Toshiba Carrier UK Ltd

NEWSLETTER

March/April 2024

# Welcome to the Spring Newsletter

**The days are getting longer, and the weather is (slowly) warming up, so I'm excited to share fresh updates with you!**

Meet the DAISEIKAI™ 10 air conditioner and find out what makes it one of the most sustainable, efficient ways to keep cool as things heat up - or stay warm if they don't.

Read about the appointment of our new Ireland distributor, Viridus Energy, following the closure of GT Phelan.

Learn the nuances of IEC 60335 and EN378 safety standards with new equipment technical director, Neil Wooldridge.

Discover our new embedded BMS solution, which offers competitively priced centralised monitoring and adjustment via the Intranet or Internet, allowing for more effective system control.

Finally, join us in celebrating our Air Conditioning Product of the Year shortlisting in the National ACR & Heat Pump Awards 2024 and ACR News Awards 2024.

As always, a huge thank you for your continued support and I wish you all a prosperous springtime!

David Dunn, Toshiba Carrier UK Managing Director, Carrier Global Comfort Solutions Europe.

# Meet the DAISEIKAI 10 Air Conditioner

**Toshiba Carrier UK has launched its new DAISEIKAI™ 10 air conditioner, merging performance and sustainability with sleek aesthetics for superior home comfort.**

Crafted using 43% recycled plastic components, the DAISEIKAI 10 is pioneering in its use of eco-compatible materials, emphasising Toshiba's constant drive towards home decarbonisation. It is matched by a robust suite of advanced features to enhance air purification and user convenience while minimising energy consumption.

Motion tracking technology ensures efficient cooling by optimising and directing airflow to occupied areas. A sophisticated Plasma Ionizer removes airborne contaminants like dust, pollen and other allergens, and the Ultra-Pure Filter effectively traps up to 94% of the most harmful ultrafine PM 2.5 particles like smoke, viruses and bacteria. The "self-cleaning" coated coil ensures the unit remains clean and efficient, and an ultra-quiet operating mode helps suppress ambient noise.

Designed with supreme comfort in mind, the DAISEIKAI 10 features a Smart Sensing control function app, which is WiFi operated and allows users to choose between indirect or direct air flow. The DAISEIKAI 10 also adopts a new "natural" design derived from its material concept, "Go back to the Earth." The authentic wood grille, sourced from PEFC-certified sustainable forests, positions the product with a distinct aesthetic to appeal to the UK air conditioning market. It is also available in a timeless white.


Toshiba DAISEIKAI™ 10 is the all-season champion delivering A+++ ratings in heating and cooling.

"The DAISEIKAI 10 reflects our dedication to pushing the boundaries of what's possible for air purification and climate control for UK customers in one elegant, eco-conscious product," said David Dunn, Toshiba Carrier UK Managing Director, Carrier Global Comfort Solutions Europe. "We've ensured easy installation too; all sizes of indoor units are compatible with both Single Split and Multi-Split Condensing Units. Built-in Wi-Fi and energy monitoring enable trackable performance insights for ongoing optimisation."

Introducing the DAISEIKAI 10 into the UK market reinforces Toshiba Carrier's role as a leader in sustainable air conditioning solutions in support of the UK's 2050 net zero target. It is now available through Toshiba Carrier UK, our authorised distributors and approved installers, symbolising progress towards improved environmental practices in the industry.

For information about the DAISEIKAI 10 and our commitment to sustainability, scan the QR code or visit www.toshiba-aircon.co.uk

# Toshiba Carrier Welcomes New Distributor in Ireland


**Toshiba Carrier UK has appointed Viridus Energy as its new distributor in Ireland for its full range of Toshiba air conditioning products.**

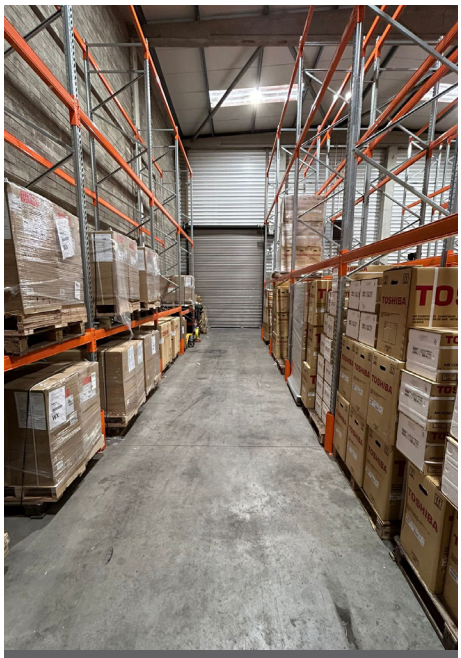
Viridus Energy takes over from GT Phelan, which worked successfully with Toshiba for more than 40 years. The Dublin-based company already had a relationship with Toshiba Carrier UK before becoming its new distributor.

