AKTIVORA

ALWAYS EVOLVING

UV-C Clean Air System

This innovative air disinfection and filtration system that has been independently tested and certified to reduce the spread of infectious and harmful microorganisms by destroying their DNA structure with UV lights. This easy to install 600mm x 600mm unit is completely enclosed therefore can be installed either as a recessed unit in a suspended ceiling system or a fixed ceiling.

www.aktivoraireland.com

Overview UV-C Antiviral Air Disinfection Panel

Antiviral Air Disinfection is a patented new solution LED panels with a UV-C air treatment system.

The panel uses energy efficient LEDs to provide high efficiency area illumination.

It draws in untreated air, pushes it through a highly reflective UV chamber with an ultraviolet light set at the wavelength of 253.7 nanometers which inactivates bacteria or fungi that passes over the lamp.

The fan continue to push the air through the unit at approximately 30 cubic feet per minute (CFM). This allows the unit to treat the equivalent of one full volume of air from a typical 2mx4m room with 2.5m ceilings two times an hour. The system works 24/7/365.

How UVC Antiviral Air Disinfection Panel works

UV-C Antiviral Air Disinfection Panels units are designed to prevent and reduce the spread of airborne infectious and harmful microorganisms by destroying their DNA with ultraviolet (UV) lights

Safe & Protected

UVC is proven effective in eliminating air-borne pathogens.

Removes Air-borne Pathogens

Encapsulated UV-C light eliminates pathogens while keeping people safe.

Low Energy

Powered by light-emitting diode (LED). Highly energy-efficient with a longer lifespan.

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Your one-stop-shop for disinfectant services.

Hands

Personal Hand Sanitiser

Touch Points

Multi-Purpose Surface Disinfectant

Ambient Air

UV Clean Air System

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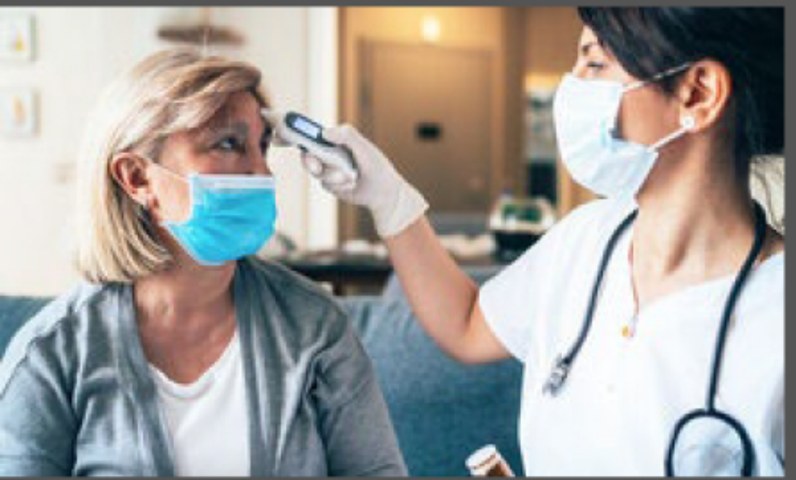

Applications

UVC Clean Air System panels units aims at preventing and reducing the spread of infectious and harmful microorganisms by destroying their DNA structure with UV lights. The unit kills bacteria in public places, such as operating theatres, dental offices, waiting rooms, hotels, restaurants, fitness center's, office spaces, schools and childcare facilities.

