



SUSTAINABLE COOLING AND HEATING SOLUTIONS FOR HEALTHCARE APPLICATIONS



HEALTHCARE



EXPERTISE IN HEALTHCARE APPLICATIONS

With over 80 years' experience in climatic engineering, we build our expertise on a close relationship with our customers. Serving the medical field, we put our innovative abilities into the design and manufacture of systems that push the boundaries of hygiene and comfort.

With genuine innovations, we work alongside hospitals, clinics and care homes to provide you with optimal engineered solutions.

With hygiene and comfort requirements in mind, we provides global solutions with a low carbon footprint that go beyond the simple notion of kW/h consumed and energy savings.



HIGH EFFICIENCY FOR MEDICAL FIELD

Hygiene & Air quality

Knowledge of microbiological pollutants, chemical particles and air is fundamental to guarantee maximum hygiene. Our solutions meet the hygiene norms (EN 13779, EN 15251, NFS 90 351, ISO 14644, ISO 14698...). With innovations such as the Epure Dynamics® function, CIAT goes even further to eliminate pollution and contamination.

Comfort

CIAT is recognized for the acoustic, thermal and air quality of the indoor environments created to ensure health and comfort of your patients.

Energy optimization

We develop energy efficient solutions allowing substantial savings to be made without compromising on your patients' comfort.



GUIDING YOU RIGHT FROM THE START

To ensure you are provided with the right solutions, the CIAT 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.



WORLD-CLASS AIRSIDE FACILITIES

Airside expertise

Our Research and Design Center and Laboratory has seven innovation platforms, equipped with state-of-the-art test and measurement tools, fully dedicated to airside applications.

Teams at this 3000m² facility in eastern France carry out prototyping and testing for our development teams and ultimately for our customers, who are looking for the best in innovation.

Industrial Excellence

The skills and expertise of our teams are backed by completely integrated powerful production facilities resulting in a fully-mastered industrial procedure.

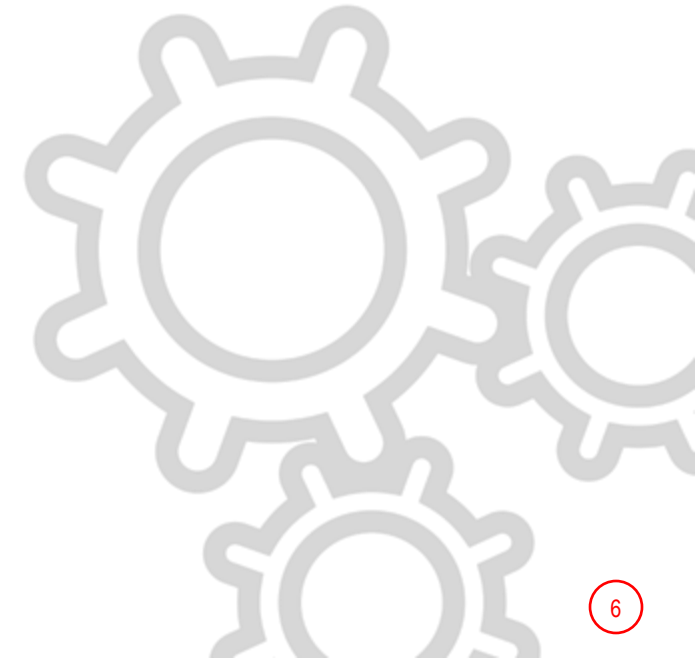
Our manufacturing sites are certified with ISO 9001, ISO 14000 and OSHAS 8001.



YOUR CHALLENGES

TECHNICAL PLATFORM & RISK AREAS

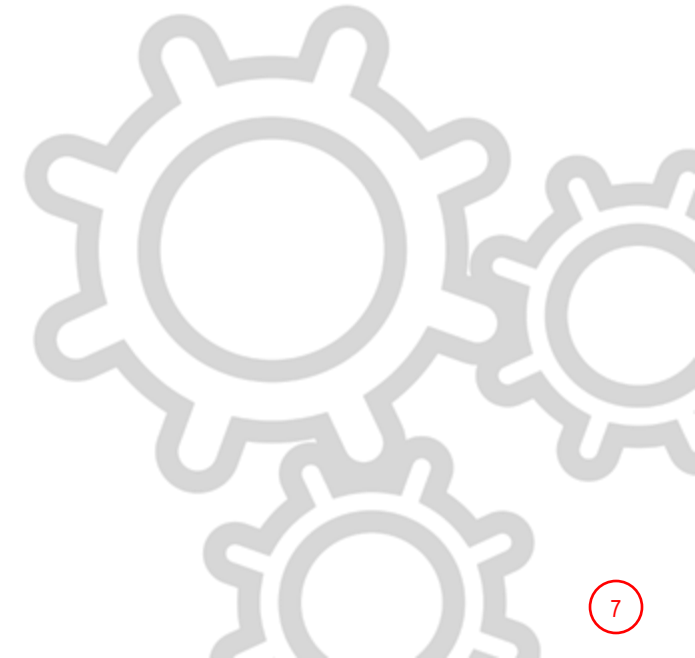
- ▶ **Control of airborne contamination**
- ▶ **Control of noise levels**
- ▶ **Peace-of-mind**



YOUR CHALLENGES

PATIENT ROOMS & RECEPTION

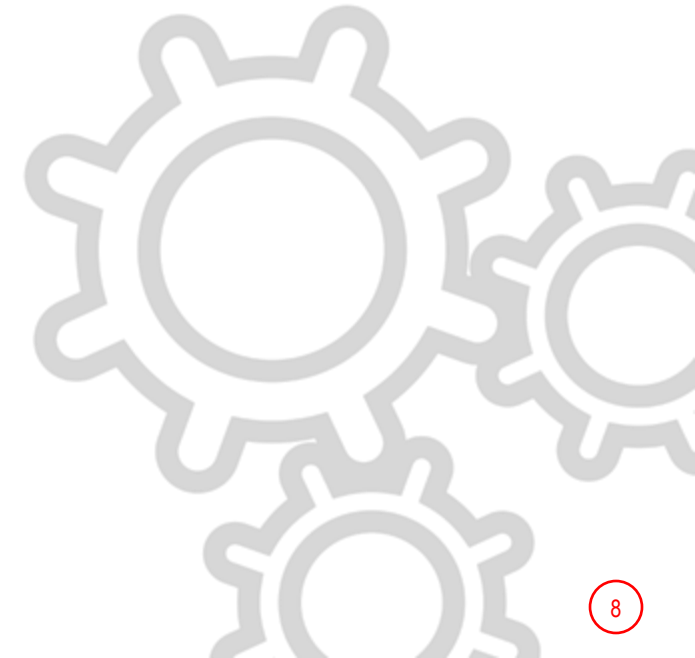
- ▶ Protection of health in patients' rooms and reception areas
- ▶ Control thermal and acoustic comfort



YOUR CHALLENGES

ENERGY OPTIMISATION

- ▶ Energy savings
- ▶ Installation, commissioning and maintenance cost reduction





HEALTHCARE



TAILOR-MADE SOLUTIONS FOR ALL YOUR CHALLENGES

Technical platform Risk areas



CLIMACIAT AIRCLEAN

Air handling unit designed for the specific characteristics of controlled environments
Certified Eurovent
DIN 1946-4 /VDI 6022

Patient rooms, reception, etc.



