AIRQUALITY

Warranty Card Receipt

Product name: _____
Product model: _____
Product batch: _____
Date of buying the machine: _____
User's name: _____
Contact address: _____
Post code: _____
Tel: _____
E-mail: _____

Warranty regulations

1. In case failure occurs in normal use (use the machine according to the manual and the label attached to the machine body), the user can obtain maintenance at the designated maintenance point (contact the dealer or the Company). According to the national "Three Guarantees standard", the following warranty is carried out.
2. During the warranty period, if you need free maintenance due to failure, please take this card, valid invoice and this machine to the designated maintenance point for warranty.
3. Even during the warranty period, in case of the following situations from (1) to (5), it shall be treated as charged maintenance.
(1) The User is free of warranty card or invoice.
(2) The warranty card does not include the date of purchase, user's name, product model, invoice number, dealer's official seal, or the warranty card or invoice is arbitrarily altered, or the invoice is invalid.
(3) The fault is caused by improper use, or damage is caused by other machines, or the machine is repaired or modified at a non-designated maintenance point.
(4) Faults are caused by improper handling, falling and water entering after purchase.
(5) Faults and damages are caused by flood, earthquake, fire, lightning and other irresistible natural disasters, abnormal voltage and other external causes.
4. Please keep this warranty card properly.
5. The scope of liability of this warranty card is only limited to the maintenance of the product, and shall not bear any other responsibilities.
6. This product belongs to household use. If it is used for commercial purposes, the warranty period is 1 year.

AIRQUALITY

Warranty Card

Product name: _____
Product model: _____
Product batch: _____
Warranty period: 1 year for the whole machine (No more than 18 months after date of manufacture)
Date of buying the product : _____
Date of buying the machine: _____
Dealer name: _____
Dealer address: _____
Post code: _____ Tel: _____
Seal: _____

bar code

Maintenance record

No.	Carry-in or mail-in date	Fault description	Fault handling record	Date of delivery	Signature and seal of maintenance point
1					
2					
3					

Certificate of quality

Electronic Air Filter

Product Name Electronic Air Filter

Production Date _____

Inspector 03 PASS

AIRQUALITY

Packing list

No.	Name of material	Qty	Unit	Notet
1	Electronic Air Filter	1	Piece	
2	M6×10 Phillips Flat Head Screw	2	Piece	Only included with EAF-2"product
3	DC 12V Power Cable	1	Piece	
4	Instruction Manual，Warranty Card, and Certificate of Conformity	1	Piece	

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In order to continuously improve product quality and meet the customer's requirement, we will not send any notice additional in case there is any data change. Thank you very much for understanding.

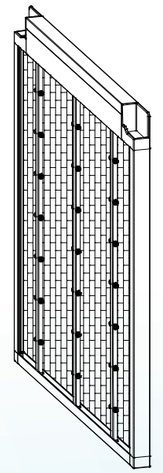
Correct Disposal of this product --
This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

AIRQUALITY

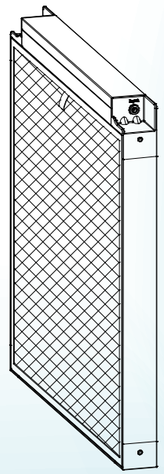
INSTALLATION AND OPERATION MANUAL

Electronic Air Filter

EAF-1" Series
Thinner and lighter



EAF-2" Series
Purification performance



Product description

The EAF Electronic Air Filter employs advanced Micro-Electrostatic Precipitation (MESP®) technology, representing a new generation of high-efficiency, energy-saving air filtration solutions. This technology utilizes high-performance dielectric materials to generate a powerful electric field, enabling the effective capture and removal of fine airborne contaminants such as PM2.5, smoke, pollen, and bacteria. Compared with conventional media filters, MESP® filters deliver substantial advantages, including high filtration efficiency with ultra-low pressure drop, reduced energy consumption, washable and reusable filter media, and minimal maintenance requirements.

EAF filters are widely applied in Air Handling Units (AHUs), fresh-air purification systems, fan coil units, cleanrooms, medical facilities, and premium commercial buildings, providing superior air quality and long-term operational savings.

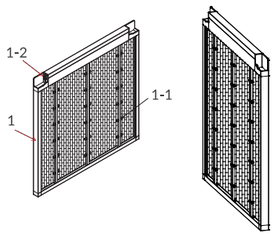
⚠ Safety Precautions:

- The EAF filter must be properly grounded to prevent electric shock hazards in the event of electrical leakage.
- Do not operate the switch with wet hands. Doing so may result in electric shock.
- Do not use flammable sprays or solvents near the unit. This may cause fire or other serious hazards.
- In the event of any abnormal condition (such as a burning smell), immediately stop operation and disconnect the power supply.
- Do not modify, disassemble, or repair this product without authorization. Improper handling may result in electric shock or other dangers.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Prior to cleaning or other maintenance, the appliance must be disconnected from the supply mains.
- CAUTION: Minor current discharge may occur when handling the filter.
- This product shall be installed in places with temperature ranging from -25℃ to 50℃, relative humidity lower than 95%RH, and only suitable for indoor use.Storage conditions: Temperature -25℃ to 60℃, relative humidity 0–80%.

