Gabarrón MANUFACTURING EXCELLENCE

ELNUR

ELECTRIC HEATING SOLUTIONS



ELNUR



Our History

ELNUR was founded in 1973 and since then, we have established ourselves as one of the leading European providers of the most efficient heating system in the world: electric heating.

With facilities spanning over 20,000 m², an extensive general and technical team and a complete range of products developed to meet the highest expectations of our customers at ELNUR we provide you with the most efficient heating solutions in an ever-changing world.

ELNUR at their premises has total control over the production process:

Our metal working stations with the latest technology, gives us the control and the opportunity to get the best quality from every single component.

The fully automated electrostatic powder coating station, guarantees a perfect finish of our products, fully resistant to aging and corrosion.

Five assembly lines assure a year-round service of more than 150.000 thermal inertia radiators, 40.000 storage heaters and 30,000 convectors and other electric heating devices.

ELNUR customer service is a must in our continuous improvement approach:

One of our foundations is our capability to deliver final goods. We keep a minimum of 3 months stock; this allows us to distribute our products to any part of the world in less than 48 hours.

Another foundation is the proximity to our customers. Our work in training and customer qualification, as well as ELNUR after-sale service is essential to maintain this high product and service standard in the market.

40 years on, we maintain the same enthusiasm and commitment to offering a wide range of unique products which can cater for the varying needs of our customers, wherever in the world they may be.

With a commercial presence in more than 35 countries, and a strong exclusive distribution network in 15 of these, we have gained a presence in thousands of homes, always offering the best solution in electric heating.

Our greatest wish is for our customers to have the luxury of experiencing excellence by using our GABARRÓN range of products, which are guaranteed to bring real warmth and comfort to your home.

"Let us invite you to meet ELNUR and experience the values and benefits that our GABARRÓN products will bring to your life."

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QUALITY

ELNUR is fully committed to quality. We therefore have complete control over the processes occurring in all areas of the company, which is certified by the official ISO 9001 standard.

Take for example, the rigorous control applied to each of the phases of the production process from initial design of the product through the continuous assessment of suppliers and materials, to the monitoring of each stage in the manufacturing process and the final check of every single product which are tested one by one before packaging.

As a result, complete traceability is established for each of the products that we design and manufacture, and we guarantee our customers that every appliance leaving our factory is in full working order.



GABARRÓN products are uniquely designed and manufactured using high quality materials and components, which constitutes a significant advantage when it comes to providing an excellent level of performance and efficiency.

ELNUR holds various official certifications which guarantee compliance with quality and environmental standards.

COMPANY INTERNATIONAL CERTIFICATIONS



ISO 9001: 2008 Quality Control Management System which certifies the implementation and maintenance of the system through a cycle of continuous improvement in the performance of its procedures in all areas of the company, with the aim of achieving greater customer satisfaction.



ISO 14001: 2004 Environmental Management System which guarantees that our procedures are developed in accordance with environmental care and respect throughout the production process, from the design stage to the final stages of production.

PRODUCT RANGES INTERNATIONAL CERTIFICATIONS

The use of each GABARRÓN product involves maximum safety, with its premium features guaranteeing the comfort and optimised performance required. Safety, performance and efficiency are accompanied by a high quality standard of manufacturing, supported by internationally-recognised and independent certification bodies.



Every single product is fully tested to assure a perfect performance and to guarantee the accomplishment of the most strict international requirements in both electrical safety and electromagnetic compatibility.

The product complies with legal and technical safety requirements in the Member States of the European Union. All GABARRÓN products carry the CE Mark.

These are some of the international norms that GABARRON products accomplish, variations on ranges may exist. They are certified for some of the above referred International Organisations:

EN 60335-1, EN 60335-2-21, EN 60335-2-35, EN 60335-2-43, EN 60335-2-61, EN 0106, EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3, EN 62233, EN 55014-1, EN 55014-2, EN 61000-6-1, EN 61000-3-2, AS/NZS 60335-2-30, UL-2021, CSA-C22.2



ADAPTING TO CUSTOMER NEEDS

At ELNUR we are aware that there are many variables that affect the decision about which is the best electric heating solution for each home or facility. There are any number of variables to consider, such as:

- The degree of insulation in the building.
- Weather conditions in the area.
- Any existing installations for heating and sanitary water.
- ▶ The purpose of the heating system, and whether heating is required 24 hours a day, or only for a few hours.
- Customer budget.
- Other more subjective factors, such as customer tastes and preferences.

There are many factors that can determine which is the electric heating solution best suited to each of our clients. For this reason, we have developed a complete range of exclusive products which are adapted to all kinds of needs, and consistently fulfil the highest of expectations.

- Storage heaters, the ideal heating solution to keep your home warm 24 hours a day at an unbeatable cost.
- ▶ Thermal inertia radiators, which allow total control over temperature and electricity consumption.
- Ecombi, a new concept in electric heating that combines the great advantages of storage heating with the most innovative technology in temperature and electricity consumption management.
- Electric water heaters, which use the best insulation, anti-corrosion and anti-calcification technology currently on the market.
- ▶ Towel rails and towel dryers, the best options for heating your bathroom and drying delicates.
- Modulating boilers, which offer safety and the highest level of efficiency in central heating systems.
- Industrial heaters specifically designed for heating large spaces.

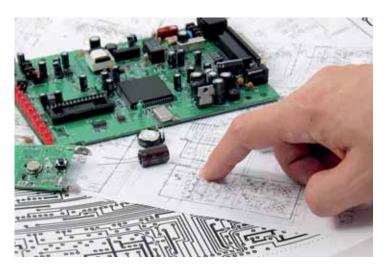


- Other heating solutions: convectors, indoor and outdoor infrared heaters, fan heaters, hand dryers-all ideal additional solutions for your comfort at home.
- Accessories which undoubtedly enhance the advantages offered by our products by improving usability, optimising performance and minimising energy cost.

Our Projects Department handles and resolves any issues regarding designs, calculations, distribution, and anything related to electric heating installations, irrespective of their size.

As professionals who offer electric heating solutions, our greatest wish is for our customers to have the luxury of experiencing excellence by using GABARRÓN products, which are guaranteed to bring real warmth and comfort to your home.

INNOVATION AND EFFICIENCY



Forty years of experience guarantees top-quality manufacturing and design in electric heating systems.

The maximum emphasis we place on continuous improvement year on year has resulted in ongoing investments in R&D to drive forward our products and manufacturing processes.

Our main aim is 100% customer satisfaction, and being able to meet the highest of expectations at all times.

Our commitment to continuous improvement has allowed us to offer increasingly efficient products.

This desire for self-improvement is what drives our technical teams in their daily work.

Modulation control sysztems for boilers (SEM System),

energy control optimisers for thermal radiators (ETCO System), smart controls adapting the energy requirements of storage heaters (ESICC System), -these are just some of the advances made in the last few years by ELNUR for their GABARRÓN product ranges.

We continuously carry out tests on our products to analyse performance and examine potential for improvement in order to maximise product efficiency and minimise running cost.

The use of top-quality materials and components, the implementation of new technologies, and an exclusive design is what defines the unique performance features of our products, providing the customer with maximum comfort.

High-sensitivity thermostats, well-protected insulation material, the most advanced electronic technology, microprecision sensors, centralised management systems based on different heat variables, advanced anti-corrosion and anti-calcification systems, encapsulated heating elements...

There are many details which set GABARRÓN ranges apart from the rest, contributing to the optimum performance and longevity of our products, which always guarantee maximum efficiency.

"GABARRÓN is excellence at its finest "



SERVICE

The same level of demand, dedication and commitment that we offer with our products is also reflected in our customer service: personalised assistance, continuous monitoring, technical advice, project management, professional aftersales technical support....

A product manufactured in accordance with the highest level of quality performance deserves to be complemented by excellent service. At ELNUR, all departments are customer-focused, offering quick and efficient solutions to any problems that may arise.

If you have any queries about the company or our products, please email us at the following address:

esales@elnur.co.uk

CUSTOMER SERVICE

Our Customer Service Team will answer each and every query you may have, whether it relates to delivery schedules, confirmation of when a product is dispatched, or placing an order. Any member of the team will be able to help you and deal with your request as quickly as possible keeping you informed at all times.

Customer Service Telephone Numbers: 01942 670119

You can also contact us by email at:

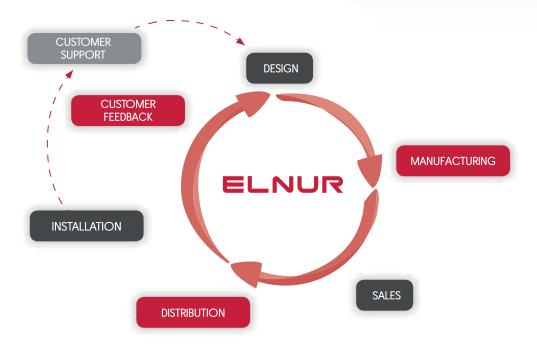
esales@elnur.co.uk



AFTER-SALES TECHNICAL SUPPORT

ELNUR's job does not finish when the goods are dispatched. We are committed to initial development, manufacturing and customer service. And this customer service includes not only the delivery, but also a professional after-sales service to help our customers with any concerns or technical issues. We have an Authorised Technical Services Network providing effective technical assistance all over the country, irrespective of the location or the product.

If you have any questions on this matter, our Customer Service Team will be able to inform you of your nearest



Authorised Technical Service or will make a record of your issue so that the technical team can get in contact with you as soon as possible.

technical@elnur.co.uk

PROJECT MANAGEMENT

We know that many concerns may arise when it comes to evaluating your project requirements. Our Projects Department will advise you on each of the areas of your project and will offer you the best solution, taking into account potential options so that you can suggest a number of different alternatives to the end customer.

projects@elnur.co.uk

PROFESSIONAL ADVICE

In this department you can get the assistance you need in order to solve any technical concerns you may have. We will provide direct and personalised assistance, offering the support necessary to resolve any issues with installing or setting up any of our products.

advice@elnur.co.uk



CONTINUOUS TRAINING

In line with our commitment to customers and end users, we cannot ignore the fact that professionals need support in order to gain a complete knowledge base with regard to GABARRÓN product ranges and to the potential technical solutions that they may require for the different systems.

For this reason, we have developed a complete Training Program which includes technical training courses for each of our product ranges. These courses are taught by our best experts. Their ultimate aim is to help professionals in their daily work and for them to become more familiar with the significant advantages of installing GABARRÓN products.



These courses are totally free of charge, and can be given at on-site locations all over the country.

If you are an installer, don't think twice. Take advantage of this training opportunity based on the principles of real quality and continuous improvement. You can request information about upcoming conferences or specific technical courses for the different ranges of GABARRÓN products.

training@elnur.co.uk

SAFETY

Electric heating is one of the cleanest and safest heating solutions currently available.

None of our products emit gases or direct pollution when operating. They do not require materials such as gas or diesel fuel to function, so there is no risk of leaks or explosions.

Due to the simplicity and safety of their installation and operation, GABARRÓN electric heating products do not require any form of regular maintenance, therefore avoiding the inconvenience of unnecessary annual costs for users.

Just the electric boilers and storage water heaters with magnesium anode inside require a minimum miantenance.



"Because safety for your family is what matters most, investing in electric heating systems is the right decision"



SUSTAINABILITY

Interest in environmental care is increasing, as well as the concept of manufacturing in compliance with environmental protection standards. Human beings use the natural resources of the planet believing that they constitute an inexhaustible source, and at the same time the current levels of industrialization and consumption increasingly pollute the habitat that surrounds us.

This is why **ELNUR** is totally committed to working and manufacturing in accordance with the appropriate certification under the Environmental Management System which guarantees environmental care and respect under the parameters established in the ISO 14001 standard.

Not only do we wish to minimize the negative impact on our ecosystem, we also continuously strive to improve and produce increasingly advanced and efficient products with minimum energy consumption.

Gabarrón ranges do not produce gases or fumes, nor do they directly emit any pollutants to the environment when operating.



They can be used with renewable energy sources coming from natural resources such as sun or wind.

Please join us in reducing the carbon footprint, and together we can combat its negative impact.



ELNUR

QUALITY

GABARRON ranges of Thermal Inertia Radiators use two different types of technology: eco fluid based on an optimum thermal inertia and heat transfer through a low viscosity and environmentally friendly thermo fluid, and ecoremon Technology, a real innovation in heat transference based on a primary core and a secondary heat amplifier. The high quality aluminium elements design, allows a natural convection of air through the radiator, providing perfect heat distribution, radiation and a thermal inertia that ensures very low consumption and perfect thermal conductivity. The real core of these devices, however, is their Electronic Triac Control Optimiser (ETCO). This manages and restricts the flow of electricity to guarantee low consumption.

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EFFICIENCY

GABARRON Thermal Inertia Radiators provide the maximum optimisation of energy consumption, ensuring that energy is not wasted unnecessarily, granting 100% efficiency.

This is achieved through a large contact aluminum surface which provides the best heat transfer to the room with maximum caloric performance and heat dissipation by both radiation and convection.

We also include a highly accurate ambient thermostat $(\pm 0.1^{\circ}C \text{ precision})$, that provides the best temperature control and reduces electricity consumption. This is the best high sensitivity thermostat control for thermal radiators on the market.

INNOVATION

The last technology incorporated into our range of thermal radiators is the Inertia Technology, patented by ELNUR. This technology does not use any thermal fluid and is based in a primary heat transmitter. The energy is taken by a secondary element that transfers the energy, amplifying the surface that radiates and convects heat in the room.

An exclusive security system with a 1-year memory backup is another useful feature included in some of the models in our ranges.

The patented and uniquely designed wall fixing brackets allow the radiator to be installed and leveled simply in no more than 5 minutes.

THERMAL INERTIA RADIATORS

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ADAPTING TO CUSTOMER NEEDS

This range is the perfect individualised central heating with a programmable switch-on timer and a temperature set up for each room. Hour by hour and day by day functions can be set up on Comfort, Eco and Frost Protection modes.

