iShield Biosafety Cabinet

Class II, Type A2 and B2 Biological Safety Cabinets
Energy-Efficient, Safe, and Ergonomic
Biosafety Cabinet

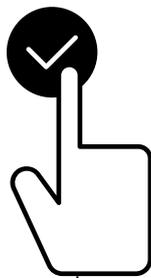**What is your laboratory application?**

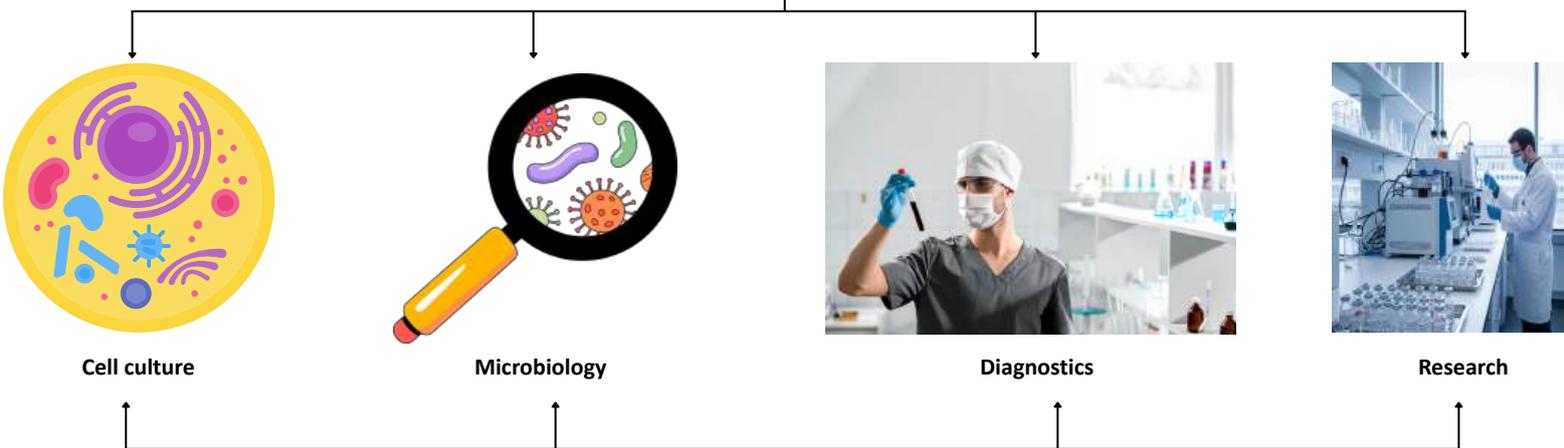
Cell culture

Microbiology

Diagnostics

Research

Are volatile toxic chemicals or radionuclides used?

Continue — Yes

No — Go for — **Class II A2 Biosafety Cabinet**

Is 100% exhaust of contaminated air required?

