Are you ready for the NEXT move?

Move to R-32, Move to Kubic NEXT

NEXT KUBIC

R32 SERIES

ROOF TOP SERIES BY HITECSA

Size 2
Size 3

HITECSA
COOL AIR

NEXT KUBIC

ROOF TOP SERIES BY HITECSA

R32 SERIES

LET'S GO TO NEXT LEVEL

... IN EFFICIENCY
... IN SUSTAINABILITY
... IN TECHNOLOGY
... IN AIR QUALITY

R32 Eco Refrigerant Gas

A NEW CONCEPT OF ROOF TOP

The new family of Air-Air Roof Top ***KUBIC NEXT***

adds to the already advanced characteristics of the Kubic HE family, ***the incorporation of the low GWP refrigerant R-32*** *which is, amongst other advantages, more respectful with the environment, because of the nature of the gas itself and the significant reduction of greenhouse gas emissions thanks to its higher efficiency.*

Likewise, this fluid allows the equipment to have wide operating limits and to perform better under severe conditions.

All these advantages make this range the most advanced solution in Roof Top Heat Pump units.

NEXT KUBIC
ROOF TOP SERIES BY HITECSA
R32 SERIES

LET'S MOVE ON

Which are the advantages of R-32?

R32
Eco Refrigerant Gas

0%
IMPACT ON OZONE

75%
LESS IMPACT ON GWP

RECYCLABLE
100%
NATURAL

30%
LESS QUANTITY OF REFRIGERANT

\+
ENERGY EFFICIENCY

\+
ECONOMIC SAVINGS

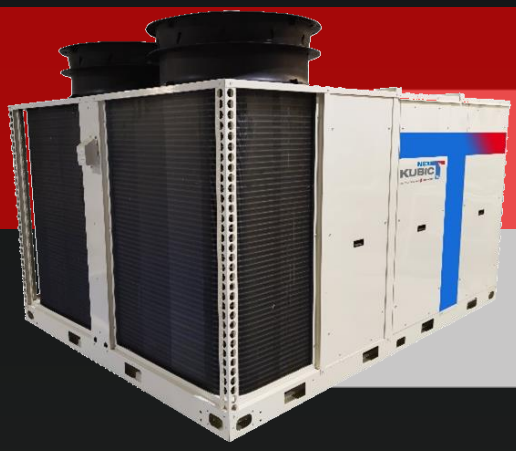
\+
PERFORMANCE

MAXIMUM EFFICIENCY,
MAXIMUM SUSTAINBILITY

NEXT KUBIC T

ROOF TOP SERIES BY HITECSA

R32 SERIES



KuNB *Heat Pump*

R-32

High efficiency Roof Top units to be installed outside (roofs, terraces, etc.) for large surfaces with air ducts installation.

- **Cooling Capacity:**
  from 103.7 to 145.6 kW (Size 2)
  from 174.4 to 210.4 (Size 3)
- **Heating Capacity:**
  from 103.1 to 153.9 kW (Size 2)
  from 192.3 to 242.4 kW (Size 3)
- **2 sizes available**

Size 2
Size 3

MAIN FEATURES

- **Tandem scroll compressors**, specially designed for heat pump application, allowing very wide operating limits.
- **External axial type fan with EC motor**, composed of aluminum blades, low noise level, with 0-100% speed regulation and low consumption.
- **Interior plug fan with EC motor**, for maximum energy efficiency and precise regulation of the air flow supplied and available pressure.
- Cabinet: **made of galvanized sheet steel**, finished with polyester resins (RAL 1013), polymerized in the oven, with excellent resistance to corrosion and the elements.
- Electrical protection of all the main components by circuit **breakers**.
- **Compact filter with different degrees of efficiency.**
- **Electronic expansion valves.**

No vibrations thanks to an internal damping structure for each compressor and installation with dampers in the base frame.

Easy and safe access to its internal parts by means of hexagonal screws with riveted nut on the panels, the controller display can be accessed by a window and the electrical panel by a hinged door and a lock cover.

INNOVATIVE ROOF TOP

Adapted to the new needs of Efficiency, Emissions and Air Quality

ADVANTAGES OF KUBIC NEXT RANGE, R-32 SERIES

R32 Eco Refrigerant Gas

HIGH EFFICIENCY

In accordance with the requirements established in Regulation 2281/2016 (Ecodesign, ErP Ready), complying with the requirements of Regulation Erp21.

SCROLL COMPRESSORS

- *Allow very wide operating limits*
- *Low noise level*
- *High efficiency*
- *Low energy consumption*
- *Easy maintenance*

STANDARD PLUG FAN

- *Better energy efficiency*
- *Lower consumption*
- *More silent*
- *High pressures available*
- *Low maintenance cost*
- *Lower installation cost*
- *Plug and play: the flow is adjusted to the installation*

INDOOR AIR QUALITY.

