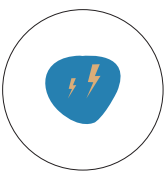
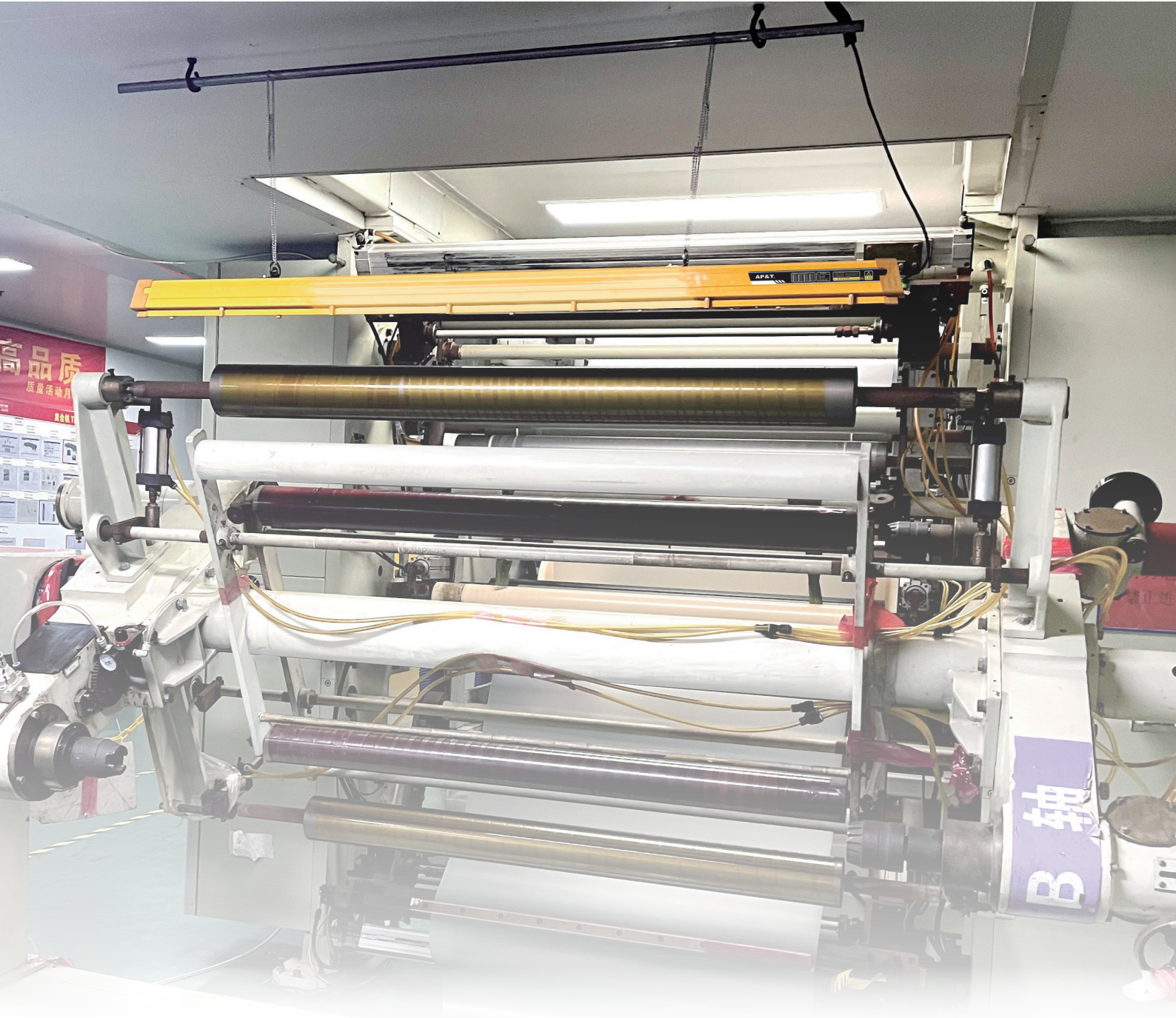


## Long-Distance Electrostatic Ionizing Bar

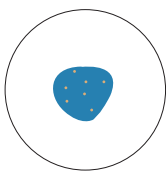


# Suitable for film, textiles, rubber, etc.

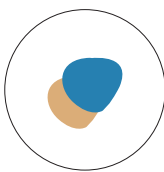
Effectively solve the problems caused by static electricity