Product outline drawing and structural schematic diagram

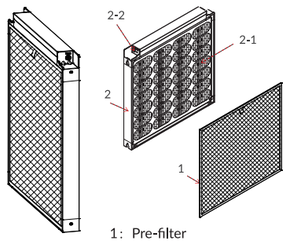
Structural schematic diagram

EAF-1" Series
Thinner and lighter



1：MESP Filter
1-1：Charge grid
1-2：Power Adapter Port

EAF-2" Series
Purification performance

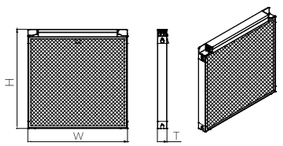


1：Pre-filter
2：MESP Filter
2-1：Charge grid
2-2：Power Adapter Port

Product Naming Rules

EAF - 20 20 2 M - E

- E: English Vision
- M: MESP Technology
- Thickness: 1: 1inch; 2: 2inch
- Height: 20inch
- Width: 20inch
- Electronic Air Filter

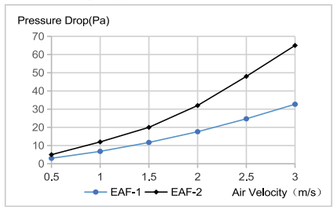


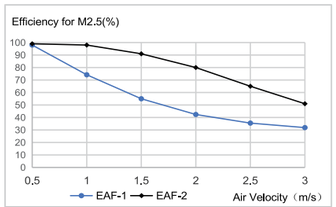
Modular and customizable—fits any size, replaces traditional filters

Product model and parameters

Nominal Thickness (inch)	Model	Dimension W×H×T (mm)	Air Volume / Pressure Drop (m³/h & Pa)			Efficiency ASHRAE52.2-2017	Power Adapter Power Supply	Status Indication	Rated Power (w)	Weight (kg)
1"	EAF24241M-E	592x592x23.5	1650/12	2090/16	2750/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	3.2
	EAF12241M-E	287x592x23.5	770/12	980/16	1290/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	1.7
	EAF20241M-E	490x592x23.5	1360/12	1720/16	2260/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	2.6
	EAF20201M-E	490x490x23.5	1100/12	1390/16	1830/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	2.2
	EAF16201M-E	390x490x23.5	860/12	1090/16	1440/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	1.8
	EAF20251M-E	490x618x23.5	1420/12	1800/16	2370/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	2.8
	EAF16251M-E	390x618x23.5	1110/12	1410/16	1860/25	MERV 6	100-240V 50/60Hz DC12V	Running	≤3	2.2
2"	EAF24242M-E	592x592x47	1650/20	2750/48	3400/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	4.8
	EAF12242M-E	287x592x47	770/20	1290/48	1600/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	2.4
	EAF20242M-E	490x592x47	1360/20	2260/48	2800/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	4
	EAF20202M-E	490x490x47	1100/20	1830/48	2270/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	3.3
	EAF16202M-E	390x490x47	860/20	1440/48	1780/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	2.6
	EAF20252M-E	490x618x47	1420/20	2370/48	2930/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	4.1
	EAF16252M-E	390x618x47	1110/20	1860/48	2300/69	MERV 14	100-240V 50/60Hz DC12V	Running	≤6	3.3

Performance graph





Installation guidance

1. Unpacking Inspection

Upon receipt of the product, carefully inspect the outer packaging for any signs of damage that may have occurred during transportation. If any damage is detected, notify the carrier immediately and complete the necessary inspection report and claim documentation in accordance with the shipping carrier procedures.

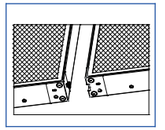
2. Installation Details

The EAF Electronic Air Filter is designed for simple and efficient installation. Each unit is supplied with a plug and wiring harness that can be connected directly to a power outlet or integrated into the electrical control cabinet of the air-handling unit (AHU). Once powered on, a green indicator light will illuminate, confirming that the unit is operational. Ensure the airflow direction matches the arrow marked on the side of the EAF filter, then slide the unit into the designated air filter slot.

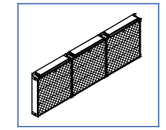
3. Multiple Unit Installation

For installations requiring multiple EAF filters in deeper filter slots, units can be interconnected prior to insertion.

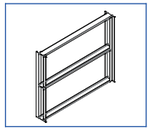
1. Install the two black screws on the outer EAF unit.
2. Snap it securely into the plastic clip of the adjacent (inner) EAF unit.
3. Connect the male and female power connectors, ensuring that the airflow direction is consistent across all units.
4. Once connected, the assembled filter array can be inserted into the slot as a single unit. A maximum of four (4) EAF units may be connected in this configuration.



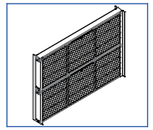
Attach two T-shaped screws to Unit 1. Secure Unit 2 to Unit 1 using the plastic clip.



After connecting the units, link the power cables and install the matching power adapter.



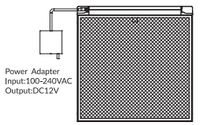
Build a front-pull or side-pull frame.