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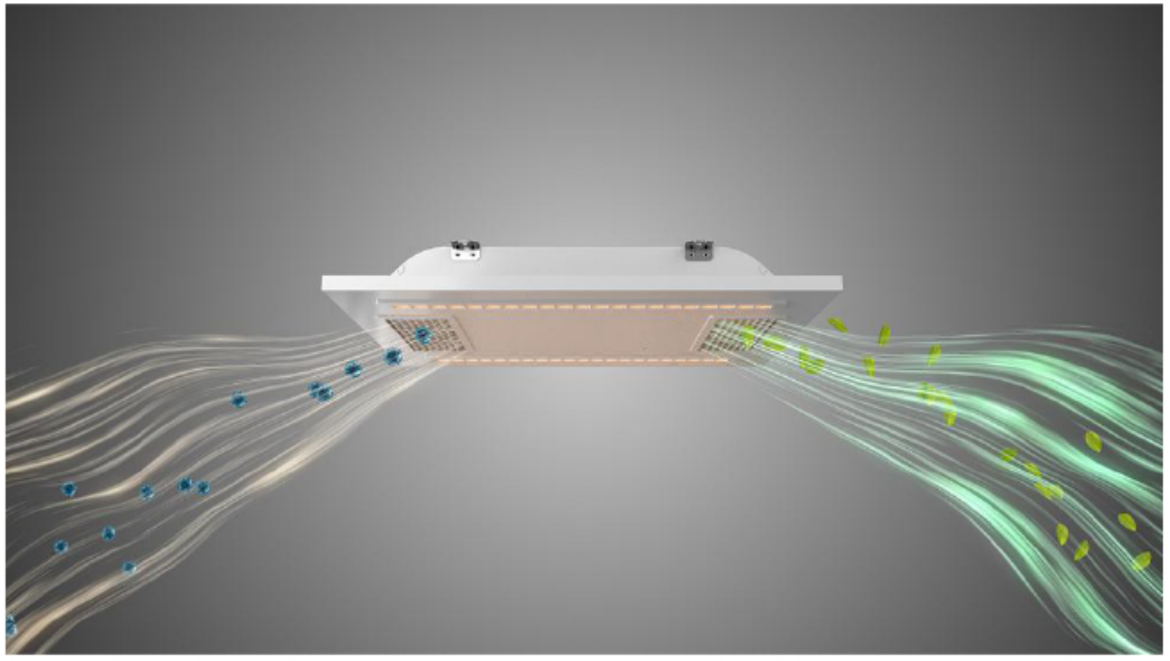


Product Information

Product Certifications

CE RoHS SAA CB

SAA Approvals is accredited by the Joint Accreditation Service of Australia and New Zealand (JAS-ANZ) as a third party certification body to issue certificates for electrical equipment that has proven to comply with the safety requirements of the applicable Australian Standard.

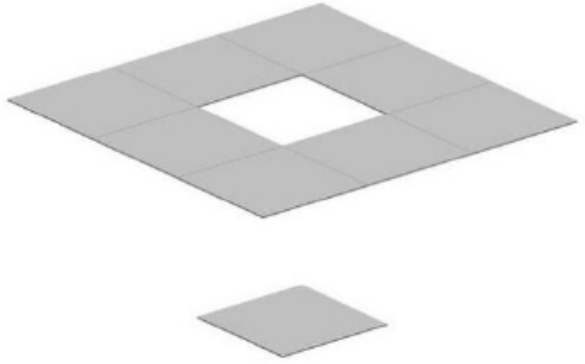
The **CE mark** means that the manufacturer takes responsibility for the **compliance** of a product with all applicable European health, safety, performance and environmental requirements.

Conformity Assessment Schemes for Electrotechical Equipment and Components **(IECEE**), the **IECEE CB** Scheme is an international system for mutual acceptance of test reports and certificates dealing with the safety of electrical and electronic components, equipment and products.

RoHS stands for Restriction of Hazardous Substances. **RoHS**, also known as Directive 2002/95/EC, originated in the European Union and restricts the use of specific hazardous materials found in electrical and electronic products (known as EEE). All applicable products in the EU market after **July 1, 2006** must pass **RoHS** compliance.

