



Fully Compliant  
With  
**NHS**  
Guidelines

# INGENIUM

Low Surface Temperature Electric Radiator  
with Digital Control and Built-in Programmer



**Gabarrón**  
Manufacturing Excellence

## RADIATORS, 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.

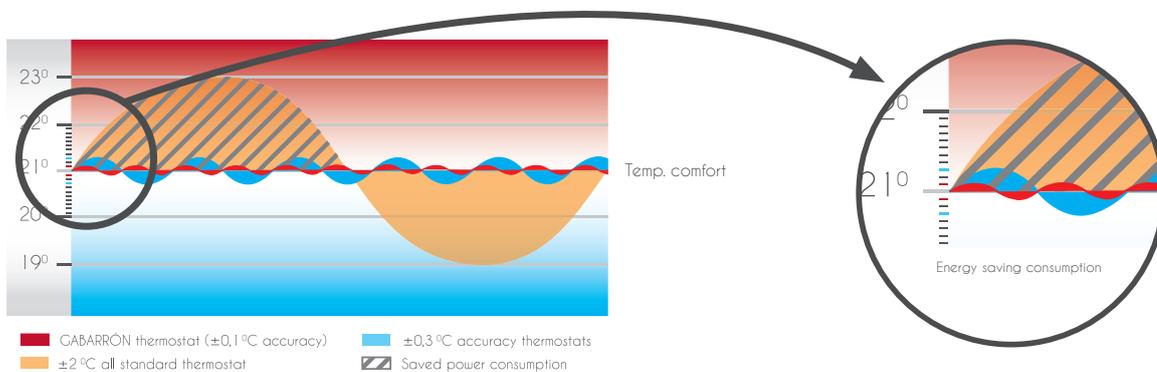
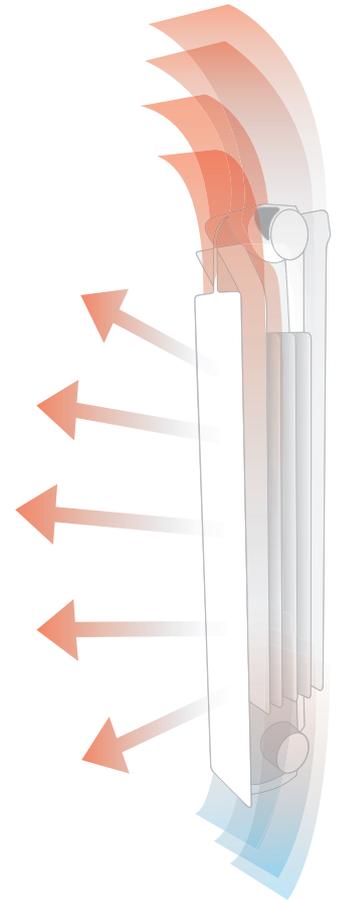
### ecoSeco TECHNOLOGY

INGENIUM is based on the EcoSeco Technology. This technology 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.

### ACCURATE AMBIENT THERMOSTAT

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



### ETCO (Electronic Triac Control Optimiser)

ETCO micro processor is the latest technology in electric control consumption. This electronic optimiser 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 Optimiser.

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

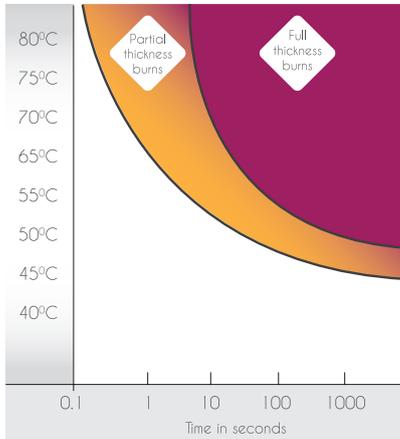
This feature is key if INGENIUM is disconnected. This exclusive characteristic will prevent loss of programming due to accidental disconnections, forced disconnections during summer and programmed disconnections by the action of external accessory devices.



1-year memory back up device.

# NHS GUIDELINES FOR HOT SURFACE TEMPERATURE

Temperature and duration of exposure sufficient to cause burns in thin areas of skin



Ref.: Dr. JP Bull  
Industrial Injuries and Burns Unit Medical  
Research Council

Under normal design conditions, standard radiator surface temperatures vary between 70°C and 80°C. At these temperatures, the average population receives partial thickness burns in under a second and full thickness burns in about 10 seconds.

However, certain sectors of the population represent a higher risk factor, for example the elderly, the young and the mentally impaired. Therefore, in areas/residencies where these groups are likely to be at risk, particular attention needs to be paid to the heating system temperatures.

### Maximum Surface Temperatures

Wherever patients, residents and visitors have access to space heating devices, the maximum surface temperature **should not exceed 43°C** when the system is operating at the maximum designed output.

This criteria can be achieved in different ways, the three most common solutions are:

- ▶ The fitting of protective guards.
- ▶ **The installation of Low Surface Temperature Heat Emitters.**
- ▶ Flow temperature reduction (when central water heating).

The preferred method of achieving low surface temperatures is to install Low Surface Temperature heat emitters.

NHS Guidance Notes, available through NHS Estates, at: [www.nhsestates.gov.uk](http://www.nhsestates.gov.uk).

## FIELDS OF APPLICATION

**INGENIUM** ranges fit every single aspect of the NHS GUIDELINES.

The result is a technically superb product that provides the best efficiency in direct electric heating and eliminates any possible burning accident when children, disabled or the elderly are nearby.