Place the units into the frame, fix them securely, and connect the main wiring to complete the installation.

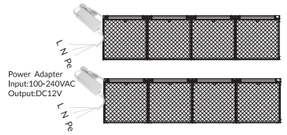
3. Electrical System Wiring Diagram

For Single - units Use



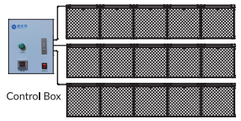
The DC12V Power Adapter comes with an optional American standard three-prong plug or an input three-core lead wire.

For ⩽4 units Use



The DC12V Power Adapter comes with an optional American standard three-prong plug or an input three-core lead wire.
One power adapter can connect to a maximum of 4 serially connected 2-inch EAFs.

For ⩾4 units Use



For extra-large air handling units (AHUs) with more than 4 EAFs arranged in a single row, or those with special control requirements, a centralized power supply for control boxes is required.

Note: One DC12V power adapter can power up to 4 EAF filters. The number of adapters required depends on the number of filter rows. For example:
6 units arranged in 2 rows × 3 columns → use 2 adapters
6 units arranged in 3 rows × 2 columns → use 3 adapters
For setups with more than 5 EAF units, a custom electrical control box is required.

Installation Precautions :

- All electrical work must be performed in accordance with applicable national and local electrical codes and regulations. A dedicated power cable should be used for this product.
- When installing the EAF-1 inch module, the distance between the module' s air inlet face and the metal grille must not be less than 20 mm.
- The product is to be located so that connection can be made to the source of electrical supply without the use of an extension cord . the power Adapter must be a three-prong outlet with a proper grounding connection. AirQuality shall not be liable for any damage or malfunction resulting from the use of non-compliant or ungrounded electrical outlets.
- Do not install this product in mechanical rooms, chemical plants, or environments where harmful gases such as acids, alkalis, organic solvents, paint fumes, or other corrosive substances are present. Installation in such areas may cause equipment damage or pose safety risks.
- For front- or side-extraction AHU installation frames with a height of three (3) tiers or more, vertical supports made of 40 × 40 × 3 mm galvanized square tubing shall be installed and secured on the air-outlet side. The supports shall be spaced at intervals not exceeding 1.8 m to ensure adequate structural strength. Our Company shall not be liable for any deformation of or damage to the frame resulting from failure to install the required supports.

⚠ Warning - Risk of Electric Shock!
Electric shock may cause serious injury or equipment damage. Do not switch on the power supply until installation has been fully completed and verified.

⚠ Warnings!

- RISK OF ELECTRIC SHOCK: Servicing must be performed by qualified personnel only. To reduce the risk of electric shock, do not attempt any service other than those procedures specified in this manual unless you are properly qualified and authorized.
- Electric shock may cause serious personal injury. Always disconnect the power supply before performing any installation, maintenance, or inspection.
- This unit must be properly and reliably grounded to prevent electric shock hazards and ensure safe operation.

Running Test

- After installation, verify all electrical wiring connections before performing the test run.
- Conduct a test run to confirm that the equipment operates correctly and the indicator lights function as intended.

If any abnormality occurs during the test run (such as malfunction, unusual noise, or odor), the wiring may be incorrect. To prevent electric shock or equipment damage, immediately disconnect the power supply and inspect or rewire the unit properly before restarting.

Maintenance and servicing

Regular maintenance ensures optimal performance and extends the service life of the EAF Electronic Air Filter.

1. Preparation:
After using it for 3 to 6 months, the EAF will become dirty and its surface will turn black. It is necessary to clean it in time. First, disconnect the power adapter of the EAF and separate it from the EAF, then take the EAF as a whole to clean and maintain it.

2. Cleaning:
The pre-filter (if any) can be directly removed and rinsed with water. The EAF body filter needs to be soaked in water and then evenly sprayed with neutral detergent on both the front and back of the EAF. Let it stand for about 5 minutes. It can be rinsed with a household shower head for 2-3 minutes(the water temperature must be < 50℃).

3. Drying:
After cleaning, hold the EAF at both ends and shake out the water inside. Use a dry soft cloth to dry the outer surface of the EAF and the power adapter port. Then, use a household hair dryer (set to the non-heating mode) to blow air on both sides of the EAF for 3 to 5 minutes, or let it dry in a cool and well-ventilated place for 2 hours until there is no obvious moisture. Finally, insert the pre-filter (if any) and it is ready for use.

