

NEFFES

ANTIVIRAL AIR PURIFIER



CUTTING EDGE TECHNOLOGY FOR VIRUS FREE AIR



dust/pollen



bacteria



mold/fungi



smoke



germs



virus

Neffes is a brand by **FORM**

Why Clean Air

Clean Air for Health

Clean air is vital for a healthy and long life. The health effects of unclean air are not felt in the short term but reach a health-threatening level in the long term. Every breath taken in crowded and closed spaces transports viruses, allergens, microorganisms and bacteria into the body, which are impossible to see with the naked eye. When the unseen toxins in the polluted air are inhaled, especially in closed and poorly ventilated spaces, they are taken into the body via the nose and lungs and reach the entire body through blood circulation. This is where the importance of inhaling clean air becomes very important. The quality of the air we breath directly affects the functions of the organs in our body. The time spent breathing fresh air has many benefits on the physical health of an individual as well as on the mood, sleep patterns, and brain activities.

With the Covid-19 (Coronavirus) pandemic affecting the whole world, now we need new tools to maintain the air quality, especially in common living spaces of our homes, as well as closed spaces such as restaurants, offices, daycare centers, hairdressers, hospitals, clinics, factories, stores, shopping malls, and cinemas where people stay and move in crowds.



Clean Air Technology of NEFFES

The air purifiers providing clean air available in the market incorporate conventional air filtering technology. These products generally can retain the bacteria in an environment, but they are not effective against the viruses, which are today's problem. With its cutting edge technology enabling to breathe confidently, NEFFES is an extremely effective air purifier against viruses in addition to bacteria, allergens, and other microorganisms.

With its 4 stage filter structure, NEFFES Antiviral Air Purifier prevents viral diseases (COVID, SARS, Mers, etc.) by disrupting the DNA - RNA chains of the viruses in the ambient air as well as the diseases caused by dust, pollen, bacteria (Asthma, Allergy, etc.).