COADIS LINE

Cassette comfort unit with Coanda effect for increased occupants' comfort



COMFORT LINE

Ductable comfort units with excellent acoustic comfort and Epure Dynamics technologies for air purification



EPURE DYNAMICS

Smart CIAT control air purification function for higher indoor air quality, specifically through purification on fine particles in accordance with WHO recommendations

Energy optimisation



POWERCIAT

High efficiency air-cooled chiller with noise reduction technologies



AQUACIAT & AQUACIAT^{POWER}

High efficiency air-cooled chiller and heat pump with scroll compressor



ITEX

High thermal transfer capacity gasketed plate heat exchanger



THERMAL ENERGY STORAGE

Non-stop support and reduced operating cost



POWER'CTRL

Plant system management designed to control a complete thermal energy production system (heating and cooling)



HEALTHCARE

TAILOR-MADE SOLUTIONS FOR ALL YOUR CHALLENGES

Technical platform
Risk areas



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THERMAL ENERGY STORAGE
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POWER'CTRL
Plant system management designed to control a complete thermal energy production system (heating and cooling)

AQUACIAT & AQUACIAT^{POWER} WITH R-32



AQUACIAT & AQUACIAT^{POWER} WITH R-32

PERFECTLY SUITED FOR HEALTHCARE APPLICATIONS



ENVIRONMENTAL
RESPONSIBILITY



PATIENTS' COMFORT



ENERGY SAVINGS



SIMPLICITY



RELIABILITY



GLOBAL SYSTEM OFFERING





Now available with R-32 refrigerant

The AQUACIAT & AQUACIAT^{POWER} range is now available with R-32 refrigerant for a lower ecological footprint, **up to 77% less carbon footprint**, while improving even further its **energy performances +10%** and preserving its **acoustic level** and its **installation simplicity**.



AQUACIAT RANGE OVERVIEW



CHILLER COOLING ONLY LD



HEAT PUMP ILD

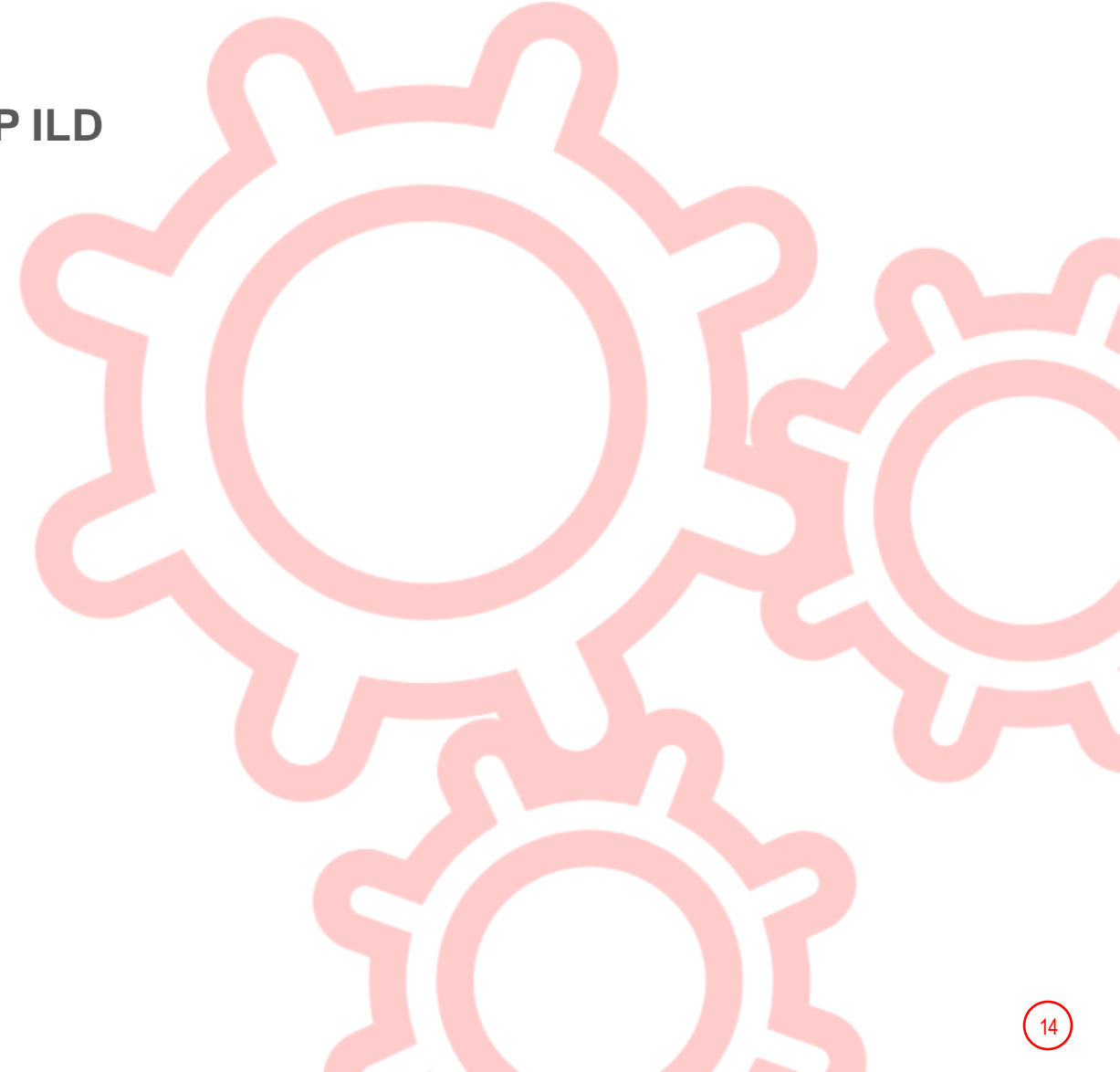
40 kW

160 kW

Variable speed Drive or EC fans motors option

All seasons, All climates, All applications options

Fixed speed scroll compressors, **AC** fans



AQUACIAT^{POWER} RANGE OVERVIEW



CHILLER COOLING ONLY LD

170 kW

400 kW

940 kW

EC fans motors option (↗ Seasonal performances)

Variable speed AC motor fans option + drive (↗ Seasonal performances)

High performance option / High temperature: High speed fans (↗ Nominal performances & Operating map)

Fixed speed scroll compressors, **AC fans-low speed**



HEAT PUMP ILD

170 kW

530 kW

1040 kW

EC fans motors option (↗ Seasonal performances)

Variable-speed AC motor fans option
+ drive (↗ Seasonal performance levels)

High performance option / High temperature: High speed fans
(↗ Nominal performances & Operating map)

Fixed speed scroll compressors, **AC fans motors-low speed**

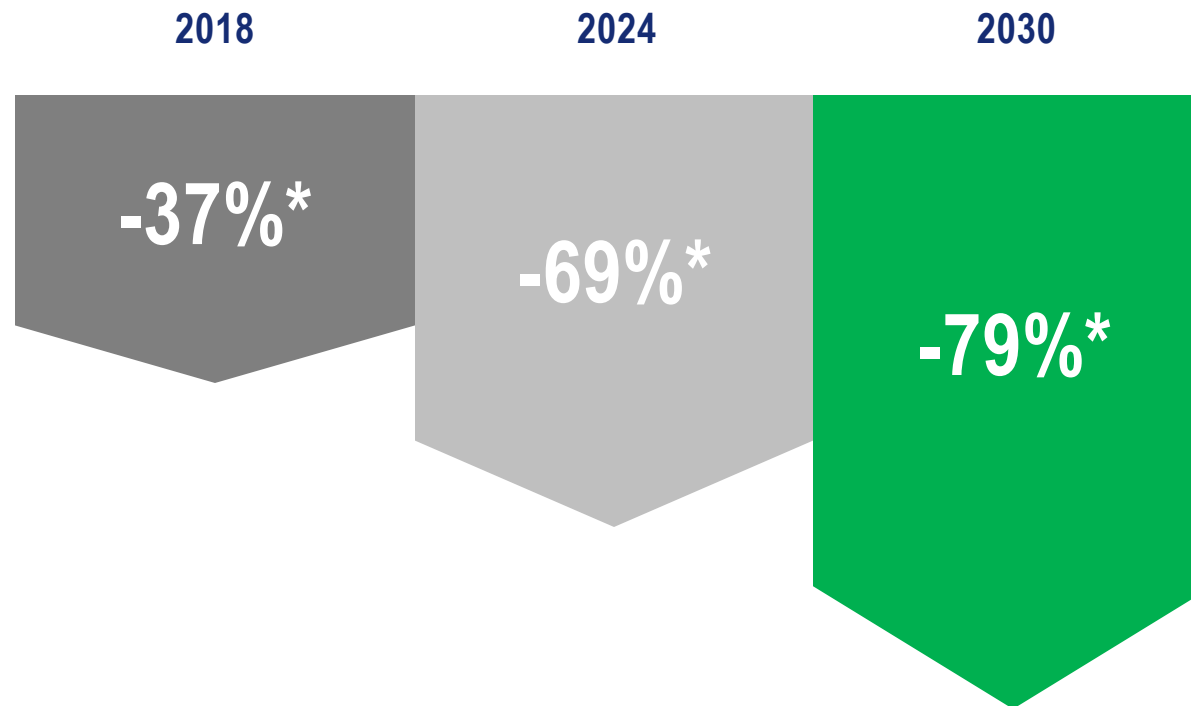
Fixed-speed scroll compressors, **variable-speed AC motors fans + Drive**

