

CLEAN AIR

SOLUTIONS

Class II Biological Safety Cabinets
and Laminar Airflow Bench

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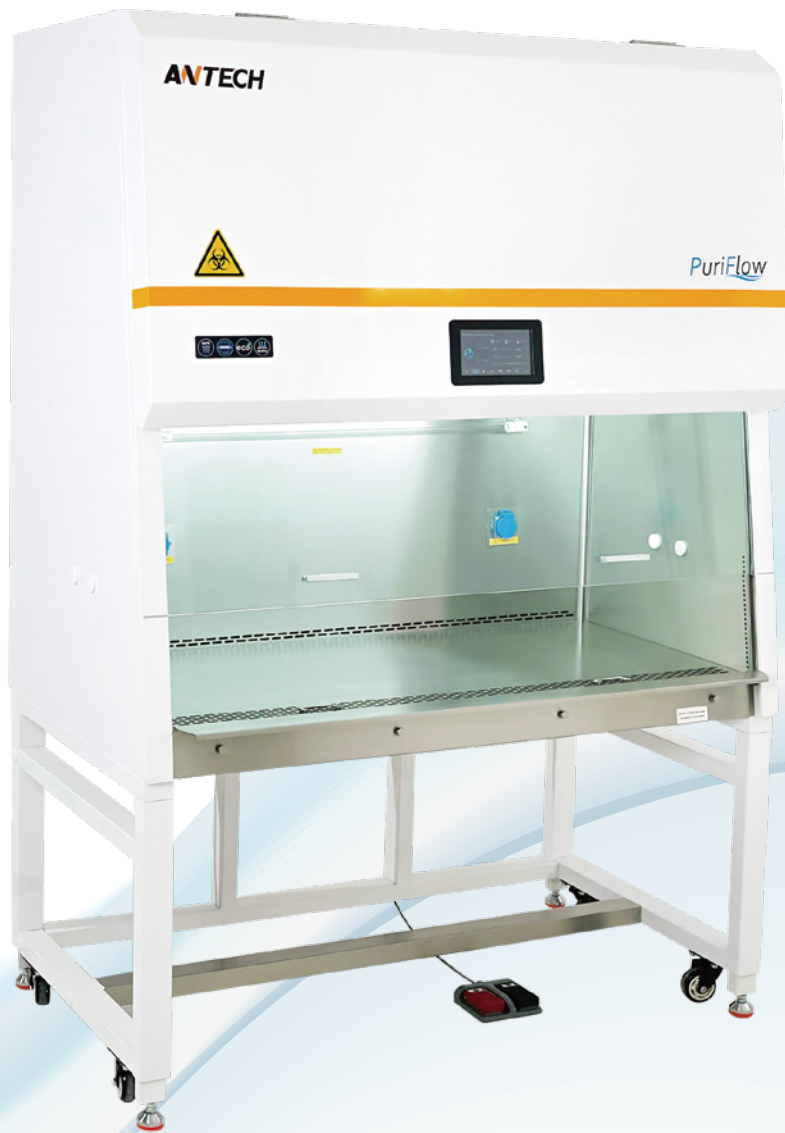
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PuriFlow Series Class II Type A2 Biological Safety Cabinet



A choice of safety, intelligence and value for routine applications

The Antech Scientific PuriFlow Series Class II, Type A2 biological safety cabinets offer safety, intelligence and value to users. The cabinet is energy efficient and provides both personal and product protection from biological hazards and contamination. The performance meets main international standards such as YY0569, EN12469 and NSF49.