Antimicrobial Coated Pre-filter

Effectiveness:
polluted air, dust,
pollen, animal hair

HEPA Filter

Effectiveness:
bacteria, mold,
fungus, allergens

UV-C Lamp

Effectiveness:
VIRUS, germs

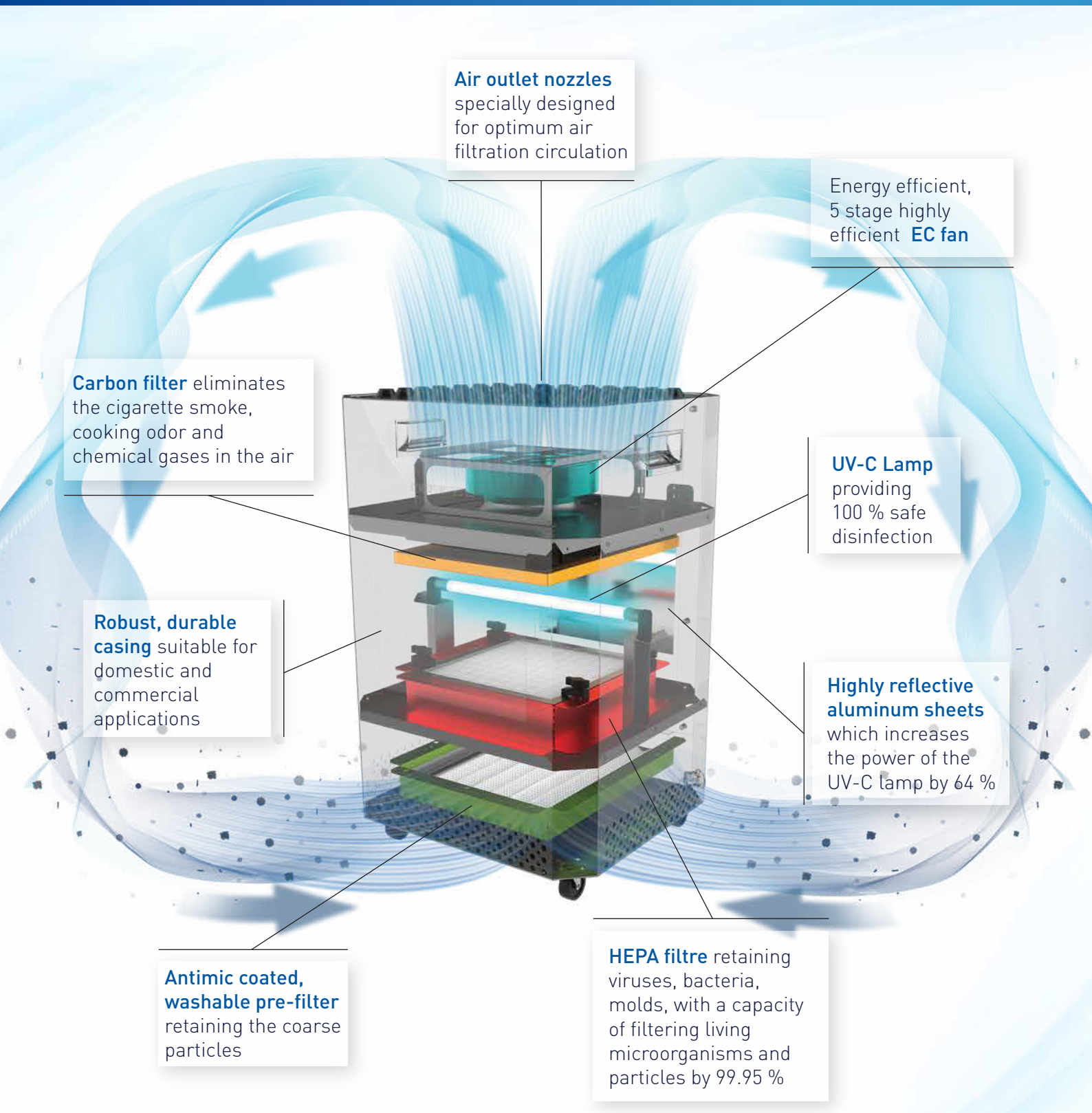
Carbon Filter

Effectiveness:
Unpleasant odors,
cigarette smoke,
chemical vapors

EC Fan

Sends hygienic clean air
into the environment.

Overview



Air outlet nozzles specially designed for optimum air filtration circulation

Energy efficient, 5 stage highly efficient **EC fan**

Carbon filter eliminates the cigarette smoke, cooking odor and chemical gases in the air

UV-C Lamp providing 100 % safe disinfection

Robust, durable casing suitable for domestic and commercial applications

Highly reflective aluminum sheets which increases the power of the UV-C lamp by 64 %

Antimicrobial coated, washable pre-filter retaining the coarse particles

HEPA filter retaining viruses, bacteria, molds, with a capacity of filtering living microorganisms and particles by 99.95 %

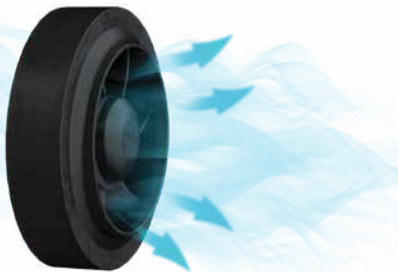
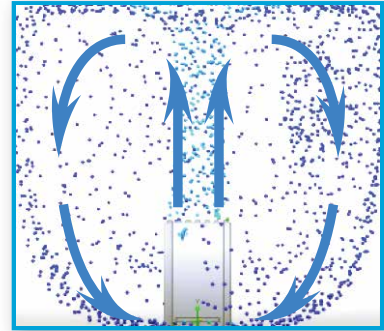
As it is clearly stated in the Pandemic Management and Working Guide published by the Ministry of Health in Turkey, ensuring the air is blown from the top at a low speed and collected from the bottom in air circulation equipment, reduces the risk of infection in the environment.

