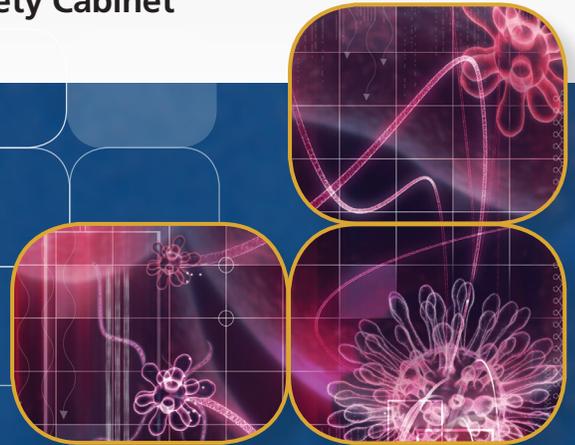




Labculture®

Labculture Class II, Type B1
Biosafety Cabinet, Model LB1-4B2-E.

Class II, Type B1 Biological Safety Cabinets
The Energy-Efficient, Safe, and Ergonomic Biosafety Cabinet

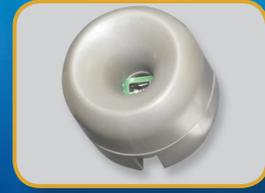


LABCULTURE CLASS II TYPE B1 (LB1) BIOSAFETY CABINETS,



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



Sentinel Gold Microprocessor Controller

- Displays all safety information on one screen
- Centered and angled down for easy reach & viewing
- Selectable Quickstart mode for fast operation



Single Piece Wall

- Large radius for easy cleaning
- Side-mounted electrical outlets and staggered service fixtures, for easy reach



Single Piece Work Tray

- Recessed to contain spillage
- Curved grill to prevent blockage



Raised Arm Rest

- Helps prevent grille blocking
- Comfortable working posture



Angled Drain Pan

- Easy to clean
- Does not harbor contaminants



Available in 1.2 meter (4 ft)
Shown with optional telescoping stand.

2

FEATURING ADVANCED MICROPROCESSOR CONTROLLER

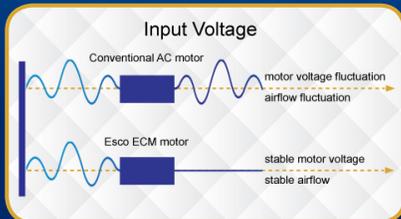


Pressure Switch

- Temperature independent
- Fast response

Energy Efficient ECM Motor

- Powered by latest generation ECM motor **MADE IN USA**, that is more efficient than legacy ECM and VFD motors
- 70% Energy savings compared to AC motor
- Stable airflow, despite building voltage fluctuations & filter loading
- Night Setback mode to further reduce power consumption by 60%



ULPA Downflow Filter

- 10x Filtration efficiency of HEPA filter
- Creates ISO Class 3 work zone instead of industry-standard ISO Class 5

Esco cabinets use ULPA filters (per IEST-RP-CC001.3) / H14 per EN 1822 instead of H13 HEPA filters used on many BSCs in the market.

HEPA filters only offer 99.99% typical efficiency at 0.3 micron, while ULPA filters provide 99.999% typical efficiency for particle sizes of 0.1 to 0.3 micron.



Labculture®



Dynamic Chamber

- Blower plenum and side walls are surrounded by negative pressure
- Prevent contaminants from escaping outside

ISOCIDE™ powder coat

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



	Biosafety Cabinets	Air Quality	Filtration	Electrical Safety
Standards Compliance	NSF / ANSI 49, USA	ISO 14644.1, Class 3, Worldwide JIS B9920, Class 3, Japan JIS BS5295, Class 3, Japan US Fed Std 209E, Class 1 USA	EN-1822, Europe IEST-RP-CC001.3, USA IEST-RP-CC007, USA IEST-RP-CC034.1, USA	UL-C-61010A-1, USA CSA22.2, No. 1010-192, Canada EN-61010-1, Europe IEC61010-1, Worldwide

General Specifications, Labculture Class II Type B1, Biological Safety Cabinet

Model		LB1-4B2-E
Nominal Size		1.2 meters (4')
External Dimensions (W x D x H)	Without Base Stand	1420 x 927 x 1540 mm (55.9" x 36.5" x 60.6")
	With Optional Base Stand, 710 mm (28") type	1420 x 927 x 2250 mm (55.9" x 36.5" x 88.6")
Internal Work Area, Dimensions (W x D x H)		1270 x 623 x 715 mm (55.9" x 36.5" x 60.6")
Internal Work Area, Space		0.59 m ² (6.4 sq. ft)
Tested Opening		203 mm (8.0")
Average Airflow Velocity	Inflow	0.53 m/s (105 fpm)
	Downflow	0.30 m/s (60 fpm)
Airflow Volume	Certification Exhaust Volume	493 m ³ /h (290 cfm)
	Certification Exhaust Static Pressure for Clean Filter	196 Pa (0.78 in H ₂ O)
	CBV Exhaust Air Volume for HVAC Sizing	552 m ³ /h (325 cfm)
	CBV Exhaust Static Pressure for HVAC Sizing	275 Pa (1.1 in H ₂ O)
ULPA Filter Typical Efficiency	Downflow	>99.999% for particle size between 0.1 to 0.3 microns, per IEST-RP-CC001.3
	Exhaust	>>99.99% MPPS at 0.3 micron as per EN1822 (H-14) EU
Sound Emission (Typical)*	NSF / ANSI 49	<55 dBA
Fluorescent Light Intensity at Zero Ambient		>1400 lux (>130 foot candles)
Cabinet Construction	Main Body	1.5 mm (0.06") / 16 gauge EG steel with Isocide Oven-Baked Epoxy-Polyester Powder Coating
	Work Zone	Single Tray: 1.5 mm (0.06") / 16 gauge , SS 304, 4B Finish.
	Side Walls	1.5 mm (0.06") / 16 gauge , SS 304, 4B Finish
Electrical	Voltage rating	110 - 130 VAC, 50 / 60 Hz
	Current Draw	Nominal: 5 A, Full Load: 10 A
	Cabinet Nominal Power	189 W
	Optional Outlet Full Load Amps (FLA)	5 A
	Maximum Total Cabinet FLA	15 A
	Cabinet BTU	1950
Shipping Weight		370 kg (814 lbs)
Shipping Dimensions		1520 mm x 1,020 mm x 1950 mm (59.8" x 40.2" x 76.8")
Shipping Volume, Maximum		3.02 m ³ (106.7 cu ft)

*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



WORLD CLASS. WORLDWIDE.

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