No maintenance is required as there are no boilers or pipes involved. This also means no breakdowns due to lime accumulation and no water loss caused by leaks or faulty welding.

With two sized stylish aesthetics, three different family ranges and an excellent quality finish, the thermal radiator will blend in with any existing décor and is easily cleaned.

With ranges from 500W to 2000W, they can fit any room dimension, style and decoration.

SECURITY AND SUSTAINABILITY

The <u>ecc</u> technology thermal radiator offers a very low recycling cost at the end of its life cycle. The ecc fluid technology thermal radiators use a special high

performance mineral thermal fluid, with a neutral composition and high thermal stability. It is non-corrosive and does not contain carbonisable substances, making it very environmentally friendly. Therefore recycling will not be an issue.

Gabarron Thermal Radiators do not require liquid or gaseous fuels and they do not release any type of combustion or emission into the atmosphere. They use electricity as the safest, cleanest and most ecological option on the market.

TECHNICAL DETAILS THAT MAKE THE DIFFERENCE

ELNUR's quest for continuous improvement has driven us over the years to invest in innovation and development to obtain maximum efficiency and performance in GABARRÓN products. As a result of these research efforts and use of the most advanced technology, we have achieved excellent performance in our products and perfect temperature management control. The use of highly sensitive thermostats, raw materials and other high-quality components, together with exclusive design and configuration, is what defines the unique performances of GABARRÓN products, providing the comfort desired by the customer at minimum cost.



In the radiators that use <u>ecoseco</u> patented technology, the interior is composed of a heat transmitter specifically designed to disperse the heat evenly over the entire surface of the appliance.

Patented system using EcoSeco technology. The heat transmitter, covering all of the radiator's interior, allows the heat to be dispersed evenly over the surface.



With radiators using $\bigcirc \bigcirc \bigcirc \bigcirc f | \bigcup \bigcirc i \bigcirc i \bigcirc f | \bigcup \bigcirc i \bigcirc f | \bigcup \bigcirc i \bigcirc i \bigcirc f | \bigcup \bigcirc i \bigcirc i \bigcirc f | \bigcup \bigcirc i \bigcirc i \bigcirc f | \bigcup \bigcirc]$ Technology, thermal inertia is also achieved through the use of an injected aluminium structure with thermal fluid inside, specifically designed to disperse the heat over its entire surface.

Traditional system with thermal fluid.

In both technologies the heat transference to the room is perfectly distributed.

The **THERMAL INERTIA** is the quantity of heat that a body can keep and the speed of this body to transmit and absorb this heat. It will depend on its mass, materials and its conductivity.

The thermal inertia offered by GABARRÓN's radiators has allowed them to increase their efficiency due on the one hand to the heat that their body is able to store and on the other hand, the support of one of the two technologies used together providing a perfect calorific performance.

GABARRON EcoFluid radiators guarantee 125W heat in each element. Gabarrón aluminium radiators have up to 30% more in aluminium injected material and up to 20% more thermal fluid in each element than other similar products in the market. This allows us to dissipate the heat more efficiently to the room avoiding dangerous high temperature surfaces.

Also allows us to reduce the number of elements and consequently of radiators that can be offered in a installation with a direct reduction in the initial cost investment.

HIGH OUALITY COMPONENTS

Everybody talks about the concepts of "efficiency" and "low consumption". Therefore, the less energy a product consumes, the happier customers will be, since it means saving money on a daily basis, which will consequently result in more significant long-term savings.

However, taking into account that most electrical heating systems offer 100% energy efficiency, as shown below, how can we ensure energy savings across different electric heating systems? Furthermore, what about when it comes to similar systems from different manufacturers?

100% EFFICIENCY

1 WATT CONSUMED = 1 WATT OF ENERGY PRODUCED

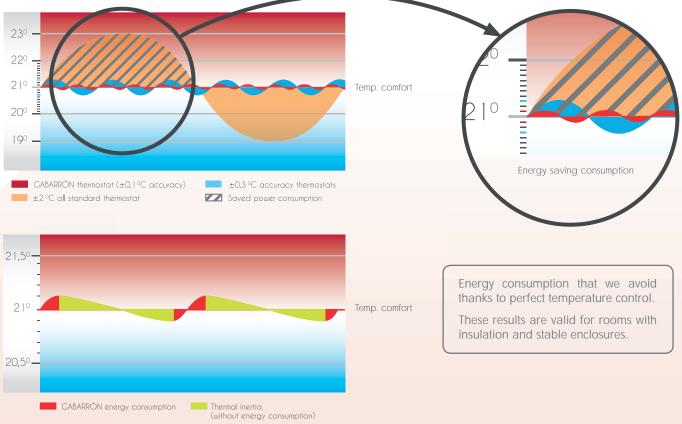
The key is accurate temperature control management. A heater that provides the desired temperature in a particular room is not enough; it has to achieve this using as little energy as possible.

Large fluctuations in room temperature lead to higher energy demand, since a change in room temperature of 1°C means that the heater must start again and take the extra time required to reach a comfortable temperature again.

Thanks to the highly accurate thermostat and to the thermal sensitivity that GABARRÓN radiators offer, these large temperature fluctuations are avoided. Our radiators offer one of the most efficient thermal variations in the industry, with a ± 0.1°C accuracy compared with other manufacturers (± 0.3°C) or even other traditional room temperature control systems, which can have an accuracy of $\pm 2^{\circ}$ C.

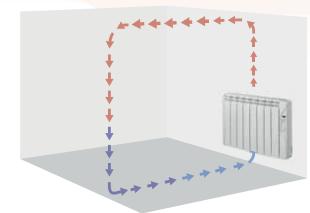
If to this accurate temperature control system we add the concept of thermal inertia, on the basis of which all GABARRÓN radiators are able to function, levels of performance as well as energy consumption improve considerably.

If we avoid large temperature fluctuations and manage to maintain an adequate thermal stability, we will reduce the inefficient use of energy.



IMMEDIATE COMFORT

In addition to the heat convection feature, GABARRÓN radiators transmit heat using the entire front surface of the appliance, achieving a rapid transfer of heat to the whole room and a high level of comfort... Once again, thanks to their thermal inertia, GABARRÓN radiators are able to maintain this comfortable temperature over a much longer period of time.



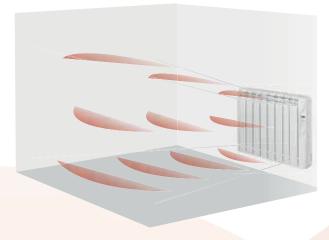
In comparison with other heating systems, such as convectors, GABARRÓN radiators consume far less electricity, saving up to 40% in energy costs. This is due not only to the thermal inertia properties key to their construction, but also to how quickly a comfortable temperature is reached with their larger heat transfer surface area.

TECHNOLOGY AND REGULATION ADAPTED TO YOUR NEEDS

At ELNUR we strive every day to meet the highest expectations of our customers. Therefore, with our wide range of GABARRÓN radiators we are able to offer different technologies and different control options to cover all the needs and demands of our customers.

eco fluid Technology

GABARRÓN radiators based on EcoFluid technology use a thermal fluid specifically designed to provide a better and more rapid heat distribution over the entire surface of the appliance. This fluid is environmentally friendly since it contains no carbonisable substances, it is not corrosive, and its composition is very stable and neutral.



ecoseco Technology

The EcoSeco technology patented by ELNUR does not use any type of thermal fluid. Instead it generates heat via a primary heat transmitter, and the energy generated from this is captured by a secondary transmitter made of injected aluminium, which diffuses it, and increasing the surface area over which the heat extends.

In both technologies, natural air convection through the aluminium elements supplements the direct transmission of heat from its surface, allowing a perfect distribution of heat in each room.

TOTAL CONTROL IN YOUR HANDS

The RKSL series of thermal radiators with control management give the user the option to take advantage of the wide range of individual/centralised settings available with this model through the use of a remote control. Its infrared remote control allows for program configuration and other settings. With four function modes all the radiators in the different rooms of your home can be quickly set to the same or different temperatures as required.

ETCO Electronic Triac Control Optimizer

ETCO michro processor is the latest technology in electric control consumption. This electronic optimizer actually manages and restricts the flow of electricity to the heating elements on the basis of the information taken from the thermostat

ETCO - Electronic Triac Control Optimizer.

SECURITY SYSTEM WITH **ONE-YEAR MEMORY BACKUP FEATURE**

The development of our own technology has enabled us to incorporate in our RF and RX ranges a Security System with a memory backup to 12 months. This feature is key, since if one appliance is disconnected from the mains supply for a period of between three and ten minutes (depending on the manufacturers), the time and consequently the programming of the appliance will be lost, and the appliance will not work until this time is re-programmed.

This exclusive GABARRÓN feature will prevent loss of programming due to:

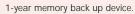
- Accidental disconnections.
- Forced disconnections during summer.
- Programmed disconnections by the action of external accessory devices installed to obtain energy savings, such as automatic devices used to open windows, presence detectors, etc...



Gabarrón





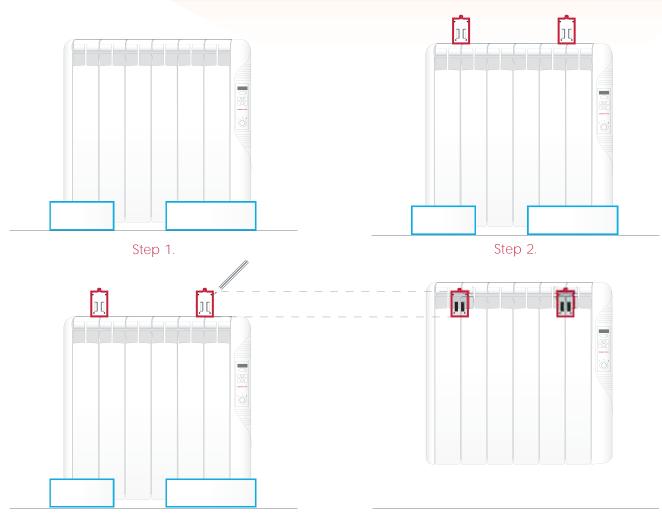




PATENTED WALL FIXING BRACKETS

At ELNUR we are constantly aware of the need to improve the operation and performance of our GABARRÓN radiators, and to do everything to facilitate the work involved and guarantee excellent results when fitting these appliances.

With our patented wall fixing brackets the installation engineers can quickly fix the brackets to the wall in the appropriate place and without any measuring or levelling problems.



Step 3.

Step 4.

Some simple steps that will save the installation engineer valuable time and effort:

- 1. Place the radiator on the floor with the polypropylene protections in the lower part (in blue).
- 2. Fit the bracket into the upper groove (in red).
- 3. Mark the holes with a pencil.
- 4. Once the holes are made and the brackets are properly screwed to the wall, the radiator can be hung.

Fast, comfortable, easy and simple, ensuring that the radiator is fitted flush at the first attempt.



Patented wall fixing brackets to easy the installation

CONTROL SETTINGS

All GABARRÓN radiators have been designed with different setting systems based on digital electronics to meet the requirements of different users according to their needs.

These types of settings can be analogue, digital or programmable. Their control can be individual (regulating the appliance directly) or centralised (using carrier current or pilot wire technology).

CENTRALISED AND INDIVIDUAL KEYBOARD CONTROLS

These digital electronic controls allow for the individual setting of each appliance or the centralised setting of the entire system using pilot wire or carrier current technology by means of a programmable central control unit.

These central control units will enable you to control the operation and programming of different radiators located in different areas of the house. The RK range of GABARRÓN radiators, in both EcoFluid and EcoSeco technologies, has this type of control setting.



RKSHi built-in control



RKSL built-in control

INDIVIDUAL KEYBOARD CONTROL

These electronic controls have been designed to manage the operation of each radiator independently. They enable simple and intuitive use and can be programmed on a daily or weekly basis. All GABARRÓN radiators have individual control keyboards.



RFP built-in control

RFE built-in control

THERMAL INERTIA RADIATORS

THERMAL MAPPING AND HEAT LOSS CALCULATION IN THE UK

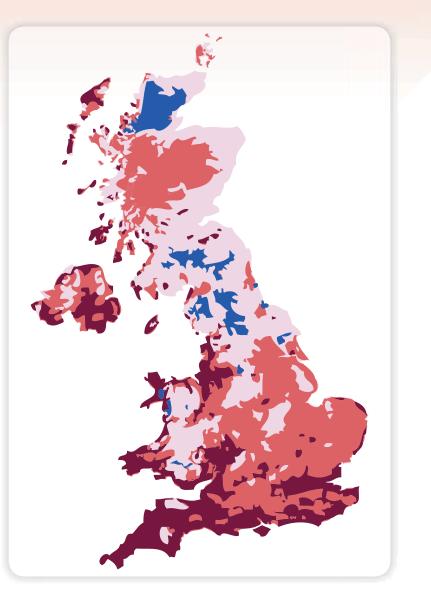
The table below shows recommended figures that will help to calculate the power requirement in W/m2 or W/m3 to install GABARRÓN Inertia Thermal Radiators.

The main variables for the calculation are three optional types of insulation in the house that have to be considered together with different climatic zones in the UK.

To calculate the theoretical heat loss in a room it is necessary to multiply the required figure in the chart by the calculated room volume or surface.We install the inertia thermal radiator with the power immediately above to theoretical power obtained.

In bedrooms and kitchens it is possible to reduce the theoretical power required by 20%. But in the same way, all rooms located in a top floor would be recommended to increase the theoretical power by 20% too.

These figures have been developed to get a comfort temperature of 21°C.