Specifications



Air Flow Pattern:

NEFFES has been designed via Computational Fluid Dynamics Analysis to create the most effective filtration air flow. It has a unique design incorporating specially designed air outlet nozzles that enable blowing from the top and suction from the bottom, directing all particles downwards, and minimizing the risk of transmission. It provides the healthiest and safest air flow patterns in any environment.



Highly Efficient, Low Energy Consuming Fan:

EC motor fan with top-level motor technology, adjustable for 5 airflow rates. Low noise level and high efficiency. Suitable for harsh working conditions.



User Friendly Remote Controller:

You can set the air flow rate of your unit in 5 stages. You can switch on the UV-C lamp in crowded places and switch it off in less crowded places like your home if desired. You will be notified via light alarm when your pre-filter, HEPA filter or UV-C lamp need to be replaced.

Specifications

Antimicrobial Coated Pre-filter :

It has a Hygienically coated pre-filter capable of retaining particles larger than 10 μm . It is cassette type and removable easily. In addition, it is washable and has a long service life.

HEPA Filter:

This filter is used for high quality filtration in sensitive environments such as operation rooms and capable of eliminating the harmful organisms by 99.95%. The NEFFES unit equipped with an automatic filter replacement level measurement system will notify you via a light alarm when your filter needs to be replaced. The HEPA filter used has standard dimensions and a new one can be easily purchased locally for replacement at an affordable cost. The HEPA filter in the NEFFES unit is in class H 13, which is extremely efficient and effective.

Carbon Filter:

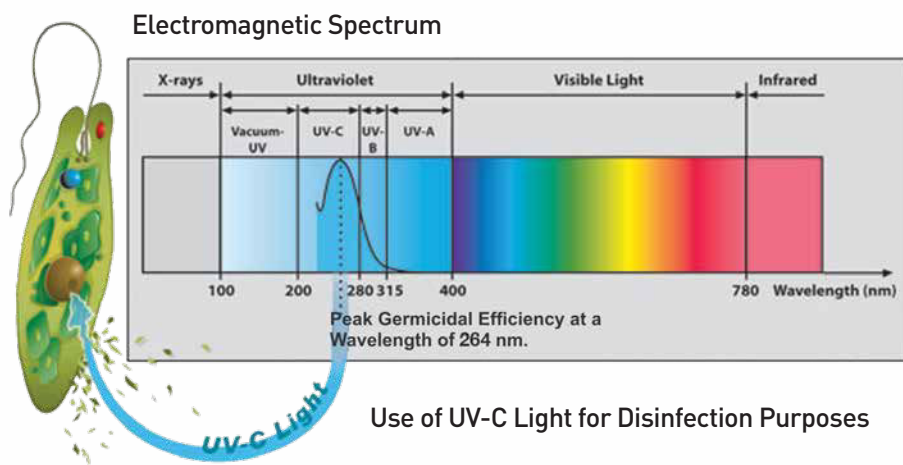
It eliminates the cigarette smoke as well as the unpleasant odors like cooking odor and chemical gases in the air.

Specifications



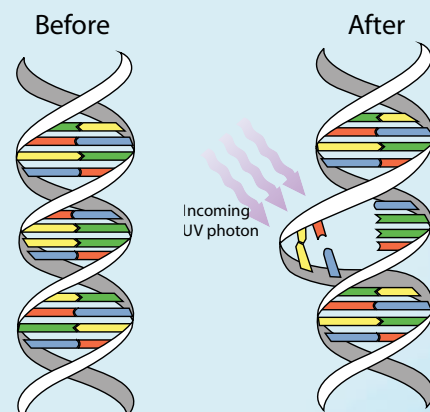
UV-C Ultraviolet Sterilization System:

UV-C Germicidal Lamps are used in disinfection applications since they emit light with a wavelength of 250-264 nanometers, which is the most effective kind in the elimination of harmful microorganisms like viruses. The system in the NEFFES unit provides the healthiest and safest air since no Ozone (O₃) is produced due to stable radiation. The efficiency of the UV-C light is increased by 64 % by coating the interior part of the unit with silver-plated reflective plates. The useful life of the UV-C Germicidal lamp is 9,000 hours. The unit is equipped with a light alarm system which indicates that your UV-C lamp needs to be replaced.