Precise regulation of all comfort parameters, and high capacity to improve Indoor Air Quality, *thanks to its high capacity to provide fresh outdoor air and to incorporate high-efficiency filters and germicidal elements.*

GREAT FLEXIBILITY and ability to adapt to the specific needs of each project.

Compact unit with great installation and operation versatility*, being able to adapt to each project. The same footprint is maintained as in previous models.*

LATEST TECHNOLOGY
ROOF TOP

Incorporates complete control systems for smart, safe and efficient comfort

SMART AND INTELLIGENT CONTROL SYSTEMS

CONTROL & REGULATION

STANDARD CONTROL: TH tune

OPTIONAL CONTROL: PGD y MINI PGD

- *Operating modes: Cooling and Heating.*
- *3-speed selection of indoor or auto fan.*
- *One stage of electrical resistance to support defrost.*
- *Return control probe (remote): optional.*
- *Modification of operating parameters.*
- *Display of operating mode, set temperature, room temperature, days of the week, mode, fan speed, setpoints, alarms, etc.*
- *Weekly schedule. Time phase mode.*
- *Indication of alarm types by codes.*

Modbus

ADVANCED REGULATION SYSTEM, *with condensation and evaporation control by variator as standard, with comprehensive management of all components for maximum efficiency in all circumstances, and total protection of equipment components.*

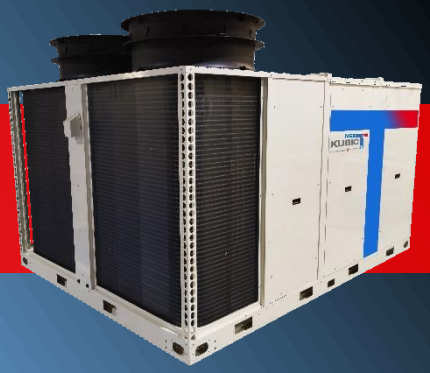
- *ModBus RS485 interface. ModBus card (PCO / uPC).*
- *Open system of communication through protocols and IP.*

CONNECT PLUS

CONNECTIVITY FOR REMOTE MANAGEMENT

High communication and remote monitoring capacity through the IoT Connect Plus by HITECSA *system that allows permanent monitoring with identification and recording of operating parameters and conditions, radically facilitating maintenance operations.*

KUBIC NEXT
SIZE 2 - Technical Specifications



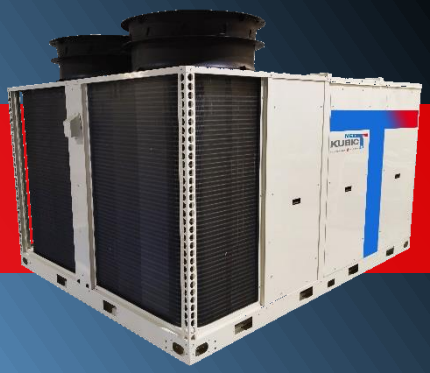
Size 2

KuNB – *Heat Pump*

Size 2

Models KuNB		105	125	145
KUBIC NEXT SERIES	CAPACITIES			
	COOLING CAPACITY(Outdoor: 35°C - Indoor: 27 d.b./19°C w.b._ UNE-EN_14511)			
Nominal COOLING capacity	kW	103.7	125.4	145.6
Total Absorbed power	kW	34.0	38.1	45.1
EER	kW/ kW	3.04	3.30	3.23
SEER	kW/ kW	4.20	4.14	4.09
ηs cooling	%	165.1	162.4	160.4
	HEATING CAPACITY (Outdoor: 7 d.b. /6°C w.b. - Indoor: 20/-°C)			
HEATING capacity	kW	103.1	129.8	153.9
Total Absorbed power	kW	30.3	36.6	45.5
COP Coefficient	kW/ kW	3.40	3.55	3.38
SCOP Coefficient	kW/ kW	3.34	3.32	3.21
ηs heating	%	130.5	129.7	125.3
	REFRIGERANT CIRCUIT			
	GENERAL ESPECIFICATIONS			
Number of circuits	-		2	
Number of compressors	-		3	
Number of power stages	-	3	4	4
	REFRIGERANT			
Refrigerant type	-		R-32	
GWP (Global Warming Potential)	-		677	
	OUTDOOR HEAT EXCHANGER			
Type	-		Aluminum fins and copper tubes coil	
	OUTDOOR FAN			
Type	-		Axial EC	
Total number	-	2	4	4
Air flow	m^3/ h	44,000	48,000	56,000
	INDOOR HEAT EXCHANGER			
Type	-		Aluminum fins and interwoven copper tubes coil	
	INDOOR FAN			
Type	-		Radial EC	
Total number	-	3	3	3
Air flow	m^3/ h	18,000	22,000	24,000
Available pressure	Pa	250	300	300
Available pressure (Maximum Available)	Pa	800	700	600
	ELECTRICAL DATA			
Power Supply	V / ~/Hz		400V / 3ph / 50Hz without neutral	
	SOUND LEVEL			
Sound power	dB(A)	88.3	89.0	90.8
Sound pressure (5m)	dB(A)	66.9	67.5	69.4
	DIMENSIONS AND WEIGHT			
Length	mm	3,986	3,986	3,986
Width	mm	2,242	2,242	2,242
Height	mm	2,430	2,430	2,430
Weight	kg	1,810	1,840	1,861

