TempIn™

preserving life

Class II Type A2, EN12469

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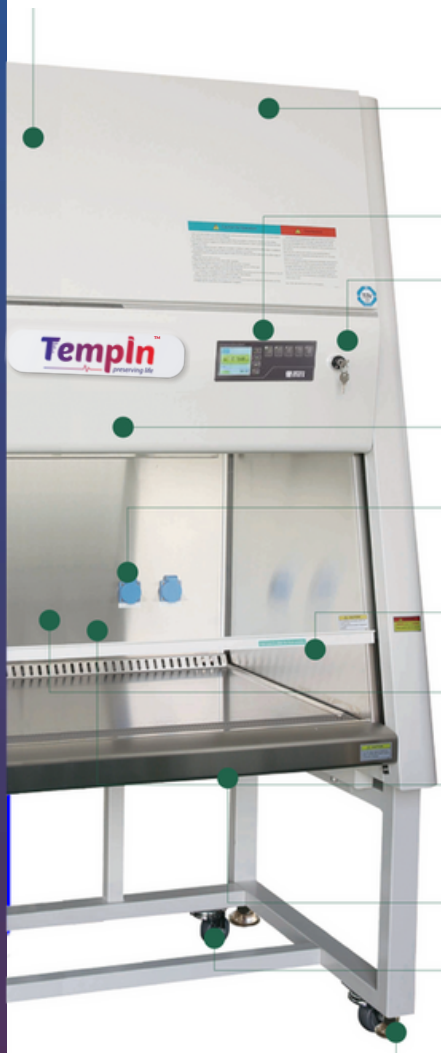
Features

Biological safety cabinet Class IIA2 airflow ratio is 70% recirculation and 30% exhausted, providing the protection to person, samples and environment from biological hazards and contamination

.The Biosafety cabinets are EN12469 certificated. It equips with DC ECM motor for 60% energy saving compared with traditional AC motor, downflow and exhaust HEPA (H14) filter efficiency 99.995%@0.3 micron and conforms to EU standard EN1822 and velocity sensor measures velocity accuracy at 0.001m/s.



HEPA (H14) Filter ,
99.995% efficiency for partical size 0.3um

Intellegnet controller with Color LCD Display
easy viewing display of working status and operation

Key switch to prevent unauthorized access

LED lamp providing sufficient and uniform lighting; UV lamp with timer and it Interlocked with LED lamp and sash window for convenient and safet decontamination

2 Waterproof power sockets

One piece of SUS304 sheet and with round corner in work zone, no leakage piont and easy for cleaning
The table is made of stainless steel 304 and can be lifted with support and taken out.

Tempered sash glass, 6mm thickness security glass, high stability and anti-UV,

Pressure gauage
USA Dwyer brand accuracy indicates realtime negative pressure

Removable spill retaining table top with front grille, curved corners made in SUS304, easy for cleaning

Durabel Casters for easy moving

Height adjustable support stand
to make sure cabinet is set firmly and horizontally

