12
13
14

117 mm (4.6")

1395 mm (54.9")

670 mm (26.4")

668 mm (26.3")

731 mm (28.8")

18
19
20
21

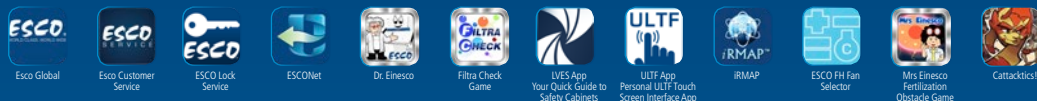1165 mm (45.9")

1340 mm (52.8")

1. Exhaust Ducting (optional)
2. Electrical Panel
3. Diffuser / Optional Pre-filter
4. T5 Fluorescent Lamps
5. Side Tempered Glass
6. Stainless Steel Table

7. Optional Secondary H14 Filter / Carbon filter)
8. DC ECM Blower
9. Inflow Sensor
10. Main H14 Filter
11. IV Bar Retrofit Kit Provision
12. UV Lamp Provision

13. Standard Electrical Outlet Kit Provision
14. Service Fixtures Kit Provision
   (2 on each side)
15. 2 Sets Zero Volt Relay Contact
16. RS 232 Port
17. Power Inlet

18. Sentinel™ Gold Microprocessor System
19. Hinged Front Door
20. 8 mm UV Resistant Polycarbonate Window
21. Air Tight UV / Decontamination Panel

ESCO
LIFESCIENCES GROUP