AIRQUALITY

Warranty Card Receipt

Product name: _____
Product model: _____
Product batch: _____
Date of buying the machine: _____
User's name: _____
Contact address: _____
Post code: _____
Tel: _____
E-mail: _____

Warranty regulations

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(2) The warranty card does not include the date of purchase, user's name, product model, invoice number, dealer's official seal, or the warranty card or invoice is arbitrarily altered, or the invoice is invalid.
(3) The fault is caused by improper use, or damage is caused by other machines, or the machine is repaired or modified at a non-designated maintenance point.
(4) Faults are caused by improper handling, falling and water entering after purchase.
(5) Faults and damages are caused by flood, earthquake, fire, lightning and other irresistible natural disasters, abnormal voltage and other external causes.
4. Please keep this warranty card properly.
5. The scope of liability of this warranty card is only limited to the maintenance of the product, and shall not bear any other responsibilities.
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AIRQUALITY

Warranty Card

Product name: _____
Product model: _____
Product batch: _____
Warranty period: 1 year for the whole machine (No more than 18 months after date of manufacture)
Date of buying the product : _____
Date of buying the machine: _____
Dealer name: _____
Dealer address: _____
Post code: _____ Tel: _____
Seal: _____

bar code

Maintenance record

No.	Carry-in or mail-in date	Fault description	Fault handling record	Date of delivery	Signature and seal of maintenance point
1					
2					
3					

Certificate of quality

Electronic Air Filter

Product Name Electronic Air Filter

Production Date _____

Inspector 03 PASS

AIRQUALITY

Packing list

No.	Name of material	Qty	Unit	Notet
1	Electronic Air Filter	1	Piece	
2	M6×10 Phillips Flat Head Screw	2	Piece	
3	DC 12V Power Cable	1	Piece	
4	Instruction Manual，Warranty Card, and Certificate of Conformity	1	Piece	

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Correct Disposal of this product --
This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

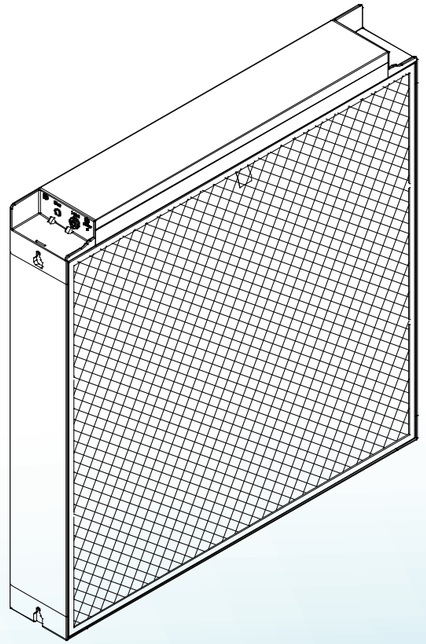
AIRQUALITY

INSTALLATION AND OPERATION MANUAL

Electronic Air Filter

EAF-4 -inch

Panel Type Series



Product description

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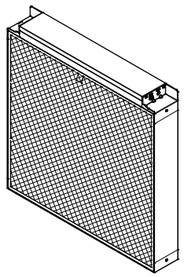
⚠ Safety Precautions:

- The EAF filter must be properly grounded to prevent electric shock hazards in the event of electrical leakage.
- Do not operate the switch with wet hands. Doing so may result in electric shock.
- Do not use flammable sprays or solvents near the unit. This may cause fire or other serious hazards.
- In the event of any abnormal condition (such as a burning smell), immediately stop operation and disconnect the power supply.
- Do not modify, disassemble, or repair this product without authorization. Improper handling may result in electric shock or other dangers.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Prior to cleaning or other maintenance, the appliance must be disconnected from the supply mains.
- CAUTION: Minor current discharge may occur when handling the filter.
- This product shall be installed in places with temperature ranging from -25°C to 50°C, relative humidity lower than 95%RH, and only suitable for indoor use.Storage conditions: Temperature -25°C to 60°C, relative humidity 0–80%.

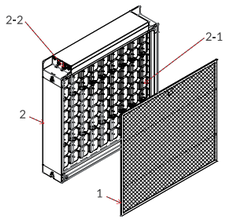
Product outline drawing and structural schematic diagram

Structural schematic diagram



EAF-4" Series

Purification performance

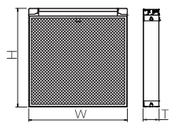


1：Pre-filter
2：MESP Filter
2-1：Charge grid
2-2：Power Adapter Port

Product Naming Rules

EAF - 20 20 4 M A - E

- E=English , J=Japanese,Space=Chinese;
- Space=First version, A-Z=Upgraded version
- Space=Household, A=Commercial Panel Type, B=Commercial Bag Type;
- M=MESP ,P=MESP Pro,A=ESP;
- Thickness: 4inch
- Height: 20inch
- Width: 20inch
- Electronic Air Filter

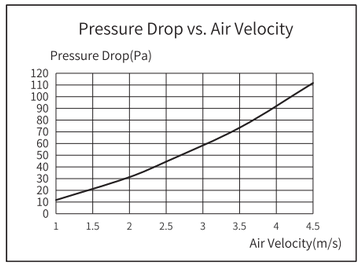


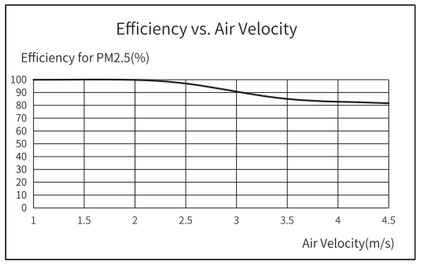
Modular and customizable—fits any size, replaces traditional filters