International Standards

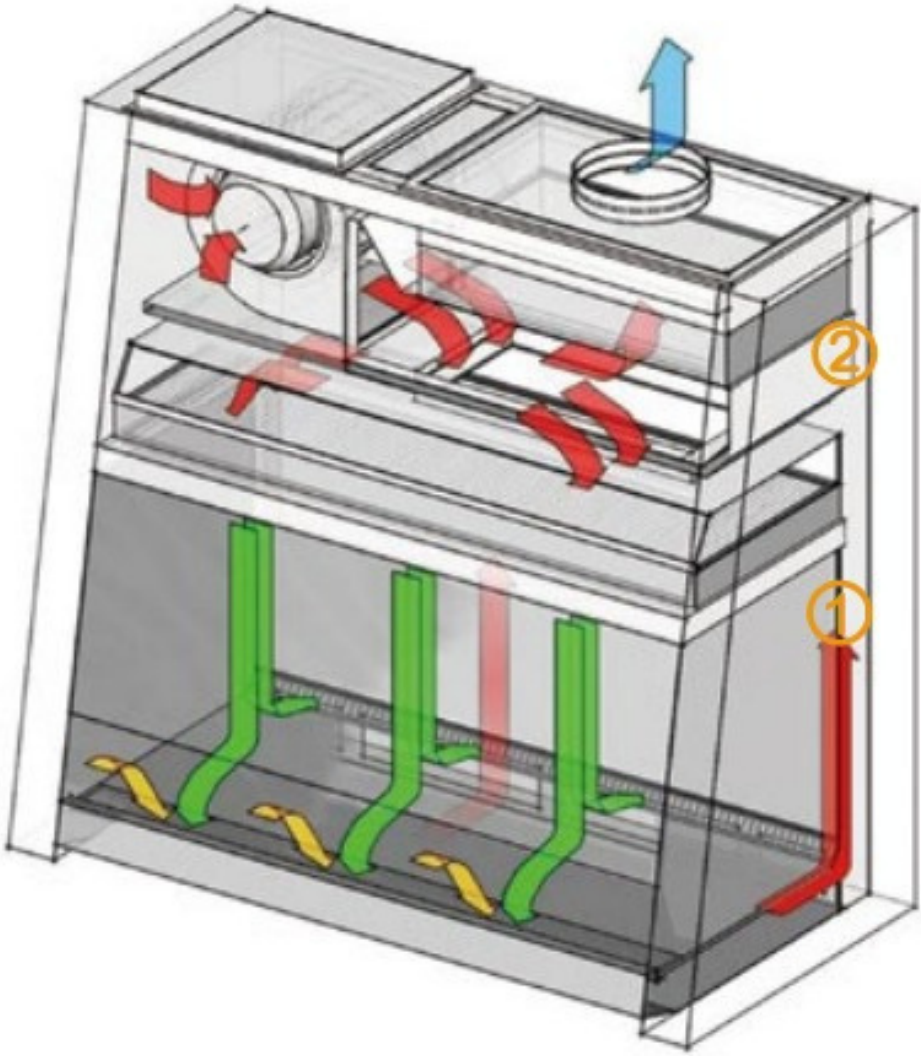
	Biosafety Cabinets	Air Quality	Filtration	Electrical Safety
Standards Compliance	Designed to meet: EN12469,Europe	ISO 14644.1, Class 5, Worldwide JIS B9920, Class 5, Japan JIS BS5295, Class 5, Japan	ISO29463, Worldwide EN-1822, Europe EN13091, Europe	EN-61010-1, Europe IEC61010-1, Worldwide

Biosafety cabinet air pattern:

Approx. 30% air exhausted Approx. 70% recirculated through downflow Inflow air creates a air barrier to protect the inside air leakage to room and room air entry into Work zone.

1. Downflow HEPA filter
2. Exhaust HEPA filter

Room air
Contaminated air
HEPA filter downflow air
HEPA filter exahust air



Reliable ECM DC brushless motor Intelligent CAV technology (Constant Air Volume) and CPAS (Constant Pressure Apheresis System) technology TM

The biological safety cabinet adopts the USA Genteq brand ECM DC brushless motor working with the CPAS and CAV technology providing a safe and reliable airflow volume and pressure during the operation in BSC. Based on ECM feature, it can determine supply air volume and pressure by detecting changes in internal current and power, and can realize automatic regulation on the balance of air volume or pressure. The CPAS and CAV technologies are to precisely control airflow. It automatically maintains constant airflow during filter loading or temporary obstruction. The intelligent technology ensures the change of air volume less than 10% when the resistance of filter increases 50% and enhance safety.

Reliable Filtration System:

The HEPA (H14) filters of downflow and exhaust with filtration efficiency ≥99.995% for 0.3micron particles according with EN13091:1999 and EN 1822-1standard, and designed with the leakage resistance patent technology. The medium of two HEPA filters is USA H&V brand. The air cleanness in workzone is Class 5 (ISO14644.1 standard) .

Unique ECO Mode for energy saving

Under ECO Mode, the blower runs in low speed. UnTMder Eco Mode can reduce the open-close time, it saves time self-purification, UV disinfection and also for cleaning works. it is 80% energy saving.

Manual control type: Press ECO button, it switch to ECO mode.
Automatically entry into ECO mode, after sash window shut down, and 5s sound and light alarm delay, the biosafety cabinet enters into ECO mode automatically. When the sash is open, the blower returns to normal quickly.

