INNOVATION IN COMFORT SINCE 1978

RDZ
invisible heating and cooling

For over 40 years RDZ has been a leading company in Italy on the heating and cooling market. Our daily task is to improve indoor comfort in residential, commercial and industrial buildings, both for new constructions and for renovation projects.
We have been always using innovative materials to reach high quality standards and we have been always focusing on developing solutions which can meet even the most demanding requirements.
The steady relationship with partners and customers is the core of RDZ philosophy to offer passion, high professionalism, expertise, teamwork and know-how.
Thus looking to the future with deep confidence and positive thinking.

www.rdz.it

AIR HANDLING

Clean and Fresh Air for Comfortable and Healthy Rooms

Comfort also means air quality: fresh air, full of oxygen, taken from outside, filtered and dehumidified. With the modern construction technologies and the widespread awareness of energy saving, the new trends in the building sector promote buildings which are increasingly insulated from the thermal point of view but which are poor as for ventilation, that is to say, the natural and spontaneous air exchange in the rooms through doors, windows and walls. In order to guarantee health and maximum living comfort throughout the year, RDZ offers specific air handling units to manage the fresh air ventilation with heat recovery as well as the summer dehumidification.

- Energy saving thanks to heat recovery and free-cooling
- Maintaining the added value of the building
- Easy installation: Embedded, wall, ceiling versions
- No condensation nor mould risk

CHR 200-FC Mechanical Ventilation Unit

High Efficiency and Comfort all Year Round

The CHR 200-FC mechanical ventilation unit with high-efficiency counter-flow heat exchanger (>90%) made of polypropylene is suitable for small- and medium-sized residential buildings, either single-detached dwellings or in block of flats. It is designed for horizontal false ceiling installation and it is equipped with by-pass connection for the free-cooling function and 4 NTC sensors to detect air temperature in the air outlets and inlets.

- Air flow-rate: 200 m³/h with 200 Pa (250 m³/h boost)
- Specific power: 175 m³/h, 50 Pa: 0.309 W/(m³/h)
- Sound pressure level at 1 m: 43.5 dB(A)
- Air outlets: Ø 150 mm

RNW 204 Dehumidifier

The Best Solution with Surface Cooling

RNW 204 dehumidifier is used to control the level of relative indoor humidity in floor/ceiling/wall cooling systems with radiant panels. It consists in a complete refrigeration unit (R134a refrigerant), equipped with pre- and post-treatment coils, which are fed with the cold water from the radiant panels.

- Power consumption 340 W
- Air flow 200 m³/h
- Water flow rate at 15 °C 240 L/h
- Dehumidification capacity 24 L/24h (26 °C - RH 65%)

UC 500-MVHE Unit Comfort

Dehumidification and Fresh Air Ventilation

Vertical unit for fresh air ventilation with high efficiency heat recovery (~90%) and for summer dehumidification with setting of the outdoor air flow rate and possible operation with total or partial recirculation. The machine, designed for a floor-standing installation, is built in a single block that performs the air ventilation with heat recovery and thermodynamic handling of the inflow air: this means summer dehumidification and control of winter and summer temperatures. The functions of the unit UC 500-MVHE, which can be controlled through the user panel, are: fresh air ventilation, free-cooling (at controlled water temperature), free-heating, booster, dehumidification, integration of summer and winter sensible capacity.

