



IT Cooling



Chillers



Heat Pumps
& Multifunction



Artificial Intelligence



Company Profile

 English

rcgroupairconditioning

Who we are

Company profile	3
Certifications	5
Production plants	6
Lean Manufacturing	7
Web & Social Media	8
References.....	9

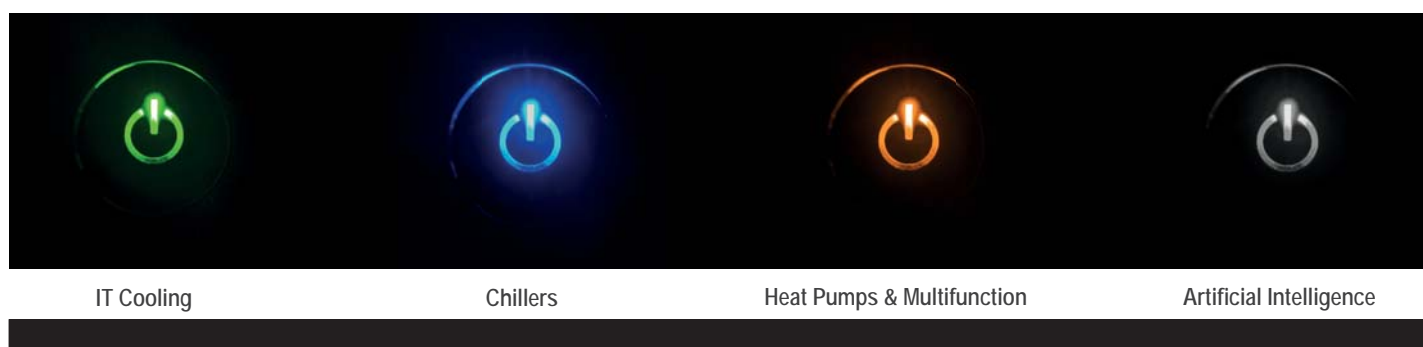
What we do

IT Cooling - Products overview	10
Chillers - Products overview	12
Heat pumps & Multifunction - Products overview	15

How we do it

Artificial intelligence - Products overview	18
---	----

FOUR PRODUCTION SECTORS FOR INNOVATIVE SOLUTIONS



IT Cooling

Precision air conditioners designed for data centers, telephone exchanges, shelters.

Chillers

Liquid chillers for food, textile, pharmaceutical and electronic big industries.

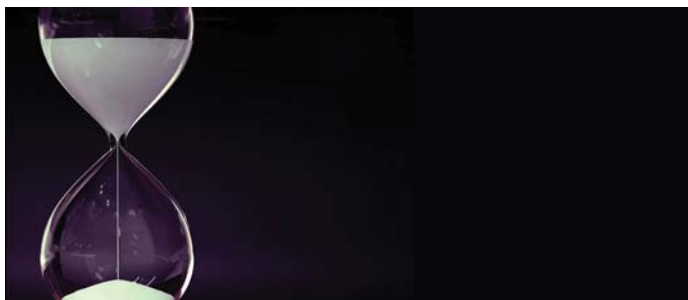
Heat pumps & Multifunction

Multifunction liquid chillers and heat pumps suitable for installation in supermarkets and business centers, banks, public offices, airports, hospitals.

Artificial Intelligence

Advanced software tools for units selection, energy efficiency calculation, networking and remote monitoring.

Since 1963, RC Group supplies reliable and innovative solutions and it is today considered the market leading company in precision air conditioning and refrigeration with high-tech content.



TIME

4th July 1963 - RC Condizionatori was established with the mission of providing innovative and high quality air conditioning systems.

1963 - The first air conditioner installed in a major Italian bank.
One of the first air conditioners for computer room made in Italy.



1963

1980 - First to introduce energy-saving free-cooling systems, the S.C.R. System on MRE/A chiller.



1980

1983: First HVAC company using CAD design suites

1985: Birth of RC World, RC Group selection software, one of the first electronic catalogue of the HVAC sector.

1990: RC Group takes over Simair (Florence) to develop the TLC market and AMP (Rome) to extend its own range to chillers as well.

13th October 1991: First in Europe to obtain the ISO9000 quality certification.

2003: The first SILVER BULLET unit pioneering magnetic levitation compressors technology.



2003

2005: RC Group patented IDEA®, dynamic control system of defrosting cycles, able to identify the actual ice presence on the air/gas heat exchanger in order to start the defrosting cycle only when it is necessary.

2006: RC joins De'Longhi Professional Group, focused on industrial products

2010: Birth of Spectrum, On-line WEB application able to predict the Energy performance of the units (chillers and heat pumps) and to conduct a comprehensive energy analysis.

2010, 2012, 2013, 2014: Gold Customer Award as Danfoss Turbocor OEMs

December 2011: De'Longhi Professional Group split in De'Longhi S.p.A and DeLclima S.p.A. focused on industrial products.

2012: DeLclima is listed on the Milano stock exchange since 2nd of January. De'Longhi Trust is the majority share-holder of DeLclima.

2012: Birth of UNICO TURBO FL FREE. Free-cooling liquid chiller equipped with centrifugal compressors with magnetic levitation bearings.

2014: Birth of UNICO TURBO FLG FREE. Free-cooling liquid chiller equipped with centrifugal compressors with magnetic levitation bearings charged with HFO1234ze refrigerant.



2014

2015: RC Group acquires 8 group's subsidiaries.

2015: Birth of X TYPE, unique precision air conditioner with innovative X coils.

2015: Birth of SIVIS, the innovative indirect adiabatic cooling system.

2015: RC Group launches on the market GO GREEN innovative solutions:

GO GREEN
innovative solutions



"Secure, sustainable, and competitive energy for Europe".
This is the claim of the European Commission for energy efficiency.

The Energy Efficiency Directive sets rules and obligations to help the EU reach its 2020 and 2030 energy efficiency target:

- 20% energy savings target by 2020;
- 30% energy savings target by 2030.

This is a big goal not only for the European community but also for the entire planet

OUR MISSION

RC Group is focused on this important target with the GoGreen Innovative Solution project. Go Green is not a simple commercial logo but our Mission oriented to efficient energy use and applying innovative technologies.

Whatever the air conditioning application, from the hospital to a industrial field or from mall to IT Cooling for data center, energy and solutions must be used to best, developing sustainable and environmentally friendly technologies; all in four words:



GO
Reliable
Ecologic
Evolved
Natural

2015, December: RC Group is A Group Company of



QUALITY & ENVIRONMENT

The assurance of the quality of all products from RC Group factory is determined by:

- Severe laboratory tests.
- Accurate running tests.
- All design, production and test procedures are in accordance with ISO 9001:2008 norms.

In the respect of the environmental protection, RC Group:

- Is certified in accordance with ISO 14001:2004 norms.
- Is searching innovative solutions for energy saving and environmental respect with its GO GREEN INNOVATIVE SOLUTIONS.



INNOVATIVE SOLUTIONS

RC Group offers innovative solutions that meet with accurate precision the Customer needs proposing:

- Efficient solutions;
- Critical contexts products;
- Instruments to speed-up the process for the realization of its projects.

The commercial and service widespread coverage is made up of a number of agencies and service centers in Italy as well as many product distribution and service companies in the rest of the World, in order to be always in the middle of the action. Wherever you are, RC Group is always by your side.



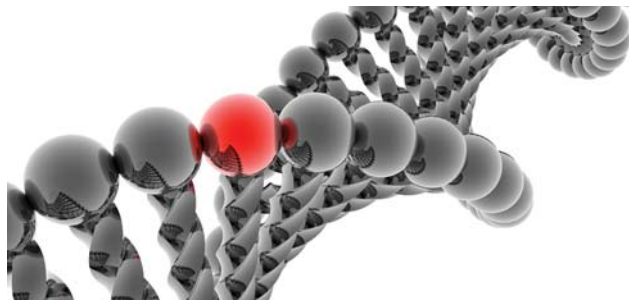
TECHNOLOGICAL EVOLUTION

RC Group technology is based on over fifty years of activity in the air conditioning for:

- Data center;
- Metrology labs;
- Telecommunication;
- Comfort;
- Industrial processes.

