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Your reliable Laboratory &
Medical instruments specialist

FUME HOOD

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ISO 9001 : 2015

HANGZHOU BOYN INSTRUMENT CO.,LTD

Company profile

HANGZHOU BOYN INSTRUMENT CO.,LTD is one of the leading companies for providing you the widest range of laboratory equipment and educational apparatus and medical instruments from china.

BOYN's products are widely applicable for university and college, hospital, pharmaceutical industry, ministry of environmental protection and scientific research institute etc. We assure the quality and durability of all our products, as each product is individually tested and inspected by our proficient technicians before dispatching the consignment.

We are ISO 9001:2015 Certified company and All our products are designed and manufactured in accordance with ISO9001 / ISO13485 by dedicated and experienced R&D engineering team.

With excellent service and superior quality and affordable budget, BOYN products have gain very good reputation from global market.

Sincerely look forward to working with you .

Folding acrylic front window, down part with free stop function
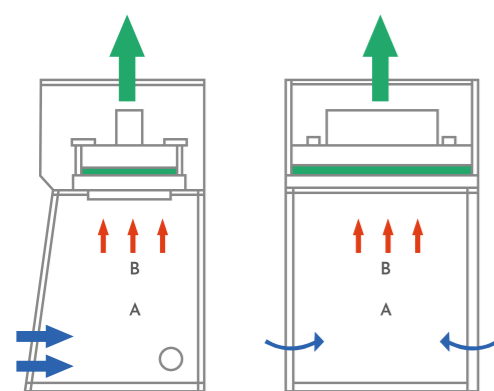
Base Stand
Optional

LED Display
Digital LED display: Airflow Level

Three Side Glass Windows
Back &Side glass windows maximize light and visibility, providing a bright and open working environment

Fume hood BNFH-M700: Negative pressure in work area protects operator and environment.

Air Flow Pattern:

- Room Air
- Polluted Air
- Active Carbon Filtered Air
- A Protected Area
- B Contaminated Area

ADVANTAGE

- Folding acrylic front window, down part with free stop function.
- Microprocessor control system, LED display.
- With memory function in case of power-failure.
- Built-in centrifugal blower.
- Interlock function: UV lamp and blower, LED lamp. (Only for choosing UV lamp).

Note: Experiments with strong acids and alkali, flammable or explosive substances cannot be conducted with this type fume hood.

TECHNICAL PARAMETERS

Model	BNFH-M700
External Size (W*D*H) Internal Size (W*D*H)	700*620*1150mm 640*550*700mm
Max Opening Air Velocity	660mm 0.3-0.8m/s
Noise LED Lamp	≤60dB(A) 4W*2
Blower Front Window	Built-in centrifugal blower; Speed adjustable Folding acrylic window, down part with free stop function
Material — Main Body / Work Table / Back &Side Windows	1.0mm cold-rolled steel with bacteria power coating Chemical resistant phenolic resin 5mm toughened glass
Consumption Power Supply	200W AC220V±10%, 50/60Hz; 110V±10%, 60Hz
Standard Accessory Optional Accessory	LED lamp, Active carbon filter, Blower, 4 meters PVC exhaust duct, Pipe strap 15W UV lamp, HEPA filter, Base stand
Gross Weight without Base Stand Gross Weight with Base Stand	100kg 110kg
Package Size without Base Stand(W*D*H) Package Size with Base Stand(W*D*H)	840*760*1400mm 840*960*1400mm

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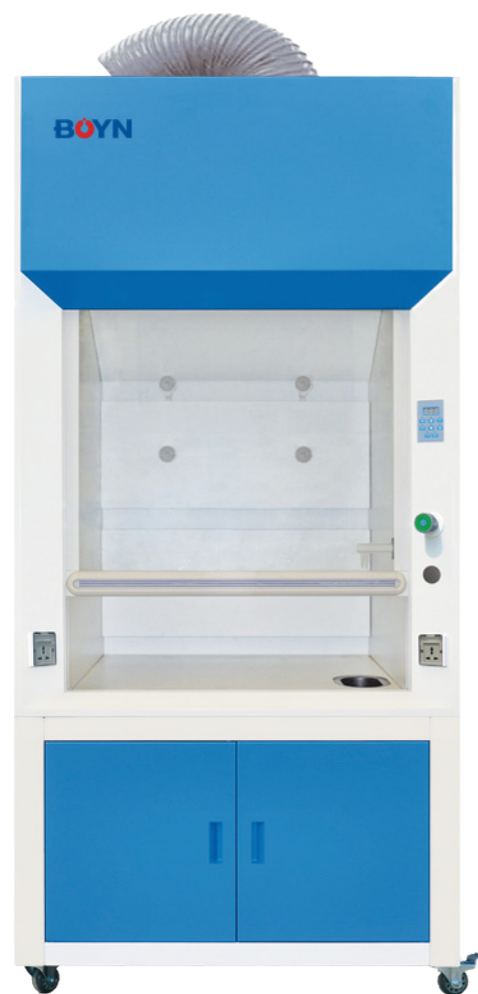
LED Display
Digital LED display: Airflow Level