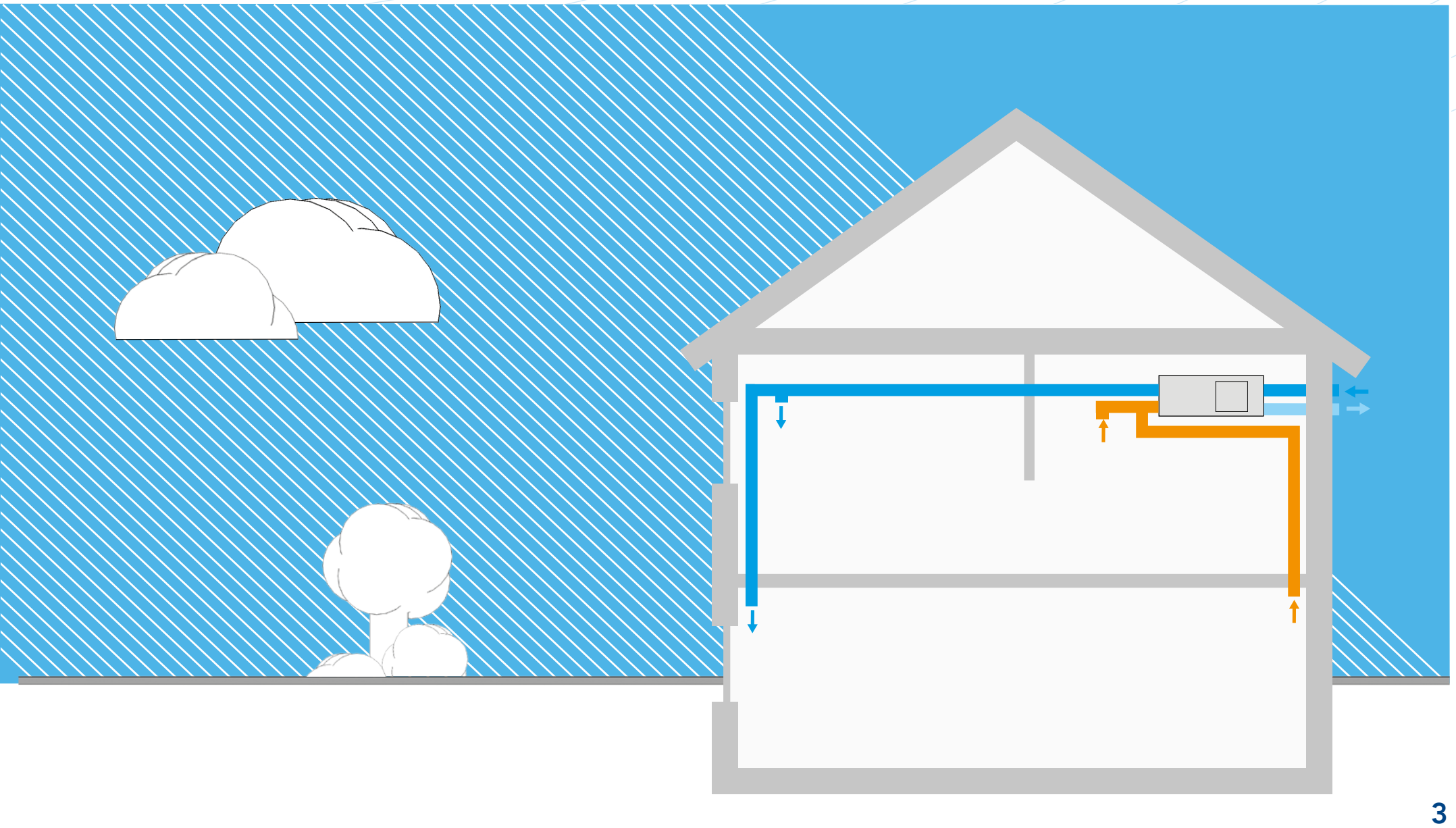
- Dehumidification (air recirculation 500 m³/h) 61.9 L/24h (26 °C RH 65%)
- Dehumidification (fresh air ventilation 400 m³/h) 95.1 L/24h (35 °C RH 50%)
- Ventilation flow-rate up to 400 m³/h
- Supply air flow-rate up to 500 m³/h
- Nominal water flow-rate at 15 °C 500 L/h
- Additional sensible cooling 1925 W (free)

ModulAir Distribution System

The Right Air Flow In All Rooms

RDZ MODULAIR is a versatile and flexible air distribution system with a full set of plenums and semi-rigid ducts for supply and extraction of air, which provide even airflow and balanced ventilation. All components are treated with anti-static agents to ensure perfect cleanliness and easy maintenance. One of the main benefits is the reduction in transmitted noise because all materials are made of plastic.