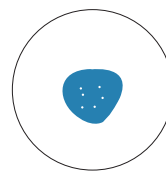
Static Removal



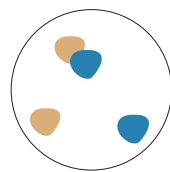
Prevent adhesion of objects



Prevent blockage of adhesion



Control ink splashing



Prevent uneven scattering

# Intelligent Remote Control

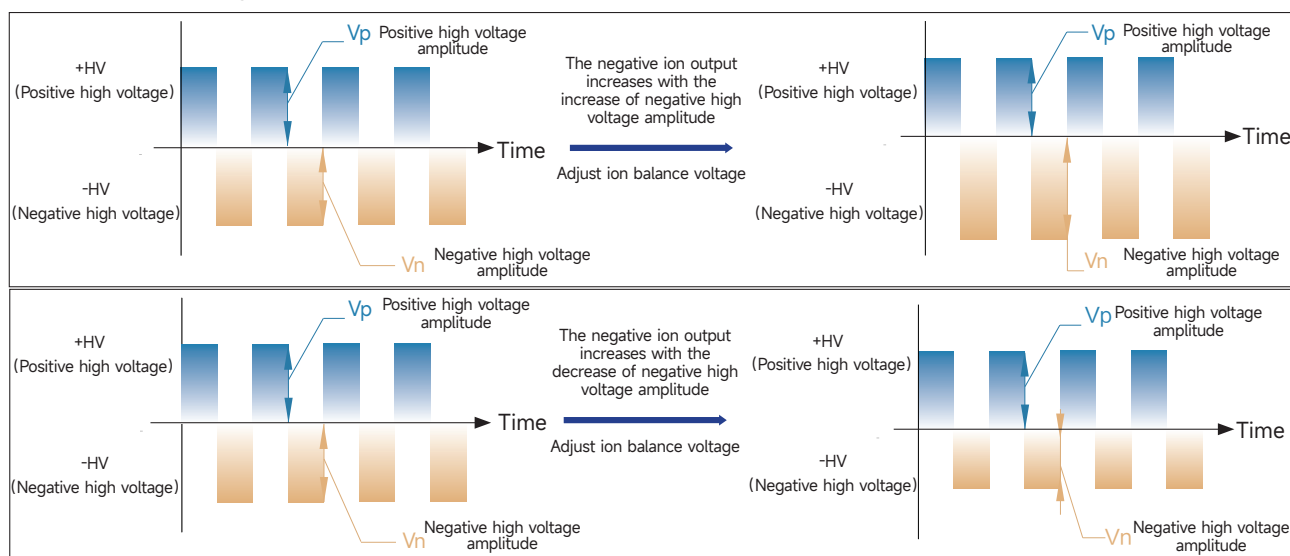
## Adjustable ion balance and output frequency

### ◆ Product Description

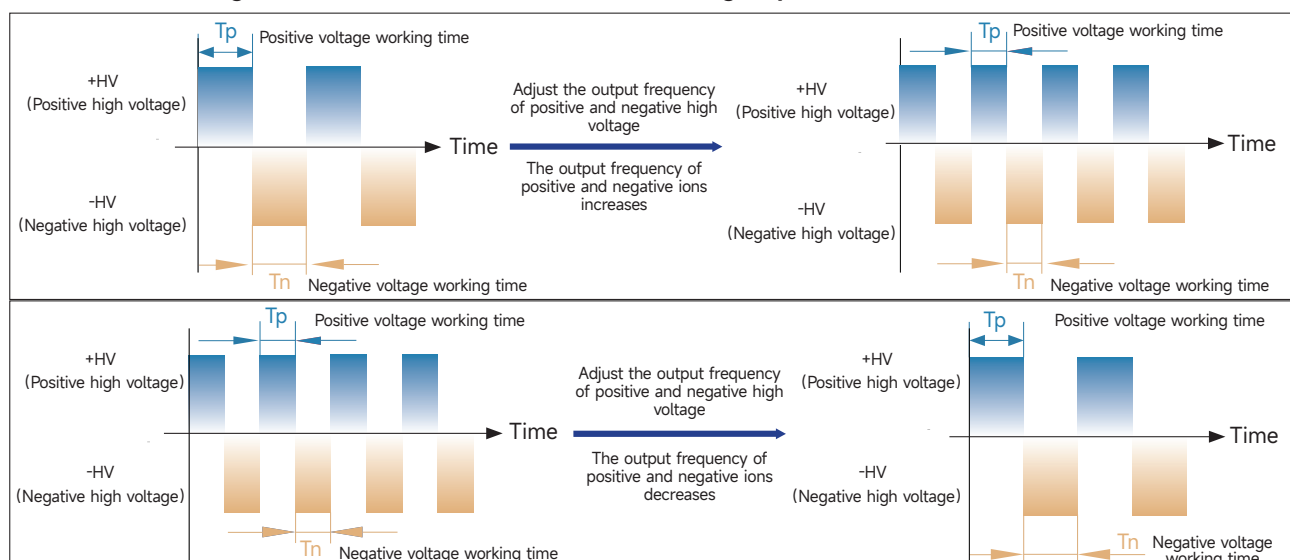
The AP-DB1227 Long-Range Deionization Ion Bar is a rod-type deionization device developed and manufactured by Anping Company for long-range deionization.

