

Installation, operation and maintenance manual

READ CAREFULLY THIS MANUAL BEFORE THE INSTALLATION OF THE APPLIANCE

01.01.2021

Rev.2



RADIACLIM INVERTER HYDRONIC PLATE

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1. INTRODUCTION

The user and maintenance manual must be used in the following way:

- each operator and personnel assigned to use and maintenance of the unit must fully read this manual with the utmost attention and comply with what is reported;
- the employer is obliged to ensure that the operator has the requirements to run the unit and has carefully read the manual; the employer must also accurately inform the operator about the risks of injury and in particular about the risks deriving from noise, the personal protective equipment provided and the general accident prevention rules provided by international laws or standards of the country of destination of the unit;
- the manual must always be available to the user, managers, persons in charge of transport, installation, use, maintenance, repair and final dismantling;
- keep the manual in areas protected from moisture and heat and consider it an integral part of the unit for its entire duration, delivering it to any other user or subsequent owner of the unit.

Pay close attention to the following symbols. Their function is to emphasize particular information such as:



With reference to serious dangerous situations that can occur with the use of the unit to ensure safety for people



With reference to dangerous situations that may occur with the use of the unit to avoid damage to property and to the unit itself



With reference to additions or suggestions for the correct use of the unit

The manufacturer has the right to update the production and manuals, without the obligation to update previous versions, except in special cases. This manual reflects the state of the art at the time the unit was marketed and cannot be considered inadequate only because it is subsequently updated based on new technologies.

1.1 RESPONSIBILITY

The unit is guaranteed according to the contractual agreements stipulated for the sale.

The manufacturer considers himself exempt from any liability and obligation, and the guarantee will expire for any accident to persons or things that may occur due to:



- Failure to comply with the instructions in this manual regarding the operation, use, maintenance and events in any case unrelated to the normal and correct use of the unit
- Changes made to the unit and to the safety devices without the prior written authorization of the manufacturer
- Attempts at repairs made on their own account or by unauthorized technicians
- Missing of periodic and constant maintenance operations or use of non-original spare parts

In any case, should the user attribute the accident to a defect of the unit, he must prove that the damage occurred was a main and direct consequence of this "defect".

1.2 SERVICE RULES

The service rules described in this manual are an integral part of the supply of the unit.

Furthermore, these standards are intended for the operator who has already been specifically trained to operate this type of unit and contain all the necessary and indispensable information for operating safety and optimal use of the unit. Read carefully and strictly respect the following suggestions:



- At the time of installation or when it is necessary to intervene on the unit, it is necessary to strictly follow the rules contained in this manual, observe the instructions on the unit and in any case apply all the necessary precautions.
- Possible accidents to people and things can be avoided by following these technical instructions compiled with reference to the machinery directive 2006/42 / EC and subsequent additions. In any case, always comply with national safety regulations.
- Do not remove or damage the protections, labels and writings, especially those required by law and, if no longer legible, replace them.



All operators must comply with the international accident prevention regulations and the country of destination of the unit in order to avoid possible accidents.

The European community has issued some directives concerning the safety and health of workers, among which directives 89/391 / EEC, 89/686 / EEC, 89/654 / EEC, 89/655 / EEC, 89 / 656 / EEC, 86/188 / EEC, 92/58 / EEC and 92/57 / EEC that each employer has the obligation to respect and enforce.

The units were designed and built according to the current state of the art and the current technical rules. The laws, regulations, prescriptions, ordinances, directives in force for these machines have been observed.

The materials used and the parts of the equipment, as well as the production processes, quality assurance and control meet the highest safety and reliability requirements.

Using them for the purposes specified in this user manual, handling them with due diligence and carrying out accurate maintenance and overhauls in a workmanlike manner, continuous performance and functionality and durability of the units can be maintained.

1.3 MAINTENANCE OPERATIONS

The user manual can never replace an adequate user experience; for some particularly demanding maintenance operations, this manual constitutes a reminder of the main activities to be carried out for operators with specific knowledge acquired, for example, by attending training courses at the manufacturer.

Read the following tips carefully:

- Constant and accurate preventive maintenance always guarantees the high operational safety of the unit. Never postpone necessary repairs and have them carried out only and exclusively by specialized personnel, using only original spare parts;
- the operators' workplace must be kept clean, tidy and free from objects that may restrict free movement;
- operators must avoid clumsy operations, in uncomfortable positions that can compromise their balance;
- the workplace must be adequately lit for the intended operations. Insufficient or excessive lighting can involve risks;
- any work on the unit must be carried out by qualified personnel;
- before carrying out any operation or maintenance on the unit, make sure you have disconnected the power supply;
- make sure that the safety devices work correctly and there are no doubts about their operation; otherwise, do not start the unit under any circumstances;
- use only tools prescribed by the manufacturer of the unit. To avoid personal injury, do not use worn or damaged, poor quality or improvised tools;
- once the unit has been cleaned, the operator must check that there are no worn or damaged or not solidly fixed parts, otherwise ask for the intervention of the maintenance technician;
- the use of flammable fluids in cleaning operations is prohibited.