The company designs and produces through sophisticated computerized systems:

- 3D CAD;
- Thermodynamic simulator;
- Acoustic simulator;
- Products selection software;
- Energy analysis software.



SATISFACTION

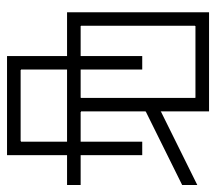
RC Group main aim is the full Customer satisfaction, achieved through:

- Products quality;
- Technological innovation;
- Environmental respect;
- Energy efficiency.

This strategy give big satisfaction results to the end users, buyers and RC Group.



RC GROUP LOGO EVOLUTION



SINCE 1963...



...TODAY

ISO 9001:2008 CERTIFICATION

For production plants of Valle Salimbene (PV) and Zeccone (PV) – Italy
RC GROUP S.p.A. has been the first European company in HVAC field to get the ISO 9001 certification in 1991: all the processes are certified to assure products and services in compliance with the corporate policy.



ISO 14001:2004 CERTIFICATION

For production plants of Valle Salimbene (PV) and Zeccone (PV) – Italy
RC GROUP S.p.A. chose to establish, maintain and improve its environmental management system. Its organisation is certified according to UNI EN ISO 14001:2004.



ISO 9001:2000 – GB/T 19001-2000 - ISO 14001:2004 CERTIFICATION

For the production plant of Foshan, Guangzhou – People's Republic of China
The headquarters RC GROUP S.p.A. in the Republic of China has achieved ISO 9001 and GB / T 19001 certification in 2009, for the assembly and sale of Precision Air Conditioners. Its organisation is certified according to UNI EN ISO 14001:2004.



TR CERTIFICATION - DECLARATION OF CONFORMITY EAC (RUSSIAN FEDERATION, BELARUS, KAZAKHSTAN)

For RC Group products
RC GROUP S.p.A. products has obtained the TR Certification and the Declaration of conformity EAC. They attest the product conformity to the products safety standards of the Eurasian Custom Union: Russian Federation, Belarus and Kazakhstan.



P.E.D. CERTIFICATION

For production plants of Valle Salimbene (PV) and Zeccone (PV) – Italy
RC GROUP S.p.A. products meet the requirements of module H category II and III of the European directive 97 / 23CE and subsequent modifications for pressure equipment.



EUROVENT CERTIFICATION

For production plants of Valle Salimbene (PV) and Zeccone (PV) – Italy
RC GROUP S.p.A. participated in the EUROVENT certification program for LCP and HP (Liquid Chilling Packages and Heat Pumps).



CE MARKING

For production plants of Valle Salimbene (PV) and Zeccone (PV) – Italy
The Liquid Chillers and the Air Conditioners produced by RC GROUP S.p.A. are in compliance with the European Directives 2006 / 42CE, 2006 / 95CE, 2004 / 108CE, 97 / 23CE and subsequent modifications.



Eurovent is an international organization of manufacturers that works to improve the standards of products for air-conditioning and refrigeration systems throughout the European market. The members of this organization voluntarily submit their products to a network of independent laboratories approved for testing and evaluation in accordance with European and international standards. The participation in this certification program ensure that the specifications of the products presented by RCGroup in its commercial and technical literature are clear and transparent.

Check ongoing validity of certification on web site: www.eurovent-certification.com

PRODUCTION PLANTS

RC1

Valle Salimbene - Italy



Chillers & heat pumps
36500m²
Headquarter, R&D, production plant

RC2

Valle Salimbene - Italy



Large capacity chillers & heat pumps
2300m²
Production

RC3

Zeccone - Italy



Precision and telecommunication air conditioners
7500m²
Production

RC4

Valle Salimbene - Italy



Spare parts warehouse
1000m²
Top quality spare parts.

LAB1

Valle Salimbene - Italy



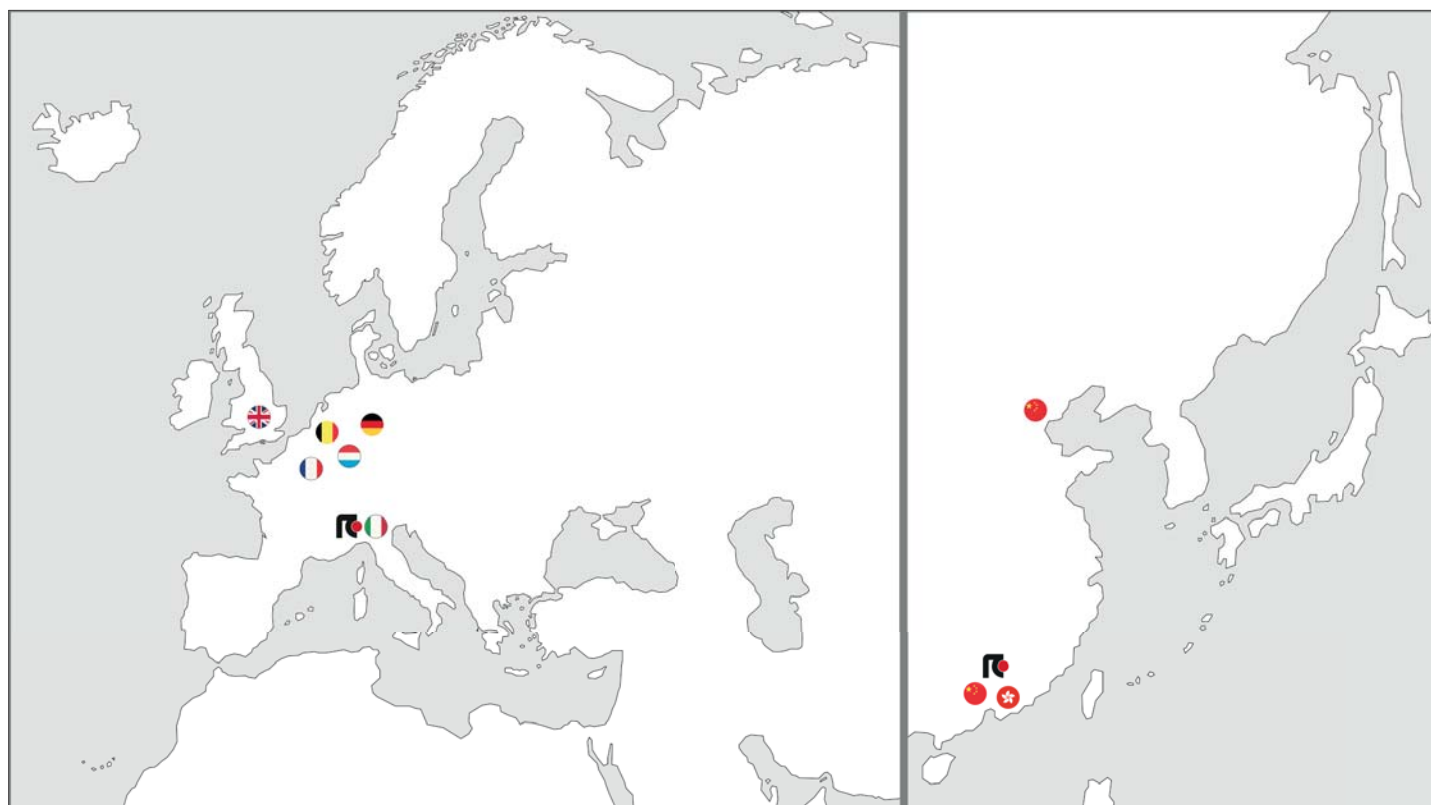
Lab for chillers and heat pumps test
up to 1600kW
UNI 14511
ISO 9614-2

LAB2

Valle Salimbene - Italy



Enthalpy room for precision and telecommunication air conditioners
EUROVENT 6/6,
ANSI-ASHRAE 2016



