



HEALTHCARE

**AIR HANDLING,
AIR CONDITIONING
AND HEATING
SOLUTIONS**

**BIOCONTAMINATION
CONTROL IN RISK ZONES.**

**PROTECTING THE HEALTH AND
COMFORT OF PATIENTS AND STAFF.**

**REDUCING THE ENERGY BILLS
OF THE ESTABLISHMENT AND
THE MAINTENANCE COSTS
OF THE EQUIPMENT.**



A Carrier Company

HIGH EFFICIENCY IN MEDICAL SETTINGS

For our most demanding customers, CIAT designs global solutions. Experts who are close by and who have the success of your project in mind.

CIAT has put its capacities for innovation in service of the medical industry to improve indoor air quality and comfort, while reducing the energy bills of healthcare establishments. By developing its healthcare solutions, CIAT is supporting hospitals, clinics and retirement homes to provide them with optimal solutions.

CIAT HEALTHCARE

HIGH ENVIRONMENTAL QUALITY

In order to register healthcare buildings with high environmental quality (HEQ) labels, CIAT develops highly efficient solutions that exceed the requirements of current standards. These solutions rest on three fundamentals: indoor air quality, comfort and energy optimisation.

OPTIMAL INDOOR AIR QUALITY

Knowledge of micro-biologic, chemical and particulate pollutants in the air is fundamental to guarantee optimal air quality. Our solutions comply with current standards (EN 13779, EN15251, NFS 90 351, ISO 14644, ISO 16890).

With innovations such as the Epure Dynamics® function on the HYSYS® system, CIAT goes further towards eliminating particulate pollution (PM_{2.5} fine particles).

COMFORT

CIAT is renowned for creating high-quality indoor environments. Taken from the Coadis range, the European reference, the Coadis Line comfort unit ensures the highest level of performance according to the ISO 7730 standard.

ENERGY OPTIMISATION

Energy performance is not the purpose in itself, but combined with expertise in comfort, air quality and intelligent design, it is a significant source of savings.

By combining the most innovative and high performance products, CIAT healthcare offers the best energy performance and anticipates the requirements of future thermal regulations (RT2020).





CIAT, EXPERT IN COMFORT AND IAQ IN HEALTHCARE SETTINGS

A RESPONSE ADAPTED TO THE ZONES TO BE TREATED

THE TECHNICAL PLATFORM RISK ZONES

STANDARD ZONES:

reception, consultations, rooms, nuclear medicine etc.



CLIMACIAT AIRCLEAN

Air handling unit adapted to the specific characteristics of controlled environments

Certifications:

- Eurovent
- DIN 1946-4
- VDI 6022
- Compliant with NFS 90 351



COADIS LINE



Cassette with Coanda effect for enhanced occupant comfort.

High-efficiency Epure filtration on $PM_{2.5}$ fine particles for exceptional indoor air quality (concentration of $PM_{2.5} < 10\mu g/m^3$ according to WHO guidelines).



COMFORT LINE



Ductable comfort units offering excellent acoustic comfort

High-efficiency Epure filtration on $PM_{2.5}$ fine particles for exceptional indoor air quality (concentration of $PM_{2.5} < 10\mu g/m^3$ according to WHO guidelines).



EPURE DYNAMICS®

HYSYS® system featuring a smart air purification function for improved indoor air quality, particularly via purification of fine particles according to WHO guidelines.

THE THERMAL ENERGY HUB



POWERCIAT



Water chiller with air cooled condenser. High efficiency screw compressor with low noise level.



AQUACIAT AQUACIAT^{POWER}

Water chiller and heat pump with air cooled condenser. High efficiency Scroll compressor with low noise level.



ITEX

Gasketed plate heat exchanger with a high thermal transfer capacity.



THERMAL ENERGY STORAGE

Constant support, reduced operating costs.



POWER' CTRL

Plant system management designed to control a complete thermal energy production system.