Product model and parameters

Model	Dimension W×H×T (mm)	Air Volume (m^3/h)	Air Velocity / Pressure Drop (m/s & Pa)			Efficiency ASHRAE52.2-2017	Power Adapter Power Supply	Status Indication	Rated Power(w)	Weight (kg)
EAF24244MA-E	592x592x95	3400	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	6.7
EAF12244MA-E	287x592x95	1700	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	3.3
EAF20244MA-E	490x592x95	2800	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	5.6
EAF20204MA-E	490x490x95	2350	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	4.6
EAF16204MA-E	390x490x95	1850	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	3.7
EAF20254MA-E	490x618x95	2950	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	5.8
EAF25254MA-E	618x618x95	3650	1.5/21	1.9/30	2.5/45	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	7.3

Performance graph





Installation guidance

1. Unpacking Inspection

Upon receipt of the product, carefully inspect the outer packaging for any signs of damage that may have occurred during transportation. If any damage is detected, notify the carrier immediately and complete the necessary inspection report and claim documentation in accordance with the shipping carrier procedures.

2. Installation Details

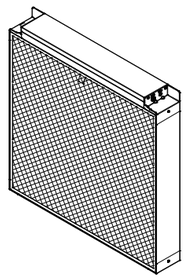
The EAF Electronic Air Filter is designed for simple and efficient installation. Each unit is supplied with a plug and wiring harness that can be connected directly to a power outlet or integrated into the electrical control cabinet of the air-handling unit (AHU). Once powered on, a green indicator light will illuminate, confirming that the unit is operational. Ensure the airflow direction matches the arrow marked on the side of the EAF filter, then slide the unit into the designated air filter slot.

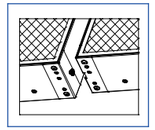
3. Multiple Unit Installation

For installations requiring multiple EAF filters in deeper filter slots, units can be interconnected prior to insertion.

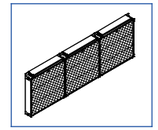
1. Install the two black screws on the outer EAF unit.
2. Snap it securely into the plastic clip of the adjacent (inner) EAF unit.
3. Connect the male and female power connectors, ensuring that the airflow direction is consistent across all units.
4. Once connected, the assembled filter array can be inserted into the slot as a single unit.

A maximum of four (4) EAF units may be connected in this configuration.

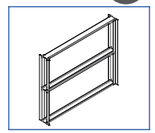




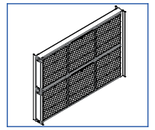
Attach two T-shaped screws to Unit 1. Secure Unit 2 to Unit 1 using the plastic clip.



After connecting the units, link the power cables and install the matching power adapter.



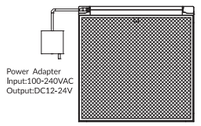
Build a front-pull or side-pull frame.



Place the units into the frame, fix them securely, and connect the main wiring to complete the installation.

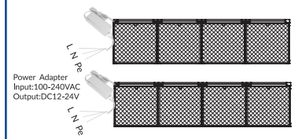
3. Electrical System Wiring Diagram

For Single - units Use



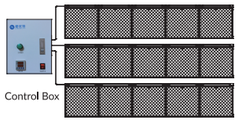
The DC12-24V Power Adapter comes with an optional American standard three-prong plug or an input three-core lead wire.

For ⩽4 units Use



The DC12-24V Power Adapter comes with an optional American standard three-prong plug or an input three-core lead wire.
One power adapter can connect to a maximum of 4 serially connected 4-inch EAFs.

For ⩾4 units Use



For extra-large air handling units (AHUs) with more than 4 EAFs arranged in a single row, or those with special control requirements, a centralized power supply for control boxes is required.

Note: One DC12-24V power adapter can power up to 4 EAF filters. The number of adapters required depends on the number of filter rows. For example:
6 units arranged in 2 rows × 3 columns → use 2 adapters
6 units arranged in 3 rows × 2 columns → use 3 adapters
For setups with more than 5 EAF units, a custom electrical control box is required.

Installation Precautions :

- All electrical work must be performed in accordance with applicable national and local electrical codes and regulations. A dedicated power cable should be used for this product.
- The product is to be located so that connection can be made to the source of electrical supply without the use of an extension cord . the power Adapter must be a three-prong outlet with a proper grounding connection. AirQuality shall not be liable for any damage or malfunction resulting from the use of non-compliant or ungrounded electrical outlets.
- Do not install this product in mechanical rooms, chemical plants, or environments where harmful gases such as acids, alkalis, organic solvents, paint fumes, or other corrosive substances are present. Installation in such areas may cause equipment damage or pose safety risks.
- For front- or side-extraction AHU installation frames with a height of three (3) tiers or more, vertical supports made of 40 × 40 × 3 mm galvanized square tubing shall be installed and secured on the air-outlet side. The supports shall be spaced at intervals not exceeding 1.8 m to ensure adequate structural strength. Our Company shall not be liable for any deformation of or damage to the frame resulting from failure to install the required supports.

⚠ Warning - Risk of Electric Shock!
Electric shock may cause serious injury or equipment damage. Do not switch on the power supply until installation has been fully completed and verified.

⚠ Warnings!