SUBSIDIARIES



RC Group France SaS

- Croissy Beaubourg



Aircotech SA Belgium

- Ternat



RC Group Luxembourg SaS

- Strassen



RC Group UK LTD

- Watforn Herts



RC Group SpA Deutschland

- Neuss



RC Milano Rappresentanze SRL

- Pero - Milano



RC BeijingLTD

- Beijing



RC Asia Pacific LTD

- Kowloon Bay Hong Kong

RC5

Foshan RC Air Cond LTD

- Foshan - China

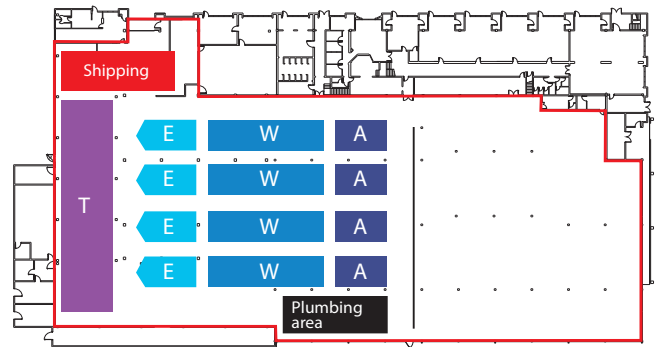
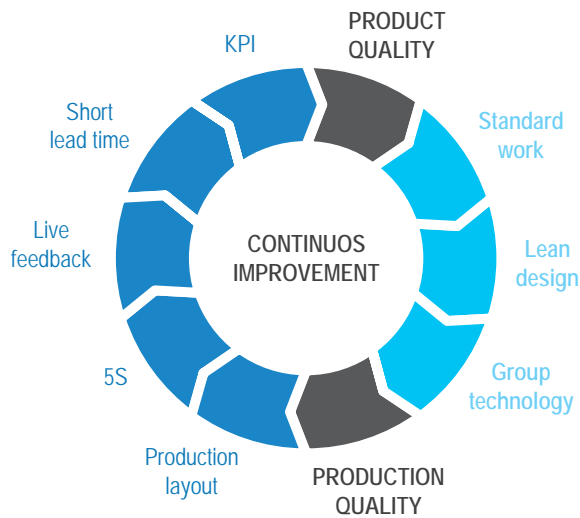


Precision and telecommunication air conditioners for Far East market
3000m²
Production plant and sales & marketing department



3 PRODUCTION PLANTS IN ITALY
1 PRODUCTION PLANT IN CHINA
1 SPARE PARTS WAREHOUSE
2 LABORATORIES
8 SUBSIDIARIES
26 AGENTS
45 DISTRIBUTORS
53 AUTHORIZED SERVICE CENTER
275 EMPLOYEES
50300m² OF PRODUCTION AREA
COMPLETE RANGE OF PRODUCTS FROM 4 TO 1840kW

RC Group adopts **LEAN MANUFACTURING** principles for its production plants of Zeccone and Valle Salimbene as important guidelines to **CONTINUOUS IMPROVEMENT** in all areas.



VALLE SALIMBENE PRODUCTION PLANT (RC1)

KEYWORD: FLEXIBILITY

- 4 production lines divided in three sectors:
 - assembly (A);
 - welding (W);
 - electric connection (E).

Testing and shipping area at the end of the production lines. Separate area for plumbing.

PRODUCT STANDARDS:

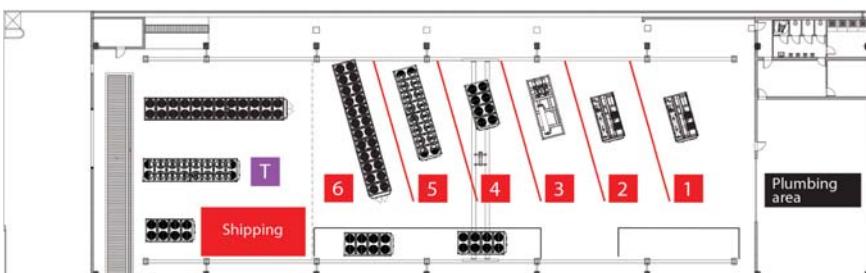
- **STANDARD WORK.** Processes and deadlines defined for each operation and standardization of the product families.
- **LEAN DESIGN.** Planning based on machine production.
- **GROUP TECHNOLOGY.** Common software & hardware platforms for several production lines.

PRODUCTION STANDARDS:

- **PRODUCTION LAYOUT.** Production processes design.
- **5S.** Better organization and cleanliness of the work place.
- **LIVE FEEDBACK.** Live measurement, showing the efficiency of the productive processes.
- **SHORT LEAD TIME.** Reduction of the average crossing time with a productive layout that simplifies and minimizes the machines handling. Attention in not to have machine stopped, but machine waiting to be processed.
- **KPI.** Creation of reports that summarise the key values in order to measure and compare the productive processes efficiency to continuously evaluate and better develop the **CONTINUOUS IMPROVEMENT**.

The application of these instruments allowed the increasing quality of our services to the customer, furnishing products without defects, shorter delivery time and a high general quality of the production.

RC2



VALLE SALIMBENE PRODUCTION PLANT (RC2)

KEYWORD: CUSTOMIZATION

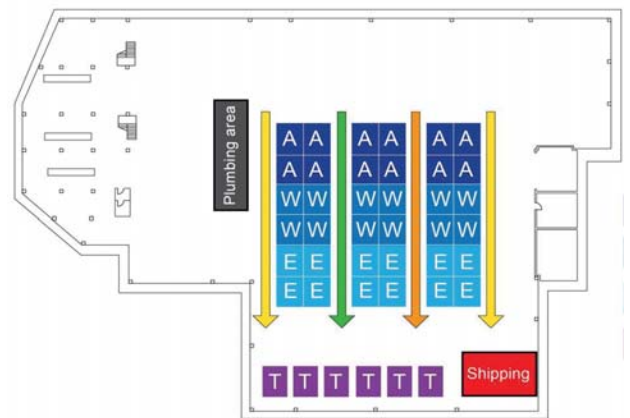
Independent working islands, each one including:

- assembly (A);
- welding (W);
- electrical connection (E).

Testing and shipping area at the end of the production lines. Separate area for plumbing.

RC1

RC3



ZECCONE PRODUCTION PLANT (RC3)

KEYWORD: LEAN

3 production lines:

- yellow: small size machines;
 - orange: medium size machines;
 - green: big size machines.
- three sectors for each line:
- assembly (A);
 - welding (W);
 - electrical connection (E).

Testing and shipping area at the end of the production lines. Separate area for plumbing.

Production layout that simplify and decrease the machines handling.

RC Group obtains 40% reduction of average crossing time

assembly **A**

welding **W**

electric connection **E**

testing and finishing **T**

working isle (A+W+E) **1**



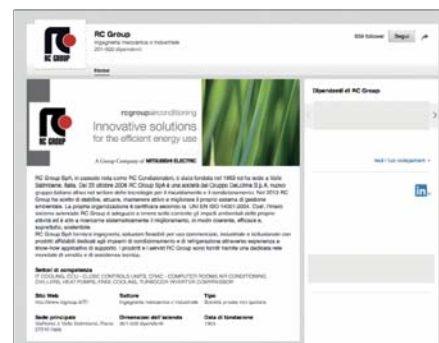
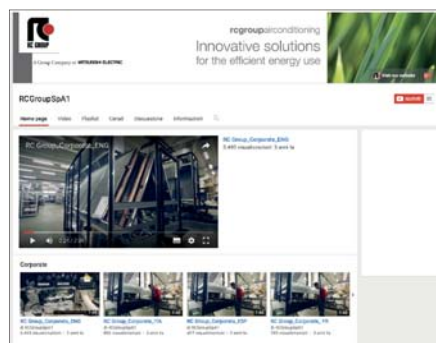
RC GROUP WEB
<http://www.rcgroup.it/EN/>