Both American ASHRAE and European REHVA Associations have noted that UV-C light is an important factor in combating the Covid-19 virus and recommended its use where necessary. The commission, which was established jointly by all air conditioner associations under the chairmanship of the MMO (Turkish Chamber of Mechanical Engineers), recommends room filters incorporating HEPA filter and UV-C light against Covid-19 for any kind of applications as an additional measure.

DNA-RNA breaking effect of UV-C light.



Healthy and Safe Air in All Environments



NEFFES enhances the indoor air quality in all closed environments eliminating the harmful particles in the air such as dust, bacteria, virus, germ, mold, pollen, mite, pet allergens as well as odor and smoke.



Places of Usage

- ▶ Houses
- ▶ Stores
- ▶ Supermarkets
- ▶ Schools
- ▶ Training centers
- ▶ Offices
- ▶ Daycare centers
- ▶ Elderly care centers
- ▶ Public buildings
- ▶ Churches
- ▶ Mosques
- ▶ Waiting rooms
- ▶ Gyms
- ▶ Hotel rooms
- ▶ Meeting rooms
- ▶ Examination rooms
- ▶ Hairdressers
- ▶ Beauty shops
- ▶ Restaurants and coffee shops
- ▶ Hospitals
- ▶ Pharmacies



Customer Testimonials

The building where our office is located does not allow us to open the windows due to its structure. I can say that we got a breath of fresh air in our office areas, where density is high, especially in our meeting rooms thanks to NEFFES.



Office Worker

We have placed one NEFFES unit in each classroom. We operate it at low stages during lectures and at the highest stage during breaks. Besides eliminating the fear of the virus, it is very pleasant to see the increase in the performances of my students with healthy and clean air.



School Principal

I have a large restaurant. Its approximately 400 m2. My place is much healthier and safer since I placed multiple NEFFES units. Elimination of heavy and unpleasant odors in my place is a bonus.



Restaurant Owner

I use NEFFES in my house. My child has asthma and he now sleeps comfortably. My husband, who has pollen allergy, looks forward to coming home.



Housewife

I offer safe and healthy service to my customers. My customers, my staff and myself can now feel confident.



Hairdresser

We have purchased one NEFFES unit for each floor in our hotel. The housekeepers operate the unit at the highest stage inside each room during cleaning. Besides making the room air safe, it also eliminates the unpleasant odors inside the room, providing health, safety, and comfort to our next customer.



Hotel Manager

I have placed a NEFFES unit inside the waiting room in my clinic. We got rid of the heavy and unhealthy air, which occurs when the waiting room is full. Fresh air replaced the bad odors.



Physician

Certificates and Reports



- * 2014/35/EU Electrical Equipment Designed for Use within Certain Voltage Limits,
-TS EN 60335-1 Electrical Safety Tests
- * Electromagnetic Compatibility,
- TS EN 61000-4-2:2014, TS EN 61000-4-4:2013,
TS EN IEC 61000-6-1:2019, TS EN 61000-6-3:2007,
TS EN 55014-1:2017, TS EN 55014-2:2016



Antimicrobial Efficiency Test by Uludağ University,
Department of Medical Microbiology

Result:

“Form NEFFES Antiviral Air Purifier is effective in reducing the number of bacteria and viruses in the environment. At the end of 60 minutes, it eliminated more than 99.99 % of the bacteria and viruses.”