- RISK OF ELECTRIC SHOCK: Servicing must be performed by qualified personnel only. To reduce the risk of electric shock, do not attempt any service other than those procedures specified in this manual unless you are properly qualified and authorized.
- Electric shock may cause serious personal injury. Always disconnect the power supply before performing any installation, maintenance, or inspection.
- This unit must be properly and reliably grounded to prevent electric shock hazards and ensure safe operation.

Running Test

- After installation, verify all electrical wiring connections before performing the test run.
- Conduct a test run to confirm that the equipment operates correctly and the indicator lights function as intended.

If any abnormality occurs during the test run (such as malfunction, unusual noise, or odor), the wiring may be incorrect. To prevent electric shock or equipment damage, immediately disconnect the power supply and inspect or rewire the unit properly before restarting.

Maintenance and servicing

Regular maintenance ensures optimal performance and extends the service life of the EAF Electronic Air Filter.

1. Preparation:
After using it for 3 to 6 months, the EAF will become dirty and its surface will turn black. It is necessary to clean it in time. First, disconnect the power adapter of the EAF and separate it from the EAF, then take the EAF as a whole to clean and maintain it.

2. Cleaning:
The pre-filter (if any) can be directly removed and rinsed with water. The EAF body filter needs to be soaked in water and then evenly sprayed with neutral detergent on both the front and back of the EAF. Let it stand for about 5 minutes. It can be rinsed with a household shower head for 2-3 minutes(the water temperature must be < 50°C).

3. Drying:
After cleaning, hold the EAF at both ends and shake out the water inside. Use a dry soft cloth to dry the outer surface of the EAF and the power adapter port. Then, use a household hair dryer (set to the non-heating mode) to blow air on both sides of the EAF for 3 to 5 minutes, or let it dry in a cool and well-ventilated place for 2 hours until there is no obvious moisture. Finally, insert the pre-filter (if any) and it is ready for use.

AIRQUALITY

Warranty Card Receipt

Product name: _____
Product model: _____
Product batch: _____
Date of buying the machine: _____
User's name: _____
Contact address: _____
Post code: _____
Tel: _____
E-mail: _____

Warranty regulations

1. In case failure occurs in normal use (use the machine according to the manual and the label attached to the machine body), the user can obtain maintenance at the designated maintenance point (contact the dealer or the Company). According to the national "Three Guarantees standard", the following warranty is carried out.
2. During the warranty period, if you need free maintenance due to failure, please take this card, valid invoice and this machine to the designated maintenance point for warranty.
3. Even during the warranty period, in case of the following situations from (1) to (5), it shall be treated as charged maintenance.
(1) The User is free of warranty card or invoice.
(2) The warranty card does not include the date of purchase, user's name, product model, invoice number, dealer's official seal, or the warranty card or invoice is arbitrarily altered, or the invoice is invalid.
(3) The fault is caused by improper use, or damage is caused by other machines, or the machine is repaired or modified at a non-designated maintenance point.
(4) Faults are caused by improper handling, falling and water entering after purchase.
(5) Faults and damages are caused by flood, earthquake, fire, lightning and other irresistible natural disasters, abnormal voltage and other external causes.
4. Please keep this warranty card properly.
5. The scope of liability of this warranty card is only limited to the maintenance of the product, and shall not bear any other responsibilities.
6. This product belongs to household use. If it is used for commercial purposes, the warranty period is 1 year.

AIRQUALITY

Warranty Card

Product name: _____
Product model: _____
Product batch: _____
Warranty period: 1 year for the whole machine (No more than 18 months after date of manufacture)
Date of buying the product : _____
Date of buying the machine: _____
Dealer name: _____
Dealer address: _____
Post code: _____ Tel: _____
Seal: _____

bar code

Maintenance record

No.	Carry-in or mail-in date	Fault description	Fault handling record	Date of delivery	Signature and seal of maintenance point
1					
2					
3					

Certificate of quality

Electronic Air Filter

Product Name Electronic Air Filter

Production Date _____

Inspector 03 PASS

AIRQUALITY

Packing list

No.	Name of material	Qty	Unit	Notet
1	Electronic Air Filter	1	Piece	
2	M6×10 Phillips Flat Head Screw	2	Piece	
3	DC 12V Power Cable	1	Piece	
4	Instruction Manual，Warranty Card, and Certificate of Conformity	1	Piece	

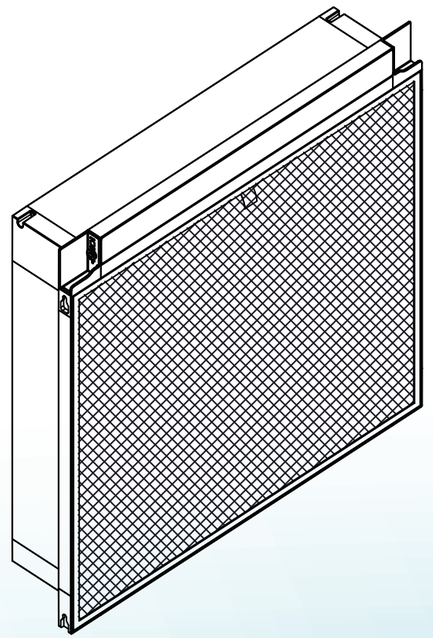
AirQuality Technology (Shanghai) Co., Ltd.
Address: Building 4, 189 Fulianer Rd, Bao Shan District, Shanghai, China
Postal code: 201906
Email: info@airquality.com
Website: www.airquality.com

AIRQUALITY

INSTALLATION AND OPERATION MANUAL

Electronic Air Filter

EAF-5 -inch
Bag Type Series



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Email: info@airquality.com
Website: www.airquality.com

In order to continuously improve product quality and meet the customer' s requirement, we will not send any notice additional in case there is any data change. Thank you very much for understanding.