		W/m ²		W/m ³			
THERMAL LEVELS	HIGH INSULATION	MEDIUM INSULATION	LOW INSULATION	HIGH INSULATION	MEDIUM INSULATION	LOW INSULATION	
MILD WEATHER	64	82,5	109	19,6	25,3	33,4	
COLD WEATHER	69,5	88	114,5	22,5	28,6	37,2	
VERY COLD WEATHER	75	93,5	120	26,4	33	42,3	
EXTRA COLD WEATHER	80,5	99	125	29,5	36,3	45,8	

THERMAL INERTIA RADIATOR

ecolfluid

RKSHI - Digital Control, pilot wiring and carrier current CPL

RKSL - Digital Control with programmer, pilot wiring, carrier current CPL and remote control

RXE - Digital Control with programmer

RXP - Analogue Control

ecoseco

RFE - Digital Control with programmer

RFP - Analogue Control

THERMAL INERTIA RADIATORS



RKSHI RANGE

Digital control with pilot wiring, carrier current CPL



Technical features

- LCD display in blue backlight.
- Keyboard lock.
- Digital temperature selector for displaying real temperature and set up temperature.
- Built-in electronic ambient thermostat ± 0,1°C.
- ▶ Digital adjustable thermometer.
- Electronic Triac control optimizer ETCO.
- ► Thermal safety cut out.
- Class II insulation.
- Three-level temperature selector: Comfort, Economy and Frost-protection.
- Switch On-Off in the rear.
- Ratings from 500 to 2000W.
- Stylish aluminium body finished in epoxy powder coating RAL 9010.
- Fitted with mains cable.
- ► Safety wall fixing devices to easy the installation.
- Compatible with four or six orders PILOT WIRING multi-zone central controller, GIFAN standard.
- Compatible with CARRIER CURRENT CPL (X2D protocol) multi-zone central controller PG-4Z, offered as accessory.





MODEL		RKS4Hi	RKS6Hi	RKS8Hi	RKS10Hi	RKS12Hi	RKS14Hi
Num. of modules		4	6	8	10	12	14
Length	cm	41.5	57.5	73.5	89.5	105.5	122
Depth*	cm	10	10	10	10	10	10
Height	cm	58	58	58	58	58	58
Weight	kg	7.5	10.5	13	15.5	18	23
Input	W	500	750	1000	1250	1600	2000
Voltage	V	220-240	220-240	220-240	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60	50-60	50-60	50-60
Units per pallet							
- 1300x800 - 1200x1000 - 1300x1100	mm mm mm	36	24	24	24	24	12
EAN		8432336412431	8432336412455	8432336412479	8432336412493	8432336412516	8432336412530



RKSL RANGE Digital control with programmer,

pilot wiring, carrier current CPL, remote control

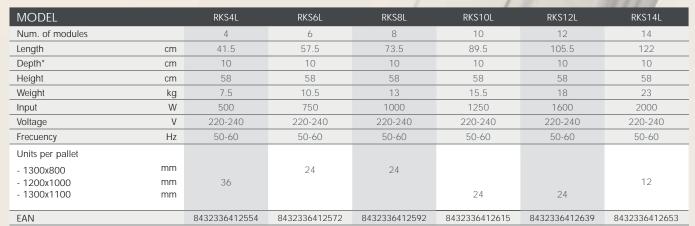


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ÉLECTRICITÉ

Technical features

- ► LCD display in blue backlight.
- Keyboard lock.
- Digital temperature selector for displaying real temperature and set up temperature.
- ► Weekly / daily programmer.
- Digital adjustable thermometer.
- Built-in electronic ambient thermostat $\pm 0.1^{\circ}$ C.
- Thermal safety cut out.
- Class II insulation.
- Electronic Triac control optimizer ETCO.
- Three-level temperature selector: Comfort, Economy and Frost-protection.
- Switch On-Off in the rear.
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- Compatible with four or six orders PILOT WIRING multi-zone central controller, GIFAN standard.
- Compatible with CARRIER CURRENT CPL (X2D protocol) multi-zone central controller PG-4Z, offered as accessory.
- Compatible with infra red Remote Control TPG-IR offered as accessory.







CE

Technical features

► Flat keyboard for easy cleaning and lockable.

ecoseco

- Built-in electronic ambient thermostat ± 0,1 °C.
- ▶ Digital adjustable thermometer.
- Three-level mode temperature selector: Comfort, Economy and Frost-protection
- Digital display for Clock, Selected temperature, Room temperature, weekly/daily programming, etc.
- Electronic Triac control optimizer ETCO.
- ► Thermal safety cut out.
- Class I insulation.
- ▶ Ratings from 500 W to 2000 W.
- Steel body with extruded aluminium front and upper pannel finished in epoxy powder coating RAL 9010.
- Fitted with mains cable.
- Safety wall fixing devices to easy the installation.
- Compatible with wireless energy saver for windows offered as accessory.

MODEL	RX4E	RX6E	RX8E	RX10E	RX12E	RX14E
Num. of modules	4	6	8	10	12	14
Length cm	41.5	57.5	73.5	89.5	105.5	121.5
Depth* cm	10	10	10	10	10	10
Height cm	58	58	58	58	58	58
Weight kg	8	11	13.5	16	19	22
Input W	500	750	1000	1250	1500	2000
Voltage V	220-240	220-240	220-240	220-240	220-240	220-240
Frecuency Hz	50-60	50-60	50-60	50-60	50-60	50-60
Units per pallet						
- 1300x800 mm - 1200x1000 mm - 1300x1100 mm	36	24	24	24	24	12
EAN	8432336408649	8432336408663	8432336408687	8432336408700	8432336408724	8432336408748



RXP RANGE



Technical features

- Analogue temperature selector and working mode.
- Built-in electronic ambient thermostat ±0,1 °C.
- Electronic Triac control optimizer ETCO.
- Three-level mode temperature selector: Comfort, Economy and Frost-protection.
- ► Ratings from 500 W to 2000 W.
- ► Thermal safety cut out.
- Class I insulation.
- Steel body with extruded aluminium front and upper pannel finished in epoxy powder coating RAL 9010.
- Fitted with mains cable.
- Safety wall fixing devices to easy the installation.
- Compatible with wireless energy saver for windows offered as accessory.



MODEL		RX4P	RX6P	RX8P	RX10P	RX12P	RX14P
Num. of modules		4	6	8	10	12	14
Length	cm	41.5	57.5	73.5	89.5	105.5	121.5
Depth*	cm	10	10	10	10	10	10
Height	cm	58	58	58	58	58	58
Weight	kg	8	11	13.5	16	19	22
Input	W	500	750	1000	1250	1500	2000
Voltage	V	220-240	220-240	220-240	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60	50-60	50-60	50-60
Units per pallet							
- 1300x800 - 1200x1000 - 1300x1100	mm mm mm	36	24	24	24	24	12
EAN		8432336408502	8432336408526	8432336408540	8432336408564	8432336408588	8432336408625
EAN		8432336408502	8432336408526	8432336408540	8432336408564	8432336408588	843233640862

ecoofluid

RFE RANGE Digital control with programmer



Technical features

- Digital temperature selector for displaying real temperature, set up temperature, clock and other messages.
- ► Weekly/daily programmer.
- Built-in electronic ambient thermostat ±0,1°C.
- ► Electronic Triac control optimizer ETCO.
- Digital adjustable thermometer.
- Three-level temperature selector: Comfort, Economy and Frost-protection.
- ► Flat keyboard for easy cleaning and lockable.
- Switch On-Off in front side.
- Choice of two different sizes with ratings from 500 to 2000 W in 580 mm. size and from 750 to 1500 W in 430 mm. size.
- ► Thermal safety cut out.
- Class I insulation.
- Stylish aluminium body finished in epoxy powder coating RAL 9010.
- Fitted with mains cable.
- Safety wall fixing devices to easy the installation.
- Compatible with wireless energy saver for windows offered as accessory.



						·		Short size - 430 mm.			
MODEL		RF4E	RF6E	RF8E	RF10E	RF12E	RF14E	RFC7E	RFC9E	RFC11E	RFC14E
Num. of modules		4	6	8	10	12	14	7	9	11	14
Length	cm	41.5	57.5	73.5	89.5	105.5	121.5	66.5	81.5	97.5	121.5
Depth*	cm	10	10	10	10	10	10	10	10	10	10
Height	cm	58	58	58	58	58	58	43	43	43	43
Weight	kg	9.5	13	16.5	20	23.5	27	12	15	17.5	21.5
Input	W	500	750	1000	1250	1500	2000	750	1000	1250	1500
Voltage	V	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60	50-60	50-60	50-60	50-60	50-60	50-60	50-60
Units per pallet											
- 1300x800 - 1300x1100	mm mm		24	24			12				
- 1200x1000 - 1200x800	mm mm	36			24	24		24	24	24	24
EAN		8432336405105	8432336405204	8432336405303	8432336405402	8432336405501	8432336405709	8432336409400	8432336409509	8432336409608	8432336409707



RFP RANGE



Technical features

- ► Analogue control.
- Built-in electronic ambient thermostat $\pm 0,1^{\circ}C$.
- ► Electronic Triac control optimizer ETCO.
- Three-level temperature selector: Comfort, Economy and Frost-protection.
- Switch On-Off in front side.
- ▶ Ratings from 500 to 2000 W.
- ► Thermal safety cut out.
- ► Class I insulation.
- Stylish aluminium body finished in epoxy powder coating RAL 9010.
- ► Fitted with mains cable.
- Safety wall fixing devices to easy the installation.
- Compatible with wireless energy saver for windows offered as accessory.



MODEL		RF4P	RF6P	RF8P	RF10P	RF12P	RF14P
Num. of modules		4	6	8	10	12	14
Length	cm	41.5	57.5	73.5	89.5	105.5	121.5
Depth*	cm	10	10	10	10	10	10
Height	cm	58	58	58	58	58	58
Weight	kg	9.5	13	16.5	20	23.5	27
Input	W	500	750	1000	1250	1500	2000
Voltage	V	220-240	220-240	220-240	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60	50-60	50-60	50-60
Units per pallet							
- 1300x800	mm		24	24			12
- 1300x1100	mm						
- 1200x1000	mm	36			24	24	
- 1200x800	mm						
EAN		8432336403101	8432336403200	8432336403309	8432336403408	8432336403507	8432336403705

QUALITY AND EFFICIENCY

GABARRÓN ranges of Storage Heaters created by ELNUR use the best quality components.

Thermal insulation products using the best currently available technology on the market (such as Microtherm, an insulation material used by the aerospace industry), high density ceramic heat storage blocks, highly efficient control and safety components, very thick reinforced steel structures as well as exclusive patents such as the DUAL SENSOR charge controller – all of these elements work together to give the storage heaters their unique features and exceptional performance.

A storage heater charges energy internally for a set period of time, which usually coincides with the time in which electricity is cheaper (off-peak tariff), before releasing it into the room continuously throughout the day. The quality and quantity of the materials used in the construction of the storage heaters is crucial, as these machines must be capable not only of storing a large amount of heat internally under strict safety parameters, but also, and most importantly, of heating a room comfortably, over 24 hours.

It is also very important to determine precisely the size and amount of units necessary to meet the heating demand of one or several rooms. An incorrect calculation (above or below what is needed) will have an adverse effect on the storage heater system and on the cost of the installation, as well as the levels of efficiency and comfort required.

The correct calculation of heat requirements in each room by a professional will be key to optimising the installation and reducing running costs.

ADAPTATION TO THE CUSTOMER

Especially designed for use during the off-peak period, GABARRÓN storage heaters are the ideal solution for obtaining constant heat 24 hours a day. They provide a warm and comfortable temperature that is ideal for cold climate zones, where heating is required not only for a few hours, but where a pleasant and warm temperature is preferable around the clock.

STORAGE HEATERS

GABARRÓN storage heaters work while you are sleeping. At night, during the off peak period when electricity is cheaper, storage heaters internally charge their energy before slowly releasing it into the room.

> Static Storage systems release the heat continuously over 24 hours, while Dynamic Storage Heaters (Fan Forced Storage Heaters) offer the possibility to the user of deciding when and how that heat is released.

> > Their quick and easy installation, in new and old buildings alike, eliminates the risk of expensive alterations or modifications, as well as any needless inconvenience for the customer. They can be installed in a few hours.

They do not require maintenance or any form of annual servicing, providing a considerable saving over the years compared to other heating systems.

SAFETY AND SUSTAINABILITY

In a world in which we are becoming increasingly concerned about respecting the environment, looking for efficient products with low energy consumption, or even maintaining healthier lifestyle that minimises environmental impact, GABARRÓN storage heaters are an ideal and efficient solution to provide constant heating 24 hours a day, without using fossil fuels such as diesel or gas, and at really low costs.

The storage heaters manufactured by ELNUR can be used with renewable energy sources coming from alternative resources such as sun or wind. Furthermore, they neither emit CO₂ nor pollute the environment during use.

This type of product is 100% efficient and safe. Their design -based on high quality insulation materials, the best heat storage blocks and other safety features, are capable of retaining all of the heat stored internally before releasing it during the discharge periods, maintaining a moderate and pleasant temperature in the room.

These safety features also enable the prevention of potential accidental damage and unnecessary expenditure, not only when the machine is installed, but also throughout its life time.

STORAGE HEATERS

MAXIMUM EFFICIENCY IN HEAT STORAGE

ELNUR offers two main ranges of storage heaters: Dynamic and Static.

Both versions store heat internally in high density ceramic blocks, but release it in different ways. They also offer different advantages adapted to the needs of the end user.

Dynamic (fan assisted) storage heaters release the hot air using controlled convection with a silent fan that makes the air circulate inside the bricks, heating it and then releasing it into the room through the grille located at the bottom of the machine. This controlled convection allows the user to manage the temperature of the room and the heat release time.

Static storage heaters release heat by natural convection in two different ways. There is a primary convection controlled by a top flap that releases hot air after the storage heater is charged.