Some of the main fields of application are care homes, residential homes, nursing homes, hospitals, clinics, educational establishments, children's nurseries, community centres and any public area in general.



## LOW SURFACE TEMPERATURE, 100% SAFE

The **INGENIUM** range boasts the very latest technology developed by **ELNUR** to provide a modern, stylish and totally controllable electric radiator with a surface temperature that, at any point, will not exceed 43°C at maximum performance, meeting NHS guidelines.

With a know-how of 40 years of manufacturing excellence, ELNUR has incorporated clever design features to enhance performance as well maintaining a low surface temperature. The INGENIUM radiator is manufactured from a steel body with extruded aluminium front and upper panels. The extruded corrugated aluminium front panel design increases the heat cession to the room by more than 50%. In addition, the upper aluminium panel along with a tangential tubular blower and a series of key internal components have been designed to re-direct the convection effect resulting in faster heat distribution.

Every radiator in the INGENIUM range provides accurate temperature control of the room where they are installed with an electronic chronothermostat that allows the user to set their ideal temperature during the day or the night, as and when required.

Energy control is essential to minimize consumption and reduce electricity expenses. INGENIUM low surface temperature thermal radiators provide you with the latest technology in consumption control - **ETCO** (ELECTRONIC TRIAC CONTROL OPTIMIZER), to manage and restrict the flow of electricity.

Furthermore, each INGENIUM radiator boasts our built-in weekly/daily programmer to provide the user with precise time control. This easy to use yet comprehensive programmer allows the user to set their desired mode - Comfort, Economy or Frost Protection, for any given hour of the day, providing maximum comfort whilst helping to make savings in unnecessary heating expense.

The result is a technically superb product that provides the best efficiency in direct electric heating and eliminates any possible burning accident when children, disabled or the elderly are nearby.



# INGENIUM

Low Surface Temperature Electric Radiator with Digital Control and Built-in Programmer



Our patented Wall Fixing Brackets can save 50% of the installation time avoiding measuring and levelling work.

## Technical features

- ▶ Low surface temperature – will not exceed 43°C.
- ▶ ETCO, Electronic Triac Control Optimiser, to manage and restrict the flow of electricity.
- ▶ Digital display for clock, selected temperature, room temperature and programming, etc.
- ▶ Weekly / daily programmer.
- ▶ Three-mode temperature selector: Comfort, Economy and Frost Protection.
- ▶ Flat lockable keyboard for easy cleaning and added safety.
- ▶ Built-in electronic ambient thermostat with  $\pm 0.1\text{C}$  accuracy.
- ▶ Adjustable digital thermostat.
- ▶ Temperature sensor that automatically activates and deactivates blower performance.
- ▶ On / off switch built-in to front fascia.
- ▶ Thermal safety cut-out.
- ▶ Class I insulation.
- ▶ Steel body with extruded aluminium front and upper panel finished in RAL 9010 powder coating.
- ▶ Patented safety wall fixing brackets for ease of installation.
- ▶ Fitted with mains cable.
- ▶ Maintenance free.
- ▶ Compatible with our wireless window contact energy saver system, offered as accessory.



MODEL		RX6E LST	RX10E LST	RX12E LST
Num. of modules		6	10	12
Input	W	775	1300	1550
Voltage	V	220-240	220-240	220-240
Length	cm	57.5	89.5	105.5
Depth*	cm	10	10	10
Height	cm	58	58	58
Net Weight	kg	11	16	19
Voltage	V	220-240	220-240	220-240
EAN 13		8432336417108	8432336417146	8432336417160

\*Plus 2cm separated from the wall



**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.

## QUALITY

ELNUR is fully committed to quality. We therefore have complete control over the whole manufacturing processes in the company. Some of our international certifications are:



ISO 9001

**ISO 9001: 2008 Quality Control Management System**, which certifies the implementation and maintenance of this 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

**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 initial design to the final stages of manufacturing.

## CUSTOMER SERVICE

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, please email us at [esales@elnur.co.uk](mailto:esales@elnur.co.uk) or call us to the following telephone number **01942 670119**.

## 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 a professional after-sales service. We have an Authorised Technical Services Network providing effective technical assistance all over the country, irrespective of the location or the product. Do contact us at [technical@elnur.co.uk](mailto: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. Please contact us at [projects@elnur.co.uk](mailto: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. Email us at [advice@elnur.co.uk](mailto:advice@elnur.co.uk)

## SUSTAINABILITY

**ELNUR** is totally committed to working and manufacturing in accordance with the appropriate certification under the Environmental Management System.

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



# MEET THE COMPLETE ELNUR RANGES

▶ THERMAL INERTIA RADIATORS



▶ STORAGE HEATERS



▶ MODULATING ELECTRIC BOILERS



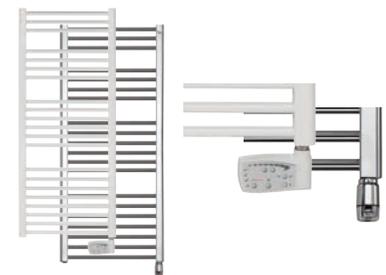
▶ ECOMBI SYSTEM



▶ PANEL HEATERS



▶ TOWEL RAIL RADIATORS



▶ INDUSTRIAL HEATERS



▶ INFRA RED RADIATORS



▶ LOW CAPACITY WATER HEATERS





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