

**FULCARE**

*Innovation changes our lives*



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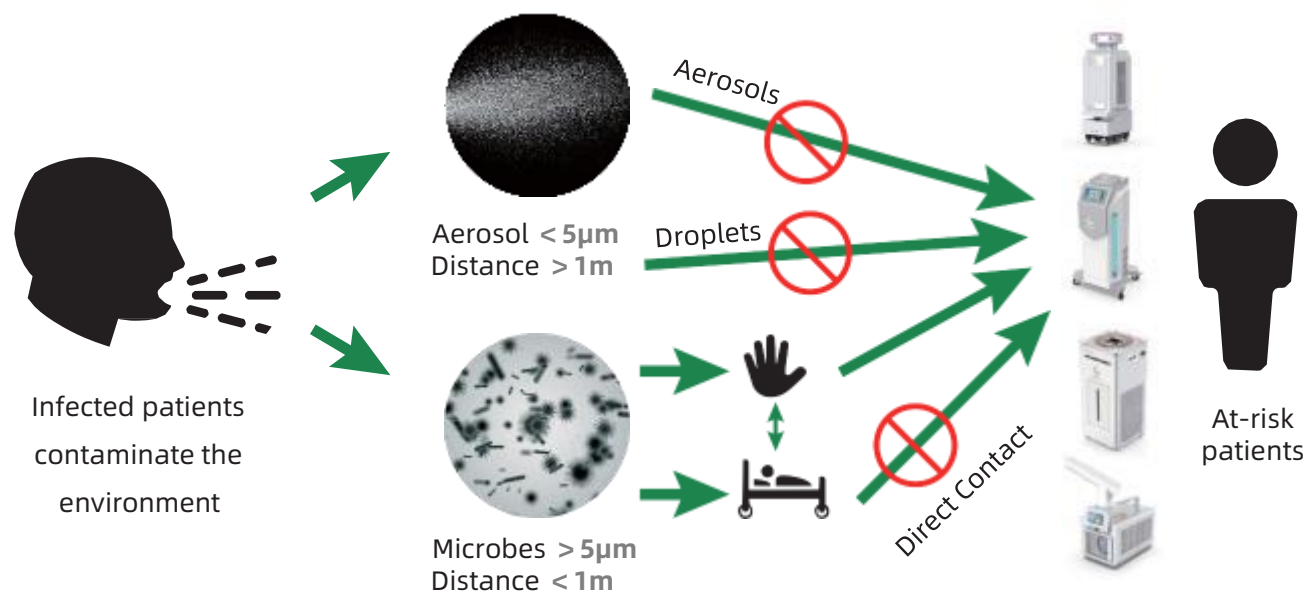
Manufacturer: Hubei CFULL Medical Technology Co., Ltd.