"Due to the excellent work of our distributors over many years, Toshiba has a fantastic reputation in Ireland as a high quality brand, with a combination of industry leading efficiency, reliability and technical excellence," said Toshiba Carrier UK Managing Director, Carrier Global Comfort Solutions Europe, David Dunn. "We will be working closely with Viridus Energy over the coming months and years to build on this and realise the potential. We wanted continuity as a partner, and Viridus have an awareness of the construction market from top to bottom. They have an excellent understanding of how big projects work. Ireland is important to us, and we are investing to develop our presence and support our growing customer base. We look forward to building on our successful partnership, and working to maximise the opportunities presented for the benefit of our customers."

"Holding the distinction of being an independent distributor for Toshiba products in Ireland, our expertise in this brand's technical details and capabilities are second to none," said Tom Lyons, Managing Director of Viridus Energy.

"Our seasoned team, with a collective experience of more than 40 years, has worked closely with Toshiba Carrier UK and other leading manufacturers, securing some of the most robust industry knowledge."

Scan the QR code for more information or visit www.toshiba-aircon.co.uk
Learn about Viridus Energy at viridusenergy.ie



Viridus Energy's warehouse in Dublin stocks a large volume of Toshiba's air conditioning products.

TOSHIBA

## DAISEIKAI 10 'Highly Commended' at National ACR & Heat Pump Awards 2024!

**Toshiba's Carrier's DAISEIKAI 10 air conditioner was highly commended in the Air Conditioning Product of the Year award at the National ACR & Heat Pump Awards 2024 held on 21st March.**

The DAISEIKAI 10 was recognised for its eco-compatible materials, robust suite of advanced features to enhance air purification and user convenience while minimising energy consumption.

NATIONAL ACR & HEAT PUMP AWARDS 2024
HIGHLY COMMENDED

**ACR News Awards 2024 shortlisted**

We're happy to announce that the DAISEIKAI has been shortlisted for the Air Conditioning Product of the Year award at the ACR News Awards 2024 taking place 18th April.

The ACR News Awards is a leading event for the recognition of excellence and innovation from across the air conditioning and refrigeration sector.

# Comparing Standards: IEC 60335 and EN378

**Neil Wooldridge, new equipment technical director at Toshiba Carrier UK explores the differences between the IEC 60335 and EN378 standards and sheds light on their scopes, objectives and key requirements.**

Today, we are surrounded by an array of electronic appliances and systems that make our lives more comfortable, efficient, and convenient. Behind the scenes, however, these devices undergo rigorous testing and adhere to a complex set of safety standards to ensure they do not pose harm to consumers or the environment.

Two prominent safety standards that play a pivotal role in this regard are the IEC 60335 and EN378 standards. While both aim to safeguard consumers and the environment, they address distinct facets of safety and carry unique requirements.

Neil Wooldrige, new equipment technical director at Toshiba Carrier UK.

**IEC 60335: Ensuring the Safety of Electrical Appliances**

The International Electrotechnical Commission (IEC) 60335 series of standards is a comprehensive set of regulations that focus on the safety of household and similar electrical appliances. These standards, developed by a global consortium of experts, provide manufacturers with guidelines to design and produce safe, reliable, and energy-efficient electrical appliances. IEC 60335 encompasses a wide range of products, including but not limited to washing machines, electrical heat pumps, refrigerators, air-conditioners and dehumidifiers.

The primary scope of IEC 60335 standards is to ensure the safety of end-users, prevent electrical and mechanical hazards, and minimise the risk of fire or injury caused by electrical appliances. The standards are designed to establish a baseline level of safety for these products and are applicable to manufacturers worldwide.

**Key Requirements:**

1. Electrical Safety: IEC 60335 prescribes strict guidelines for electrical safety, including insulation requirements, earthing, and protection against electrical shock. It also addresses issues related to power cords, plugs, and connectors to minimise the risk of electrical accidents.
2. Mechanical Safety: These standards outline requirements for moving parts, sharp edges, and protective measures to prevent physical harm to users during appliance operation.
3. Temperature Control: IEC 60335 standards require electrical appliances to maintain safe temperatures during operation to prevent burns or scalds.
4. Fire Safety: Appliances are subjected to tests that assess their resistance to fire hazards, ensuring that they do not pose a fire risk in domestic environments.
5. Environmental Impact: Some IEC 60335 standards also incorporate provisions for minimising the environmental impact of appliances by addressing energy efficiency and construction materials.