PuriFlow



WiseFlow

- Advanced DC ECM blower, energy efficient and quite
- Constant Air Volume (CAV) and Constant Pressure Apheresis System (CPAS) technology for automatic airflow compensation
- U15 ULPA filter with filter life indicator alert
- ECO mode for faster airflow recovery & lower power consumption



Ergonomic design

- 10° sloped front for ergonomics
- 7" touch screen operated with WiseFlow control system, clear display and easy operation
- Motorized sash can be operated with touch screen, foot switch or remote controller
- Adjustable height stand provided as standard, match different users' requirements



Convenience

- Dual UV-timer allows more flexibility to match user's shifts
- Water collection container and drain valve under work tray for convenient cleaning
- Casters for easy moving, leveling feet for firm installation



WiseFlow operating system



Convenient features

WiseSash design

- Motorized sash operated with touch screen, foot switch or remote controller
- Independent manual sash system can be shut down when power failure
- UV-proof sash window glass protecting people during disinfection

WisePort convenience

- WisePort at both left and right side walls, providing flexibility to install
- Various valves and pipelines for different applications

WiseClean design

- Front window can be lowered for convenient cleaning
- Work tray can be lifted and supported by rod when cleaning under tray area
- Drain valve supplied as standard

Raised arm rest

- Prevent grille blocking
- Comfortable working posture
- End-to-end design for free movement



A universe package, a premium solution

A universe package of PuriFlow A2 cabinet includes:

1. Class II type A2 main cabinet
2. Detachable stand with:
 - Manual adjustable height
 - Casters & leveling feet
 - Foot rest bar
3. Socket x 2
4. Valve port x 4



Select optional accessories for your application

Accessory	Description	Cat. No.
User Convenience Equipment	Hanging shelf for base stand	3134100
	Stainless steel armrest (set of two)	3134200
	IV bag holder kit with 10 hooks	3134300
	Remote controller for front sash	3134400
Sidewall Utilities	Gas valve	3132100
	Vacuum valve	3132200
	Water valve	3132300
Exhaust Transitions	Thimble duct exhaust transition for 3 ft cabinet (without sensor)	3133300
	Thimble duct exhaust transition for 4 ft cabinet (without sensor)	3133400
	Thimble duct exhaust transition for 5 ft cabinet (without sensor)	3133500
	Thimble duct exhaust transition for 6 ft cabinet (without sensor)	3133600



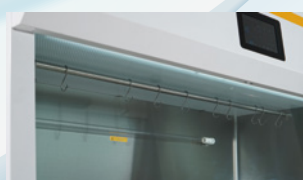
Hanging shelf



Arm rest



Valve



IV bag holder

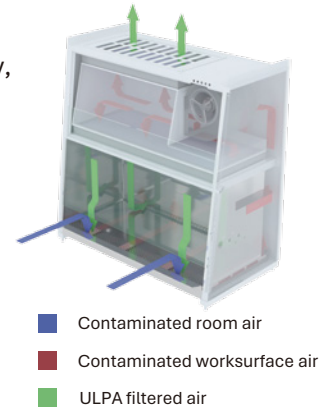
Airflow Pattern of Class II Type A2 Cabinet

Inflow: Room air is drawn into the cabinet through the front opening at a specific velocity, creating a protective barrier that prevents contaminants from escaping the work area.

Laminar downflow: A portion of the air is filtered and then flows downward in a unidirectional (laminar) manner over the work surface. This creates an ultra-clean zone for the product and prevents cross-contamination between samples.