The AP-DB1227 Long-Range Deionization Ion Bar uses a DC high voltage power supply and tungsten electrodes. By alternating positive and negative DC high voltages on coupled electrode needles, it generates corona discharge, ionizes air molecules, and produces a large number of positive and negative air ions. These ions are transported under a high voltage electric field to the surface of distant charged objects, neutralizing static charges on the object's surface.

◆ The output ratio of positive and negative ions is adjustable, which can be used to adjust the ion balance voltage.



◆ The output frequency of positive and negative ions is adjustable, which can be applied to different discharge distance to achieve faster discharge speed.



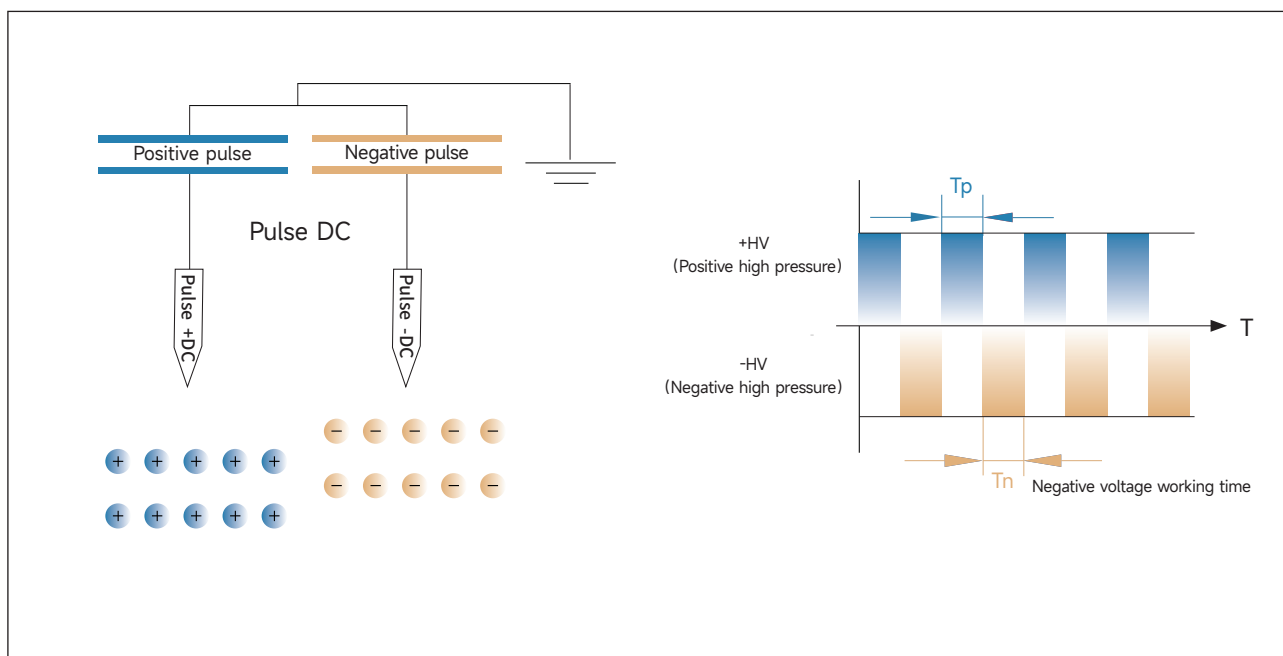
# Intelligent Remote Control

The effect of static eliminating is better compare to power frequency AC ion bar

## ◆ Pulse DC VS Traditional AC

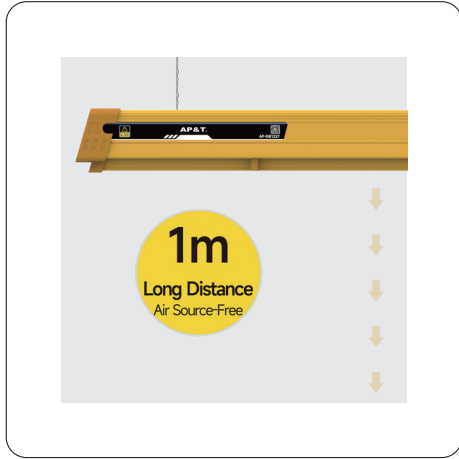
The pulsed DC method alternately applies positive "+" and negative "-" high voltages to the electrode needles, generating ions of both polarities.

Compared to the traditional AC method, pulsed DC offers higher ion production efficiency and can effectively eliminate static electricity at both close and long ranges. Additionally, the discharge frequency can be adjusted to extend the de-electrification distance. The ratio of positive to negative ion output is adjustable, facilitating intelligent control.