KUBIC NEXT
SIZE 3 - Technical Specifications



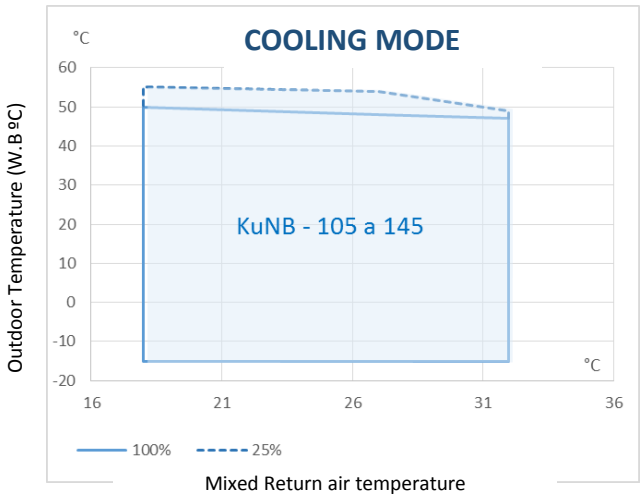
Size 3

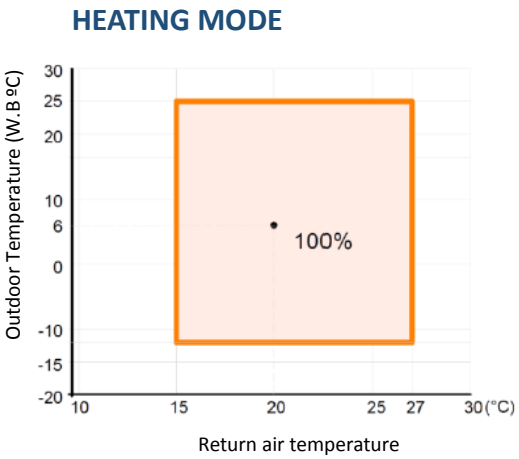
KuNB – *Heat Pump*

Size 3

Modelss KuNB		175	210
SERIE KUBIC NEXT	CAPACITIES		
	COOLING CAPACITY(Outdoor: 35°c - Indoor: 27 d.b./19°c w.b._ UNE-EN_14511)		
Nominal COOLING capacity	kW	174.4	210.4
Total Absorbed power	kW	57.0	74.9
EER	kW/ kW	3.06	2.81
SEER	kW/ kW	4.02	3.84
ηs cooling	%	157.9	155.0
	HEATING CAPACITY (Outdoor: 7 d.b. /6°c w.b. - Indoor: 20/-°c)		
HEATING capacity	kW	192,3	242.4
Total Absorbed power	kW	58,1	81.7
COP Coefficient	kW/ kW	3,31	3.01
SCOP Coefficient	kW/ kW	3,26	3.21
ηs heating	%	127,4	125.2
	REFRIGERANT CIRCUIT		
	GENERAL ESPECIFICATIONS		
Number of circuits	-	2	
Number of compressors	-	4	
Number of power stages	-	4	
	REFRIGERANT		
Refrigerant type	-	R-32	
GWP (Global Warming Potential)	-	677	
	OUTDOOR HEAT EXCHANGER		
Type	-	Aluminum fins and copper tubes coil	
	OUTDOOR FAN		
Type	-	Axial EC	
Total number	-	4	
Air flow	m³/ h	76,000	
	INDOOR HEAT EXCHANGER		
Type	-	Aluminum fins and interwoven copper tubes coil	
	INDOOR FAN		
Type	-	Radial EC	
Total number	-	3	
Air flow	m³/ h	28,500	35,000
Available pressure	Pa	350	350
Available pressure (Maximum Available)	Pa	700	500
	ELECTRICAL DATA		
Power Supply	V / ~/Hz	400V / 3ph / 50Hz without neutral	
	SOUND LEVEL		
Sound power	dB(A)	88.5	93.9
Sound pressure (5m)	dB(A)	67	42.4
	DIMENSIONS AND WEIGHT		
Length	mm	4,330	
Width	mm	2,240	
Height	mm	2,300	
Weight	kg	3,014	3,032