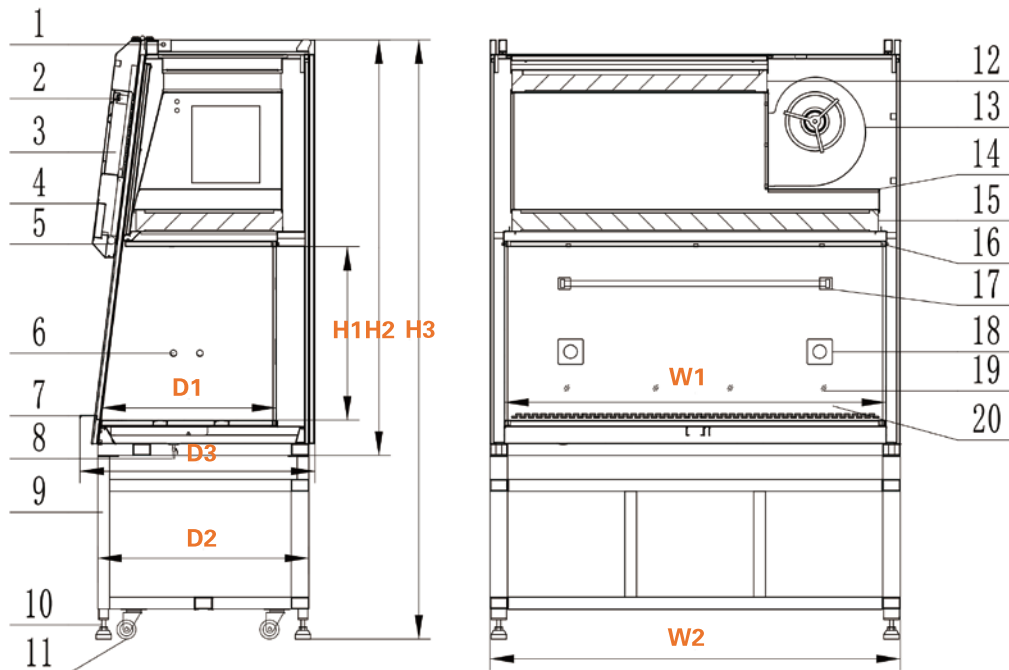
Recirculation and exhaust: After passing over the work surface, the air is drawn through a rear grille. The majority (around 70%) is recirculated back after being ULPA-filtered. The rest (around 30%) is exhausted to the environment, also through a ULPA filter.

Negative pressure: To ensure air always flows inward, the cabinet maintains a slight negative pressure relative to the room, so any leaks occur from the outside into the cabinet, not the other way around.



Engineering drawing

Class II, type A2



1. Sash motor
2. Circuit breaker
3. Electrical box
4. Touch screen
5. LED lamp

6. Service valve access ports
7. Armrest
8. Drain valve
9. Stand
10. Leveling foot

11. Caster
12. Exhaust ULPA filter
13. Blower
14. Plenum chamber
15. Supply ULPA filter

16. Airflow diffuser
17. UV Lamp
18. Socket
19. Sash window
20. Work zone

Model	W1	W2	D1	D2	D3	H1	H2	H3
PF-A3	1000	1100	600	720	800	590	1420	2050
PF-A4	1300	1400	600	720	800	590	1420	2050
PF-A5	1600	1700	600	720	800	590	1420	2050
PF-A6	1800	1900	600	720	800	590	1420	2050