YOU TUBE CHANNEL
<http://www.youtube.com/user/RCGroupSpA1>



LINKEDIN
<http://www.linkedin.com/company/rc-group>





Logos, Trade Marks and Companies Name are property of respective Owners



AIR CONDITIONERS FOR DATA CENTER FOR PERIMETER INSTALLATION



NEXT EVO - Over Version



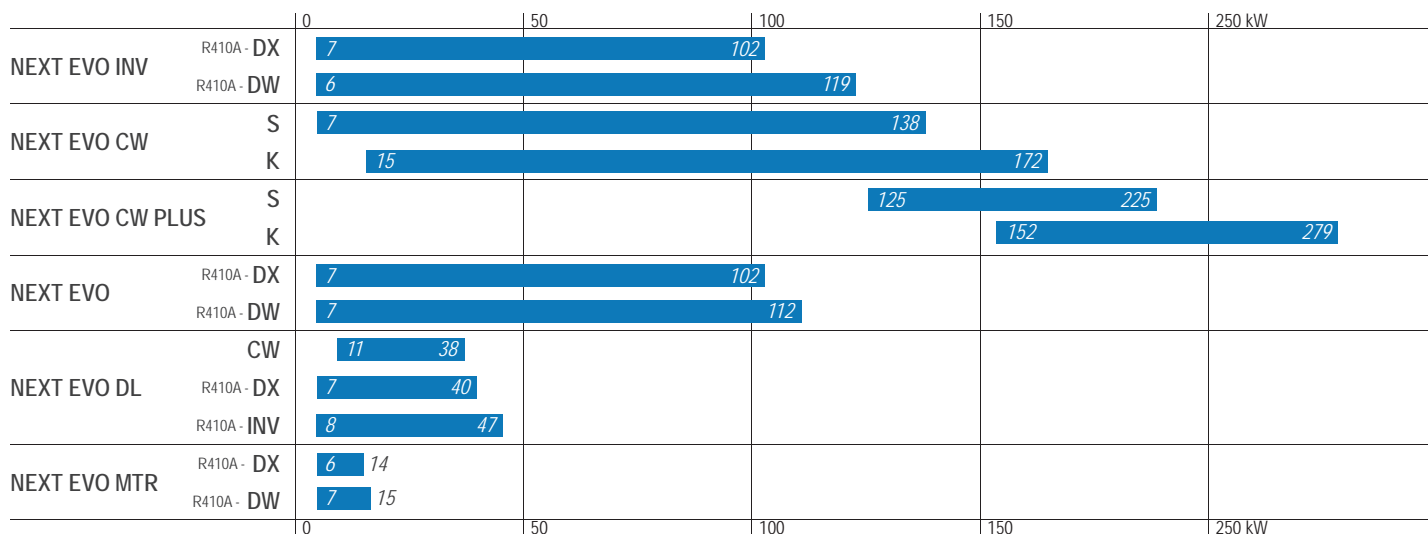
NEXT EVO - Under Version



NEXT EVO DL - Displacement Version



NEXT EVO PLUS - CW only
with separate fans section



INV - equipped with BLDC scroll compressors (O/U) ;
DX - for matching with remote air cooled condenser (O/U);
DW - with built in water cooled condenser (O/U);
DL - displacement air delivery;

CW - for chilled water feeding (O/U);
PLUS - with separate fan section (U);
S - standard version;
K - compact version;

O - Over version;
U - Under version;
O/U - Over and Under versions;
MTR - metrologic.

AIR CONDITIONERS FOR DATA CENTER FOR IN ROW, IN RACK INSTALLATION



COOLSIDE EVO

in row/in rack versions

Air conditioning system for high density rack and blade servers.



COOLROW

in row version

Air conditioners for high density rack and blade servers.



COOLSIDE EVO DX SYSTEM - for matching with MCAI motocondensing unit;
COOLROW DX Inv - for matching with remote air cooled condenser, equipped with BLDC scroll compressors;
CW - for chilled water feeding.



AIR CONDITIONERS FOR DATA CENTER FOR PERIMETER INSTALLATION



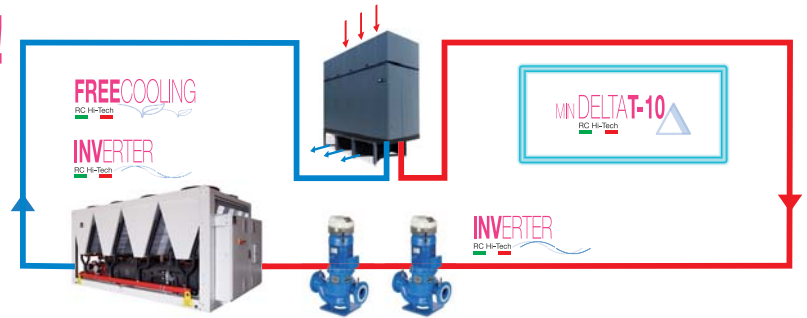
GOGREEN
innovative solutions
XCOILS
RC H-Tech

pPUE 1,07

X TYPE - Under Version - CW only

Innovative X coil, the first on the market

NEW!



X TYPE	0	50	100	150	200 kW
	0	52	182		200 kW

INDIRECT ADIABATIC COOLING SYSTEM



GOGREEN
innovative solutions
ADIABATIC
RC H-Tech
ALUMINUM
RC H-Tech

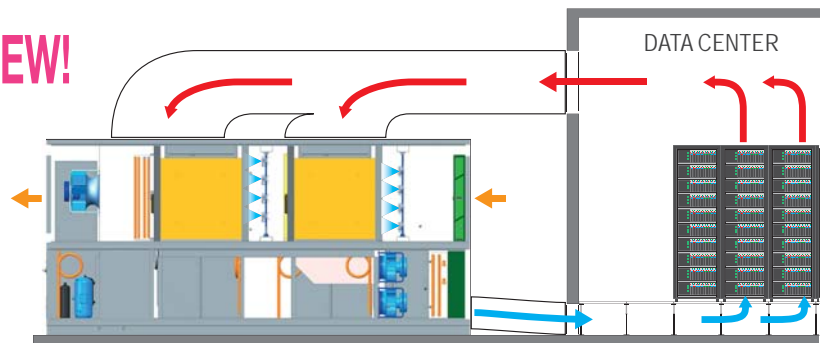
pPUE 1,025

20 YEARS WARRANTY
on cabinet

SIVIS

2 stages indirect adiabatic cooling system

NEW!



SIVIS

SIVIS	0	100	200	300 kW
	0	80	320	300 kW

AIR CONDITIONERS FOR TELECOMMUNICATION



ENERGY SPLIT

Horizontal air delivery

Split system air conditioners with free-cooling system.



MINIPAC

Horizontal air delivery

Packaged air conditioners with free-cooling system for outdoor installation.



ENERTEL

Under/Over/Displacement versions

Packaged air conditioners with free-cooling system for indoor installation.



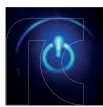
MARK

Horizontal air delivery

Packaged air conditioners with free-cooling system for outdoor or indoor installation.

		0	5	10	15	20 kW
ENERGY SPLIT	R407C		4	15		
MINIPAC	R407C		4	19		
ENERTEL	R407C		5	15		
ENERTEL DL	R134a		6	15		
MARK	R410A		6	9		
		0	5	10	15	20 kW

DL - displacement air delivery.



Chillers - Products overview

AIR COOLED LIQUID CHILLERS



SMART 2

Air cooled liquid chillers equipped with scroll compressor and axial fans.



SMART PF

Air cooled liquid chillers equipped with scroll compressor and plug fans.



UNICO - UNICO PF

Air cooled liquid chillers equipped with scroll compressors and axial fans or plug fans.