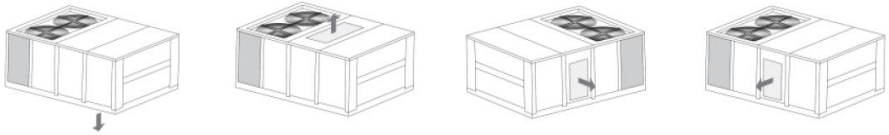
WIDE OPERATING LIMITS





Models KuNB		105	125	145	175	210
KUBIC NEXT SERIES	OPERATING LIMITS					
	COOLING MODE					
Minimum Outside Temperature	°C	-15	-15	-15	-15	-15
Maximum Outside Temp. (Capacity 10%)	°C	55	55	55	55	55
Maximum Outside Temp. (Capacity 100%)	°C	50	50	50	50	50
Minimum Inside Temperature	°C	18	18	18	18	18
Maximum Inside Temperature	°C	32	32	32	32	32
	HEATING MODE					
Minimum Outside Temperature	°C	-12	-12	-12	-12	-12
Maximum Outside Temperature	°C	25	25	25	25	25
Minimum Inside Temperature	°C	15	15	15	15	15
Maximum Inside Temperature	°C	27	27	27	27	27

SUPPLY AIR CONFIGURATIONS

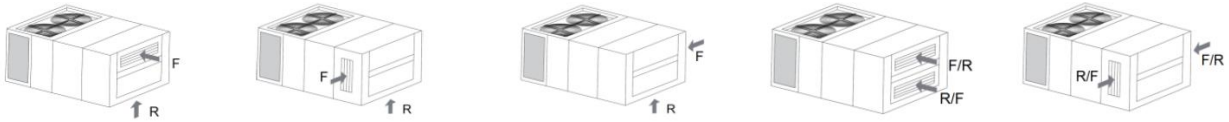


BOTTOM TOP LEFT SIDE RIGHT SIDE

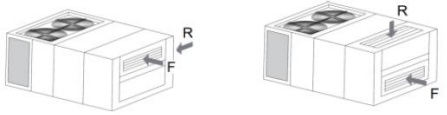
RETURN AIR CONFIGURATIONS

BOTTOM TOP LEFT SIDE RIGHT SIDE UPPER FRONT LOWER FRONT

FREE-COOLING CONFIGURATIONS



BOTTOM + TOP FRONT BOTTOM + RIGHT SIDE BOTTOM + LEFT SIDE FRONT SIDES



LEFT SIDE + TOP FRONT TOP + LOWER FRONT

F: Renewal air damper**/ R:** Return air damper

***** Please contact our Technical Department for special configurations.

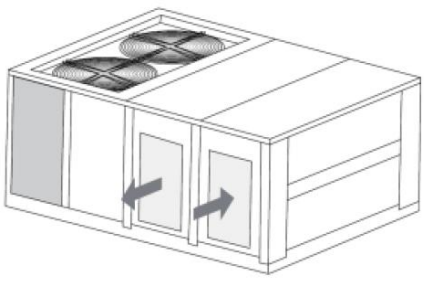
EXAMPLES OF CONFIGURATIONS

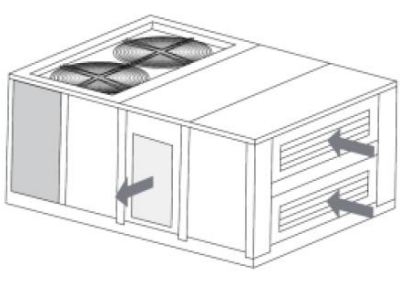
AIR SUPPLY / RETURN

Any combination of air supply and return is valid, taking into account that there can be only one air supply and one return.

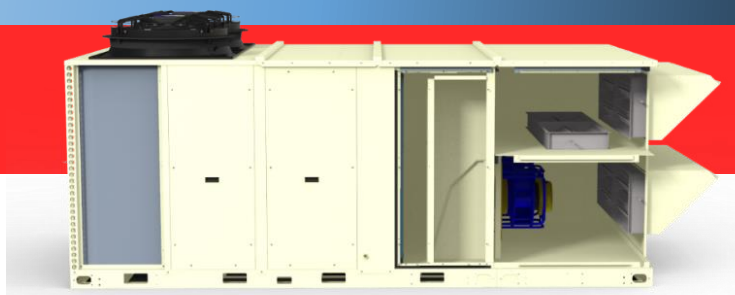
AIR SUPPLY/ FREECOOLING

Any combination of air supply and return is valid, taking into account that there can only be one air supply and two dampers.