## SPACE AND SURFACE DISINFECTION DEVICE

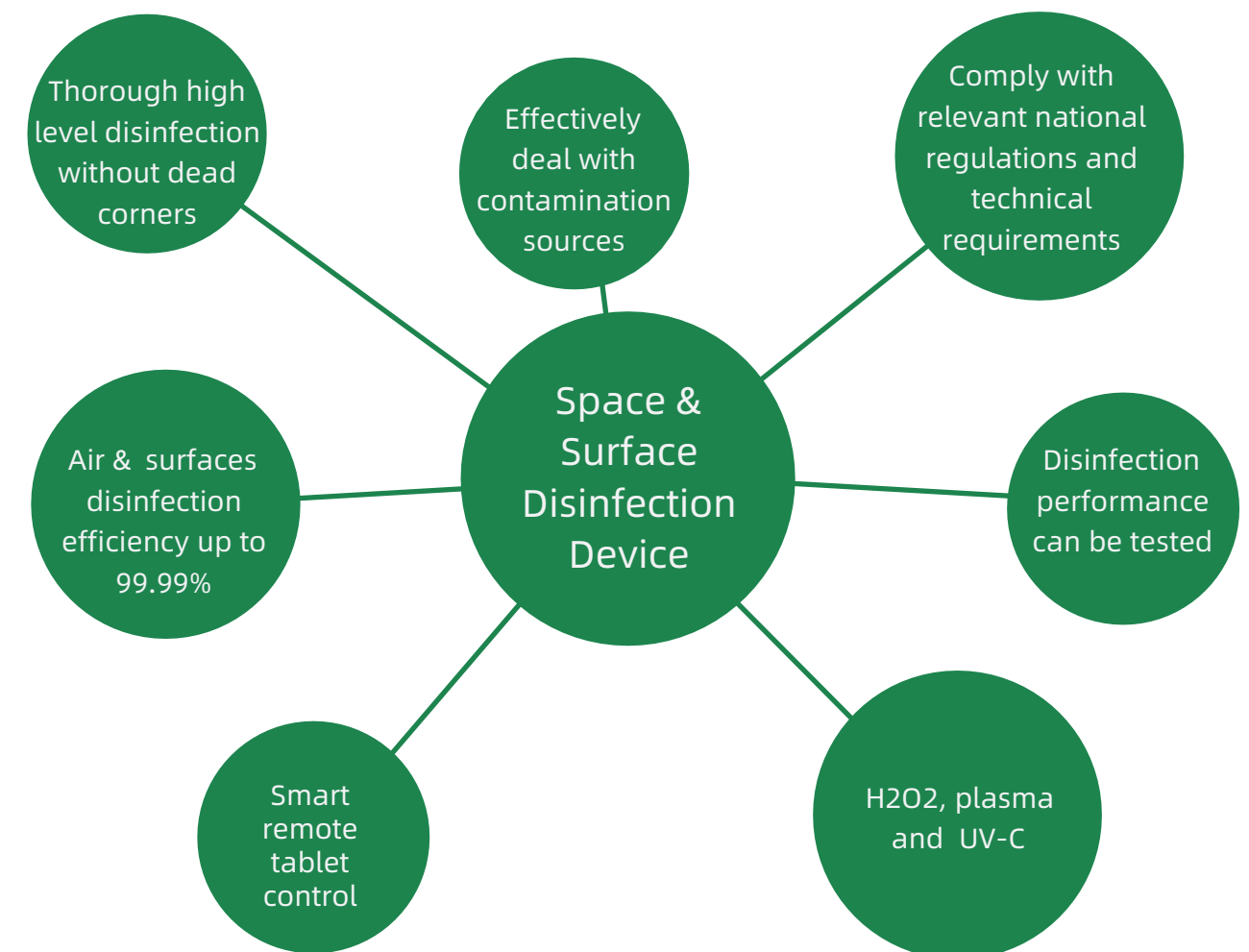
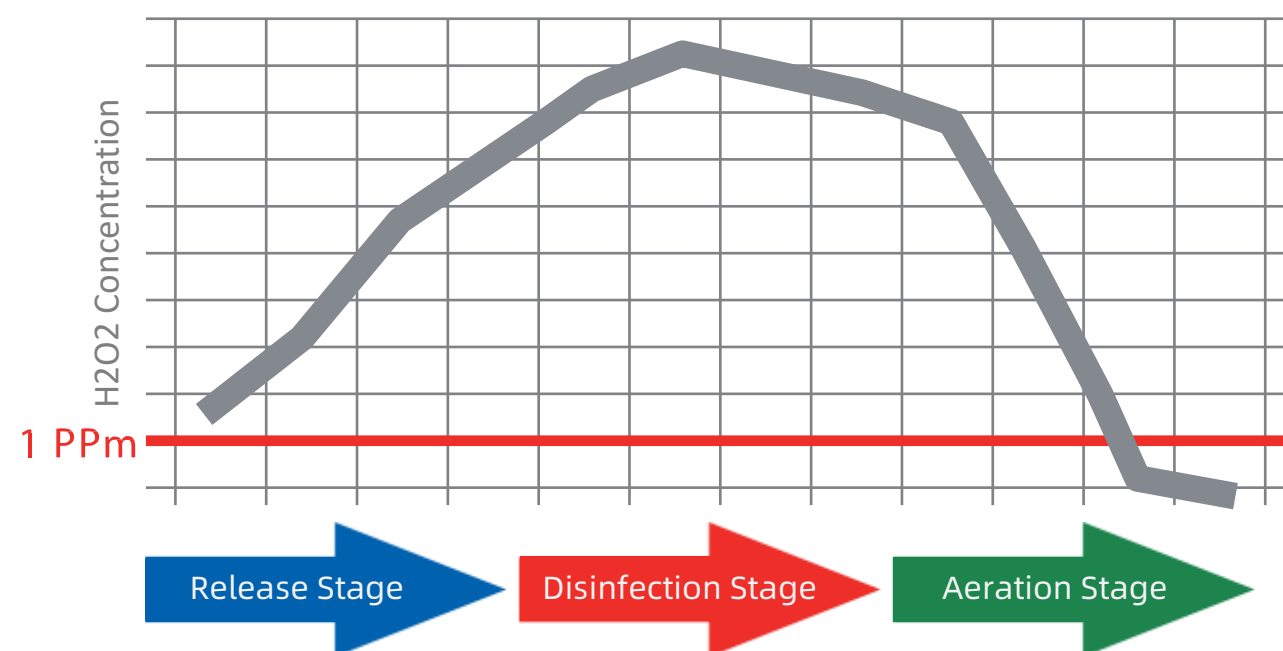
HIGH LEVEL DISINFECTION  
&  
PURIFICATION