Correct Disposal of this product --
This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Product description

The EAF Electronic Air Filter employs advanced Micro-Electrostatic Precipitation (MESP®) technology, representing a new generation of high-efficiency, energy-saving air filtration solutions. This technology utilizes high-performance dielectric materials to generate a powerful electric field, enabling the effective capture and removal of fine airborne contaminants such as PM2.5, smoke, pollen, and bacteria. Compared with conventional media filters, MESP® filters deliver substantial advantages, including high filtration efficiency with ultra-low pressure drop, reduced energy consumption, washable and reusable filter media, and minimal maintenance requirements.

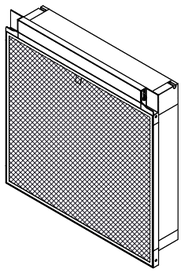
EAF filters are widely applied in Air Handling Units (AHUs), fresh-air purification systems, fan coil units, cleanrooms, medical facilities, and premium commercial buildings, providing superior air quality and long-term operational savings.

⚠ Safety Precautions:

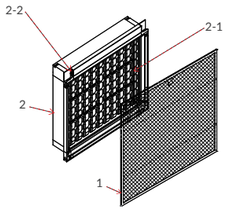
- ●The EAF filter must be properly grounded to prevent electric shock hazards in the event of electrical leakage.
- ●Do not operate the switch with wet hands. Doing so may result in electric shock.
- ●Do not use flammable sprays or solvents near the unit. This may cause fire or other serious hazards.
- ●In the event of any abnormal condition (such as a burning smell), immediately stop operation and disconnect the power supply.
- ●Do not modify, disassemble, or repair this product without authorization. Improper handling may result in electric shock or other dangers.
- ● This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- ● Children should be supervised to ensure that they do not play with the appliance.
- ● Prior to cleaning or other maintenance, the appliance must be disconnected from the supply mains.
- ● CAUTION: Minor current discharge may occur when handling the filter.
- ●This product shall be installed in places with temperature ranging from -25°C to 50°C, relative humidity lower than 95%RH, and only suitable for indoor use.Storage conditions: Temperature -25°C to 60°C, relative humidity 0–80%.

Product outline drawing and structural schematic diagram

Structural schematic diagram



EAF-5" Series
Purification performance

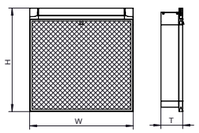


1: Pre-filter
2: MESP Filter
2-1: Charge grid
2-2: Power Adapter Port

Product Naming Rules

EAF - 20 20 5 M B - E

- E=English , J=Japanese,Space=Chinese;
- Space=First version, A-Z=Upgraded version
- A=Commercial Panel Type,
- B=Commercial Bag Type;
- M=MESP ,P=MESP Pro,A=ESP;
- Thickness: 5 inch
- Height: 20 inch
- Width: 20 inch
- Electronic Air Filter



Modular and customizable—fits any size, replaces traditional filters

Product model and parameters

Model	Dimension W×H×T (mm)	Air Volume (m^3/h)	Air Velocity / Pressure Drop (m/s & Pa)			Efficiency ASHRAE52.2-2017	Power Adapter Power Supply	Status Indication	Rated Power(w)	Weight (kg)
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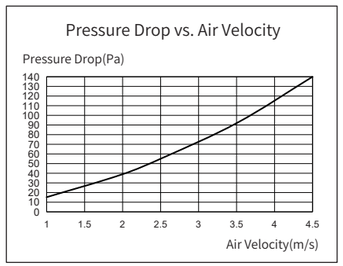
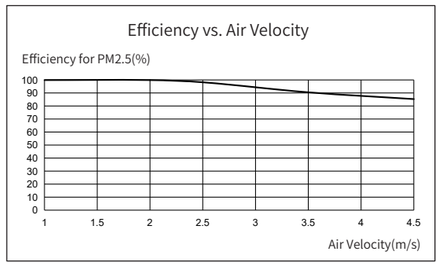
EAF20205MB-E	490x490x125	2350	1.5/27	1.9/38	2.5/55	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	5.1
EAF16205MB-E	390x490x125	1850	1.5/27	1.9/38	2.5/55	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	4.1
EAF20255MB-E	490x618x125	2950	1.5/27	1.9/38	2.5/55	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	6.4
EAF25255MB-E	618x618x125	3650	1.5/27	1.9/38	2.5/55	MERV 16	100-240V 50/60Hz DC12-24V	Running	⩽12	8.0

Performance graph





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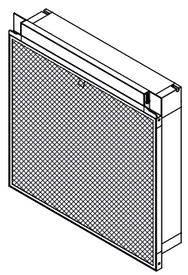
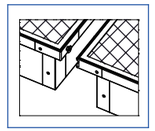
3. Multiple Unit Installation

For installations requiring multiple EAF filters in deeper filter slots, units can be interconnected prior to insertion.