Universal Wheel

Water Remote Control

Waterproof Socket

Water Tap

Water Tap & Water Sink

TECHNICAL PARAMETERS

Model		BNFH-E1000	BNFH-E1200	BNFH-E1500	BNFH-E1800
External Size (W*D*H)		1000*800*2515mm	1200*800*2515mm	1500*800*2515mm	1800*800*2515mm
Internal Size (W*D*H)		790*600*870mm	990 *600*870mm	1290*600*870mm	1590*600*870mm
Work Surface Height		900mm			
Max Opening		750mm			
Air Velocity		0.3-0.8m/s			
System Exhaust Volume		570 m³/h	710 m³/h	930 m³/h	1140 m³/h
Noise		≤68dB			
Exhaust Duct		PVC, Standard length: 4 meters Φ>300mm			
Pipe Strap		2 pcs			
LED Lamp		8W *1	12W *1	16W *1	16W *1
Blower		Built-in PP centrifugal blower			
Front Window		Manual, 5mm toughened glass, height adjustable			
Power Supply		220V±10%, 60/50Hz; 110V±10%, 60Hz			
Consumption		400W	400W	500W	500W
Material	Exterior	1.0mm cold-rolled steel with bacteria power coating.			
	Interior	High grade melamine board with good acid and alkali resistance function			
	Work table	Chemical resistant phenolic resin			
Standard Accessory		Water tap, Water sink, LED lamp, Total load of 2 waterproof sockets: 500W , Built-in PP blower, 4 meters PVC exhaust duct, pipe strap*2			
Optional Accessory		Gas tap			
Weight(Net/Gross)		250kg/270kg	275kg/300kg	300kg/330kg	330kg/365kg
Package	Main Body	1140*940*1850mm	1340*940*1850mm	1640*940*1850mm	1940*940*1850mm
	Base Cabinet	1140*940*1050mm	1340*940*1050mm	1640*940*1050mm	1940*940*1050mm

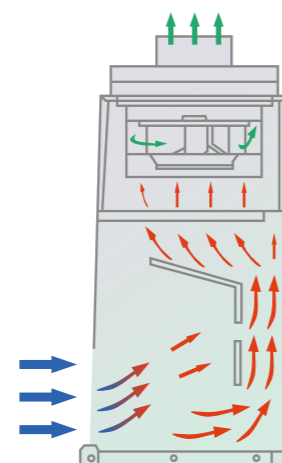## ADVANTAGE

- Adjustable air speed: 9 levels.
- Microprocessor control system, LED display.
- Resistant to moderate acid and alkali.
- With memory function in case of power-failure.
- Manual front glass window, height adjustable.
- Built-in PP centrifugal blower; low noise, easy installation.

Fume Hood is used to protect lab environment and operator during general chemical applications. It actively protects operator from inhaling toxic vapors and dramatically reduces the risk of fire and explosion. By installing proper filter, it can also protect environment.

Double Layer
1.2mm sheet metal surface, melamine board inward.