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## Block Transmission of Pathogens



## Three Stages of Disinfection



Optional hydrogen peroxide concentration monitor to ensuring safety of reentering after disinfection, and portable laser rangefinder to provide precise readings of the room volume.



Portable H2O2  
Concentration Monitor



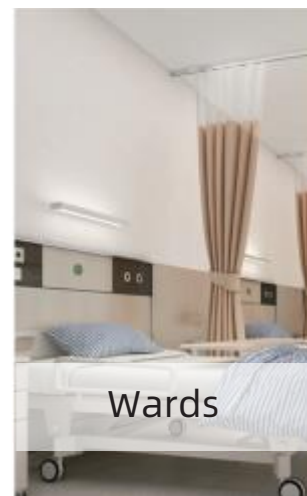
Portable Laser  
Rangefinder



High-Risk Areas



Operation Rooms



Wards



Public Places

## Application Range

The robot model is suitable for high-risk areas, operating rooms, ICU, neonatal wards, infectious wards, general wards, laboratories, laboratory animal centers, microbiology laboratories, biopharmaceutical factories, public areas, sanitary facilities and other places need to be disinfected. Disinfection space up to 500m<sup>3</sup>. After disinfection, wipe clean covers of the device (main air outlet area) with clean water 1-3 times to avoid corrosion.

H<sub>2</sub>O<sub>2</sub>

Plasma

UV-C

Adopting unique constant pressure evaporation technology, and applying the Venturi effect to quickly separate H<sub>2</sub>O<sub>2</sub> liquid into H<sub>2</sub>O<sub>2</sub> molecules and H<sub>2</sub>O molecules. the molecules themselves do irregular Brownian motion, prompting H<sub>2</sub>O<sub>2</sub> particles to quickly diffuse to the entire room. Due to the strong oxidizing power of H<sub>2</sub>O<sub>2</sub>, it quickly attack the components of cells, including lipid proteins and DNA tissues, thereby achieving the inactivation of bacteria.