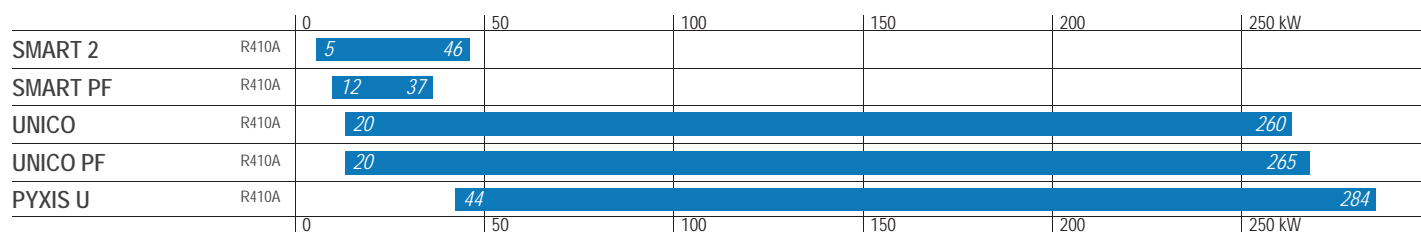
ALUMINUM
RC Hi-Tech

10 YEARS
WARRANTY
on cabinet



PYXIS U

Air cooled liquid chillers equipped with scroll compressors, axial fans and microchannel condensing coils.



PF - equipped with plug fans, for indoor installation;

HIGH EFFICIENCY
RC Hi-Tech



PYXIS - PYXIS HE

Air cooled liquid chillers equipped with scroll compressors, axial fans and microchannel condensing coils.



UNICO TURBO FL - FLG

Air cooled liquid chillers in A-class energy efficiency equipped with oil-free centrifugal compressors with magnetic levitation bearings, flooded evaporator and microchannel condensing coils.



NEW!



NEBIS HE FL

Air cooled liquid chillers equipped with two on/off screw compressors, axial fans, flooded evaporator and microchannel condensing coils.

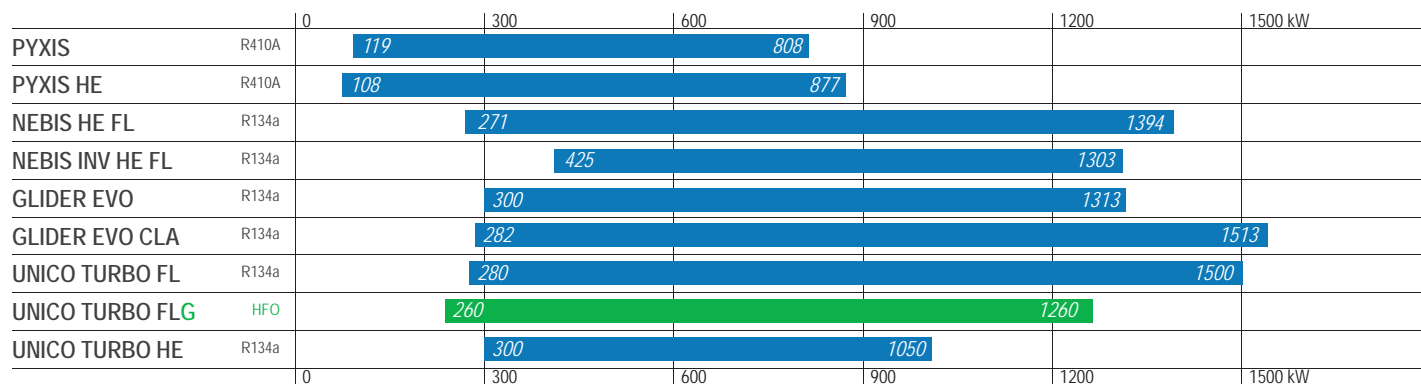


NEW!



NEBIS INV HE FL

Air cooled liquid chillers equipped with inverter + on/off screw compressors, axial fans, flooded evaporator and microchannel condensing coils.



HE - high energy efficiency, A energy efficiency class according to EUROVENT;

FL - equipped with flooded shell and tube evaporator;

INV - equipped with screw inverter compressor;

TURBO - equipped with centrifugal compressors with magnetic levitation bearings;

G - HFO1234ze refrigerant charge.



HFO1234ze
RC Hi-Tech



AIR COOLED LIQUID CHILLERS WITH FREE-COOLING SYSTEM



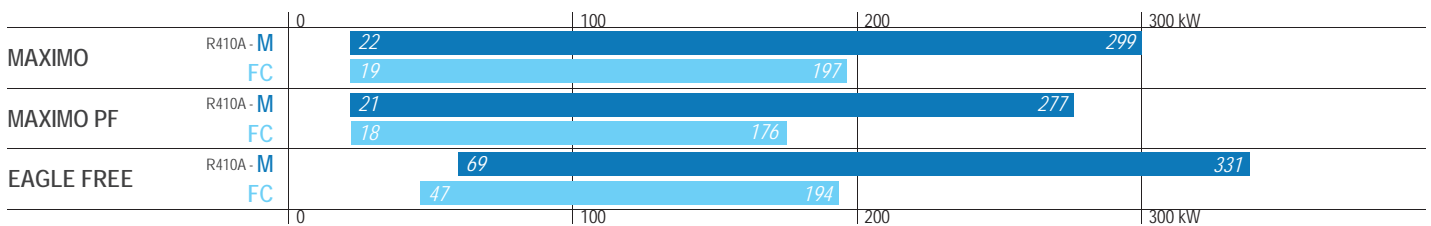
MAXIMO - MAXIMO PF

Air cooled liquid chillers with free-cooling system equipped with scroll compressors and axial fans or plug fans.



EAGLE FREE

Air cooled liquid chillers with free-cooling system equipped with scroll compressors and axial fans.



PF - equipped with plug fans, for indoor installation;

M - mechanical cooling;

FC - Free-Cooling



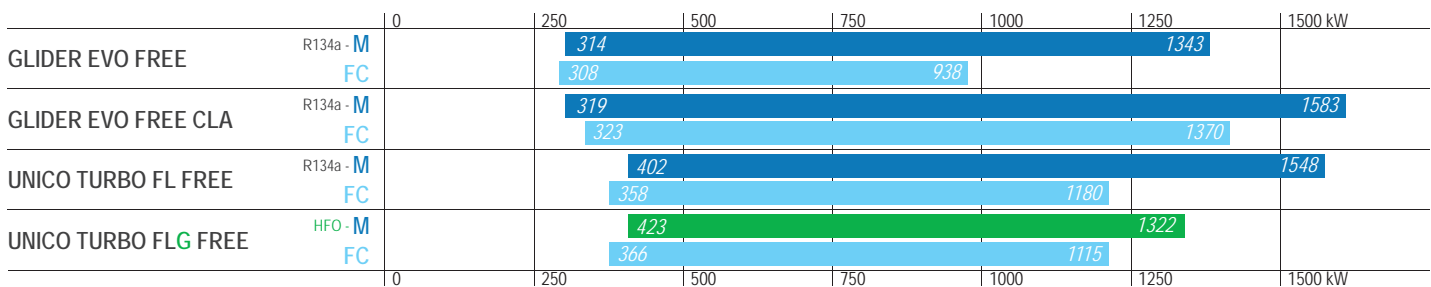
UNICO TURBO FL FREE

Air cooled liquid chillers in A-class energy efficiency with free-cooling system equipped with oil-free centrifugal compressors with magnetic levitation bearings, flooded evaporator and microchannel condensing coils.



GLIDER EVO FREE

Air cooled liquid chillers with free-cooling system equipped with screw compressors and axial fans.



PF - equipped with plug fans, for indoor installation;

FL - equipped with flooded shell and tube evaporator;

CLA - A class energy efficiency;

TURBO - equipped with centrifugal compressors with magnetic levitation bearings;

G - HFO1234ze refrigerant charge.

M - mechanical cooling;

FC - Free-Cooling

GO GREEN
Innovative solutions

HFO1234ze
RC Hi-Tech



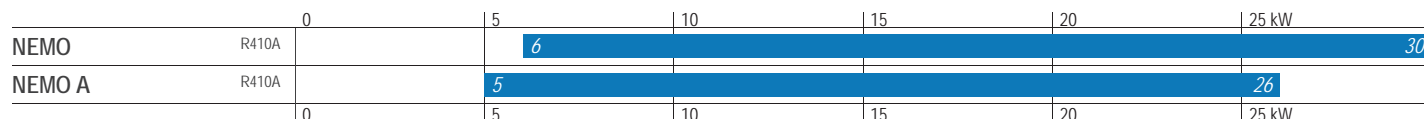
Chillers - Products overview

WATER COOLED LIQUID CHILLERS



NEMO

Water cooled liquid chillers equipped with scroll compressor.