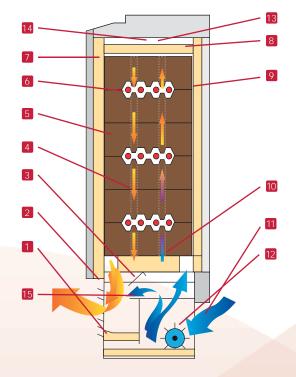
But there is also a natural secondary convection that releases hot air 24 hours a day. This air is heated when it passes through the air chambers of the storage heater and is released through the top grille and the front and rear apertures. This natural secondary convection is generated by the design of the machine allowing a constant release of heat without leading to additional energy costs. Storage heater only consumes energy during off-peak hours at night.

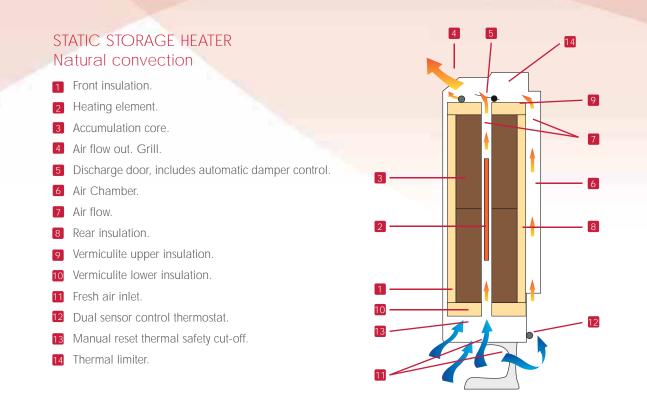
The high level of efficiency of GABARRÓN ranges of storage heaters can be seen in the following thermographies thermal images obtained as a part of some of the tests carried out on the products.

In these images we see the evolution of the surface temperature (the equivalence of these temperatures and the colours appear in the column on the left.

DYNAMIC STORAGE HEATER (fan-assisted) convection

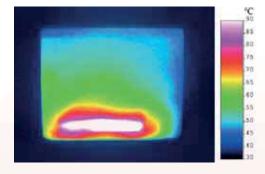
- 1 Floor isolation.
- 2 Hot air flow out. Grill.
- 3 Hot/cold air mixer. Includes a discharge security thermostat.
- 4 Air flow inside the heating core.
- 5 Accumulation core.
- 6 Heating elements.
- 7 Front insulation.
- 8 Upper insulation.
- 9 Rear insulation.
- 10 Lower insulation.
- 11 Cold air flow in.
- 12 Convection fan.
- 13 Control Thermostat bulb sensor.
- 14 Manual reset safety cut-off bulb sensor.
- 15 Discharge manual reset safety cut-off.



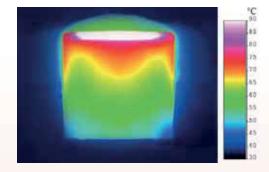


Due to their high quality insulation, GABARRÓN ranges store and adequately retain the heat inside them during the charging off peak period, before releasing it during the discharging period.

Both thermographies show how the heaters maintain a high degree of control over the energy inside them. This heat is released through the top or bottom grille depending on the version, and at the same time the rest of the storage heater remains at a moderate temperature.



Fan Assisted Storage Heater Thermography



Static Storage Heater Thermography

Engineering of the GABARRÓN ranges of storage heaters is totally safe and provide maximum efficiency in their operation. They use only the energy stored in off-peak periods. These ranges are manufactured with storage blocks considerably better than the market average and with an insulation technology that it is definitely the best in the industry. This is why **ELNUR** can guarantee excellent heating comfort 24 hours a day.

STORAGE HEATERS

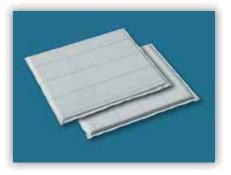
TOP QUALITY ENGINEERING AND MANUFACTURING

INSULATION

GABARRÓN storage heaters are engineered using three different types of thermal insulation.

Microtherm, one of the most efficient and innovative insulation materials available in the industry. Given its low conductivity and high heat resistance features, it is one of the most efficient insulation materials working at high temperatures. It is the basis of the main insulation products used in the aerospace industry.

Storage Heaters include this material in order to achieve perfect insulation of the temperature in the heater's internal charge core to prevent heat losses. At the same time also maintains the outer body of the storage heater at a low and safe temperature.



GABARRÓN storage heaters contain between 20 to 30% more Microtherm insulation than any other similar product on the market. We are proud to say that Gabarron range of Storage Heaters extend their heat retention capacity and enlarge the real period of heat release into the room over a longer period of time.



Vermiculite is the second insulation material used by ELNUR in the construction of storage heaters. It is one of the most compact and lightest of existing insulation materials. Weighing up to 60% less than any other insulation product on the market. It is highly fireproof and, above all, does not deteriorate or decompose.

This high resistance makes it the ideal insulation material for use in the areas of the storage heater where, in addition to insulation, a resistant product is required that adequately combines with the heavy heat storage blocks.

Finally, the third of the insulation products used is ceramic fibre, with a high resistance to high temperatures and heat cycles. One of its advantages is its behaviour in high temperatures, with the lowest level of shrinkage compared to other fibres on the market.

Another reason why we use ceramic fibre in GABARRÓN storage heaters is that it does not contain any organic binder, thus enabling us to eliminate the possibility of any unpleasant smells being released during the charging cycles, as is often the case with other types of similar insulation fibres.

It is very flexible and adaptable to any design, and has a very low thermal conductivity, improving the overall efficiency of the heater.



HEAT STORAGE BLOCKS

The energy storage blocks represent another essential part in the construction of these devices. From the different existing options on the market, we have selected one material, magnetite, which offers the highest density and heat storage capacity.

This material prevents the blocks from breaking at high temperatures and provides greater heat concentration, therefore prolonging the release of heat for longer and guaranteeing a comfortable heat for more hours during the day.

The higher the density, the higher the capacity for offering hours of heat our devices offer real heat 24 hours a day.

In this actual image of the inside of a GABARRÓN storage heater we can see most of the above referred materials and their position inside the heater.



Section of a SHM Storage Heater

1 Vermiculite insulation. 2 Automatic damper control. 3 Bimetal regulator. 4 Charging thermostat. 5 Charging sensor phial. 6 Lateral insulation of ecological fibre. 7 Rear air chamber. 8 Rear 10 mm Microtherm G insulation. 9 Heating Elements. 10 Lower vermiculite insulation. 11 High density magnetite refractory. 12 Safety thermostat. Front 10 mm Microtherm G insulation. Front air chamber. 14 Side air chamber. 15

STORAGE HEATERS

OFF-PEAK ELECTRICITY

GABARRÓN storage heaters are the ideal heating system for heating your home 24 hours a day at an unbeatable cost. They store heat in high density ceramic bocks.

They are designed to use the Time-Of-Use (TOU) or Time-Of-Day (TOD) low cost off-peak electricity rates.

How does Off Peak Electricity work?

Most electricity providers offer heavily discounted rates for electricity consumed during off peak electricity times, giving you the chance to save money on your energy bill. Off peak electricity is provided during set times of the day when homes and businesses use a lot less electricity. Off peak times are typically between 12 am and 7am, but they can vary depending on the area.

What are Off Peak Electricity times?

Electricity providers would prefer to provide a steady supply of electricity throughout the day and night, because the turbines that generate electricity cannot be easily turned on and off as we need power in our homes. People generally use most of their electricity during the morning and evening. To encourage people to use electricity during other times of the day, many providers offer cheaper electricity during periods known as off peak electricity times. In homes, off peak electricity is commonly used to heat water and can also be used to power other heating appliances that are able to store heat when not in use.

How do you access Off Peak Electricity rates?

You have to contact your local Electricity provider to get more details about Time-Of-Use (TOU) or Time-Of-Day (TOD) low cost Off Peak electricity rates availability in your area.

GABARRÓN storage heaters are designed to make the most of the advantages of electric tariffs with time restrictions, as they consume energy during the off-peak hours at the cheapest price and release the heat into the room gradually offering a comfortable temperature 24 hours a day.

During the Off peak hours we can find a lower kW/h price, which will represent big savings on your electricity bill.

On the other hand, peak hours are the hours in which the electricity companies usually have an excess demand for electricity. These hours have a higher price per kW/h.



PEAK. Storage heaters do not consume energy in this time period.

OFF-PEAK. Time period with reduced tariff. It is during this time that storage heaters are effectively charged with energy. If you also change the consumption of other electrical appliances to this time, you will obtain maximum savings on your electricity bill.

PERFECTLY ADAPTED TO CUSTOMER REQUIREMENTS

GABARRÓN storage heaters are the perfect heating system for temperate, cold and very cold climate zones, where the user can enjoy a pleasant and warm feeling of comfort 24 hours a day.

Thanks to their operation during off-peak hours, you will have permanent heat in your home, reducing your electricity bill as well as recovering your initial investment in the heater in a short period of time.

Their quick and easy installation, in new and old buildings alike, eliminates the risk of expensive alterations or modifications, as well as any needless inconvenience for the customer. They can be installed in a few hours.

They do not require regular maintenance or any form of annual servicing, providing a considerable saving over the years.

100% SAFE AND

ENVIRONMENTALLY FRIENDLY

GABARRÓN storage heaters are a heating solution that, while providing heat 24 hours a day, avoids consuming fossil fuels such as diesel heating oil or gas. They have no fuel tanks or hydraulic circuits, and therefore there is no risk of leaks.

They can be used and operated with renewable energy sources coming from alternative resources such as sun or wind. Furthermore, they neither emit CO_2 nor pollute the environment.

They are 100% safe. Each and every storage heater that we manufacture is rigorously tested to ensure its proper functioning and compliance with the strictest international requirements with regard to electrical safety.



STORAGE HEATERS

STORAGE HEATERS

DYNAMIC

ADL - Dynamic Storage Heater

STATIC

- CSH Combined Storage Heater
- SHM Manual Static Storage Heater
- SHA Automatic Static Storage Heater



ADL RANGE Dynamic storage heater



Technical features

- Designed to use Off-Peak electricity.
- Efficient solution to obtain constant heat when is required during 24 hours a day.
- ► Low speed silent fan.
- Hot air/fresh air mixer with thermostat for a homogenous air output.
- ▶ Precise control over the released heat.
- Charging thermostat with sensor tube.
- Safety thermostat with manual reset.
- Class I insulation.
- Connection in one or three phases.
- ▶ Microtherm G 25 mm insulation.
- Vermiculite and ceramic fibre insulations.
- Front and side air chambers.
- Powder coated RAL 9010 steel structure.
- It works together with Ambient Thermostats TA3, CPT10 and X2D, available as accessory.



MODEL	ADL-2012	ADL-3018	ADL-4024	ADL-5030
Output 230 V / 240 V	W 2000 / 2178	3000 / 3267	4000 / 4355	5000 / 5444
Accumulated energy kV	/h 16	24	32	40
Length c	m 63	81	99	117
Width* c	m 24	24	24	24
Height	m 66	66	66	66
Total weight	kg 117	167	215	265
Number of Blocks 7.5kg	12	18	24	30
Frecuency	iz 50	50	50	50
Units per pallet				
	m 8 m	8	8	8
EAN13	84432336200458	84432336200465	84432336200472	84432336200489

SH-A / SH-M ranges

Automatic or manual static storage heaters



Technical features

- Designed to use Off-Peak electricity.
- ► Grille painted in a heat resistant colour.
- Damper control device (SH-M version).
- Automatic damper control device (SH-A version).
- Safety thermostat with manual reset.
- Class I insulation.
- Discharge thermostatic regulator. In the SH6-M this regulation is automatic, not including the discharge control.
- Charging thermostat with phial (SH-M version) or with Dual Sensor (SH-A version).
- Microtherm G 10 mm insulation, vermiculite and ecological fibre.
- ▶ Side, front and rear air chambers.
- ► High density storage blocks.
- ▶ Ultra slim, only 15 cm.
- ► Robust plastic fittings.
- ▶ Powder coated RAL 9010 steel structure.
- Optional knob control blocking system.

ТЕСЕЕ SCHEME

SCHEME =								
		AL	JTOMATIC MODE	LS	MANUAL MODELS			
MODEL		SH12-A	SH18-A	SH24-A	SH6-M	SH12-M	SH18-M	SH24-M
Output 230 V / 240 V	W	1600 / 1742	2400 / 2613	3200 / 3484	800 / 871	1600 / 1742	2400 / 2613	3200 / 3484
Accumulated energy	kWh	12.8	19.2	25.6	6.4	12.8	19.2	25.6
Length	cm	54	76.5	99	31.5	54	76.5	99
Width*	cm	15	15	15	15	15	15	15
Height	cm	72.5	72.5	72.5	72.5	72.5	72.5	72.5
Total weight	kg	79	116	152	43	79	116	152
Number of Blocks 8kg		8	12	16	4	8	12	16
Frecuency	Hz	50-60	50-60	50-60	50-60	50-60	50-60	50-60
Units per pallet								
- 1200x8000 - 1200x1000	mm mm	24	12	12	12	24	12	12
EAN13		8432336106309	8432336106507	8432336106705	8432336105104	8432336105302	8432336105500	8432336105708

CSH-A RANGE

Automatic combined storage heater



Technical features

- Automatic storage heater with integral convector heater.
- ► Independent thermostatic control convector.
- Designed to use Off-Peak electricity.
- ► Grille painted in a heat resistant colour.
- ► Automatic damper control.
- Safety thermostat with manual reset.
- Class I insulation.
- ► Charging thermostat with DUAL SENSOR.
- Microtherm G 10mm insulation, vermiculite and ecological fibre.
- Side, front and rear air chambers.
- ► High density storage blocks.
- Robust plastic fittings.
- Powder coated RAL 9010 steel structure.