Unit:mm

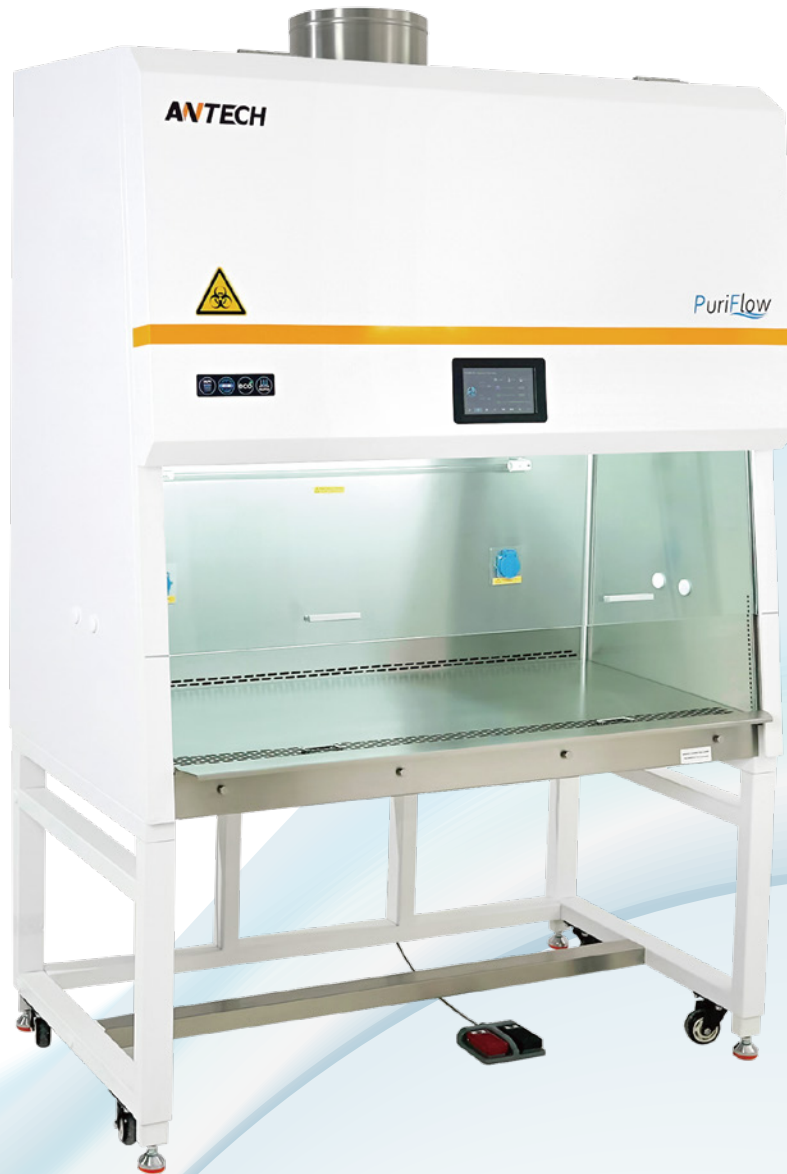
Technical specifications

Model			PF-A3	PF-A4	PF-A5	PF-A6
Type			Class II , type A2			
Dimensions & weight	Nominal size	ft/mm	3 ft/ 1000mm	4 ft/ 1300mm	5 ft/ 1600mm	6 ft/ 1800mm
	External (W x D x H)	mm	1100 x 800 x 2040	1400 x 800 x 2040	1700 x 800 x 2040	1900 x 800 x 2040
	Internal (W x D x H)	mm	1000 x 600 x 600	1300 x 600 x 600	1600 x 600 x 600	1800 x 600 x 600
	Usable working area	m ²	0.6	0.78	0.96	1.08
	Working table height		750/800/850/900/950 mm adjustable			
	Working height of front window	mm	200	200	200	200
	Maximum opening height of front window	mm	480	480	480	480
	Net weight	kg	235	255	307	330
Electric	Power supply		220V, 50Hz; 220V, 60Hz; 110V 60Hz			
	Rated power	W	500	540	750	850
	Rated current (W/O socket)	A	3	3.5	3.5	4
	Power consumption	KWh/h	0.5	0.6	0.6	0.7
	LED lamp	W	36 x 1	40 x 1	40 x 1	40 x 1
	UV lamp	W	20 x 1	30 x 1	30 x 1	30 x 1
	Receptacle		2, total 1320W, 6A			
Cleanliness	Fliter, downflow		U15 ULPA, ≥99.9995% @ MPPS, EN1822			
	Fliter, exhaust		U15 ULPA, ≥99.9995% @ MPPS, EN1822			
	Cleanliness grade		ISO class 4			
	Total colony in impaction sampler (operator protection) CFU	CFU	≤10	≤10	≤10	≤10
	Total colony in slit type sampler (operator protection) CFU	CFU	≤5	≤5	≤5	≤5
	Total colony in culture dish (product protection) CFU	CFU	≤5	≤5	≤5	≤5
	Total colony in culture dish (cross contamination) CFU	CFU	≤2	≤2	≤2	≤2
Airflow	Airflow pattern		70% downflow, 30% exhaust			
	Exhaust direction		Top exhaust			
	Avarage inflow velocity	m/s	0.55	0.55	0.55	0.55
	Average downflow velocity	m/s	0.36	0.36	0.36	0.36
	Exhaust/inflow air volume	m ³	396	515	634	713
	Downflow air volume	m ³	745	969	1192	1341
	Ergonomics	Front sash		Electric sash operated with touch screen, foot switch or remote controller		
Illumination		lx	>1000	>1000	>1000	>800
Noise*		dB(A)	<54	<56	<59	<61
Valve (vacuum, gas, water)			○	○	○	○
WisePort			4	4	4	4
Drain valve			●	●	●	●
Arm rest			○	○	○	○
	IV bar		○	○	○	○
Material	Blower		DC ECM blower			
	Working tray		SUS304			
	Inner walls		SUS304			
	Main body		Spraying coated steel			
	Front sash		Tempered glass, UV-proof, 6mm			
	Stand		Detachable, ajustable height			
	Leveling foot		4	4	4	4
	Caster		4	4	4	4
Control	Display & control		7" Touchscreen			
	ECO mode		●	●	●	●
	Ambient temperature display		●	●	●	●
	Ambient humidity display		●	●	●	●
	UV lamp working time display		●	●	●	●
	Filter working time display		●	●	●	●
	Filter life indicator		●	●	●	●
	Cabinet ON/OFF timer		●	●	●	●
	UV timer		●	●	●	●
	Password protection		●	●	●	●
	RS485 port		●	●	●	●
Alarm	Alarm type		Visible and audible alarm			
	Inflow velocity		●	●	●	●
	Downflow velocity		●	●	●	●
	Sash height limit		●	●	●	●
	Fan failure		●	●	●	●
	Filter life alert		●	●	●	●
Shipping	Packing size, plywood case (W x D x H)	mm	1210 x 1000 x 1720	1510 x 1000 x 1720	1810 x 1000 x 1720	2010 x 1000 x 1720
	Gross weight, plywood case	kg	335	375	440	470