Installation (Recessed Into Ceiling)

①



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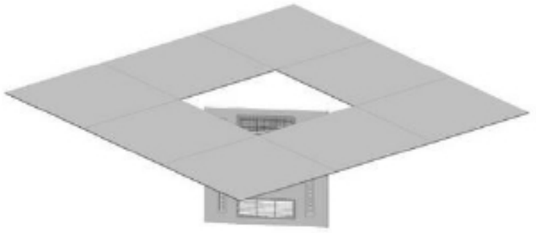

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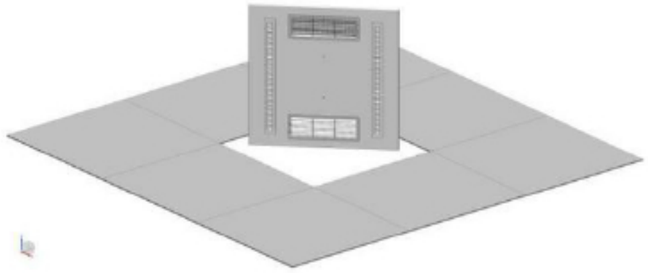

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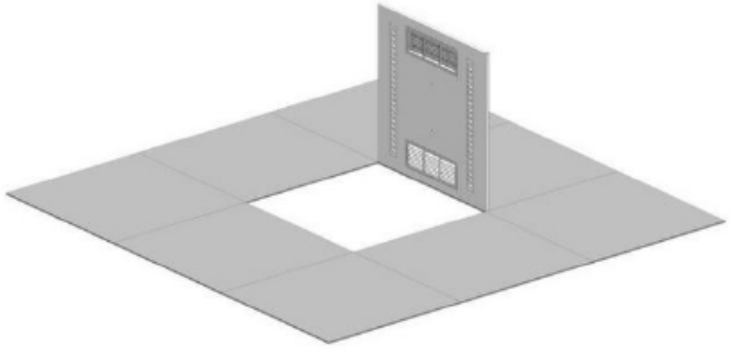

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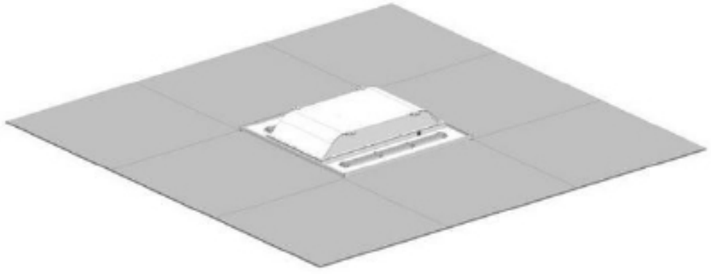
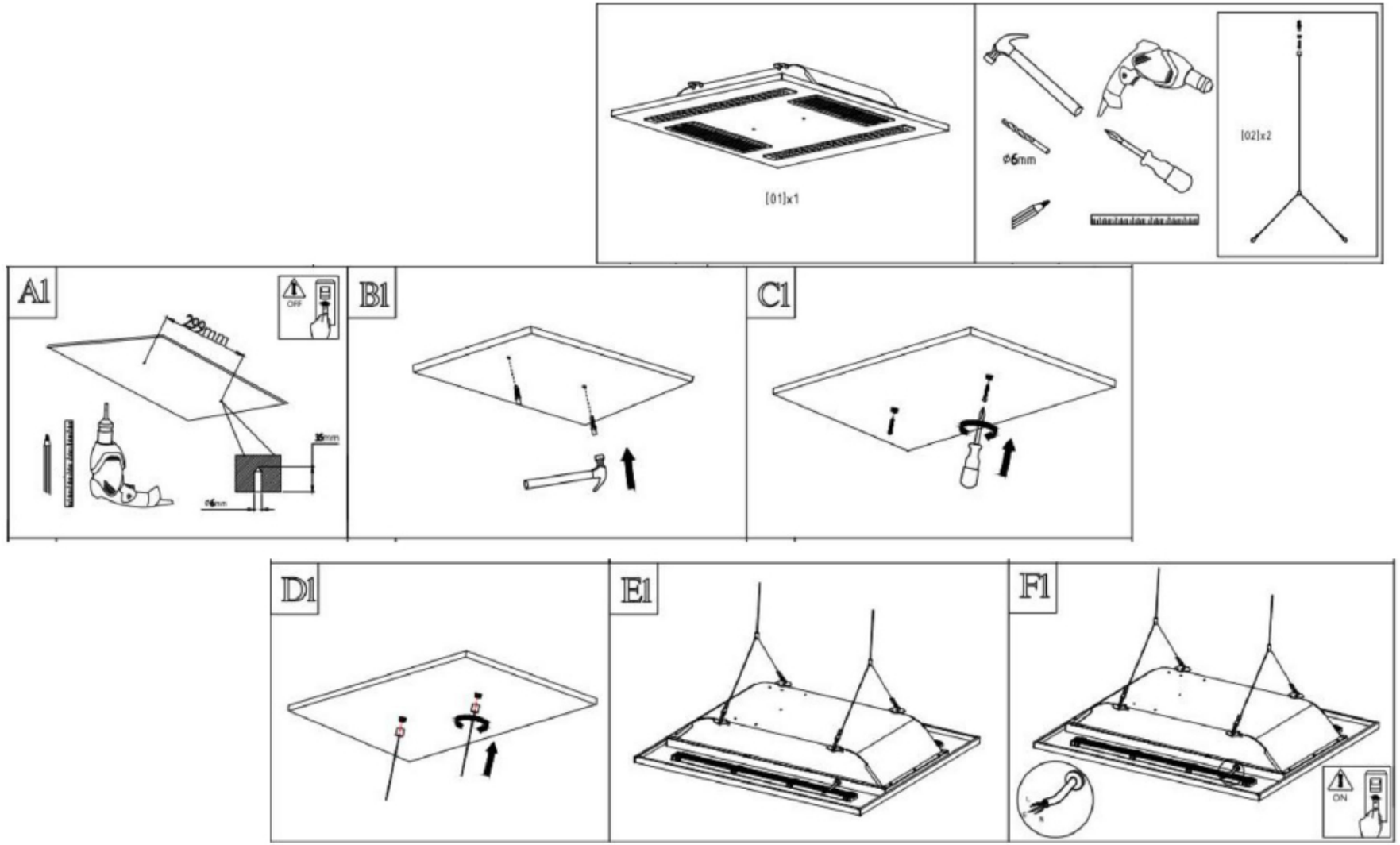


