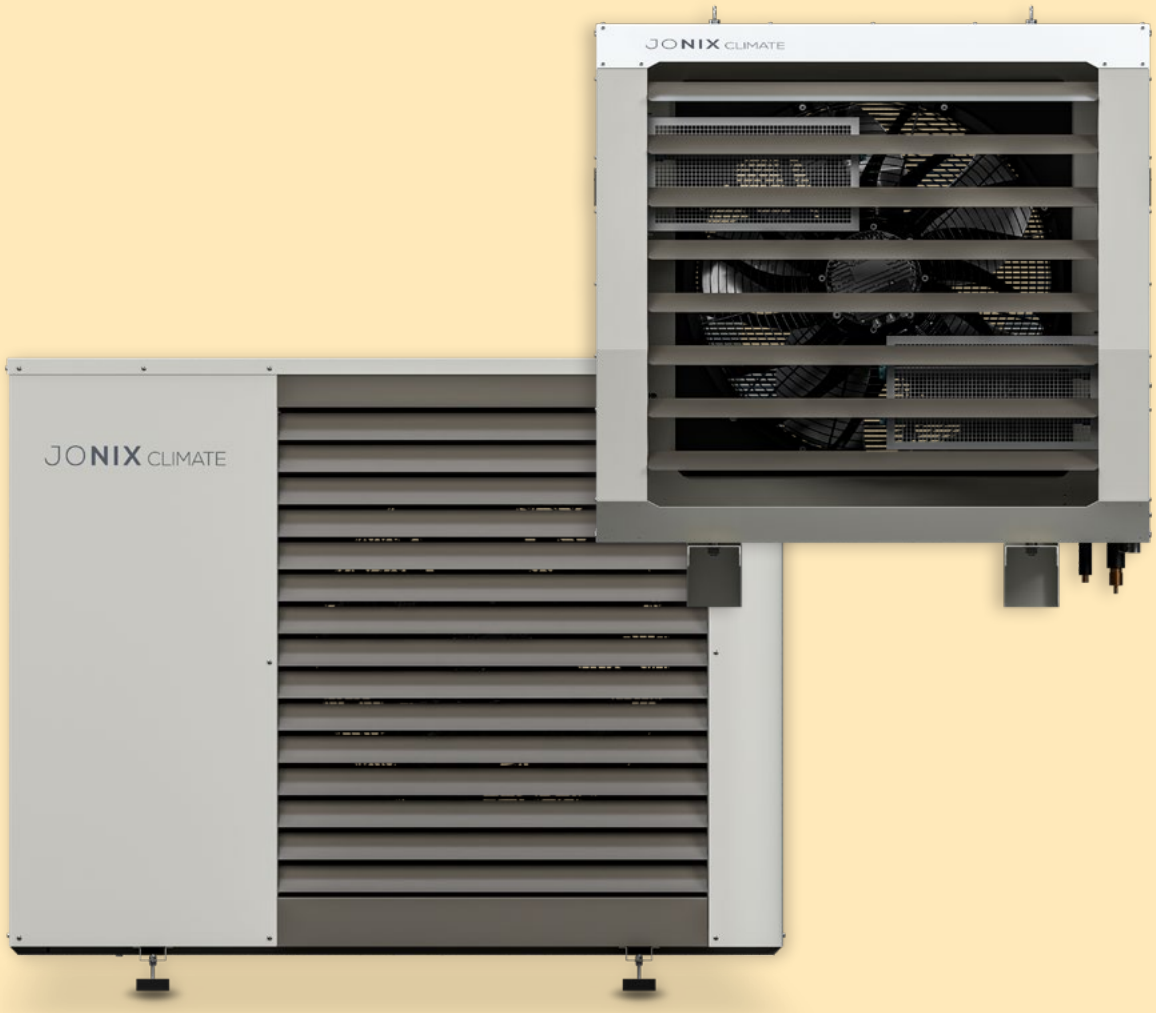
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LEED BREEAM WELL HK Beam Estidama

JONIX CLIMATE

JONIX CLIMATE

FULL INVERTER AIR-TO-AIR HEAT PUMP UNIT
WITH INTEGRATED **NON-THERMAL PLASMA** TECHNOLOGY



*) We must remind you that the reductions in bacteria-moulds-VOC-viruses may vary from those indicated based on the characteristics of the environment and its use (size, presence density, ventilation, basic hygienic conditions). All experiments were conducted in a Biosafety Level 3 Laboratory (BSL3).