|                       |                                      |
|-----------------------|--------------------------------------|
| H2O2 Concentration    | 30% ~ 35%                            |
| H2O2 Storage Capacity | 6 L                                  |
| H2O2 Dosage           | 3~6 ml / m <sup>3</sup> (Adjustable) |
| Action Space          | ≤500m <sup>3</sup>                   |
| Disinfection Level    | ≥99.99%                              |
| Sterilization level   | 10 <sup>-6</sup>                     |
| Action Time           | ≥30min (Adjustable)                  |
| Aeration Time         | ≥30min (Adjustable)                  |
| Fan Air Volume        | 377 m <sup>3</sup> /h                |

Under strong convection in the high-pressure circulation fan, the primary and medium-efficiency filters trap large and medium size particles such as hair and dust. The filtered air then reaches the plasma disinfection area and is ionized by the strong electromagnetic field. High-energy electrons, radicals and other active particles in plasma area effectively kill microbes in air, remove harmful substances, and also absorbs particles. Finally, the harmful gases and odors in air are filtrated by HEPA filter. After multiple cycles treatment, the air in the enclosure turns into clean and fresh air.

|                        |   |
|------------------------|---|
| Plasma Density         | 1.8x10 <sup>17</sup> ~ 1.0x10 <sup>18</sup> m <sup>-3</sup> |
| Filters                | Primary, Mid-Effect, HEPA                                   |
| Circulation Air Volume | Max. 1000m <sup>3</sup> /h                                  |
| Ozone Residue          | ≤0.008mg/m <sup>3</sup>                                     |
| Service Life           | 30,000 Hrs  |

Build-in UV-C lamps adopt wavelength of 253.7nm high intensity ultraviolet radiation for disinfection, and the effect of ultraviolet radiation is increased by mirror reflection to achieve final air disinfection.

|                                 |                                     |
|---------------------------------|-------------------------------------|
| Ultraviolet Radiation Intensity | ≥10000μw/cm <sup>2</sup>            |
| Ultraviolet Lamp Service Life   | ≥5000 Hrs                           |
| Negative Oxygen Ions            | ≥3x10 <sup>6</sup> /cm <sup>3</sup> |



● High Precision Lidar Navigation

Precise positioning, automatic map construction.

● Retractable Nozzles & UV-C

Multifunctional compound of hydrogen peroxide, plasma and ultraviolet rays completely kills germs.

● Dual H2O2 Decomposition Technology

After disinfection, quickly purify indoor air.

● Auto Disinfection Path Planning

Suitable for multi-room disinfection and sterilization in complex environments.

● Remote Tablet Control

Continuous disinfection and sterilization can be achieved with or without people.

● Long Battery Life

Equipped with high-quality high-capacity lithium battery support automatic recharge function.

● Smart Obstacle Avoiding Function

Smart obstacle avoidance, with a strong ability to cross obstacles.

● High Standard Electrical System

The electrical system is designed according to high load and high power standards, safe and reliable.



Unique Advantages

- 1. Unique constant pressure evaporation technology, using the Venturi effect to generate hydrogen peroxide particles formed of 3 μm or less.
- 2. The strong air convection technology makes the hydrogen peroxide molecules disperse quickly and evenly without dead angles. It has high penetrating power and killing power, and has no corrosion to the surfaces of the objects.
- 3. Just input the spatial data, the device automatically calculate working hours and start working procedures.
- 4. Unique residual decomposition function and residual over-standard alarm function.
- 5. Equipped with hydrogen peroxide, plasma and ultraviolet to strengthen the elimination poison sterilization.
- 6. Different work programs to provide continuous disinfection with or without human interferences.