MODEL	CSH12-A	CSH18-A	CSH24-A
Output 230 V / 240 V W	1600 / 1742	2400 / 2613	3200 / 3484
Accumulated energy kWh	11.90	17.85	23.8
Length cm	54	76.5	99
Width* cm	18.5	18.5	18.5
Height cm	73	73	73
Total weight kg	80	117	154
Number of Blocks 8kg	8	12	16
Frecuency Hz	50-60	50-60	50-60
Units per pallet			
- 1200x8000 mm - 1200x1000 mm	20	10	10
EAN13	8432336104305	8432336104503	8432336104701



THE FUTURE IS ALREADY PRESENT WITH ECOMBI SYSTEM

ECOMBI

INNOVATION AT ITS FINEST

ECOMBI is a new efficient heating system that both controls electricity consumption and optimises heat management. Our system is the most economical of the electric storage heating solutions available in the market.

The ECOMBI smart system assesses energy consumption and heat loss in the room every day in order to establish the heat needs precisely and effectively adjusting the energy required.

The arrival of ECOMBI is a real revolution in traditional heating systems. ECOMBI optimises control of the energy running costs, while providing maximum comfort. This electric heating system adapts to your daily needs whatever the weather conditions.

Could you ask for more? Well you can with the ECOMBI smart system.

Once autumn arrives, the temperatures and weather can be very unpredictable well into spring. The days can be cold, very cold or there may even be days when the temperatures are mild and pleasant. ECOMBI constantly monitors room temperature using its high-sensitivity thermostat to ensure that the room is always at the desired temperature. ECOMBI will guarantee you feel warm and comfortable all day long on the coldest days or it will adjust the amount of heat required on those warmer days by means of the ESICC (ECOMBI Smart Input Charge Control) module to adjust the amount of heat required on those warmer days. This will avoid any unnecessary extra energy consumption.

The best quality components available on the market and this exclusive ESICC electronic module, patented and designed by ELNUR, provide an outstanding level of performance and offer the user cheaper and customised heating. This is what the ECOMBI System, the most innovative and outstanding heating system and the only one of its kind on the market, is all about.

"Let us show you innovation at its finest"

EFFICIENCY IS ALL DOWN TO CONTROL

The cornerstone of ECOMBI technological innovation patented by ELNUR is the dynamic management of the energy charging.

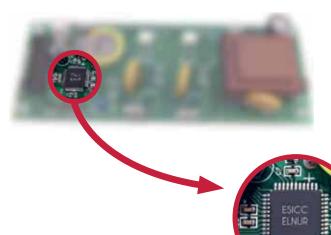
The use of the high sensitivity thermostats in electric heating units is essential to ensure greater control of their electricity consumption and to manage the temperature. ECOMBI incorporates this control system within its ESICC electronic management module.

The ESICC module includes a high sensitivity and precision thermostat with an accuracy of \pm 0,1 °C, which continuously measures the temperature of the room and keeps the warmth at the comfort level desired by the customer.

Taking into account the temperature readings of the thermostat and the real heat needs in the room, the ESICC electronic management module assesses the energy consumption of the unit during the day and automatically adjusts energy charging to your comfort needs.



The automatic charge adjustment determines the amount of energy that the system forecasts that you will need and dynamically adjusts it each day, which will effectively reduce energy consumption.



ESICC (ECOMBI Smart Input Charge Control) electronic management module

OFF PEAK TARIFF

In the same way as the traditional storage heater, the ECOMBI system is designed to use the Time-Of-Use (TOU) or Time-Of-Day (TOD) low cost off-peak electricity.

How does Off Peak Electricity work

Most electricity providers offer heavily discounted rates for electricity consumed during off peak electricity times, giving you the chance to save money on your energy bill. Off peak electricity is provided during set times of the day when homes and businesses use a lot less electricity. Off peak times are typically between 12am and 7am, but they can vary depending on the area.

Gabarrón

What are Off Peak Electricity times?

Electricity providers would prefer to provide a steady supply of electricity throughout the day and night, because the turbines that generate electricity cannot be easily turned on and off as we need power in our homes. People generally use most of their electricity during the morning and evening. To encourage people to use electricity during other times of the day, many providers offer cheaper electricity during periods known as off peak electricity times. In homes, off peak electricity is commonly used to heat water and can also be used to power other heating appliances that are able to store heat when not in use.

How do you access Off Peak Electricity rates?

You have to contact to your local Electricity provider to get more details about Time-Of-Use (TOU) or Time-Of-Day (TOD) low cost Off Peak electricity rates availability in your area.



ECOMBI AND THE TRADITIONAL ELECTRIC STORAGE SYSTEMS

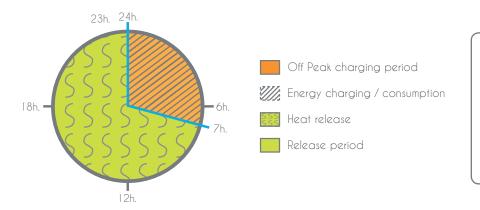
During the autumn, the cold winter and into spring, your heating system will have to deal with different temperatures. The operating of a traditional Electric Storage System is simple: storing all the heat possible while it is being charged, coinciding with the Time-Of-Use (TOU) or Time-Of-Day (TOD) low cost off-peak electricity tariff, and releasing it into the room during the rest of the day.

The greatest advantage of these traditional systems is their ability to provide a comfortable temperature at a really affordable price all day long.

STATIC STORAGE HEATER

In the case of Static Storage Heaters, also manufactured by ELNUR, the charge control is regulated by the "Dual Sensor" patented system. This system will switch the charging of the units on and off according to the temperature readings taken inside the equipment, inside the room and outside the home.

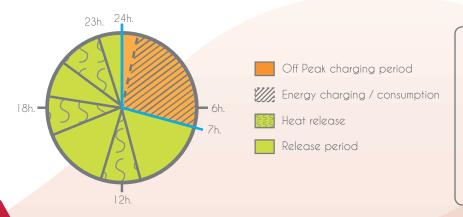
The "Dual Sensor" system of a GABARRÓN Static Storage Heater can help to cut electricity consumption by 15% compared to other static storage heaters in the market which do not include this system.



A Static Storage Heater normally uses the complete off peak charging period to load its core of energy at 100%. It will release this stored heat during the release period. By including the DUAL SENSOR module, savings can be increased by 15%.

FAN-FORCED STORAGE HEATER

In the case of Dynamic Storage Heaters (Fan Forced), the charging is performed in a similar way, but the main advantage of this system is how the release of the stored heat is controlled and the option of the stored heat being released when the customer really requires it. These storage heaters are ideal for large and open areas. If the user manages the temperature optimally, storage heaters can result in an energy saving of 25%.



A Fan Forced Storage Heater will not use the complete off peak charging period because it will not discharge completely the heat during the release period. It will only release the heat when it is strictly needed and programmed by the user. By using Fan Forced Storage Heater with a programmer, savings can be increased by 25%.

ECOMBI

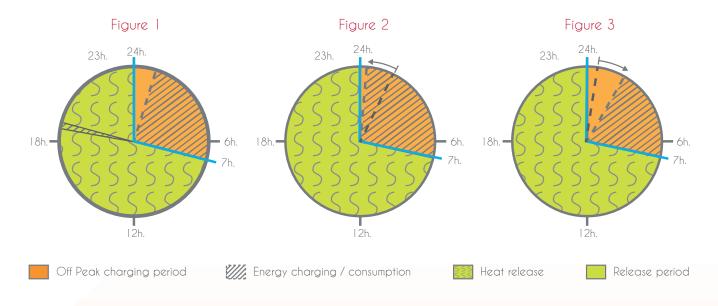
ECOMBI includes an automatic charge adjustment. The temperature is continuously managed and the consumption assessed every day by the ESICC module. ESICC will define and adapt the charging and consumption during the off-peak charging period, taking into account the temperature needs established by the user in the room.

Another of the major benefits of the ECOMBI system is that, in the case of a sharp change in temperature or unexpected heat loss in the room, it can provide additional heat using a back-up heater.

The innovative ECOMBI System can reduce energy consumption by 35%.

When you use Dynamic or Static Storage Heaters on warmer days, you might find that the room is too warm and the desired comfort level is lost. This excess heat will be noted during the middle of the day, precisely when the temperatures are usually highest in a 24 hour day.

The innovative ESICC control module of the ECOMBI system automatically adjusts the charging, by assessing previous consumption and adapting to your desired temperatures. ECOMBI provides maximum savings in energy consumption.



ECOMBI is programmed to store only the required energy to maintain a set up temperature in a room. It may be necessary to have extra heat in the release period, for a short time, to maintain the room set up temperature. (Figure 1). In this case during the next Off Peak charging period the energy load would increase. (Figure 2). But if extra heat is not necessary then ECOMBI will reduce the load in the next Off Peak charging period (Figure 3). By using ECOMBI System, savings can be increased by 35%.



DIFFERENT NEEDS, DIFFERENT OPERATING MODES

"Choose the right one for you"

Apart from managing the temperature and controlling the energy charging, the ECOMBI Smart System comes with 5 different operating modes so that users can decide which one best meets their needs.

FROST PROTECTION MODE

This mode is perfect for those weekend homes or office premises, located in cold areas, where the equipment will not be running several days a week or even for long periods of time. In this case, if you activate the frost-protection mode, ECOMBI will not allow the room temperature to fall under 7 °C, thus avoiding problems such as the pipes freezing up or the house getting too cold or damp before it is next used.

By using the Frost-Protection Mode together with the weekly programming, you can decide which days of the week you want the equipment to be running and which of these are in frost-protection mode.

STORAGE MODE

This option will allow ECOMBI to operate as a traditional standard storage heater.

CONVECTION MODE

When the weather warms up in spring, you usually switch off the heating as you do not need it. However, there is usually still the odd day when the temperature drops and you need some form of heating quickly. The convection mode in ECOMBI is ideal to heat up a room quickly.

COMBINED STORAGE MODE

In this mode, ECOMBI will operate as a traditional standard storage heater, backed up by a convection system that can be used as necessary to heat the room as required.

There are times, particularly in spring and autumn, when the temperature can change sharply from one day to another, or even on the same day. The storage heater might not have charged all the energy needed to provide the heat the room may require. Some extra heating would be needed as a back-up to ensure the room is at a comfortable temperature.

AUTOMATIC ECOMBI MODE

This is the very essence of the ECOMBI System. This option allows ECOMBI to run in a combined mode, but with the great advantage of automatically correcting the energy charging. It will only be charged during the off-peak tariff.

If extra heating is needed in the room, the additional convection system will be activated to heat the room as required. This feature will be assessed by the ESICC electronic control module, which will correct the energy charging during the next off peak charging period in order to minimise the use of this convection element.

In the same way, if the room is too hot, the ESSIC smart module will lower the energy charging.

Why spend more if I am going to need less?

By adjusting the charging to the temperature requirements of the user, ECOMBI WILL ONLY CHARGE THE REAL REQUIRED ENERGY to heat up the room. All this according to the ESICC electronic control module.

This will lead to significant energy savings.

"Savings for your wallet while not forgetting sustainability"

"Choose your mode and enjoy the comfort at your home"



ECOMBI

GREAT BENEFITS, GREAT VIRTUES Extremely user friendly with just three simple steps

The ECOMBI control panel is highly intuitive. Thanks to its user-friendly system, it will take you just three simple steps to set the mode and desired temperature.



To set it in the Automatic **ECOMBI** Mode, push the "mod." button until an "A" appears on the screen.



Use the "+" and "-" keys to select the desired temperature of the room.



And that is all it takes to enjoy the all day long comfort of the ECOMBI System.

Individualised control

The ECOMBI units have an individual thermostat for constant and separate control of the room heat requirements where it is installed.

An ECOMBI installation does not require external charging control units or additional timers. It is all included in each ECOMBI.

Possibility of managing different charging periods

ECOMBI allows different charging periods to be programmed during a single 24-hour interval. Each unit has its own digital timer to set the available Time Of Use (TOU) or Time Of Day (TOD) off-peak tariff periods.

The system is also pre- set up to be directly connected with digital meters in the future, which means that the electricity company itself could manage the energy charging of the system directly.

Delayed Charging

A very useful feature of the ECOMBI System that helps to optimise managing the energy is the delayed charging. If the off-peak tariff charging period is from 12.00 a.m. to 7.00 a.m. and ECOMBI has established that it needs to charge 50%, the charging will take place in the second part of the charging period. This means that the ECOMBI will be 100% ready at the start of the peak tariff period, thus making the most of cost-cutting potential.

This feature may be turned on or off using the unit parameters.

Weekly programming

The ECOMBI system has a weekly programme feature to meet your needs.

You can programme your ECOMBI unit to run on the days of the week that you choose. This option is very useful when used in weekend homes or in offices, where there are days of the week when the system does not need to be run.

"With the ECOMBI System, everything is under control"



ECOMBI SYSTEM INSTALLATIONS

To enjoy the desired level of comfort and lower costs provided by the ECOMBI System, an appropriate sizing of the room where it is to be installed is very important. The energy calculation for traditional storage systems must be lowered by 15% to perform the appropriate calculations with the ECOMBI System.



Technical features

- ► Silent performance.
- Temperature sensor with calibration option.
- Overheating protection at storage heating.
- Safety thermostat with manual reset.
- Class I insulation.
- Convector heating element made of Aluminium.
- Storage heating elements made of stainless steel.
- Michrotherm G 10mm insulation, vermiculite and ecological fibre.
- Front, side and real air isolating chambers.
- Storage core made of a specially designed material for ECOMBI.
- ► Steel structure powder coated in epoxy RAL 9010.
- Robust plastic fittings.
- Easy to install on any kind of wall.
- ► Very intuitive keyboard with lock option.
- Compatible with two-period off peak electric tariff in a single 24-hour interval.
- Daily and weekly programming.
- Deferred storage energy option.
- Storage, Combined storage, Convection, Frost protection and Automatic ECOMBI operation modes can be set up.