To clean the unit, do not use diesel, petroleum or solvents as the former leave an oily film that favors the adhesion of dust, while the solvents (even if weak) damage the paint and therefore favor the formation of rust. If a jet of water penetrates the electrical equipment as well as inducing oxidation of the contacts, it can cause the unit to malfunction. For this reason, do not use jets of water or steam on sensors, connectors or any electrical part.

1.4 INTENDED USE



Place the unit in environments where there is no danger of explosion, corrosion, fire and where there are no vibrations and electromagnetic fields. Do not operate in a different way from what is indicated and do not neglect operations necessary for safety.

The appliance is suitable for heating and cooling of residential and commercial environments, hydronic terminal inside plumbing systems.

1.5 SAFETY GENERAL RULES

Wear protective clothing

Each operator must use personal protective equipment such as gloves, helmet to protect the head, safety goggles, safety shoes, noise protection headphones.

Safety tags



Generic alarm



Presence of dangerous electrical voltage



Danger of burns



Danger of moving parts



Danger of cuts

2. PRODUCT DESCRIPTION

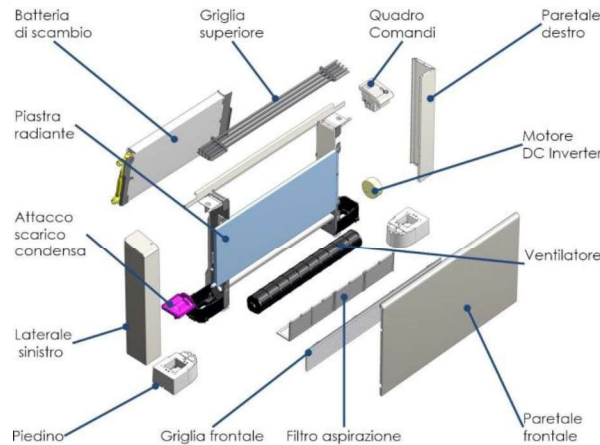
2.1 DESCRIPTION

RADIACLIM is the ideal hydronic terminal in renewable energy systems such as heat pumps or solar panels, and generally in all heating and cooling systems that use low temperature water.

Quick, effective and with very low thermal inertia, it heats, cools and dehumidifies rooms in maximum silence.

It can also be used in high temperature systems or in only heating systems.

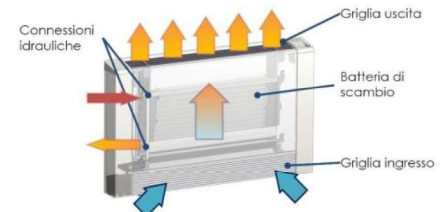
2.2 STRUCTURE



2.3 OPERATION

Winter mode

In winter, the device sucks cold air from the front grille and conveys it silently, with an asymmetrical tangential fan coupled to a DC Inverter motor, through a heat exchange coil. The task of the coil is to transfer the heat coming from the hydraulic circuit to the air, heating it. The heated air is introduced into the environment through the upper grill.



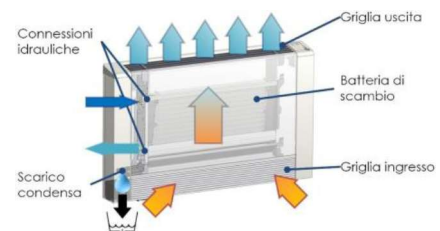
NOTE In order not to introduce cold air into the room, the fan does not start until the coil is warm. The time required for the coil to heat up (about 24° C) is more or less long in relation to the length of the supply pipe. During the wait, the red heating LED (first from the right) flashes.

Radiant mode

Thanks to the effect of the heat exchanger and the steel plate coupled to this, the device gives off heat, when necessary, with the fan stopped in maximum silence.

Summer mode

In summer, the unit sucks in hot and humid air from the front grill and silently conveys it through the DC Inverter fan through the heat exchange coil. The coil draws heat from the air, cooling and dehumidifying it, and transfers it to the hydraulic circuit fed with cold water. The air, cooled and dehumidified, returns to the room through the upper grill. The condensate that forms from the dehumidification process is collected in a tray and conveyed to the condensate drain.



NOTE In order not to introduce hot air into the room, the fan does not start until the coil is cold. The time required for the coil to cool down (about 23 °C) is more or less long in relation to the length of the supply pipe. During the wait, the green cooling LED (second from the right) flashes. In some cases, the ambient probe is hit by a flow of cold air, which prevents the unit from restarting. In these cases it is advisable to activate the "intermittent fan" function (value of parameter 20 equal to 1).