Go for — Yes

No / Occasional use — Go for

Class II B2 Biosafety Cabinet
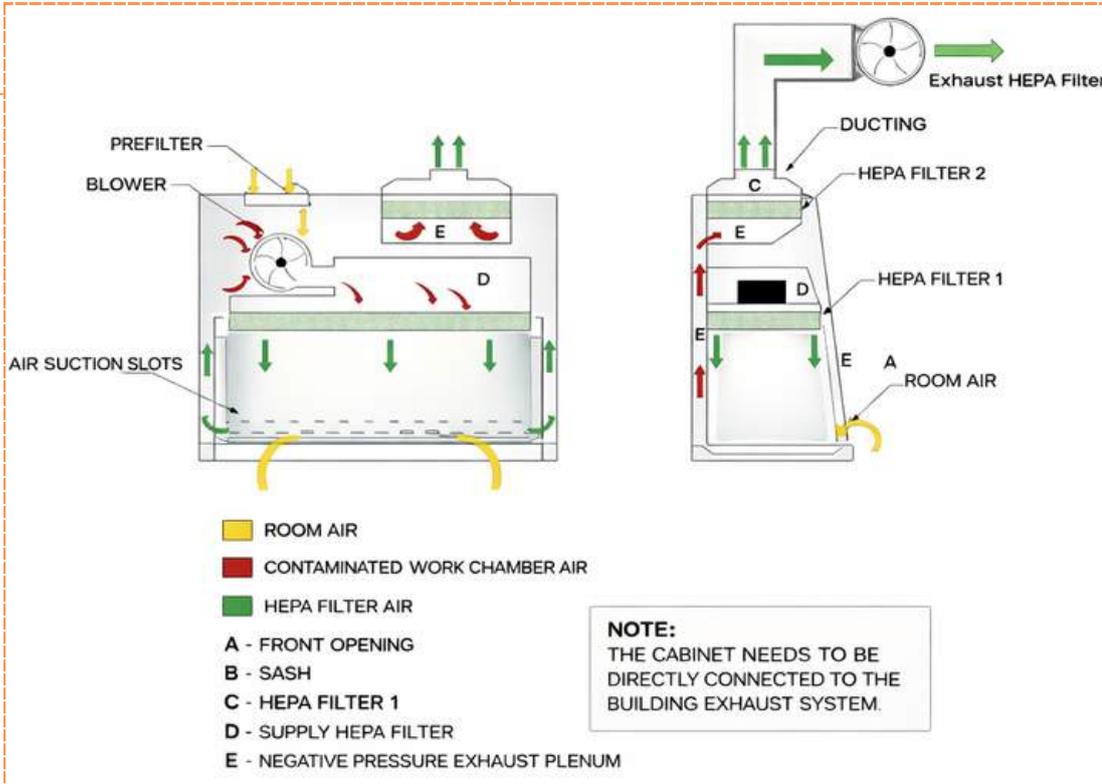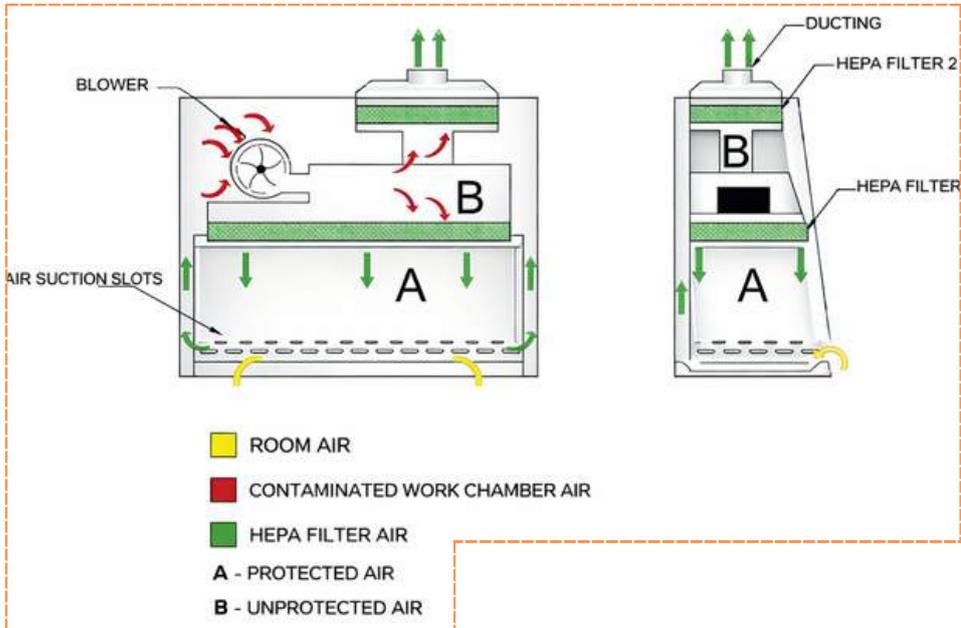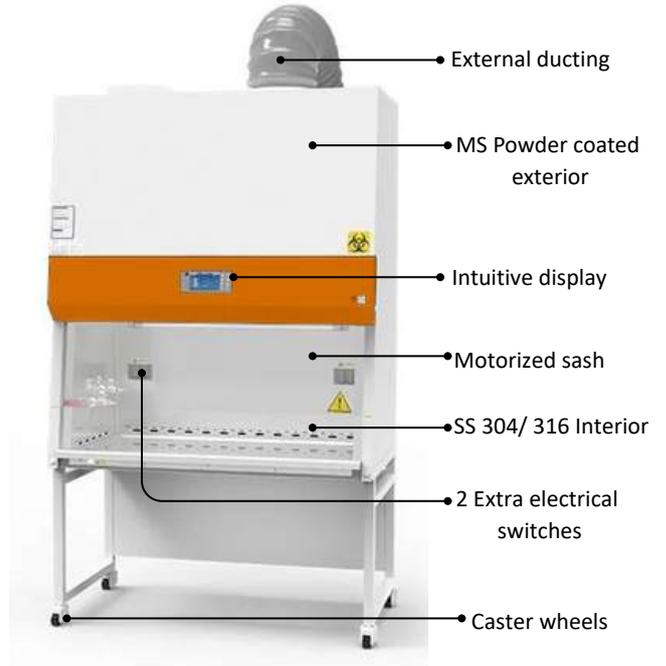
Class II Type A2 (with ducting if required)