R-32, THE BEST REFRIGERANT SOLUTION FOR SCROLL CHILLERS



EU F-GAS REGULATION

HFC PHASE DOWN



Note: EU F-Gas Regulation No. 517/2014
*Versus 2015 reference value

WHY R-32?



**UP TO 77% LESS CO₂
EQUIVALENT THAN R-410A**



USER FRIENDLY



**UP TO 10% MORE ENERGY
EFFICIENT**



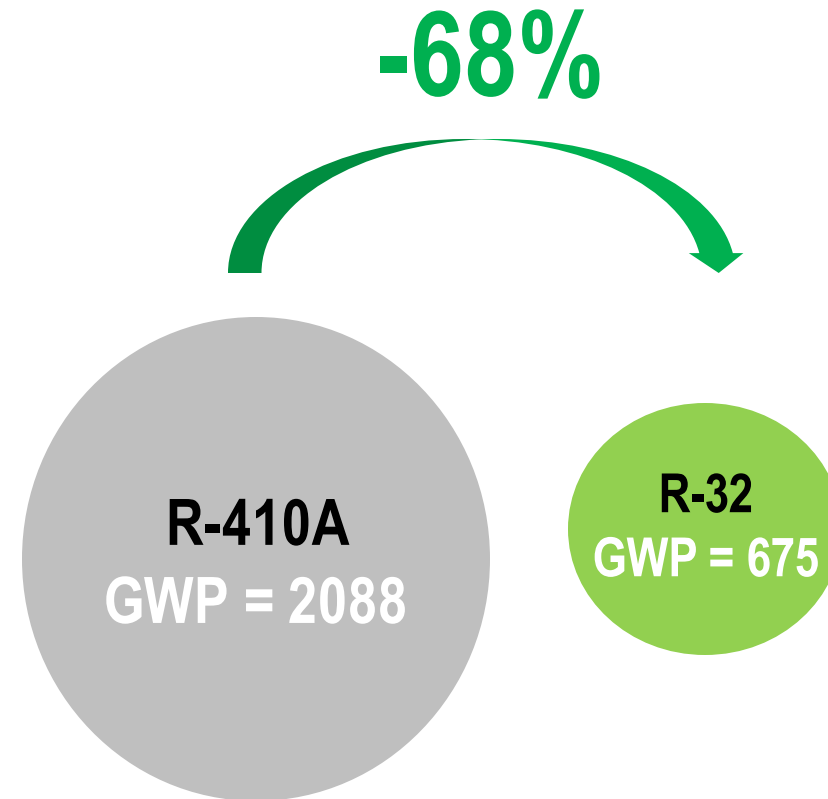
SAFE

ENVIRONMENTALLY RESPONSIBLE

LOWER GWP

Refrigerant global warming potential (GWP) reduction:

- ▶ Lower ecological impact
- ▶ Anticipating the HFC phase-down



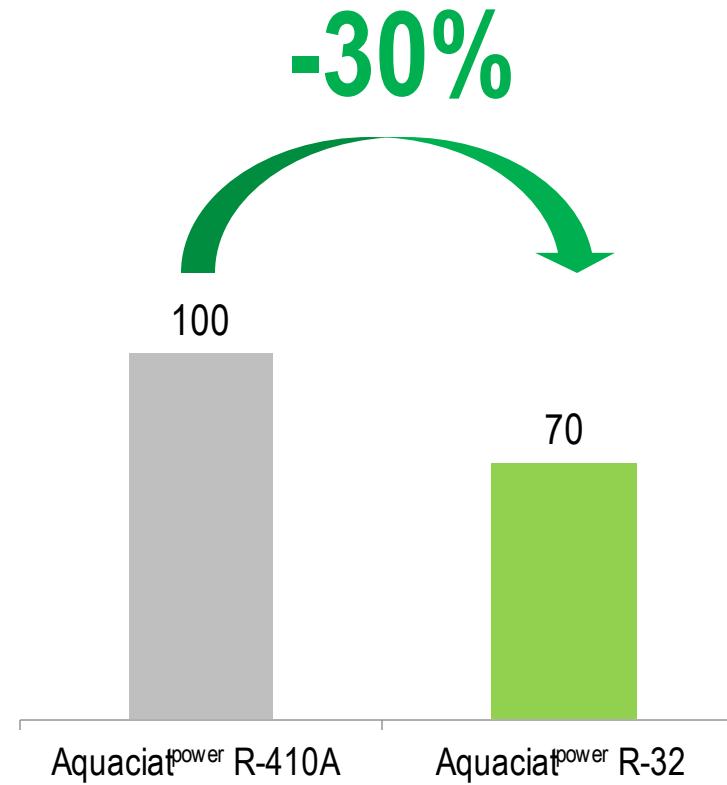
Note: GWP according to IPCC AR4

ENVIRONMENTALLY RESPONSIBLE

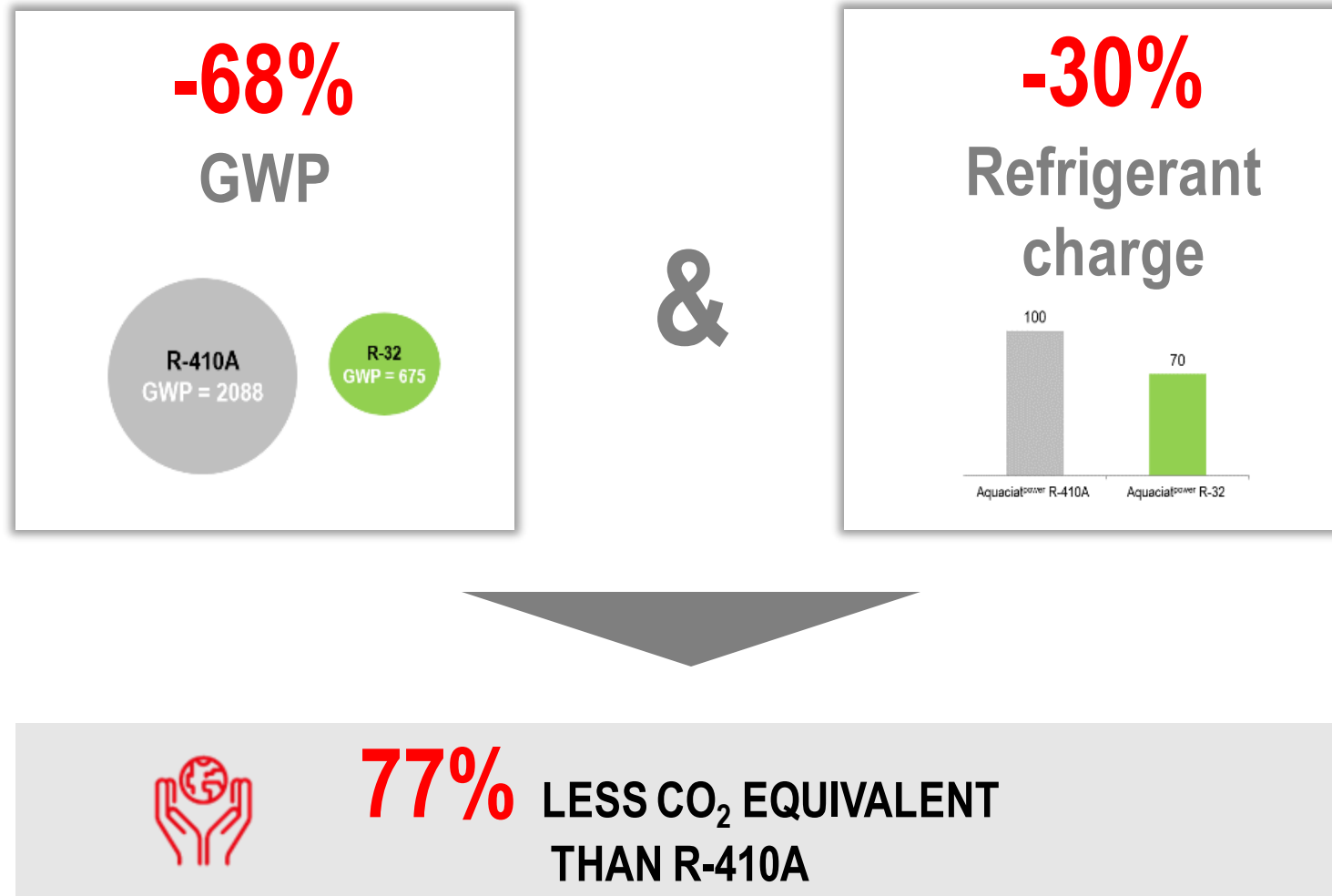
REFRIGERANT CHARGE REDUCTION

Refrigerant charge reduction due to:

- ▶ R-32 thermodynamic properties
- ▶ Optimized component selection for R-32



ENVIRONMENTALLY RESPONSIBLE

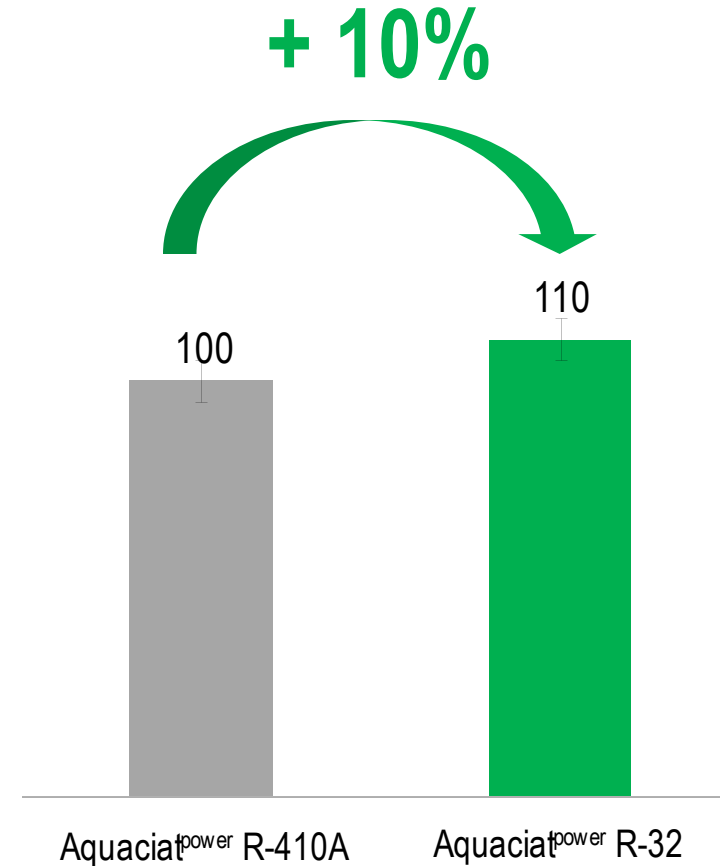


ENERGY SEASONAL EFFICIENCY



Aquaciat & Aquaciat^{power} with R-32 chillers exceed Ecodesign 2021 SEER requirements due to:

- ▶ Multiple scroll compressors
- ▶ Asymmetric brazed plate heat exchangers
- ▶ Smart energy monitoring function



Note: ErP Ready 2021 according to EU Regulation No. 2016/2281

USER FRIENDLINESS

- ▶ R-32 is a **tried and trusted** solution already used in residential air conditioners (millions AC in use.)
- ▶ Easy refrigerant charge complement
- ▶ It is **available from all refrigerant distributors** in cylinders of 5, 10, 20 or 45 kg with top in red color.



SAFETY

- ▶ Service tools must be **qualified for A2L** refrigerants according to ISO 817 or EN378
- ▶ Service engineers shall be **qualified for brazing** of components containing PED fluid group 1
- ▶ Specific safety rules for compliance with UN3358 for road transportation and DS291 IMDG for sea shipping:
 - **Road transportation:**
 - UN code: 3358 REFRIGERATING MACHINES containing flammable, non-toxic, liquified gas
 - Road tunnels class D & E not allowed
 - **Sea transportation:**
 - International Maritime Dangerous Goods (IMDG) code: DS 291
 - **Air transportation:**
 - Not allowed



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



AQUACIAT & AQUACIAT^{POWER} WITH R-32

PERFECTLY SUITED FOR HEALTHCARE APPLICATIONS



ENVIRONMENTAL
RESPONSIBILITY



PATIENTS' COMFORT



ENERGY SAVINGS



SIMPLICITY



RELIABILITY



GLOBAL SYSTEM OFFERING





ENVIRONMENTAL RESPONSIBILITY

We strive to conform to your highest environmental commitments.

We concentrate our efforts on making our units more efficient and more environmentally friendly.

Aquaciat and Aquaciat^{power} with R-32 goes beyond 2021 Ecodesign requirements.

R-32 



Product Life cycle assessment is certified with a Product Environmental Profile (PEP) performed following PEP ecopassport® criteria, following ISO 1402 international standard. Environmental analysis shall consider product manufacturing, distribution, installation and end of life. PEP document is published on www.pep-ecopassport.org.

AQUACIAT & AQUACIAT^{POWER} WITH R-32



PATIENTS' COMFORT

We take care of your patients' acoustic comfort.

Thanks to low-speed fans in standard & the noise-reduction technologies used in the new Aquaciat and Aquaciat^{power} ranges, you can guarantee a low noise level and no vibrations.

Optional variable-speed fans allow noise reduction in part load operation (night, mid-season...).

VERY LOW NOISE



-3 to -4 dB(A)

thanks to the compressor enclosure

AQUACIAT^{POWER}

ULTRA LOW NOISE



-5 to -6 dB(A)

thanks to specific insulation on compressor enclosure and unit's panels

AQUACIAT^{POWER}

XTRA LOW NOISE



-9 dB(A)

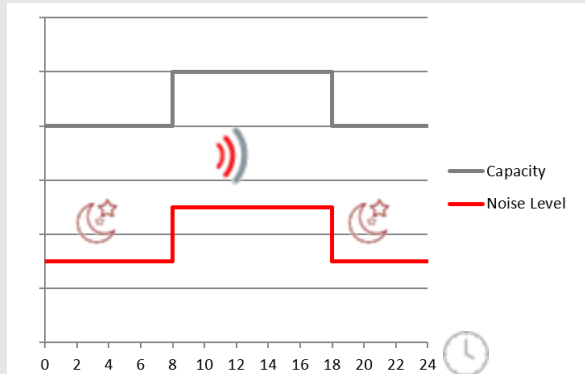
thanks to specific insulation on compressor enclosure

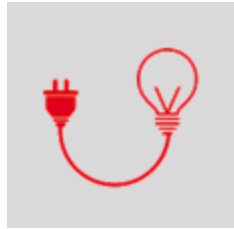
AQUACIAT

NIGHT MODE



noise reduction in part load operation





ENERGY SAVINGS

We develop energy efficient solutions allowing substantial savings to be made without compromising on your patients' comfort nor your environmental impact.