Installation (Suspending)



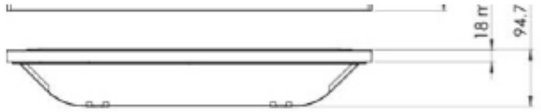
Product Dimensions

Fixture Specs.

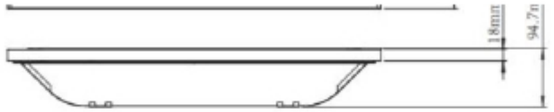
Dimensions : 595mm wide x 595mm long x 95mm high
Weight : 6.5kg
Wattage : 42W (30W Led + 11W UVC + 1.45W Fan
Voltage : 220 - 240V
Driver : Flicker free (Tridonic Brand)
CRI : Greater than 80 CRI
Housing : SPCC (Stell, Plate, Cold, Common) House
LED Output : 3600 Lumens

UV-C Chamber Specs

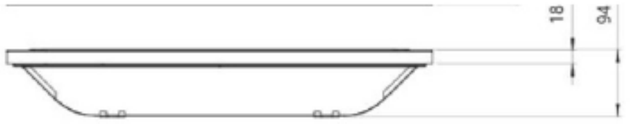
UVC Lamp : One 11W TUV Lamp / 2.6W of UVC Output
Fan System : Ultra quiet air circulation fans
Volume : 30 CFM
Generator : Dedicated UV ballast
Air Fileter : G3 air flow particle filter formed balfes prevent UV light leaks
Control : Switch / Remote