- Easy and fast modular installation
- Reduced noise transmission
- Easy maintenance and cleaning
- Reduced number of necessary components



UNDERFLOOR HEATING AND COOLING

Feel the Comfort Around You

Underfloor heating is synonymous with comfort: the uniform distribution of temperature within a living or working environment generates a pleasant sensation of physical wellbeing and ensures significant energy-saving, total furnishing freedom, and clean and healthy rooms. Underfloor heating systems can be also covered in any type of flooring and they allow full use of the available space, with a wide range of furnishing options. Since the floor is the heated surface, cleaning is also easy to perform. Furthermore, the absence of convective air flows limits any potential movement of dust or impurities in the air. This not only improves the sanitary conditions of the premises, but also eliminates any problems regarding the blackening of walls and curtains.

- High comfort
- Reduced energy consumption
- Heating and cooling in one system
- Nice and spacious rooms

Cover HP System

Excellent Thermal Insulation with Reduced Thickness

COVER HP is RDZ insulating panel with studs for underfloor heating and cooling. Since it is made of sintered polystyrene with graphite, it ensures top performance as thermal insulation even with minimal depth. It can be applied to a range of applications, such as houses, offices, churches, shops, etc. The different versions of insulating thickness suit the requirements of thermal resistance according to UNI EN 1264-4.

- Compressive stress at 10 % deformation: 120 kPa comforming to UNI EN 826
- Thermal conductivity at 10 °C: 0.031 W/(m·K) comforming to UNI EN 13163
- Insulation thickness: 20 / 30 / 38 / 54 mm
- Thermal resistance: 0.90 / 1.25 / 1.50 / 2.00 (m^2·K)/W comforming to UNI EN 13163

Acoustic Plus System

Thermal and Acoustic Insulation in One Solution

ACOUSTIC PLUS is a specific underfloor heating and cooling system with acoustic properties. It consists in an insulating panel made of stretch, expanded, sintered polystyrene with double density. Its components and production technology ensure unique acoustic properties to absorb the trample noise. It has a moulded surface with studs according to RDZ spacing, and it is combined with a special plastic film in conformity with UNI EN 1264. Insulation thickness: 20 / 30 mm.

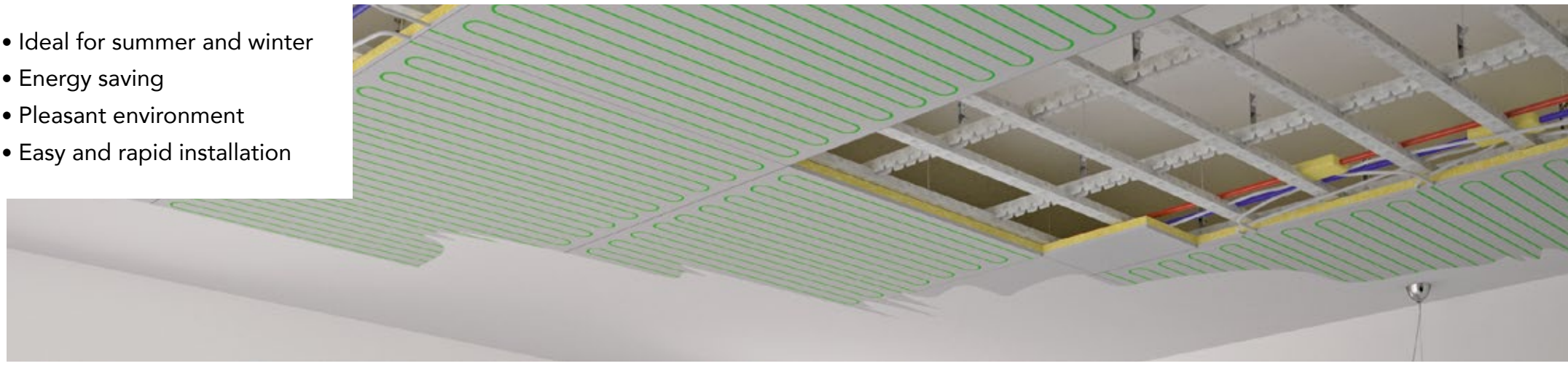
- Compressibility CP3 ≤ 3 mm comforming to UNI EN 12431
- Thermal resistance: 0.80 / 1.05 (m^2·K)/W comforming to UNI EN 13163
- Trample noise reduction of ΔLw 29 dB for 20-mm version (according to UNI EN 12354-2)
- Trample noise reduction ΔLw 26 dB for 30-mm version (according to UNI EN 140-8)
- Dynamic rigidity SD ≤15 MN/m^3 (20-mm thickness)
- Dynamic rigidity SD ≤20 MN/m^3 (30-mm thickness)