The recovery of the partial heating capacity supplied by the chiller enables the unit to produce free additional hot water up to 80°C. This free heat is used for domestic hot water or distributed to spaces where it is needed, such as swimming pools, spas and whirlpool baths.

30%
energy



100% Chilled or Hot Water Production

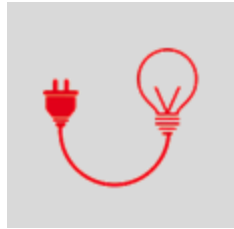


25% Domestic Hot Water Production

or



100% Domestic Hot Water Production

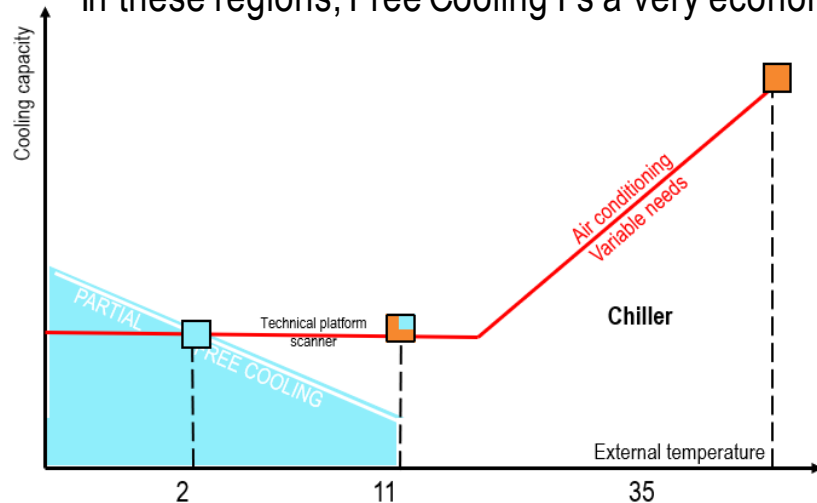


ENERGY SAVINGS

We develop energy efficient solutions allowing substantial savings to be made without compromising on your patients' comfort nor your environmental impact.

The Free Cooling option offers significant energy savings for all applications where there is a demand for cooling throughout the year or during the night, especially in cold climate regions.

In these regions, Free Cooling I is a very economical and **environmental sustainability** way to meet a large part of the cold needs.



Free Cooling economical solution



SIMPLICITY

We ensure easy installation and integration in the building system management for time savings.

- ▶ No technical room required to house pumps and other accessories.
- ▶ Optimum use of the surface area for easy integration into an existing building.
- ▶ Quick, easy and cost-effective installation and commissioning.
- ▶ Packaged solution, which saves you time and increases your installation's reliability.
- ▶ Communication with all types of Building Management System (BMS) via Modbus protocol available as standard, LON or BACNET as option.



RELIABILITY

We ensure full reliability of your equipment with advanced monitoring solutions for a complete peace of mind.

BluEdge Digital enables you to track and monitor your CIAT equipment.

- ▶ Real-time data retrieve through a custom access to the BluEdge Digital website (synoptic, controller dashboard, event and temperature curve, alert & fault memory, black box and parameters log).
- ▶ Email alert at any event on the equipment.
- ▶ Monthly and annual reports with analysis and recommendations from CIAT experts.

CIATM2M is replaced by BluEdge Digital



BLUEDGE
DIGITAL



GLOBAL SYSTEM OFFERING

We offer a complete range of equipment designed to work together for the best possible results providing optimised energy efficiency, high indoor air quality and comfort for your patients.

Technical platform Risk areas



CLIMACIAT AIRCLEAN

Air handling unit designed for the specific characteristics of controlled environments, Certified Eurovent DIN 1946-4 / VDI 6022

Patient rooms, reception, etc.



COADIS LINE

Cassette comfort unit with Coanda effect for increased occupants' comfort



COMFORT LINE

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Energy optimisation



POWERCIAT

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ITEX

High thermal transfer capacity gasketed plate heat exchanger



THERMAL ENERGY STORAGE

Non-stop support and reduced operating cost



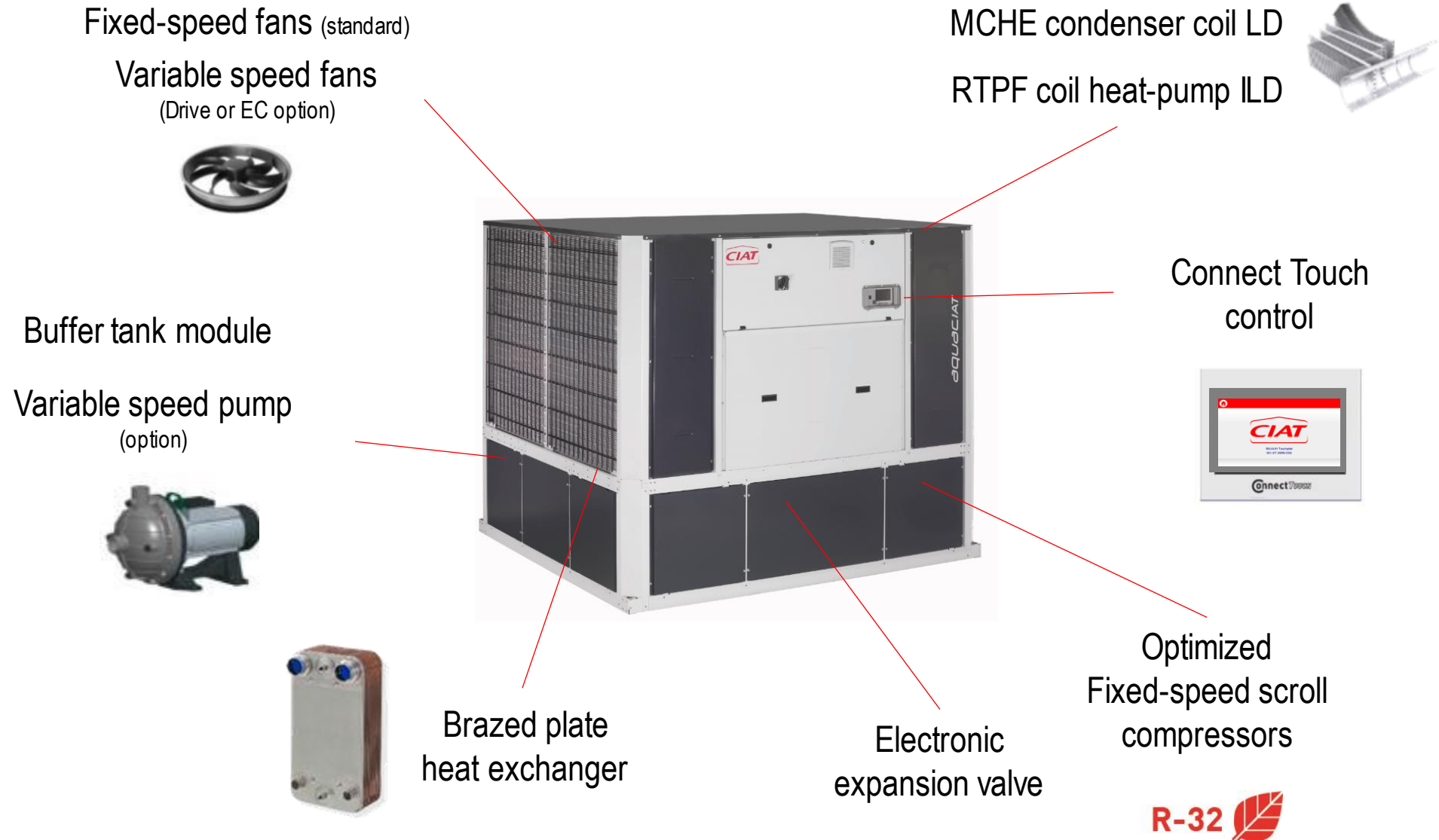
POWER'CTRL

Plant system management designed to control a complete thermal energy production system (heating and cooling)