* Noise level is according to the standard of EN12469.

● Basic equipment ○ Optional

PuriFlow Series Class II Type B2 Biological Safety Cabinet



A choice of safety, intelligence and value for routine applications

The Antech Scientific PuriFlow Series Class II, Type B2 biological safety cabinets offer safety, intelligence and value to users. The cabinet is energy efficient and provides both personal and product protection from biological hazards and contamination. These cabinets are ideally suited for a wide range of applications including microbiological research, pharmaceutical development, clinical diagnostics, tissue culture, and handling biohazardous or infectious materials. Performance meets main international standards such as YY0569 and NSF49.

PuriFlow



WiseFlow

- Advanced DC ECM blower, energy efficient and quite
- Constant Air Volume (CAV) and Constant Pressure Apheresis System (CPAS) technology for automatic airflow compensation
- U15 ULPA supply filter with filter life indicator alert
- ECO mode for faster airflow recovery & lower power consumption



Ergonomic design

- 10° sloped front for ergonomics
- 7" touch screen operated with WiseFlow control system, clear display and easy operation
- Motorized sash can be operated with touch screen, foot switch or remote controller
- Adjustable height stand provided as standard, match different users' requirements



Convenience

- Dual UV-timer allows more flexibility to match user's shifts
- Water collection container and drain valve under work tray for convenient cleaning
- Casters for easy moving, leveling feet for firm installation



WiseFlow operating system



Convenient features

WiseSash design

- Motorized sash operated with touch screen, foot switch or remote controller
- Independent manual sash system can be shut down when power failure
- UV-proof sash window glass protecting people during disinfection

WisePort convenience

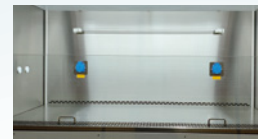
- WisePort at both left and right side walls, providing flexibility to install
- Various valves and pipelines for different applications

WiseClean design

- Front window can be lowered for convenient cleaning
- Work tray can be lifted and supported by rod when cleaning under tray area

Raised arm rest

- Prevent grille blocking
- Comfortable working posture
- End-to-end design for free movement



A universe package, a premium solution

A universe package of PuriFlow B2 cabinet includes:

1. Class II type B2 main cabinet
2. Detachable stand with:
 - Manual adjustable height
 - Casters & leveling feet
 - Foot rest bar
3. Socket x 2
4. Valve port x 4
5. External blower & damper



Select optional accessories for your application

Accessory	Description	Cat. No.
User Convenience Equipment	Hanging shelf for base stand	3134100
	Stainless steel armrest (set of two)	3134200
	IV bag holder kit with 10 hooks	3134300
	Remote controller for front sash	3134400
Sidewall Utilities	Gas valve	3132100
	Vacuum valve	3132200
	Water valve	3132300



Hanging shelf



Arm rest



Valve



IV bag holder

Airflow Pattern of Class II Type B2 Cabinet

100% Exhaust (No Recirculation):

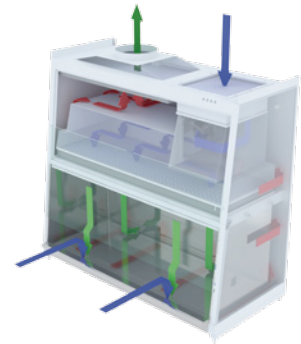
All air is exhausted through a HEPA filter before it enters the ductwork and is dispersed through an external exhaust fan.