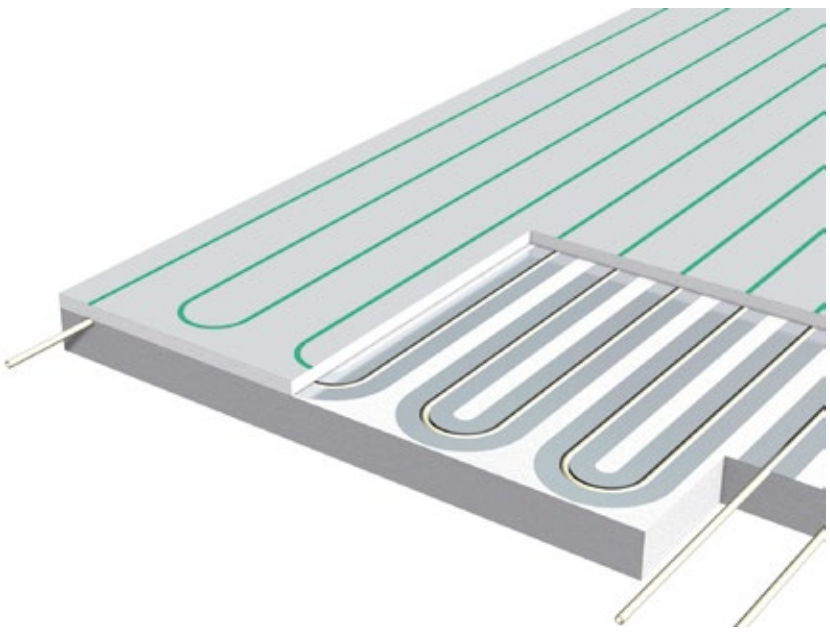
WALL AND CEILING SYSTEMS

Invisible Comfort Every Time and Everywhere

b!klimax is an integrated heating and cooling system that exploits the ability of ceilings and walls to exchange heat and cold with the environment and with people by radiation. In this way the human body can perfectly balance its heat exchanges, increasing the level of perceived comfort. Its very low thermal inertia and high efficiency make b!klimax the ideal system for houses, renovated buildings and commercial applications. Completely concealed in ceilings or walls, b!klimax makes it possible to use all the available space while improving the appearance of the room. b!klimax is a low-temperature system that saves you money on operating costs and can be used with ecofriendly, alternative energy sources. The absence of any convective movements caused by temperature differences between the heating source and the environment means that no dust or impurities are blown into the air, thus improving hygiene.

- Ideal for summer and winter
- Energy saving
- Pleasant environment
- Easy and rapid installation





b!klimax+ System with Plasterboard

High Comfort and Noiseless Functioning without Air Currents

b!klimax+ radiant panels with plasterboard make for fast and easy installation, and they consist of 12.5-mm thick plasterboard, where 4 hydraulic circuits of PB pipe Ø 6 mm with oxygen barrier are fixed. These panels can be installed into a traditional false-ceiling or false-wall metal structure, and they are used as heating and cooling system in residential and commercial buildings. Thermal insulation is available either as polystyrene layer or as rockwool layer. Minimum construction height: 12 cm.