Select work area size

- 2 ft – Compact labs / limited space
- 4 ft – Standard laboratory workflow
- 6 ft – High sample volume / multi-user work

Choose filtration type

- **ULPA Filter:** 99.999% efficiency – critical & high-risk applications
- **HEPA Filter:** 99.97% efficiency – routine laboratory work

MS Powder coated exterior

Intuitive display

Manual/ Motorized sash

SS 304/ 316 Interior

Removable tray ensures easy cleaning

Caster wheels

2 Extra electrical switches

External ducting

MS Powder coated exterior

Intuitive display

Motorized sash

SS 304/ 316 Interior

2 Extra electrical switches

Caster wheels

BLOWER

DUCTING

HEPA FILTER 2

HEPA FILTER

AIR SUCTION SLOTS

B

A

Class II A2: 70% air recirculated and 30% exhaust out

ROOM AIR

CONTAMINATED WORK CHAMBER AIR

HEPA FILTER AIR

A - PROTECTED AIR

B - UNPROTECTED AIR

Class II B2: 100% air exhaust out

Exhaust HEPA Filter

PREFILTER

BLOWER

AIR SUCTION SLOTS

DUCTING

HEPA FILTER 2

HEPA FILTER 1

ROOM AIR

E

D

C

A

ROOM AIR

CONTAMINATED WORK CHAMBER AIR

HEPA FILTER AIR

A - FRONT OPENING

B - SASH

C - HEPA FILTER 1

D - SUPPLY HEPA FILTER

E - NEGATIVE PRESSURE EXHAUST PLENUM

NOTE:
THE CABINET NEEDS TO BE DIRECTLY CONNECTED TO THE BUILDING EXHAUST SYSTEM.

Energy Efficient AC/DC-ECM Motor

- Powered by latest generation AC/DC-ECM motor
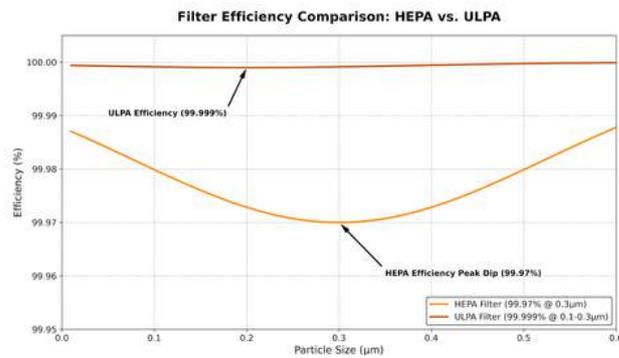- Stable airflow, despite building voltage fluctuations & filter loading

HEPA filter: Offer 99.97% typical efficiency at 0.3 micron.