RCF & VRR OPTIONS

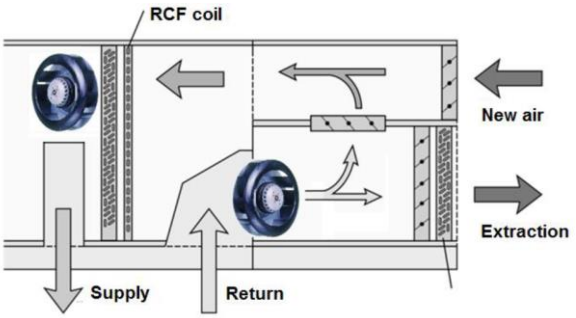


RCF

THERMODYNAMIC RECOVERY MODULE

The thermodynamic recovery module includes an additional circuit that provides a high cooling performance.

This circuit grabs the extraction air to recover a part of the wasted heat. That heat recovery enables the system to increase capacities and the nominal and seasonal efficiencies.

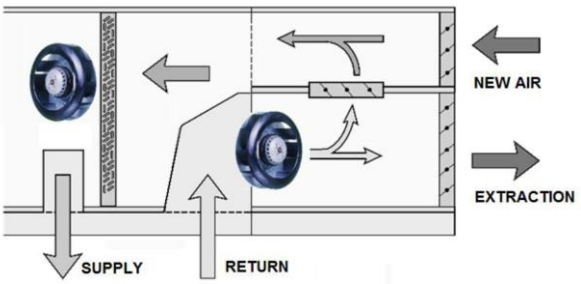


VRR

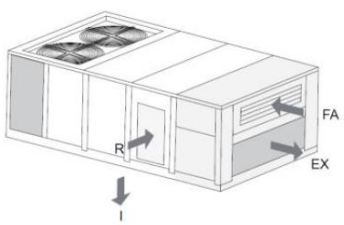
Roof top with return EC radial fan and damper.

The VRR module enables the system to manage various renewal percentages of the supply air flow.

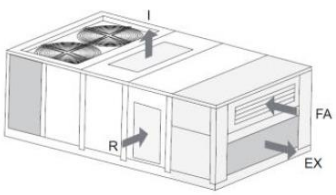
Moreover, its mixing structure equipped with three dampers enables the system to manage as well the free-cooling feature (thermal, enthalpy or thermal-enthalpy).



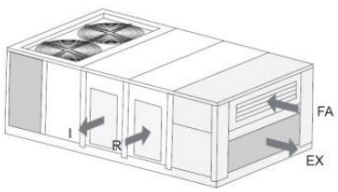
SIDE RETURN CONFIGURATIONS



BOTTOM SUPPLY

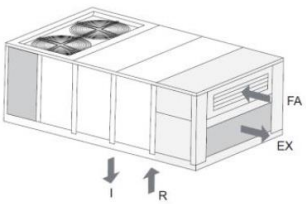


TOP SUPPLY

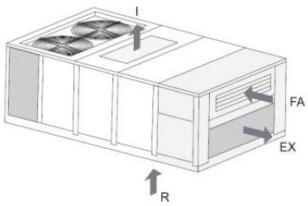


SIDE SUPPLY

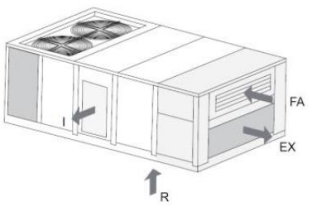
LOWER RETURN CONFIGURATIONS



BOTTOM SUPPLY



TOP SUPPLY



SIDE SUPPLY Left/Right

I: Supply / **R:** Return / **FA:** New air / **EX:** Extraction air / **Left/Right:** Left and/or Right