Performance tests by a TÜRKAK accredited institution

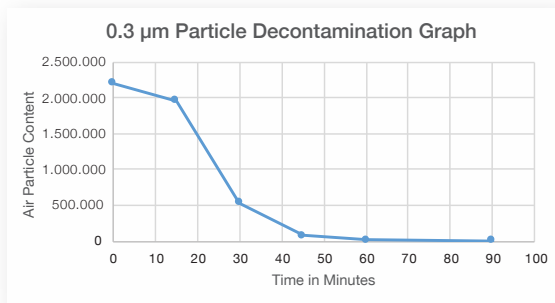
Particle Size	Time (minute)	Particles Eclipse Rate
25.0 µm	15	100,00 %
10.0 µm	15	94,74 %
5.0 µm	15	93,04 %
1.0 µm	15	91,28 %
0.5 µm	15	73,55 %
0.3 µm	15	11,41 %
25.0 µm	30	100,00 %
10.0 µm	30	100,00 %
5.0 µm	30	99,47 %
1.0 µm	30	99,23 %
0.5 µm	30	97,74 %
0.3 µm	30	75,87 %
25.0 µm	45	100,00 %
10.0 µm	45	100,00 %
5.0 µm	45	99,91 %

Particle Size	Time (minute)	Particles Eclipse Rate
1.0 µm	45	99,91 %
0.5 µm	45	99,75 %
0.3 µm	45	96,52 %
25.0 µm	60	100,00 %
10.0 µm	60	100,00 %
5.0 µm	60	99,96 %
1.0 µm	60	99,98 %
0.5 µm	60	99,96 %
0.3 µm	60	99,03 %
25.0 µm	90	100,00 %
10.0 µm	90	100,00 %
5.0 µm	90	100,00 %
1.0 µm	90	99,99 %
0.5 µm	90	99,98 %
0.3 µm	90	99,59 %

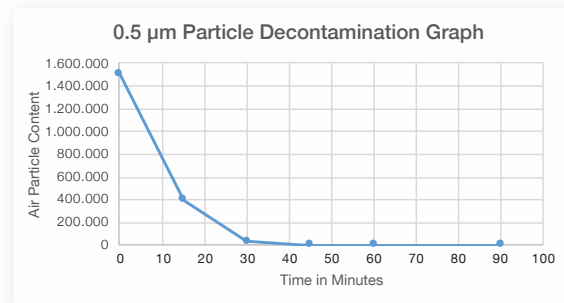
Certificates and Reports



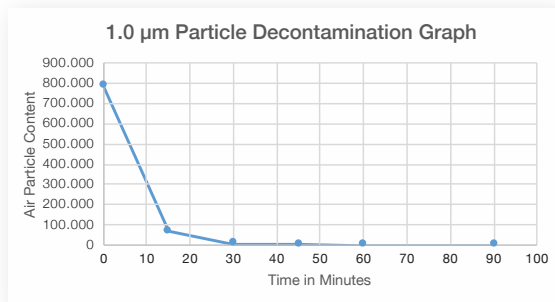
Performance test graphics by a TURKAK accredited institution



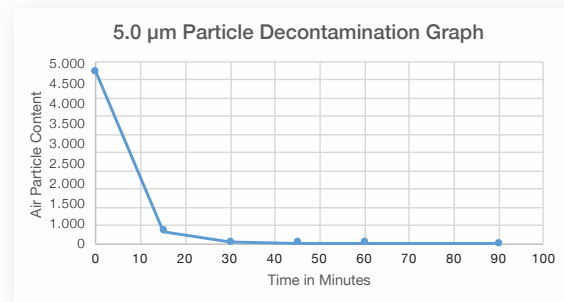
240 m³/h, 8 air cycles
After 90 minutes, 99.59 % decontamination was achieved.