Tickness:95mm
Size: 595x595



Tickness:95mm
Size: 603x603

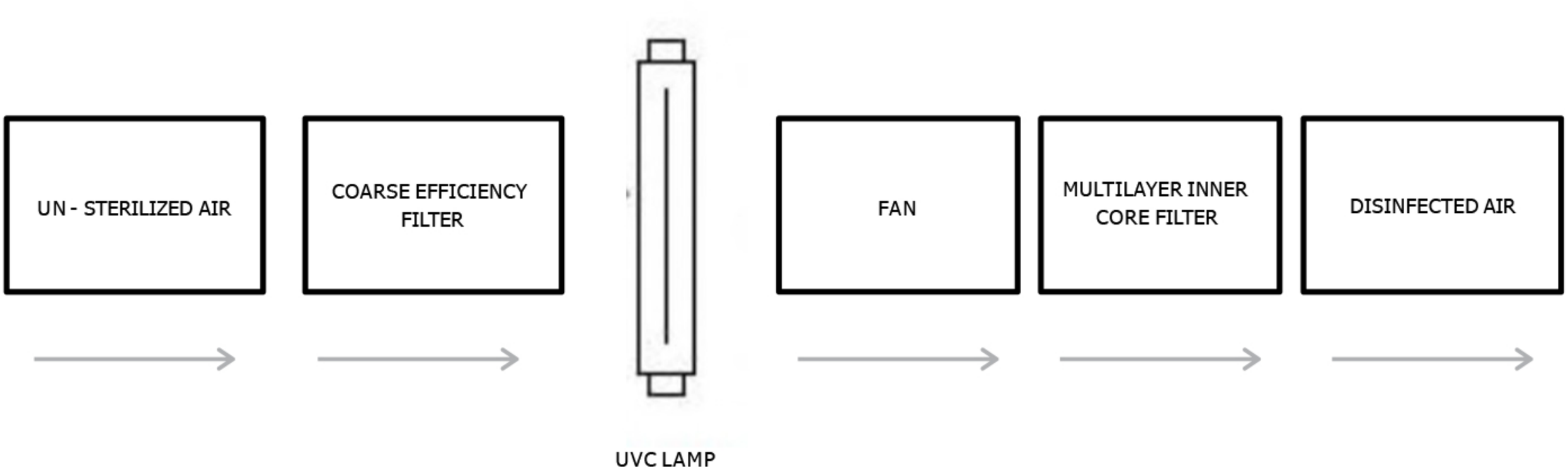


Tickness:95mm
Size: 620x620

Flow rate: 60 m^3/H (30 CFM (cubic feet per minute) 10x10 8 feet space, this light can refresh 2.5 times

Area	Number of Luminaire	Time required for purification 99.92%
20M^2	1	2H
40M^2	2	2H
60M^2	3	2H

How It Works



Safety Note

UVC tubes breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

Fixture Compatibility

Light Wattage	Ventilation Wattage	UVC Tube	Electrical Classification
30W	1.45W	11W	I
Ingress Protection	Operating Temp.	Operating Humidity	Storage Temp.
IP20	-20°C~45°C	0~90%	-20°C~65°C

Filter Information - Primary Filter

The main components are mostly: PET (Polyester fiber and PP (polypropylene fiber)
Filtration efficiency for 5 μm particles are: 80% European standards G3
The filters are suggested, to replace after 3 months (2160hrs) use.

Light Information

Dimmable driver and Dali driver optional 3000K/6000K, is optional

Item No.	Size(mm)	Wattage(W)	Colour temperature(K)	Lumen efficiency(LM)	UGR	Weight(KGS)
ES-ACG-595X595-30W	595X595X95MM	30	4000	3600	<16	6.6
ES-ACG-620X620-30W	620X620X95MM	30	4000	3600	<16	6.9
ES-ACG-603X603-30W	603X603X95MM	30	4000	3600	<16	6.7