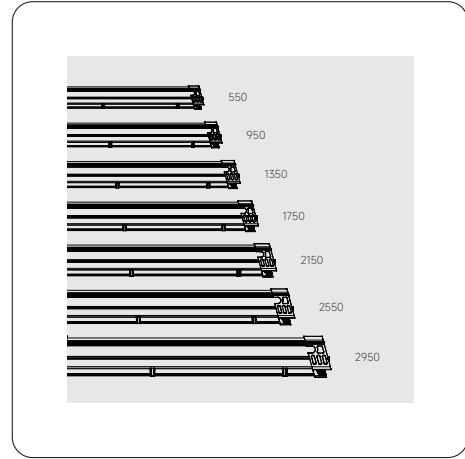
# Features

Safe / Easy to use / Durable



## ■ Electric shock proof

Strong ion release capability, suitable for static elimination without an air source and at long distances



## ■ Multiple Sizes, Customizable

The product is applicable to different de-electrification distances, including 7 length specifications to meet the de-electrification range requirements for different distances, saving on the adaptation of power supplies and the number of ion bars installed and reducing workload



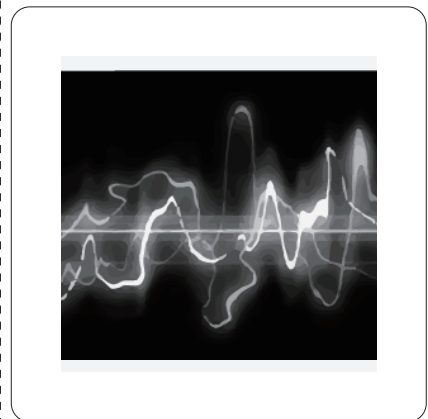
## ■ Indicator Light

Red light alarm for high voltage anomalies



## ■ Intelligent Remote Control

Ion output characteristics can be adjusted using a remote control



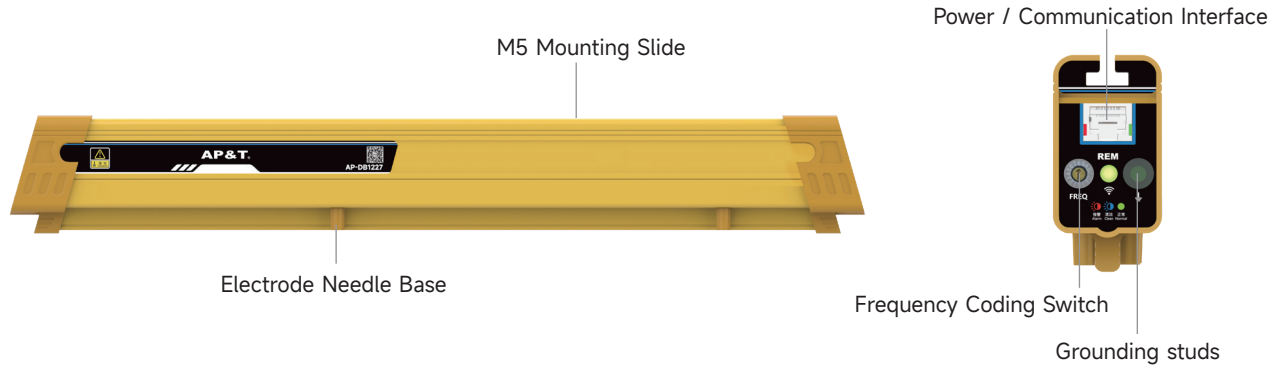
## ■ CE certification

With CE certification, effectively prevents external electromagnetic interference from affecting the normal operation of the ion bar

# Product Specifications

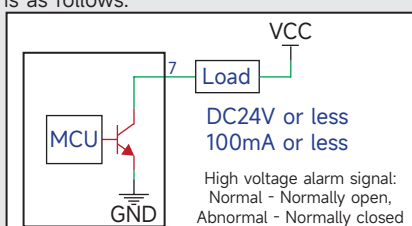
## Product Details / Product Size / Product Parameter

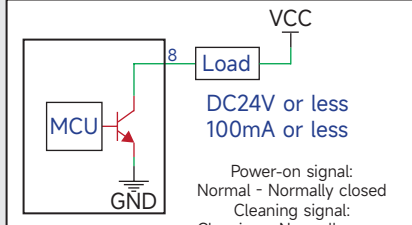
### ◆ Product Details



- (1)、Select the best position for de-electrification and securely install the bar body and the accompanying power adapter.
- (2)、Connect one end of the network cable to the power adapter port and the other end to the ion bar's "REM" marked power/communication port. The port wiring information is as follows:

| Port Wiring Function Information                          |              |                                                              | Frequency Selection Coding Switch Information      |  | Indicator Light Function                         |
|-----------------------------------------------------------|--------------|--------------------------------------------------------------|----------------------------------------------------|--|--------------------------------------------------|
| 1                                                         | Orange       | +24VDC                                                       | 0: Pause (STOP)/Change address                     |  | Blue light: Infrared, pause, cleaning indication |
| 2                                                         | White orange | +24VDC                                                       | 1: 0.1HZ                                           |  | Green light: Operation                           |
| 3                                                         | Blue         | RS485+B                                                      | 2: 0.3HZ                                           |  | Red light: Alarm indication                      |
| 4                                                         | White blue   | RS485+A                                                      | 3: 0.5HZ                                           |  | NPN Function                                     |
| 5                                                         | Green        | GND                                                          | 4: 0.7HZ                                           |  |                                                  |
| 6                                                         | White green  | GND                                                          | 5: 1HZ                                             |  | 8: Power on indication, cleaning indication      |
| 7                                                         | Brown        | HV <sub>AL</sub> : High voltage alarm for the de-electrifier | 6: 3HZ                                             |  |                                                  |
| 8                                                         | White brown  | ACT: Power indicator for the de-electrifier                  | 7: 5HZ                                             |  |                                                  |
|                                                           |              | Clean: Cleaning indicator for the de-electrifier             | 8: 7HZ                                             |  |                                                  |
| 9                                                         | Metal shield | PE                                                           | 9: 10HZ                                            |  |                                                  |
| The output wiring diagram for pins 7 and 8 is as follows: |              |                                                              | A: 30HZ                                            |  |                                                  |
|                                                           |              |                                                              | B: 55HZ                                            |  |                                                  |
|                                                           |              |                                                              | C: Remote/terminal control                         |  |                                                  |
|                                                           |              |                                                              | D: Remote/terminal control                         |  |                                                  |
|                                                           |              |                                                              | E: Negative high voltage output (N:95%、P:5%-105HZ) |  |                                                  |
|                                                           |              |                                                              | F: Positive high voltage output (P:95%、N:5%-105HZ) |  |                                                  |



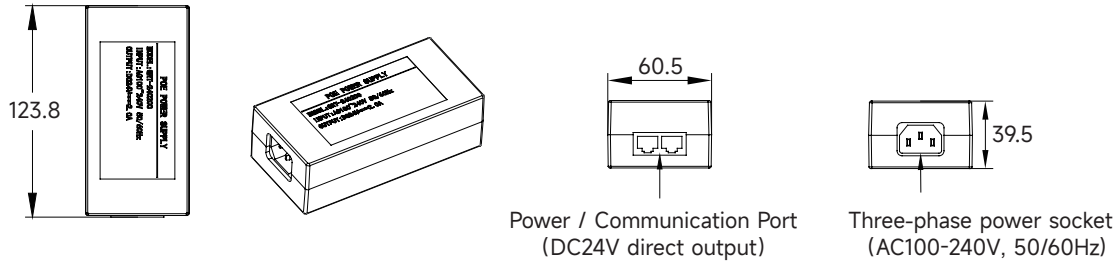


- (3)、Tighten one end of the configured yellow-green ground wire on the ion bar's grounding post and connect the other end to the AC equipment ground wire/end.
- (4)、The network port power indicator light and the bar panel indicator light will illuminate green, indicating the ion bar is working normally.

# Product Specifications

## Product Details / Product Size / Product Parameter

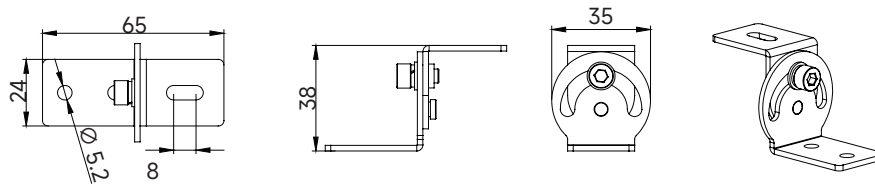
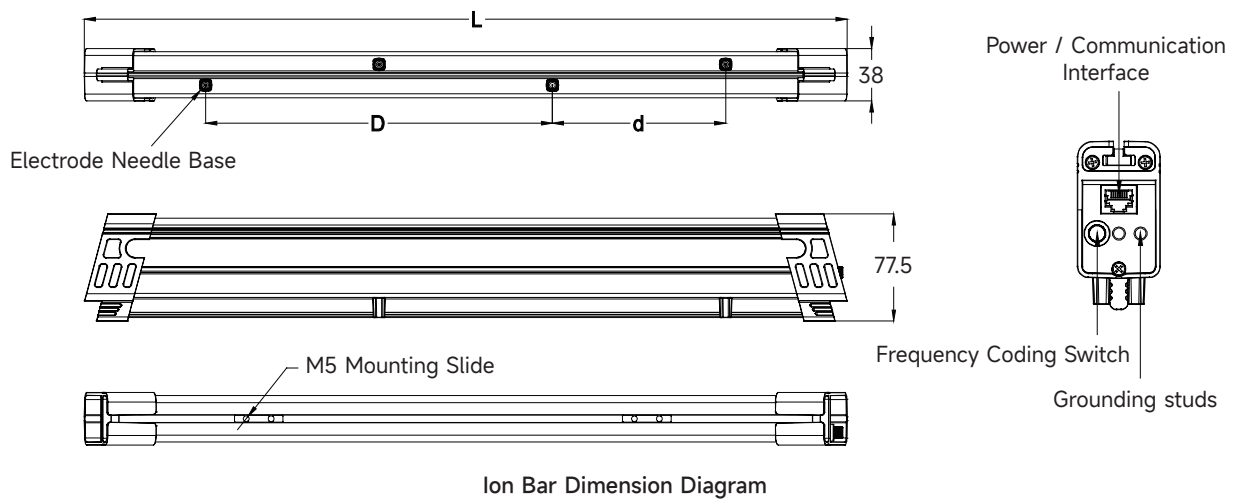
(5)、The dimension diagram of the adapted power supply is as follows:



Note: Each adapted power supply can load up to 2 ion bars, with each port loading 1 ion bar. It cannot be connected in series. The port wiring information is the same as the table above.