A - motoevaporating unit, to be matched with remote condenser;



MANTA EVO

Water cooled liquid chillers equipped with scroll compressors.



FRIGO SCREW K

Water cooled liquid chillers equipped with a single screw compressor.



FRIGO SCREW

Water cooled liquid chillers with A-class energy efficiency equipped with screw compressors.



FRIGO TURBO K

Water cooled liquid chillers equipped with oil-free centrifugal compressor with magnetic levitation bearings and plate type heat exchanger.



FRIGO TURBO FL

Water cooled liquid chillers equipped with A-class energy efficiency equipped with oil-free centrifugal compressors with magnetic levitation bearings and flooded evaporator.

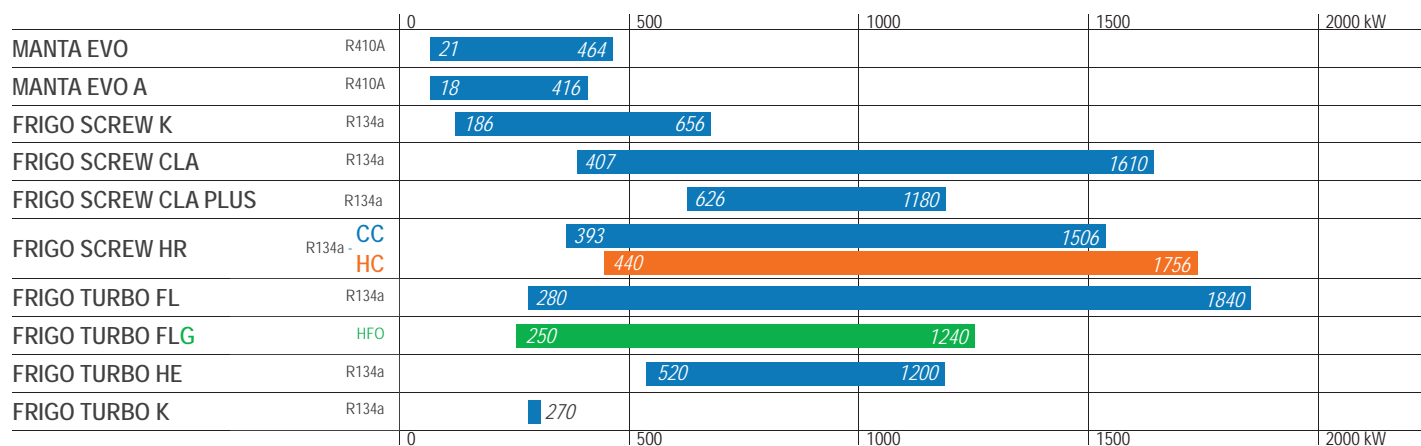


HFO1234ze
RC Hi-Tech



FRIGO TURBO FLG

Water cooled liquid chillers equipped with A-class energy efficiency equipped with oil-free centrifugal compressors with magnetic levitation bearings and flooded evaporator.



A - motoevaporating unit, to be matched with remote condenser;

K - compact version;

CLA - A class energy efficiency; CLA PLUS - exceeding A class energy efficiency;

HR - Heat Recovery version;

FL - equipped with flooded shell and tube evaporator;

TURBO - equipped with centrifugal compressors with magnetic levitation bearings;

G - HFO1234ze refrigerant charge; CC - Cooling Capacity; HC - Heating Capacity.



AIR COOLED HEAT PUMP LIQUID CHILLERS



SMART 2 HP

Air cooled heat pump liquid chillers equipped with scroll compressor and axial fans.



REVERSO - REVERSO PF

Air cooled heat pump liquid chillers equipped with scroll compressors and axial fans or plug fans.



GOGREEN
innovative solutions

ALUMINUM
RC Hi-Tech

10 YEARS WARRANTY
on cabinet



PYXIS HP U

Air cooled heat pump liquid chillers equipped with scroll compressors and axial fans.

NEW!

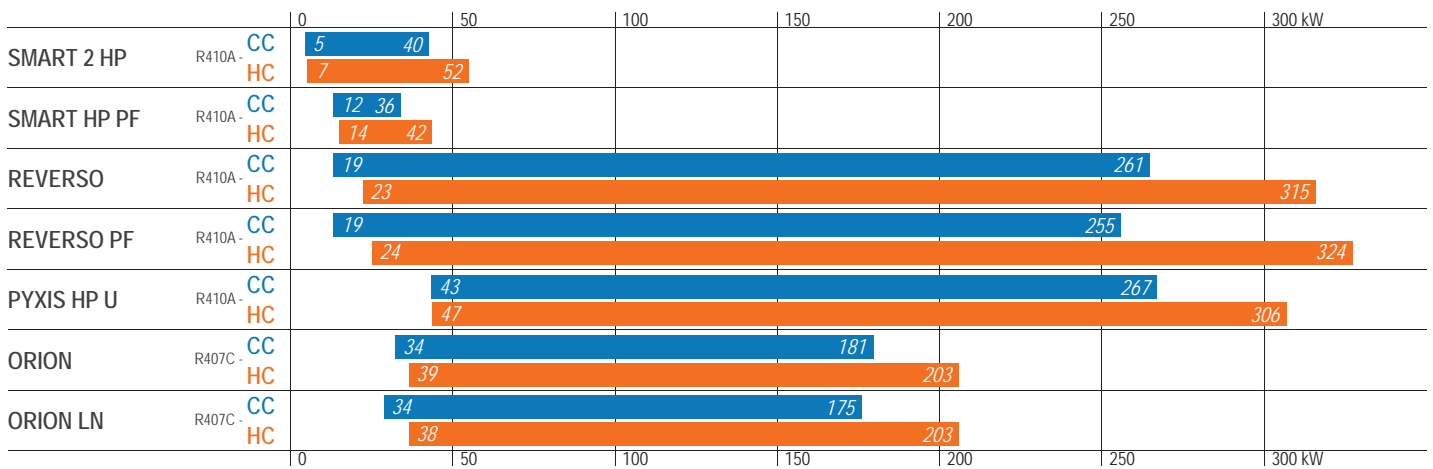


HITEMP 65°
RC Hi-Tech

GOGREEN
innovative solutions

ORION

Air cooled heat pump liquid chillers equipped with scroll compressors and axial fans.



PF - equipped with plug fans, for indoor installation;
LN - low noise version;

CC - Cooling Capacity;
HC - Heating Capacity.



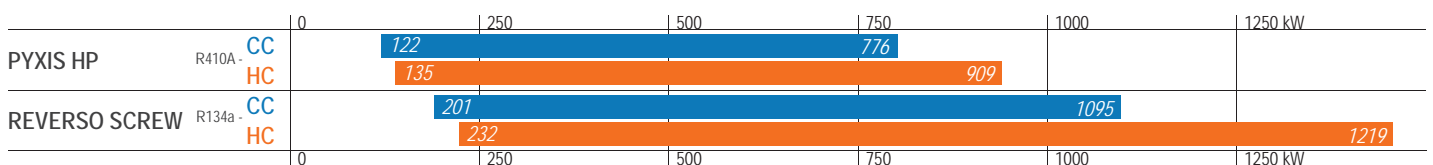
PYXIS HP

Air cooled heat pump liquid chillers equipped with scroll compressors and axial fans.



REVERSO SCREW

Air cooled heat pump liquid chillers equipped with screw compressors and axial fans.



CC - Cooling Capacity;
HC - Heating Capacity.