A COMBINATION OF TECHNOLOGIES



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A COMBINATION OF TECHNOLOGIES

Fixed-speed fans (standard)

Variable speed fans
(Drive or EC option)



Composite fan stacks

MCHE condenser coil LD

RTPF coil heat-pump ILD



Connect Touch
control



Buffer tank module

Variable speed pump
(option)



Asymmetric
brazed plate
heat exchanger



Electronic
expansion valve

Optimized
scroll compressors

R-32 



MAXIMUM EFFICIENCY

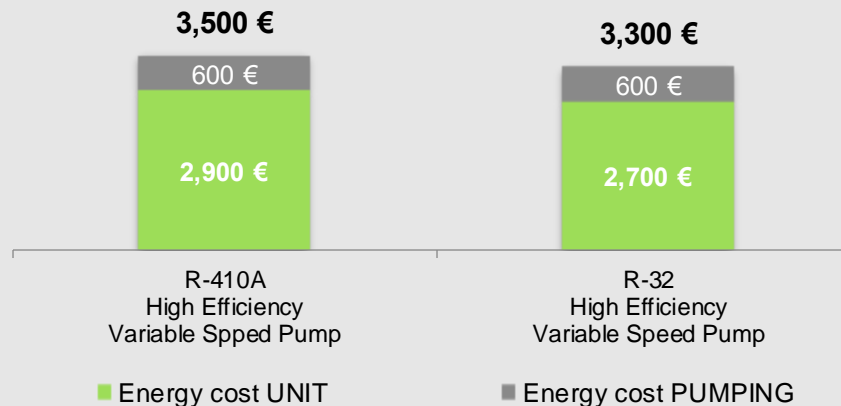


MAXIMUM EFFICIENCY

CASE STUDY

Annual Energy Cost

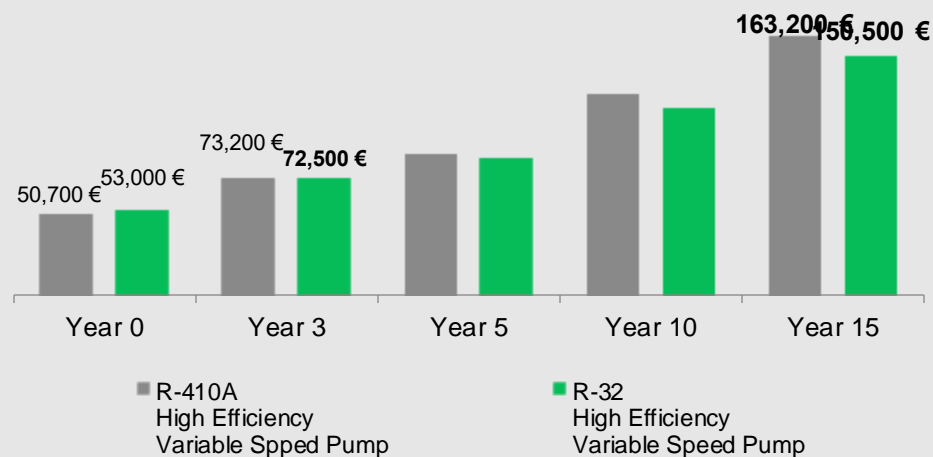
- ▶ Application: Air conditioning
- ▶ Capacity: 300kW
- ▶ Running conditions: 12/7°C/35°C
- ▶ Operating: unit 1800 h/year – pump 4300h/year
- ▶ Unit R410A: AQP LD HE 1100 + HP pump
- ▶ Unit R-32: AQP LD 1200R + Opt High Performance + Pump HP
- ▶ Electricity cost: 0.07€/kWh
- ▶ Simulation on BenchHVAC Tools



- 7%
Annual unit energetic cost

Total Cost of Ownership

- ▶ Device cost installed: R410A: 45000€ / R-32: 47500€ (+5%)
- ▶ Maintenance contract cost: R410A = R-32 = 2200€/year
- ▶ Cost of repair: R410A: 1800€/year / R-32: 1000€/year (difference due to refrigerant taxes)



Payback < 3 years

Gain €13k in 15 years

MAXIMUM EFFICIENCY



COOLING ONLY VERSIONS

AQUACIAT ^{POWER} LD																				
		0602R	0650R	0750R	0900R	1100R	1200R	1350R	1400R	1600R	1750R	1800R	2000R	2200R	2400R	2650R	2800R	2950R	3200R	3500R
UNIT + OPT HIGH NOMINAL & SEASONAL EFFICIENCY																				
NOMINAL CAPACITY *	CA1 KW	172	187	206	227	270	311	346	380	416	451	484	553	616	677	726	782	807	882	944
EER*	KW/KW	3,20	3,36	3,21	3,16	3,03	3,15	3,09	3,14	3,10	3,15	3,09	3,08	3,16	3,14	3,06	3,07	3,04	3,00	2,92
SEER 12/7°C COMFORT LOW TEMP.	KWH/KWH	4,82	5,02	4,84	4,94	4,79	5,25	5,15	5,09	5,11	5,28	5,24	5,29	5,32	5,32	5,20	5,33	5,30	5,31	5,18
SEER 23/18°C COMFORT MEDIUM TEMP.	KWH/KWH	5,98	6,23	5,93	5,99	5,69	6,35	6,17	6,13	6,07	6,33	6,23	6,32	6,56	6,51	6,28	6,54	6,47	6,56	6,32
SEPR -2/-8°C PROCESS MEDIUM TEMP.	KWH/KWH	3,48	3,60	3,54	3,41	3,41	3,51	3,56	3,50	3,57	3,55	3,55	3,55	3,91	3,82	3,83	3,79	3,80	3,74	3,74

Eurovent certified values



*In accordance with standard EN14511-3:2018.

CA1 Cooling mode conditions: Evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator frosting factor 0 m².K/W

SEER 12/7°C Values in bold comply with Ecodesign Regulation (EU) No. 2016/2281 for Comfort applications

SEER 23/18°C Values in bold comply with Ecodesign Regulation (EU) No. 2016/2281 for Comfort applications

SEPR -2/-8°C Applicable Ecodesign regulation: (EU) No 2015/1095.

MAXIMUM EFFICIENCY



COOLING ONLY VERSIONS

AQUACIAT ^{POWER} LD																			
	0602R	0650R	0750R	0900R	1100R	1200R	1350R	1400R	1600R	1750R	1800R	2000R	2200R	2400R	2650R	2800R	2950R	3200R	3500R
SOUND POWER LEVELS **																			
STANDARD UNIT	88,5	89,0	89,0	89,5	89,5	90,5	90,5	91,0	91,0	91,5	91,5	92,0	96,5	96,5	97,0	97,0	97,5	97,5	98,0
UNIT + OPTION HIGH OAT / HIGH NOMINAL PERFORMANCES	91,0	91,5	91,5	92,0	92,0	93,0	93,0	93,5	93,5	94,0	94,0	94,5	97,5	97,5	98,0	98,0	98,5	98,5	99,0
UNIT + OPTION VERY LOW NOISE dB(A)	85,5	85,5	85,5	86,5	86,5	87,5	87,5	88,0	88,0	88,5	88,5	89,0	92,5	92,5	93,0	93,0	93,5	93,5	94,5
UNIT + OPTION ULTRA LOW NOISE dB(A)	83,5	83,5	83,5	84,5	84,5	85,5	85,5	86,0	86,0	86,5	86,5	87,0	90,0	90,0	90,5	90,5	90,5	90,5	91,0
STANDARD UNIT																			
LENGTH - WIDTH - HEIGHT mm	2410 2253 2324	2410 2253 2324	2410 2253 2324	2410 2253 2324	2410 2253 2324	3604 2253 2324	3604 2253 2324	3604 2253 2324	3604 2253 2324	4798 2253 2324	4798 2253 2324	4798 2253 2324	5992 2253 2324	5992 2253 2324	5992 2253 2324	7186 2253 2324	7186 2253 2324	7186 2253 2324	7186 2253 2324
REFRIGERANT***																			
R32 / A2L / GWP=675 following AR4																			

Eurovent certified values



** In dB ref=10⁻¹² W, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 with an associated uncertainty of +/-3dB(A). Measured in accordance with ISO 9614-1 and certified by Eurovent.