## ◆ Product Shape and Installation Dimension Diagram

Unit: mm



Mounting Bracket Dimension Diagram (Optional Accessory)

| Bar Length L (Unit: mm) |                                         |                                              |                                                                        |     |      |      |      |
|-------------------------|-----------------------------------------|----------------------------------------------|------------------------------------------------------------------------|-----|------|------|------|
| Discharge Distance      | Same Polarity<br>Electrode<br>Spacing D | Different Polarity<br>Electrode<br>Spacing d |                                                                        |     |      |      |      |
| 300-1000mm              | 250                                     | 125                                          | Bar Length L<br>(Unit: mm)                                             | 550 | 1050 | 1550 | 2050 |
|                         |                                         |                                              | Number of Electrode Needles<br>Number of Electrode Needles (Unit: pcs) | 4   | 8    | 12   | 16   |
| 100-300mm               | 200                                     | 100                                          | Bar Length L<br>(Unit: mm)                                             | 550 | 950  | 1350 | 1750 |
|                         |                                         |                                              | Number of Electrode Needles<br>Number of Electrode Needles (Unit: pcs) | 4   | 8    | 12   | 16   |

# Intelligent Remote Control

Adjustable Cleaning Cycle, Static Elimination Speed And Ion Balance.



| Button Function instructions |                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Function                     | Symbol                 | Operation instructions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Unlock                       |                        | Unlock before adjusting operating parameters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Run / Pause                  |                        | Device starts running when power is on. Press "STOP" to standby and no high voltage output. Press "RUN" again and the device will start working.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Adjust cleaning cycle        | CT <sub>TH</sub> → +/- | <p>① Turn on the cleaning alarm function (Refer to the operation instructions of the cleaning alarm function)</p> <p>② Press CT<sub>TH</sub>, Then +/-, to increase or decrease the cleaning time cycle</p> <p>The cleaning cycle adjustment can be adjusted from 1-60 days, the default setting is 15 days, the blue flashing cleaning alarm would be executed after the set cleaning time cycle ends(0 days)</p> <p>*Note: as the default cleaning alarm function of the product is off, If cleaning cycle is required to adjust, you need to turn on the cleaning alarm function firstly.</p>                       |
| Cleaning alarm function      | Unlock → 5 → OK        | <p><b>Turn on the cleaning alarm function:</b></p> <p>① Remote Control: Unlock---5---OK</p> <p>② Product indicator light changes: white light short on 1s into green light On 5s,Finally into blue light flashing</p> <p>③ After the indicator light blinks blue, Please power off to re-start the product for releasing the state</p> <p>④ After powing on,It's ok for the indicator light in green always on</p> <p><b>Close the cleaning alarm function:</b></p> <p>① Operate the remote control: Unlock---5---ok</p> <p>② Indicator light changes: From white light short on 200ms into a constant green light</p> |
| Adjust ion balance voltage   | IB <sub>N</sub> → +/-  | Press IB <sub>N</sub> first, then press + when the positive voltage on flat panel detector or discharge object surface is high, press IBN first, then press - when the negative voltage on flat panel detector or discharge object surface is high until the ion balance reaches the ideal status.                                                                                                                                                                                                                                                                                                                     |
| Adjust frequency             | FREQ → +/-             | Press FREQ first, then press +/- to increase or decrease the frequency of positive and negative ions output .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Confirm                      | CAL → OK               | Note: Press CAL first, then press OK to confirm after adjusting the output parameter; otherwise,false alarms are likely to occur.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Reset                        | CAL →                  | To restore factory settings, press CAL ,then press                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Note: In cases where the object to be de-electrified already possesses a certain polarity of static charge that does not change, adjusting the ion balance (output) to the opposite polarity can improve the de-electrification effect. However, care should be taken not to cause the object to carry the opposite charge.