LED Display

Water &Gas Remote Control

Waterproof Socket
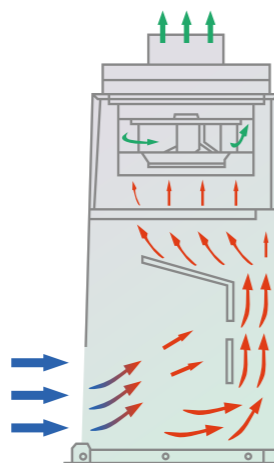
TECHNICAL PARAMETERS

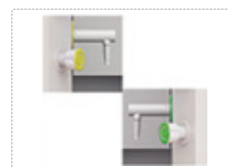| Model		BNFH-A1000	BNFH-A1200	BNFH-A1500	BNFH-A1800
External Size (W*D*H)		1040*800*2200mm	1240*800*2200mm	1540*800*2200mm	1840*800*2200mm
Internal Size (W*D*H)		820*670*730mm	1020*670*730mm	1320*670*730mm	1620*670*730mm
Work Surface Height		850mm			
Max Opening		520mm			
Air Velocity		0.3-0.8m/s			
Noise		≤68dB			
Exhaust Duct		PVC, Standard length: 4 meters. Φ300mm			
LED Lamp		8W*1	12W*1	16W*1	16W*1
UV Lamp		Emission of 253. 7 nanometers for most efficient decontamination			
Blower		Built-in centrifugal blower; Speed adjustable			
Front Window		5mm toughened glass; Motorized; Height adjustable			
Power Supply		AC220V±10%, 50/60Hz; 110V±10%, 60Hz			
Consumption		400W	400W	500w	500w
Material	Exterior	Cold-rolled steel with anti-bacteria powder coating.			
	Interior	High grade melamine board with good acid and alkali resistance function			
	Work table	Chemical resistant phenolic resin			
Standard Accessory		UV lamp*2, LED lamp, Water tap, Gas tap, Water sink, Base cabinet Total load of 2 waterproof sockets: 500W 4 meter PVC exhaust duct, pipe strap*2			
Optional Accessory		Active carbon filter			
Weight(Net/Gross)		286kg	317kg	350kg	400kg
Package	Main Body	1190*990*1690 mm	1390*990*1690 mm	1690*990*1690mm	1990*990*1690mm
	Base Cabinet	1190*990*980mm	1390*990*980mm	1690*970*970mm	1990*990*980mm

ADVANTAGE

o UV lamp for sterilization.
o Resistant to weak acid and alkali.
o Adjustable air speed: 9 levels.
o Motorized front window, height adjustable.
o Microprocessor control system, LED display.
o With memory function in case of power-failure.

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DUCTED PP FUME HOOD

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LED Display

PP Sink
resistant to acid, alkali and anti-corrosion

Water &Gas Remote Control

**Waterproof Socket**

TECHNICAL PARAMETERS

Model		BNFH-P1000	BNFH-P1200	BNFH-P1500	BNFH-P1800
External Size (W*D*H)		1047*800*2450mm	1247*800*2450mm	1547*800*2450mm	1847*800*2450 mm
Internal Size (W*D*H)		757*550*100mm	957*550*1oomm	1287*560*700mm	1587*560*700 mm
Work Surface Height		820mm			
Max Opening		740mm			
Air Velocity		0.3-0.8m/s			
Noise		≤68dB			
Illuminating Lamp		LED lamp			
		12w*1	30*1	30W*2	36W*2
Blower		Built-in PP centrifugal blower (2 blowers for FH1800(P) only); Speed adjustable			
Front Window		Resistant to acid and alkali, Manual, 5mm toughened glass, height adjustable			
Power Supply		AC220V±10%, 50/60Hz; 110V±10%, 60Hz			
Consumption		330W	360W	360W	360W
Material	Main Body	Made of Porcelain white PP, thickness 8mm, resistant to strong acid, alkali and anti-corrosion			
	Work Table	Chemical resistant phenolic resin			
Standard Accessory		Illuminating lamp, Water tap, Gas tap, Water Sink, Base cabinet Waterproof socket*2, 4 meters PVC duct (2 Pcs of 4 meters PVC duct for FH1800(P) only), Diameter: 250mm, PP centrifugal blower pipe strap*2 (4 Pcs for FH1800(P) only)			
Optional Accessory		PP work table, epoxy resin board or ceramic board, Active carbon filter,			
		Outer PVC centrifugal blower (only need to select when the duct more than 4m)			
Gross Weight		160kg	198kg	225kg	259kg
Package Size	Main Body	1188*938*1612mm	1388*938*1612mm	1688*938*1612mm	1988*938*1612mm
(W*D*H)	Base Cabinet	1188*888*1000mm	1388*888*1000mm	1688*888*1000mm	1988*888*1000mm

ADVANTAGE

- It is safer to use anti-corrosive water tap.
- Microprocessor control system, LED display.
- With memory function in case of power-failure.
- Made of porcelain white PP, resistant to acid, alkali and anti-corrosion.
- Front window which is made of thick transparent toughened glass maximize light and visibility inside the fume hood, providing a bright and open working environment.
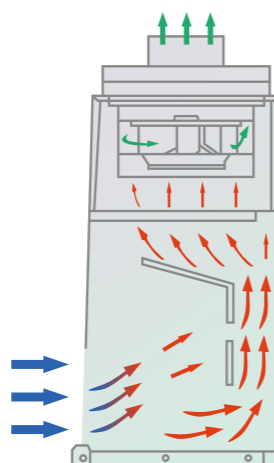
Fume Hood is used to protect lab environment and operator during general chemical applications. It actively protects operator from inhaling toxic vapors and dramatically reduces the risk of fire and explosion. By installing proper filter, it can also protect environment.