- Size 1200x2400x52 mm
- 4 hydraulic circuits of 12.0 m each
- Polystyrene / rockwool insulation
- Weight : 29.2 / 47.6 Kg

Quadrotto System

Feeling Good at Work

b!klimax+ Quadrotto is a ceiling heating and cooling system, consisting in 6-mm PB pipes with oxygen barrier fixed on metal or plasterboard tiles. These active panels are available with polystyrene or rockwool insulation, they make for fast and easy installation, and they can be removed for inspection and maintenance operations, even while the system is working. Thanks to their low inertness, high thermal output, and ability to ensure healthy environment, b!klimax+ Quadrotto represents the ideal solution for commercial applications and hospitals, where it is important to maintain comfortable conditions all year round.

- Size 600x600x40 mm
- Circuit length 5 m
- Polystyrene / rockwool insulation
- Weight : 1.9 / 4.1 Kg

ROOM CLIMATE CONTROL

The Easiest Way To Regulate Your System

The correct operation of surface heating and cooling implies the choice of the right temperature control that shall guarantee top performance and energy saving at any moment. RDZ thermoregulation systems monitor the room climate in floor, ceiling, wall installations in a very easy and efficient way. They are versatile solutions which can be used in small houses, large multi-zone applications or even in centralized systems and regulation for each single user.

- Specific devices for radiant applications
- Highest efficiency and user-friendly solutions
- Compact, smart and practical solutions
- Versatility and modularity

Wi-SA Controllers

The Intelligent Climate Control

Wi-SA electronic control systems are complete, expandable solutions to regulate underfloor/ceiling/wall heating and cooling. They are used to control all the parameters involved in the functioning of the radiant installation both in winter and in summer. Each controller can also communicate with smart technology or supervisory systems for building automation and remote monitoring. In its top configuration Wi-SA controller can regulate:

- 8 mixing valves (with analogue actuator)
- 64 temperature/humidity sensors
- 64 dehumidifiers
- 8 air handling units

Wi-TP Pro Control Panel

The Smart Regulation of Indoor Comfort

Wi controllers can communicate with smart technology systems for home automation control. Wi-TP Pro is a touch-screen control panel for the supervision on the heating and cooling system. This panel makes the use of the thermoregulation easier thanks to flexible display and control. As a matter of fact, Wi-TP Pro sends information through Ethernet port, and the main data can be displayed on a PC or on other electronic devices connected to Lan or Web net by using any kind of Browser.

- System supervision
- Temperature and humidity setting
- Time slots and weekly programs
- Alarms and connectivity

GM Mixing Units

Compact Size and Easy Mounting

In order to save space and make the boiler room installation easier and quicker, RDZ presents a range of mixing units and direct supply unit to be combined with surface heating and cooling. GM mixing stations contain a high-efficiency circulation pump with variable flow-rate and pressure, and they include a mixing valve to control the supply water temperature. These modules are available in different models: the thermostatic set-point control, the 3-point version with 230V output signal and the 24V model with 0-10 output signal.

- Complete pre-assembled unit
- Electrical wiring
- Reduced installation costs
- Reliability and high quality

AIR TO WATER HEAT PUMPS

Energy from Nature

High-efficiency air to water heat pumps by RDZ are used for winter heating, summer cooling and domestic hot water production as eco-friendly and energy-saving solutions. RDZ range includes monoblock and split units from 6 to 25 kW, and they can be used in residential applications or small commercial applications, both for new and renovated buildings. Reliability, flexibility, easy installation, practical use, energy saving are the focal points of these special products. All models can manage domestic hot water production. RDZ heat pumps are included in Energy Class "A" rating and make it possible to get financial incentives for energy saving.

- Clean energy for heating and cooling
- Option for domestic hot water production
- Ideal solution in both new and refurbished buildings
- Reliability and no maintenance

HP Monobloc Heat Pumps up to 14 kW

The Latest Technology in Comfort Solutions

RDZ HP heat pumps are the innovative renewable energy solutions for heating, cooling and hot water production in residential and small commercial applications. In particular, HP units are the only heat pumps that can produce DHW at the same time as heating and cooling rooms, thanks to the special refrigerant connection. And during cooling running, water is heated by using the heat recovery technology of Saniplus module.