# Product Specifications

Product Details / Product Size / Product Parameter










## ◆ Product Parameter

|                                         |                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                                   | AP-DB1227                                                                                                                                                                                                                                                                                                                                                                                 |
| Input Voltage                           | DC 24V                                                                                                                                                                                                                                                                                                                                                                                    |
| Power                                   | < 15W                                                                                                                                                                                                                                                                                                                                                                                     |
| Electrode High Voltage                  | < 30KV                                                                                                                                                                                                                                                                                                                                                                                    |
| Ion Emission                            | Pulse DC                                                                                                                                                                                                                                                                                                                                                                                  |
| Emitter electrode                       | Tungsten (W)                                                                                                                                                                                                                                                                                                                                                                              |
| Output Frequency                        | FREQ: 0.1, 0.3, 0.5, 0.7, 1, 3, 5, 7, 10, 30, 55Hz<br>Factory setting: 1Hz, parameters can be adjusted by FREQ coding switch or remote control<br>High voltage output is calibrated at the factory but can be adjusted on-site according to the usage situation and may be reselected for the appropriate working frequency to maximally eliminate static charges on the object's surface |
| Ozone Thickness                         | < 0.1ppm (100mm from the emission electrode)                                                                                                                                                                                                                                                                                                                                              |
| Status Indicator                        | Green light—normal operation, Red light—high voltage anomaly, Blue light—adjustment/cleaning indication<br>RJ45 Port Indicator Light: Green light—power on indication, Orange light—communication indication                                                                                                                                                                              |
| Status Monitoring                       | RS485 (115200bps,8,1,n,n) ≥ 30ms<br>Collector Open Circuit: < 50V,100mA                                                                                                                                                                                                                                                                                                                   |
| Working Temperature                     | 0°C -50°C                                                                                                                                                                                                                                                                                                                                                                                 |
| Working Humidity                        | < 70%                                                                                                                                                                                                                                                                                                                                                                                     |
| Dimensions                              | L*W*H: L*38*77.5mm (See dimension diagram for details)                                                                                                                                                                                                                                                                                                                                    |
| Bar Body Material                       | Flame retardan PVC、ABS                                                                                                                                                                                                                                                                                                                                                                    |
| Installation Accessories                | M5 slider nuts                                                                                                                                                                                                                                                                                                                                                                            |
| Supporting Power Supply                 | GRT-240200: DC24V 2A, dual network port output, 123*61*40.5mm (L*W*H)                                                                                                                                                                                                                                                                                                                     |
| Length Of Supporting Power Network Cord | 2.5m                                                                                                                                                                                                                                                                                                                                                                                      |
| Warranty                                | 1 Year                                                                                                                                                                                                                                                                                                                                                                                    |
| Certification                           | CE                                                                                                                                                                                                                                                                                                                                                                                        |

# Use of the product

Packaging Accessories / Safety Warning / Trouble Shooting

## ◆ Packaging Accessories

| Name                                         | Picture                                                                             | Part No.  | Specification                                                                                                                 | Quantity |
|----------------------------------------------|-------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------|----------|
| Power Adapter                                |    | AP2930003 | GRT-240200 DC24V 2A P/N:1/2+ 5/6- Port metal PE                                                                               | 1        |
| National Standard Power Cord                 |    | 8YXG25110 | Standard:1.8m, optional:3m/5m                                                                                                 | 1        |
| Double Ended Crystal Head Black Shield Cable |    | 8WXI00004 | Standard:2.5m, 5m/10m:optional                                                                                                | 1        |
| M5 Slider Nuts                               |    | AP8939011 | ≤ 1m Comes with 2 / 1m < X < 2m Comes with 3 / ≥ 2m Comes with 4                                                              | 2        |
| Mounting Bracket                             |    | AP6150002 | ≤ 1m Comes with 2 / 1m < X < 2m Comes with 3 / ≥ 2m Comes with 4                                                              | Optional |
| Remote Control                               |   | AP2253011 | Infrared remote control, neutral panel (L*W*H : 85.76*39.76*6.66)                                                             | 1        |
| Yellow And Green Ground Cable                |  | AP6640072 | Wire diameter 1.5mm <sup>2</sup> , length 1000mm, 4.2mm grounding lug at one end and a 4mm U-shaped terminal at the other end | Optional |
| Spring Washer                                |  | 1TD004000 | M4                                                                                                                            | 1        |
| 304 Hand Screw Single Head Knurling          |  | AP8906016 | M4*5                                                                                                                          | 1        |

### ▲ Safety warning

- Please read the instruction manual carefully before installing and using this equipment.
- The whole set of equipment must be reliably grounded during use, otherwise it is easy to cause abnormality or even damage to the ion bar.
- Do not use this equipment in environment where humidity is > 70%.
- It is strictly forbidden to use this equipment in flammable and explosive environments.
- Unauthorized disassembly of the product is strictly prohibited, internal maintenance and repair must be performed by professionals.
- The product is strictly prohibited to touch liquid during use, otherwise an abnormality may occur and cause electric shock or fire.
- Power must be turned off during inspecting or replacing the product, otherwise it may cause electric shock or fire.
- The product is ventilated with dry and clean air or nitrogen which will work abnormally or be damaged if the gas source contains water or grease.
- The product is specially designed to eliminate static electricity. It is strictly forbidden to use it for other purposes. Any abnormal use may cause machine failure, electric shock, fire and other accidents.