*** NTP technology effectiveness tested on:**

V.O.C. odours bacteria mould virus multidrug - resistant bacteria

V.O.C. odours bacteria mould virus multidrug-resistant bacteria

FULL INVERTER AIR-TO-AIR HEAT PUMP UNIT JONIX CLIMATE SERIES WITH JONIX NTP AIR SANITISATION TECHNOLOGY

TheJONIX CLIMATE units are air-to-air heat pumps for the thermo-hygrometric control of industrial and commercial environments which allow the completely autonomous **heating, cooling**, **sanitisation** and **deodorisation** of the air in rooms. JO**NIX CLIMATE** is a system consisting of an external and an internal unit. Electrically powered, **it significantly reduces management costs compared to traditional internal air conditioning systems**.



NTP TECHNOLOGY
Non thermal plasma technology as standard for the sanitisation and deodorisation of air.

Hydrophilic treatment of the finned coils.

Double lamination valve with optimisation of seasonal performance and overcoming of distance limits between units.

Silent unit thanks to the BLDC compressors and anti-vibration systems.

Low GWP refrigerant for the lowest environmental impact.

Highly sensitive sensors for precise temperature control.

Possibility of remote control via protocols Mbus; BacNet; LON.

PATENTED OWNERSHIP TECHNOLOGY

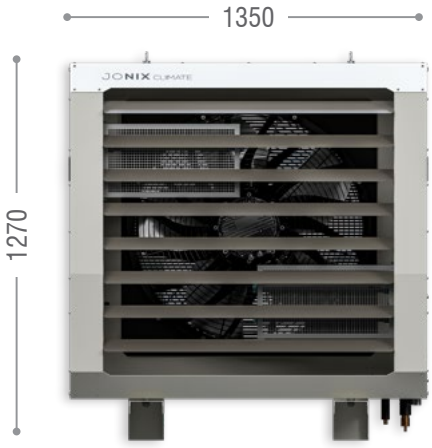
Jonix devices continuously **decontaminate and sanitise the air and surfaces** of indoor environments through **Jonix Non Thermal Plasma Technology**, an advanced form of ionisation, activated by special **generators developed within Jonix Lab, our scientific department**, and protected in their uniqueness and effectiveness **through specific patents.**

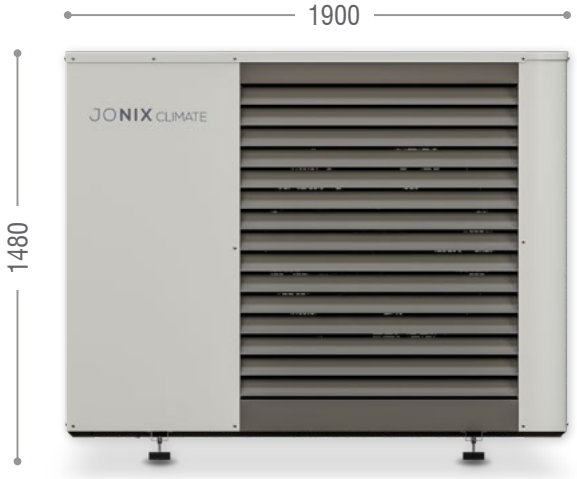
Jonix Non Thermal Plasma Technology is the **no-touch sanitisation system** that guarantees environments that are constantly decontaminated and that continue **to be sanitised for the entire operating time of the devices**, minimizing the phenomena of recolonization of the environment, unlike one-shot decontaminations. With Jonix Non-Thermal Plasma Technology, **air and surfaces are safe 24 hours a day**, even in the presence of people; there are no contraindications.