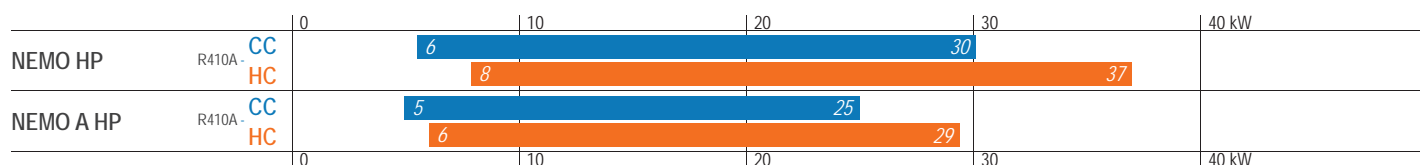
Heat Pumps & Multifunction - Products overview

WATER COOLED HEAT PUMP LIQUID CHILLERS



NEMO HP

Water cooled heat pump liquid chillers equipped with scroll compressor and plate type heat exchangers.



A - motoevaporating unit, to be matched with remote condenser;

CC - Cooling Capacity;

HC - Heating Capacity.



MANTA EVO HP

Water cooled heat pump liquid chillers equipped with scroll compressors and plate type heat exchangers.

GOGREEN innovative solutions

NEW!



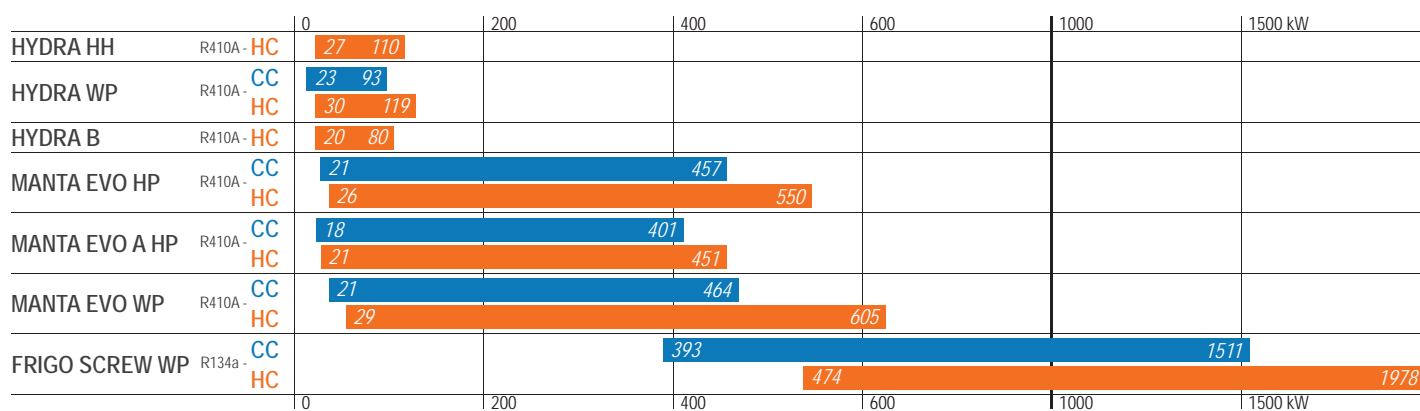
HYDRA

Water cooled heat pump liquid chillers equipped with scroll compressors and plate type heat exchangers.



FRIGO SCREW WP

Water cooled heat pump liquid chillers equipped with screw compressors and shell and tube heat exchangers. Inversion on hydraulic circuit.



HH - heating only version;

WP - inversion on hydraulic circuit;

B - geothermal version;

HP - Inversion on refrigerant circuit;

CC - Cooling Capacity;

HC - Heating Capacity.



MULTIFUNCTION CHILLERS



MULTIPLO PF

Air cooled multifunction chillers equipped with scroll compressors and plug fans.



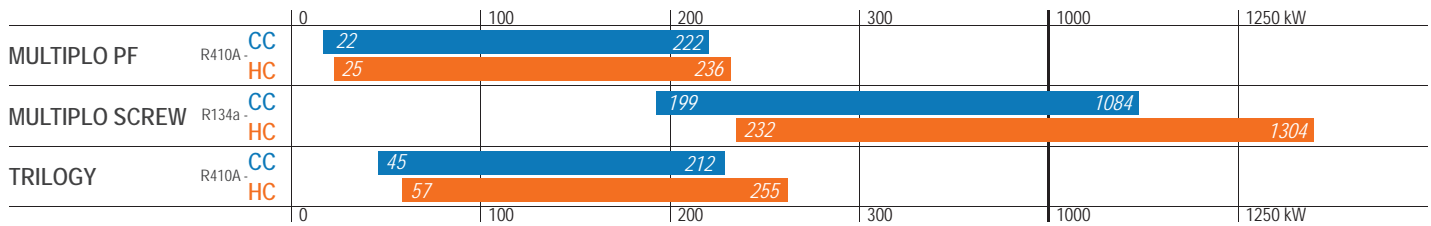
MULTIPLO SCREW

Air cooled multifunction chillers equipped with screw compressors and axial fans.



TRILOGY

Air cooled multifunction chillers equipped with scroll compressors and axial fans.



PF - equipped with plug fans, for indoor installation;
 CC - Cooling Capacity;
 HC - Heating Capacity.

REMOTE CONDENSER AND HEAT EXCHANGERS TO BE MATCHED WITH RC GROUP MACHINES



DRY COOLER

8,3 ÷ 172,0 kW

Dry coolers equipped with axial fans



DRY COOLER PF

8,8 ÷ 89,0 kW

Dry coolers equipped with plug fans



TEAM MATE

12,1 ÷ 307,0 kW

Remote air/gas heat exchanger equipped with axial fan.



TEAM MATE PF

12,1 ÷ 155,0 kW

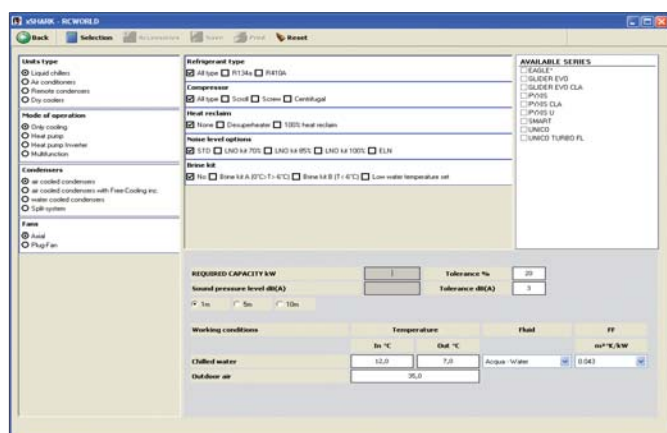
Remote air/gas heat exchanger equipped with plug fan.



Artificial Intelligence - Products overview



On-line WEB application for the calculation of the performance of the range of RC Group products to all the permissible operating conditions.



The software is free, it is easy to use and is available for download at www.rcgroup.it. To download you need to register.

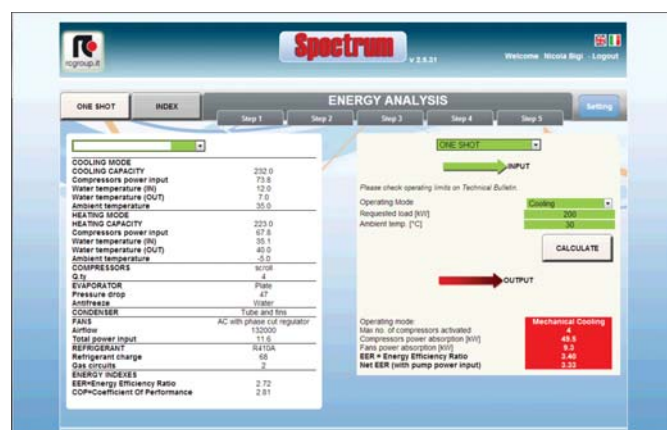
The installation is guided and requires an activation code that is provided by the RC GROUP commercial department.

RC WORLD offers:

- Multiple selection and calculation;
- Comparison between multiple machines of the same or different series;
- Calculation of the sound spectrum of the machine;
- Dimensional drawings of the machines;
- Description of the components of the machine and the options selected;
- Check for incompatibility of the selected accessories;
- Data sheet of the product and accessories with output in PDF format;
- Database updated thanks to the on-line application;
- Export file to be used for calculating the energy performance in SPECTRUM.
- Calculation of energy efficiency of the unit at partial loads (ESEER) achievable by connection to the energy performance estimation software SPECTRUM via Web Service.