Inflow:

Room air enters through the front grill at a specific velocity, prevented from entering the work area.

Downflow:

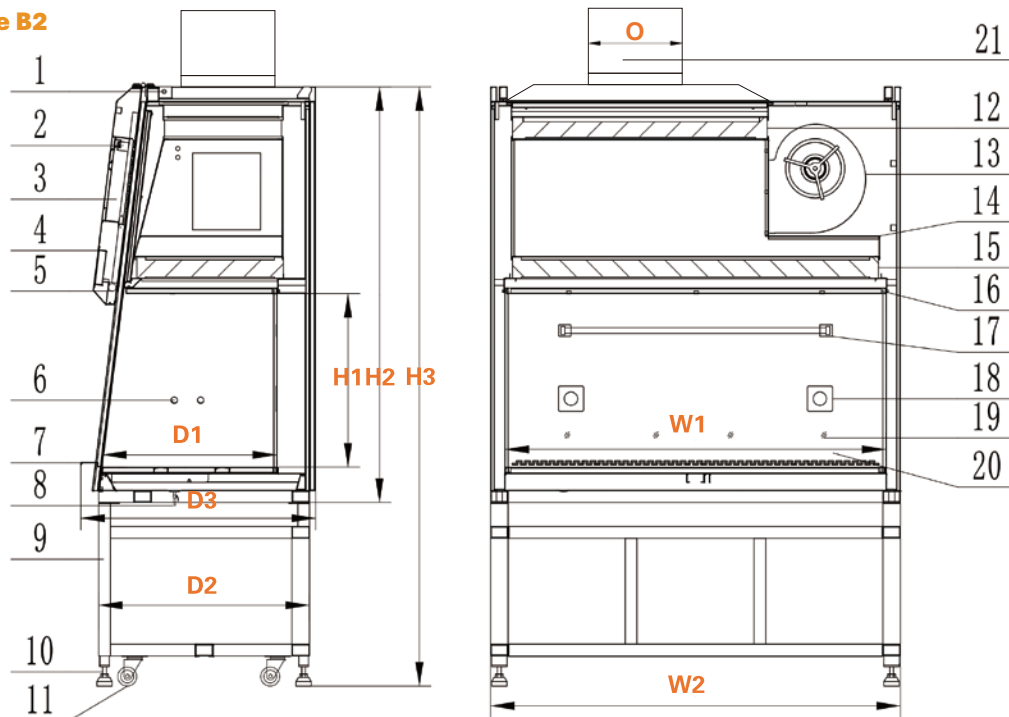
Outside air is drawn through a supply ULPA filter, creating a clean, vertical laminar downflow in the work zone.



- Unfiltered air from the room
- Air from the working area
- ULPA-filtered, particle-free air
- HEPA-filtered air

Engineering drawing

Class II, type B2



- | | | | |
|--------------------|-------------------------------|-------------------------|----------------------|
| 1. Sash motor | 6. Service valve access ports | 11. Caster | 16. Airflow diffuser |
| 2. Circuit breaker | 7. Armrest | 12. Exhaust HEPA filter | 17. UV Lamp |
| 3. Electrical box | 8. Drain valve | 13. Blower | 18. Socket |
| 4. Touch screen | 9. Stand | 14. Plenum chamber | 19. Sash window |
| 5. LED lamp | 10. Leveling foot | 15. Supply ULPA filter | 20. Work zone |
| | | | 21. Exhaust damper |

Model	W1	W2	D1	D2	D3	H1	H2	H3	O
PF-B3	1000	1100	600	720	800	590	1420	2050	300
PF-B4	1300	1400	600	720	800	590	1420	2050	300
PF-B5	1600	1700	600	720	800	590	1420	2050	300