MODEL	ECO158	ECO208	ECO308	ECO408
Convector output* 230 V / 240 V W	450 / 490	600 / 653	900 / 980	1200 / 1307
Storage heater output* 230 V / 240 V W	975 / 1062	1300 / 1415	1950 / 2123	2600 / 2831
Charging (8h) kWh	7.8	10.4	15.6	20.8
Frecuency Hz	50-60	50-60	50-60	50-60
Length cm	55	66	89	111
Height cm	73	73	73	73
Depth cm	18	18	18	18
Weight kg	59	77	112	147
Num. of blocks 8kg	-	8	12	16
Num. of blocks 12kg	4	-	-	-
Units per pallet				
- 1200x800 mm - 1200x1100 mm	20	10	10	8

*Storage heater elements and convector element will never operate at the same time.

ECOMBI, SAFETY AND SUSTAINABILITY

The ECOMBI System does not require servicing. It has no moving parts that can break or be worn down. Quick and easy installation, in new and old buildings alike, and there is no need for any type of alterations or building work.

Safety is always a key factor when choosing electric heating. The ECOMBI system is 100% safe. It does not need fuel tanks or hydraulic circuits to operate, and therefore there is no risk of leaks.

The ECOMBI System is environmental friendly.

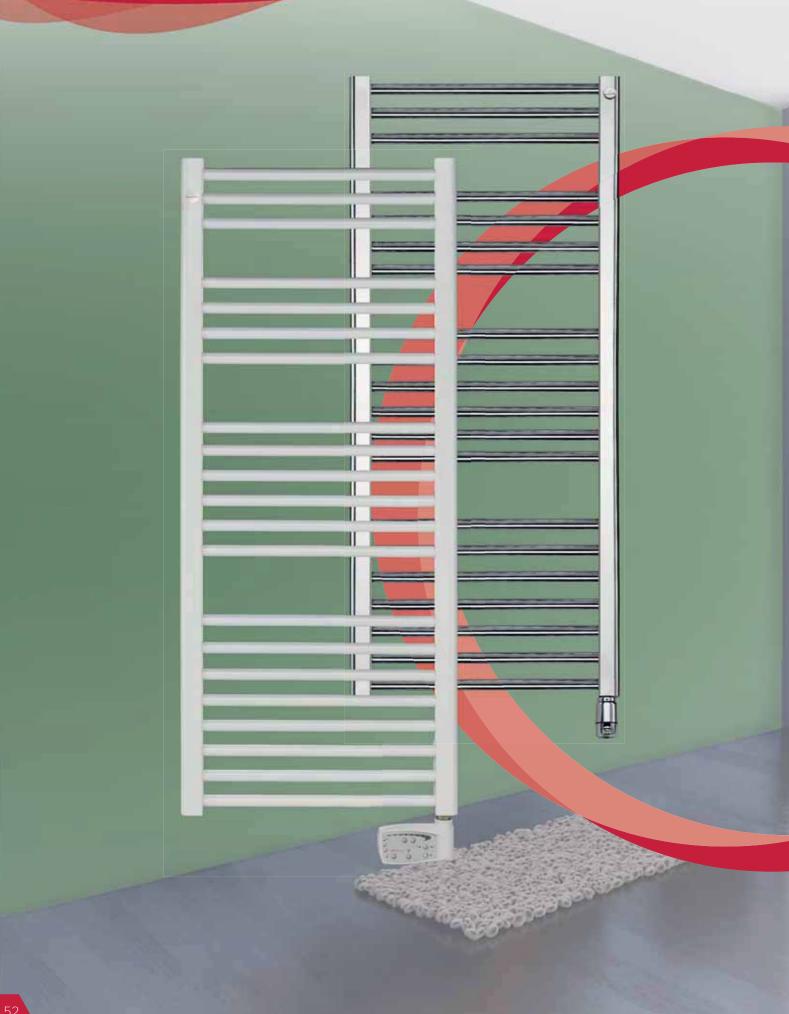
It can be used with renewable energy sources coming from natural resources such as the sun or wind.

The ECOMBI System fosters a healthy and safe environment:

- Does not consume oxygen or emit CO₂.
- Does not produce gas or fumes.
- · Does not directly pollute the environment while it is operating.

"It is our responsibility to take care of planet and its resources"





TOWEL RAILS RADIATORS

GABARRÓN range of electric towel rails and towel warmers has been designed to be the ideal way to add a touch of luxury and sophistication to bathrooms.

> Its great versatility makes it the perfect solution as it not only heats the room, but also reduces moisture and mildew using little space.

GABARRÓN electric towel rails are ideal to dry or warm up delicate garments or even to keep your towels warm, meaning you can enjoy the luxury of warm towels after a soothing bath or relaxing shower.

Design and functionality come together to provide warmth, comfort and convenience. They are a top quality and ideal solution offering the best features.

Our range of electric towel rails is available in three sizes, with different power capacities, and in different finishes making them suitable for almost any size and style of bathroom.

They are equipped with a high sensitivity electronic controller, which allows you to maintain a stable heat, guaranteeing warmth and low running costs. They also have a pilot wiring central controller option.

No type of maintenance is needed and they are extremely easy to install.

They are the perfect addition to your central heating system.

They are 100% energy efficient.

"Enjoy the luxury of a special sensation after a relaxing bath"

TOWEL RAILS RADIATORS

TBBi RANGE

The TBBi electric towel ranges provide maximum comfort and convenience. This model has a programmable constant heat option, for 1 or 2 hours that means that towels and other delicates can be dried quickly. It also comes with an ambient thermostat and timer with pilot wiring central controller. Its powder coated finish in white colour is available in 150W, 300W and 600W. You can enjoy the luxury of warm towels and a perfectly heated bathroom. Discover all the features that these functional GABARRÓN models offer.





Technical Features

- ► Low density thermal fluid.
- \blacktriangleright ± 0.1 °C high sensitivity electronic thermostat.
- ► Safety thermal cut out.
- Operating mode selector, including frost protection option.
- ► High safety wall brackets.
- ► Supplied with 1.5 m mains cable.
- ► IP44 protection, against dripping water.
- Class II insulation.
- ▶ 1 hour, 2 hour booster control.
- ► Keypad lock.

Electronic control for the TBBi range

- ▶ Models finished in white RAL 9010 epoxy.
- Compatible with pilot wiring multi-zone central controller available as accessories.
- Electronic control only in TBB-8i and TBB-12i versions.

CE

MODEL		TB-150	TBB-8i	TBB-12i
Input	W	150	300	600
Voltage	V	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60
Dimensions	cm	87x50x8	87x50x8	128x50x8
Weight	kg	8.5	10	14
Units per pallet - 1200x1000 - 1300x800	mm mm	22	22	15
EAN		8432336502347	8432336500114	8432336500169





TBC RANGE

The GABARRÓN TBC towel rail range is the ideal elegant yet functional addition to your bathroom. Its chrome finish is available in 150W, 300W and 500W. It has a practical and easy-to-use controller that includes an auto-adjustable thermostat to control the temperature. TBC electric towel rails add comfort to your bathroom and are perfect to dry delicate garments or make sure you have a warm towel waiting for when you get out of your shower or bath.



Technical Features

- ► Low density thermal fluid.
- ► High sensitivity electronic thermostat.
- ► Safety thermal cut out.
- ▶ IP54 protection, against dripping water.
- Class I insulation.
- ► High safety wall brackets.
- Supplied with 1.5 m mains cable.
- Models finished in Chrome.
- Manual temperature selector only in TBC-8 and TBC-12 versions.

Manual temperature control

CE

MODEL		TC-150	TBC-8	TBC-12
Input	W	150	300	500
Voltage	V	220-240	220-240	220-240
Freuency	Hz	50-60	50-60	50-60
Dimensions	cm	87x50x8	87x50x8	128x50x8
Weight	kg	9	10	14
Units per pallet - 1200x1000 - 1300x800	mm mm	22	22	15
EAN		8432336502354	8432336500206	8432336500251

ELNUR

GABARRÓN wall-mounted convector heaters are a rapid solution for heating a room occasionally or for short periods of time during the day.

They provide a natural circulation of air in the room. The cold air enters the appliance through the lower section and is heated inside it by means of finned aluminium heating elements, then the hot air is emitted through the grille at the top and distributed evenly throughout the room. These finned elements enable the heat to be dissipated into the room much more evenly than other conventional heating appliances.

The convector heaters are the desired solution for many owners and designers, as they take up little space, quickly and efficiently reaching a comfortable and even temperature. As well as being used as an independent heating system, they are also used to complement other electric heating systems such as storage heaters or radiators and are ideal for use in rooms such as bedrooms, bathrooms, kitchens and other areas where constant heating is not required.

PANEL HEATERS

With the GABARRÓN convector heaters the temperature can be accurately controlled, as they have a built-in temperature thermostat with a differential of \pm 0.5 ° C, keeping the temperature of the room adjusted to the needs of the user.

With the GABARRÓN convector heaters it is possible to choose between one or two settings, and they are equipped with features such as a frost protection setting, thermal safety cut-out, power indicator light, a special system for fixing the appliances...and all this with an output that varies between 750 W and 2,000 W.

The PHT model incorporates a 24-hour programmer. This PHT range and the PH range have an IP24 splash protection, making them suitable for bathrooms and other wet areas.

In addition to their domestic use, these two ranges are also suitable for incorporation in offices and business premises.

As is the case with storage heaters and radiators, the entire range of GABARRÓN convector heaters is available in white RAL 9010.

They run fairly quietly because there are no internal fans.

They do not require maintenance and are easy to install.

PANEL HEATERS

PH/PHT RANGES

Panel heaters



Technical features

- ▶ Power range from 750W to 2000W.
- Two power option in all the models with the exception of PH-075 and PH-075T.
- Frost protection mode.
- Daily programmer in PHT models.
- Built-in ambient thermostat $\pm 0.5^{\circ}$ C. ►
- ► Thermal safety cut out.
- Switch indicator of consumption.
- Protection IP 24, splash proof.
- Class I insulation.
- Controls protection cover made in polycarbonate.
- ▶ Powder coated RAL 9010 steel structure.
- ▶ Fitted with 1,5 m mains cable.
- ► Unique wall fixing brackets included.
- Compatible with standard power managers (RG90, GReyder) offered as accessory.
- Compatible with wireless energy saver for windows offered as accessory.

MODEL	PH-075	PH-125	PH-150	PH-200
Input W	750	1250 (500+750)	1500 (750+750)	2000 (1000+1000)
Current A	3.3	5.4	6.5	8.7
Voltage V	230-240	230-240	230-240	230-240
Frecuency Hz	50-60	50-60	50-60	50-60
*Dimensions cm	41x41x10.5	56x41x10.5	63x41x10.5	78x41x10.5
Net weight kg	4	5	6	7
Units per pallet				
- 1200x1000 mm	72			
- 1200x800 mm		48	36	36
EAN 13	8432336601408	8432336601507	8432336601606	8432336601705

*2.5 cm separation from wall. **Three units per packaging. Internal individual protective carton incluided.



CE

MODEL	PH-075T	PH-125T	PH-150T	PH-200T				
		Manual switch on/off, 24 hours programmer						
Input W	750	1250 (500+750)	1500 (750+750)	2000 (1000+1000)				
Current A	3.3	5.4	6.5	8.7				
Voltage V	230-240	230-240	230-240	230-240				
Frecuency Hz	50-60	50-60	50-60	50-60				
*Dimensions cm	41x41x10.5	56x41x10.5	63x41x10.5	78x41x10.5				
Net weight kg	4	5	6	7				
Units per pallet								
- 1200x1000 mm	72							
- 1200x800 mm		48	36	36				
EAN 13	8432336601804	8432336601903	8432336602009	8432336602108				

*2.5 cm separation from wall **Three units per packaging. Internal individual protective carton incluided.



PHM/PHMT RANGES Panel heaters

To satisfy customers' requests, Elnur also offer a basic range for those who do not need a programmer but an easy analog control.

In this sense PHM line includes an ON—Off switch and a built-in ambient thermostat to control manually the temperature desired in every moment.



PHM PHM-T

Technical features

- ▶ Input from 750W to 2000W.
- Frost protection mode.
- Built-in ambient thermostat.
- ► Daily programmer in PHMT models.
- ► Thermal safety cut out.
- Switch indicator of consumption.
- Protection IP2X.
- ► Class I insulation.
- Powder coated RAL 9010 steel structure.
- ► Fitted with 1,5m mains cable.
- ► Unique wall fixing brackets included.
- Compatible with standard power managers(RG90, GReyder) offered as accessory.
- Compatible with wireless energy saver for windows offered as accessory.

MODEL		PHM-075	PHM-125	PHM-150	PHM-200
Output	W	750	1250	1500	2000
Current	А	3.3	5.4	6.5	8.7
Voltage	V	230-240	220-240 V	220-240 V	220-240 V
Frecuency	Hz	50-60	50-60	50-60	50-60
*Dimensions	cm	41x41x10.5	56x41x10.5	63x41x10.5	78x41x10.5
Net weight	kg	3.5	4	4.5	5.5
Units per pallet					
- 1200x1000	mm	72			
- 1200x800	mm		48	36	36
EAN 13		8432336601422	8432336601521	8432336601620	8432336601729

^{*2.5} cm separation from wall

**Three units per packaging. Internal individual protective carton incluided

MODEL		PHM-075T	PHM-125T	PHM-150T	PHM-200T
			Manual switch on/off,	24 hours programmer	
Output	W	750	1250	1500	2000
Current	A	3.3	5.4	6.5	8.7
Voltage	V	230-240	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60	50-60
*Dimensions	cm	41x41x10.5	56x41x10.5	63x41x10.5	78x41x10.5
Net weight	kg	3.5	4	4.5	5.5
Units per pallet					
- 1200x1000 - 1200x800	mm mm	72	48	36	36
EAN 13		8432336601330	8432336601354	8432336601378	8432336601392

*2.5 cm separation from wall

**Three units per packaging. Internal individual protective carton incluided.

CE



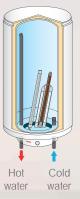


STORAGE WATER HEATERS

GABARRÓN water heaters offer the best anti-corrosion technology in the market. This guarantee the best quality and a long lifetime. Protection against corrosion is complemented with a Magnesium anode.