Intelligent control system

The Intelligent microprocessor controller with coTMlor LCD display and soft buttons are convenitent to observe BSC working status. Password protection avoids unauthorized change on operating parameters.

Color LCD display content
Blower, LED light, UV light and socket works icons are clearly shown

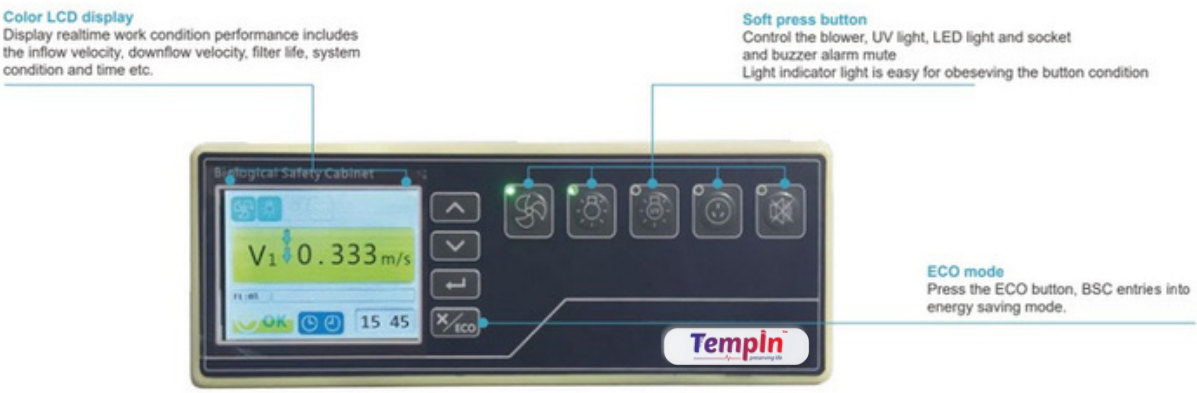
Downflow velocity and inflow velocity display accuracy is 0.001m/s

Filter life shows in percentage, it reminds user to change the filter in time.

Time display is easy to know the operation time

UV timer and UV time

Alarm function	Inflow velocity alarm ✓
	Downflow velocity alarm ✓
	Blower failure alarm ✓
	Sash limited height alarm ✓
	Filter life alarm ✓

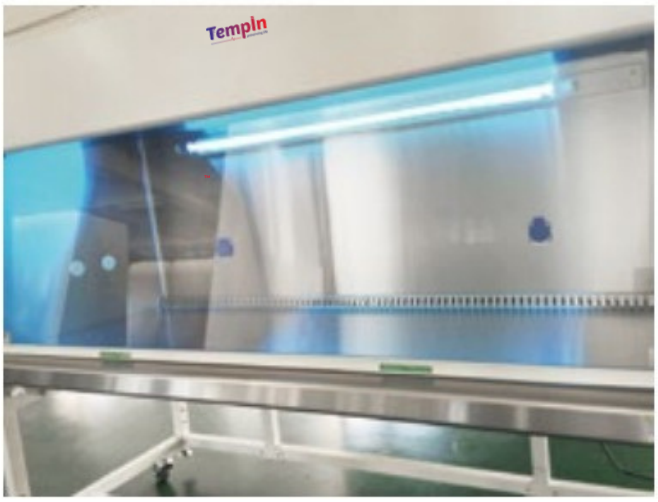


Programmable UV disinfection

254nm UV germicidal light with safety interlocked wTMith LED light and anti- UV sliding sash window, enables work zone operate UV disinfection and protects operator in safety. The standard UV timer can be set according the enhanced disinfection control, prelong the UV lamp life and saving energy.

UV light automatically turns off delay 0~999 minutes programable with 1 minutes increment.

UV light automatically On/Off is 00:01 to 23:59 programable with 1 minutes increment



Excellent Designed parts

10° angled front exceptional comfort for operation in work zone.

Anti-UV sliding sash glass with thickness, high stability and convenient to UV sterilization when it closed.

Spring lifting system applies in Front sash window can make glass height level at arbitrary positioning, and avoids sash glass drop down suddenly.

Removable work table is made of SUS304 and can be took out from work zone. It can be risen up by handle and support rod, convenient for clean the below area.