RCF and VRR OPTIONS
SIZES 2 & 3 – Technical data

Size 2
Size 3

KuNB RCF *Heat Pump - Thermodynamic Recovery*

Modelos KuNB RCF		105	125	145	175	210
KUBIC NEXT RCF	CAPACITIES					
COOLING CAPACITY (60% Outdoor air renewal: 35°C - Indoor: 27 d.b./19°c w.b._ UNE-EN_14511)						
Nominal COOLING capacity	kW	151.0	175.1	192.3	226.6	271.0
Total Absorbed power	kW	46.4	55.7	64.1	79.5	101.6
EER	kW/ kW	3.25	3.14	3.00	2.85	2.67
HEATING CAPACITY (60% Outdoor air renewal: 7 d.b. /6°c w.b. - Indoor: 20/-°C)						
HEATING capacity	kW	142.3	159.6	177.9	251.0	303.1
Total Absorbed power	kW	43.0	48.6	56.9	76.8	103.9
COP Coefficient	kW/ kW	3.31	3.28	3.12	3.27	2.92
	RCF CIRCUIT					
Compressor type	-	Scroll				
Number of compressors	-	1				
	RETURN AIR FAN					
Type	-	Radial EC				
Total quantity	-	1				
	DIMENSIONS					
Largo	mm	5,930	5,930	5,930	6,360	
Length	mm	2,242	2,242	2,242	2,240	
Width	mm	2,430	2,430	2,430	2,300	
	WEIGHT					
Weight	kg	2,783	2,813	2,834	4,029	4,047

KuNB VRR *Heat Pump – Return air radial fan*

Models KuNB VRR		105	125	145	175	210
KUBIC NEXT VRR	CAPACITIES					
COOLING CAPACITY (60% Outdoor air renewal: 35°C - Indoor: 27 d.b./19°c w.b._ UNE-EN_14511)						
Nominal COOLING capacity	kW	108.2	128,7	144,8	185.2	228.7
Total Absorbed power	kW	38.0	47,9	56,4	67.1	90.3
EER	kW/ kW	2.85	2,69	2,57	2.76	2.53
HEATING CAPACITY (60% Outdoor air renewal: 7 d.b. /6°c w.b. - Indoor: 20/-°C)						
HEATING capacity	kW	108.7	125.3	143.3	197.0	247.9
Total Absorbed power	kW	31.5	38.2	46.2	60.0	86.1
COP Coefficient	kW/ kW	3.45	3.28	3.10	3.28	2.88
	RETURN AIR FAN					
Type	-	Radial EC				
Total quantity	-	3				
	DIMENSIONS					
Largo	mm	5,930	5,930	5,930	6,360	
Length	mm	2,242	2,242	2,242	2,240	
Width	mm	2,430	2,430	2,430	2,300	
	WEIGHT					
Weight	kg	2,596	2,626	2,647	3,804	3,822

A FULL EQUIPPED ROOF TOP

For a total adaptation to all types of projects

WIDE RANGE OF ACCESSORIES AND OPTIONALS

CONFIGURATION

RCF Refrigeration Recovery Module	Auxiliary refrigerant circuit that allows to take advantage of the energy it contains from the expelled air. It incorporates the mixing boxes with three gates and the EC radial return fan.
3-damper module with return fan and VRR dampers	Set of mixing boxes with three gates and an EC radial return fan that allows managing different percentages of supply air renewal.
2-damper Free-Cooling	Mixing box with two gates. One for return air intake, and one for outside air.

MECHANICS

Thermal Sandwich Panel in Indoor Unit	It provides the equipment with additional acoustic insulation, while having a soundproofing effect.
External heat exchangers protection grid	It allows to protect the batteries against blows.
Compressor insulation	Jacket with acoustic insulation in the compressors.
Pre-treated battery LCE coating on batteries	The protective coating of heat exchangers against corrosion, with superhydrophobic effect and antimicrobial protection.
GALVAL Refrigeration set treatment	Tratamiento anticorrosivo en las líneas frigoríficas.
Resistor batteries for auxiliary electric heating	It allows to provide additional support to the operation of the equipment in heating mode.
Water coil	It allows to provide additional support to the operation of the equipment in heating mode.

AIR QUALITY

G4, M6, F7, F8 & F9 Filters	Incorporated in the equipment (up to three filters).
GermiCLEAN System	System that incorporates germicidal UV-C radiation lamps for the elimination of pathogens by means of lamps and whose operation and monitoring are integrated into the equipment control system.