Technical Parameters

| Product     | Items                  | Parameters   |
|-------------|------------------------|--|
| Electrical  | Model                  | Robot (CF/KM-1)  |
|             | Power Supply           | 220 ~ 240VAC 50Hz  |
|             | Rated Power            | 400w   |
| Performance | Display                | 8 inch   |
|             | Working Mode           | Short-time loading, continuous working                   |
|             | Operation Mode         | wireless remote control                                  |
|             | Sensors                | Temperature, humidity, concentration, disinfectant level |
|             | Noise                  | ≤60 dB (A)   |
|             | Power Supply           | 220 ~ 240VAC 50Hz  |
|             | Charging Method        | Automatic / Manual                                       |
|             | Single Battery Life    | 6h   |
|             | Patrol Speed           | ≤4km/h   |
|             | Remote Control Tablet  | 8 inches FHD 1920 x 1200                                 |
|             | Tablet Battery         | 3.7V 4500mAh polymer battery                             |
| Dimensions  | Tablet ROM             | 64GB (support up to 128GB TF card expansion)             |
|             | Tablet Size            | 207 x 123 x 98mm   |
|             | Dimensions (L x W x H) | 380 x 460 x 1320mm                                       |
| Ambient     | Net Weight             | <60kg  |
|             | Cover Material         | SUS304, ABS, AL6061                                      |
|             | Temperature            | ≥5 °C during operation 5 °C ~ 50 °C during storage       |
|             | Relative Humidity      | ≤90% in operation, ≤95% in storage (non-condensing)      |
|             | Atmospheric Pressure   | 70kPa ~ 106kPa   |

Applicable Scenes

CF/KM-2 Mobile Model



Application Range

The robot model is suitable for high-risk areas, operating rooms, ICU, neonatal wards, infectious wards, general wards, laboratories, laboratory animal centers, microbiology laboratories, biopharmaceutical factories, public areas, sanitary facilities and other places need to be disinfected. Disinfection space up to 500m<sup>3</sup>. After disinfection, wipe clean covers of the device (main air outlet area) with clean water 1-3 times to avoid corrosion.

Unique Advantages

- 1. Unique constant pressure evaporation technology, using the Venturi effect to generate hydrogen peroxide particles formed of 3 μm or less.
- 2. The strong air convection technology makes the hydrogen peroxide molecules disperse quickly and evenly without dead angles. It has high penetrating power and killing power, and has no corrosion to the surfaces of the objects.
- 3. Just input the spatial data, the device automatically calculate working hours and start working procedures.
- 4. Unique residual decomposition hardware and program, as well as residual over-standard alarm function.
- 5. Dual Control Methods: control panel on device, or remote tablet control.
- 6. Equipped with hydrogen peroxide, plasma and ultraviolet to strengthen the elimination poison sterilization.
- 7. Different work programs to provide continuous disinfection with or without human interferences.



Technical Parameters

| Product     | Items                  | Parameters   |
|-------------|------------------------|--|
| Electrical  | Model                  | Mobile (CF/KM-2)   |
|             | Power Supply           | 220 ~ 240VAC 50Hz  |
|             | Rated Power            | 800w   |
| Performance | Display                | 7-inch LCD touch screen,                                 |
|             | Working mode           | Short-time loading, continuous working                   |
|             | Operation mode         | conventional control, wireless remote control            |
|             | Sensors                | Temperature, humidity, concentration, disinfectant level |
|             | Remote Control Tablet  | 8 inch   |
| Dimensions  | Noise                  | ≤65 dB (A)   |
|             | Dimensions (L x W x H) | 540 x 540 x 1070mm                                       |
|             | Net weight             | < 30kg   |
|             | Cover Material         | SUS304, ABS, AL6061                                      |
| Ambient     | Temperature            | ≥5 °C during operation 5 °C ~ 50 °C during storage       |
|             | Relative humidity      | ≤90% in operation, ≤95% in storage (non-condensing)      |
|             | Atmospheric pressure   | 70kPa ~ 106kPa   |



Applicable Scenes

CF/KM Mobile Model

The mobile model is suitable for the complete disinfection or sterilization of air and articles in specific enclosed spaces in medical and health institutions, high-risk areas, laboratory animal centers, labs, biopharmaceutical enterprises, etc. It is also applicable for terminal disinfection of COVID-19 to educe the exposure risk of work staff. The degree of killing microorganisms can reach the level of sterilization, with safety and reliability, high intelligence, easy to use and other characteristics.