Interior is made by one piece of SUS304 plate with round corner, no welding point, no leakage risk and easy for cleaning.

Anti-bacteria powder coated Exterior body is easy for cleaning.

Water collecting tank with drainage valve, easy to collect water, cleaning and disinfection liquid.

Height adjustable support base stand is quipped with mobile castors and leveling feet.

Accessories

2 power sockets are reserved on right and left of interior back wall, it is easyTM for operator to use small device in BSC.

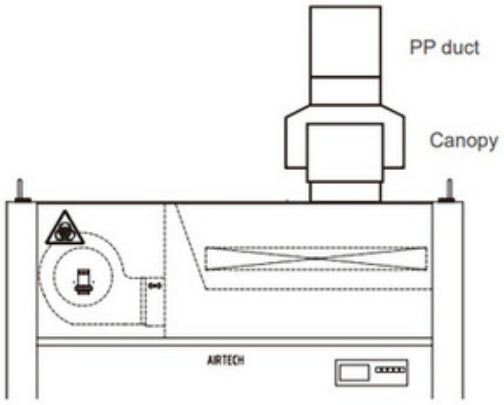
LED light and UV lamp are standard Installed.

Remote Dry contact enable user know the biosafety cabinet power on or off in remote distance.

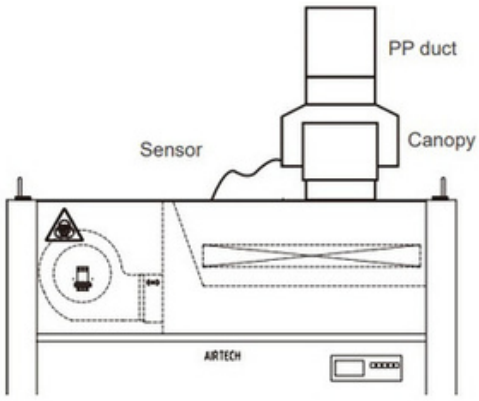
Test service ports are reserved. Blower positive pressure test port and negative pressure port are convenient for engineer to test the biosafety cabinet condition

Optional Canopy kits

HEPA filters have ability to trap particles and biohazTMards.If your work includes the use of volatile organic solvents,gases, or vapors which can not be trapped by filters. it is important to choose canopy and an exhaust duct to route exhaust air out of the laboratory. We supply two different canopies.



Canopy simple type,
Exhaust air volume depend on external blower



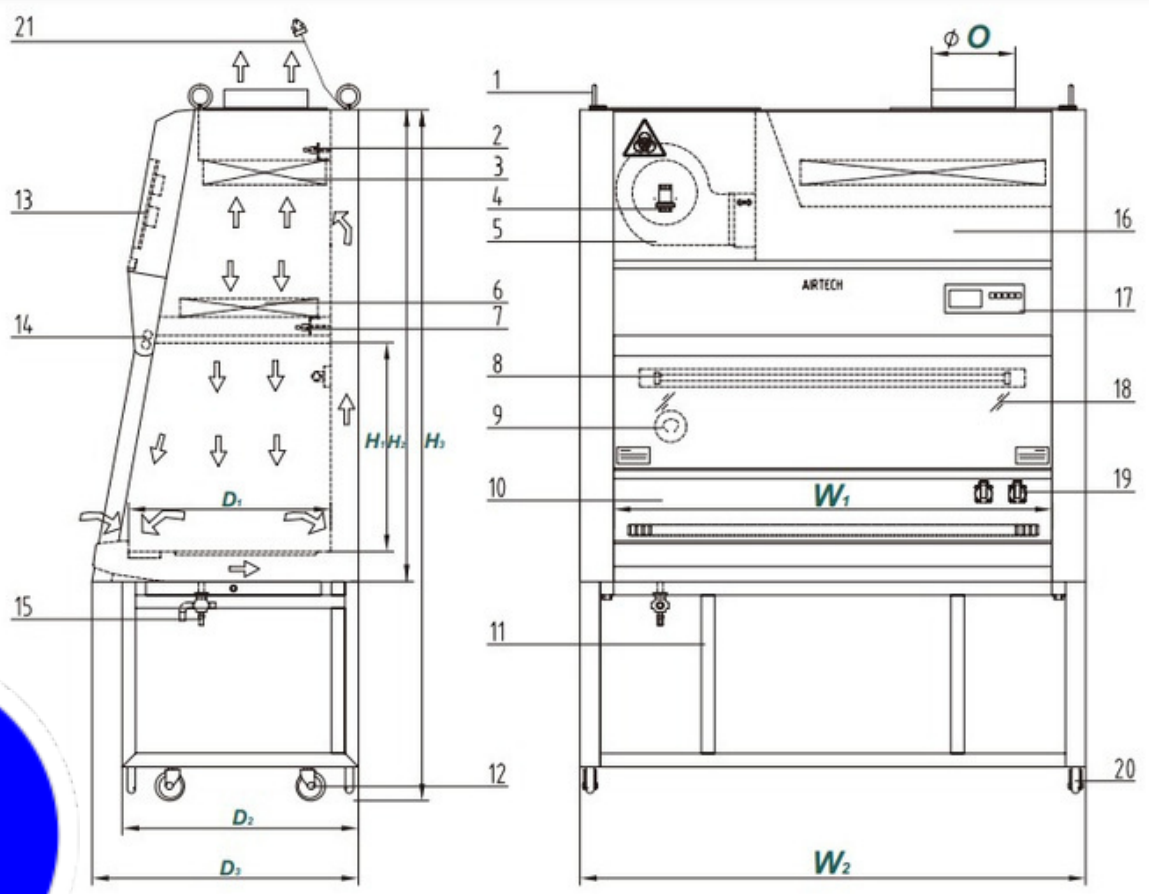
Canopy with velocity sensor and connects with BSC, more safe to monitor exhaust air condition.

