Elevator Car Air Purification, Filtration and Anti-viruses System

Introduction:

The elevator car air purification and anti-virus system is composed of 2 parts, the purification and sterilization box on the elevator car top and the under-ceiling static pressure box (Ceiling air supply system). These 2 parts will be connected by a flexible air duct through the air vents on the elevator car top to supply treated air to the elevator cabs.

The system can effectively improve the elevator car indoor air quality (IAQ) and provide added value to your customers and property, offering unparalleled advantages for your company in the future competition or for any tender projects.

By supplying treated air to form invisible matrix air curtain "isolations" to cut off/block the transmission of viruses caused by breathing, droplets or aerosols and avoid contact or cross-infection in elevator cars. It will kill the viruses on the elevator car surface periodically when in unoccupied condition as well. The static pressure box will not take up valuable elevator car spaces as well, the thickness is only 100 mm, it's a perfect replacement of conventional decorative ceiling.

**Important Notice – Must Read**

Is it available to integrate this system with your elevator cars?

The size for our sterilization box (Installed on elevator car top) is roughly **600*390*400 mm**, plus the flexible ducts, the total length can be as many as **1000 mm**. As most elevator cars are designed with trapdoors/emergency hatches (Size is around 600*400 mm. The ceiling air supply system will be designed to leave space for the trapdoors/emergency hatches) on the elevator car top, there will be limited space available to install the sterilization box. However, as long as there's space to install our sterilization box, you can proceed. Otherwise, this product will not be available for your elevator.
Having said that, as most elevator cars are designed to be able to install an extra elevator car air conditioner, for those without the installation of the air conditioner, you can always install the sterilization box where the space is originally designed for the air conditioner

**How to install the system?**

The system is a combination of the air purification and sterilization box (Installed on elevator car top) and the ceiling air supply system (Installed within the elevator cars). The ceiling air supply system needs to be screwed/fixed CLOSELY to the elevator car top panels. For safety, besides screws, a few high strength safety bolts are required. Extra holes will be needed as well. The sterilization box needs to be stably installed to avoid vibration while operation. If necessary, we can design and provide you with supporting brackets for the installation. Once you have finished the installation of the flexible ducts, the wiring, you can install the decorative SS panels. Finally, you do the testing to see if it works well.

If this works for you, then you can proceed with the design and measurement part below.
Design and Size Measurement:

We save you time. Just show us your available installation dimension, you can leave the design work to us.

Size Measurement:

1) Elevator car internal size: Available car width (CW), car depth (CD), the height of the elevator cars. Height/Thick between the ceiling decorative panel (If any) to elevator car top or the thickness of the elevator car top (without the decorative ceiling).

2) Available door size, door width (DW) and door height (DH).

3) Unavailable space or dimensions: Obstructive that may affect the installation of the static pressure box, such as handrails or advertising machine. Need to check if these parts are removable or not. Usually, we can reinstall them after the static pressure box is installed.

4) Available installation spacing for the sterilization box on the elevator car top, width, length and height of the maintenance balustrade. And we need to install this unit on the non-maintenance side. Please let us know if there’re emergency hatches/trap doors for your elevator. If this is the case, usually the sterilization box can be installed where it’s supposed to install the elevator conditioner. If you do need an additional air conditioner, you can choose our new product instead – elevator air conditioner with purification and sterilization system. One package to incorporate air conditioning and sterilization system. Also, only the ceiling air supply system is a customized unit to coordinate with the elevator car ceilings. The sterilization usually goes with our standard models. You can always contact us if you have space to install our sterilization box (Standard dimension: 600*400*400 mm)

5) Dimension and location of the holes in elevator cars, such as ventilation holes/air vents and wire threading holes. It’s suggested to be measured from the interior of the elevator cars. The inlet air vents on our ceiling air supply system will be designed to coordinate with the air vents on the elevator car top.

6) Trap door and other special structure location and dimensions on the elevator car top so that we can leave the trap door location.

7) The dimension of the air conditioning unit (If any) on the elevator car top, and the dimension of the air outlet of the air conditioning unit so that we can connect it to our purification and sterilization box. We may need the nameplate of the air conditioning as well. As some elevator cars will install 2 blowers instead of the air conditioning unit, please provide us with the dimension of the ventilation holes/vents on the elevator car top so that we can provide you the right ventilation ducts.
8) If possible, please also advise the dimension and the location of the stiffener, and the distance between the stiffeners. The stiffener is designed to increase the strength of the elevator car ceilings, but it may affect the installation of our purification and sterilization box or the static pressure box.

9) The distance between the wire threading holes and the power source or wiring distance.

10) Other holes or positions need to install the camera or emergency light.

11) Other special structure.

Door size

It will be much easier if you can send us dwg. drawings of your elevator cars with all the required dimensions marked. And we can design our ceiling air supply system based on this. Thanks.