Application Range

Space And Surface Disinfection Device adopts hydrogen peroxide gas as the disinfectant to reach high level disinfection of indoor air and surfaces of objects in an enclosure, such as medical vehicles, blood collection vehicles, small labs, wards, barrier environment, breeding rooms, etc. The applicable space is up to 500m³.

Unique Advantage

- 1. **Non-Corrosive:** H2O2 molecules are dispersed in the air, which is different from the traditional liquid contact surface. It has good material compatibility and no corrosion to most materials.
- 2. **No Residue:** After processing, H2O2 will be decomposed into water and oxygen vapor. With the build-in catalytic filter and powerful circulation fan, residual concentration of H2O2 will be shortly reduced below 1PPM.
- 3. **Complete Effect:** H2O2 is converted into tiny particles with perfect dispersion capability and wide coverage. Thoroughly reach high level disinfection and purification of air and surface of objects without dead corners. Smoke and other odors are removed during the process.
- 4. **Broad-Spectrum And High-Efficiency:** The device is designed to kill a variety of pathogenic bacteria, drug-resistant bacteria, influenza viruses, and other microbes.
- 5. **Smart Detection:** H2O2 concentration sensors provide real-time alarm if concentration of H2O2 is over range.
- 6. **Smart Operation:** Input length, width and height of the enclosure, the device automatically calculate working time. No manual intervention is required during disinfection process. Up to 10,000 disinfection records could be saved in the device.
- 7. **Durable:** The designed service life is 8 years.
- 8. **Performance Monitoring:** Chemical indicators and biological indicators for monitoring and validating disinfection performance.

Technical Parameters

| Items                       | Parameters             |
|-----------------------------|------------------------|
| Cover Material              | Metal                  |
| Power Supply                | AC 220-240V 50Hz       |
| Rated Power                 | 2000W                  |
| Dimensions (LxWxH)          | 425 x 425 x 980mm      |
| Net Weight                  | 65Kg                   |
| H2O2 Storage                | 4L                     |
| H2O2 Concentration          | 30-35%                 |
| H2O2 Dosage                 | 4-12ml/m³ (Adjustable) |
| Disinfection Effect         | ≥99.99%                |
| Sterilization Effect        | 10 <sup>-6</sup>       |
| Disinfection Time           | 30min                  |
| Aeration Time               | ≤120min                |
| Circulation Fan Volume      | 1060m³/h               |
| Noise                       | ≤60dB                  |
| Applicable Enclosure Volume | ≤500m³                 |

Applicable Scenes

CF/KM-3 Portable Model



Main Target

The device is designed for mainly disinfection and purification of air and surfaces in enclosed spaces.

Application Range

Ultra-small portable model dedicated to disinfection and air purification of small enclosures, such as ambulances, mobile laboratories, blood collection vehicles. After disinfection, wipe clean covers of the device (main air outlet area) with clean water 1-3 times to avoid corrosion.

Unique Advantage

- 1. Unique constant pressure evaporation technology, using the Venturi effect to generate hydrogen peroxide particles formed of 3μm or less.
- 2. The strong air convection technology makes the hydrogen peroxide molecules disperse quickly and evenly without dead angles. It has high penetrating power and killing power, and has no corrosion to the surfaces of the objects.
- 3. Just input the spatial data, the device automatically calculate working hours and start working procedures.
- 4. Unique residual decomposition hardware and program, as well as residual over-standard alarm function.
- 5. Dual Control Methods: control panel on device, or remote tablet control.