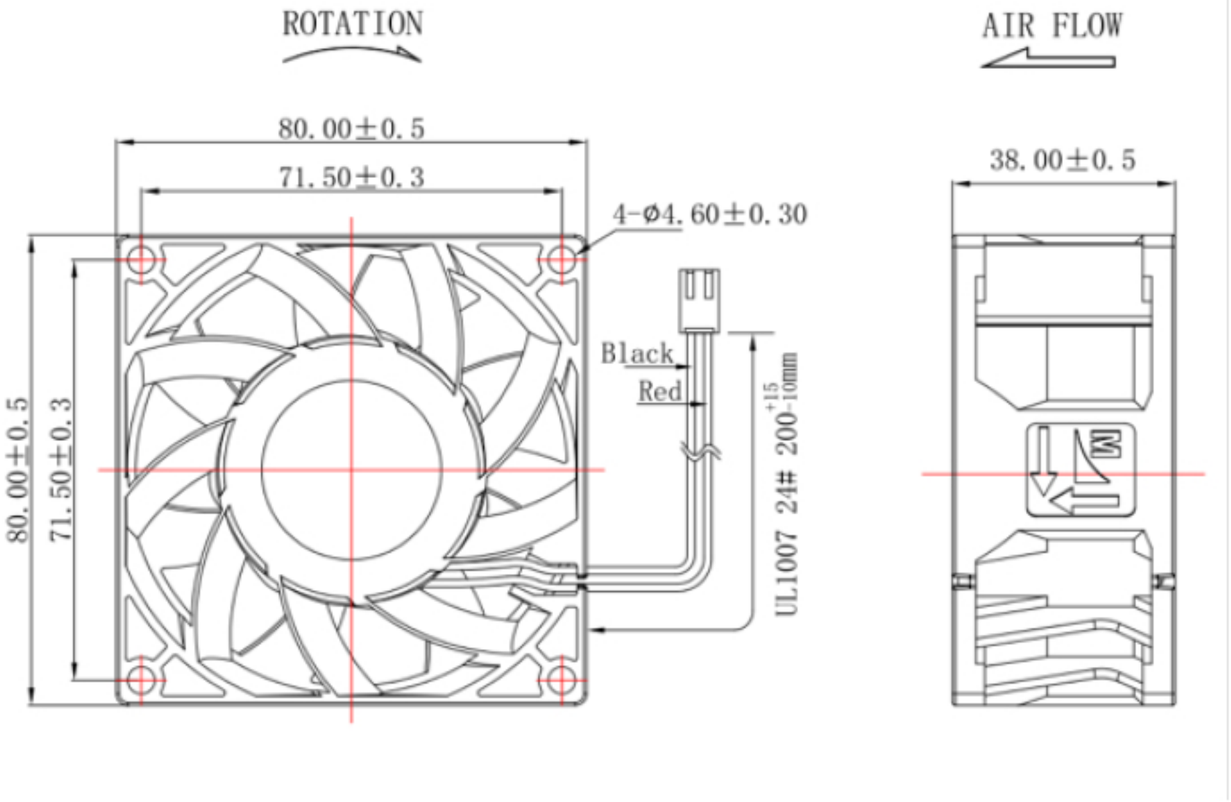
UV-C Information Phillips

TUV 11W
FAM/10x25BOX
UVC safety report: 0% let out

General Information	
Cap-Base	G5 [G5]
Main Application	Disinfection
Useful Life (Nom)	11000 h
Light Technical	
Color Code	[Not Specified]
Colour Designation [Not Specified]	[Not Specified]
Depreciation At Useful Lifetime	15%
Operating and Electrical	
Power (Rated) (Nom)	11 W
Lamp Current (Nom)	0.33 A
Voltage (Nom)	26 V

Mechanical and Housing	
	
Mercury (Hg) Content (Nom)	4.4 mg
UV-C Radiation	2.6 W
Full product code	871150055965427
Order product name	TUV 11W FAM/10X25BOX
EAN/UPC - Product	8711500559654
Order code	928002204013
Net Weight (Piece)	22.000 g