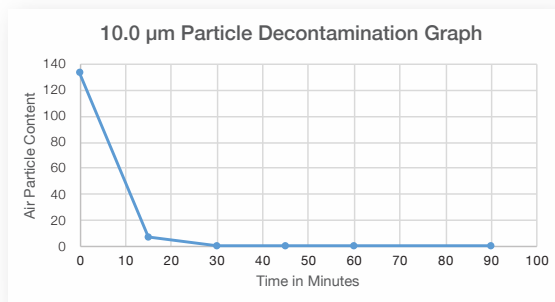
240 m³/h, 8 air cycles
After 60 minutes, 99.96 % decontamination was achieved.
After 90 minutes, 99.98 % decontamination was achieved.



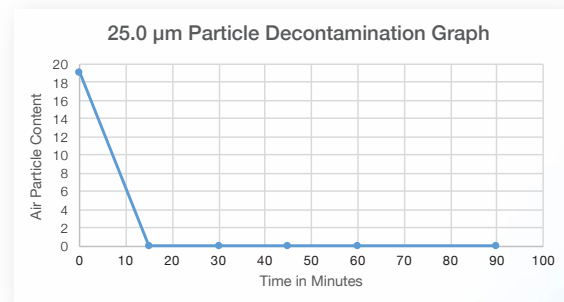
240 m³/h, 8 air cycles
After 60 minutes, 99.98 % decontamination was achieved.
After 90 minutes, 99.99 % decontamination was achieved.



240 m³/h, 8 air cycles
After 60 minutes, 99.98 % decontamination was achieved.
After 90 minutes, 100 % decontamination was achieved.



240 m³/h, 8 air cycles
After 30 minutes, 100 % decontamination was achieved.



240 m³/h, 8 air cycles
After 15 minutes, 100 % decontamination was achieved.

About FORM Group



As FORM Group of Companies, we are one of the leading companies in the field of commercial and central air conditioning industry with our 55 years experience. For many years, we have been offering our customers energy efficient projects equipped with correct engineering services in a wide range of markets from homes to business centers and factories, enhancing the air comfort of the living places with our air conditioning systems.

With our joint venture partner Mitsubishi Heavy Industries, who is a Japanese industrial giant, we bring state of the art split air conditioners to consumer use in our concept stores across Turkey.

We also create alternative technological solutions to meet the healthy and safe air conditioning requirements of commercial applications for combating the coronavirus. We offer healthy air solutions in all applications, with our tailored UV-C Sterilization Applications integrated into any size and type of air conditioning unit. We continue our successful manufacturing operations in our Izmir / Turkey factory, where all our engineering and R&D is locally made.

We have developed the NEFFES Antiviral Air Purifier unit for you, as a result of our many years of experience in the air treatment sector, as well as our strength in the field of production. We are proud to present NEFFES, developed with our 55 years of experience in the industry, making your living spaces healthy and free of harmful particles, enabling you to get a breath of fresh air.



Models and Technical Data



MODEL	NFS-400-U	NFS-1000-U
Recommended Usage Area (m ²)	10 - 75	80 - 170
Dimensions (W x D x H) (cm)	50x45x80	65x69x105
Filters	Antimic Pre-filter / HEPA / UV-C Lamp / Active Carbon	
Fan Type	EC	
Fan Air Volume Steps (m ³ /h)	70 / 105 / 205 / 280 / 380	185 / 270 / 510 / 710 / 910
Sound Pressure dB(A)	43 / 46 / 51 / 55 / 59	46 / 49 / 52 / 56 / 60
Weight (kg)	24	41
Consumed Power (Watt)	85	170
Control Card	EC Fan Control (5 Stages)	
	UV-C Lamp On/Off	
	Lamp Replacement Alarm	
	Pre-filter Replacement Alarm	
	HEPA Filter Replacement Alarm	
Safety	Magnetic switch stops the unit for service when the cover is opened	

Our company reserves the right to modify the models in the brochure.



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