**EN378: Safeguarding Against Refrigeration and AC Hazards**

EN378, on the other hand, is a European Standard that specifically addresses safety concerns related to refrigeration and air-conditioning systems. Developed by the European Committee for Standardisation (CEN), EN378 outlines guidelines to ensure the safe design, installation, and operation of these systems, with a particular focus on the prevention of refrigerant leaks and the management of refrigerant gases.

The primary objective of EN378 is to protect people and the environment from the potential hazards associated with refrigeration and air-conditioning systems. These hazards include refrigerant leaks, which can be harmful to human health, as well as the environmental impact of certain refrigerant gases, such as their contribution to climate change.

**Key Requirements:**

1. Refrigerant Safety: EN378 lays down stringent requirements for the safe handling and containment of refrigerants. It specifies criteria for refrigerant selection, system design, and leak detection to prevent leaks and minimise their impact when they do occur.
2. Risk Assessment: The standard mandates that a comprehensive risk assessment be carried out during the design and installation of refrigeration and air-conditioning systems. This includes evaluating potential hazards, determining safety measures, and implementing safeguards to protect against leaks.
3. Leak Detection and Alarms: EN378 requires the installation of leak detection systems and alarms to promptly detect and alert occupants or maintenance personnel in the event of a refrigerant leak. These systems help minimise the risk of exposure to harmful gases.
4. Refrigerant Recovery and Recycling: The standard emphasises the proper recovery and recycling of refrigerants to reduce their environmental impact and promote sustainability.
5. Compliance with F-Gas Regulations: EN378 aligns with European Union F-Gas Regulations, which govern the use of fluorinated greenhouse gases (F-gases) in refrigeration and air-conditioning systems. Compliance with these regulations is crucial for reducing the environmental footprint of these systems.

**Distinguishing Factors**

While both IEC 60335 and EN378 standards prioritise safety, they differ significantly in their scope, objectives, and key requirements:

1. Scope: IEC 60335 is a global standard that covers a wide range of household and similar electrical appliances, ensuring their safety and functionality. In contrast, EN378 is a European standard exclusively addressing refrigeration and air-conditioning systems, with a strong focus on refrigerant safety and environmental concerns.
2. Objectives: IEC 60335 primarily aims to protect end-users from electrical, mechanical, and thermal hazards associated with appliances. EN378, on the other hand, prioritises the prevention of refrigerant leaks, which can pose health risks and contribute to environmental damage.
3. Applicability: IEC 60335 standards are applicable worldwide and are not limited to any specific region. EN378, as a European standard, is primarily intended for use in Europe but can serve as a reference for other regions seeking to enhance the safety of refrigeration and air-conditioning systems.
4. Environmental Focus: While IEC 60335 may include provisions for energy efficiency and environmentally friendly materials, EN378 places a stronger emphasis on minimising the environmental impact of refrigeration and air-conditioning systems, particularly regarding refrigerant gases.

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In a world increasingly reliant on electronic appliances and systems, safety standards play a critical role in ensuring that these technologies do not pose harm to individuals or the environment. The IEC 60335 and EN378 standards exemplify the commitment of the global community to safety, albeit with distinct focuses.

IEC 60335 safeguards users by setting stringent requirements for the safety and functionality of household appliances, addressing electrical, mechanical, and thermal hazards. EN378, a European standard, is laser-focused on refrigeration and air-conditioning systems, with a primary objective of preventing refrigerant leaks and minimising environmental impact.