- Its strictly forbidden to touch the electrode needles when power is on, otherwise it is easy to cause malfunctions and electric shock accidents.
- The electrode needle is a sharp metal object, please use it with care.
- Please check the specifications of the power supply before powering on the product. Any power supply that does not meet the specifications will cause damage to the product.
- Please check the product power cord/communication cord regularly and replace it immediately if it is damaged. Otherwise it is easy to cause problems such as electric leakage, poor communication, and abnormal operation.

### ⚠ Trouble shooting

| NO. | Problems                                                  | Reasons                                                                       | Solutions                                                                                         |
|-----|-----------------------------------------------------------|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| 1   | The indicator on the panel is off                         | Poor contact of the power cable                                               | Check whether the power cable is in good condition and securely connected                         |
|     |                                                           | Power supply mismatch                                                         | Confirm the power supply specification (INPUT: 100—240VAC 50/60Hz; OUTPUT: 24VDC 2000mA)          |
| 2   | RJ45 port green power indicator light is not on           | Poor contact of power cable                                                   | Check whether the power cable is in good condition and securely connected                         |
|     |                                                           | Power mismatch                                                                | Confirm the power supply specification (INPUT: 100—240VAC 50/60Hz; OUTPUT: 24VDC 2000mA)          |
|     |                                                           | No power supply                                                               | Check the power supply line                                                                       |
| 3   | The electrostatic removal performance decreased obviously | Discharge needle is polluted and damaged                                      | Clean or replace the discharge needle                                                             |
|     |                                                           | Whether the discharge seat is tightened                                       | Confirm the discharge seat is tightened                                                           |
|     |                                                           | Ion bar positioning is incorrect                                              | Confirm the best installation location                                                            |
|     |                                                           | There are conductors or other ion bar around                                  | Remove (moving) conductors or other ion bar                                                       |
| 4   | Panel indicator red light on                              | Electromagnetic interference                                                  | Turn off the power switch / unplug the power cable, restart the ion bar                           |
|     |                                                           | Abnormal discharge                                                            | Confirm the installation location and stay away from surrounding conductors                       |
|     |                                                           | No power supply for high voltage module                                       | Return to factory for maintenance                                                                 |
|     |                                                           | High voltage module is damaged                                                |                                                                                                   |
| 5   | Unable to discharge                                       | High voltage module is damaged                                                | Return to factory for maintenance                                                                 |
|     |                                                           | Main-board chip is damaged                                                    |                                                                                                   |
|     |                                                           | Main-board chip is damaged caused by poor grounding or no grounding           | Check the grounding of the ion bar and plant equipment, and return to the factory for maintenance |
| 6   | The product is smoky or burnt                             | High voltage module is damaged or insulation of the discharge seat is damaged | Return to factory for maintenance                                                                 |

## Maintenance

- The ion bar should be cleaned and maintained in time according to the use environment and the required electrostatic protection requirements in order to ensure the good performance of the product. That is, gently remove the carbon deposits on the discharge electrode, discharge socket, and metal discharge body with electrostatic brush, dust-free cotton swab, dust-free cloth dipped in anhydrous alcohol, which will improve its performance significantly. Note:
  - A. Operation must be done 10 minutes after power cut off.
  - B. It must be cleaned when dust or white products appear on the tip of the needle during use. Use dust-free cloth dipped in anhydrous alcohol to clean when brush can not meet the cleaning requirements.
  - C. The ion bar must be powered on after alcohol is completely volatilized after cleaning. No other organic solvent can be used to clean the ion bar.
- If the switch working indicator light of the power plug-in port on the panel of the ion bar is off , it should be stopped and repaired by professional maintenance personnel. It can be used only after the electrical performance index is normal.

## After-sales service

- AP-DB1227 Ion Bar has undergone rigorous testing and aging treatment before ex-work. Its performance has completely reached the relevant indicators marked in the usage instruction.
- AP&T makes a commitment to the customer that any defective parts inspected by AP&T will be repaired or replaced free of charge within one year from the date of purchase. However, this commitment does not apply to:
  - (1)、The device is incorrectly used or installed.
  - (2)、Damage caused by negligence or accident during use.
  - (3)、Modified, disassembled or repaired by other service departments not authorized by Anping Company.
- The alloy electrode is a consumable product which is not included in the scope of warranty and will be charged for replacement when repairing.
- AP&T shall not be liable for any incorrect use of the products except for repair or replacement of parts as specified above.

# AP&T®

The logo consists of the text "AP&T" in white, bold, sans-serif font, set against a dark blue parallelogram background that is wider than it is tall. A small registered trademark symbol (®) is located to the right of the text.

**AP&T®**

**SPECIALITY CREATES VALUE**

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Professional electrostatic intelligent monitoring/analysis  
and elimination solution provider

Shanghai Anping Static Technology Co.,Ltd

Tel: 021-6451 7676

Website: [www.ap-static.com](http://www.ap-static.com)

Address: 3-4/F,Building 27,No.69,Guiqing Road,Shanghai,China