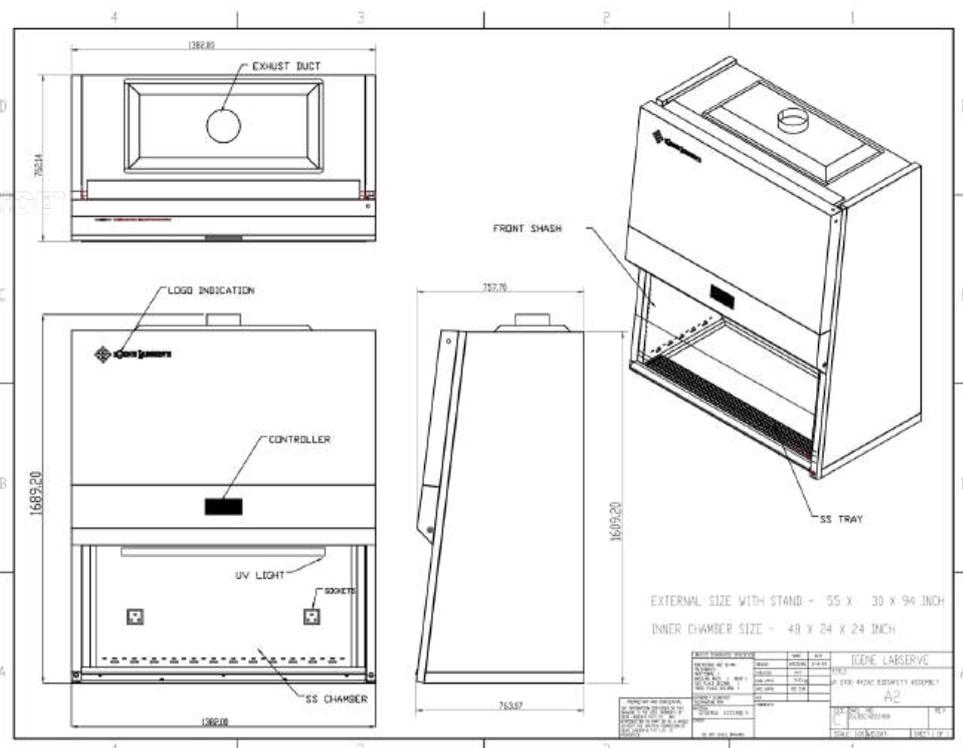**ULPA filter:** 99.999% typical efficiency for particle sizes of 0.1 to 0.3 micron.

ULPA/ HEPA Filter

- Advanced high-efficiency filtration system for effective capture of fine airborne particles.
- Supports consistent airflow quality for critical laboratory operations.

Filter Efficiency Comparison: HEPA vs. ULPA

ULPA Efficiency (99.999%)

HEPA Efficiency Peak Dip (99.97%)

— HEPA Filter (99.97% @ 0.3µm)
— ULPA Filter (99.999% @ 0.1-0.3µm)

Efficiency (%)

Particle Size (µm)

Lockable Caster wheels

Ensures easy mobility of the instrument.