- 5 models corresponding to different nominal thermal capacities from 6 to 14 kW
- FULL DC INVERTER technology for circulator, compressor and fans
- Energy class A ++ in heating mode
- Digital control panel with LCD display

PDC Wall Split Heat Pumps up to 25 kW

In the Heart of RDZ Energy System

RDZ Split heat pumps in PDC Wall version consist of one outdoor unit and a wall-hung indoor unit. The two parts are connected by a copper line for refrigerant (gas) circulation. PDC Wall split heat pumps. Domestic hot water in summer functioning is supplied with outdoor temperature up to 40 °C.

- 9 models corresponding to different nominal thermal capacities from 5 to 25 kW
- High-efficiency brazed plates heat exchanger
- Separate control for DHW and heating/cooling temperature
- Diverting valve, tablet with Web Server, backup heaters as optional accessories

PDC Floor Split Heat Pumps up to 15 kW

Naturally Elegant, Naturally Efficient

RDZ Split heat pumps in PDC Floor version consist of one outdoor unit and a floor-standing indoor unit.

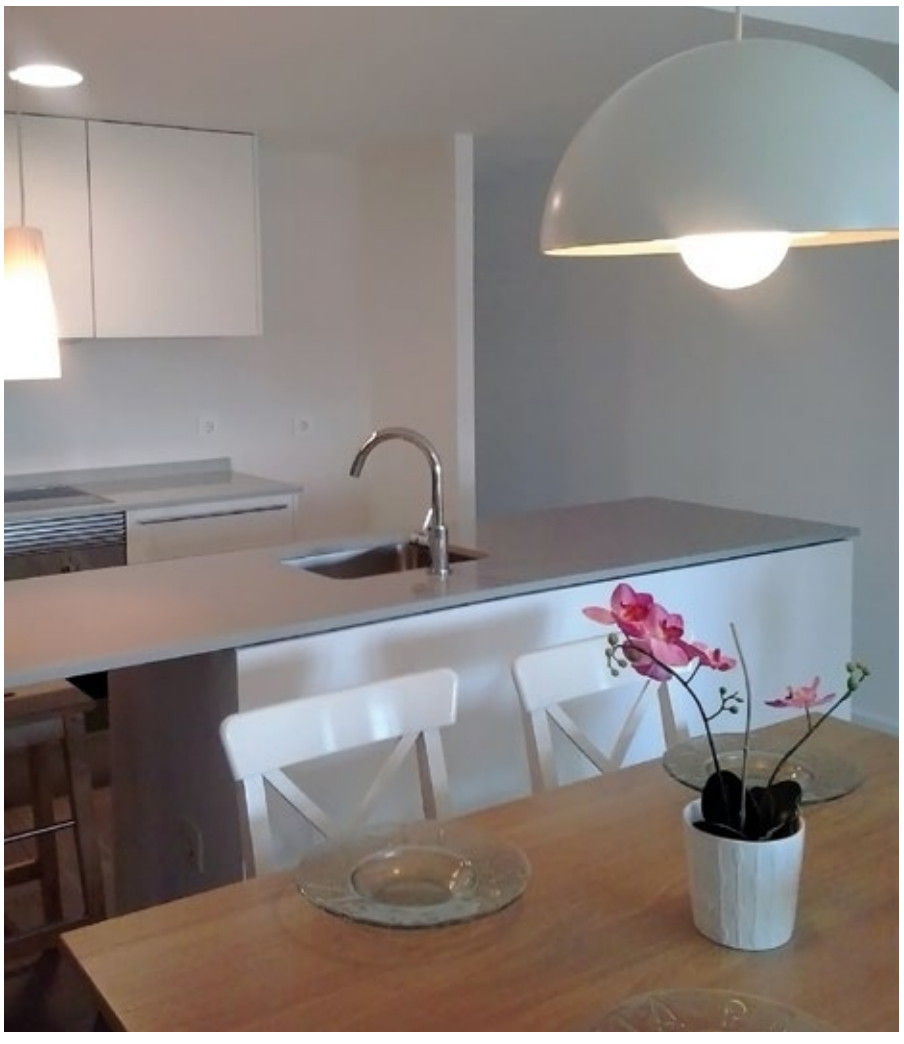
- 7 models corresponding to different nominal thermal capacities from 5 to 15 kW
- Compact and elegant solution
- 200-L inertial tank with instantaneous heat exchanger for DHW
- Hydraulic and refrigerant connections on the top of the module