Unit:mm

Technical specifications

Model			PF-B3	PF-B4	PF-B5
Type			Class II, type B2		
Dimensions & weight	Nominal size	feet/mm	3 feet/ 1000mm	4 feet/ 1300mm	5 feet/ 1600mm
	External (W x D x H)	mm	1100×800×2040	1400×800×2040	1700×800×2040
	Internal (W x D x H)	mm	1000×600×600	1300×600×600	1600×600×600
	Usable working area	m ²	0.6	0.78	0.96
	Working table height		750/800/850/900/950mm adjustable		
	Working height of front window	mm	200	200	200
	Maximum opening height of front window	mm	480	480	480
Electric	Net weight	kg	250	280	320
	Power supply		220V, 50Hz; 220V, 60Hz; 110V, 60Hz		
	Rated power	W	800	900	1000
	Rated current (W/O socket)	A	5	5.5	6
	Power consumption	KWh/h	0.7	0.8	0.9
	LED lamp	W	36 x 1	40 x 1	40 x 1
	UV lamp	W	20 x 1	30 x 1	30 x 1
Cleanliness	Receptacle		2, Total 880W, 4A		
	Filter, downflow		U15 ULPA, ≥99.9995% @ MPPS, EN1822		
	Filter, exhaust		H14 HEPA, ≥99.995% @ MPPS, EN1822		
	Cleanliness grade		ISO class 4		
	Total colony in impaction sampler (operator protection) CFU		≤10	≤10	≤10
	Total colony in slit type sampler (operator protection) CFU		≤5	≤5	≤5
	Total colony in culture dish (product protection) CFU		≤5	≤5	≤5
Airflow	Total colony in culture dish (cross contamination) CFU		≤2	≤2	≤2
	Airflow pattern		100% exhaust		
	Exhaust direction		Top exhaust		
	Average inflow velocity	m/s	0.55	0.55	0.55
	Average downflow velocity	m/s	0.32	0.32	0.3
	Inflow air volume	m ³	396	515	634
	Downflow air volume	m ³	662	861	994
Ergonomics	Exhaust air volume	m ³	1058	1376	1628
	Front sash		Electric sash operated with touch screen, foot switch or remote controller		
	Illumination	lx	>1000	>1000	>1000
	Noise	dB(A)	<60	<61	<63
	Valve (vacuum, gas, water)		○	○	○
	WipePort		4	4	4
	Drain valve		●	●	●
Material	Arm rest		○	○	○
	IV bar		○	○	○
	Blower		DC ECM blower		
	Working tray		SUS304		
	Inner walls		SUS304		
	Main body		Spraying coated steel		
	Front sash		Tempered glass, UV-proof, 6mm		
Control	Stand		Detachable, adjustable height		
	Leveling foot		4	4	4
	Caster		4	4	4
	External exhaust blower		●	●	●
	Display & control		7" Touchscreen		
	ECO mode		●	●	●
	Ambient temperature display		●	●	●
Alarm	Ambient humidity display		●	●	●
	UV lamp working time display		●	●	●
	Filter working time display		●	●	●
	Filter life indicator		●	●	●
	Cabinet ON/OFF timer		●	●	●
	UV timer		●	●	●
	Password protection		●	●	●
Shipping	RS485 port		●	●	●
	Alarm type		Visible and audible alarm		
	Inflow velocity		●	●	●
	Downflow velocity		●	●	●
	Sash height limit		●	●	●
	Fan failure		●	●	●
	Filter life alert		●	●	●
Shipping	Packing size, plywood case (W x D x H)	mm	1210 x 960 x 1710	1510 x 960 x 1710	1810 x 960 x 1710
	Gross weight, plywood case	kg	325	355	410

● Basic equipment ○ Optional

LamiFlow Series Laminar Flow Cabinet



A choice of safety, intelligence and value for routine applications

The PuriFlow series laminar flow cabinets offer safety, intelligence and value to users. The cabinet is energy efficient and provides excellent product protection from contamination. Both vertical and horizontal types are available for various applications.