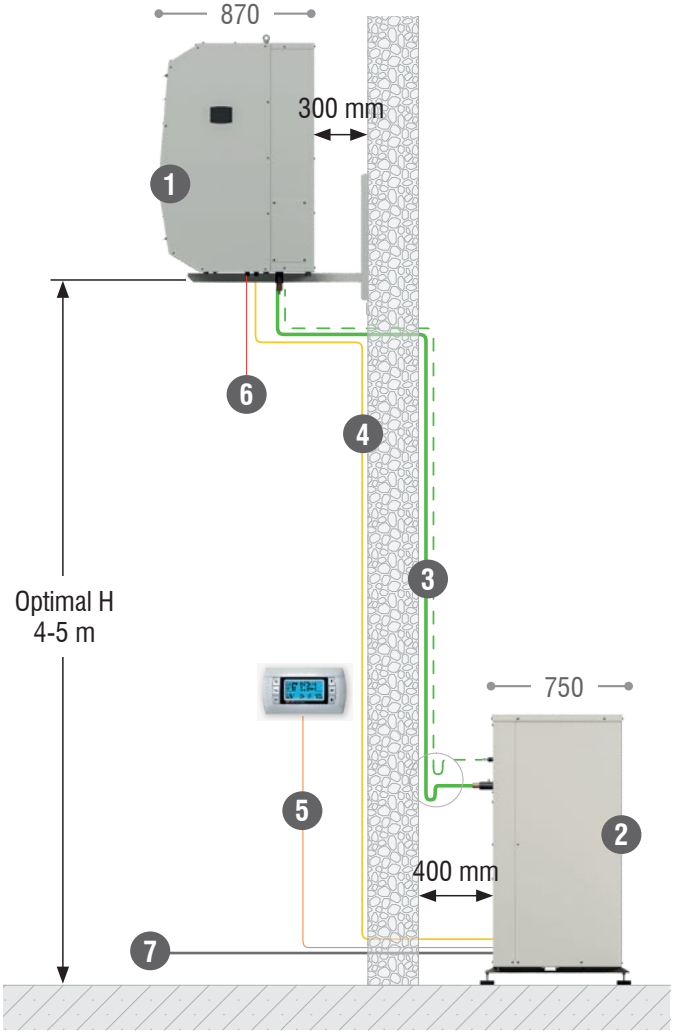
Jonix Non-Thermal Plasma Technology protects the health of the environments and does not interfere with machinery, air conditioning systems or technological devices.

JONIX CLIMATE OPERATING PRINCIPLE

JONIX CLIMATE is a full inverter AIR-AIR heat pump system composed of an external unit containing all the main components (compressor, fan, electrical panel and microprocessor) and an internal unit equipped with a high-efficiency, low-noise axial fan.







Jonix Non Thermal Plasma Technology is perfectly consistent with Jonix values: it is **safe, effective, and advanced**.
It does not use chemicals, it does not release residues in the environments, it **has a low energy consumption** compared to its **significant sanitising power**.

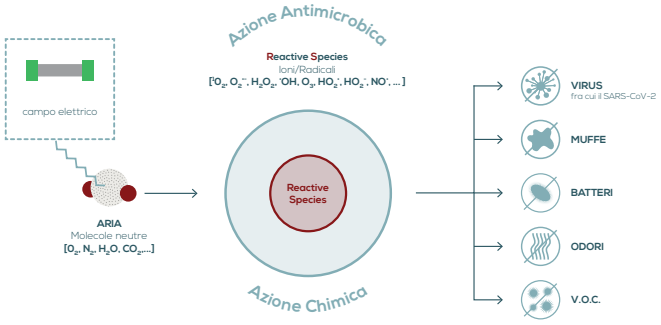
CONNECTION DIAGRAM (EXAMPLE)

1	JONIX CLIMATE indoor unit
2	JONIX CLIMATE outdoor unit
3	Gas Refrigerant Line 28 x 1.25 (1 1/8") - liquid 16 x 1 (5/8")
4	EU/IU electrical connection line (5G1.5 2 x 1.5 mm2 8 x 1 mm2)
5	LCD control communication line (flat cable supplied with RJ-25 connectors)
6	T / H room probe line (5 x 1 mm2)
7	General power line (20 kW 32A) Protection 40A curve D

V.O.C. | odours | bacteria | mould | virus | multidrug-resistant bacteria

JONIX NON THERMAL PLASMA TECHNOLOGY

Jonix Non Thermal Plasma Technology sanitises environments by exploiting the **decontaminating properties of the air when activated by controlled energy**, produced by the **special patented Jonix NTP generators**. The air-activated is characterized by "excited" molecules (Reactive Species) that attack the **polluting molecules – breaking them down – and microorganisms**, causing them structural and functional damage such as to inactivate them **(biocidal and virucidal action)**.



The Jonix Non Thermal Plasma Technology devices, appropriately used and sized**, act on a wide variety of pollutants such as viruses, bacteria, moulds, allergens, volatile chemical compounds and all types of odours,** contributing to the **prevention of infections** from airborne diseases (including Covid-19).

A CHOICE OF VALUE, EFFECTIVENESS AND SUSTAINABILITY

Jonix Non-Thermal Plasma Technology is an **extremely versatile** technology that can be used to treat air and surfaces, in any type of environment, regardless of size and use (medical, professional, home, school, beauty, food, tourism and restaurants, museum).
Jonix Non-Thermal Plasma Technology transforms the air that people breathe indoors. And **breathing clean air can change your life**: it prevents infections from airborne diseases, improves the well-being of people, including the most vulnerable ones (immunosuppressed, the elderly, children, people with allergies, asthma or respiratory problems) continuously, without side effects or contraindications and helps prevent diseases and disorders related to the presence of pollutants in closed environments (Sick Building Syndrome).