Technical Parameters

| Product     | Items                  | Parameters  |
|-------------|------------------------|---|
| Electrical  | Model                  | Portable (CF/KM-3)                                  |
|             | Power Supply           | AC 220 ~ 240V 50Hz                                  |
| Performance | Rated Power            | 400w  |
|             | Display                | 4.3 inch LCD touch screen,                          |
|             | Working Mode           | Short-time loading, continuous working              |
|             | Operation Mode         | Wireless remote control                             |
|             | Sensors                | Disinfectant level                                  |
|             | Noise                  | ≤60 dB (A)  |
|             | H2O2 Storage           | 3L  |
|             | H2O2 Concentration     | 30-35%  |
|             | H2O2 Dosage            | 3-6ml/m³ (Adjustable)                               |
|             | Disinfection Effect    | ≥99.99%   |
|             | Sterilization Effect   | 10 <sup>-6</sup>                                    |
|             | Disinfection Time      | ≥30min (Adjustable)                                 |
|             | Aeration Time          | ≥30min (Adjustable)                                 |
|             | Disinfection Effect    | ≥99.99%   |
| Dimensions  | Action space           | ≤100m³  |
|             | Circulation Fan Volume | 270m³/H   |
| Ambient     | Remote Control Tablet  | 8 inch  |
|             | Dimensions L * W * H   | 430 * 250 * 370 (mm)                                |
|             | Net Weight             | < 8 kg  |
|             | Cover Material         | SUS304, ABS, AL6061                                 |
|             | Temperature            | ≥5 °C during operation 5 °C ~ 50 °C during storage  |
|             | Relative Humidity      | ≤90% in operation, ≤95% in storage (non-condensing) |
|             | Atmospheric Pressure   | 70kPa ~ 106kPa                                      |



## Remote Control

Optional remote control tablet for safer and convenient operations. The tablet with extensions such as disinfection records and system settings, as well as selection of 3 work programs: Standard, Enhanced and Super. (Refer to device IFU for detailed introduction and instructions).



### 3 Work Programs

- Standard
- Enhanced
- Super



### Disinfection Records

To view and print history records at any time.



### Access Control

Accounts and system settings makes it easier and safer for management.

## Applicable Scenes

## CF/KM-3Y Mobile Cart



## Unique Advantage



### Plasma Disinfection

The mobile cart is with build-in plasma air disinfection and purification system to effectively kill microorganisms in air, adsorbing particles, and remove odors and harmful gases.

### Use Together, Dual Disinfection

The mobile cart has build-in battery system to provide power for both the plasma air system and the VHP system, enabling the product to be used in various conditions with or without power supply. The plasma air system also helps to remove H<sub>2</sub>O<sub>2</sub> after disinfection.

### Flexible & Convenient

The mobile cart could work alone as a plasma air sterilizer and can be used as carrier of other devices.



# Technical Parameters

| Items                   | Parameters   |
|-------------------------|--|
| Plasma Density          | $1.8 \times 10^{17} \sim 1.0 \times 10^{18} \text{m}^{-3}$ |
| Filters                 | Initial effect, middle effect, high efficiency             |
| Circulating Air Volume  | $\geq 900 \text{m}^3/\text{h}$                             |
| Ozone Residual          | $\leq 0.008 \text{mg}/\text{m}^3$                          |
| Plasma Service Life     | 30,000Hrs  |
| Battery Volume          | $\geq 40\text{AH}$   |
| Full Charge Time        | $\leq 8\text{h}$   |
| Battery Life for Plasma | $\geq 9.5\text{h}$   |
| Battery Life for VHP    | $\geq 3.2\text{h}$   |
| Battery Life for Both   | $\geq 2.4\text{h}$   |
| Shape Dimension         | 480*300*500 (mm)   |
| Dimension with VHP      | 480*300*880 (mm)   |
| Total Weight            | $\leq 10\text{kg}$   |
| Cover Materials         | SUS304, ABS, AL6061  |
| Applicable Room Volume  | $\leq 100 \text{m}^3$                                      |
| Noise                   | $\leq 60\text{dB(A)}$                                      |