LamiFlow

The LamiFlow series laminar flow cabinets offer safety, intelligence and value to users. The cabinet is energy efficient and provides excellent product protection from contamination. Both vertical and horizontal types are available for various applications.



Vertical



Horizontal



Performance

- Advanced ECM blower, energy efficient and lower noise
- Constant Air Volume (CAV) and Constant Pressure Apheresis System (CPAS) technology for automatic airflow compensation
- H14 HEPA filter creates ISO Class 5 cleanliness workspace



Intelligent

- Touch screen displays real-time velocity, pressure, temperature, humidity
- Dual UV-timer & UV lamp working time display
- HEPA filter working time display & filter life indicator alert



Ergonomic design

- Glass side walls creating all-round vision
- 10° sloped front for ergonomics
- SUS304 working tray for easy cleaning
- Lockable casters for convenient moving



WiseFlow operating system

- Touch screen, real-time display of temperature, humidity, UV lamp & filter working hours
- Intelligent constant airflow control system
- Visible and audible alarm
- Timing function for unit and UV lamp
- Password protection prevents unauthorized access



Select optional accessories for your application

Accessory	Description	Cat. No.
User Convenience Equipment	IV bag holder kit with 10 hooks	3134300
Sidewall Utilities	Gas valve	3132100
	Vacuum valve	3132200
	Water valve	3132300

Technical specifications

Model		LF-V3	LF-V4	LF-H5
Airflow	Airflow pattern	Vertical	Vertical	Horizontal
	Velocity	Adjustable from 0.25m/s-0.40m/s		
Dimensions & weight	Nominal size	3 feet	4 feet	5 feet
	External with support stand (W x D x H)	mm 1000×720×1780	1500×720×1780	1700×760×1970
	External without support stand (W x D x H)	mm 1000×720×1095	1500×720×1095	1700×760×1170
	Internal (W x D x H)	mm 900×620×600	1400×620×600	1600×535×720
	Usable working area	m ² 0.56	0.87	0.86
	Working height of sash	mm 190~330	190~330	/
	Maximum opening height of front window	mm 520	520	/
	Net weight	kg 125	175	175
Control	Display & control	4.3" Touch Screen		
	Ambient temperature display	●	●	●
	Ambient humidity display	●	●	●
	UV lamp working time display	●	●	●
	Filter working time display	●	●	●
	Filter life indicator	●	●	●
	Smart constant airflow	●	●	●
	Cabinet ON/OFF timer	●	●	●
	UV timer	●	●	●
	Password protection	●	●	●
	RS485 port	○	○	○
Alarm	Alarm type	Visible and audible alarm		
	Velocity abnormal	●	●	●
	Sash too height/low	●	●	●
	Filter life alert	●	●	●
Electric	Power supply	220V, 50Hz; 220V, 60Hz; 110V 60Hz		
	Rated power	W 300	450	450
	Rated current	A 1 (W/O socket)	2 (W/O socket)	2
	LED lamp	W 12×1	14×1	14×1
	UV lamp	W 20×1	30×1	30×1
	Receptacle	2, total 1320W, 6A	2, total 1320W, 6A	/
Cleanliness	Filter	H14, ≥99.995% @0.3μm		
	Pre-filter	Washable Pre-filter		
	Cleanliness grade	ISO class 5		
	Concentration of descending bacteria	≤ 0.5cfu/0.5h (φ90mm Petri dish)		
Light & Noise	Illumination	lx 800	700	700
	Noise *	dB(A) 55	55	60
Material	Blower	DC ECM blower		
	Working tray	1.5 mm thickness SUS 304		
	Side walls	6mm glass Anti-UV exporue		
	Main body	Spraying coated steel		
	Front sash glass	Tempered glass, UV-proof, 6mm		
	Stand	Spraying coated steel		
	Casters	4	4	4
Shipping	Packing size, plywood case (W x D x H)	mm 110 x 820 x 1970	1610 x 820 x 1970	1830 x 890 x 2160
	Gross weight, plywood case	kg 180	235	235

* Noise under velocity: 0.25 m/s

● Basic equipment ○ Optional



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