Biosafety cabinet model choose

Model	Width	Stainless steel side	Glass sides	Motorized window sash	ECO mode
TIBSC-3/4/5/6/-A2	3 feet	●	○	○	●
TIBSC-3/4/5/6/-A2	4 feet	●	○	○	●
TIBSC-3/4/5/6/-A2	5 feet	●	○	○	●
TIBSC-3/4/5/6/-A2	3 feet	●	○	●	●
TIBSC-3/4/5/6/-A2	4 feet	●	○	●	●
TIBSC-3/4/5/6/-A2	5 feet	●	○	●	●
TIBSC-3/4/5/6/-E	3 feet	○	●	○	●
TIBSC-3/4/5/6/-E	4 feet	○	●	○	●
TIBSC-3/4/5/6/-E	5 feet	○	●	○	●
TIBSC-3/4/5/6/-E	3 feet	○	●	●	●
TIBSC-3/4/5/6/-E	4 feet	○	●	●	●
	5 feet	○	●	●	●

● Standard configuration
○ Not available

Class II Type A2 Biology Safety Cabinet Engineering Drawing



1. Eyebolt
2. Velocity sensor (Austria made, air exhaust)
3. HEPA filter, air exhause
4. DC motor fan
5. Main power switch
6. HEPA filter, air supply
7. Velocity sensor (Japan made, air supply)
8. UV lamp
9. Dwyer differential pressure gauge (US made)
10. Work area
11. Detachable stand
12. Universal casters
13. Main power board
14. LED lamp
15. Drain valve
16. Main body
17. Control panel
18. Sliding door
19. Sockets
20. Adjustable feet
21. Power cord

Model	Dimensions in mm								
	W1	W2	D1	D2	D3	H1	H2	H3	O
TIBSC-3/4/5/6/-A2-E	1270	1380	600	700	790	620	1490	2130	250
TIBSC-3/4/5/6/-A2-E	1270	1380	600	700	790	620	1490	2130	250
TIBSC-3/4/5/6/-A2-E	1570	1800	600	700	790	620	1490	2130	250