A COMPLETE ROOF TOP

For a total adaptation to all types of projects

WIDE RANGE OF ACCESSORIES AND OPTIONALS

CONTROL

Dirty filter detectors	Up to three detectors, with signals integrated into the equipment's control system.
Mini-PGD remote control	Interface for the complete management of the equipment. It allows the modification at any time of the set points, stop / start of the unit, change of the summer / winter cycle and schedules in the case of incorporating a clock card, without the need for a password, as well as the on-screen display of possible alarms of the system and acoustic warning of the same.
PGD control	Advanced version of the MiniPGD, larger.
ModBus card (PCO/ uPC)	It allows the integration of components or the interconnection with all the equipment through the open ModBus protocol.
BACNET PCOC Communications Card	It allows interconnection with other equipment through the open BacNet protocol.
Wall temperatura sensor	For taking the ambient temperature.
Duct temperatura sensor	For taking the temperature in air in the return or in the discharge.
VOC Air Quality sensor, Wall or Duct mounted	It allows the measurement of the ppm of Volatile Organic Compounds in the environment, and the performance of the equipment accordingly.
Wall or Duct CO2 Air Quality Probes	It allows the measurement of the ppm of CO_2 in the environment, and the performance of the equipment accordingly.
Wall or duct temperature and humidity probes	It allows the measurement of both parameters and, consequently, the enthalpy of the air, and the performance of the equipment accordingly.
Leak detector	Measures the presence of refrigerant gas in the environment.
Measurement of cooling capacity	It allows to provide the data of the cooling power delivered by the equipment.
Network analyzer. Measurement of energy consumption	It allows to provide the data of the energy consumed by the equipment, as well as the energy efficiency.

MOUNTING ACCESORIES

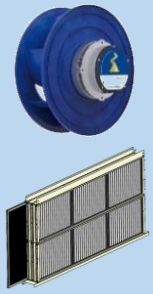
Anti-vibration dampers	Adjusted to the weight and operating conditions of the equipment.
External coil condensate tray	Collects and channels the condensed water in the batteries.

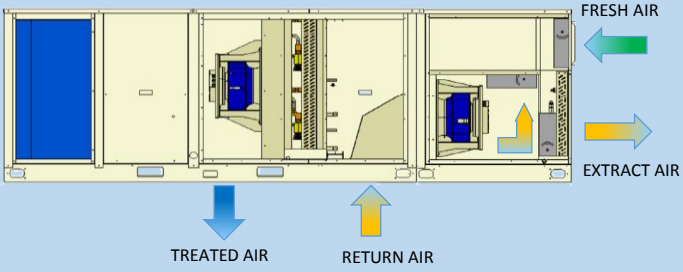
MAXIMUM AIR QUALITY

AIR PURIFICATION SOLUTION

HITECSA's KuNB Roof Top equipment allows treating all the air in a room in a continuous and uniform way, not only maintaining the appropriate thermo-hygrometric conditions, but also purifying it and eliminating germs, as well as the elements that may appear in it by cause of pollution or contamination.

They allow to unify in a single installation the air conditioning of the occupied spaces and the ventilation, allowing not only to provide the premises with **high rates of air renewal**, but they are also capable of working with **duct networks** that allow ensuring adequate distribution and diffusion of air in all spaces of the building.





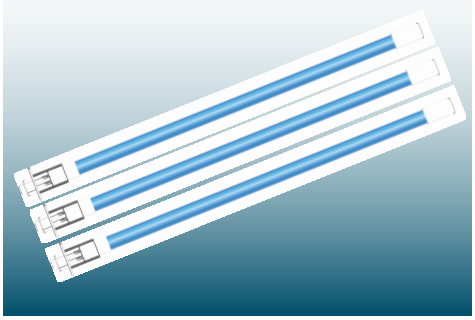
Likewise, the incorporation of radial fans with EC motor and automatic and continuous modulation of their speed allows the recirculation air flow to be adjusted to the minimum values so that the air conditioning equipment can operate within its operating ranges, ensuring sufficient levels of comfort and energy efficiency, as well as to carry out a continuous and controlled extraction through toilets and wet rooms in general, since both the treated air supply fan and the extraction fan operate in a rhythmic way.

Thanks to the high capacity of their fans, these units can incorporate **high efficiency filters, even class H13 or higher, with an MPPS efficiency of 99.95%.**

On the other hand, the optional **GermiCLEAN, which can be integrated in the equipment**, is a direct solution for reducing the viral load in the premises, being able to even eradicate it, thanks to the incorporation of Germicidal Ultraviolet Irradiation (UVGI) lamps, and whose operation and monitoring are regulated by the unit's own control system.

INDOOR AIR DISINFECTION SYSTEM OF GERMICIDED ACTION BY UV-C RADIATION

GermiCLEAN



GermiCLEAN Complet is composed of UV-C (germicidal) lamps and is designed so that the dose of UV-C light irradiated to pathogens by the germicidal lamps is sufficient to obtain high efficiencies of disinfection in passing.

GermiCLEAN Complet is intelligently controlled from the air conditioning machine's control system.