EXHUST DUCT

FRONT SHASH

LOGO INDICATION

CONTROLLER

SS TRAY

UV LIGHT

SOCKETS

SS CHAMBER

EXTERNAL SIZE WITH STAND - 55 X 30 X 94 INCH
INNER CHAMBER SIZE - 48 X 24 X 24 INCH

4 X 2 X 2 Biosafety Cabinet Assembly
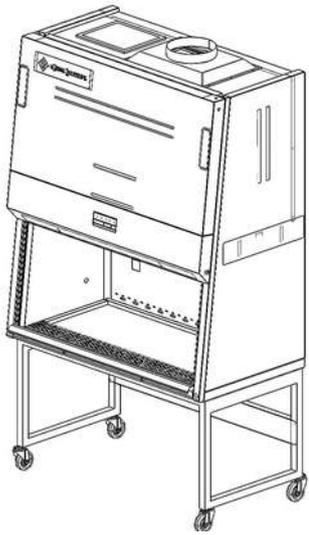
Dynamic Chamber

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

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

Front grills with arm rest

- Helps prevent grille blocking
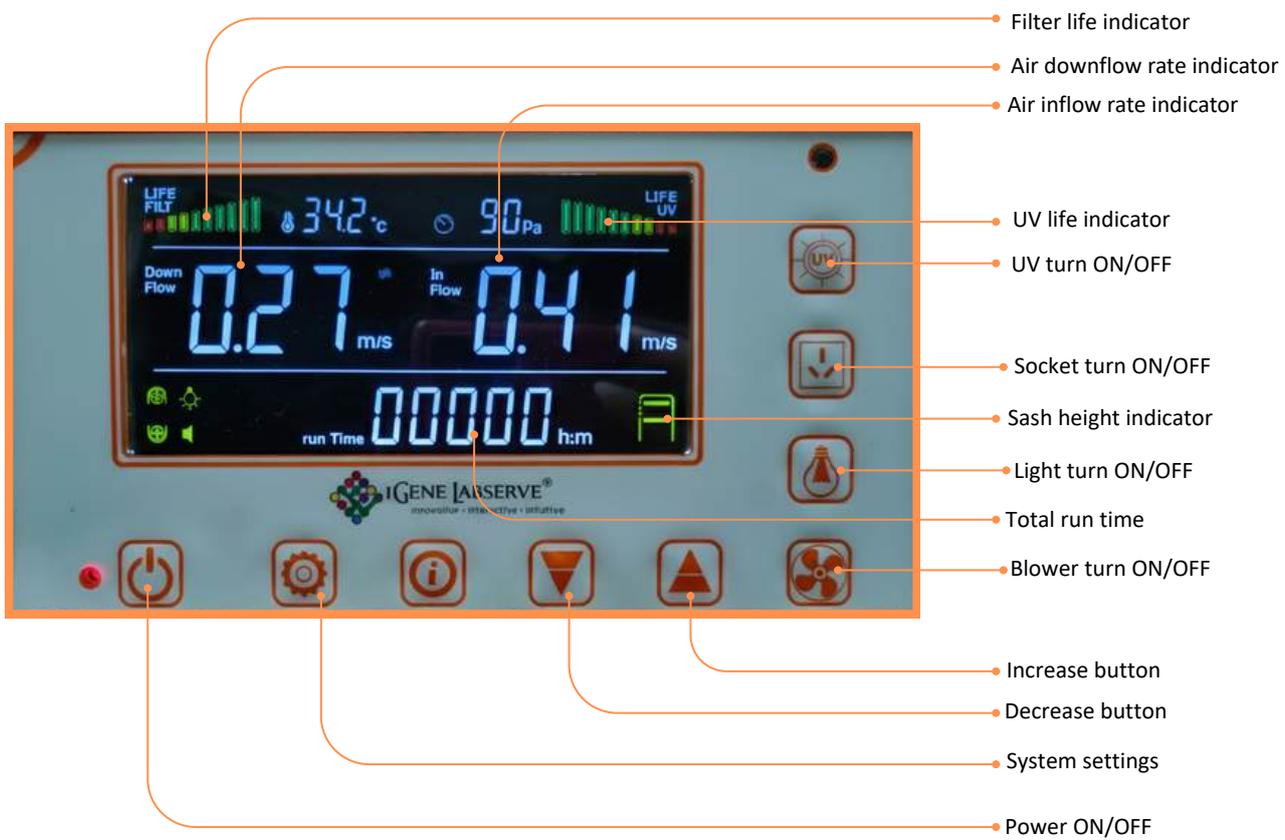- Comfortable working posture

Remote-controlled operation for enhanced convenience

- Precise control of sash movement (up/down)
- Remote ON/OFF control of UV lamp
- Blower operation control
- Lighting system control
- Easy parameter setting and adjustment

Controller and Monitoring Systems

2200 Series

- Filter life indicator
- Air downflow rate indicator
- Air inflow rate indicator
- UV life indicator
- UV turn ON/OFF
- Socket turn ON/OFF
- Sash height indicator
- Light turn ON/OFF
- Total run time
- Blower turn ON/OFF
- Increase button
- Decrease button
- System settings
- Power ON/OFF