Department of Molecular Medicine – University of Padua.

- Technology tested on COVID-19.
- Technology tested on MULTIRESISTANT BACTERIA.

TÜV PROFiCERT 70 700 6436 www.proficert.com

TÜV PROFiCERT certifies the sincerity of the data and performances declared in scientific dossiers product catalogs.

LEED, greenring, Estidama, HK Beam, Biosafe, TÜV PROFI, BREEAM, WELL, CE

Bio-Safe® Certification: a guarantee mark for health and well-being living within confined spaces. JONIX CLIMATE devices have been tested according to the patented Bio-Safe® protocol which has verified and certified their ability to reduce contaminants. These products have been tested, according to the Bio-Safe® protocol, through laboratory analysis with a test chamber (UNI EN 16000) capable of verifying their emission potential and through environmental surveys (UNI EN 14412).

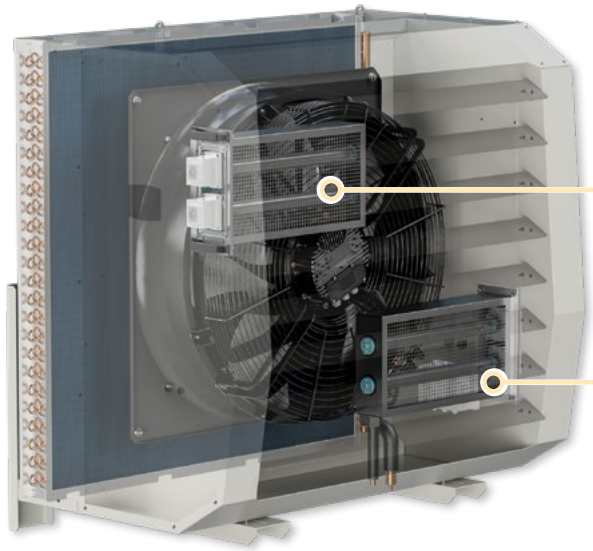


SANITISED AND DEODORISED ENVIRONMENTS

The biocidal and pollutant neutralisation activity occurs quickly and is maintained for as long as the device remains turned on. The biocontaminants that are generated during normal activities are therefore constantly eliminated by the non-stop action of the Non-Thermal Plasma technology which is effective against: gram + and - bacteria, moulds and yeasts, viruses, bacterial endotoxins, VOCs (volatile organic compounds), odours.
NTP technology does not use chemical substances but activates the air generating various reactive species with high oxidising power. In particular, reactive oxygen species react with the phospholipids and proteins of the cell membrane of microorganisms, opening a passage inside the cell. Here the reactive species oxidise the proteins and nucleic acids of the DNA, resulting in the death of the microorganism. The reactive species also react with inorganic pollutants and odours present in the air, oxidising them until they decompose.



JO**NIX CLIMATE** does not use chemical products and does not generate residual substances. It can be used continuously and in the presence of persons, following the operating logic of the system.
JO**NIX CLIMATE**, in addition to sanitising the air, generates correct ionidation which guarantees environmental comfort useful for reducing work-related stress and improving respiratory functions, with a view to protecting and promoting health in indoor environments.

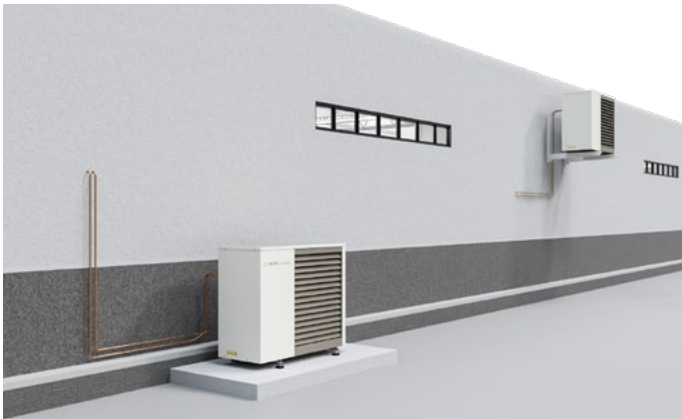




JO**NIX CLIMATE** introduces the concept of **sanitation of the air even in industrial environments**, increasing the well-being of persons to increase the company's productivity.

APPLICATION SECTORS

The JO**NIX CLIMATE** **heat pump unit has been specifically designed to be positioned inside industrial, artisan and commercial warehouses**. Due to its compact shape and its sanitising action it can be used in many other environments such as, for example, gyms, food processing and packaging rooms, etc.



TECHNICAL FEATURES JONIX CLIMATE

JEU0..



JIU0..