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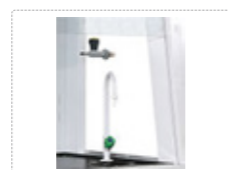
Back Side Air Compensation
To avoid turbulence in work area

Foot Switch
Use foot switch to adjust the height of front window.
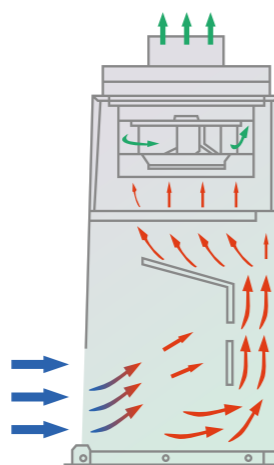
LED Display
Digital LED display: Airflow Level

Observation Window
Transparent side glass windows maximize light and visibility inside the cabinet.

Water & Gas Tap Water Sink

TECHNICAL PARAMETERS

Model	BNFH-X1000	BNFH-X1200	BNFH-X1500	BNFH-X1800
External Size (W*D*H)	1000*840*2150mm	1200*840*2150mm	1500*840*2150mm	1800*840*2150mm
Internal Size (W*D*H)	880*730*7 45mm	1080*730*7 45mm	1380*730*7 45mm	1680*730*7 45mm
Max Opening	520mm			
Work Surface Height	750mm			
Blower	Built-in centrifugal blower; Speed adjustable with 9 levels			
Air Velocity	0.3-0.8m/s			
Noise	≤68dB			
LED Lamp	8W*1	12W*1	16W*1	16W*1
UV Lamp	Emission of 253. 7 nanometers for most efficient decontamination			
Front Window	Motorized; 5 mm toughened glass, anti-UV			
Material	Exterior Body: Cold-rolled steel with anti-bacteria powder coating. Work table: Chemical resistant phenolic resin			
Waterproof Socket	1 pc	2 pcs	2 pcs	2 pcs
Power Supply	AC220V±10%, 50/60Hz; 110V±10%, 60Hz			
Consumption	400W	400W	500W	500W
Standard Accessories	Water tap, Gas tap, Water sink, Base stand, UV lamp*2, LED lamp, Socket, 4 meters exhaust duct, Active carbon filter, Foot switch			
Gross Weight	230kg	253kg	290kg	340kg
Package Size(W*D*H)	1150*1120*1680mm	1350*1120*1680mm	1650*1120*1680mm	1950*1120*1680mm

ADVANTAGE

- UV lamp for sterilization.
- Motorized front glass window.
- Resistant to weak acid and alkali.
- Adjustable air speed: 9 levels.
- Alarm when filter working time 3500 hours.
- With memory function in case of power-failure.
- Back side air compensation, to avoid turbulence in work area.
- 8 slope front ergonomics design, fatigue-free working posture.
- Microprocessor control system, LED display shows filter working time.
- Transparent side glass windows maximize light and visibility inside the cabinet, providing a bright and open working environment.

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Explosion-proof Fluorescent Lamp

Front Window
Front window reversal design

LCD Display
LCD Touch Screen Control Panel

Water & Gas tap reserve mouth

Waterproof Socket

TECHNICAL PARAMETERS

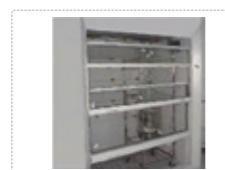| Model		BNFH-C1000	BNFH-C1200	BNFH-C1500	BNFH-C1800
External Size (W*D*H)		1000*880*2140mm	1200*880*2140mm	1500*940*2140mm	1800*940*2140mm
Internal Size (W*D*H)		910*690*740mm	1110*690*740mm	1410*690*740mm	1710*690*740mm
Work Surface Height		900mm			
Max Opening		650mm			
Air Velocity		0.25-0.35m/s			
Airflow Volume		105m³/h		325m³/h	415m³/h
Noise		≤55dB (A)			
Fluorescent Lamp		16W*2		16W*3	
UV Lamp		Emission of 253. 7 nanometers for most efficient decontamination			
Blower		Built-in centrifugal blower, speed adjustable			
Front Window		Acrylic window; Manual; reversal design			
Power Supply		AC220V±10%, 50/60Hz; 11 0V±10%, 60Hz			
Consumption		400W		500W	
Material	Exterior	Cold-rolled steel with anti-bacteria powder coating			
	Side Window	Acrylic Window			
	Work Table	Chemical resistant phenolic resin			
Chemical Filter		2 pcs		4 pcs	
Standard Accessory		Fluorescent Lamp, Base cabinet Total load of 2 waterproof sockets: 500W			
Optional Accessory		Water tap, Gas tap, Water sink, UV Lamp, Electric height adjustable base stand, HEPA Filter			
Gross	Main Body	190kg	200kg	255kg	280kg
Weight	Base Cabinet	120kg	130kg	145kg	155kg
Package Size	Main Body	1150*990*1510mm	1350*1000*1510mm	1650*1110*1510mm	1950*1110*1510mm
	Base Cabinet	1150*990*1080mm	1350*1000*1080mm	1650*1110*1080mm	1950*1110*1080mm