2400 Series

- Total run time
- Window status
- Filter life indicator
- UV life indicator
- Blower speed
- Sash up
- Air inflow rate
- Sash down
- Air downflow rate
- Light ON/OFF
- Socket ON/OFF
- Mute ON/OFF
- Blower ON/OFF
- UV ON/OFF
- Operational logs
- System settings

Class II type A2 Biosafety Cabinet Technical Specification

Model	Dimension (ft)	Internal Size (mm)	External Size without stand (mm)	External size with stand (mm)	Airflow Volume (Inflow)	Airflow Volume (Downflow)	Filter Type	Noise	Display	Certification
IG-CIIA222G (NSF Certified)	2 x 2 x 2	605 x 500 x540	705 x 650 x 1290	705 x 650 x 2220	290 m³/h	360 m³/h	ULPA 99.9995% @ 0.12 µm	≤65 dB	Touchscreen	NSF49
IG-CIIA2222 (NSF-compliant)	2 x 2 x 2	610 x 610 x 610	774 x 764 x 1690	774 x 764 x 2400	240 m³/h	442 m³/h	HEPA 99.97% @ 0.3 µm	<65 dB	LCD/KeyPad	CE
IG-CIIA232G (NSF Certified)	3 x 2 x 2	910 x 600 x 660	1087x 775 x 1458	1085 X 765 X 2220	445 m3/h	649 m3/h	ULPA 99.9995% @ 0.12 µm	≤65 dB	Touchscreen	NSF49
IG-CIIA2322 (NSF-compliant)	3 x 2 x 2	910 X610 X610	1085 X 765 X 1690	1085 X 765 X 2400	445 m3/h	649 m3/h	HEPA 99.97% @ 0.3 µm	<65 dB	LCD/KeyPad	CE
IG-CIIA242G (NSF Certified)	4 x 2 x 2	1210 x 600 x 660	1383 x 775 x 1290	1383 x 775 x 2220	587 m³/h	863 m³/h	ULPA 99.9995% @ 0.12 µm	≤65 dB	Touchscreen	NSF49
IG-CIIA2422 (NSF-compliant)	4 x 2 x 2	1220 x 610 x 610	1382 x 764 x 1690	1382 x 764 x 2400	595 m³/h	884 m³/h	HEPA 99.97% @ 0.3 µm	<65 dB	LCD/Keypad	CE
IG-CIIA262G (NSF Certified)	6 x 2 x 2	1700 x 600 x 660	1873 x 775 x 1290	1873 x 775 x 2220	824 m³/h	1212 m³/h	ULPA 99.9995% @ 0.12 µm	≤65 dB	Touchscreen	NSF49
IG-CIIA2622 (NSF-compliant)	6 x 2 x 2	1829 x 610 x 610	1991 x 764 x 1690	1995 x 764 x 2400	892 m³/h	1325 m³/h	HEPA 99.97% @ 0.3 µm	<65 dB	LCD/KeyPad	CE

Class II type B2 Biosafety Cabinet Technical Specification

Model	Dimension (ft)	Internal Size (mm)	External Size without stand (mm)	External size with stand (mm)	Exhaust Volume	Airflow Velocity	Filter Type	Noise	Display	Certification
IG-CIIB242G (NSF Certified)	4 x 2 x 2	1210 x 600 x 660	_	_	1320 m³/h	Tested opening	ULPA 99.9995% @ 0.12 µm	≤60 dB	Touchscreen	NSF49
IG-CIIB2222 (NSF-compliant)	2 x 2 x 2	610 x 610 x 610	774 x 764 x 1690	774 x 764 x 2400	100% Exhaust	105 fpm	HEPA 99.97% @ 0.3 µm	<60 dB	LCD	CE
IG-CIIB2322 (NSF-compliant)	3 x 2 x 2	914 x 610 x 610	1080 x 764 x 1690	1080 x 764 x 2400	_	_	HEPA 99.97% @ 0.3 µm	<60 dB	LCD	CE
IG-CIIB2422 (NSF-compliant)	4 x 2 x 2	1219 x 610 x 610	1382 x 764 x 1690	1382 x 764 x 2400	-	-	HEPA 99.97% @ 0.3 µm	<60 dB	LCD	CE
IG-CIIB2622 (NSF-compliant)	6 x 2 x 2	1829 x 610 x 610	1995 x 764 x 1690	1995 x 764 x 2400	_	_	HEPA 99.97% @ 0.3 µm	<60 dB	LCD	CE