CIAT AT THE HEART OF YOUR ISSUES IN THE HEALTHCARE SECTOR



TECHNICAL PLATFORM AND RISK ZONES

- Airborne contamination control
- Evaluation of the sound level
- Peace of mind



PATIENTS' ROOMS AND RECEPTION AREAS

- Protecting health in patients' rooms and reception areas
- Thermal control and acoustic comfort



ENERGY OPTIMISATION

- Energy savings
- Reduction in installation, system start-up and maintenance costs

GUIDING YOU RIGHT FROM THE START

To ensure you are provided with the right solutions, our Healthcare Experts will work alongside you from conception and throughout the implementation of your project. They will analyse your specifications and, thanks to their expertise and specific software designed by our engineers, will provide you with the optimum solution to meet your requirements.



SPECIFICATIONS



SOLUTIONS



INDUSTRIAL
FACILITIES



INSTALLATION



SERVICE

AT CIAT, OUR R-32 RANGE IS EQUIPPED WITH HEAT RECOVERY AND FREE COOLING OPTIONS



HEAT RECOVERY SYSTEMS

IS ENABLE TO PROVIDE HOT WATER UP TO 80°C WHILE SUPPLYING COOLING.



FREE-COOLING OPTION

TAKES AMBIENT AIR TO COOL THE WATER LOOP WITHOUT THE USE OF COMPRESSORS, WHICH ALLOWS TO REDUCE COSTS AND ENERGY CONSUMPTION.



R-32: THE SUSTAINABLE AND GREEN SOLUTION

CHOOSING R-32 MEANS REDUCING YOUR CARBON FOOTPRINT

Reduction in the refrigerant's GWP (Global Warming Potential):

- Reduced environmental impact
- Anticipation of the HFC phase-down

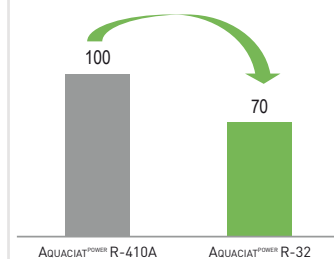
Refrigerant charge reduction due to:

- R-32 thermodynamic properties
- Optimised component selection for R-32

68% REDUCTION IN GWP



30% REDUCTION IN REFRIGERANT CHARGE



77% LESS CO₂ EQUIVALENT THAN R-410A

CHOOSING R-32 MEANS BENEFITING FROM AN INCREASE IN ENERGY EFFICIENCY OF UP TO 10%

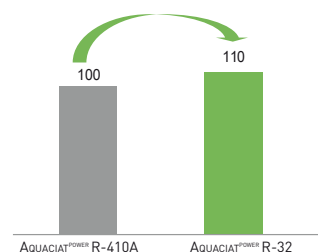
AQUACIAT & AQUACIAT^{POWER} R-32 chillers exceed the SEER requirements of the 2021 Ecodesign regulations thanks to:

- The optimisation of all components for R-32 refrigerant (multiple scroll compressors and asymmetrical brazed-plate heat exchangers).
- A smart energy monitoring function.

ErP
READY
2021

SEER Up to
5,33

10% INCREASE IN ENERGY EFFICIENCY



CHOOSING R-32 ALSO MEANS:



EASE OF USE

R-32 IS A RELIABLE, TRIED-AND-TESTED SOLUTION WHICH IS AVAILABLE FROM ALL REFRIGERANT DISTRIBUTORS.



COMPLETE SAFETY

EASY INSTALLATION, SYSTEM START-UP AND MAINTENANCE*.

** Special safety requirements may apply to the transportation, use and maintenance of the equipment.*



AQUACIAT & AQUACIAT^{POWER} R-32: PERFECTLY SUITED FOR HEALTHCARE APPLICATIONS

The new **AQUACIAT & AQUACIAT^{POWER}** ranges offer you high levels of energy efficiency, in both the cooling only version and the reversible heat pump version.

Now available with R-32 refrigerant, they enable their carbon footprint to be reduced by up to 77% while preserving their acoustic comfort and their ease of installation.