*** Values are guidelines only. Refer to the unit name plate.

MAXIMUM EFFICIENCY



HEAT PUMP VERSIONS

AQUACIAT ^{POWER} ILD																					
			0602R	0700R	0800R	0900R	1000R	1150R	1250R	1400R	1500R	1600R	1750R	2000R	2300R	2500R	2800R	3000R	3200R	3500R	4000R
HEATING UNIT + OPT HIGH NOMINAL & SEASONAL EFFICIENCY																					
NOMINAL CAPACITY *	HA1	KW	178	197	237	256	275	317	336	387	406	441	467	537	635	673	774	812	883	935	1075
COP*		KW/KW	3,88	3,80	3,84	3,84	3,82	3,82	3,81	3,82	3,81	3,80	3,73	3,80	3,82	3,81	3,82	3,81	3,80	3,73	3,80
SCOP30/35°C		KWH/KWH	3,67	3,66	3,74	3,77	3,80	3,87	3,86	3,90	3,91	3,92	3,89	3,96	3,87	3,86	3,90	3,91	3,92	3,89	3,96
COOLING UNIT + OPT HIGH NOMINAL & SEASONAL EFFICIENCY																					
NOMINAL CAPACITY *	CA1	KW	164	181	215	236	254	302	324	362	381	413	439	500	604	648	723	761	825	878	999
EER*		KW/KW	2,92	2,78	2,91	2,85	2,76	2,85	2,80	2,82	2,76	2,81	2,74	2,73	2,85	2,80	2,82	2,76	2,81	2,74	2,73
SEER 12/7°C COMFORT LOW TEMP.		KWH/KWH	4,44	4,26	4,53	4,44	4,34	4,77	4,81	4,88	4,87	4,81	4,75	4,81	4,77	4,81	4,88	4,87	4,81	4,75	4,81

Eurovent certified values



*In accordance with standard EN14511-3:2018.

HA1 Heating mode conditions: Water heat exchanger water entering/leaving temperature 30°C/35°C, outside air temperature tdb/twb = 7°C db/6°C wb, evaporator frosting factor 0 m².K/W

CA1 Cooling mode conditions: Evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator frosting factor 0 m².K/W

SCOP 30/35°C Bold values compliant to Ecodesign regulation: (EU) No 813/2013 for Heat Pump application

SEER 12/7°C Applicable Ecodesign regulation: (EU) No 2016/2281

MAXIMUM EFFICIENCY



HEAT PUMP VERSIONS

AQUACIAT ^{POWER} ILD																			
	0602R	0700R	0800R	0900R	1000R	1150R	1250R	1400R	1500R	1600R	1750R	2000R	2300R	2500R	2800R	3000R	3200R	3500R	4000R
SOUND POWER LEVELS **																			
STANDARD UNIT	88,0	88,5	89,0	89,5	89,5	90,5	91,0	91,5	91,5	92,0	92,5	93,0	93,5	94,0	94,5	94,5	95,0	95,5	96,0
UNIT + OPTION HIGH OAT / HIGH NOMINAL PERFORMANCES	90,5	91,0	91,5	92,0	92,0	93,0	93,5	94,0	94,0	94,5	94,5	95,0	96,0	96,5	97,0	97,0	97,5	97,5	98,0
UNIT + OPTION VERY LOW NOISE dB(A)	85,0	86,0	86,5	87,0	87,0	88,0	88,0	89,0	89,0	89,5	90,0	90,0	91,0	91,0	92,0	92,0	92,5	93,0	93,0
UNIT + OPTION ULTRA LOW NOISE dB(A)	83,0	84,0	84,5	85,0	85,0	86,0	86,0	86,5	87,0	87,5	87,5	88,0	89,0	89,0	89,5	90,0	90,5	90,5	91,0
STANDARD UNIT																			
LENGTH - WIDTH - HEIGHT mm	2410	2410	2410	2410	2410	3604	3604	3604	3604	4798	4798	4798	7708	7708	7708	7708	10096	10096	10096
	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253	2253
	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324	2324
REFRIGERANT***	R32 / A2L / GWP=675 following AR4																		

Eurovent certified values



** In dB ref=10⁻¹² W, 'A' weighted. Declared dual-number noise emission values in accordance with ISO 4871 with an associated uncertainty of +/-3dB(A). Measured in accordance with ISO 9614-1 and certified by Eurovent.

*** Values are guidelines only. Refer to the unit name plate.

FEATURES AVAILABILITY



AQUACIAT & AQUACIAT ^{power}			
4'3 user-friendly touch screen	●	Compressors Soft starter	▲
Multi-language controller	●	Hydraulic pump high/Low pressure Single/twin Fixe/Variable speed	▲
Energy consumption measurement	⑦	Water buffer tank	▲
WEB connectivity	●	Flanged connexion	▲
Modbus BMS connectivity	●	Flexible connexion	▲
Lon / Bacnet protocol BMS connectivity	▲	Antivibratil mounts	▲
BluEdge monitoring	▲	Ultra Fast capacity recovery	▲
Acoustic options	▲	IT Neutral	▲
Variable speed fans (Drive or EC solutions)	▲	Phase Control	▲
All year round operations	▲	CEM C2 Class	▲
Partial or total free cooling with or without glycol	▲		
Partial or total heat recovery	▲		
Coil Anti-corosion protection	▲	Supplied as standard	●
Anti-Intrusion Coil protective grille	▲	Option	▲



BLUEDGE® SERVICE PLATFORM

HVAC EXPERTS CLOSE AT HAND

A COMBINATION OF KNOWLEDGE AND EXPERIENCE FOR BETTER TECHNICAL SUPPORT

Our qualified and responsive BluEdge teams of technicians are available to implement actions on site and ensure optimal operation of your equipment. Thanks to our expertise and experience in the fields of maintenance and technical service, our BluEdge service platform offers a wide range of services from pre-sales technical support and diagnostics right through to energy audits.

Our dedicated hotline for off-site support with our engineers and technicians on the field, work hand in hand to meet your expectations in terms of energy efficiency. Our priority, 24/7: to allow you to focus on your business whilst our BluEdge service platform provides you with the best possible level of service.



A WHOLE WORD OF SERVICES

A COMPLETE SERVICE OFFER

Our full spectrum service and maintenance offering gives total peace of mind for building owners and managers. Organisations both large and small trust us to look after their buildings and HVAC needs, ensuring reliable, efficient, cost-effective buildings that are comfortable to live and work in.

We have a choice of service levels, enabling you to tailor the level of cover exactly to your needs and budget.

We have a range of intelligent remote monitoring solutions, providing 24/7 alerts for potential problems. Our expert analysts constantly review any out of condition or alarm statuses, to diagnose issues and prioritize service calls to reduce costs and restore full operation in the shortest possible time.



A TIER FOR EVERY BUSINESS



From preventative to full coverage, our **CORE**, **ENHANCE**, **ELITE** tiers are designed to fit your needs.



An economical solution for customers with IoT-enabled equipment that collects real-time data to improve staff efficiency and reduce unplanned downtime.



Complete preventive maintenance and technical expertise including proactive monitoring on health, efficiency and performance with actionable insights to identify opportunities for reducing operating costs and avoiding failures.



Our Elite plan is the ultimate worry-free, peace-of-mind program for clients. Realizing building comfort, efficiency and operational goals with Carrier turn-key solutions powered by predictive analytics and OEM expertise.

REAL-TIME DATA AND ANALYTICS



Our portfolio of remote connectivity offers within BluEdge service Platform are powered by IoT and cloud analytics. It is an advanced monitoring solution which enables customers for all applications to track and monitor their CIAT equipment.