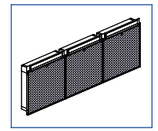
1. Install the two black screws on the outer EAF unit.
2. Snap it securely into the plastic clip of the adjacent (inner) EAF unit.
3. Connect the male and female power connectors, ensuring that the airflow direction is consistent across all units.
4. Once connected, the assembled filter array can be inserted into the slot as a single unit.

A maximum of four (4) EAF units may be connected in this configuration.

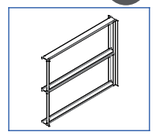




Attach two T-shaped screws to Unit 1. Secure Unit 2 to Unit 1 using the plastic clip.



After connecting the units, link the power cables and install the matching power adapter.



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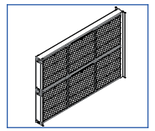
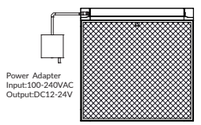


Place the units into the frame, fix them securely, and connect the main wiring to complete the installation.

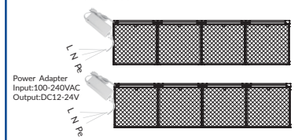
3. Electrical System Wiring Diagram

For Single - units Use



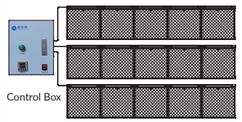
The DC12-24V Power Adapter comes with an optional American standard three-prong plug or an input three-core lead wire.

For ⩽4 units Use



The DC12-24V Power Adapter comes with an optional American standard three-prong plug or an input three-core lead wire.
One power adapter can connect to a maximum of 4 serially connected 5-inch EAFs.

For ⩾4 units Use



For extra-large air handling units (AHUs) with more than 4 EAFs arranged in a single row, or those with special control requirements, a centralized power supply for control boxes is required.

Note: One DC12-24V power adapter can power up to 4 EAF filters. The number of adapters required depends on the number of filter rows. For example:
6 units arranged in 2 rows × 3 columns → use 2 adapters
6 units arranged in 3 rows × 2 columns → use 3 adapters
For setups with more than 5 EAF units, a custom electrical control box is required.

Installation Precautions:

- ●All electrical work must be performed in accordance with applicable national and local electrical codes and regulations. A dedicated power cable should be used for this product.
- ●The product is to be located so that connection can be made to the source of electrical supply without the use of an extension cord . the power Adapter must be a three-prong outlet with a proper grounding connection. AirQuality shall not be liable for any damage or malfunction resulting from the use of non-compliant or ungrounded electrical outlets.
- ●Do not install this product in mechanical rooms, chemical plants, or environments where harmful gases such as acids, alkalis, organic solvents, paint fumes, or other corrosive substances are present. Installation in such areas may cause equipment damage or pose safety risks.

⚠ Warning - Risk of Electric Shock!
Electric shock may cause serious injury or equipment damage. Do not switch on the power supply until installation has been fully completed and verified.

⚠ Warnings!

- ● RISK OF ELECTRIC SHOCK: Servicing must be performed by qualified personnel only. To reduce the risk of electric shock, do not attempt any service other than those procedures specified in this manual unless you are properly qualified and authorized.
- ● Electric shock may cause serious personal injury. Always disconnect the power supply before performing any installation, maintenance, or inspection.
- ●This unit must be properly and reliably grounded to prevent electric shock hazards and ensure safe operation.

Running Test

- ●After installation, verify all electrical wiring connections before performing the test run.
- ●Conduct a test run to confirm that the equipment operates correctly and the indicator lights function as intended.

If any abnormality occurs during the test run (such as malfunction, unusual noise, or odor), the wiring may be incorrect. To prevent electric shock or equipment damage, immediately disconnect the power supply and inspect or rewire the unit properly before restarting.

Maintenance and servicing

Regular maintenance ensures optimal performance and extends the service life of the EAF Electronic Air Filter.

1. Preparation:
After using it for 3 to 6 months, the EAF will become dirty and its surface will turn black. It is necessary to clean it in time. First, disconnect the power adapter of the EAF and separate it from the EAF, then take the EAF as a whole to clean and maintain it.

2. Cleaning:
The pre-filter (if any) can be directly removed and rinsed with water. The EAF body filter needs to be soaked in water and then evenly sprayed with neutral detergent on both the front and back of the EAF. Let it stand for about 5 minutes. It can be rinsed with a household shower head for 2-3 minutes(the water temperature must be < 50°C).

3. Drying:
After cleaning, hold the EAF at both ends and shake out the water inside. Use a dry soft cloth to dry the outer surface of the EAF and the power adapter port. Then, use a household hair dryer (set to the non-heating mode) to blow air on both sides of the EAF for 3 to 5 minutes, or let it dry in a cool and well-ventilated place for 2 hours until there is no obvious moisture. Finally, insert the pre-filter (if any) and it is ready for use.