On-line WEB application able to predict the Energy performance of the units (chillers and heat pumps) and to conduct a comprehensive energy analysis.



The software is free, it is easy to use and is available at www.rcspectrum.it. To use the software you need to register.

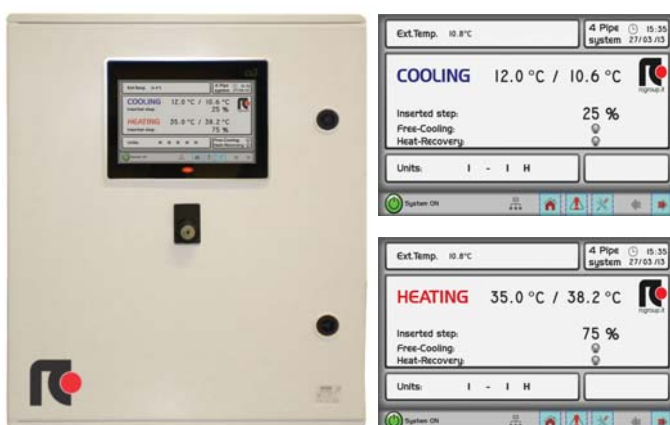
Once the selection and calculation performance of the desired machine in RC WORLD, you export a file to be used for the calculation in SPECTRUM.

SPECTRUM offers:

- Energy performance of whatever unit in a specific operating condition ("ONE SHOT" mode):
 - Gross and net EER for chillers;
 - TER calculation for chillers with heat recovery;
 - Gross and net COP for heat pumps, with estimation of defrost for air-to-water units.
- Evaluation of standard indexes:
 - ESEER: European seasonal energy efficiency ratio (in cooling mode).
- Energy analysis (one year-based estimation):
 - Single machine,
 - Multiple configuration of a single model, with parallel or sequential mode of insertion;
 - Comparison of different models on the same plant;
 - Complex layout, with machines of different models and size, with sequencing rules in accordance to Master Plant SEQuencer functions.



Master Plant SEQuencer offers some useful tools for the management of several units installed in parallel on a hydronic network: liquid chillers; heat pumps, multifunction units and dry coolers.



The features of Master Plant SEQuencer add value to the installed units, to the plant and to the building.

Master Plant SEQuencer offers:

- Energy savings maximization;
- Noise reduction;
- Optimum efficiency of the units;
- Plant monitoring and management in synergy with RC CLOUD PLATFORM.

Master Plant SEQuencer can be applied to:

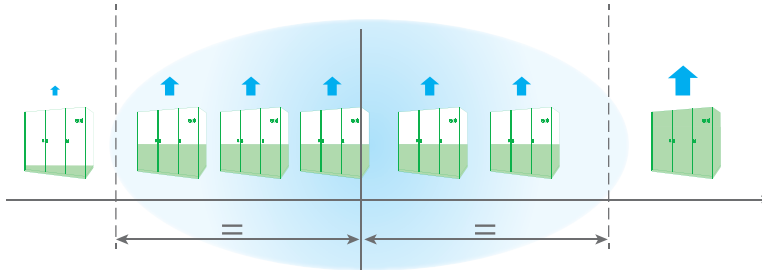
- 2-pipe, 4-pipe plants;
- In parallel installed units;
- Up to 5 liquid chillers, even different in type and size, as liquid chillers; heat pumps and multifunction units;
- Chillers supplied by other manufacturers, different from RC Group;
- Pumps with fixed speed, variable speed and the RC Group WPC system.
- Dry coolers.

The device is designed to work in standalone mode or in combination with a BMS supervisor.



Intelligent NET for IT Cooling that maximizes the energy saving in LOAD SHARING.

COOLNET is a software that applies to chilled water air conditioners X TYPE, NEXT EVO CW and COOLROW CW microprocessor control system. It optimizes the LOAD SHARING working mode and maximizes the energy savings.



COOLNET:

- Manages up to 15 units in LAN, to optimize the temperature statistics. More than 15 units can be managed in groups.
- Minimizes power consumption, controlling uniformly units within the cooling zone.
- Increases energy saving of the units by a factor up to 40% when compared with BAC standard solution.
- Avoids the heating/cooling fighting. The units work together to efficiently satisfy thermal load.
- Optimizes the answer to unbalanced load through a smart self-adaptive LOAD SHARING.
- The master unit, through the application of heuristic algorithm, elaborates the average return temperature of all of the linked units and defines a Cooling Zone. It then processes the common load signal that modulates the fan speed of all the units within the operating band.
- Answers to the main needs of the XXI century Data Center:
 - Lower energy consumption. Savings on bills.
 - Management of unbalanced load.
 - Flexibility. Adaptability to the IT equipment evolution.
 - Ease of use. Simple parameters to be set, just turn on Cool Net function.
- Don't require any additional electronic equipment, compared with standard unit.



NEW!

The user, accessing the platform from rccloudplatform.rcgroup.it site, RC group site, or iOS and Android apps, is allowed to directly work on the field through the designed interface.

Each RC Cloud Box can manage up to 400 Modbus registers and up to 31 serially connected RC Group units: Air conditioners; Liquid chillers; Heat pumps and multifunction units.

The modular structure of RC CLOUD PLATFORM offers t:

- Real time plant's check and units remote control (start/stop, set point modification, alarms reset);
- Customizable visualization and analysis (historical) of each unit data;
- Charts creation and export;
- Data monitoring on maps;
- SMS, Mail, Speech Synthesis, FAX and APP (iOS e Android) notifications;
- Integration of different devices in the system (WPC, Energy Performance, ...)

RC CLOUD PLATFORM can receive plant information and directly operate on main operative parameters by connection with Master Plant SEQUENCER, RC Group sequencer for liquid chillers, heat pumps and multifunction unit.



NEW!

WPC system by RC Group allows to obtain the maximum energy savings possible maintaining a high comfort level. WPC controls the water flow of a plant to the lowest possible value, so as to always ensure only the amount necessary to meet the load and to ensure the proper operation of the unit.

WPC is a completely autonomous system:

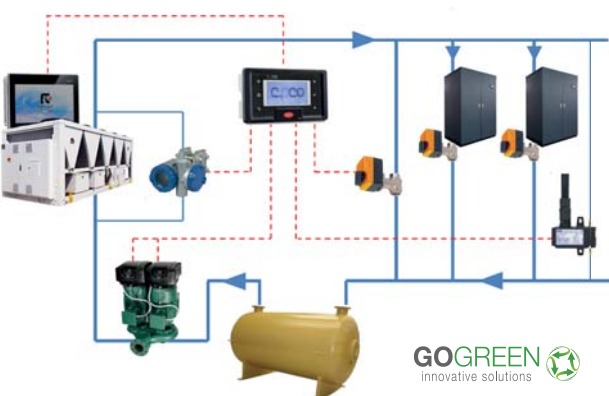
- Available for Chillers and Heat Pumps;
- Profitable for IT Cooling and Comfort plants;
- For units from 50 kW up to 800 kW;
- Maximum 2 chillers connected;
- Optimal for units with multi-scroll on/off compressor;
- Optimal for units with proportional capacity control screw compressor;
- The best solution for units with inverter driven compressors.

For plants greater than 800 kW or more than 2 chillers, it is for use with SEQUENCER or a BMS.

WPC offers the following possibilities:

- Proper operating conditions;
- Energy saving;
- High comfort level;
- Economic advantage;
- Respect for the environment.

Inverter pumps and controls for chillers and heat pumps





RC GROUP S.p.A
Via Roma 5 • 27010 • Valle Salimbene (PV) • Italy
Ph. +39 0382 433811 • Fax +39 0382 587148
www.rcgroup.it • info@rcgroup.it

A Group Company of **mitsubishi electric**



www.rcgroup.it

C_PRF_0316_GB

Technical data and dimensions are not binding. RC GROUP S.p.A. reserves the right for changes and / or modifications without notice.