Our range of GABARRON water heaters has a longer life time because their interior is made of a steel tank with a Titanium double lined 850°C vitrified enamel, which provides a uniform thickness and perfect adherence.

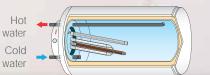
Thermal insulation is based on injected polyurethane between the steel tank and the exterior housing. This insulation is free of CFC and HCFC, environmentally friendly and with a very low thermal conduction coefficient. This provides a lower consumption and higher energy savings.



MULTIPLE FIXING POSSIBILITIES

GTA range can be adapted to any space restriction due to the different options offered in sizes and capabilities.

Every single GTA water heater can be fixed in a vertical or horizontal position (water connections to the left side).

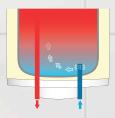


Vertical Installation

Horizontal Installation with water connections to the left side

TWO SEPARATED SHEATHED HEATING ELEMENTS

GTA range of water heaters offer two separated and sheathed electric resistances. Life time will be prolonged because water chemical components will not be in contact with them and will not affect them. These heating elements can be replaced without emptying the water heater. By including two, water heater performance can continue if one of the resistances fails. Heating elements are bent at a certain angle in order to reduce the water heating time when the device is installed in a horizontal position, achieving a higher energy efficiency.



The exclusive water inlet diffuser allows a smooth and soft water entrance to the tank, avoiding the water mixing and optimizing the heater performance.

STORAGE WATER HEATERS

GTA RANGE Storage water heater, horizontal or vertical fixing

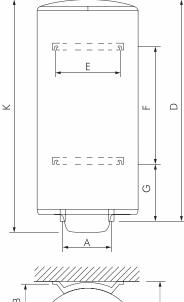


Technical features

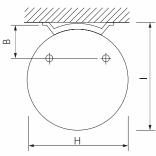
- ▶ Steel tank with a Titanium double lined 850 °C vitrified enamel.
- ► Magnesium anode.
- ► Dielectric fittings.
- Separated sheathed electric resistances.
- ▶ Built-in control thermostat to manage water temperature.
- ► Luminous indicator.
- Choice for vertical or horizontal fixing.
- Fitted with mains cable.
- Safety non return valve.
- ► High insulation.
- Finished in Epoxi RAL 9010 powder coating.
- Economic mode selector.
- Safety thermostat.
- ► Class I insulation.
- ► IP24 protection.
- ► Compatible with thermostatic valve kit 605 ¾".
- ► Optional supporting tripod.
- ► Optional supporting fittings for ceiling installation.
- Compatible with expansion vessels and DHW pressure relief valves, recommended for all intallations.



MODEL		GTA-30	GTA-50	GTA-75	GTA-100	GTA-150	GTA-200
Capacity	L	30	50	75	100	150	200
Input	W	1600	1600	1600	1600	1800	2400
Current	А	7	7	7	7	7.8	10.5
Voltage	V	220-240	220-240	220-240	220-240	220-240	220-240
Frecuency	Hz	50-60	50-60	50-60	50-60	50-60	50-60
Standards		N, CE					
Stand-by consumption at 65 °C	kWh/24h	0.64	0.77	0.93	1.09	1.51	1.80
Water connection		1/2″	1/2"	3/4"	3/4"	3/4"	3/4"
Net Weight	kg	14	18	27.5	33	44	54.5
EAN 13							



MODEL		GTA-30	GTA-50	GTA-75	GTA-100	GTA-150	GTA-200
Dimension A	cm	16	16	23	23	23	23
Dimension B	cm	12	12	17.5	17.5	17.5	17.5
Dimension D	cm	60	81.5	74	92	125.5	158.5
Dimension E	cm	34	34	44	44	44	44
Dimension F	cm	23.5	43.5	28	43.5	79	79
Dimension G	cm	15.5	20	25	25	25	25
Dimension H	cm	38	38	50	50	50	50
Dimension I	cm	39.5	39.5	52.5	52.5	52.2	52.5
Dimension K	cm	60.5	82	75.5	93.5	127.5	160



Dimension I	cm	39.5	39.5	52.5	52.5	52.2
Dimension K	cm	60.5	82	75.5	93.5	127.5

ACCESSORIES FOR GTA 75-100-150-200

Thermostatic Valve Kit

The kit has to be installed in the cold water inlet and hot water outlet pipes. It allows water to be supplied at constant and adjustable temperature. It provides an improved comfort and increases the supply of tempered water provided by the water heater.

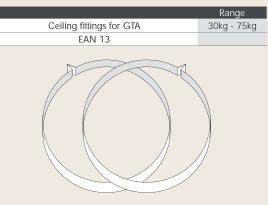
	Range	Connection
Thermostatic valve kit 605 3/4"	40-60 °C	3/4"
EAN 13		

Supporting Tripod





Fittings for Ceiling Installation



STORAGE WATER HEATERS

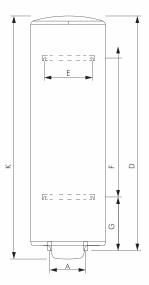
GTA-DR RANGE

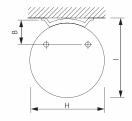
Reduced diameter storage water heater, horizontal or vertical fixing



Technical Features

- Only 38 cm diameter.
- Steel tank with a Titanium double lined 850 °C vitrified enamel.
- Magnesium anode.
- Dielectric fittings.
- Separated sheathed electric resistances.
- External control thermostat.
- Built-in control thermostat to manage water temperature.
- Luminous indicator.
- Choice for vertical or horizontal fixing.
- Fitted with mains cable.
- Safety non return valve.
- Class I insulation.
- ► IPX4 protection.
- ► High insulation.
- Finished in Epoxi RAL 9010 powder coating.
- Economic mode selector.
- Safety thermostat.
- Compatible with expansion vessel on DHW pressure relief valves. Recommended for all installations.







MODEL		GTA-75DR
Capacity	L	75
Input	W	1600
Current	A	7
Voltage	V	220-240
Frecuency	Hz	50-60
Colour		White
Stand-by consumption at 65 °C	kWh/24h	1,10
Dimension A	cm	16
Dimension B	cm	12
Dimension D	cm	113
Dimension E	cm	34
Dimension F	cm	70
Dimension G	cm	25
Dimension H	cm	38
Dimension I	cm	39,5
Dimension K	cm	113,8
Water connection		1/2"
Weight, net	kg	26.5

GTS RANGE Storage water heaters, low capacity, compact version

A range developed to fit installations which need hot water very quickly (kitchen, shower, garage, doctor's surgery etc.).

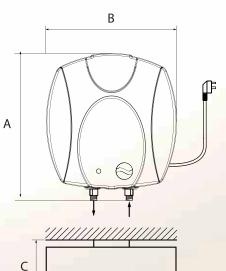
Suitable for both under or over sink installations.

These storage water heaters are especially easy to fit: they only need one single support bracket.

Technical Features

- ► Tank of vitrified steel.
- ► Magnesium anode.
- ► Safety valve and insulating dielectric fittings.
- ► Shielded elements.
- External control thermostat.
- ► Luminous indicator.
- Fitted with mains cable 1.2 m.
- ► IPX4 protection.
- Class I insulation.







MODEL		GTS-10	GTS-15
Capacity	L	10	15
Input	W	1500	1500
Current	А	6.5	6.5
Voltage	V	220-240	220-240
Frecuency	Hz	50-60	50-60
Stand-by consumption at 65°C	kWh/24h	0.49	0.57
Dimension A	cm	41	41
Dimension B	cm	36	39
Dimension C	cm	27	31
Net weight	kg	6.3	7.8
Dimensions with packaging	cm	38x41x32.5	43x44x350
Gross weight	kg	6.3	7.8





MODULATING ELECTRIC BOILERS

FOR HEATING AND DOMESTIC HOT WATER OR ONLY HEATING

GABARRÓN ranges electric boilers offer you the opportunity to enjoy the safety and convenience of electricity.

They are the ideal option when a totally safe and efficient central heating system is required.

The entire range of GABARRÓN boilers can be used with hot water radiators or with radiant floor or overhead heating. They also offer the option of programmable ambient thermostats or chrono-thermostats that are available as accessories.

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ELECTRIC BOILERS

DIGITAL MODULATING ELECTRIC BOILERS

Modulation in electric boilers was unthinkable some years ago. Controlling the flow was more straightforward for non-electric heating systems such as gas or even diesel for industrial facilities. Modulating electric heating was rather more of a challenge. There was no technology that modulated electricity consumption up until now.

Thus, **ELNUR**'s effort's in research and continuous improvement, resulted in launching the first digital modulating boilers for the domestic market.

Today, five years later, we continue to be the only ones in the market offering this innovative product that regulates energy consumption according to the heating needs of the installation at all times.

The modulating feature of the GABARRÓN electric boilers is managed by a Smart Electronic Modulating System (SEM). It applies TRIAC technology combined with an external chrono-thermostat to continuously adapt the heating capacity to the heating needs of the premises, thus achieving 100% energy efficiency and overall savings in energy costs.

Gabarrón electric boilers come in two power capacity ranges. While the CM15 models can be limited to any output between 3 and 15 kW, the CM18 and CMX18 can do so between 3 and 18 kW.

This range of modulating boilers is available both as heating boilers and as heating and domestic hot water (DHW) boilers.

The boilers come fitted with all the components required to operate the unit. You only need water inlets and outlets, along with an electrical socket. You will just need an external ambient thermostat connected to the electronic card to trigger the SEM system (Smart Electronic Modulating System). You can find some of the thermostat options in the accessories section of this catalogue.

GABARRÓN digital boiler models can be fitted to both 3X400V+N three-phase and 230V~ single-phase networks, just by fitting the connector bridge that you will find inside, to the terminal blocks.

100% SAFE

Electric heating is one of the cleanest and safest systems nowadays.

None of our boilers emit gasses or direct pollution when operating. They do not operate using fuels such as gas or diesel and there is therefore no risk of leaks or explosions.

Given its straightforward installation and operating, this range of electric boilers, unlike others, do not need any type of regular servicing or inspections, which is more convenient and saves on unnecessary costs.

GABARRÓN boilers do not require complex maintenance and they are even programmed to prevent the blocking of the circulation pump due to stagnant water after long periods of inactivity. The Anti-Blocking Control will run for short bursts of time during those periods of inactivity.

The stainless steel water tank of the mixed CMX models guarantees a long corrosion-free life, reducing the need for periodic servicing and replacement of anodes.

The different sensors that come with this range of boilers, such as the temperature, flow and consumption sensor, guarantee a problem-free and safe operation.

INTUITIVE HANDLING AND USER FRIENDLINESS

The digital displays always show the circulation temperature of the heating water and of the Domestic Hot Water (DHW) tank.

The heating and DHW temperature levels are extremely easy to adjust by using the plus or minus keys to increase or decrease those temperatures.

The heating system in the mixed model can be disconnected in summer.

The keypads in both types of boilers can be locked to prevent any changes.



ELECTRIC BOILERS

CMX / CMXP RANGE Digital, modulating, for heating and domestic hot water



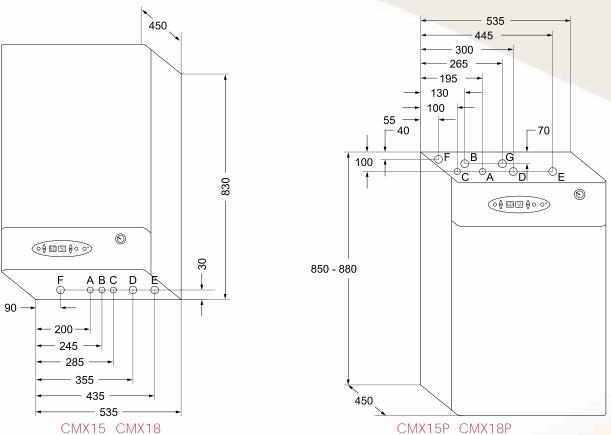
CMX15 wall mounted



Technical features

- ► Wall mounted heating boiler made of insulated steel (CMX15).
- ► Floor standing heating boiler made of insulated steel(CMX15P).
- **SEM system** (Smart Electronic Modulating System).
- 50L DHW cylinder made of insulated stainless steel without CFC.
- Stainless steel shielded elements INCOLOY800 for HEAT and DHW.
- ► 6L heating expansion vessel.
- ► 2L DHW potable water expansion vessel.
- Modulating electronic control of the heater.
- ► DHW electronic regulation.
- Digital display.
- ► Hydrometer 0-4bar.
- Circulating pump.
- Auto air vent.
- ► Silent TRIAC power switches.
- Optional under floor heating kit (hydronics).
- ► Heating flow detector.
- ► Heating temperature limiter 100°C.
- ► DHW temperature limiter 80°C.
- ► Heating pressure relief valve 3 kg/cm².
- DHW pressure relief valve 7 kg/cm².
- ▶ Heating circuit inlet valve and filling valve.
- DHW anti-electrolysis hoses.
- Powder coated RAL 9010.
- Wall bracket steel template to set up connections easily (CMX15).
- Compatible with Ambient Thermostats TA3, CPT10 and X2D available as accessory.
- Compatible with standard power managers (RG90, GReyder) offered as accessory.