Model No.	Description	Unit
IG-CIIA222G	Class II A2 Biosafety Cabinet – internal dimension 605 x 500 x 540 mm (NSF certified) supplied with a main body, UV lamp, base stand, multiple fuses (12.5A, 6.3A, 2.5A), drain valve set, rubber gaskets, SS screws/washers, hex wrench, remote control, tubular motor rod key.	1 Unit
IG-CIIA2222	Class II A2 Biosafety Cabinet – internal dimension 610 x 610 x 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand (4 pcs), nut bolts, duct clamp, remote control (only with PID), fuse 10A ×2.	1 Unit
IG-CIIA232G	Class II A2 Biosafety Cabinet – internal dimension 910 x 600 x 660 mm (NSF certified) supplied with a main body, UV lamp, base stand, multiple fuses (12.5A, 6.3A, 2.5A), drain valve set, rubber gaskets, SS screws/washers, hex wrench, remote control, tubular motor rod key.	1 Unit
IG-CIIA2322	Class II A2 Biosafety Cabinet – internal dimension 910 X610 X 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand (4 pcs), nut bolts, duct clamp, remote control (only with PID), fuse 10A ×2.	1 Unit
IG-CIIA242G	Class II A2 Biosafety Cabinet – internal dimension 1210 x 600 x 660 mm (NSF certified) supplied with a main body, UV lamps, base stand, fuses, drain valve set, gaskets, screws, remote, hex wrench, tubular motor rod key.	1 Unit
IG-CIIA2422	Class II A2 Biosafety Cabinet – internal dimension 1220 x 610 x 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand, nuts/bolts, duct clamp, remote (with PID), fuse 10A ×2.	1 Unit
IG-CIIA262G	Class II A2 Biosafety Cabinet – internal dimension 1700 x 600 x 660 mm (NSF certified) supplied with a main body, UV lamps, base stand, fuses, drain valve set, gaskets, screws, remote, hex wrench, tubular motor rod key.	1 Unit
IG-CIIA2622	Class II A2 Biosafety Cabinet – internal dimension 1829 x 610 x 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand, nut bolts, duct clamp, remote (with PID), fuse 10A ×2.	1 Unit
IG-CIIB242G	Class II B2 Biosafety Cabinet – internal dimension 1210 x 600 x 660 mm (NSF certified) supplied with a main body, UV lamp 30W, base stand, fuses (12.5A, 6.3A, 2.5A, 16A), drain valve set, rubber gaskets, screws, hex wrench, remote control, tubular motor rod key.	1 Unit
IG-CIIB2222	Class II B2 Biosafety Cabinet – internal dimension 610 x 610 x 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand, nut bolts, duct clamp, blower + blower stand, remote (with PID), fuse 16A ×2.	1 Unit
IG-CIIB2322	Class II B2 Biosafety Cabinet – internal dimension 914 x 610 x 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand, nuts, duct clamp, blower, blower stand, remote (with PID), 16A fuses.	1 Unit
IG-CIIB2422	Class II B2 Biosafety Cabinet – internal dimension 1219 x 610 x 610 mm (NSF-compliant) supplied with a main body, power cord, tray, ducting, drain valve, stand, nuts, duct clamp, blower, blower stand, remote (with PID), 16A fuses.	1 Unit
IG-CIIB2622	Class II B2 Biosafety Cabinet – internal dimension 1829 x 610 x 610 mm (NSF-compliant) supplied with a full Standard B2 accessory kit included.	1 Unit

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