REFERENCE PROJECTS AROUND THE WORLD

Since 1978 RDZ has been designing and producing complete heating and cooling solutions to spread the ideal climate in residential, commercial and industrial buildings. In houses, offices, shops, hospitals, schools, warehouses, churches, showrooms and other different types of buildings RDZ offers a broad variety of integrated systems to meet any need in terms of indoor comfort. Below you can find some examples of high-efficiency solutions by RDZ, where end-users can enjoy healthy, spacious and comfortable rooms, in winter and in summer, with reduced energy consumption.

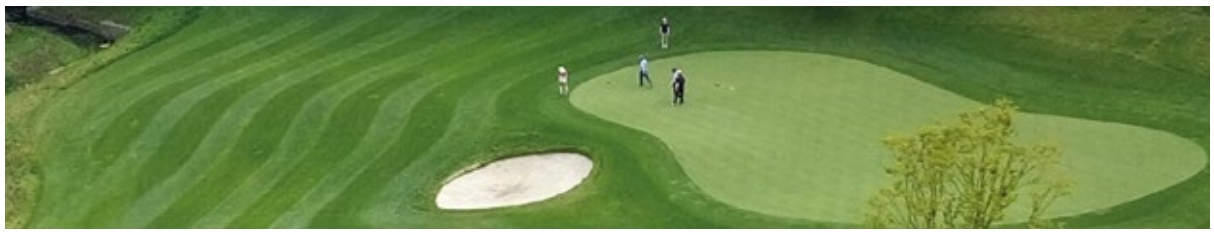
Spain

Underfloor heating and cooling in 176 flats. Energy class A. Thermoregulation is carried out by RDZ Easy Clima kits, which contain all necessary elements for temperature control: a closing by-pass for primary circuit, a 3-way mixing valve, distribution manifolds, an electronic circulation pump with variable speed, a micrometric lockshield valve, a one-way valve, shut-off valves, thermometers, a balancing lockshield valve, air vent and fill/ drain valves.