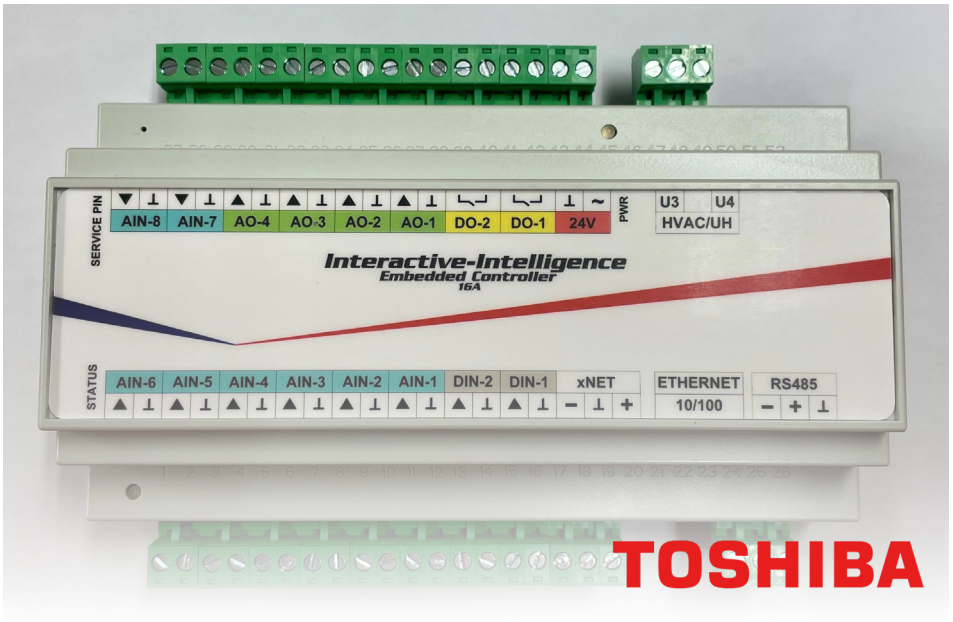
**Enabling Compliance**

In the UK, the IEC 60335 is the benchmark that manufacturers work to for product compliance. However, increasingly more manufacturers are now working towards the EN378, as it is regarded by specifiers, consultants, local authorities and end users as the required standard for electrical appliances.

At Toshiba Carrier UK, we incorporate specific features into our appliances to help designers and installers comply with EN378. The RBC-VRFR32AK Kit accessory is an interface that enables Toshiba's RBC-LD1UPE leak detection sensor to continue operating, even in the event of power failure to an indoor unit. The interface adapter can be attached to a solid surface via DIN rail or by using keyhole mounting points located in the back plate. In addition, the RBC-BPLD1 is a device that has been designed to allow a third party refrigerant device to be connected to our latest generation VRF, the SHRM Advance. This means that additional safety sensors can be added in locations that may pose a risk to occupants.

Toshiba's SHRM Advance comes with automatic refrigerant leak detection, system pump-down on leak detection that prevents refrigerant from escaping and battery backup for the isolation valves that ensures the isolation valves close should the power supply fail. The SHRM Advance uses low GWP R32 refrigerant and has a reduced refrigerant charge, compared to previous systems, meaning there is less refrigerant that has the potential to leak.

Toshiba Carrier UK's R32 SHRM Advance VRF Unit.




# A Competitively Priced Embedded Building Management Solution

**Toshiba Carrier UK has introduced its Interactive Intelligence II embedded Building Management Solution (BMS) – a powerful web-based solution providing centralised control and monitoring of systems and equipment.**

The updated embedded solution controls and monitors all aspects of an air conditioning system and is installed in a customer's premises, enabling systems to be optimised for occupant comfort and energy efficiency. Built on a web-based platform using the controller supports the latest web-browsing technologies, it also allows communication to other standard BMS protocols, ensuring seamless accessibility for both Toshiba and third-party systems, without the need for additional and expensive gateways or dedicated PCs.

"Building Management Systems are traditionally based on dedicated PC-type hardware platforms that operate with specific communications protocols, which can limit their range of application," said Fraser Hymas, Toshiba Carrier UK's Controls System Manager. "Toshiba's new embedded controller uses a web-based platform compatible with all standard protocols, enabling it to be used with all types of equipment, regardless of make."

He added: "As well as being highly flexible, the new embedded system is much more cost-effective than a conventional dedicated hardware BMS, which opens the way to widespread use of powerful BMS control and monitoring across all building types and sizes, offering state-of-the-art control and monitoring functions previously only cost effective for large buildings and users."

Fully enclosed in a DIN rail mountable enclosure this offers many options for fixing in different locations. The new solution eliminates the need for a dedicated PC and additional gateways, providing a compact and efficient one-box solution as it is fully networkable. The device can be programmed to support up to 128 indoor units, which can be further expanded by utilising additional modules, enabling this cost-effective and versatile BMS to be used on small, medium and large projects.

The new powerful control system offers the ultimate in flexibility by being fully compatible with Modbus, BACnet, Analogue and Digital I/O, and can seamlessly control and monitor Toshiba's range of air conditioning systems, such as the high performance R32 VRF System (SHRM Advance), as well as other third-party equipment.

Graphic displays are fully customisable, enabling a high level of creativity in the way data is presented, allowing users to tailor the interface to their unique preferences and requirements. The web-based solution facilitates remote access, enabling users to monitor and control the system via the internet.

Scan for information or visit www.toshiba-aircon.co.uk/product/rbc-ii2-interactive-intelligence