CMX15P stand alone



CMX15P CMX18P



- B- Drainage safety valve
- C 1/2"DHW outlet
- D 3/4" heat return
- E 3/4" heat supply
- F- Electrical connection



MODEL		CMX15 - CMX15P											
Selectable output	kW	3	4	5	6	7	8	9	10	11	12	13	15
kcal/h	kcal/h	2580	3440	4300	5160	6020	6880	7740	8600	9460	10320	11180	12900
Current 3x400 V+N~	А	13.0	8.7	13.0	8.7	13.0	13.0	13.0	21.7	21.7	21.7	21.7	21.7
*Current 230 V~	А	13.0	17.4	21.7	26.1	30.4	34.8	39.1	43.5	47.8	52.2	Ask	Ask
"Time available DHW	min	29'04"	21'48"	17'26"	14'32"	12'27"	10′54″	9′41″	8′43″	7′56″	7′16″	6'42"	5′49″

MODEL	CMX15	CMX15P
Voltage V	3x400 V+N / 220-240	3x400 V+N / 220-240
Frecuency Hz	50-60	50-60
Insulation	Class I	Class I
Net Weight kg	57	57
Units per pallet		
- 1300x1000 mm	8	8
EAN 13	8432336804304	8432336804403

*Using included bridge connection "Time in minutes remaining available on DHW.

ELECTRIC BOILERS



"A safe and warm ambience at your home"

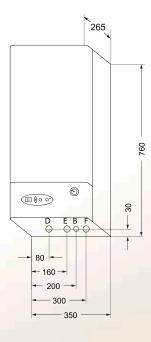
CM RANGE Digital Modulating, only heating



CE

Technical features

- ► Wall mounted heating boiler made of insulated steel.
- Modulating electronic control of the heater by SEM system (Smart Electronic Modulating System).
- ► Stainless steel shielded elements INCOLOY 800.
- ▶ 6L heating expansion vessel.
- Digital display.
- ► Hydrometer 0-4bar.
- ► Circulating pump.
- Auto air vent.
- Silent TRIAC power switches.
- ► Heating flow detector.
- ► Heating temperature limiter 100°C.
- Heating pressure relief valve 7 kg/cm²
- Optional under floor heating kit (hydronics).
- ▶ Powder coated RAL 9010 steel structure.
- Wall bracket steel template to set up connections easily.
- Compatible with Ambient Thermostats TA3, CPT10 and X2D available as accessory.
- Compatible with standard power managers (RG90, GReyder) offered as accessory.



Dimensions and connections:

- B drainage safety valve
- D 3/4" heat return
- E 3/4" heat supply
- F electrical connection

MODEL							CM15						
Selectable output	kW	3	4	5	6	7	8	9	10	11	12	13	15
kcal/h	kcal/h	2580	3440	4300	5160	6020	6880	7740	8600	9460	10320	11180	12900
Current 3x400 V+N~	А	13.0	8.7	13.0	8.7	13.0	13.0	13.0	21.7	21.7	21.7	21.7	21.7
*Current 230 V~	А	13.0	17.4	21.7	26.1	30.4	34.8	39.1	43.5	47.8	52.2	Ask	Ask

*Using incl	uded bridg	e connection.
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MODEL		CM15
Voltage	V	3x400 V+N / 220-240
Frecuency	Hz	50-60
Insulation		Class I
Net Weight	kg	29.5
Units per pallet		
- 1200x1000	mm	20
EAN 13		8432336804205

ELNUR



INFRA RED RADIATORS AND INDUSTRIAL HEATERS

Industrial heaters and infra red radiators are a good form of heating for anyone who needs an easily installed heating system.

These models need no building work whatsoever, as well as being very economical to buy and run. Their main feature is the way they provide heat.

Industrial heaters operate by warming air with a heating element. This is then circulated via a fan blowing it out.

Infra red radiators warm people, not the air. These efficient sun-like heaters can penetrate damp air with minimum heat loss to the atmosphere.

Efficient, compact and light-weight, we offer you ideal appliances for industrial, commercial and home locations where space is limited.

These heaters work well along side other forms of ELNUR heating solutions.

GABARRÓN infra red radiators transform 100% of its power in heat in less than one second, it does not require any type of pre-heating and the result is a very important energy saving. Space volumes are not heated, only direct areas and only when it is required.

Heat is produced by means of a short infra red wave maximized due to a special parabolic design in its reflector. Heat is focused on people and objects in a concentrate and homogeneous way.

INFRA RED RADIATORS

IDP/IDM RANGES

Infra red radiators for indoor and outdoor use

IDP and IDM ranges are designed to be used in both indoor or outdoor conditions, fixed to walls or stand alone.

They are the perfect solution to big working areas where a focused heat is required. GABARRÓN infra red heaters have a lot of different applications and they are the ideal solution for gardens, patios, restaurants, waiting areas, warehouses, workshops...



Infra red radiator for indoor use

The IC range of infra red wall heaters is a safe and practical source of heat in bathrooms, kitchens, work areas – anywhere where fast localized heating is required.



Technical Features

- ► Multi-reflection screen.
- ► Built-in double-pole pull-cord switch.
- Adjustable beam angle to direct heat where it's needed.
- Fitted with mains cable.
- ► Housing made of steel and aluminum.
- Two heat outputs.
- ► Protection IP24.
- Class I Insulation.

MODEL		IC-1200
Output	W	600 – 1200
Current	А	2.6 - 5.2
Voltage	V	220-240
Frecuency	Hz	50-60
Dimensions	cm	54.5x13.5x11
Weight	kg	1.2
Units per pallet		
- 1300x1000	mm	150
EAN 13		8432336602351

A RANGE

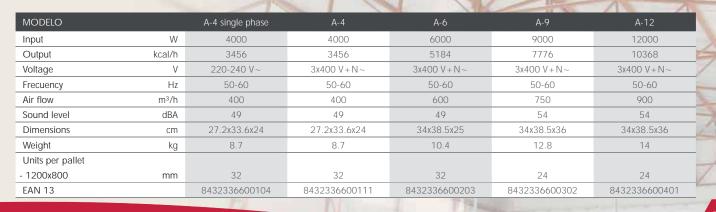
industrial neater for indoor use

A range of robust wall mounted, ceiling or stand alone fan heaters suited for general purpose, commercial and industrial use. These models provide fast flexible heating wherever and whenever it is needed. The "A" models are offered in 4kW, 6kW, 9kW and 12kW versions.

Supplied complete with a fixing support, they provide ample heating for many commercial and industrial applications, i.e. big volume workshops and warehouses, industrial fittings...

Technical Features

- Steel shielded heating element.
- All models with contactors.
- Ambient thermostat with probe.
- ► Time delay thermostat.
- Safety thermostat.
- Switch for air only (green light).
- Heat switch (red light).
- Support bracket to position in any location.
- Epoxy powder coating RAL 9010 steel structure.
- Insulation class I.



ACCESSORIES

GABARRÓN ACCESSORIES

AMBIENT THERMOSTATS AND PROGRAMMABLE THERMOSTATS

TA3 - Ambient thermostats

CTP10 - Wired digital programmable room thermostats

X2D - Wireless digital programmable room thermostats (emitter-receiver)

PG4Z - Mains borne programmable multi-zone thermostat

INFRA RED REMOTE CONTROL

TPG-IR - Infra red remote control

STAND ALONE SUPPORTS

Stand alone support with castors for aluminium radiators

WIRELESS ENERGY SAVERS

ELW - Wireless energy saver

AMBIENT THERMOSTATS AND PROGRAMMABLE THERMOSTATS

TA3, AMBIENT THERMOSTATS



Single pole adjustable thermostat, quick opening by temperature variation and includes LED showing the open / closed circuit.

Technical Features

- On / Off switch.
- LED indicator.
- Single pole change over contact.
- ► Temperature range: 5°C to 30°C.

Suitable for:

- Dynamic Storage Heaters ADL range.

- Electric Boilers CM, CMX and CMXP ranges.

MODEL	TA3
Range	+5 °C to +30 °C
Acuraccy	±0.5 °C
Max. input	10 A
Certifications	CE

CTP10, WIRED DIGITAL PROGRAMMABLE ROOM THERMOSTATS





Suitable for:

- Dynamic Storage Heaters ADL range.
- Electric Boilers CM, CMX and CMXP ranges.

Technical Features

- Blue backlight LCD display.
- Mode selector: comfort setting, economy setting and frost protection.
- Heat status indicator.
- Weekly and daily programming options.
- Program copying function available.
- Battery level indicator.
- Display of either set-point or room temperature.
- Anti-seizing function of pump (Boilers).
- Power supply: 2 LRO3 Batteries (supplied).
- Output: 2A relay.
- ▶ Regualtion: P.I.D. or On/Off.
- Insulation: Class II.
- Protection index: IP30.
- Mounting: wall-mounted, on a support or on flushmounted box.

MODEL		CTP10
Range		+5 °C to + 30 °C
Accuracy		± 0.25 °C
Dimensions	cm	13.5x8.1x2.2
Certifications		CE

X2D, WIRELESS DIGITAL PROGRAMMABLE ROOM THERMOSTATS (emitter-receiver)





E-X2D (transmitter)

Suitable for:

- Dynamic Storage Heaters ADL range.
- Electric Boilers CM, CMX and CMXP ranges.

PG4Z, MAINS BORNE PROGRAMMABLE MULTI-ZONE THERMOSTAT



Suitable for: - Thermal inertia radiators RKSHi and RKSL. Thermostat with both daily and weekly programmable options allowing different combinations with three levels of temperature, comfort, economy and frost-protection. LCD display backlit in blue showing ambient temperature, set up temperature, battery level and other information. Optimized ergonomics. Temperature control of a zone. Anti-seizing function of pump (Boilers).

Technical Features

Transmitter EX2D

- ▶ Power supply: 2 LRO3 Batteries (supplied).
- ▶ Output: 2 A relay.
- Regualtion: P.I.D. or On/Off.
- Mounting: wall-mounted on a support or on flush-mounted box.

Receiver RX2D

- ▶ Power supply: 230 V.
- ► Output: 2x3 A relay.
- ► Insulation: Class II.
- ▶ Protection index: IP44.
- ► Mounting: wall mounted.

MODEL		E-X2D (transmitter)	R-X2D (receiver)
Range		+5 °C to 30 °C	
Accuracy			± 0.25 °C
Dimensions	cm	13.5x8x2	13x5.5x2
Certifications		CE	CE

Six zones mains borne thermostat control with daily and weekly programmable options allowing different combinations with three levels of temperature, comfort, economy and frost-protection.

Technical features

- Blue backlight LCD display.
- ► Five working modes selector.
- Heat status indicator.
- Weekly and daily programming options.
- Program copying function available.
- Battery level indicator.
- Display of either set-point or room.
- Imput 2Va.
- Voltage, 230V.
- TPC (Three-phase coupler) is an emitting low frequency signal for three phase installations. Its function is to emit the sign through the three phases simultaneously. This device is offered as an accessory.

MODEL		PG4Z
Range		+5 °C to 30 °C
Accuracy		± 0.25 °C
Dimensions	cm	13.4 x 8 x 2.5
Certifications		CE , CENELEC NF

INFRA RED REMOTE CONTROL

TPG-IR INFRA RED REMOTE CONTROL



This remote control allows to program the set up temperatures and working hours daily and weekly to configure the performance of RKL thermal eco-fluid radiator and RKSL thermal inertia radiator ranges.

Once the program is set up in the remote control, this program can be transferred to each device in the installation.

Technical Features

- Set up of daily or weekly program.
- Set up temperatures.
- Temporally stan by mode for set up program by imposition of a new set up temperature by a limited period of time.
- ► LCD display backlit in blue.
- ► Four working modes.
- Daily and weekly program. Three pre-defined programs.
- ► Keyboard lock.
- Powered with two 1,5 V batteries type LR03/AAA, included.



STAND ALONE SUPPORTS

STAND ALONE SUPPORT WITH CASTORS FOR ALUMINIUM RADIATORS



Technical Features

- Fully compatible with most of the aluminium radiators existing in the market.
- Easy to install.
- Powder coated RAL 9010 steel structure.
- 40mm nylon castors.
- Not recommended for radiators which weight exceed of 40 kg.

MODEL		CASTORS
Certifications		CE
Colour		White
Dimensions	cm	27.5x11.5x7
Wegiht	kg	1

WIRELESS ENERGY SAVER



ELNUR's new energy saving window switch can save you considerably on running cost.

The biggest wastage in public places is often by a window being opened, with the heating still operating. This latest technology developed by ELNUR, switches the heater off when a window is opened thus saving incalculable amounts of wasted energy.

Ideal for areas such as Residential Homes, Nursing Homes, Hotels, Communal areas, etc. Multiple window transmitters can be combined with an ELNUR single receiver installed adjacent to an ELNUR heater. Alternatively one energy saving window transmitter can be used with multiple heaters.

Suitable for:

- RF, RX and RKS thermal inertia radiators ranges.
- PH and PHM panel heaters ranges.



ELNUR in the web

In **ELNUR**, we want our web site to be a usefull tool to all our partners and customers. For this reason we continue updating the content with new and interesting information.

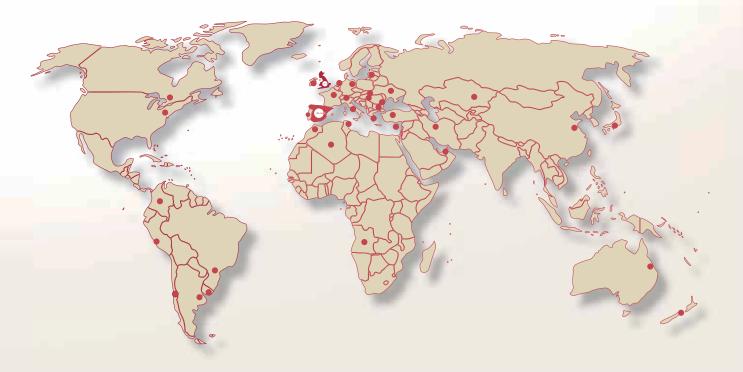
From here, we encourage you to visit our site. There you can find technical information of all our product range, you can download images in high resolution and also digital versions of all our brochures and user manuals.

You also will have the possibility of watching some videos that will explain you in more detail our company philosophy and the care we have not only for our products but also for our partners worldwide.



We wait you at: www.elnur.co.uk

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