24/7 remote monitoring.



Proactivity to anticipate breakdowns.



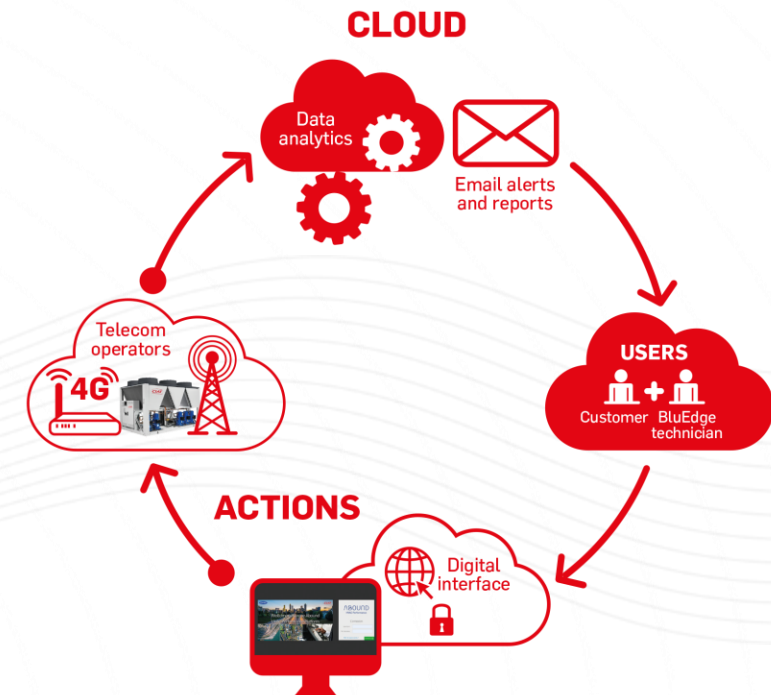
Real time data



Monthly and annual reports with analysis and recommendations from BluEdge CIATexperts.



Email alert for any event concerning the equipment.



EUROPEAN SERVICE DIGITAL CENTER

Expert in Digital, IoT & Connected Services Solutions for HVAC equipment and in Controls Solutions for Plant Room and HVAC Systems.

At the European Service Digital Center (ESDC), our engineers focus on developing and deploying Connected Services and Controls solutions for HVAC equipment & systems. They provide technical support on smart service solutions to our customers and our service organizations in Europe. The team has a unique multi-disciplinary expertise in Digital/IoT/Controls and Cooling/Heating for HVAC systems.

CONTROLS AND ENERGY OPTIMIZATION

- Monitoring of HVAC equipment
- Plant Room control system
- Thermal Energy Storage for HVAC applications
- HVAC system management
- Energy Optimization



HVAC EUROPE PARTS CENTER

DEDICATED TEAM & EXPERT ADVICES

500 Suppliers

12,000 Items on stock

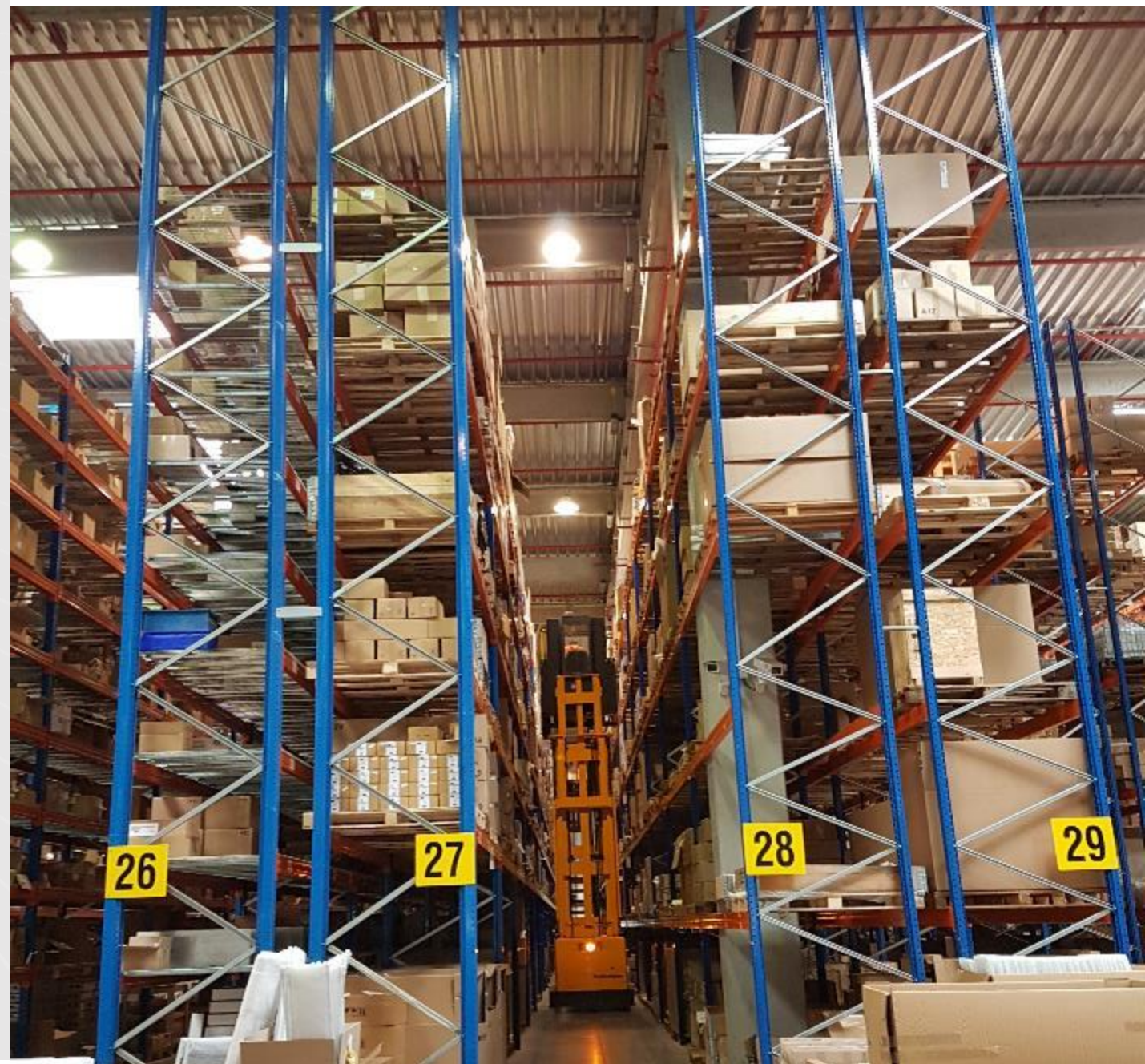
176,000 Order lines in 2019

1,000,000+ Parts sold in 2019

[Store-
eu.carrier.
com](http://Store-eu.carrier.com)

98%
Deliveries on
time

+90.000
Managed
parts number



CIAT SERVICE SOLUTION

Retrofit kit

The retrofit kit for the VECTIOS POWER range is available from 100 kW to 280 kW.

This kit makes it easy to retrofit a VECTIOS POWER R-410A unit to be compatible with R-454B refrigerant with only minor adaptations. This results in 80% savings on taxes when refilling is required.

Conformity declaration

VECTIOS POWER range was designed to be compatible with this retrofit modification. The modifications must be completed as specified by the applicable instruction manual. This modification of the machine must be indicated in the maintenance book of the machine in compliance with local regulations. Also, a plate needs to be added with information about the new refrigerant R-454B.



COMPRESSORS



HEAT EXCHANGERS



OTHER COMPONENTS
IN THE FRIGORIFIC
CIRCUIT



ELECTRICAL
BOX





THANK YOU FOR YOUR ATTENTION





A CARRIER COMPANY

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Availability depends on each country. Please contact your CIAT representative.

Aquaciat & Aquaciat^{power} – English – 2023

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