TECHNICAL SPECIFICATIONS

Model		TIBSC-3/4/5/6/-A2-E	TIBSC-3/4/5/6/-A2-E	TIBSC-3/4/5/6/-A2-E
Dimensions	Nominal Size	3 feet	4 feet	6 feet
	Usable Working Area	0.582 ㎡	0.762 ㎡	0.942 ㎡
	Work Table Height (mm)	780mm	780mm	780mm
	Internal (W x D x H)	970*600*620 mm	1270*600*620 mm	1570*600*620 mm
	External (W x D x H)	1200*790*2130 mm	1500*790*2130 mm	1800*790*2130 mm
	Plywoond Packing (W x D x H)	1300*900*2250	1600*900*2250	1900*900*2250
Airflow	Type	Class II, Type A2	Class II, Type A2	Class II, Type A2
	Exhaust Direction	Top Exhaust	Top Exhaust	Top Exhaust
	Airflow Pattern (downflow / exhaust)	70% / 30%	70% / 30%	70% / 30%
	Avarage Inflow Velocity	0.55m/s	0.55m/s	0.55m/s
	Averrage Downflow Velocity	0.35m/s	0.35m/s	0.35m/s
	Inflow Airflow Volume	385 m³/h	505 m³/h	625 m³/h
	Downflow Airflow Volume	720 m³/h	940 m³/h	1160 m³/h
	Exhaust Airflow Volume	385 m³/h	505 m³/h	625 m³/h
	Velocity Meter Accuracy	0.001m/s	0.001m/s	0.001m/s
	Pressure Gage	Dwyer Brand, USA	Dwyer Brand, USA	Dwyer Brand, USA
Construction	Blower	ECM DC Motor		
	Work Zone	SUS304, Single-piece (3-pieces optional)		
	Main Body	Electro-galvanized steel with white powder-coated finish		
	Sash Glass Thickness	6mm		
	Sash Glass Type	Tempered Glass, UV-proof		
	Sash Window Working Opening	200mm	200mm	200mm
	Sash Window Maximum Opening	460mm	460mm	460mm
	Illumination (Lx)	≥1100	≥1100	≥1100
	Noise (dB)	≤60	≤60	≤60
Cleanliness	Air Cleanliness	HEPA: ISO Class 5		
	Filtration Efficiency	HEPA:≥99.995%,@0.3 μm		
	Total colony in impaction sampler(Operator Protection)	≤10CFU./Time	≤10CFU./Time	≤10CFU./Time
	Total colony in slit type sampler(Operator Protection)	≤5CFU./Time	≤5CFU./Time	≤5CFU./Time
	Total colony in culture dish (Product Protection)	≤5CFU./Time	≤5CFU./Time	≤5CFU./Time
	Total colony in culture dish (Cross Contamination)	≤2CFU./Time	≤2CFU./Time	≤2CFU./Time
Controller	Display	LCD Screen	LCD Screen	LCD Screen
	UV Timer	Yes	Yes	Yes
	Main Power Switch	Yes	Yes	Yes
	Key Switch	Yes	Yes	Yes
Electrical Data	Power Consumption (KW.h/h)	0.5	0.6	0.6
	Power (W)	500	540	750
	Electrical Current (A)	3	3.5	3.5
Power Supply	AC220V,1Φ,50HZ	Yes	Yes	Yes
	AC220V,1Φ,60HZ	Yes	Yes	Yes
Weight	Net Weight(kg)	280	300	320
	Gross Weight, Plywood Packing (kg)	382	405	458
Alarm	Alarm Type	Sound+Flash	Sound+Flash	Sound+Flash
	Inflow Velocity	Yes	Yes	Yes
	Downflow Velocity	Yes	Yes	Yes
	Sash Height Limit	Yes	Yes	Yes
	Filter Lifetime Remind	Yes	Yes	Yes
Filter	Downflow	HEPA:≥99.995%,@0.3 μm		
	Exhaust	HEPA:≥99.995%,@0.3 μm		
	Mateiral	HV Brand, USA		
Accessories	Side Wall	SUS304/Glass		
	Front Sash	Manual/Electric Automatic		
	LED Lamp	24.5W, ≥1100Lx	31W, ≥1100Lx	36W, ≥1100Lx
	UV Lamp	18W*1	30W*1	36W*1
	Receptacle (pieces/Power/Current)	2 pcs/500W/2A	2 pcs/500W/2A	2 pcs/500W/2A
	Detachable Stand	Yes	Yes	Yes
	Adjustable Foot	Yes	Yes	Yes
	Wheels	Yes	Yes	Yes
	Gas Valve	Optional	Optional	Optional
	Vacuum Valve	Optional	Optional	Optional
	Arm Rest	Optional	Optional	Optional
	I.V. Pole	Optional	Optional	Optional

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