Ventilation Information



ITEM	Specifcation Condition		
Dimension	80x80x38mm		
Rated Voltage	100-120/220-240VAC (50/60Hz)		100-120/220-240VDC
Start-up Voltage	12VDC (50/60Hz)		25°C Switch power ON/OFF
Operating Voltage	14.0~27.6VDC		85-265VDC
Rated Speed	2300rpm	±10%	a.Rated Voltage
Maximum Current	0.06A	±10%	b.25°C and 65%RH
Maximum Power	1.44W		c.Measured after 5Mins
Rated Airflow	29.53	CFM	/PQ Measurement Apparatus : (LW9266-SR)
	0.84	m^3/min	Standard : AMCA
Rated Static Pressure	0.12	Inch-H2O	Rated Voltage
	3.06	mm-H 2 O	Rated Current
Life Expectancy	70000hrs at 40°C		a.L10 at Conf. Level 90%
			b.Rated Voltage
Noise Level	29.7dB Max		a.Rated Voltage
			b.Non-Echo Chamber
			c.Standard:CNS,8753/ISO3744
			d.Test Condition:ISO 7779
			e.Distance: 1.0M
Motor Type	AC Frequency-Switching Fan		

TEST RESULTS :

Table 1 Summary of test results

Chapter	Test Item(s)		Unit	Test Result(s)		Limiting value	Test Method(s)
4.2.1	Removal rate	*Staphylococcus albus*	%	120 min	99.93	≥50%	GB 21551.3-2010

Table 2 Test data of removal rate (simulated field test)

Test bacteria	Test time (min)	Test number	Control group			Test group		Removal rate K_t (%)
			Colony count before test V_0 (cfu/m³)	Colony count after test V_t (cfu/m³)	Natural decay rate N_t (%)	Colony count before test V_1 (cfu/m³)	Colony count after test V_2 (cfu/m³)	
Staphylococcus albus	120	1	6.90×10^4	4.03×10^4	41.59	7.46×10^4	35	99.92
		2	7.69×10^4	4.27×10^4	44.47	7.59×10^4	24	99.94
		3	7.88×10^4	4.32×10^4	45.18	8.00×10^4	35	99.92
		Mean						99.93

Inspection instructions:

1. Test method
   GB 21551.3-2010 Antibacterial and cleaning function for household and similar electrical appliances- Particular requirement of air cleaner (Annex A)
2. Test microorganism
   Staphylococcus albus 8032
3. Test conditions
   1) Environment temperature:(20~25)℃
   2) Environment humidity:(50~70)%RH
4. Test equipment
   Test chamber (3 m³), six-stage sieve sampler (FA-1), Microbial aerosol generator, NA
5. Operation conditions of the machine
   Turn on the prototype.
6. Computational formula

   Natural decay rate $N_t(\%)=\frac{V_0-V_t}{V_0}\times100$

   where: V_0 = Colony count before test of control group; V_t = Colony count after test of control group

   Removal Rate $K_t(\%)=\frac{V_1\times(1-N_t)-V_2}{V_1\times(1-N_t)}\times100$

   where: V_1 = Colony count before test of test group; V_2 = Colony count after test of test group.

******** TO BE CONTINUED ********

Customer Images

A recent instalation in Fastway Couriers Head Offices in Dublin

Frequently Asked Questions & Answers

Question:

Can this device or technology kill the Covid-19 virus?

Answer:

The use of UV-C in eradicating pathogens is highly effective but requires that a proper UV-C dosage be delivered with the following combination: 1) the wavelength of the UV-C must be in the germicidal effective range (approximately 268nm peak), 2) the intensity must be high enough to irradiate the space, 3) the duration must be long enough to affect the organism. (Wavelength Intensity * Duration) = dosage delivered.

The Covid Extractor LED / UV-C Fixture delivers all three of these required parts to deliver a high level or calculated and tunable UV-C dosage.

Question:

What is the maximum room size/area that the unit covers? Is it possible to install in locker rooms, weight rooms, band rooms, nurse's offices, etc.?

Answer:

The fixture can circulate the air in a room of 30 square meters. Multiple fixtures can be used in the same room. The fixture can be placed into a standard drop ceiling grid, or for higher ceilings, it can be hung by suspended chain and lowered to the proper height. It can also be surface mounted on solid ceilings.

Question:

What type places are interested using this technology, and where is it being installed specifically?

Answer:

There are many office buildings, school child care facilities, as well as hospitals, medical outpatient buildings, waiting rooms and dental offices are also using this technology. These fixtures are also appropriate for airports, supermarkets, gas stations, restaurants, gyms, and other highly trafficked public spaces.