		JCLIMATE 40	JCLIMATE 40+	JCLIMATE 45	JCLIMATE 45+
Cooling power (1)	kW	43.5	42.7	49.2	48.4
EER (1)		3.49	3.55	3.09	3.12
Power consumption	kW	12.5	12.0	15.9	15.5
Heat output (2)	kW	39.8	39.4	46.2	46.3
COP (2)		4.23	4.46	3.91	4.11
Power consumption	kW	9.41	8.83	11.82	11.27
SCOP		3.83	4.3	3.83	4.3
Ventilation		AC	Inverter	AC	Inverter
REFRIGERANT GAS		R410A or R454B			
OUTDOOR UNIT		**JEU040**	**JEU040+**	**JEU045**	**JEU045+**
External unit maximum airflow		15.000 m³/h			
External dimensions [LxDxH]	mm	1900 x 750 x 1490			
Lp(A) @5m	dB(A)	50	48	51	49
Operational limits	**°C**	**Ambient air temperature**			
Cooling	°C	+15 °C /+46 °C			
Heating	°C	-20 °C/+20 °C			
INDOOR UNIT		**JIU040**	**JIU040+**	**JIU045**	**JIU045+**
Internal unit maximum airflow		10.000 m³/h			
Internal dimensions [LxDxH]	mm	1350 x 870 x 1270			
Lp(A) @5m	dB(A)	39	38	39	38
Operational limits	**°C**	**Indoor air temperature**			
Cooling	°C	+20 °C /+45 °C			
Heating	°C	+5 °C/+25 °C			

(1) 27°C (19°C WB)@35°C

(2) 20°C (19°C WB)@7°C(6°C WB)

Hallmark for health and living comfort
in confined spaces
(UNI EN 16000- UNI EN14 412).

Validated product
biosafe.it

Reference standards
NATIONAL LAWS AND STANDARDS
Valid for the following categories: Civil, Industrial, and Healthcare sectors
Italian Legislative Decree 81/2008 Consolidated Law on Health and Safety in the Workplace of 10th April 2008 (published in the Ordinary Supplement No. 108 of the Offical Gazette No. 101 of 30th April 20081; Legislative Decree No. 81 was published on 9th April 2008) • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for relations between the State and the Regions), Center for disease control and prevention, General Directorate of Health prevention, Dept. II entitled: "Outline of guidelines for the prevention of indoor risk factors for allergies and asthma in schools" of 18th November 2010 • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for relations between the State and the Regions), entitled (Outline of Guidelines for the definition of technical protocols for predictive maintenance on air conditioning systems" of 5th October 2006. • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for relations between the State and the Regions), "Operating procedure for the appraisal and management of risks connected to the sanitation of air treatment systems" of 7th February 2013 • Guidelines for preventing and controlling legionellosis O. G. No. 103, of 5th May 2000 (Ministry of Health - Permanent Conference for relations between the State, the Regions and the Independent Provinces of Trento and Bolzano) • Guidelines indicating recommendations on legionellosis for managers of tourist and spa facilities of 13th January 2005 (Permanent Conference for relations between the State, the Regions and the independent provinces of Trento and Bolzano) • Guidelines for preventing and controlling legionellosis of 7th May 2015 (Ministry of Health - Permanent Conference for relations between the State, the Regions and the independent Provinces of Trento and Bolzano) • Guidelines issued by the Italian Presidency of the Council of Ministers (Permanent Conference for Relations between the State and the Regions) entitled "Guidelines for the protection and the promotion of health in confined environments and for the prevention and control of legionellosis" of 27th September 2001.

REGIONAL LAWS AND STANDARDS
Valid for the following categories: Civil, Industrial, and Healthcare sectors
Region: Liguria, Law No. 24 of 2nd July 2002 • Region: Puglia, Law No. 45 of 23rd December 2008 "Health provisions." • Region: Emilia Romagna -resolution of the Regional Council No. 1115 of 21st July 2008 "Regional guidelines for monitoring and controlling legionellosis". • Region: Molise – Law No. 15 of 13th July 2011 "Regulations for the prevention of the spreading of infectious diseases". • Guidelines for the prevention and control of legionellosis in Lombardy of 28/02/2005, Directorate-General for Health Decree No. 2907.

Valid for the following categories: Healthcare sector
Regional law of Lombardy No. 33 of 30th December 2009 - New Regional Consolidated laws on health and Implementing Decree No. 1751 dated 24/02/2009 of the Directorate-General for Health of Lombardy.

MADE IN ITALY
Designed and created by expert technicians specialized on air purification.




V.O.C.


odours


bacteria


mould


virus


multidrug-resistant bacteria

jonixair.com

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