ADVANTAGE

- LCD Touch screen control panel, easy to operate.
- With memory function in case of power-failure
- 8 slope front ergonomics design, fatigue-free working posture.
- Temperature and humidity sensors, can detect indoor temperature and humidity.
- Three side transparent Acrylic windows, front window reversal design, easy to operate.
- Double-layers structure: 1 mm sheet metal surface; Chemical resistant phenolic resin work table.
- Electronic control system, anti-overload, anti-electric shock, stable performance, long service life.
- Inside and outside probe, detect indoor air pollution and filter conditions. Audible and visual alarm for changing filter .
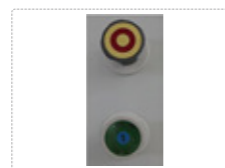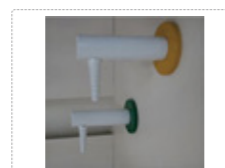
WORK-IN FUME HOOD

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Application

Application

Water & Gas Remote Control Valve

Water & Gas Tap

Water Sink

TECHNICAL PARAMETERS

Model		BNFH-W1200	BNFH-W1500	BNFH-W1800
External Size (W*D*H)		1200*800*2200mm	1500*800*2200mm	1800*800*2200mm
Internal Size (W*D*H)		980*600*1650mm	1280*600*1650mm	1580*600*1650mm
Max Opening		1300mm		
Exhaust Airflow Volume		1150m³/h	1500m³/h	1850m³/h
Inflow Air Velocity		0.3-0.5m/s		
Noise		62dB		
Vibration		XYZ direct ≤4μm		
Illumination		≥800Lux		
LED Lamp		12w-2	16W*2	16W*2
Power Supply		AC220V±10%,50/60Hz; 11 OV±10%,60Hz		
Consumption		400W	600W	800W
Front Window		Manual, Toughened glass		
Material	Exterior	1.0mm cold-rolled steel with bacteria powder coating		
	Interior	High grade melamine board with good acid and alkali resistance function		
Standard Accessory		Blower(External), LED lamp, Water tap, Gas tap, PP cup sink, Remote control water valve, Remote control gas valve, Waterproof sockets*4, 4 meters PVC exhaust duct		
Sockets		Total load of 4 waterproof sockets: ≤500W		
Package Size(W*D*H)mm/ Gross Wight	Main Body	1410*1050*2430 /240kg	1710*1050*2430 /280kg	2010*1050*2430/330kg
	Exhaust Blow	1040*890*710 /160kg	1040*890*710 / 60kg	1040*890*710 /60kg

ADVANTAGE

o With memory function in case of power-failure.
o Operators are available to walk into the fume hood to operate if need.
o Large room exhaust system, suitable for large laboratory instruments and equipment.
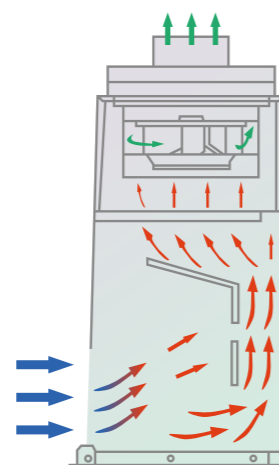
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Mobile Fume Extractor

INTRODUCTION

The mobile fume extractor is an air purification equipment which can provide the partial high pure environment. The airflow is vertical laminar flow type. It is widely used in medical research laboratories, precision instrument, bio-pharmacy, micro-organism studies and etc.

FEATURES

- Freely moving, easy to operate and install.
- The purification system consists of fan, primarily efficient filter, high
- efficient filter and activated carbon filter.
- HEPA filter ensures the filtering efficiency to 99.999% efficiency at 0.3μm.

BFFU (Fan Filter Unit)

FEATURES

- BFFU shell and HEPA filter adopt split design, easy to install and replace.
- Microprocessor control system, energy-saving and low noise.
- Long service-life blower, up to 100,000 hours, maintenance-free and small vibration.
- Suitable for using separately or connecting together for assembly line.
- Made of aluminium coated zinc plate, anti-corrosion, rust-proof and light weight.