In addition to their commitment to environmental sustainability, the **AQUACIAT & AQUACIAT^{POWER}** ranges also fully meet the specific requirements of healthcare applications:



COMFORT OF PATIENTS AND HEALTHCARE WORKERS

THANKS TO OUR VARIOUS CONFIGURATIONS, SEVERAL ACOUSTIC LEVELS ARE AVAILABLE, INCLUDING "NIGHT MODE", FOR MAXIMUM PATIENT COMFORT.



SIMPLICITY

INTEGRATION IN THE BUILDING TECHNICAL MANAGEMENT SYSTEM.



PEACE OF MIND

YOUR EQUIPMENT REMAINS COMPLETELY RELIABLE WITH ADVANCED MONITORING SOLUTIONS.



LOW OPERATING COSTS

HIGH SEASONAL ENERGY EFFICIENCY ENABLING ENERGY CONSUMPTION OPTIMISATION. HEAT RECOVERY OPTION DELIVERS ENERGY SAVINGS ALL YEAR ROUND.



GLOBAL SYSTEM SOLUTION ADAPTED TO CONTROLLED ENVIRONMENTS

WE OFFER A FULL RANGE OF EQUIPMENT DESIGNED TO WORK TOGETHER FOR THE BEST POSSIBLE RESULTS OFFERING OPTIMISED ENERGY EFFICIENCY AND COMFORT FOR YOUR CUSTOMERS.



AQUACIAT & AQUACIAT^{POWER} R-32: OVERVIEW OF THE RANGE



AQUACIAT



- 12 models
- **Hydraulic module** across the full range with or without buffer tank
- **2 sound levels** (very low noise level and ultra low noise level) + night mode



WATER CHILLER COOLING ONLY LD VERSION

40kW



HEAT PUMP REVERSIBLE ILD VERSION

160kW

Variable-speed EC motor fans option
Very low noise level option (LS fans + drive)
All-season option (AC motor fans + drive)
Fixed-speed scroll compressors, Fixed-speed AC motor fans with low sound level

AQUACIAT^{POWER}



- 19 models
- **Hydraulic module** across the full range with or without buffer tank
- **3 sound levels** (Low noise level, very low noise level, ultra low noise level) + night mode



WATER CHILLER COOLING ONLY LD VERSION

170kW

940kW

Variable-speed EC motor fans option (↗ Seasonal performance levels)
Variable-speed AC motor fans + drive option (↗ Seasonal performance levels)
High performance/high temperature option: HS fans (↗ Full load performance and operating range)
Fixed-speed scroll compressors, fixed-speed AC fans with low noise level



HEAT PUMP REVERSIBLE ILD VERSION

170kW

530kW

1040kW

Variable-speed EC motor fans option (↗ Seasonal performance levels)
Variable-speed AC motor fans option + drive (↗ Seasonal performance levels)
High performance/high temperature option: HS fans (↗ Full load performance and operating range)
Fixed-speed scroll compressors, fixed-speed AC fans with low noise level
Fixed-speed scroll compressors, Variable-speed AC motors fans + Drive



THE BLUEDGE® SERVICE PLATFORM IS AT YOUR SERVICE FOR YOUR COMFORT, AIR QUALITY & ENERGY OPTIMISATION



As key European player for HVAC systems, our objective is to provide high quality service and develop partnerships with you throughout the lifecycle of your installations. We understand your changing needs, develop smart services and energy solutions for all types of applications that optimise performance and enable savings.

Committed to improve life quality, we provide the support you need to get the most out of your solution and develop strong partnerships with our customers, from project analysis to commissioning and operation for long-term satisfaction.

PRESENT
IN
OVER **50** countries

OVER **88** years
OF EXPERIENCE

AVAILABLE
24/7

#CIAT4life

4 FOUNDATIONAL PILLARS



Confidence



Tailored



Advice



Efficiency



www.ciat.com