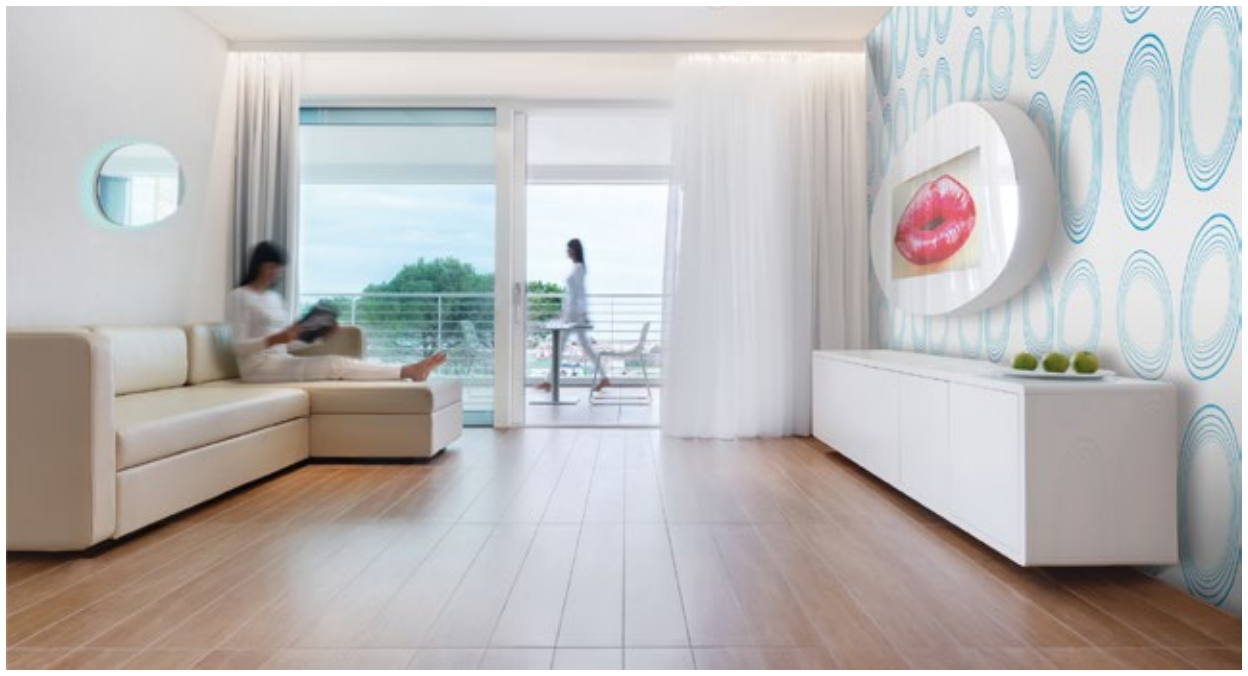
South Korea

Ceiling heating and cooling with b!klimax+ Quadrotti 600x600, Wi controllers and UC 1000 air handling units for a luxury golf residence in South Korea.



Venice

Underfloor heating system for the first Clima Resort in Europe with A+ energy certification. It is an eco-friendly building for energy saving with 80% reduction of the energy need.



Milan

Not only a location but a true communication tool very closed to the Dom in Milan.
The utmost indoor comfort is achieved through RDZ system in its most complete expression: compact underfloor heating and cooling with very low thermal inertia, air handling units with heat recovery; high efficiency heat pumps; smart temperature control.

Comfort All Year Round

The good season in all seasons

In RDZ Comfort System, the radiant technology in floors, ceilings or walls interacts with the high-efficiency heat pumps, the electronic devices to control the room temperature/humidity and the air handling units. In this way, the whole system can perfectly spread embracing warmth in winter and pleasant coolness in summer, creating a unique sensation of well-being in a clean and healthy environment. As a result, RDZ solutions are tailored to any residential, commercial and industrial project both for new constructions and for modernising old buildings, thus outlining the indoor climate according to the specific needs in every season.

Energy Saving

RDZ eco-friendly footprint

RDZ radiant systems are green solutions because they are designed according to the regulatory framework dictated by the Energy-Climate Package 20-20-20. This EU plan established to reduce greenhouse gas emissions, to increase the share of renewable energy in EU's overall energy mix, and to reduce overall energy use all by 20 percent by 2020.
RDZ air handling units perform the air exchange, while recovering the thermal energy and controlling the level of room humidity in case of summer cooling. RDZ radiant solutions bring the thermal energy in every room and provide low temperature heating in winter and high temperature cooling in summer. RDZ electronic devices control the parameters of the radiant system in a constant and accurate way, thus optimizing the use of energy produced by RDZ high-efficiency heat pumps, which employ the power already present in nature.

Top Professionalism and Great Expertise

Your reliable partner for long-term cooperation

RDZ has been a quality-oriented company since its very beginning, using the finest materials and developing newer and newer technologies for indoor comfort, while offering partners great enthusiasm, long expertise and top-level solutions. Customers are at the core of our activities every day. We provide them with complete service in terms of professional consulting for designing, technical training, installation assistance, and after-sales support.

Technology and Innovation

A highly specialised centre for cutting-edge solutions

Quality and efficiency in radiant heating and cooling systems come from original ideas and investigation on new performing components. This is the heart of RDZ Research and Development activities, which give birth to the latest heating and cooling solutions for the indoor comfort.
We have been always using the best material, investigating innovative technologies and carrying out regular control on goods. This allows us to refine our products thus ensuring high standard and excellent performance.

Follow us on:

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COMFORT FLOWS IN THE AIR

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RDZ
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