TECHNICAL PARAMETERS

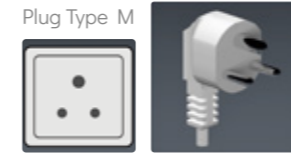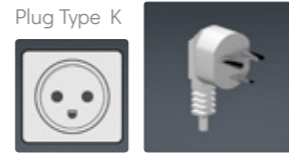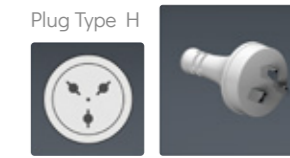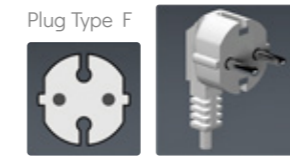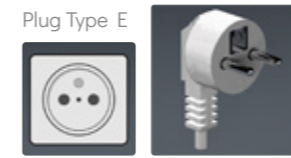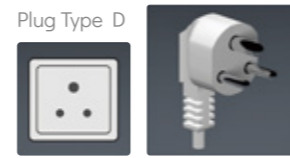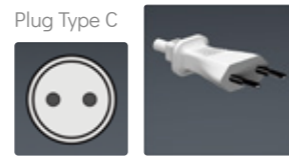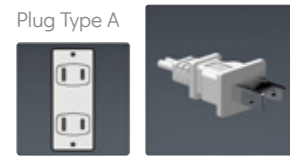| Model	BMFE-I
External Size (W*D*H)	500*500*980mm
Air Velocity	0.3-0.6m/s
Filter Efficiency	99.999% efficiency at 0.3μm
Noise	≤75dB(A)
Suction Inlet Diameter	375mm
Rated Power	180W
Power Supply	AC110/220V±10%, 50/60Hz
Gross Weight	15kg (Extracting arm)
	61 kg (Purification system)
Package Size(W*D*H)	810*510*600mm (Extracting arm)
	630*630*1175mm (Purification system)

TECHNICAL PARAMETERS

Model	BFFU-1000	BFFU-1200	BFFU-1500	BFFU-1800
External Size (W*D*H)	975*575*380mm	1175*575*380 mm	1475*575*380 mm	1775*575*380 mm
Air Velocity	0.45 m/s±20%			
HEPA Filter	99.999% efficiency at 0.3μm			
HEPA Filter Size(W*D*H)	970*69*570mm	1170*69*570mm	1470*69*570mm	1770*69*570mm
Blower	Built-in centrifugal blower			
Noise	≤60dB(A)			
Consumption	110W		220W	
Power Supply	AC220V±10%, 50/60Hz; 110V±10%, 50/60Hz			
Shell Material	Aluminium coated zinc plate			
Gross Weight	60kg	70 kg	90kg	110kg
Package Size(W*D*H)	1135*540*800mm	1335*540*800mm	1635*540*800mm	1935*540*800mm

Plug Type A

Plug Type B

Plug Type C

Plug Type D

Plug Type E

Plug Type F

Plug Type G

Plug Type H

Plug Type I

Plug Type J

Plug Type K

Plug Type L

Plug Type M

Plug Type N

LOCATIONS USING

Region	Voltage	Hertz	Plug Type
Afghanistan	220V	50Hz	C, F
Albania	230V	50Hz	C, F
Algeria	230V	50Hz	C,F
American Samoa	120V	60Hz	A, B, F, I
Andorra	230V	50Hz	C,F
Angola	220V	50Hz	C
Anguilla	110V	60Hz	A
Antigua and Barbuda	230V	60Hz	A, B
Argentina	220V	50Hz	C, I
Armenia	230V	50Hz	C, F
Aruba	127V	60Hz	A, B, F
Australia	230V	50Hz	I
Austria	230V	50Hz	C, F
Azerbaijan	220V	50Hz	C, F
Bahamas	120V	60Hz	A, B
Bahrain	230V	50Hz	G
Bangladesh	220V	50Hz	C, D, G, K
Barbados	115V	50Hz	A, B
Belarus	220V	50Hz	C, F
Belgium	230V	50Hz	C, E
Belize	110V 220V	60Hz	A, B, G
Benin	220V	50Hz	C, E
Bermuda	120V	60Hz	A, B
Bhutan	230V	50Hz	C, D, F, G, M
Bolivia	115V 230V	50Hz	A, C
Bosnia and Herzegovina	230V	50Hz	C, F
Botswana	230V	50Hz	D, G, M
Brazil	127V 220V	60Hz	C, N
BritishVirgin Islands	110V	60Hz	A, B
Brunei Darussalam	240V	50Hz	G
Bulgaria	230V	50Hz	C, F
Burkina Faso	220V	50Hz	C, E
Burundi	220V	50Hz	C, E
Cambodia	230V	50Hz	A, C, G
Cameroon	220V	50Hz	C, E
Canada	120V	60Hz	A, B
CapeVerde	220V	50Hz	C, F
Cayman Islands	120V	60Hz	A, B
Central African Republic	220V	50Hz	C, E
Chad	220V	50Hz	C, D, E, F
Chile	220V	50Hz	C, L
China	220V	50Hz	A, C, I
Colombia	110V	60Hz	A, B
Comoros	220V	50Hz	C, E
Congo	230V	50Hz	C, E
Congo (Democratic Rep. of)	220V	50Hz	C, D, E
Cook Islands	240V	50Hz	I
Costa Rica	120V	60Hz	A, B
Cote d'Ivoire	230V	50Hz	C, E
Croatia	230V	50Hz	C, F
Cuba	110V	60Hz	A, B
Cyprus	240V	50Hz	G
Czech Republic	230V	50Hz	C, E
Denmark	230V	50Hz	C, F, E, K
Djibouti	220V	50Hz	C, E
Dominica	230V	50Hz	D, G