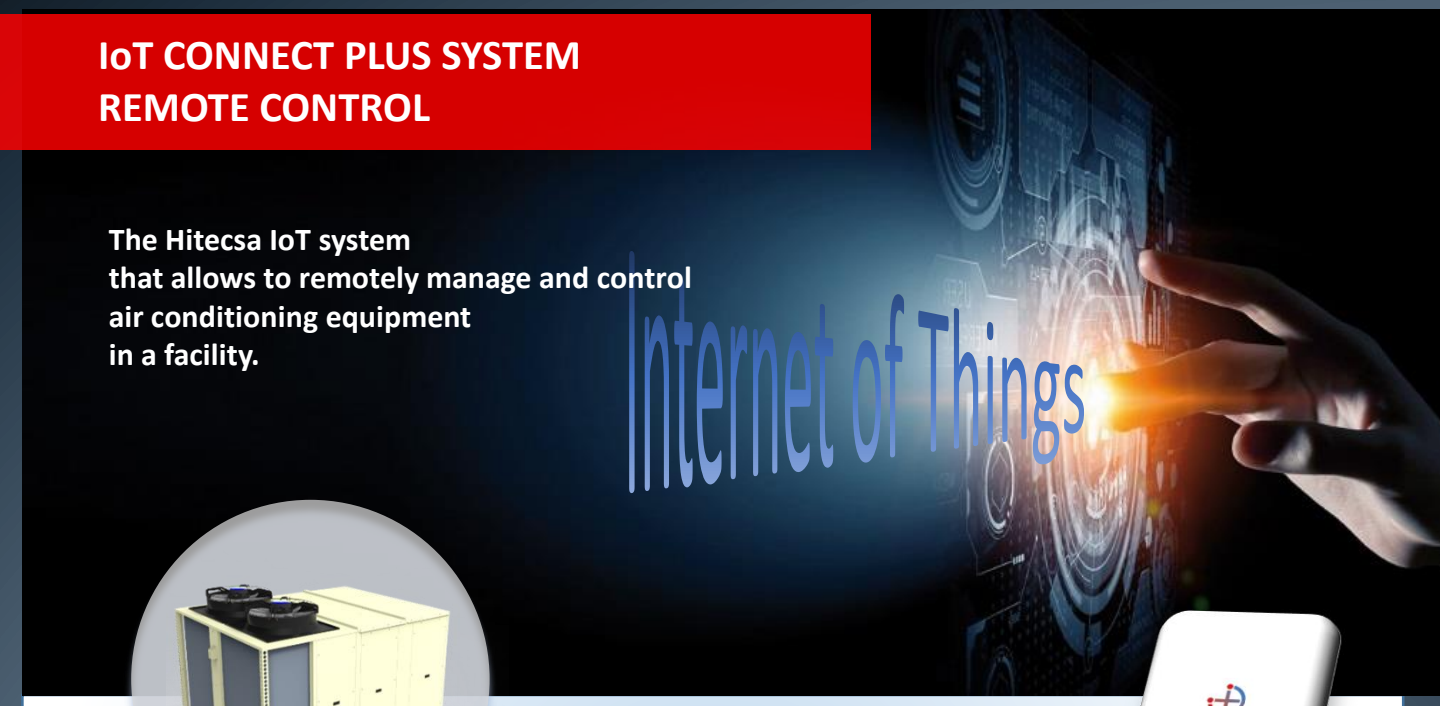
GermiCLEAN Complet PLUS adds a plus to the power of germicidal UV-C radiation, for the disinfection of spaces with a greater influx of people or a greater concentration of biological agents.

MAXIMUM CONNECTIVITY

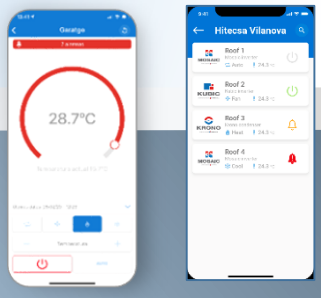
Your air conditioning installation under your control

IoT CONNECT PLUS SYSTEM REMOTE CONTROL

The Hitecsa IoT system that allows to remotely manage and control air conditioning equipment in a facility.



CONNECT PLUS



EFFICIENT • FAST • EASY • SAFE

REMOTE CONTROL OF THE EQUIPMENT AND THE INSTALLATION

- Equipment operation
- Stop and go
- Environmental conditions
- Temperature programming
- Diagnostics and alerts
- Customizable consumption control

EFFICIENT IoT SYSTEM FOR PREDICTIVE MAINTENANCE AND CONTROLLED ENERGY MANAGEMENT

- Reduction of operating costs
- Efficiency optimization
- Greater energy savings
- Maximum comfort in all types of installation
- Increased safety and reliability of operation

CUSTOM APP DEVELOPED BY HITECSA

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Available in Google Play

GLOBAL TECHNOLOGY MADE IN SPAIN 100%

CUSTOMIZED SERVICE IN HVAC

Tailor-made advice and support thanks to the large experience of HITECSA in HVAC installations and to the professional skills of its team with quick response times.

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