Region	Voltage	Hertz	Plug Type
Dominican Republic	110V	60Hz	A, B
Ecuador	120V	60Hz	A, B
Egypt	220V	50Hz	C, F
El Salvador	115V	60Hz	A, B
Equatorial Guinea	220V	50Hz	C, E
Eritrea	230V	50Hz	C, L
Estonia	230V	50Hz	C, F
Ethiopia	220V	50Hz	C, E, F, L
Falkland Islands (Malvinas)	240V	50Hz	G
Faroe Islands	230V	50Hz	C, F, E, K
Fiji	240V	50Hz	I
Finland	230V	50Hz	C, F
France	230V	50Hz	C, E
French Guiana	220V	50Hz	C, D, E
Gabon	220V	50Hz	C
Gambia	230V	50Hz	G
Georgia	220V	50Hz	C, F
Germany	230V	50Hz	C, F
Ghana	230V	50Hz	D, G
Gibraltar	240V	50Hz	C, G
Greece	230V	50Hz	C, F
Greenland	230V	50Hz	C, F, E, K
Grenada	230V	50Hz	G
Guadeloupe	230V	50Hz	C, D, E
Guam	110V	60Hz	A, B
Guatemala	120V	60Hz	A, B
Guinea	220V	50Hz	C, F, K
Guinea Bissau	220V	50Hz	C
Guyana	240V	60Hz	A, B, D, G
Haiti	110V	60Hz	A, B
Honduras	110V	60Hz	A, B
Hungary	230V	50Hz	C, F
Iceland	230V	50Hz	C, F
India	230V	50Hz	C, D, M
Indonesia	220V 110V	50Hz	C, F
Iran	220V	50Hz	C, F
Iraq	230V	50Hz	C, D, G
Ireland	230V	50Hz	G
Isle of Man	240V	50Hz	C, G
Israel	230V	50Hz	C, H, M
Italy	230V	50Hz	C, F, L
Jamaica	110V	50Hz	A, B
Japan	100V	50Hz, 60Hz	A, B
Jordan	230V	50Hz	B, C, D, F, G, J
Kazakhstan	220V	50Hz	C, F
Kenya	240V	50Hz	G
Kiribati	240V	50Hz	I
Korea, Democratic People's Republic of	220V 110V	50Hz, 60Hz	A, C, F
Korea Republic of	220V	60Hz	C, F
Kuwait	240V	50Hz	C, G, M
Kyrgyzstan	220V	50Hz	C, F
Lao People's Democratic Republic	230V	50Hz	A, B, C, E, F
Latvia	230V	50Hz	C, F
Lebanon	220V	50Hz	A, B, C, D, G

LOCATIONS USING

Region	Voltage	Hertz	Plug Type
Lesotho	220V	50Hz	M
Liberia	120V 220V	50Hz, 60Hz	A, B, C, E, F
Libya	127V 230V	50Hz	C, D, F, L
Liechtenstein	230V	50Hz	C, J
Lithuania	220V	50Hz	C, F
Luxembourg	230V	50Hz	C, F
Macau	220V	50Hz	D, M, G, F
Macedonia	230V	50Hz	C, F
Madagascar	127V 220V	50Hz	C, D, E, J, K
Malawi	230V	50Hz	G
Malaysia	240V	50Hz	A, C, G, M
Maldives	230V	50Hz	A, C, D, G, J, K, L
Mali	220V	50Hz	C, E
Malta	230V	50Hz	G
Martinique	220V	50Hz	C, D, E
Mauritania	220V	50Hz	C
Mauritius	230V	50Hz	C, G
Mexico	127V	60Hz	A, B
Micronesia,Federated States of	120V	60Hz	A, B
Moldova	220V	50Hz	C, F
Monaco	230V	50Hz	C, D, E, F
Mongolia	220V	50Hz	C, E
Montenegro	230V	50Hz	C, F
Montserrat	230V	60Hz	A, B
Morocco	127V 220V	50Hz	C, E
Mozambique	220V	50Hz	C, F, M
Myanmar	230V	50Hz	C, D, F, G
Namibia	220V	50Hz	D, M
Nauru	240V	50Hz	I
Nepal	230V	50Hz	C, D, M
Netherlands	230V	50Hz	C, F
Netherlands Antilles	127V 220V	50Hz	A, B, C, F
New Caledonia	220V	50Hz	C, F
New Zealand	230V	50Hz	I
Nicaragua	120V	60Hz	A, B
Niger	220V	50Hz	A, B, C, D, E, F
Nigeria	230V	50Hz	D, G
Norway	230V	50Hz	C, F
Oman	240V	50Hz	C, G
Pakistan	230V	50Hz	C, D, G, M
Palau	120V	60Hz	A, B
Panama	110V	60Hz	A, B
Papua New Guinea	240V	50Hz	I
Paraguay	220V	50Hz	C
Peru	220V	60Hz	A, B, C
Philippines, Rep.of the	220V	60Hz	A, B, C
Poland	230V	50Hz	C, E
Portugal	230V	50Hz	C, F
Puerto Rico	120V	60Hz	A, B
Qatar	240V	50Hz	D, G
Reunion	220V	50Hz	E
Romania	230V	50Hz	C, F
Russia	220V	50Hz	C, F
Rwanda	230V	50Hz	C, J
Saint Kitts and Nevis	230V	60Hz	A, B, D, G

Region	Voltage	Hertz	Plug Type
Saint Lucia	240V	50Hz	G
Saint Martin	120V 220V	60Hz	C, F
SaintVincent and the Grenadines	230V	50Hz	A, C, E, G, I, K
Samoa	230V	50Hz	I
San Marino	230V	50Hz	C, F, L
Sao Tome and Principe	220V	50Hz	C, F
Saudi Arabia	220V 230V	60Hz	G
Senegal	230V	50Hz	C, D, E, K
Serbia	230V	50Hz	C, F
Seychelles	240V	50Hz	G
Sierra Leone	230V	50Hz	D, G
Singapore	230V	50Hz	C, G, M
Slovakia	230V	50Hz	C, E
Slovenia	230V	50Hz	C, F
Solomon Islands	220V	50Hz	I, G
Somalia	220V	50Hz	C
South Africa	230V	50Hz	C, D, M, N
Spain	230V	50Hz	C, F
Sri Lanka	230V	50Hz	D, M, G
Sudan	230V	50Hz	C, D
Suriname	127V	60Hz	C, F
Swaziland	230V	50Hz	M
Sweden	230V	50Hz	C, F
Switzerland	230V	50Hz	C, J
Syrian Arab Republic	220V	50Hz	C, E, L
Tajikistan	220V	50Hz	C, F, I
Tanzania	230V	50Hz	D, G
Thailand	220V	50Hz	A, B, C, F
Timor-Leste	220V	50Hz	C, E, F, I
Togo	220V	50Hz	C
Tonga	240V	50Hz	I
Trinidad and Tobago	115V	60Hz	A, B
Tunisia	230V	50Hz	C, E
Turkey	220V	50Hz	C, F
Turkmenistan	220V	50Hz	B, C, F
Turks and Caicos Islands	120V	60Hz	A, B
Tuvalu	220V	50Hz	I
Uganda	240V	50Hz	G
Ukraine	220V	50Hz	C, F
United Arab Emirates	230V	50Hz	D, G
United Kingdom	230V	50Hz	G
United States of America	120V	60Hz	A, B
United States Virgin Islands	110V	60Hz	A, B
Uruguay	230V	50Hz	C, F, I, L
Uzbekistan	220V	50Hz	C, I
Vanuatu	220V	50Hz	C, G, I
Venezuela	120V	60Hz	A, B
Vietnam	220V	50Hz	A, C, F
Yemen	230V	50Hz	A, D, G
Zambia	230V	50Hz	C, D, G
Zimbabwe	220V	50Hz	D, G